FACILITIES, PLANNING, AND CONSTRUCTION ORGANIZATIONAL CHART

Organizational Chart: Facilities, Planning, & Construction

- Deputy Superintendent
  - Leslie Haack
    - Deputy Superintendent
- Facilities, Planning, & Construction
  - Lilliana Gonzales
    - Financial Manager
  - Victoria Escobar
    - Financial Clerk
  - Art Campbell
    - Construction Project Manager
  - Megan Connell
    - Construction Project Manager
  - Scott Waller
    - Construction Project Manager
  - Ryan Iwotzka
    - Construction Project Manager
  - Trey Barnett
    - Associate Project Manager
  - Allan Patrick
    - Associate Project Manager
  - OPEN
    - Associate MEP Project Manager

- Leslie Adams
  - Administrative Assistant
- Lisa Baldwin
  - Building Specialist
• Project managers have a variety of backgrounds and include experience with contractors, program managers, and architects.
• Project involvement starts at inception (during bond planning process) and continues through one year after project is completed.
In April 1998, Katy ISD initiated a Long Range Facilities Plan to ensure that all learning and support facility needs would be met in an organized and comprehensive manner.

This multi-faceted needs assessment for both new and existing facilities provided perspective from a wide range of facility stakeholders.

The plan served as a foundation for the 1999 Bond Planning Committee and was designed to cover a “sliding” ten year period with subsequent updates to respond to growth and changes.
NEW SCHOOLS
LAND

• Demographic projections identify where land is needed for schools
• Ideally, purchase is made at least a year in advance
• Purchasing process – work with commercial realtor (20 year relationship with Katy ISD)
  ➢ utilities
  ➢ drainage
  ➢ roadways
• Land size:
  ➢ High school – 100 acres
  ➢ Junior high – 30 acres
  ➢ Elementary – 13-15 acres
CONSTRUCTION SCHEDULE

• Typical timeframes for design and construction:
  ➢ Elementary school – repeat design – 20 to 22 months
  ➢ Junior high school – repeat design – 25 to 28 months
  ➢ High school – repeat design – 36 to 40 months

• Within these timeframes are Board of Trustees meetings to obtain design approvals and contract approvals
A new design was developed in 2014 to reflect 21st century learning, particularly collaboration spaces including learning stairs.

Prototype – a first model of something from which other forms are developed or copied. The current prototypes were developed for the 2014 Bond as follows:

Elementary: Jenks (38), Bethke (39), and now Elementary #43; previous prototype was repeated eighteen (18) times.

Junior High: Stockdick (15), Adams (16), and now Junior High #17 (recently bid); previous prototype was repeated five (5) times.

High School: Paetow (8) and Jordan (9); previous prototype was repeated three (3) times.
The original design is modified based on input from various departments to ensure the facility meets students’ needs as well as adapting to site conditions.
OLGA LEONARD (42) ELEMENTARY
EXISTING CAMPUSES
OPTIONS FOR ADDRESSING CAMPUS NEEDS

• Work order submitted to Maintenance department for immediate/emergency needs
• Routine preventative maintenance (Maintenance department)
• Building modifications (via annual budget process for the General Operating Fund)
• Bond funding
CAPITAL CONSTRUCTION PROJECTS
BOND FUNDED PROJECT PROCESS

Questionnaire to campuses and departments

Data collected and categorized by:
- Facility type
- Source/campus/department
- Recommended replacement year
- Rationale
- Discipline

Prioritization
- Priority 1: needs to be addressed in the next three (3) years
- Priority 2: needs to be addressed in the next five (5) years
- Priority 3: needs to be addressed in the next ten (10) years

A facility assessment was recently completed for our mechanical, electrical & plumbing systems to complement the questionnaire
COMPREHENSIVE RENOVATION COMPONENTS

- Roof and building envelope (exterior walls, doors, windows)
- Mechanical systems – heating and air conditioning
- Electrical
- Plumbing
- Interior finishes – paint, flooring
- Review building space and programs for any modifications

