Huckabee

JARRELL INDEPENDENT SCHOOL DISTRICT

ATLAS RANCH ELEMENTARY SCHOOL

MAY 20, 2026

SCHEMATIC DESIGN PRESENTATION

JARRELL INDEPENDENT SCHOOL DISTRICT
ATLAS RANCH ELEMENTARY SCHOOL

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ATLAS RANCH ELEMENTARY SCHOOL

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Ginger Martinez	Board Member
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MEP Engineering
Hendrix Consulting Engineers

Structural Engineering
IEG

Enclosure Consultant
Engineered Exteriors

Technology/Security
CRUX Solutions

Food Service
Foodservice Design Professionals

Landscape Architect
Coleman & Associates

Introduction

Atlas Ranch Elementary School is a new stand-alone facility designed to serve 900 students in grades Pre-Kindergarten through 5th grade, with a maximum capacity of 1,000. Grade level alignment, the program of spaces, and the project budget were discussed and developed during a series of meetings and school tours with the district. This facility will be built within the new community development of Atlas Ranch and will serve the growing population of Jarrell residents. This elementary school will be a new design that combines the best features of Jarrell ISD elementary schools and incorporating latest design innovations for a first class learning institution.

Civil

Overview

The site encompasses approximately 13.69 acres. This narrative is intended to convey the overall civil engineering approach and scope at a level of detail appropriate for SD; specific design parameters, calculations, and construction details will be developed and refined in subsequent design phases.

Existing Conditions

The site is located within the Jarrell, Texas municipal region, in unincorporated Williamson County. Site topography generally consists of a gently sloping terrain with approximately +/- 10 feet of elevation change with drainage patterns from east to west.

No regulated floodplain encumbers the subject tract, as confirmed by review of applicable FEMA Flood Insurance Rate Map (FIRM) panels. Existing utilities in the vicinity include water and wastewater infrastructure under the jurisdiction of Atlas Ranch Municipal Utility District No. 1 (Atlas Ranch MUD No. 1).

Grading and Drainage

Site grading will be designed to establish positive drainage away from the proposed building footprint and to direct stormwater runoff toward proposed collection infrastructure.

A storm drainage collection system consisting of inlets, storm sewer piping, and overland flow swales is proposed to convey stormwater from the developed site to an existing storm sewer system within the adjacent right-of- way. That system ultimately outfalls to a regional water quality pond serving the broader development, which provides water quality treatment for the contributing drainage area. Stormwater design will comply with applicable criteria established by Williamson County, as well as TCEQ general permit requirements.

Water and Wastewater Service

Domestic water service and fire protection water supply will be provided via connection to the distribution system of Atlas Ranch MUD No. 1. A new water service lateral and meter assembly will be designed to serve the facility's domestic and fire suppression demands. Water line routing, sizing, and connection point(s) will be coordinated with Atlas Ranch MUD No. 1. Backflow prevention will be provided in accordance with TCEQ requirements and MUD standards.

Sanitary sewer service will be provided via connection to the collection system of Atlas Ranch MUD No. 1. A new sanitary sewer lateral will be designed to convey wastewater flows from the proposed facility to an existing MUD sewer main. Sewer sizing will be based on fixture unit calculations performed in coordination with the Mechanical, Electrical, and Plumbing (MEP) Engineer. Connection point, invert elevation, and service requirements will be confirmed with Atlas Ranch MUD No. 1.

Paving and Parking

The proposed site paving plan accommodates vehicular and pedestrian circulation, including parent drop-off and pick-up lanes, school bus staging, staff and visitor parking, and service vehicle access. Pavement design will account for traffic loading appropriate to an educational land use, including occasional service truck and regular bus traffic and in accordance with the site-specific geotechnical recommendations

Accessible parking stalls, accessible routes, and associated signage and striping will be provided in compliance with TAS (Texas Accessibility Standards) and ADA requirements.

Asphalt paving is anticipated for all primary drive aisles and parking fields. Specific light and medium duty pavement sections will be evaluated for parking fields based on cost and performance considerations.

Reinforced concrete paving is anticipated for all high-traffic or heavy loading areas, utilizing a heavy duty pavement section.

Concrete reinforced curb and gutter will be provided throughout paved areas to manage drainage and define pavement edges.

Erosion Control and SWPP

A Stormwater Pollution Prevention Plan (SWPPP) will be required for this project in accordance with TCEQ Construction General Permit TXR150000 (CGP). The SWPPP will address temporary erosion and sediment controls during construction as well as post-construction permanent stabilization measures. Best Management Practices (BMPs) anticipated to be incorporated include:

- Silt fence, rock check dams, and inlet protection devices at all downstream storm drainage collection points.
- Construction site perimeter protection and stabilized construction entrance(s).
- Temporary vegetation or erosion control blankets on disturbed slopes pending permanent stabilization.
- Permanent seeding, sodding, and/or landscaping as coordinated with the Landscape Architect to achieve final stabilization upon construction completion.

Landscape

Main Entrance

The main entry is defined by monument signage along Windgap Drive, with a row of evergreen shade trees just to the South. Beneath the trees are shrub planting areas. Seat walls adjacent to paver bands and shade trees for students and teachers to sit during parents' pickup. A mix of concrete paving and concrete paver bands provides a clear path to the main entrance. Directly outside the entry are three flagpoles set in concrete pavers or concrete, with seat walls at each end. This space supports student drop-off and pickup while also serving as a clear and functional entry plaza.

Play Area

The playground on the South side of the building includes separate areas for younger and older students, with a walking track located South of the play areas. Immediately outside the building is a large artificial turf area with play mounds and shade trees for informal play or lounging. To the South of this area is the “big-kid” play area, which includes swings and a play structure with wood-fiber mulch, similar to those at previous Jarell Elementary schools.

To the west of the “big-kid” play area are two basketball courts. Between the two courts will be an artificial turf or real sod to separate the two spaces. One of the courts to be striped for early childhood play.

The “little kid” play area, located to the West of the courts, includes a tike track with four squares and hopscotch at its center. The entire little kid area is enclosed by a 4-foot fence for safety and supervision.

Sand blasting or striping in the fire lane to be accounted for hardscape play.

Interior Courtyard

The interior courtyard is organized into distinct outdoor areas that support a variety of learning and activities. On the East side, the library opens onto an outdoor patio with a ramp and super steps that extend down to the courtyard, creating opportunity for outdoor learning, collaboration, or presentations. All spaces to be furnished with outdoor

movable seating to allow the space to be flexible for different uses/ activities.

To the North and South of the patio are areas that could be used by adjacent classrooms/art for outdoor class activities. Throughout the courtyard, sandblasted graphics—such as the shapes of Texas, the United States, and other learning diagrams—are integrated into the paving as interactive learning elements to support and visually enhance the space.

The central courtyard has interconnected sidewalks for circulation and artificial turf areas of different sizes. Shrub planting to be contained in raised seat walls and/ or raised curbs, and not adjacent to the building foundation. Pre-manufacture artificial turf mounds to be scattered within the artificial turf areas as shown on plans.

The North Central portion of the courtyard will have direct access from the Life Skills classrooms for more accessible use of the outdoor space. This area includes a sandblasted concrete labyrinth for calming and sensory use and is enclosed by a continuous seat wall to create a more protected zone.

Adjacent to the lawn area is a covered outdoor learning space with large whiteboards on either wall and/or movable furnishings.
Shade canopies are to be placed throughout the courtyard to provide supplemental shade for users of the space.

Building Design
The building plan is designed with a two-story high library space as its central living room space. The library floor is on a raised platform to elevate the importance of the space both literally and figuratively. The two-story classroom wing surrounds a fully enlcosed courtyard that brings natural light to instructional spaces and provides secure outdoor learning opportunites. The library's learning stair is the central circulation path of the building and provides opportunities for presentations and collaboration. Adjustable instructional spaces are located between grade-level houses, presenting the opportunity for enhanced learning opportunities, ability for "bumper" classes, and additional capacity up to 1,000 students. If the budget allows, operable partitions will be provided between one pair of classrooms at each grade level kinder-5, creating additional opportunities for collaboration and teacher training.
A one-story wing consisting of the administration suite, gym, cafeteria and Music room adjoins the other side of the library. The academic wing can be isolated from the library, gym, cafeteria and restrooms for after-hours events and can be accessed from both the front and rear parking lots. The gym space will be designed as a hardened space for bad weather events. The Music room is located behind the stage and at the same level for direct access.

Students arriving on foot, by bike, by car, or bus will all enter through the main front entrance via a central plaza space created between the separated traffic drives. Visitors will enter through a secure vestibule and be directed through the office. Covered walkways are provided at both front and rear entrances to shelter students. The outdoor play areas can be accessed from the library and dining areas or the classroom wing. It is anticipated that the foundation system will be slab on grade, but the geotechnical investigation will confirm. The primary structural frame will be steel and exterior back-up and interior walls will have steel stud framing. The kitchen area and hardened gym space will consist of structural CMU.

The exterior of the building will be primarily an ashlar masonry mix of san saba stone, with metal panel accents at upper areas. Interior finishes are to be smooth aggregate concrete, solid vinyl tile flooring, with carpet tile and porcelain tile in select areas. Wall finishes in the corridors will be a durable finish wainscot such as ceramic tile.

