WELCOME
2023 COMMUNITY BOND ADVISORY COMMITTEE!

March 29, 2023
WHY BOND 2023 NOW?

● Welcome

Bond History
● 3 to 4 year bond cycle for campus renovations, safety, technology, new schools

● Spring 2020 bond committee postponed due to COVID

● May 2021 bond election

● Current enrollment growth & PASA demographic projections driving the need for new schools

● Goal is to:
  ✓ open future schools on time for kids and effectively manage campus capacities
  ✓ develop a zero tax rate increase schools bond package
<table>
<thead>
<tr>
<th>YEAR</th>
<th>AMOUNT</th>
<th>YEAR</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>$90 MM</td>
<td>Nov 2010</td>
<td>$459.8 MM</td>
</tr>
<tr>
<td>5 new schools</td>
<td></td>
<td>8 schools, renos</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>$130 MM</td>
<td>Nov 2013*</td>
<td>$99 MM</td>
</tr>
<tr>
<td>4 new schools</td>
<td></td>
<td>student activity facilities</td>
<td></td>
</tr>
<tr>
<td>Oct 1999</td>
<td>$324.4 MM</td>
<td>Nov 2014</td>
<td>$748 MM</td>
</tr>
<tr>
<td>6 new schools, PACs</td>
<td></td>
<td>6 schools, student activity facilities</td>
<td></td>
</tr>
<tr>
<td>Oct 2002</td>
<td>$315.6 MM</td>
<td>Nov 2017</td>
<td>$609.2 MM</td>
</tr>
<tr>
<td>8 new schools</td>
<td></td>
<td>6 schools, renos, safety, technology</td>
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<tr>
<td>May 2006*</td>
<td>$261.5 MM</td>
<td>May 2021</td>
<td>$676.2 MM</td>
</tr>
<tr>
<td>6 new schools, renos</td>
<td></td>
<td>5 schools, renos, safety, technology</td>
<td></td>
</tr>
<tr>
<td>Nov 2006 -</td>
<td>$269.5 MM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 new schools, renos</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WELCOME FROM THE CBAC CHAIR

Alejandro Avendano
Bond Chairperson
Greg McIntyre
Facilitator
greg@transcend4.com
AGENDA

- WELCOME: BOARD PRESIDENT AND SUPT
- WHY BOND 2023 NOW
- PROCESS OVERVIEW
- KATY ISD ENROLLMENT
- TEACHING AND LEARNING
- LONG-RANGE FACILITIES PLAN
- BUILDING COMPONENTS
- FINANCIAL CAPACITY
- TABLE TALK WITH Q&A
- CLOSING
AGENDA

Meeting #1
Welcome
Process, timeline, vision, end goal
Decision Making Model
Demographer Report
Connecting the Dots
Long-Range Facilities Plan
School Finance

Meeting #2
FAQ’s and Clarifications
New and Existing Schools
Component Replacement
Technology Overview
Safety and Security
Bond Proposal Overview

Meeting #3
FAQ’s and Clarifications
Bond Proposal Detail
Mock Vote (paper/pencil)

Meeting #4
FAQ’s and Clarifications
Opinion Poll
Required Ballot Verbiage
Vote by Proposition (CoVoice)
Communication/Next Steps
<table>
<thead>
<tr>
<th>Name</th>
<th>Occupation</th>
<th>Connection to KISD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>● What makes Katy ISD such a great district?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● What makes Katy ISD so unique and special?</td>
</tr>
</tbody>
</table>
HOUSEKEEPING

• All relevant materials and information will be distributed to you as handouts.

• Due to time constraints, no breaks have been scheduled. Please take care of your personal needs on your own.

• The Katy ISD leadership team is here to serve you and to be a resource. Ask questions.

• Your attendance at every meeting will help yield optimum results for this committee and your community.
GROUND RULES

- Only one speaker at a time
- Respect the person who is speaking
- Listen with a desire to contribute & learn
- Engage in the ENTIRE meeting
Q&A PROCESS

● Each table will discuss the information presented and select one question to ask.

