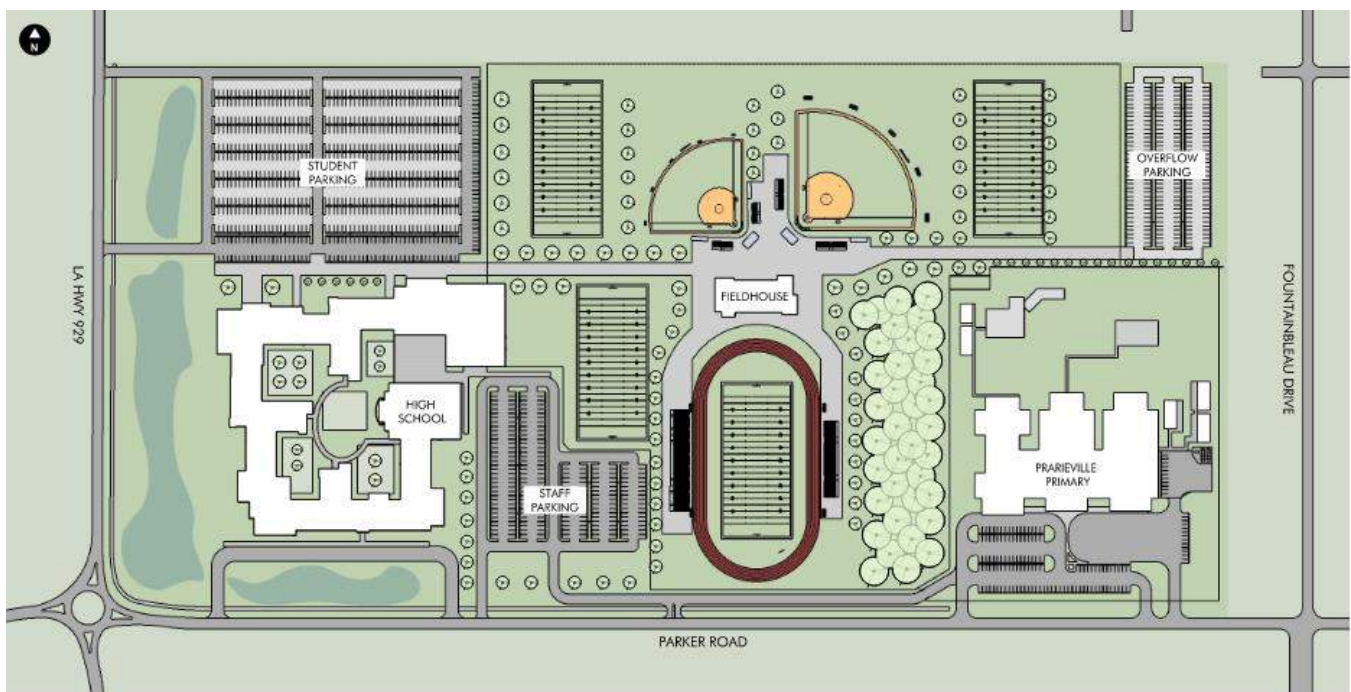


June 3, 2020

**MASTER PLAN DOCUMENTS**



ASCENSION PARISH SCHOOL BOARD  
**PARKER ROAD HIGH SCHOOL**  
Prairieville, Louisiana



# **PARKER ROAD HIGH SCHOOL MASTER PLAN**

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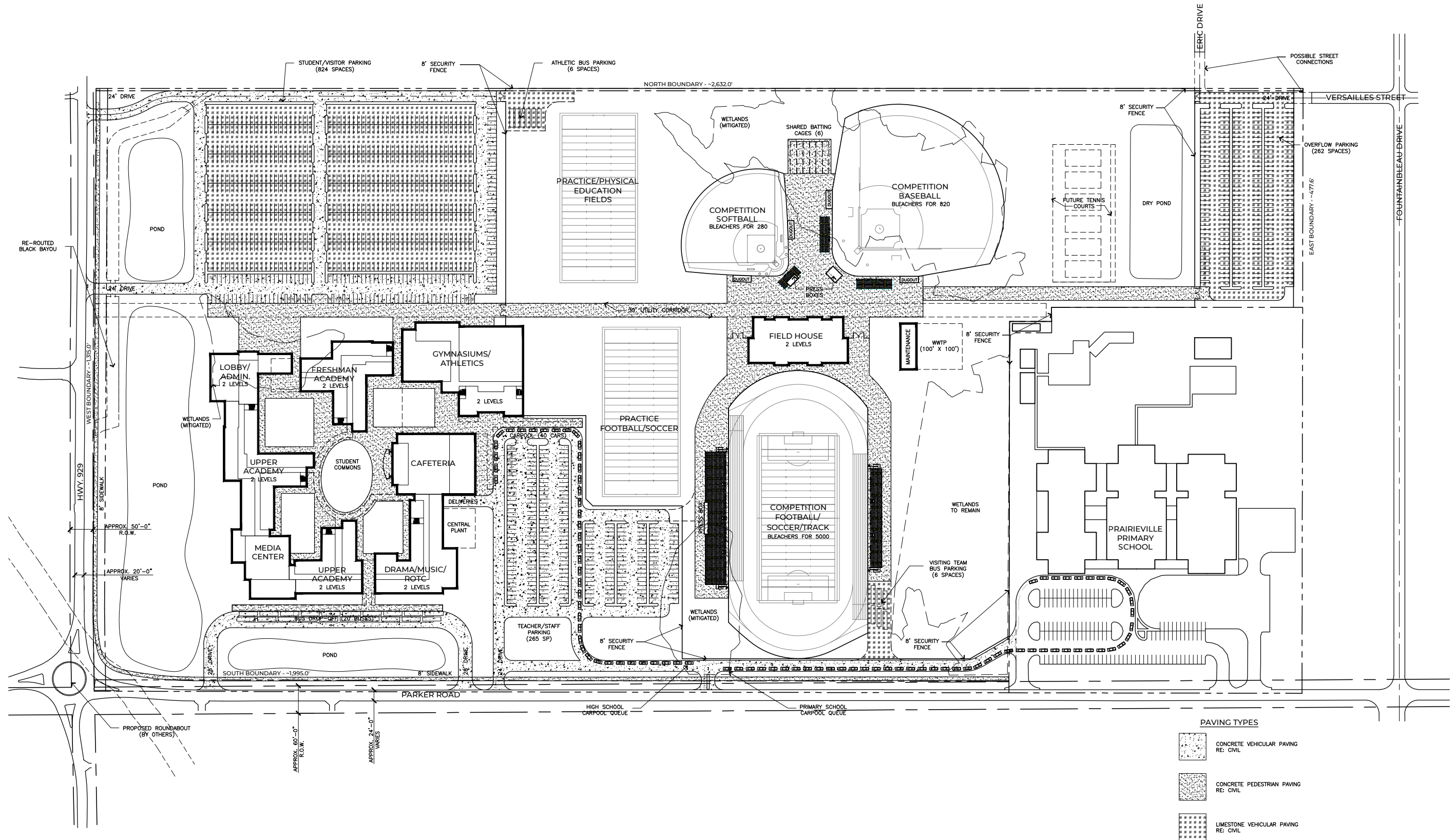
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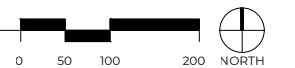
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1 SITE PLAN