Structural System
The building design is in accordance with the requirements of the following Construction Industry Codes and Specifications
- o International Building Code (IBC), 2018 edition
- o American Society of Civil Engineers (ASCE) 7, Minimum Design Loads for Buildings and Other Structures
- o American Concrete Institute (ACI) 318, Building Code Requirements for Structural Concrete
- o American Institute of Steel Construction (AISC) 360, Specification for Structural Steel Buildings
- o American Concrete Institute (ACI) 530, Building Code Requirements for Concrete Masonry Structures

Description of Structural System
Concrete - Normal weight, Portland cement concrete with 5- to 6-inch slump (depending on application) and a minimum 28-day compressive strength as specified below for each component:
- o Drilled Piers 3,000 psi
- o Grade Beams, Pilasters, Pier Caps 3,000 psi
- o Slabs on Grade 3,000 psi

Reinforcing Steel
- o Deformed bars (typical) ASTM A615, Grade 60

Structural Steel
- o Wide-flange (W) shapes ASTM A992
- o Angles, channels, plates ASTM A36
- o Hollow Structural Shapes (HSS) ASTM A500, GR C (50 ksi)
- o Field-bolted connections ASTM A325 Bolts
- o Anchor rods ASTMF1554,GR36(min,UNO)
- o Welding E70XX per AWS D1.1

Concrete Masonry Units (CMU)
- o Masonry Wall Compressive Strength (f'm) 1750 psi
- o Mortar ASTM C270, Type N
- o Masonry Unit ASTM C90, 1900 psi net area compressive strength
- o Grout ASTM C476, f'm 2000 psi min.

Roof / Floor Deck
- o Composite floor deck systems:
  - 2-inch deep, 20 ga, 12-inch rib pattern; ASTM A653, G60 galvanized finish
- o Non-composite steel decks:
  - 1.5-inch deep, 20 ga, G90 galvanized finish where receiving cementitious fireproofing
  - 1.5-inch deep, 20 ga, ungalvanized with coat of manufacturer's standard primer paint over cleaned and phosphatized substrate where no cementitious fireproofing applied
  - 3-inch deep, 20 ga, ungalvanized with coat of manufacturer's standard primer paint over cleaned and phosphatized substrate

Foundation System
Based on previous experience, the foundation types likely to be recommended include a slab on grade with perimeter grade beams supported by deep foundation elements (DFEs).

Should a slab on grade system be selected, It is anticipated that the ground floor will consist of a 5" thick slab reinforced with #3 bars at 16" on-center each way over prepared subgrade. Subgrade preparation will consist of removing a portion of on-site expansive soils and replacing with select fill or on-site soils that have been moisture-conditioned per the geotechnical report.

The slab will be placed over a 15 mil, Class A vapor retarder. Perimeter grade beams are anticipated to be approximately 18" wide and 30" deep with approximately 30 plf of mild reinforcing

Floor System
All floors above ground level are anticipated to consist of a composite slab and steel wide flange beam floor structure. The slab is anticipated to be 3" of normal weight concrete over 2" x 20 gauge composite steel floor deck for a total slab thickness of 5".
The slab is anticipated to be reinforced with #3 bars at 12" on-center each way. Headed studs will be attached to the top flange of the beams and girders and will extend through the metal deck into the topping slab to generate composite action.
Beams are anticipated to be spaced at 7'-0" on-center with headed studs in each deck flute.

Roof System
The roof system is anticipated to consist of steel roof deck over open-web steel roof joists between wide flange girders.
The roof framing will be supported by steel columns as needed to accommodate span requirements. It is anticipated that roof joists will be spaced at approximately 6'-0" on-center.

Lateral Stability
To be provided by steel braced frames such as "X" or "chevron" frames. Steel moment frames will be utilized where braced frames are incompatible with the architectural layout.

MEP
Project Description
The following narrative depicts a brief description of the mechanical, electrical, plumbing and fire protection systems planned for the new Jarrell ISD - Atlas Ranch Elementary School.
All systems shall be installed in accordance with the International Building Code (IBC) and the latest edition of all applicable Codes as approved by State Fire Marshal, NFPA, and NEC.

Applicable Codes, Regulations, and Design Standards:
- National Electrical Code (NEC) - 2023 Edition
- Occupational Safety and Health Act (OSHA)
- ANSI 17.1 Safety Code for Elevators and Escalators
- National Fire Protection Association (NFPA 13) – Automatic Sprinkler Systems
- National Fire Protection Association (NFPA 14) – Standpipe Systems
- National Fire Protection Association (NFPA 20) – Centrifugal Fire Pumps
- National Fire Protection Association (NFPA 54) – National Fuel Gas Code
- National Fire Protection Association (NFPA-780) – Lightning Protection Code – 2004 Edition
- American Society of Sanitary Engineers Standards as applicable
- American Society of Plumbing Engineers Data Book for design standards
- National Fire Protection Association (NFPA-101) – Life Safety Code – 2021 Edition
- National Fire Protection Association (NFPA-110) – Emergency and Standby Power Systems
- International Building Code (IBC) – 2018 Edition
- International Fire Code (IFC) – 2018 Edition
- International Plumbing Code (IPC) – 2018 Edition
- International Mechanical Code (IMC) – 2018 Edition
- International Energy Conversation Code (IECC) – 2018 Edition
- Texas Accessibility Standards, Architectural Barriers Act, Article 9102, Texas Civil Statutes
- Americans with Disabilities Act of 2010
- Underwriters Laboratory Requirements and Listings for Use in Fire Protective Signaling Systems
- ASHRAE 90.1 Energy Standards for Buildings except Low-Rise Residential Building – 2007 Edition
- ASHRAE 62.1 – 2007 Edition
- NEMA – National Electrical Manufacturer's Association
- NECA – National Electrical Contractors Association
- IEEE Standard 1100 – Powering and Grounding Sensitive Electronic Equipment
- IEEE Standard 142 – Grounding of Industrial and Commercial Power Systems
- IEEE Standard 241 – Electric Power Systems in Commercial Buildings
- IEEE Standard 242 – Protection and Coordination of Industrial and Commercial Power Systems
- IEEE Standard 446 – Emergency and Standby Power Systems for Industrial and Commercial Applications

Mechanical
The HVAC system shall be designed with energy efficient quality equipment, ease of maintenance and equipment accessibility in mind. The system will be designed to control the interior temperature and humidity to uniform comfort conditions. Large spaces may be zoned separately by exposure and space function. This will allow for controlling a specific area (zone) by temperature and run time to provide maximum energy efficiency

Calculation Method
- Heat gain and loss calculations will be with factors from the ASHRAE Handbook of Fundamentals and ASHRAE 90.1 latest editions. The heating and cooling loads shall include building loads such as building envelope loads (wall, roof and glass), occupant loads, lighting loads, equipment and appliances loads, outside air (ventilation) loads in accordance with ASHRAE Standard 62. Component resistance values used in determining "U-factors" are taken from the ASHRAE Handbook of Fundamentals.

Mechanical Systems
- Complete new mechanical Systems consisting of RTU's – Split Systems – VRV - and Chilled Water Units. System will be multi-speed or variable speed high efficiency units. Zoned by usage and exposure.
- District does not desire gas fire equipment on the project.
- Larger areas will be conditioned using high-efficiency multi-stage rooftop units (RTU's). The space will be zoned using separate units for exterior and interior to provide for better space comfort and control.
- Classrooms shall have a separate RTU unit and thermostat for individual control.
- Training room, break room, lobby, locker rooms and front administration area will be handled by high efficiency rooftop units for additional control.
- All MDF and IDF data rooms will have separate air conditioning systems for 24/7 control. Mini-Split – 2-ton
- Each stairwell will have separate air conditioning systems. Mini-Split – 2-ton
- Administrative areas shall have VRV systems to provide more control points in smaller zones.

Ventilation Requirements and Pressure Relationships

- All floors of the building will have ventilation rates per IMC and ASHRAE 62.1 and the building will be under positive pressure. IAQ procedure will also be used for outside air requirements.
- A makeup air unit (MAU) shall be used to provide neutral ventilation air to classrooms, and supplement large spaces.

Controls and EMS

- Provide a direct digital electronic automatic temperature control system for the entire complex. The system shall consist of direct digital control (DDC) systems for the HVAC equipment, an operator's terminal with keyboard for communication with and programming of the distributive memory in the direct digital controllers, and shall incorporate all equipment necessary to provide the sequence of operation. All digital equipment designed to provide protection against interference by external voltages when operated in a commercial environment.
- This system shall use electronic temperature sensors, interfaced through standalone DDC controllers and unitary controllers. Control system shall have graphics indicating building floor plan, equipment identification and equipment indication and monitoring.