● Unanswered questions or concerns will be placed on the ‘parking lot’ to be answered later via email at bond@katyisd.org.
## CONSENSUS & GRADIENTS OF AGREEMENT

<table>
<thead>
<tr>
<th>ENDORSEMENT</th>
<th>ENDORSEMENT WITH A MINOR POINT OF CONTENTION</th>
<th>AGREEMENT WITH RESERVATIONS</th>
<th>ABSTAIN</th>
<th>STAND ASIDE</th>
<th>FORMAL DISAGREEMENT, BUT WILLING TO GO WITH THE MAJORITY</th>
<th>FORMAL DISAGREEMENT, WITH REQUEST TO BE ABSEOLED OF RESPONSIBILITY</th>
<th>BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I like it.”</td>
<td>“Basically, I like it.”</td>
<td>“I can live with it.”</td>
<td>“I have no opinion.”</td>
<td>“I don’t like this, but I don’t want to hold up the group.”</td>
<td>“I want my disagreement noted in writing, but I’ll support the decision.”</td>
<td>“I don’t want to stop anyone else, but I don’t want to be involved in implementing it.”</td>
<td>“I veto this proposal.”</td>
</tr>
</tbody>
</table>

This scale makes it easier for participants to be honest. Using it, members can register less-than-whole-hearted support without fearing that their statement will be interpreted as a veto.
DYNAMICS OF GROUP DECISION-MAKING

[ BUSINESS AS USUAL ]

[ CLOSURE ZONE ]

NEW TOPIC

GROAN ZONE

CONVERGENT ZONE

TIME

DECISION POINT

The Diamond of Participatory Decision-Making
<table>
<thead>
<tr>
<th>Binder Tab</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab 6:</td>
<td>Committee Process &amp; Overview</td>
</tr>
<tr>
<td>Tab 7:</td>
<td>Katy ISD Demographic Study/ PASA Student Enrollment</td>
</tr>
<tr>
<td>Tab 10:</td>
<td>Connecting the Dots with Teaching, Learning &amp; Facilities</td>
</tr>
<tr>
<td>Tab 11:</td>
<td>Long-Range Facilities Plan/Facility Assessment Overview/Long-Rang Facilities Plan and Process for Projects</td>
</tr>
<tr>
<td>Tab 12:</td>
<td>Building Life-Cycle Replacement Schedule/Maintenance &amp; Operations</td>
</tr>
<tr>
<td>Tab 13:</td>
<td>School Finance &amp; Bonds/Financial Capacity</td>
</tr>
</tbody>
</table>
PASA STUDENT ENROLLMENT

PRESENTED BY:

TED VIERLING
CHIEF OPERATIONS OFFICER

KRIS POOL
POPULATION AND SURVEY ANALYSTS
KATY ISD

DEMOGRAPHIC STUDY
DEMOGRAPHIC TRENDS
Numeric Change in Enrollment
Fall 2016 – Fall 2021

<table>
<thead>
<tr>
<th>School District</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katy ISD</td>
<td>12,940</td>
</tr>
<tr>
<td>Lamar CISD</td>
<td>8,750</td>
</tr>
<tr>
<td>Conroe ISD</td>
<td>7,997</td>
</tr>
<tr>
<td>Humble ISD</td>
<td>6,888</td>
</tr>
<tr>
<td>Cleveland ISD</td>
<td>6,132</td>
</tr>
<tr>
<td>Tomball ISD</td>
<td>5,330</td>
</tr>
<tr>
<td>Alvin ISD</td>
<td>4,498</td>
</tr>
<tr>
<td>Fort Bend ISD</td>
<td>3,399</td>
</tr>
<tr>
<td>New Caney ISD</td>
<td>2,439</td>
</tr>
<tr>
<td>Cy-Fair ISD</td>
<td>2,349</td>
</tr>
<tr>
<td>Sheldon ISD</td>
<td>1,686</td>
</tr>
<tr>
<td>Barbers Hill ISD</td>
<td>1,552</td>
</tr>
<tr>
<td>Waller ISD</td>
<td>1,512</td>
</tr>
<tr>
<td>Klein ISD</td>
<td>1,484</td>
</tr>
<tr>
<td>Willis ISD</td>
<td>1,121</td>
</tr>
</tbody>
</table>
CURRENT STUDENTS
Students per Household