1" = 100'-0"







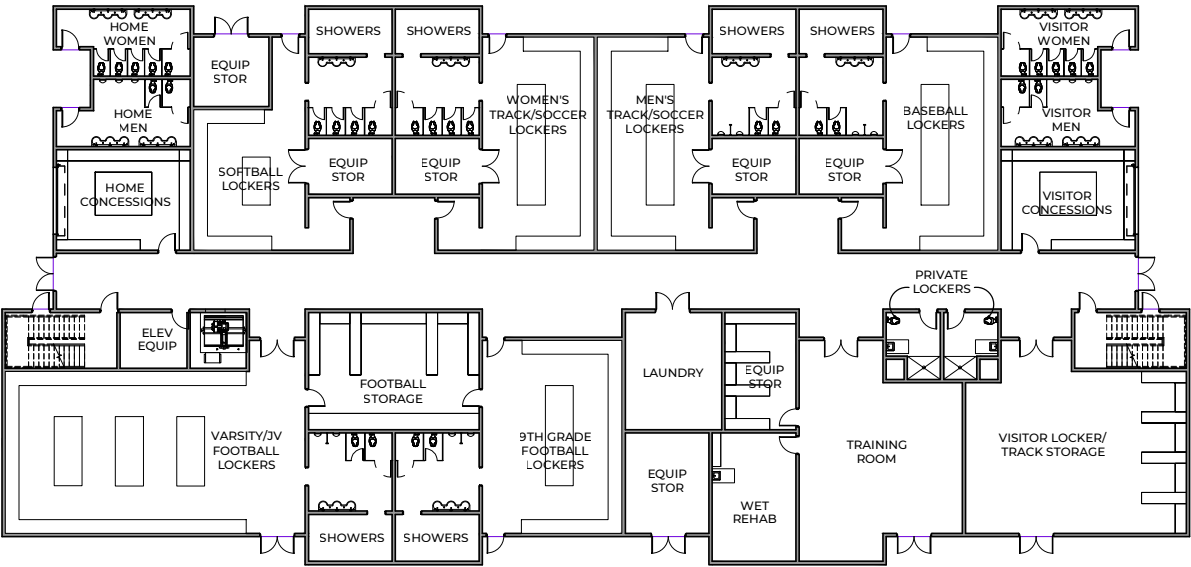

1 SECOND LEVEL FLOOR PLAN

1" = 40'-0" SECOND LEVEL BUILDING AREA - 107,785 GSF



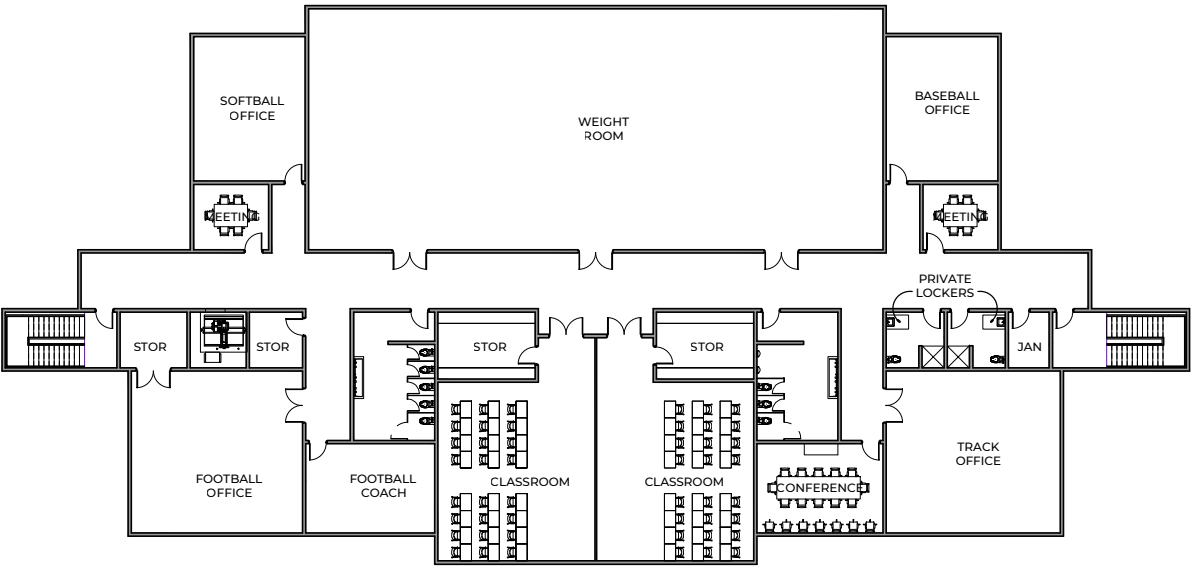
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1 FIRST LEVEL FLOOR PLAN