- DDC Controllers:
  - Provided for each HVAC unit unless specifically noted otherwise
  - IP based on latest technology availability
  - BACNET Integration will NOT be used unless specifically noted on select units
- All temperature control devices shall be standard catalog products and shall essentially duplicate equipment which has been in satisfactory service for at least 3 years. A minimum of 90% of the control equipment shall be by the installing manufacturer.
- Work to include a complete automatic temperature control system including any and all control devices, 120 volt and low voltage wiring and conduit, DDC controls, valves, dampers, relays, control modules, sensing devices, switches, and instrumentation necessary to obtain all functions and sequences
- Control System Software shall provide for monitoring and recording of after-hours operation of units.
- Temperature Sensors:
  - Provide with blank institutional type locking cover, single scaled set point adjustment and zone bus jack for zone terminal connection. All space sensors shall have built-in override switch and local set point adjustment.
- Power Monitoring shall be provided for project. CT's by Veris or equal and all controllers, software and programming for owner to view power consumption in Total Building, HVAC, Lighting, Receptacles. Include Gas meters for total building and kitchen, and water meter for total building. DDC contractor to provide complete software package for trending, organizing and manipulating energy data.

Indoor Air Quality - We are implementing the most common sense effective strategies known to protect the inhabitants with the most reasonable cost.

- Individual Unit per Classroom – Each classroom will have its own unit.
- Dedicated Outside Air – Fresh treated outside air ensures that IAQ levels are meet in each classroom.
- Filtration – Standard Specification is MERV 8. Filtration can be increased up to MERV 13 without changing out of standard filter sizes.
- Bipolar Ionization – Bipolar Ionization is being implemented with specific strategy from HCE for best protection.

Ductwork Construction

- Ductwork, unless otherwise specified herein, shall be constructed of new, prime grade, continuous hot dip mill galvanized, lock forming quality steel sheets and shall have a galvanized coating of 1-1/4 ounces total for both sides per square foot. The gauges of metal to be used and the methods of duct construction shall conform to the requirements for the class of work involved as set forth in the latest edition of "Standard Practice in Mechanical Sheet Metal" as published by SMACNA. Each sheet shall be stenciled with the gauge and manufacturer's name. If coil steel is used, coils shall be stenciled throughout on ten-foot (10') centers with the gauge and manufacturer's name.
- All dimensions are inside clear dimensions. Sheet metal size shall be increased to allow for duct liner where applicable.
- Seal all transverse joints, seams and fitting connections with "KINGCO 11-376 Super Seal", UL listed Mastic to prevent air leakage. Oil base caulking and glazing compounds are not acceptable.
- Rectangular Ducts
  - Where special rigidity or stiffness is required, construct ducts of metal two-gauge numbers heavier.
  - Ducts larger than 30" and larger to have Ductmate 35 slide on connections. Use metal cleats, metal corner cleats for non-breakaway joints, use plastic cleats for breakaway joints, ductwork 440 tape, #795 duct sealer and 5511M sealant.
- Ductwork shall be internally lined with antimicrobial coating for sound attenuation at discharge of units and return plenums as noted or detailed.
- Ductwork shall be externally insulated as follows:
  - The Contractor may use a 3/4, 1 or 1-1/2-pound density product with a minimum thickness of two inches (2") and a minimum installed R-value of 6.0. Density, thickness and installed R-value to be clearly indicated on submittal. Installed R-valuemust be 6.0 or higher.
  - Fiberglass duct wrap insulation is to have a factory FSK or FRK facing which acts as the vapor barrier. Maximum permeability rating is 0.02 perms.
  - Use only labeled Type UL181AP tape. Maintain a complete vapor barrier throughout all ductwork insulation applications.
- Flexible Duct: Only above suspended or hard ceilings:
  - Provide duct listed as UL-181 Class I air duct and constructed in compliance with NFPA 90A. ATCO Series 36.
  - Maximum length five feet (5'). Install with not more than one (1) 90 full radius degree bend.
  - Make joints with Nashua brand UL181A-P duct tape and 1/2" wide positive locking panduit straps.
  - Exterior skin is to be tough vapor barrier reinforced metalized polyester jacket, tear and puncture resistant.
  - Airtight inner core with no fiberglass erosion into airstream.
  - R-Value: 6.0 at 75 degrees F. mean temperature.

Air Filters

- All air filters to be listed as Class 2 by Underwriters Laboratory, Inc., Building Materials Directory.
- Media: Non-woven, lofted cotton bonded to 96% free area welded wire support grid. Not less than 6.6 square feet media area per square foot of filter face area. Arranged in radially pleated configuration and bonded continuously to inside perimeter of high wet-strength beverage board cell sides.
- Cell Design: 2" deep with beverage board diagonal supports at entering air and leaving air faces of each cell.
- Air Cleaning Performance: Minimum MERV 8.

Fire Dampers

- Provide and install all fire dampers in all ductwork which passes through any rated egress pathways, as required by Local Building and Fire Safety Codes.
- All dampers UL approved and of type required by NFPA 90A.
- Install all dampers per manufacturer's instructions.
- All dampers shall have a UL555S leakage classification of II.
- Sleeves for fire dampers shall be of gauge as described in NFPA 90A and as a minimum of 18 gauge for dampers up to thirty-six inches (36") wide and fourteen(14) gauge for dampers which exceed thirty-six (36") in width.
- Multi-Story duct penetrations, assume fire damper at each floor level penetration of ductwork.

Ductwork Supports

- Support all duct work to prevent sag, undue play and swing. Provide a hanger within twelve inches (12") from unit supply and return.
- Low Pressure Ductwork:
  - Ducts 40" and Less: Provide with 1" x 18-gauge straps fastened to ductwork and to building construction. Space not more than eight feet (8') on center. Hanger straps shall lap under duct a minimum of one inch (1") and have a minimum of one (1) fastening screw on the bottom and two (2) on the side.
  - Ducts Over 40": Provide mild steel rods fastened to angle iron stiffeners with nuts and to building construction with appropriate inserts, flanges or clamps. Space not more than four feet (4') on center with rods and angle supports.
  - Use minimum twelve (12) gauge wire with saddle for support of flex duct. Maximum permissible sag is 1/2" per foot of spacing between supports. Use one-inch (1") strap (minimum) for all round sheetmetal runouts; minimum 8'-0" o.c.

Plumbing

Domestic Cold-Water Supply System

- A new underground domestic cold water service will be provided to the building, supplied from a site water main. Where the domestic water service enters the building a shut-off valve will be provided. Throughout the building, domestic cold water will be routed to plumbing fixtures. The piping system will be sized based on the Plumbing Code requirements. The piping system will be insulated to prevent condensation from occurring on the exterior of the pipe.
- Service valves will be provided at each branch line serving two or more plumbing fixtures. All plumbing fixtures and equipment connections will be provided with local stop valves. Additional service valves will be provided, to isolate the system for maximum maintainability.
- Access panels will be provided with adequate space to operate the valves in walls and non- accessible ceilings.
- Shock arrestors will be provided on all water rough-ins serving plumbing fixtures.

Domestic Hot-Water Supply System

- Domestic hot water will be generated using two natural gas fired water heaters with integral storage tanks. The storage tanks will be constructed of unlined duplex alloy stainless steel. The units will be insulated, in compliance with ASHRAE 90.1 for thermal efficiency, and will have a minimum efficiency of 90%. The water heaters will generate and store hot water at 140°F. Point-of-use thermostatic mixing valves will reduce final delivery temperatures of hot water to the building plumbing fixtures to 110°F. The hot water piping system will have in-line circulation pumps to maintain the hot water temperature to within 10 degrees of the supplied temperature

Sanitary Waste and Vent Systems

- A complete waste and vent system will be provided to collect sanitary waste from all plumbing fixtures, floor drains, and any other equipment, in accordance with the Plumbing Code, unless indicated otherwise.
- The drainage piping system will be designed with a minimum slope of 1/4-inch per foot for pipe sizes less than 3-inch and 1/8-inch per foot for sizes 3-inch and larger.
- The building will have sanitary sewer lines discharging to the site sanitary sewer system.
- Floor and wall cleanouts will be strategically placed to avoid being located in sensitive areas.
- Floor drains will be provided for each air handling device, equipment requiring drains, Toilet rooms with water closets, and mechanical equipment rooms. A floor sink will be provided in riser rooms.
- Each floor drain will be provided with a p-trap and a trap primer.

Storm Drainage System

- The roof drainage system shall be sized based on 6 inches per hour rainfall rate, according to the Plumbing Code.
- Majority of roof drainage is planned to be handled by collector and downspouts by Architect.
- Overflow drains (if required) will be provided to protect the roof in case of a primary roof drain blockage. The overflow drain lines will be piped separate from the roof drainage system extending to downspout nozzles on the exterior of the building.
- The roof drainage system will be insulated to prevent condensation from occurring on the exterior of the pipe. Roof drain bodies, overflow drain bodies and the horizontal piping from each drain will be insulated, extending to the first vertical drop and any horizontal offsets that occur (if needed).
- All of roof drainage is planned to be handled by collector and downspouts by Architect. There are no internal roof drains or associated piping

Plumbing Fixtures

- All fixtures will be Grade A commercial quality and low water consumption type fixtures.
  - Water closets will be dual flush type with 1.28 gallon per flush fixtures. The urinals will be 0.125 gallon per flush fixtures(NO waterless urinals).
  - Lavatories will have 0.50gpm faucets and the sinks will have a 1.5gpm flow control devices.
  - Water closets will be floor mounted and urinals will be wall hung and provided with concealed support carriers.
  - Lavatories, mop sinks, laboratory sinks and kitchen sinks will be provided with domestic hot and cold water.
  - All vitreous china fixtures will be white in color.
  - Where applicable, fixtures will be in compliance with the Americans with Disabilities Act.
- Wall hydrants will be provided on the exterior walls to provide wash down of entries, and other exterior areas around the building. Hydrants will be freeze-proof recessed type with hinged door, integral vacuum breakers and loose key.
- Hose bibs provided in courtyard for wash down of patio areas.