Single-Family: 0.72
Multi-Family: 0.37
Economy & Housing Market

01 Employment
• MSA workforce recovered to its pre-Pandemic size by April 2022
• Job growth in the greater Houston MSA was strengthening, but still hadn’t recovered in all sectors

02 Economic Outlook
• Inflation, consumer confidence, and fears of a looming recession shaped the 2022 economy
• The Federal Reserve had raised interest rates six times since March and was expected to continue raising rates until inflation is under control
• The National average for a 30-year fixed rate mortgage was over 7%, more than double a year prior, making home ownership unattainable for certain potential buyers

03 Housing Market
• Robust in late 2020 & 2021, due to lower interest rates, record prices, and high demand
• Now market is cooling
  • Permits and sales had slowed since early 2022
  • Prices were depreciating
  • Inventories were on the rise
HOUSING
Single-Family Housing

Over the next 10 years, PASA projects 27,681 single-family units (~60% of total new housing projections). These occupancies are predominately in the northwestern quadrant of the district.

Master Planned Communities
Sunterra, Elyson, and Cane Island lead projected occupancies in the first five years, while development in Bridgeland, Anniston & “Northwest Katy” is projected to pick-up in the latter half of the projection period.

In total, these 6 communities are projected to contribute nearly 50% of single-family projections through 2032.

Manufactured Housing
Two contiguous manufactured housing developments are projected to add over 1,100 occupancies in a single land use zone (3A) over the projection period.
<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2,398</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>2,364</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>2,618</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>2,785</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>3,644</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>3,561</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>2,721</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>2,621</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>2,591</td>
<td></td>
</tr>
<tr>
<td>2026</td>
<td>2,573</td>
<td></td>
</tr>
<tr>
<td>2027</td>
<td>2,733</td>
<td></td>
</tr>
<tr>
<td>2028</td>
<td>3,051</td>
<td></td>
</tr>
<tr>
<td>2029</td>
<td>3,298</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>2,976</td>
<td></td>
</tr>
<tr>
<td>2031</td>
<td>2,938</td>
<td></td>
</tr>
<tr>
<td>2032</td>
<td>2,679</td>
<td></td>
</tr>
</tbody>
</table>

Source: Metrostudy Q2 Annual Closings 2017-22; PASA Demographic Study 2022-23
Projected Single-Family Occupancies by Land Use Zone (LUZ)
Oct 2022 to Oct 2032
Projected Single-Family Occupancies
Oct 2022 to Oct 2032

- "Northwest Katy" 1,271 Units
- Winward 536 Units
- Anniston 1,112 Units
- Sunterra 320 Units
- Bridgeland 1,900 Units
- Elyson VI 450 Units
- Future SF 473 Units
- Elyson III & IV 2,224 Units
- Katy Lakes 593 Units
Projected Single-Family Occupancies
Oct 2022 to Oct 2032

- Sunterra: 3,796 Units
- "Morton 180": 477 Units
- "Holigan Land LP": 730 Units
- "Bear Creek Trust": 528 Units
- Katy Meadows: 425 Units
- Katy Court & Potential Future: 614 Units
- Cane Island Dev. & Future: 478 Units
- Cane Island Future: 274 Units
- Grand Parkway at West Little York: 549 Units

Map showing the locations and unit counts for each development.
Projected Single-Family Occupancies by Land Use Zone (LUZ)
Oct 2022 to Oct 2032

- Blue: 0 - 20
- Light Blue: 21 - 60
- Medium Blue: 61 - 120
- Light Orange: 121 - 250
- Orange: 251 - 400
- Dark Red: >400
17,071 multi-family occupancies are projected through 2032. This is nearly 37% of total projected new housing. Multi-family occupancies are projected to peak in 2024-2025 with ~2,845 occupancies.