1/16" = 1'-0" FIRST LEVEL BUILDING AREA - 19,000 GSF



2 SECOND LEVEL FLOOR PLAN

1/16" = 1'-0" SECOND LEVEL BUILDING AREA - 15,360 GSF



REVISION	DATE









## **PARKER ROAD HIGH SCHOOL MASTER PLAN BUILDING SYSTEMS NARRATIVE**

### **1.0 PROPOSED BUILDING SYSTEMS**

The design of the building systems shall comply with the current APSB Design Standards and Education Specifications. Further clarification and additional detailed information follows:

#### **A. Architectural**

##### *Exterior Walls*

Brick veneer portland cement stucco, and/or metal wall panel finishes over continuous insulation, mounted on metal stud framing with exterior gypsum sheathing.

##### *Interior Walls*

Interior walls will be epoxy-painted, abuse-resistant gypsum board on metal studs in all areas. All exposed gypsum board corners will have applied corner guards. Interior storefronts and/or glazing shall be used at the media center, reception, and other appropriate areas.

##### *Ceilings*

Suspended Acoustical Ceilings with lay-in light fixtures will likely be used for the majority of the school due to acoustic needs. Limited gypsum board ceilings will be used in key/feature areas only or where otherwise required by the Design Standards. Minimum ceiling height criteria:

9'-0":	Except as noted below.
9'-4":	Corridors, Storage Rooms.
10'-0":	Media Centers.
12'-0":	Art Rooms.
14'-0":	Cafeterias.
20'-0":	Music Rooms
21'-0":	Primary School Phys Ed Rooms. (Outdoor Covered Play).

##### *Interior Classroom Doors*

Solid Core flush wood doors in a painted steel frame.

##### *Exterior Doors*

Typically painted flush steel doors in a painted steel frame. Storefront doors with insulated glass and laminated outboard lite in storefront frames in key/feature areas only.

##### *Millwork*

All millwork drawers and doors in the project will have locks, keyed alike per room. All millwork will include an appropriate number and location for grommets to allow for concealed routing of wiring.

##### *Toilet Partitions*

Solid phenolic core toilet partitions will be used. They will be floor mounted, overhead braced, with stainless steel anti-grip headrail and stainless steel boots. Doors will have continuous hinges. Urinal screens will be provided.

##### *Toilet Accessories*



Electric hand dryers shall be used in all student areas. Soap dispensers are to be integrated into lavatories, unless there is a need to use a single lavatory that does not provide it. In that case, soap dispensers will be OFCI.

#### *Restroom Floors*

Epoxy floors with integral base will be used in all restrooms.

#### *Roofing*

The roofing will be a low-slope (3/8"/foot minimum] SBS-mod bit roof over cover board, polyiso insulation, and sloped steel structure. Tapered insulation will be used only at crickets and other minor areas where sloped steel cannot be used.

#### *Finishes*

Likely finishes will be VCT in all classroom, corridor, and other student areas. Carpet tiles will be used at the media center, administration, conference areas, and music room. Walls will be painted gypsum board on metal studs.

#### *Windows*

Exterior glazing will be energy efficient aluminum systems, either storefront or curtainwall as is appropriate. Design team should consider the use of vandal resistant glass at strategic locations. Every window in the project will have a manual interior roller shade for improved glare control.

#### *Classroom Specialties*

All appliances, marker boards, tack strips, tack boards, and casework are to be provided and installed by the Contractor. Cameras, projectors, and interactive white boards (only where indicated) are to be OFCI. Where no white board is provided, there shall be a 6'-0"-wide removable section of dry erase board at the center to allow for the future white board installation. Power and data will be provided for future white board installation in all classrooms.

#### *Corridors*

Tackless Display Strips to be provided on all corridor walls. Provide data and power drop at specified intervals above ceiling in corridor for OFCI wireless hub.

### **B. Structural**

#### *Structural Design Criteria*

- Building Codes – The structure will be designed for the requirements of the 2015 International Building Code (IBC). For loading requirements, the referenced standard is ASCE 7-10 "Minimum Design Loads for Buildings and Other Structures".
- Structural Design Criteria - The following criteria will be used for the structural design:
  - Structure Designations – Category III (IBC Table 1604.5, ASCE Table 1.5-1)
  - Wind Loading
    - Ultimate Wind Speed – 137 mph
    - Exposure – B (urban/suburban terrain)
  - Seismic Loading
    - Importance Factor – 1.25
    - $S_s=10.6\%$ ,  $S_1=5.5\%$
    - Site Class T.B.D. based on Geotechnical Investigation
    - Seismic Design Category T.B.D.
  - Snow Loading – The site is located in an area that the design snow load,  $P_g$ , is 0 psf.
  - Live Loading
    - 100 psf uniform load (lobby, stairs, walkways, corridors, dining areas, mechanical, kitchen)
    - 50 psf (offices, restrooms)
    - 40 psf (classrooms)