Scope of work considerations:
  - Combine component replacements for cost effectiveness
  - Consider minimizing disruption to campus when planning
FACILITY EXPANSIONS — SUPPORTS GROWTH & PROGRAM

Building Additions:
• Fine Arts — junior high music room additions (2002 Bond)
• Supported by growth – Sundown and Mayde Creek Elementary Schools (2006 Bond)
• Mayde Creek High School natatorium
• Stabilized growth supports replacement of portable buildings with brick and mortar – Memorial Parkway Elementary (2014 Bond)
• Athletics – Cinco Ranch High School field house (2014 Bond)
• Katy High School Career and Technical Education (CTE) (2017 Bond)
PHYSICAL PLANT COMPONENT REPLACEMENT
MAINTENANCE & OPERATIONS DEPARTMENT

Chillers and air handlers
Building envelope: roofing and waterproofing
Flooring
Lighting retrofits
Generators/fire alarms/intercoms
Doors and hardware
Pools: lighting and flooring
Elevators
Fencing and gates
Vehicle Stacking
- Traffic studies are required for not only new or renovation projects but portable buildings as well. The outcome of these studies may call for physical changes and improvements to campuses.

Unforeseen Conditions
- Required provision and connections of necessary utility work and facilities (i.e., water, sewer, drainage, road, communication) to serve the school sites and associated new schools. Specific work may be required as part of property acquisition well in advance of building.
COSTS
TOTAL PROJECT COST COMPONENTS

Design – architect/engineer fees
Construction cost/general contractor
Non-contract cost
Furniture, equipment and technology
Design - Architect

Architect – professional service – by law, Texas Government Code 2269, services cannot be bid

Fee is typically based upon percentage of construction cost

Why is there a cost at all for a repeat design?

- Unique site conditions must have new civil designs and each require construction administration services by architect and consultants

- Other minor changes and code changes are also reviewed prior to finalizing the construction documents
DESIGN CONSIDERATIONS

Katy ISD prototype is basis for both new schools and renovations

For existing campuses, parity is goal within existing footprint

Review of design with department heads to confirm program is being met
  • Collaboration areas – pods, learning stairs

Review of building materials to insure durability and energy savings

Safety & Security
CONSTRUCTION COST - GENERAL CONTRACTOR

Budgeting Components:

- Square footage of facility
- Cost per square foot applied based upon project scope
- Construction inflation
- Over budget: Value engineering and other cost reduction initiatives can be introduced

Cost sources:

- Katy ISD historical – Primary source
- Local (other area school districts)
- Outside resources (i.e., Association of General Contractors, architects)
CONSTRUCTION DELIVERY METHODS

Based upon the Texas Government Code 2269 and the nature of the project (i.e., new school versus renovation), the following are construction delivery methods typically utilized:

• **Competitive Sealed Proposal (CSP)** – Contractor selected once construction documents are fully complete

• **Construction Manager at Risk (CMaR)** – Contractor involved early on with design team to address project complexities
NON-CONTRACT COSTS
(NOT COVERED UNDER GENERAL CONTRACTOR)

Construction non-contract:
  - Builders risk insurance premium
  - Costs associated with moving portable buildings
  - MUD fees
  - Utility connection fees
  - Utility costs for project
  - Maintenance items – fire extinguishers, soap dispensers
  - Contingency
  - Owner held contracts – turf, track, shade structures
  - Asbestos abatement
  - Permits

Architect/engineer non-contract:
  - Geotechnical
  - Environmental
  - Traffic engineer
  - Materials testing
  - Test and air balancing
  - Third party code review
  - Texas Dept. of Licensing & Regulation (TDLR) review
  - Contingency
  - Surveying
  - Plat fees
  - Commissioning
FURNITURE, EQUIPMENT & TECHNOLOGY

Desks
Furniture for collaboration areas
Library materials
Lab materials
Musical instruments
Program materials
Technology – computers, copiers, cameras, interactive devices
QUALITY ASSURANCE

Once the project has been bid and construction starts, Katy ISD continues to:

▪ Review all estimates and change requests in depth
▪ Review project billings in depth each month to ensure we are not being overbilled
▪ Review documents continuously for efficiency in construction dollars including cost reduction initiatives
▪ Schedule weekly or bi-weekly meetings to track progress of schedule and document approval. School opening dates cannot move
▪ Track schedule milestones for utility connections and move-in of furniture and equipment prior to staff occupancy
## 2017 Bond Breakdown

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>New schools</td>
<td>$448,677,921</td>
<td>74%</td>
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<tr>
<td>Comprehensive renovations</td>
<td>$20,854,960</td>
<td>3%</td>
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<tr>
<td>Component replacement</td>
<td>$51,983,894</td>
<td>9%</td>
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<tr>
<td>School expansions</td>
<td>$15,414,210</td>
<td>3%</td>
</tr>
<tr>
<td>Safety &amp; security improvements</td>
<td>$16,710,436</td>
<td>3%</td>
</tr>
<tr>
<td>Technology</td>
<td>$31,692,694</td>
<td>5%</td>
</tr>
<tr>
<td>Other (buses, portables, fuel tanks)</td>
<td>$23,870,438</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$609,204,553</strong></td>
<td><strong>100%</strong></td>
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### 2017 Bond New School Rollout

<table>
<thead>
<tr>
<th>Year opened/projected</th>
<th>Campus</th>
<th>LUZ/location</th>
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<tbody>
<tr>
<td>2018</td>
<td>Elementary #41</td>
<td>73J / Cross Creek Ranch</td>
</tr>
<tr>
<td>2019</td>
<td>Elementary #42</td>
<td>Morton Road</td>
</tr>
<tr>
<td>2019</td>
<td>Junior High #16</td>
<td>73C / Cross Creek Ranch</td>
</tr>
<tr>
<td>2020</td>
<td>Elementary #43</td>
<td>2 vicinity / Elyson</td>
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<tr>
<td>2020</td>
<td>High School #9</td>
<td>73C / Cross Creek Ranch</td>
</tr>
<tr>
<td>2021</td>
<td>Junior High #17</td>
<td>10B / Clay Road</td>
</tr>
</tbody>
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2017 BOND PROJECTS

Fielder Elementary renovation
Katy High School Career & Technical Education addition and renovation
Vehicle Stacking/driveway expansions at Bear Creek and Mayde Creek Elementary and the Morton Ranch complex
Outdoor Learning Center renovation
Cinco Ranch High School serving line; Cinco Ranch Junior High serving line and kitchen; and floral coolers at Cinco Ranch, Morton Ranch, Seven Lakes, and Tompkins High Schools
Raines High School expansion
Above ground fuel tanks at East and West Transportation Centers
Campbell Elementary
High School #9
Cinco Ranch High School Serving Lines
OUTDOOR LEARNING CENTER
Outdoor Learning Center Additions + Renovations / Design Development

**Proposed Site Development**

- New Social Studies Building
- New Science Building
- New Outdoor Learning Pavilion
- New Caretaker Cottage
- New Pavilion w/ Storage & Restrooms
- New Pond
- Existing Barn - Renovate
- Existing Pond - Dredge and clean

**Proposed Location**

- New Social Studies Building
- New Science Building
- New Outdoor Learning Pavilion
- New Caretaker Cottage
- New Pavilion w/ Storage & Restrooms
- New Pond
- Existing Barn
- Existing Pond

**Existing Location**

- Barn
- Pond

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Stantec

Katy Independent School District
OUTDOOR LEARNING CENTER

PROPOSED MAIN ENTRY VIEW

RENOVATION
SAFETY & SECURITY
ACCESS CONTROL SYSTEM

• LOCK DOWN / LOCKOUT
• All Exterior Doors
• Keyless access control
VULNERABILITY
DOOR PROPPED OPEN ALARMS
SAFETY & SECURITY ANALYSIS CENTER (SSAC)

24/7 Monitoring
THIS CONCLUDES OUR PRESENTATION

THANK YOU FOR COMING TODAY!