- **~11.9%** of current students live in Multi-family units
- **36.9%** of all projected future housing units are multi-family
- **15.5%** of all projected future students are from new multi-family housing
Projected Multi-Family Occupancies by Land Use Zone (LUZ)
Oct 2022 to Oct 2032

- Watermark 615 Units
- Central Park West 275 Units
- Potential Future 320 Units
- *The Rushmore 101 Units
- Premier 230 Units
- Potential Future 485 Units
- Market at Katy Park 300 Units
- Potential Future 300 Units
- Texas Heritage Marketplace 560 Units
- Prose 265 Units
- Williamsburg Lofts 298 Units
- San Tierra 303 Units
- Potential Future 775 Units
- Caroline 334 Units
- Memorial 297 Units
- *Westlake Park 225 Units
- Potential Future 360 Units
- *The Rushmore 101 Units
- Forresta Village 425 Units
- Foxtale 325 Units
- Ten Oaks 576 Units
- Vic at Park Row 363 Units

Legend:
- 0 - 20
- 21 - 60
- 61 - 120
- 121 - 250
- 251 - 400
- > 400
## New Housing Projections by Year of Occupancy

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td>2,221</td>
<td>2,621</td>
<td>2,591</td>
<td>2,573</td>
<td>3,051</td>
<td>3,298</td>
<td>2,976</td>
<td>2,938</td>
<td>2,679</td>
<td>27,681</td>
<td></td>
</tr>
<tr>
<td>Multi-Family</td>
<td>815</td>
<td>2,029</td>
<td>2,845</td>
<td>2,158</td>
<td>1,821</td>
<td>1,820</td>
<td>1,700</td>
<td>1,483</td>
<td>1,270</td>
<td>1,130</td>
<td>17,071</td>
</tr>
<tr>
<td>Manufactured Housing</td>
<td>69</td>
<td>118</td>
<td>173</td>
<td>191</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>1,155</td>
</tr>
<tr>
<td>Age-Restricted</td>
<td>85</td>
<td>87</td>
<td>60</td>
<td>100</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>392</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,190</strong></td>
<td><strong>4,855</strong></td>
<td><strong>5,669</strong></td>
<td><strong>5,022</strong></td>
<td><strong>4,768</strong></td>
<td><strong>4,961</strong></td>
<td><strong>5,088</strong></td>
<td><strong>4,549</strong></td>
<td><strong>4,298</strong></td>
<td><strong>3,899</strong></td>
<td><strong>46,299</strong></td>
</tr>
</tbody>
</table>
STUDENT PROJECTIONS
Factors Incorporated into Projections

92,724  October 2022

102,365  Low Growth
- Birth rates do not increase, low KG growth
- Increasing interest rates
- 2-3 larger charters opening in or near Katy ISD

107,357  Moderate Growth
- KG growth, but fairly low
- Mortgage rates do not rise over 6.5-7%
- Short-term pause in building

113,399  High Growth
- Stable interest rates
- No major charters in around Katy ISD in the next 5 years
Three Scenarios of Growth

- **Low/High Range**: 92,724 - 113,399
- **Actual**: 99,458
- **Projected**: 107,357

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>92,724</td>
</tr>
<tr>
<td>2022</td>
<td>101,156</td>
</tr>
<tr>
<td>2027</td>
<td>104,701</td>
</tr>
<tr>
<td>2032</td>
<td>113,399</td>
</tr>
</tbody>
</table>
## Moderate Growth Scenario

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enrollment</strong></td>
<td>95,104</td>
<td>96,867</td>
<td>98,493</td>
<td>99,864</td>
<td>101,156</td>
</tr>
<tr>
<td><strong>% Growth</strong></td>
<td>2.57%</td>
<td>1.85%</td>
<td>1.68%</td>
<td>1.39%</td>
<td>1.29%</td>
</tr>
<tr>
<td><strong>Growth</strong></td>
<td>2,380</td>
<td>1,763</td>
<td>1,626</td>
<td>1,371</td>
<td>1,292</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
<th>2032</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enrollment</strong></td>
<td>102,664</td>
<td>103,852</td>
<td>105,013</td>
<td>106,274</td>
<td>107,357</td>
</tr>
<tr>
<td><strong>% Growth</strong></td>
<td>1.49%</td>
<td>1.16%</td>
<td>1.12%</td>
<td>1.20%</td>
<td>1.02%</td>
</tr>
<tr>
<td><strong>Growth</strong></td>
<td>1,508</td>
<td>1,188</td>
<td>1,161</td>
<td>1,261</td>
<td>1,083</td>
</tr>
</tbody>
</table>
LONG-RANGE PLANNING
Current Elementary Attendance Zones