- 150 psf (media, library, locker and weight rooms)
- Roof Live Load
  - 20 psf (joists and roof deck)
- Dead Loads
  - 15 psf Roof (Roof deck, cover, insulation, HVAC, plumbing, collateral)
  - 40 psf Floor (concrete on metal deck, HVAC, plumbing, collateral)
  - Any additional permanently mounted loads applied to structure

#### *Foundations*

The foundation system will be monolithic and will consist of a reinforced concrete slab, reinforced concrete grade beams (ribs), and reinforced concrete spread footings supported by either near surface soils or compacted engineered fill. Structural steel columns will be supported by the shallow spread footings. The shallow foundation system is contingent on finished floor being within 2 feet of existing grade. Slab depressions and slopes will be limited to what is required for the elevator, for special floor finishes in restrooms and kitchen, and for wash bays. No other interior slab areas will be sloped.

#### *Structural Framing*

The main building framing will consist of structural steel wide-flanged beams and wide flange or tube columns and 4" total thickness lightweight weight concrete over 1½" metal decking system. The deck/slab system will provide diaphragm transference of wind load to main frames and will be supported by either open web joists or wide flange beams spanning between main beams and girders. Maintenance-intensive buildings such as cafeterias, kitchens, and athletic buildings may utilize load-bearing concrete masonry units to support floor and roof framing.

#### *Main Framing Systems*

Will accept all upper level floor and roof loads and wind loads for transference to the foundation. Wind resistance will be provided by a combination of moment-connected steel framing, braced frames, or connection to reinforced masonry walls. As much as allowed by architectural considerations, braced frames will be utilized over moment connections to minimize column sizes. For glass curtainwall systems, back-up frames spanning vertically from floor-to-floor will transfer out-of-plane wind loads to the framing system for eventual dissipation into the foundation.

#### *Roof Diaphragm*

Will consist of 1½" deep corrugated galvanized metal decking, 20-gauge minimum thickness, secured by puddle welds or screws.

#### *Other Structures*

Other structures that may require design may include a transformer foundation, generator foundation, light pole foundations, and other mechanical equipment foundations. Additional foundations may include athletic grandstand foundations, athletic lighting foundations, and post-tensioned tennis courts. Athletic grandstand structures will be provided by a specialty supplier.

#### C. Heating, Ventilation, and Air Conditioning

The following codes and standards shall be applied to the HVAC design of this project:

- International Mechanical Code (IMC)
- ASHRAE Standards and Handbooks
- Applicable NFPA Standards (90A, 96, 101)
- International Plumbing Code (IPC)
- SMACNA Standards
- APSB Design Standards



The HVAC system sizing shall be based on 95°F DB/80°F WB outdoor summer conditions and 30°F winter conditions. The indoor temperatures shall be 72°F summer/ 70°F winter. The outside air design shall be in accordance with ASHRAE standard 62.1.

The following system components shall be the proposed basis of the HVAC design:

1. The chiller plant will consist of (3) 450-ton frictionless bearing water cooled VFD chillers with a 3-cell stainless-steel cooling tower. The cooling tower will be sized for 81-degree wet bulb with a 10% safety factor. A variable speed primary chilled water system will be used.
2. Two-way valves will be used throughout with a bypass valve for minimum chiller flow.
3. The heating system will be (3) condensing style boilers of sufficient capacity for the total campus load. A variable speed primary heating system would be used.
4. A heat recovery unit with a total enthalpy heat exchanger, building relief and outside air fans will be used to pre-treat the outside air supply to the building. The exhaust air in the classroom building will be run through the heat recovery unit. Outside air will be delivered to each classroom and occupied space. CO2 sensors will be provided in the occupied space to control the outside air supply to these spaces. The control system will monitor the outside and exhaust air to ensure that the building remains positively pressurized.
5. The electrical and IT rooms will be served by single zone cassette style heat pump systems.
6. The general classroom areas will be served by heating/cooling vertical fan coil units.
7. The Administration areas will be served by DX split systems.
8. The Corridors, storage and ancillary rooms will be served by constant volume heating and cooling units.
9. The Cafeteria, Gymnasiums, Media Center and larger music/theater spaces shall be served by chilled/heating water single zone air units and shall have a VFD to vary the fan speed based on load to conserve energy.
10. The kitchen shall be served by a constant volume chilled/heating water unit.
11. The Fieldhouse and Pressbox/Concessions areas will be served by DX split systems.

Housekeeping pads and vibration isolators will be provided under all floor-mounted equipment.

The air-handling unit, pump, and fan motors shall be premium efficient and shall be provided with pulse width modulated VFD's with manual bypass for VAV air-handling units\ and pumps. Airfoil fans and plug fans will be used in the air-handling units to maximize efficiency and minimize noise.

Toilet rooms and shower/locker rooms shall be ventilated at a rate of 50 CFM per water closet or urinal and 1 CFM per sqft..

The kitchen exhaust system shall be fully welded stainless steel per NFPA-96 and supply air make-up shall be provided for all hoods. The kitchen exhaust system shall be a VAV type system.

The fume hood exhaust system shall be fully welded stainless-steel run to a roof mounted up blast chemical resistant fan designed for a minimum plume height required by Code.