Fire Protection Systems

- The building will be provided with an automatic fire protection sprinkler system. A fire water service supply will be extended into the building.
- Dry type sprinkler systems will be provided for areas where the sprinkler heads and piping will be exposed to freezing conditions external to the buildings.

- Dry type sprinkler systems will include air compressor, dry pipe valve, air maintenance device, etc.
- The wet and dry sprinkler systems will be hydraulically designed in accordance with the requirements of all agencies having jurisdiction.
  - System will include piping, sprinklers, wet and dry alarm valve assemblies, tamper switches, flow switches, valves, drains, inspector test, test drains, fire department connections, sprinkler heads, roof manifolds, etc.
- Sprinkler heads in light hazard finished areas with suspended ceiling will be quick response, flush concealed with white cover plates. Heads in non-finished areas such as Mechanical Equipment Rooms, Electrical Rooms, etc., will be chrome-plated brass.
- The sprinkler systems will conform with all applicable provisions of the Owner's Insurance, NFPA Standards 13, 14 and other appropriate NFPA Standards, state and local codes.
- A fire pump is not known at this time (laid out riser rooms as if pump is required)
- IT Rooms: Pre-action, double interlock wet pipe system to be used in server room and IT machine room.
- Nitrogen Generator Dry System: (extents TBD) All dry fire protection systems are to be provided with a Nitrogen Generator and ALL associated components. Allow 5'x5' space for equipment

Electrical

Electrical Utilities:

- Electric Service: Power will be brought to the building from the local electric utility company. The service to the building will be 480Y/277V, 3-phase, 4-wire on the secondary of the building pad mount/pole mount transformers Lighting will be served at 277V and motors larger than 1/2 horsepower will be served at 480V, 3-phase. Energy-efficient, low voltage, indoor, dry-type transformers that are DOE 2016 compliant will be used inside the building electrical rooms to transform down to 208Y/120V for convenience receptacles and other small loads.
- Surge Suppression: systems will be installed in the building at the main switchgear, 480Y/277V distribution panels, and 208Y/120V branch circuit panelboards for protection of building loads from surges both from lightning and utility transients as well as building switching transients.

Interior Electrical Distribution System

- The building main electrical room shall house the building switchboard. The main electrical room personnel doors shall open in the direction of egress and shall be equipped with panic bars, pressure plates or other devices that are normally latched but open under simple pressure in accordance with N.E.C article 110.26 (c)(3).
- Separate dedicated electrical rooms shall be provided as required. These rooms shall be strategically and centrally located within the building to minimize voltage drop problems. The electrical rooms will have branch circuit panelboards, DOE 2016 compliant dry type transformers and 208Y/120 Volt branch circuit panelboards. Separate dedicated 480Y/ 277 Volt panelboards for HVAC equipment and lighting branch circuits shall be provided.
- Dry Type Transformers: DOE 2016 complaint, aluminum windings dry type transformers shall be provided to serve all non-linear load branch circuit panelboards

Interior Lighting Systems

- LED lighting will be utilized throughout the building. Building interior lighting control schemes shall comply with the requirements of the current edition of IECC. All offices and classrooms shall be provided with dual technology occupancy sensors, and switches for a dimming lighting control system
- All lighting will be provided with a color temperature of 3500°K and a color rendering index of 85 (CRI = 85).
- Emergency lighting and means of egress lighting shall be provided in accordance with NFPA Life Safety Code (NFPA 101), and shall all be served by battery packs.
- All exit light fixtures shall be LED type.
- Illumination levels shall comply with the requirements set forth by IES, allowable power densities, and the building program requirements unless otherwise indicated by the Owner. footcandle levels shall be minimized in areas where task lighting is used.
- All exterior lighting shall be LED type lighting in weatherproof fixtures mounted on poles, walls, or soffits as required to meet lighting requirements. Exterior Lighting Control: Onboard photocell – dimming
- Provide life-safety lighting in all exit paths in accordance with IES minimum foot-candle recommendations and AIA guidelines.

Fire Alarm System

- A digital, addressable voice alarm closed circuit, electrically supervised automatic and manual fire detection alarm system shall be provided.
- The system will consist of manual pull stations and audio-visual devices at means of egress throughout corridors, area smoke detectors, heat detectors in equipment rooms and smoke detectors in storage rooms.
- Duct mounted detectors in supply and return duct of air handling equipment for air handling system shutdown as required by code. The fire alarm system design will comply with the Americans with Disabilities Act regulations, and Texas Accessibility Standards (TAS), and the National Fire Protection Association NFPA 101, and NFPA 72, and the International Building Code (IBC).
- FACP in Reception, FAAP in lobby and Fire Riser Room.
- Schools shall be provided with Voice Evacuation system Phone with FACP and FAAP in Fire Sprinkler Riser Room.

Technology & Security

Project Scope Of Work

The new Atlas Ranch Elementary School will include the implementation of one new telecommunication space, premise distribution, classroom audio video, facility intercom system, local sound systems, physical security systems including access control and surveillance. There is currently no storm shelter required within this jurisdiction.

The systems design and specifications are based on Jarrell ISD Guidelines, client input, industry standards and best practices.

Premise Distribution System (PDS)

- The Premise Distribution System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating this system with the General contractor provided rough in, electrical and pathways.
- The scope of work for premise distribution shall include new physical fiber optic cabling and termination hardware utilizing Passive Optical Networking (PON) from Tellabs. The system design shall include passive fiber optic splitters located in the ceilings of the building, Optical Network Terminals (ONT's) installed in ceilings shall provide PoE and network connectivity to wireless access points, surveillance cameras, VoIP handsets and standard data cabling connectivity. The Optical Line Terminal (OLT) will be installed in the MDF room. The MDF shall also support the centralized power supply for the building.
- All fiber shall be Single Mode.

- Copper cabling
  - Copper cabling shall be designed between all ONT devices and their supported connections to include all wireless access points, VoIP handsets, displays, projectors, computers, printers, access control panels, building management systems and surveillance cameras.
- Termination support equipment / MDF and IDF room build out
  - The MDF shall support the OLT and fiber termination hardware and all power for the PON system shall be centralized in this space. The MDF shall include all equipment racks, back boards, ladder rack, and grounding bars as per District standards.
- Termination support equipment / Data Center, MDF and IDF room build out - One MDF and multiple new IDF rooms will be constructed for this project. All racks, termination hardware etc. shall match Owner specifications.
- Grounding – All equipment in the MDF and IDF(s) will be properly bonded and grounded per TIA standards and BICSI best practices.
- Area network requirements - Two four-inch conduit shall be installed between the MDF location and the Service Provider pedestal at the street.
- Digital signage locations will receive network cabling as required for functionality.
- Wi-Fi – General
  - Wireless access point locations will receive network cabling as-required.
  - Wireless access points will be furnished and installed by Jarrell ISD IT.
- Teacher Workstations
  - Shall receive two data drops each at one location and will originate from the nearest optical splitter.
- Office
  - Shall receive two data drops each at one location and will originate from the nearest optical splitter.
- Pathways
  - Will consist of j-hooks and/or basket tray in corridors and accessible ceiling spaces.
  - Conduits and sleeves will be required for locations with inaccessible ceilings such as

  clear story/high volume, hard-lid/gypsum, etc.
- PON design strategy has been updated to match recent input from JISD, including the use of 8-port ONTs exclusively, ensuring that each ceiling enclosure has room for one additional ONT, ensuring that each ONT has enough power conductors to add power capacity to two ONTs in the future, and ensuring that there are 8 open ports on ONTs in each ceiling enclosure

Network Electronics, Wireless Access Points And UPS Equipment

- Jarrell ISD IT shall furnish and install active electronics and UPS equipment for network connectivity such switches, routers, bridges, and wireless access points.

Phone System

- The complete phone system will be furnished and installed by Jarrell ISD IT.

Building Paging & Clock System

- A new intercom system shall be based on the existing District specifications.
  - Valcom
- Intercom speakers shall be added to all classrooms, corridors, and general areas.
- Exterior speakers are required on all sides of the building - two at each corner and every 100ft in between.
- Clocks will be installed inside the main building in the corridors, office, gym, and cafeteria area

Gymnasium Local Sound System

The Gymnasium Local Sound System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating this system with the General contractor provided rough in, electrical and pathways.

AUDIO SYSTEMS

- Ceiling-mounted 360-degree speaker centrally located in the gym.
- Amplifier, DSP, and associated audio processing equipment located in rack.
- Two mobile monitors for the gym floor.
- One Wireless microphone combo (Handheld/body pack).
- Rack-mounted mixer, CD player w/Bluetooth and 3.5mm input for audio sources
- Assisted listening system.