Youngblood, McElwain, Faldyn, Robertson:
2027: 7,203 Capacity: 4,120

* Color based on gain of students during projection period
Elementary School Planning Summary

- Numerous additional schools later in the NW
- Possible tweaks to AZs as population shifts over time in existing subdivisions and in-fill continues
- All new elementary schools will need bond funds
Projected Geocoded Students in 2027

Haskett and Stockdick combined = 4,918 in 2027
-- To be served by 3 schools with 4,200 students in capacity

Haskett 2027: 2905
Stockdick 2027: 2013
Katy 2027: 1376
Morton Ranch 2027: 1302
McDonald 2027: 1202
Mayde Creek 2027: 1347
West Memorial 2027: 1094
WoodCreek 2027: 1766
Cinco Ranch 2027: 1225
Beckendorff 2027: 1177
Beck 2027: 1177
Tays 2027: 1200
Adams 2027: 1847
Seven Lakes 2027: 1252
Memorial Parkway 2027: 808
McMeans 2027: 1199
Cardiff 2027: 842
Junior High School Planning Summary

- SW should ultimately age

- Several additional junior highs in the northwestern portion of the District
  - District owns land and has bond funds available for JH 18; all others require bond funds
Paetow and Katy combined = 11,739 in 2029
-- To be served by 3 schools
with 9,000 students in capacity
High School Planning Summary

- High School 10 in 6B to relieve KHS and PHS
- HS 10 could be full by the middle of the projection period, with growth still expected
- District not expected to be built-out at the end of the projection period
- Could get additional high school space from alternative HS programs
QUESTIONS?
Table Talk

(5 MINUTES TO DEVELOP A TABLE QUESTION)
Q&A Process

(20 MINUTES TO ASK QUESTIONS AT MIC)
TEACHING AND LEARNING: CONNECTING THE DOTS WITH NEW FACILITIES

PRESENTED BY:

DR. CHRISTINE CASKEY
CHIEF ACADEMIC OFFICER
AGENDA

• Katy ISD Learners
• District Accomplishments
• Teaching and Learning
• Facilities for Learning
OUR MISSION

Katy Independent School District, the leader in educational excellence, together with family and community, provides unparalleled learning experiences designed to prepare and inspire each student to live an honorable, fulfilling life ... to create the future.
What Does a New Elementary School Look Like?

Katy Independent A+ School District
Bond 2023
WHAT DO KATY ISD LEARNERS LOOK LIKE?
## WHAT DO KATY ISD LEARNERS LOOK LIKE?

<table>
<thead>
<tr>
<th></th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>13,269</td>
<td>14.2%</td>
</tr>
<tr>
<td>Asian</td>
<td>15,715</td>
<td>16.8%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>34,088</td>
<td>36.4%</td>
</tr>
<tr>
<td>Native American</td>
<td>211</td>
<td>0.2%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>111</td>
<td>0.1%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>3,971</td>
<td>4.2%</td>
</tr>
<tr>
<td>White</td>
<td>26,158</td>
<td>28.0%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>93,523</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Enrollment updated monthly. Last updated: 3/1/2023
HOW MANY LANGUAGES ARE SPOKEN IN KATY ISD?

A. 25
B. 50
C. 100
D. 125
WHAT PERCENTAGE OF KATY ISD STUDENTS ARE CLASSIFIED AS ECONOMICALLY DISADVANTAGED?

A. 20%
B. 30%
C. 40%
D. 50%

C. 40%
WHAT PERCENTAGE OF KATY ISD STUDENTS ARE IDENTIFIED AS GIFTED AND TALENTED?

A. 8%
B. 15%
C. 24%
D. 36%

A. 8%
HOW MANY STUDENTS RECEIVE SPECIAL EDUCATION SERVICES?

A. 10,052  
B. 14,700  
C. 951  
D. 5,002

B. 14,700
HOW MANY HOMELESS STUDENTS DO WE EDUCATE IN KATY ISD?

A. 175  
B. 432  
C. 922  
D. 1002  

C. 922
KATY ISD DISTRICT ACCOMPLISHMENTS

Of the top 5 largest districts in Texas, Katy ISD has the highest rating with a 91/A.
KATY ISD DISTRICT ACCOMPLISHMENTS