All medium pressure ductwork between the terminal box and the rooftop unit shall be sized based on acoustical the acoustical requirements. No duct velocity shall exceed 1500 FPM. The ductwork shall be constructed according to ASHRAE and SMACNA standards. Ductwork shall be galvanized steel insulated with 2" mineral fiber ductwrap. Exposed ductwork shall be double wall round or oval with factory register taps. The backs of all diffusers shall be insulated. Dynamic fire dampers shall be provided in penetrations of fire-rated partitions. Extruded aluminum outdoor air and exhaust air louvers with



drainable blades and bird screens shall be used. The air distribution system shall be designed for a noise criterion of 25 to 30 dB in the occupied spaces.

Hydronic piping 2-1/2" and larger shall be schedule 40 black steel. Piping 2" and smaller shall be type 'L' copper. Chilled water piping insulation shall be cellular glass minimum 2" thick up to 4" pipe size and 3" thick for pipe larger than 4". Outdoor piping shall be an additional 1" thicker than previously specified and contain aluminum jacket. Heating water piping shall be insulated with fiberglass pipe insulation. All hydronic piping shall be sized at a maximum 8 FPS or 4ft/100ft friction loss. All above ground piping shall be identified with type of service and direction of flow. Letter size, lengths and colors shall be per ANSI A13.1. Air separators and expansion tanks shall be employed to remove entrained air and control system pressures.

Controls shall be native BACnet tied into the APSB head end and shall allow for temperature control by means of wall-mounted temperature sensors in each zone. Time clock scheduling of occupied/unoccupied modes shall be provided for each zone. A timed override feature shall allow occupants to extend or return to the occupied setpoints by overriding the unoccupied schedule. VAV air-handling units will be controlled by a static pressure sensor located two-thirds down the longest duct run for each system.

A complete test and balance of all air systems shall be performed by a certified test and balance contractor. The test and balance shall be performed a minimum two weeks prior to final acceptance to ensure mechanical systems are fully functional.

D. Plumbing

The following codes and standards shall be applied to the plumbing design of this project:

International Plumbing Code 2015

ASHRAE Standard 90.1 – Energy Efficient Buildings

ASHRAE Handbooks

The Foundation for Cross-Connection Control and Hydraulic Research

APSB Design Standards

The plumbing portion of this project includes all piping systems within 5 feet of the building. A shut-off valve, water service meter with remote read-out and a reduced pressure backflow preventer shall be provided at the building domestic water service entrance. The domestic water sizing shall be based on the IPC tables. At a minimum a 4" domestic water main piping shall be utilized.

Natural gas piping shall be black malleable iron with threaded or butt-welded fittings. Underground gas piping shall be HDPE with fusion welded joints. Piping shall be installed in accordance with NFPA 54. Provide gas cock, union and dirt leg at each equipment connection. A 10% safety factor will be incorporated in the gas system sizing. Emergency shutoff solenoid valves shall be provided for the science labs.

All domestic water piping shall be copper, type 'L' above ground and type 'K' below ground with lead free solder. Domestic cold-water piping above ground shall receive minimum 1/2" mineral fiber pipe insulation with vapor barrier, thickness for hot water piping shall be as required by ASHRAE Standard 90.1. The water piping shall be designed for a maximum flow rate of 6 FPS.

Schedule 40 PVC plastic pipe, fittings and solvent cement per ASTM D 2665 shall be used for underground and above ground sanitary sewer, storm drain, and vent applications. PVC piping shall be equipped with approved fire-stopping devices as required by code. A minimum 1/4" per linear foot slope shall be maintained on all sewer piping. A grease interceptor sized per IPC codes (minimum 1000 gallon) shall be provided for the kitchen and point of use neutralization basins shall be provided for acid waste from the science room teachers sink and fumehoods.





The building sewer demand shall be based on the IPC tables. It is projected multiple 6" sewer mains will be provided.

The hot water demand per fixture shall be based on the ASHRAE tables as follows:

- Shower – 225 GPH
- Lavatory – 15 GPH
- Sink – 20 GPH
- Service Sink – 20 GPH
- Demand Factor – .4 GPH
- Storage Factor – 1.0

Sensor type faucets and flush valves shall be used for water conservation and compliance with ASHRAE 90.1.

The domestic hot water will be provided by natural gas fired point of use water heaters. The water heaters will have a minimum 94% thermal efficiency to minimize total energy consumption. A mixing valve will be provided at the kitchen water heater to ensure a maximum 110 °F hot water supply temperature for the hand wash and prep sinks and 140°F for the dishwasher and 3-compartment sink.

The fixture quantities shall be as indicated on the floorplans with the following fixture types:

- Sensor flush valve wall mounted water closets 1.6-gallon flush
- Sensor faucet lavatories
- Single compartment stainless steel sink
- Molded plastic mop sinks
- Wall hung sensor flush urinals 1.0-gallon flush

Other plumbing fixtures include the following:

- Wall mounted electric water coolers
- Non-freeze wall hydrants
- 4" deep seal floor drains in mechanical rooms
- Emergency shower/eye wash stations (tempered water supply and alarm)

Handicapped accessible fixtures shall be located throughout the building as required for ADA compliance.

Isolation valves shall be provided at each toilet room and at each major branch of water piping. Water hammer arrestors shall be provided at each fixture group.

All above ground piping shall be identified with type of service and direction of flow. Letter size, lengths and colors shall be per ANSI A13.1.

E. Fire Protection

The following codes and standards shall be applied to the fire protection design of this project:

- NFPA 13 – Automatic Sprinkler Systems
- NFPA 101 – Life Safety Code
- Louisiana State Fire Marshal Requirements
- International Building Code



The entire building shall be provided with an automatic sprinkler system. The building shall contain a wet –pipe sprinkler system with concealed heads.

Each building will have a 6" fire water riser (more than one where the building exceeds 50,000 sqft.).

All areas shall be light hazard occupancy except for storage, kitchen, equipment rooms, and janitor's closets which shall be ordinary hazard.