VIDEO

- Wall plate HDMI input.
- Wall-mounted laser projector and motorized screen.

CONTROL

- Wall plate volume controller for overall volume level.

Cafeteria Local Sound System

The Cafeteria Local Sound System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating this system with the General contractor provided rough in, electrical and pathways.

VIDEO SYSTEMS

- Ceiling-mounted projector with HDMI receiver focused to the stage.
- Wall plate HDMI extender for source device located on or near stage.

AUDIO SYSTEMS

- Flush-mount ceiling speakers if ceiling is drop-tile. Pendant style speakers if open.
- Amplifier, DSP, and associated audio processing equipment located in rack.
- Four wired microphone inputs.
- Two on-stage monitors.
- One wireless microphone combo (Handheld/body pack).
- Rack-mounted mixer, CD player w/bluetooth and 3.5mm input for audio sources
- Assisted listening system.

CONTROL

- Rack-mounted touch panel controller for display power, source select, and overall volume.

RACKS AND ENCLOSURES

- On-stage wall rack with storage and horizontal power.

Classroom Audio Visual System

The Classroom Audio Visual System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating this system with the General contractor provided rough in, electrical and pathways.

VIDEO SYSTEMS

- Owner furnished, and Contractor installed wall-mounted flat panel display on articulating mount with OFE wireless presentation device.
- Wall plate HDMI pass-thru at teacher station.

AUDIO SYSTEMS

- Built-in display speakers.

Conference Room Audio Visual Systems
- The Conference Room Audio Visual System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating vthis system with the General contractor provided rough in, electrical and pathways.

VIDEO SYSTEMS
- Owner furnished, and Contractor installed wall wall-mounted flat panel display.
- HDMI transmitter in floor box underneath conference table.

AUDIO SYSTEMS
- Built-in display speakers.

Access Control System (ACS)
- The Access Control System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating this system with the General contractor provided rough in, electrical and pathways.
- ACS system and Card reader Manufacturer: Verkada
- Door hardware Manufacturer: Allegion
- Door monitoring via Door Position Sensor will be at all exterior door locations and roof hatches.
- Request to exit (REX) devices will be used on all exterior doors. Door hardware will have integrated REX wired into the panic hardware.
- Card readers shall be deployed to areas identified by the Owner including main entry, staff entry, bus drop entry, cafeteria staff entry and athletics, band and fine arts point of entry.
- Wall mounted access control panels shall be installed in the MDF as needed to support the ACS.
- A minimum of two (2) lock down buttons will be installed in the main reception and office areas.
- Door release buttons shall be installed in the reception areas for controlling doors leading from the office to the main corridor.
- Additional credentials and other consumables shall be determined by the Owner during the design phase.

Video Surveillance System (VSS)
- The Video Surveillance System design provided shall be Owner Furnished and Installed (OFOI). CRUX shall provide construction documents that will assist with coordinating this system with the General contractor provided rough in, electrical and pathways.
- Video management server: Verkada.
- Camera manufacturer: Verkada.
- Camera types (fixed, ptz, etc.): Fixed domes and bullet style cameras will be used. Typically interior cameras are domes and exterior cameras are bullets.
- Interior cameras shall observe the following: Corridors, entries/exits, gathering spaces and the main office.
- Exterior cameras shall observe the following: Drop-off and pickup areas, playgrounds, garden/outdoor learning spaces and other areas as-directed by Jarrell ISD IT.
- Pole mounted cameras: none.
- Video programming requirements: TBD
- Storage Server: Storage is included on each camera and video footage is available via the Verkada cloud.
- VMS: Verkada
- Licenses: To be furnished by the contractor for each camera in-scope.

Intrusion Alarm
- There is no stand-alone intrusion system for this project. In areas where cameras are present, the cameras will serve as motion detectors in the Verkada system.

Food Services

Receiving Area:
- One door entering into the kitchen, the door size is to accommodate the largest cart used for deliveries.
- Receiving door to include a glass view window panel, intercom, door bell, sufficient lighting and air screen located over the door.
- A time clock may be required at the receiving door.
- Security camera may be required and located outside the receiving door.
- The width of the receiving corridor is to be 6’-0” minimal.

Custodial/Chemical/Laundry Area:
- Residential washer/dryer-stack or side by side.
- Mop sink.
- Mop and broom holder.
- One 48" long chemical shelf.

Restroom and Locker Room:
- To be located near the receiving door and office.
- One restroom to be provided with one ocker room.
- Number of lockers and coat hooks to accommodate total amount of employees within the kitchen.

Office:
- To be located near the receiving corridor to monitor all food deliveries into the kitchen area and the locker room/toilet.
- Vision panels to be located to allow the manager to view the kitchen and the receiving corridor.
- Size is to accommodate to total amount of staff required within this space.
- A safe to be provided per the owners direction.

Dry Storage Area:
- To be sized to accommodate one delivery a week.
- Shelving to be 24” wide, height 86” maximum.

Cold Storage Assembly:
- To be size to accommodate 7 day inventory.
- To be located in the rear of the kitchen to accommodate a main receiving corridor.
- To be located across from the preparation and production area to minimize cross traffic from the other kitchen support areas.
- An alarm system to be provided to monitor the temperature.
- The refrigeration system to be located within 75’ of the assembly or on the roof above the kitchen.

Production Area:
- The production area is to be located across from the freezer assembly. To be located to minimize any cross traffic from the other kitchen support areas.
- Production equipment to be sized to accommodate the total student population.
- Exhaust hoods to be designed to accommodate all production equipment. Exhaust system to be sized to accommodate 300 cfm per linear foot of exhaust hood. Supply air to be sized at 60% of exhaust cfm per linear foot.
- Production equipment to include the following-Quantities to accommodate the student population.
  - Double stack convection ovens
  - Double stack combi oven
  - 40 gallon tilt braising pan
  - Six Burner Range
  - Support worktables with a meat sink and pot rack

Preparation Area:
- The preparation area is to be located across from the walk-in cooler assembly and to be located to minimize any cross traffic from the other kitchen support areas.
- The preparation area is to include the following equipment:
  - Preparation table with two sinks and pot rack
  - Support tables
  - Disposer
  - Can opener
  - Pan rack

Bakery Area:
- The bakery area is to accommodate scratch or par bar baked cooking.
- The bakery area is to be located across from the dry storage room and to be located to minimize any cross traffic from the other kitchen support areas.
- The cooking equipment is to include the following:
  - 20 qt mixer with stand
  - Heated/Proofing cabinet
  - Support worktables with pot racks
  - Pan rack

Holding:
- Single door heated pass-thru cabinet and a single door pass-thru refrigerator to be located behind each serving line.

Servery Area:
- The servery area is to be located between the seating and the kitchen area. A store front glass wall or roll down door is to be provided between the serving line and the seating area.
- A full wall with the holding equipment to be located between the kitchen and the servery area.
- The entrance to the servery is to be located so that the queuing of the students does not interfere with the seating.
- The serving line to be designed to accommodate the owners menu as required.
- Beverages to be located near the Cashier or at the beginning of the serving line.
- Serving lines to be sized to accommodate the student population and number of periods. Each serving line to accommodate approx. 100 students per line per period. The serving lines are to include the following:
  - Silverware/tray dispenser
  - Refrigerated grab n' go merchandiser or milk dispenser
  - Five hot food wells, recessed to accommodate a sheet pan.
  - Refrigerated cold pan or frost top
  - Flat top counter
  - Ice cream merchandiser
  - Cashier station

COST ESTIMATES

- BONDCONSTRUCTION BUDGET $46,900,000

ATLAS RANCH ELEMENTARY SCHOOL
OPINION OF PROBABLE COST
(BEGINNING CONSTRUCTION JAN 2027)

- CONSTRUCTION COST $47,300,000
- ALLOWANCES/DESIGN CONTINGENCIES $2,500,000
- TOTAL $49,800,000

Jarrell ISD Program

Atlas Ranch Elementary School	Program of Spaces			Capacity		
Goal Student Capacity: 900	Quantity	Area per space (S.F.)	Net Area (S.F.)	Student Capacity Per Space	Max Capacity (TEA- Instruct. Spaces)	Functional Cap. (District Pref.- Instruct. Spaces)
INSTRUCTIONAL SPACES						
Instructional			**42,394**			
PK Classrooms	4	810	3,240	22	88	79
Kindergarten Classrooms	7	785	5,495	22	154	139
1st Grade Classrooms	7	860	6,020	22	154	139
2nd Grade Classrooms	7	850	5,950	22	154	139
3rd Grade Classrooms	7	810	5,670	22	154	139
4th Grade Classrooms	7	855	5,985	22	154	139
5th Grade Classrooms	7	807	5,649	25	175	158
Large Flex Classrooms	1	945	945			
Small Flex Classrooms	8	430	3,440			
Instructional Support	55		**1,215**			
Teacher Planning Room	1	415	415			
Teacher Restrooms	5	60	300			
Grade Level Storage	4	125	500			
General Support			**3,695**			
Single-user Restrooms (PK-K)	12	50	600			
Group Restrooms	4	520	2,080			
Custodial Closets	3	125	375			
Main Custodial Closet	1	160	160			
Electrical Rooms	4	120	480			
INSTRUCTIONAL - SUBTOTAL NET AREA (sf)	**140**		**47,304**			