Katy ISD consistently outperforms the region and the state on state and national assessments including the ACT and SAT.
KATY ISD DISTRICT ACCOMPLISHMENTS

Katy ISD has been recognized as one of College Board’s Annual AP Districts and has been consistently recognized for increasing access to Advanced Placement while also increasing the percentage of students who score a 3 or higher on their AP exams.
KATY ISD DISTRICT ACCOMPLISHMENTS

#1 BEST SCHOOL DISTRICTS IN HOUSTON AREA

Katy Independent School District

Overall Niche Grade

How are grades calculated?
Data Sources

A+ Academics
A Teachers
A Clubs & Activities
A+ Diversity
A+ College Prep
A Administration
KATY ISD DISTRICT ACCOMPLISHMENTS

Recognized by the National Association of Music Merchants Best Communities for Music Education for over 20 years

Proud BCME District
KATY ISD CURRICULUM

• Based on the Texas Essential Knowledge and Skills (TEKS)

School districts in Texas are required to utilize state standards called the Texas Essential Knowledge and Skills (TEKS). These standards govern the specific skills to be taught at a given grade level or course (Texas Education Code 28.002).
KATY ISD INSTRUCTIONAL CORNERSTONES

- Collaboration
- Communication
- Creative Thinking
- Critical Thinking
- Information Literacy
- Problem Solving
- Social Contribution
COLLABORATION SPACES
COLLABORATION SPACES
COLLABORATION SPACES

BEAUTIFUL DAY MEANS THE CHOICE TO WORK ON ART OUTSIDE!

73°F
COLLABORATION SPACES

- Level Two Science Lab
- Tall Storage Cabinets
- Cabinets w/ Vision Glass
- Teaching Wall
- Storage
- Refrigerator
- Wet Area
- High Windows
- Access to Courtyard
- Activity Center
- Access to Courtyard
- Science Outdoor Learning Courtyard
- Shade Canopy Above (Level Two)
- Access to Courtyard
- Natural Daylighting
- Work Surface
- Stairs to Ground/Balcony
- Levels One & Two
COLLABORATION SPACES
The quality of school facilities impact student learning.

Principal at Paetow High School, Dr. David Paz “Our collaborative spaces have elevated instructional practices to meet the needs of 21st century learners.”

“Learning extends outside the classroom; our collaborative areas provide innovative structures to maximize student mastery of the curriculum.”

Principal at Robertson Elementary, Martha Pulido “Bulldog Bark Park open spaces encourage collaborative learning that extends beyond the walls of the classroom, to promote engagement by allowing students opportunities to share their learning in an exciting new environment.”

“The learning stairs provide the chance for students to experience instruction in different formats and allows teachers to be more creative in how curriculum is presented.”

Principal at Adams Junior High, Elisabeth Brodt, “Our flexible learning spaces provide students an opportunity to collaborate with their peers and learn from each other. These spaces are used daily, and students are encouraged to problem solve and think creatively while learning the importance of communication and teamwork.”
CONNECTING THE DOTS

- Administration
- Teaching & Learning
- Teachers & Staff
- Katy ISD Learners
- Family & Community
- Facilities
Thank you!
FACILITY ASSESSMENT OVERVIEW/LONG-RANGE FACILITIES PLAN AND PROCESS FOR PROJECTS

PRESENTED BY:

TED VIERLING & LISA KASSMAN
CHIEF OPERATIONS OFFICER
AND
EXECUTIVE DIRECTOR FACILITIES, PLANNING AND CONSTRUCTION
PROJECT LISTS & FACILITIES ASSESSMENT

• Two assessments have been performed by Katy ISD to address these physical components
  • Mechanical/Electrical/Plumbing (MEP)
  • Full assessment verifying MEP as well as architectural, roof and civil components

• Campus & department questionnaires provide additional information and context

• Data and outcome reviewed by in house staff (Maintenance & Operations and Construction) and project lists developed:
  • Critical component needs
  • Campuses addressed as a whole, according to age of facility
LONG RANGE FACILITIES PLAN (LRFP)

• 1999 Bond first publication
• Ten (10) year snapshot
• Timeline: prior to bond planning
ADDRESSING CAMPUS NEEDS