F. Electrical

*Building Electrical Service*

Utility company will provide a pad mount transformer adjacent to the main switchboard with utility metering mounted to the secondary side of the pad mount transformer. Service will be distributed to buildings from a main switchboard located in the main electrical room. The incoming service to all buildings on the site will be 277/480-volt which will be utilized as applicable for kitchen equipment, refrigeration equipment, HVAC equipment, mechanical equipment and will be stepped down through dry-type transformers to 120/208-volt for lighting, receptacles and miscellaneous equipment. Dry type transformers will be K13 rated and 120/208-volt panelboards will be provided with a 200% neutral bus to address electrical system harmonics. Transient voltage surge suppression will be provided on all switchboards and panelboards as needed for the application.

*Emergency Power*

Emergency power will be provided utilizing a natural gas fueled emergency generator with automatic transfer switch. The following devices will be on emergency power: life safety lighting, coolers, freezers, all voice/data system rooms, fire alarm system, security system, paging system and all restrooms lighting and power. A remote annunciator will be provided to ensure proper operation of the emergency generator system.

*Lighting*

2' x 4' volumetric type lay-in Louisiana classroom approved light fixtures will be used in the classrooms, 2' x 4' lay-in troffers with acrylic lenses will be used in the hallway, restrooms, storage rooms, janitor closets, etc. Suspended direct/indirect linear LED fixtures will be used in the Library. All 2' x 4' light fixtures will be an LED source with 3500°K, and minimum CRI of 80. 2' x 4' suspended LED high-bays will be used in the gymnasium and/or cafetorium. Light fixtures in classrooms will be provided with dimmer control to allow best lighting level for either smart board or video projector presentation. The light levels in the hallway will be a minimum of 10-foot candles, minimum of 20-foot candles in restrooms and a minimum level of 50-foot candles on desks in the classrooms. Occupancy sensors will be used for control of all interior spaces with lighting fixtures. Corridor lighting will be provided with occupancy sensors; however, several corridor lighting fixtures will remain on at all times to provide minimum lighting levels for security camera operation. Exterior building lighting will be provided with a photocell-controlled lighting contactor for each application.

*Site Lighting*

Parking lot lighting will be accomplished with 30' poles with area lights complimenting the low-level building lighting. Lighting will be provided at the underside of drop-off canopies and walkway covers. Exterior lighting will utilize LED source for maintenance and energy cost savings. Lighting will be provided with a photocell-controlled lighting contactor for each application. Parking Lots and all driveways will maintain 0.5-foot candles minimum on paved surfaces.

*Space Allocation*

Each floor of each building will be required to have a minimum of one (1) electrical room, large enough for a 227/480 V panel, dry-type transformer and low-voltage 120/208 V panel. Depending on the total



square footage of the floor, additional electrical rooms may be required. These typical rooms will be a minimum of 5'x8' or as needed for the application.

G. Special Systems

*Fire Alarm*

An addressable fire alarm system will be installed throughout the entire campus with a voice evacuation system in all areas. The system will be made up of pull stations, smoke detectors, duct smoke detectors, thermal detectors, audio/visual notification devices, etc. as needed for the application. All manual pull stations will be provided with a tamperproof clear shield cover with horn which is activated if cover is lifted. The main fire alarm control panel will be located in the Administration Area with the remote annunciator located at the school entrance. The facility's fire alarm will be third-party monitored. Two (2) dedicated POTS phone lines will be provided for monitoring of the fire alarm system. The specified system shall be designed to take full advantage of this capability and shall not have a "universal dialer".

*Video Surveillance CCTV System*

All video surveillance CCTV system shall be provided and installed by APSB. Conduits and data wiring will be provided at each camera location as directed by APSB and routed to the nearest IDF closet for future installation.

*Structured Cabling System*

Data services throughout the facility will be served by CAT 6A station cables and telephone services will be served by CAT 6A category, both services EIA/TIA 568 compliant structured cabling system, and as described in the latest issue of the APSB Wiring Specifications. The system will include trunk cabling between the entrance facility and all remote data closets in the building as well as horizontal cabling between patch panels in the telecom closets to their respective work area outlets. The main server room and each remote data closet will be provided with 84U data cabinets of sufficient quantity for the application as defined in the APSB IT specifications. Fiber optic cabling (two (2) six fiber multimode cables) will be provided to interconnect each remote data closet and the main server room for data services. Fiber and telephone cabling will be installed in inner duct and supported on 'J' hooks above the accessible ceilings and in EMT conduit above the inaccessible ceilings. Wi-fi access points will be provided ceiling mounted in every classroom and each multi-purpose space. Wi-fi access points will be provided in large areas (i.e. Gym, Dining, etc.) and will be wall mounted at 10'AFF. APSB will provide all wi-fi access point equipment including additional antennas for wall mounted devices as needed for the application. The Contractor will provide the data wiring solutions, connections and installation of each device. Each classroom will be provided with a total of six (6) data drop points. Two (2) wall mounted data drops at the teacher's desk, two (2) wall mounted data drops at the rear of the classroom, one (1) wall mounted data drop 30" off center toward the teacher's desk from the center of the teaching wall for the interactive smart board location and one (1) data drop above the suspended ceiling for Wi-fi access point.

*Audio/Video Systems*

Select rooms will have interactive smartboards installed, allowing display of multimedia content with audio reinforcement. APSB will provide the interactive smart board, wall mounts, connection cables, installation, testing and commissioning. The Contractor will only be required to provide the infrastructure for the interactive smart board.