SPECIAL PROGRAM SPACES						
Resource			**2,115**			
Resource / Special Programs	4	295	1,180			
Literacy	2	310	620			
Speech Therapy	1	315	315			
Life Skills / Behavioral			**2,475**			
Behavioral	1	375	375			
OT/PT	1	580	580			
Sensory	1	380	380			
ILS	1	882	882	10	10	9
Restroom/Changing/Shower	1	130	130			
Laundry Room	1	18	18			
De-escalation room	1	85	85			
WH Closet	1	25	25			
Storage	1	85	85			
SPED Kitchen	1	80	80			
FCS	1	615	615			
FAC	1	660	660			
Restroom	1	50	50			
ECSE/Pre K	1	815	815			
Restroom/Changing Table	1	55	55			
Instructional Support			**240**			
SPED Storage	2	120	240			
SPECIAL PROGRAMS - SUBTOTAL NET AREA	**24**		**4,830**			

Specials				
Music			**1,060**	
Music Room	1	870	870	
Instrument Storage	1	190	190	
Multipurpose			**1,145**	
Multipurpose Classroom	1	960	960	
Multipurpose Prep Storage	1	185	185	
Multipurpose Classroom (4th Grade)	1	850	850	
Art			**1,350**	
Art Classroom	1	1,050	1,050	
Art Storage	1	205	205	
Art Media Storage	1	95	95	
FINE ARTS - SUBTOTAL NET AREA (sf)	**8**		**3,555**	

PHYSICAL EDUCATION			
PE			
Gymnasium	1	4,800	4,800
PE Support			
Gym Office	1	160	160
General Equipment Storage	1	325	325
FINE ARTS - SUBTOTAL NET AREA (sf)	**3**		**5,285**

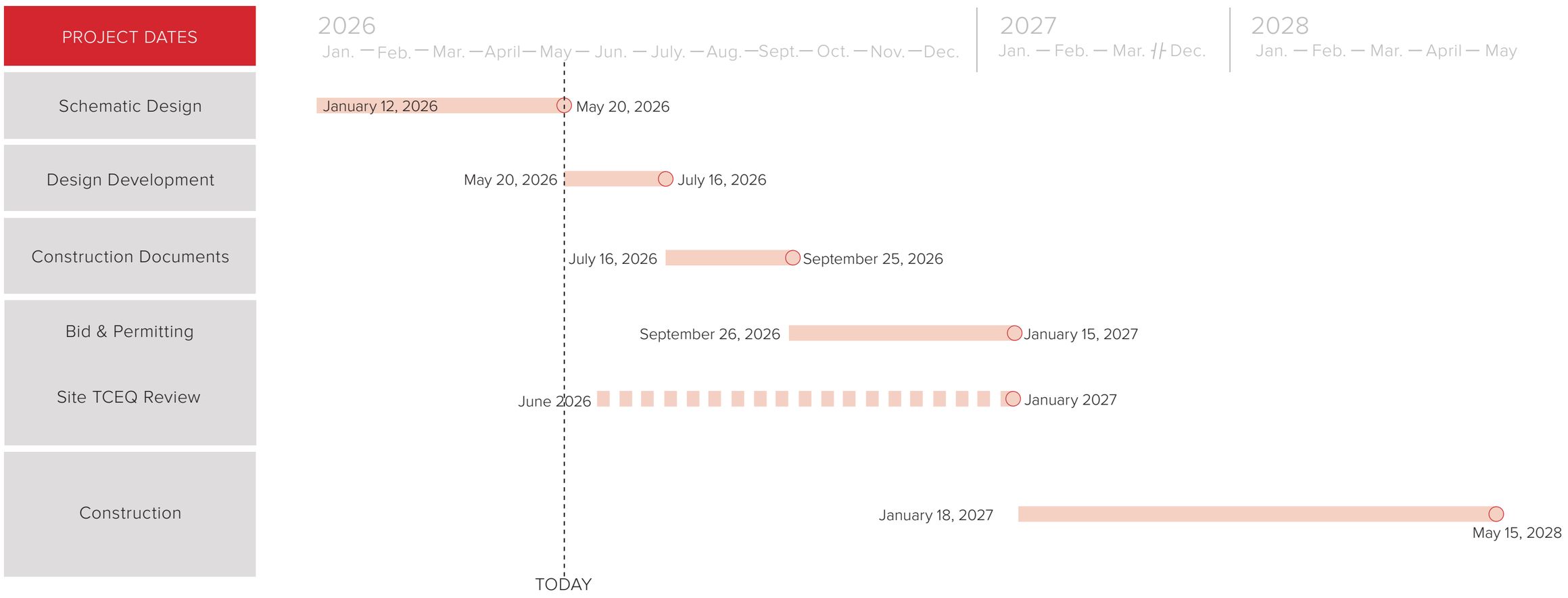
CORE SPACES			
Multipurpose Space			**4,455**
Stacks	1	3,470	3,470
Ancillary Spaces			
Office/Workroom	1	250	250
Learning Stairs	1	115	115
Literacy Library	1	400	400
Green Room	1	220	220
Dining			**4,420**
Dining Area	1	4,120	4,120
Storage	1	300	300
Stage & Ramps			**1,126**
Platform	1	983	983
Ramps	1	143	143
Kitchen & Serving			**2,681**
Kitchen - Food Preparation and Scullery	1	1,415	1,415
Warewash	1	235	235
Dry Storage	1	185	185
Freezer/Cooler	1	235	235
Serving Lines	1	315	315
Office	1	85	85
Kitchen Work Room	1	55	55
Laundry / Custodial Room	1	80	80
Toilet	1	76	76
General Support			**650**
Girls Multi-Use Restroom	1	325	325
Boys Multi-Use Restroom	1	325	325
CORE SPACES - SUBTOTAL NET AREA (sf)	**22**		**13,332**

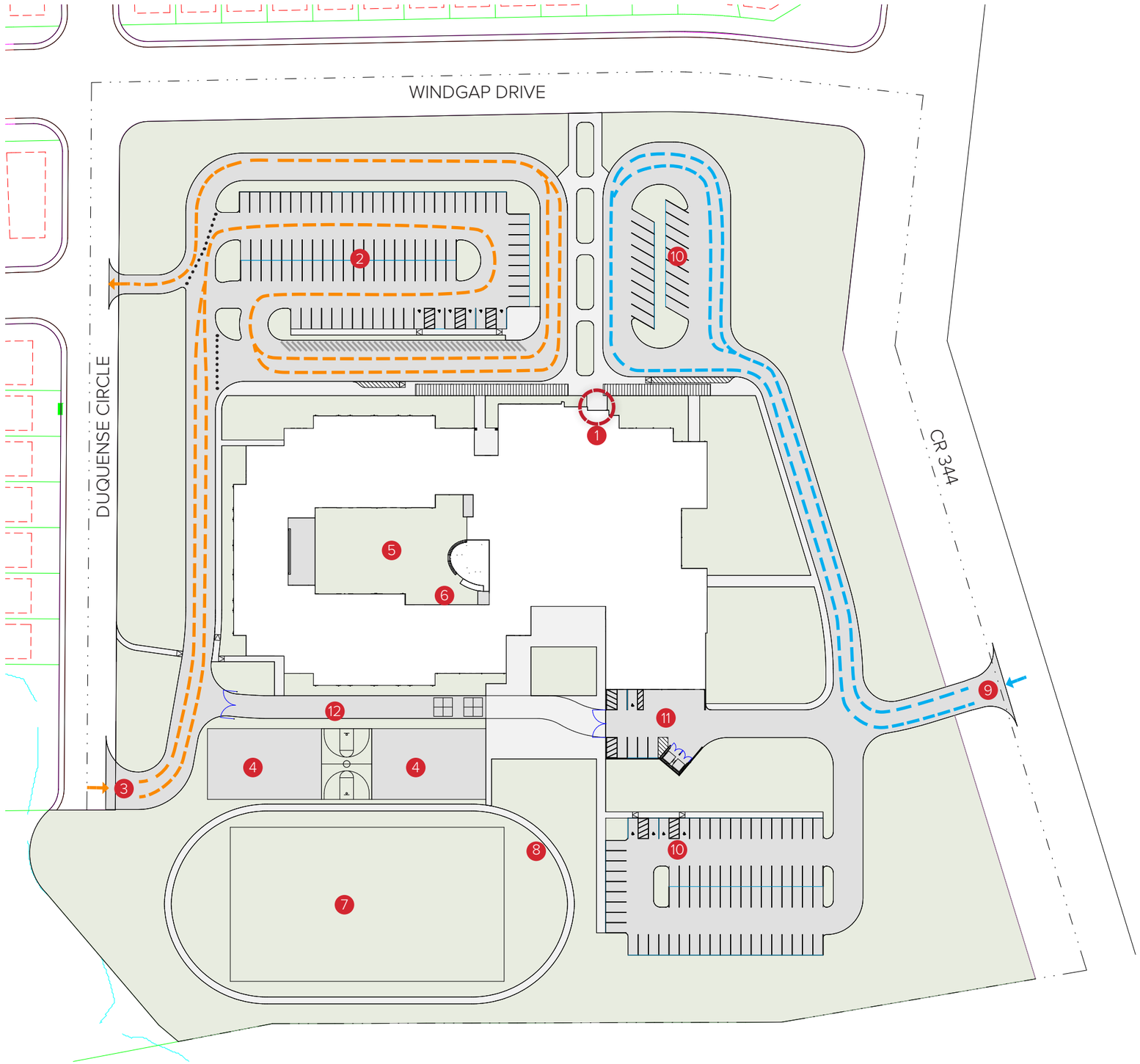
MAIN ADMINISTRATION			
Administrative Spaces			**5931**
Controlled Vestibule	1	240	240
Small conference room connected to vestibule	1	245	245
Waiting Room	1	275	275
Reception Toilet	1	80	80
Office	1	251	251
Office	2	150	300
Offices	5	145	725
Testing Storage	1	130	130
Itinerant	1	750	750
ARD Conference Room	1	385	385
Conference Room	1	435	435
Work Room @ Admin	1	325	325
Small Work Area	1	140	140
Admin Toilets	2	60	120
Secured Storage (Student Records)	1	100	100
Admin Storage	2	100	200
Bookroom	1	590	590
Teacher Dining / Work Room	1	715	715
Electrical Rooms	1	165	165
Clinic			**805**
Clinic	1	360	360
Office	1	110	110
Clinic Toilet/Shower	1	100	100
Isolation Room	1	105	105
Clinic Storage	1	130	130
MAIN ADMINISTRATION - SUBTOTAL NET AREA (sf)	**30**		**6,736**
GENERAL FACILITY SUPPORT			
Vertical Access - Stairs	4	410	1640
Elevator w Controls Closet	1	65	65
Storage	1	80	80
Custodial Office	1	145	145
Main Electrical	1	285	285
Riser Room	1	90	90
MDF	1	200	200
SRO	1	100	100
GEN.FACILITY - SUBTOTAL NET AREA (sf)	**11**		**2,605**
CAMPUS SUBTOTAL NET AREA (sf)	**238**		**83,647**
SUBTOTAL WALLS & CIRCULATION (sf)		**42%**	**35,132**
CAMPUS TOTAL GROSS AREA (sf)			**118,779**

	1,043

939

JARRELL INDEPENDENT SCHOOL DISTRICT
ATLAS RANCH ELEMENTARY SCHOOL





SITE PLAN KEY

- ENTRY VESTIBULE
- 1 ENTRY
- 2 VISITOR / EVENT PARKING
- 3 PARENT DRIVE
- 4 PLAY AREA
- 5 COURTYARD
- 6 ART PATIO
- 7 PLAY FIELD
- 8 WALKING TRAIL
- 9 BUS LOOP
- 10 STAFF/EVENT PARKING
- 11 SERVICE YARD
- 12 FIRE LANE ACCESS

LINE TYPE LEGEND

- BUS DRIVE
- PARENT DRIVE
- PROPERTY LINE

SITE PLAN STATISTICS

ACREAGE

SITE: 13.2 ACRES

PARKING

STAFF / VISITOR: 190

ACCESSIBLE: 11

TOTAL: 201

THIS SITE PLAN IS CONCEPTUAL IN NATURE AND IS NOT A COMPLETE SITE ANALYSIS. FURTHER STUDY THE FOLLOWING MUST STILL BE COMPLETED: SITE DRAINAGE, GRADING, UTILITY/TOPOGRAPHICAL SURVEYS, GEO-TECHNICAL DATA, PHASE I ENVIRONMENTAL IMPACTS, ZONING, AND EASEMENTS.

0 40 80 120

Huckabee

JARRELL INDEPENDENT SCHOOL DISTRICT

NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION
MICHAEL A. MOROW, TX #25557

COLOR LEGEND

- Academic Space
- Academic Support
- Administration
- Administration Support
- Athletic Space
- Athletic Support
- Circulation
- Dining
- Dining Support (Kitchen)
- Fine Arts
- Fine Arts Support
- Library
- Library Support
- Support Space

0 20 40

Huckabee

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MICHAEL A. MOROW, TX #25557

FLOOR PLAN - LEVEL 1

06

COLOR LEGEND

- Academic Space
- Academic Support
- Administration
- Athletic Space
- Circulation
- Dining
- Support Space

0 20 40

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FLOOR PLAN - LEVEL 2

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EXTERIOR RENDERING - MAIN ENTRY

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EXTERIOR RENDERING - NORTHWEST

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EXTERIOR RENDERING - NORTHEAST

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EXTERIOR RENDERING - OUTDOOR DINING

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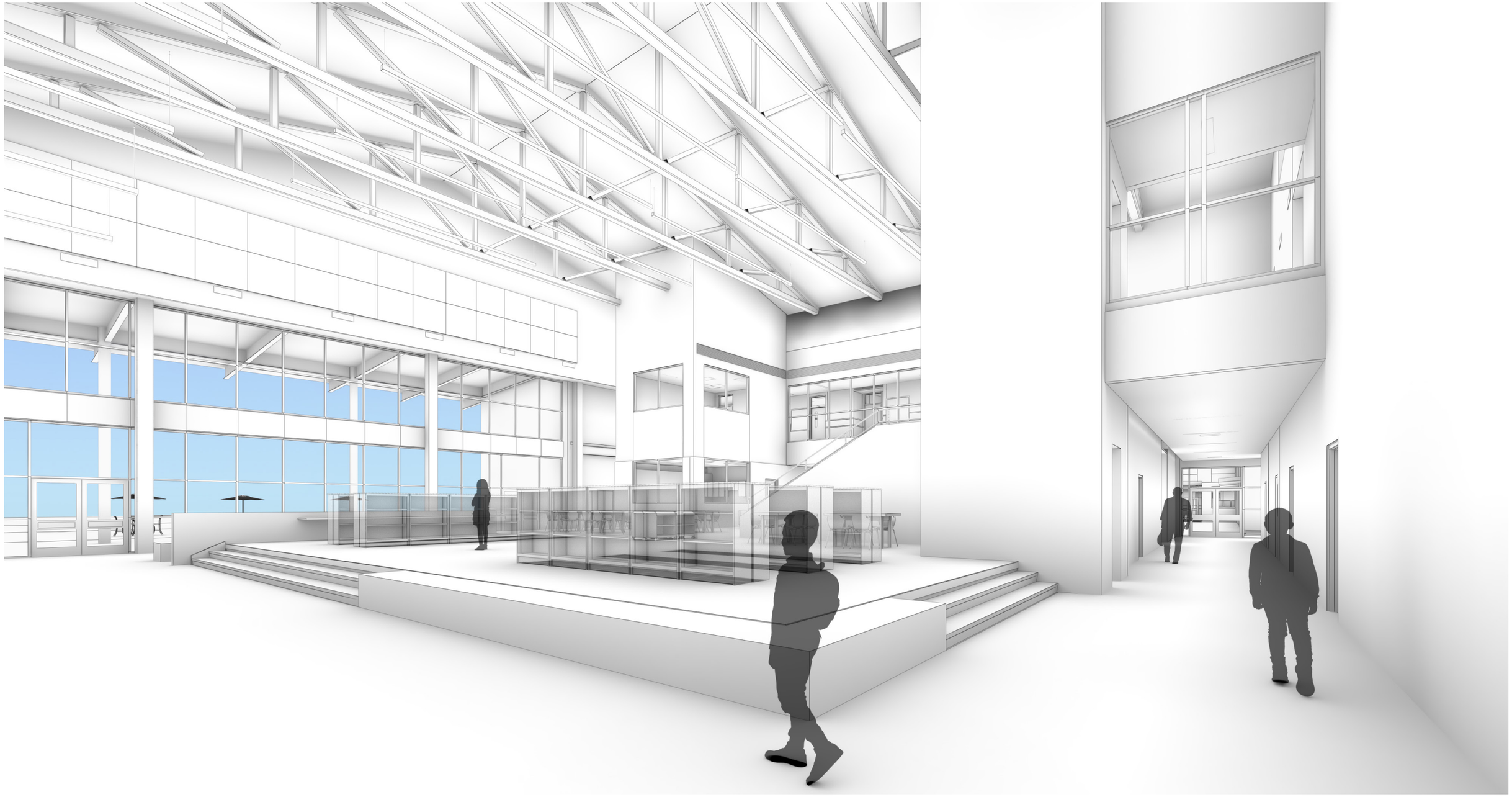
INTERIOR RENDERING - ENTRY VESTIBULE