*Paging & Central Sound System / Clock*

This system integrates the school PA, intercom, clock, tone generation, intercom, and scheduling into one integrated user environment. Intercom and PA announcements can be made over any of the connected admin handsets to any room or group of rooms, as selected. The intercom feature in the classrooms will include a call-in button feature to enable teacher initiation of intercom to admin. PA announcements can be made to all areas, including common areas. Integrated clock and tone messaging system allows for software scheduling of school start, class change, lunch, or other tone-base messages with unique tones for different functions, if desired. Clock system is automatically self-



correcting based on atomic central clock. Background music for common areas can be activated based on a schedule. System includes integrated CD/FM tuner for distribution, if desired. Clocks will only be provided midway of each classroom corridor and clocks will be double face digital style.

#### *Building Security System*

All building security system shall be provided and installed by APSB. Conduits, each with pull wire will be provided at each device location as directed by APSB and routed to the nearest IDF closet for future installation.

#### *Building Telephone*

This system will provide copper POTS lines to the building for phone system, fire alarm system and security system. Telephone locations will be provided in each administrative office and at locations of the fax machines and Time Out Room. Final locations will be determined as the design progresses. The Contractor will provide CAT 6A cables from each phone location to a punch down block adjacent to the telephone company demarc in the main server room. The APSB phone system provider will provide, install, test and commission the phone system and all instruments throughout the building. Cross connect between the telephone demarc and the individual phone locations will be performed by the APSB phone system provider. Contractor will provide interface connection point between the phone system and the intercom system as necessary. The Contractor will provide a system of empty conduits for use by the telephone company to provide the copper POTS lines and fiber optic cable system into the building.

### H. Landscape

#### *Tree Protection and Preservation*

A portion of the site is bordered by existing trees and vegetation. Tree protection and preservation will include construction best management practices (BMPs) required to preserve the quality and condition of any Live Oaks and other desirable tree species on the site. In addition, any naturalized shrubs or other shallow rooted plants that warrant preservation shall be protected by fences or barricades until completion of project. This is essential to the long-term protection of Progress Elementary School's environmental integrity. Removal and mitigation of vegetative species deemed noxious, hazardous, or invasive will be included in the landscape architect's recommendations.

#### *Outdoor Courtyard Design*

The Design Team will design the hardscape and softscape courtyard areas within the building configurations. These outdoor environments will be ecologically diverse, creative spaces that integrate nature into learning and play. These spaces will be set up for organized activities and creative play opportunities.

#### *Landscape Planting*

The Design Team will develop a detailed planting plan that involves both native and non-native plant species adaptive to the area and to project design considerations. Design considerations will include the following: utilization of bio-swales for drainage and water quality, building ingress and egress points, visual screening, parking tree planting to mitigate heat island effect, aesthetics, and maintenance. The landscape plans will depict the placement of plant materials, plant species, and size requirements necessary for the implementation.

#### *Landscape Irrigation*

An irrigation plan will be designed using hydraulic calculations to provide systematic watering to plants for their initial establishment and future needs. Overall limits of landscape irrigation will be determined during the design phase with an emphasis on areas around the building and courtyard.

## 2.0 **SITE ANALYSIS – CIVIL**



- A. Site Preparation:
1. The site will be cleared and grubbed as needed.
  2. The site will be prepared in accordance with the Geotechnical Investigation.
- B. Drainage:
1. The site will be drained primarily by a subsurface system and sheet flow where appropriate. The site will contain three “wet” detention ponds near the building and student parking and one “dry” detention pond near the overflow parking area.
  2. A Drainage Impact Study was performed and submitted to the Parish for review. The subsurface drainage system will be sized to follow Ascension's current drainage policy requirements.
- C. Drives & Parking: All drives and faculty parking are to be concrete ranging in thickness from 6” – 8” on an 8” – 12” stone base as required to support anticipated loads. The student parking will be gravel. A geotechnical investigation of the site was performed to determine pavement and gravel thicknesses.
- D. Site Utilities: The site is serviced by Ascension Water (water), Atmos (gas), Eatel (Telecommunication), Demco (Electricity), and is in negotiation for sewer. Ascension Parish will be performing upgrades to the Oak Grove Treatment Plant which services Hwy 42. If the improvements are completed prior to the completion of the school, the school will tie-in to the Parish's sewer system. If the improvements are not completed prior to construction, the school will utilize an on-site waste water treatment plant.
- E. Future/phased Work: Utility infrastructure shall be provided for additional classroom space (T-Bldgs). Size and number of temporary buildings to be determined as per site planning.



1. Sewer Permit

A. Option 1: Wastewater Treatment Plant

- i. Estimated construction cost is included in budget
- ii. 50,000 GPD Demand
- iii. Discharge limits from DEQ:
  - CBOD<sub>5</sub> limits of 5 mg/L (monthly average) and 10 mg/L CBOD<sub>5</sub> (daily maximum) will apply.
  - Ammonia limits of 2 mg/L (monthly average) and 4 mg/L (daily maximum), and dissolved oxygen (see LAC 33:IX.1123, Table 3) will apply.
  - Facilities will also be required to report total nitrogen and total phosphorus.
  - Email attached
- iv. Geotechnical investigation by Southern Earth Sciences included information needed for treatment plant

B. Option 2: Tie-in to Ascension Parish's line on Hwy 42

- i. Preferred option by School Board
- ii. Met with Parish about accepting the High School and Primary School
- iii. 65,000 GPD demand
- iv. Would require a sewer line to be installed from the site, along 929 and tie-in on Hwy 42.
- v. Parish does not have enough capacity currently, but is planning an expansion of the Oak Grove plant and will account for discharge from both schools in upgrade.
- vi. Will require coordination with Parish during design to determine if this is a viable option
- vii. Email attached

C. Parish Contacts:

- i. Steve Bellelo - [SBellelo@apgov.us](mailto:SBellelo@apgov.us)
- ii. Gavin Fleming - [gffleming@apgov.us](mailto:gffleming@apgov.us)

2. Driveway permit

A. Met with Tacie Rabalais with Ascension Parish and she has offered input and is on board with design.

- i. Tacie required the north, student driveway along Hwy 929 to be shifted south for sufficient offset (40') from neighboring driveway
- ii. Bus driveway is far enough away from the future roundabout (minimum offset of 50')
- iii. Email attached

B. Have discussed plans with Lance Brock (via phone) with Ascension Planning and Zoning and he offered no objections to plans

- i. Email attached

C. Preliminary plans were sent to Planning and Zoning in January 2020. Will need a Traffic Impact Study and Construction Drawings for final approval.