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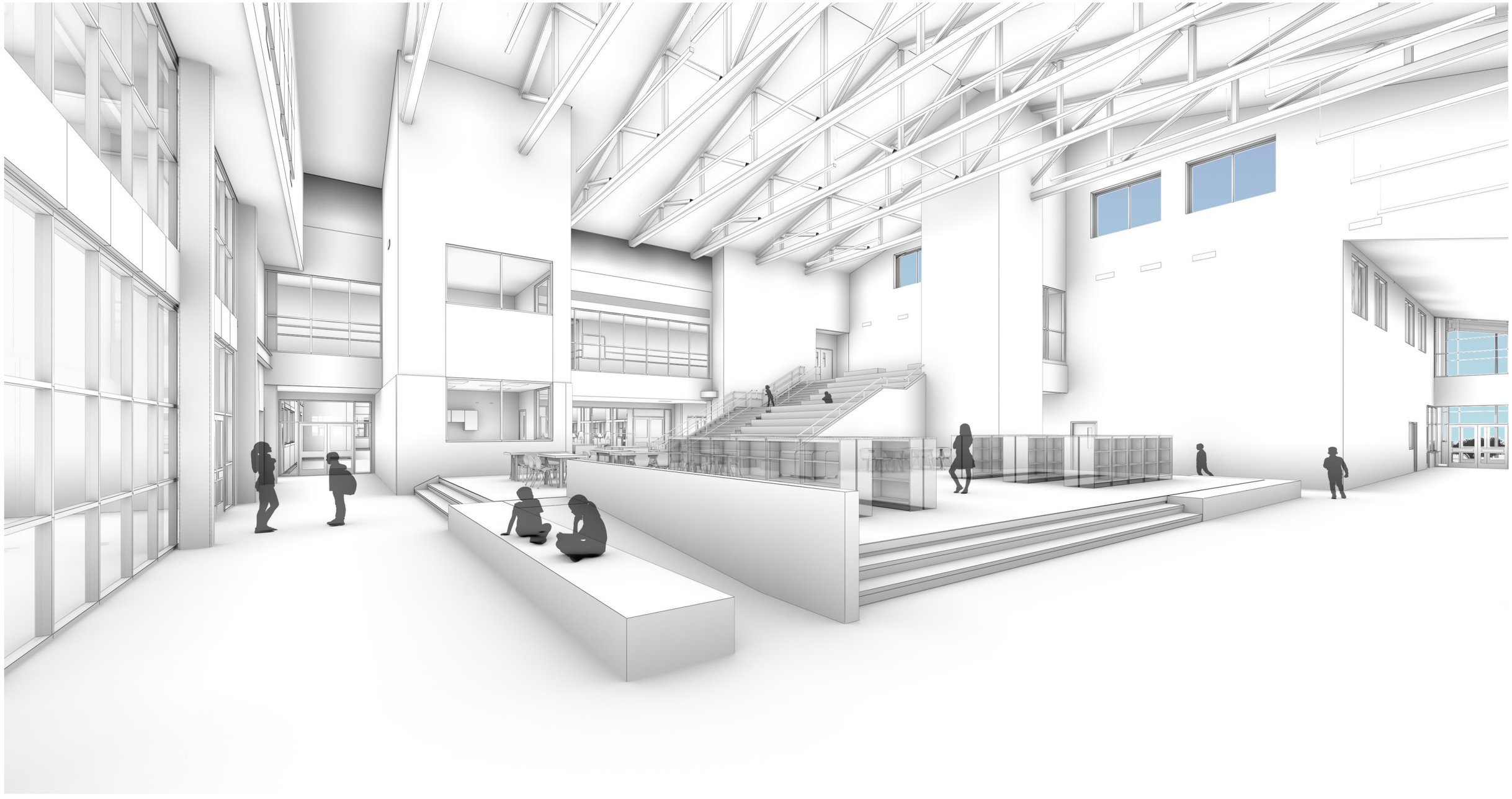
INTERIOR RENDERING - LIBRARY



Huckabee

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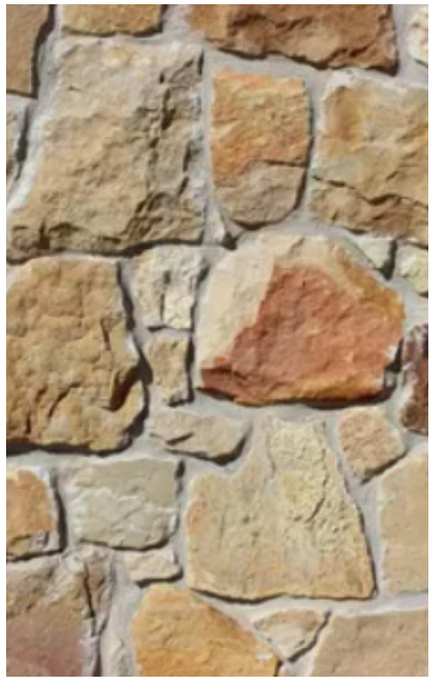
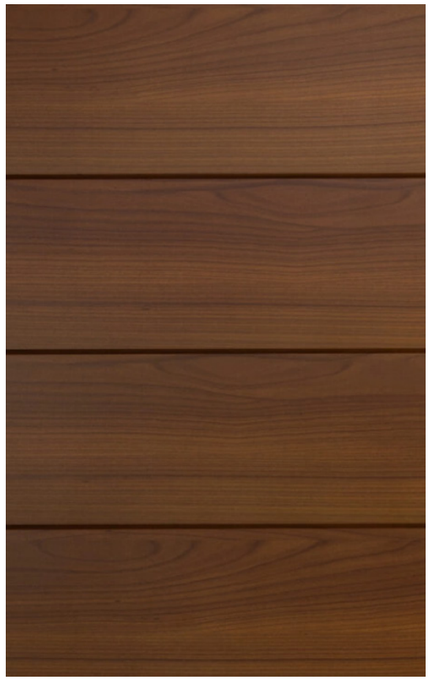
INTERIOR RENDERING - LIBRARY

SAN SABA
STONE BLEND

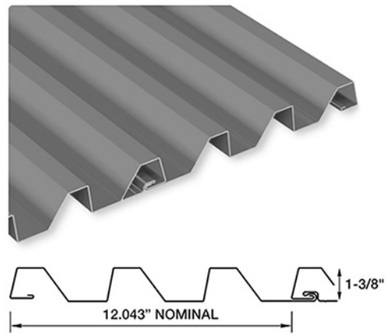


WOOD LOOK METAL
PANELS LONGBOARD
LIGHT CHERRY



METAL WALL PANELS
PAC CLAD
SILVER FINISH

METAL WALL PANEL
PROFILE



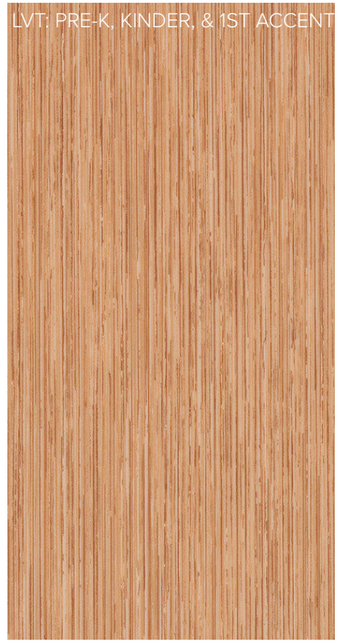
EXTERIOR GLAZING /
STOREFRONT
DARK BRONZE

CONTINENTAL CAST STONE
COLOR 1104

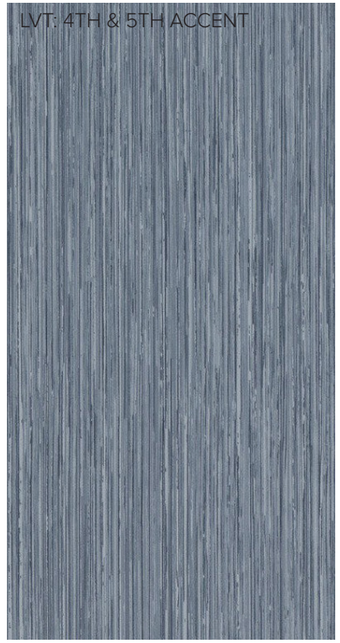
MORTAR COLOR SPECTRUM
TEXAS TAN - N


LVT: MAIN FIELD


LVT: ACCENT


LVT: PRE-K, KINDER, & 1ST ACCENT


LVT: 2ND & 3RD ACCENT

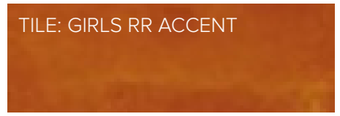

LVT: 4TH & 5TH ACCENT

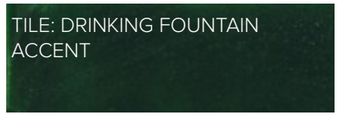

CARPET: ADMIN


CARPET: LIBRARY


WALL TILE: WAINSCOT


FLOOR TILE: RESTROOMS


TILE: GIRLS RR ACCENT


TILE: DRINKING FOUNTAIN ACCENT


TILE: BOYS RR ACCENT


TILE: RR MAIN FIELD


CARPET: WALK OFF


SOLID SURFACE: ART ROOM COUNTER/BACKSPLASH


SOLID SURFACE: RESTROOM SINKS


PAINT: MAIN FIELD


SOLID SURFACE: WINDOW SILLS


QUARTZ: RECEPTION COUNTERTOP


PAINT: HM FRAMES


TILE: TEACHER'S LOUNGE


PLASTIC LAMINATE: COUNTERTOP


PLASTIC LAMINATE: DOOR


RUBBER BASE

MORE THAN ARCHITECTS

NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION
MICHAEL A. MOROW, TX #25557