- i. Preliminary drawings attached

D. Parish Contacts:

- i. Tacie Rabalais - [Tacie.Rabalais@apgov.us](mailto:Tacie.Rabalais@apgov.us)
- ii. Lance Brock - [Lance.Brock@apgov.us](mailto:Lance.Brock@apgov.us)

3. Drainage Impact Study
  - A. A drainage impact study was performed for stormwater detention on-site and re-routing of Black Bayou
  - B. Black Bayou's rerouting was discussed in a meeting with the school board and Ascension Parish and was recommended by Ron Savoy, DPW.
  - C. Report was submitted for preliminary approval and will be confirmed during final design. Any revisions to the design must be submitted to the Parish for approval.
  - D. Ascension ERA has approved the review of the stormwater detention model and existing conditions HEC-RAS model
  - E. Ascension ERA is currently reviewing the proposed conditions HEC-RAS model
  - F. Parish Contacts
    - i. Jerome Fournier – JFournier@apgov.us
    - ii. Ron Savoy – Ron.Savoy@apgov.us
    - iii. Shaun Sherrow (CSRS – Ascension ERA) - shaun.sherrow@csrsinc.com
4. Finished Floor Elevation
  - A. Closest applicable BFE was determined to be 20' by Marcia Shivers, Floodplain Administrator.
    - i. Email attached
  - B. Minimum FFE per Parish Ordinances is BFE + 2' or elevation 22'.
  - C. Parish Contacts – Marcia Shivers - Marcia.Shivers@apgov.us
5. Wetland Permit
  - A. T Baker Smith is handling Section 404 permit
  - B. GSA provided permit drawings
    - i. Permit drawings attached
  - C. USACE will require submittal of approved Drainage Impact Study
  - D. T Baker Smith Contact - Brady Trahan - Brady.Trahan@tbsmith.com
6. Fill Concerns
  - A. A portion of the north side of the building will require more than 2' of fill which will require additional structural components per Geotechnical Report
  - B. Fill Permit will be required during Final design phase
  - C. Construction Documents and fill calculation will need to be submitted to Parish for review
  - D. Fill cannot exceed 3' average and in no instances shall it be higher than 4'
    - i. This should be attainable.
    - ii. Exceptions can be made for fill placed within a drainage feature i.e. ditch
      - The existing low area is a wetland.
  - E. Have not begun fill permit efforts, will need a final site plan to calculate fill amount

PROJECT:					DATE:	
Opinion of Probable Construction Costs						
Parker Road High School					28-May-20	
LOCATION:					REVISION:	
Prairieville, LA					50% SD	
JOB NO.:						
C17-0005						

**Design Parameters / Assumptions**

Building Design is approximately 55,000 SF more efficient than programmed

Steel Frame Construction with infill Steel Studs and Sheetrock

Exterior Comprised of 75% Mansorry / 15% Stucco / 10% Fenestrations

Modified Bitumen Roofing System on Low-Slope Roof

Gravel Student Parking

Shallow foundation (See Drilled Caissons below)

Included Lime treatment under building

Included Waste Water Treatment Plant on site

Artificial Turf under separate contract

MASTER PROJECT SUMMARY						
DESCRIPTION		UNITS		COSTS		TOTAL
	DIV 1 - GENERAL CONDITIONS				Item Total	\$ 1,125,652.50
	MAIN BUILDING				Item Total	\$ 33,376,848.51
	No Site/ No Div 1					
	GYMNASIUM				Item Total	\$ 7,153,122.81
	No Site/ No Div 1					
	CAFETORIUM				Item Total	\$ 4,234,636.07
	No Site/ No Div 1					
	LOCKER ROOMS & OFFICES / CONCESSIONS / RESTROOMS				Item Total	\$ 4,639,167.86
	No Site/ No Div 1					
	SITEWORK / UTILITIES				Item Total	\$ 14,102,501.96
	ATHLETIC FIELDS				Item Total	\$ 3,656,882.25
	No Site/ No Div 1					
Project Total:				\$68,288,811.96		
Total Project Cost/SF Breakdown				\$ 205.09		
Cost/SF Breakdowns:		Total SF	Total Cost +GenConditions		Cost/SF	
Building Construction Only				332,965	\$ 50,529,427.75	\$151.76
no site / ball fields included						
Possible Site Contingency / \$680,000.00						
DRILLED SHAFTS (Not Expected)					Item Total	\$0.00
	Main Building	SF		13.50	\$0.00	
	Gymnasium	SF		13.50	\$0.00	
	Cafetorium	SF		13.50	\$0.00	
	Field House	SF		13.50	\$0.00	
LIME TREATMENT					Item Total	\$ 680,000.00
	Lime Treatment (12") under pavement	85,000	SY	\$8.00	\$ 680,000.00	
Site Contingency Project Total:				\$68,968,811.96		