• Bond funding to identify needs/projects
  • Questionnaire to campuses and departments
  • Data collected and organized
    • Facilities Assessment conducted prior to this bond
      • Facility renovation and/or addition
      • Component replacement
• Work orders for immediate/emergency needs submitted to Maintenance
• Planned regular maintenance and building modifications via the annual budget process for the General Operating Fund (GOF)
**TYPICAL PROJECTS AT EXISTING CAMPUSES**

**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 factors:
  - Combining component replacements for cost effectiveness
  - Minimizing disruption to campus when planning

**Facility Expansions**
- Building additions
  - Supported by growth
  - Stabilized growth supports replacement of portable buildings with brick and mortar
  - Support instruction – 9th grade centers
INFRASTRUCTURE

Vehicle Stacking/Circulation Improvements
- Harris County, as an example, has instituted new standards regarding the addition of portable buildings at our campuses. Traffic studies are required which in turn recommend physical changes and improvements to campuses.
- Circulation improvements at existing campuses

Site Utilities to support new and existing facilities
- Required provision and connection 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 school opening.

Unforeseen Site Conditions
- During construction, we may encounter conditions at the project that are concealed or latent physical conditions or subsurface conditions that were not indicated on the plans.
NEW FACILITIES

Determination of New Facilities

• Review capacities at existing facilities
• Demographics report
EXISTING FACILITIES & CAPACITIES

With a lot of schools “under capacity,” why do we need to build more?

• Design vs. functional capacity
  • There are actually few empty classrooms across the District
  • Available space is geographically dispersed

Programs

• There are a large number of programs that support our students that occupy classroom space – examples include:
  • Bilingual, Autism, Gifted & Talented
NEW FACILITIES

• Demographics Report
• New school roll out
• Land
• Schedule
• Costs
<table>
<thead>
<tr>
<th>Year Opening</th>
<th>New</th>
<th>Projection</th>
<th>Facility</th>
<th>LUZ</th>
<th>Land</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2025</td>
<td>Elementary #47</td>
<td>2D - Elyson</td>
<td>2025 Elementary #48</td>
<td>8 - Sunterra</td>
<td>own</td>
<td></td>
</tr>
<tr>
<td>2027</td>
<td>Elementary #49</td>
<td>West Side of District</td>
<td>2027 Elementary #49</td>
<td>West Side of District</td>
<td>need land</td>
<td></td>
</tr>
<tr>
<td>2026</td>
<td>Junior High #19</td>
<td>West Side of District</td>
<td>2026 Junior High #19</td>
<td>West Side of District</td>
<td>need land</td>
<td></td>
</tr>
<tr>
<td>2029</td>
<td>Elementary #50</td>
<td>8 - Sunterra</td>
<td>2029 Elementary #50</td>
<td>8 - Sunterra</td>
<td>need land</td>
<td></td>
</tr>
<tr>
<td>2028</td>
<td>High School #11(?)</td>
<td>West Side of District</td>
<td>2028 High School #11(?)</td>
<td>West Side of District</td>
<td>need land</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>Junior High #20</td>
<td>2A/2B - NE Quadrant of Bridgelands</td>
<td>2030 Junior High #20</td>
<td>2A/2B - NE Quadrant of Bridgelands</td>
<td>need land</td>
<td></td>
</tr>
<tr>
<td>2031</td>
<td>Elementary #51</td>
<td>2A/2B - NE Quadrant of Bridgelands</td>
<td>2031 Elementary #51</td>
<td>2A/2B - NE Quadrant of Bridgelands</td>
<td>need land</td>
<td></td>
</tr>
</tbody>
</table>

Blue highlights: 2023 Bond

Green highlights: Future Bond
LAND

• Demographic projections identify where land is needed for schools

• Ideally, purchase is made at least a year in advance

• Land size
  ✓ High School: 100 acres
  ✓ Junior High School: 30 acres
  ✓ Elementary School: 13 – 15 acres

• Estimated Land Costs:
  $3.50 to $5.00/SF
CONSIDERATIONS: BUYING PROPERTY
+5 YEARS OUT

- Stability of future planned developments
  With increasing development costs due to changing drainage requirements?
  - will the planned developments change and impact student enrollment projections
    Example: Harris County Flood Control District
    - Flood maps being updated latest is to be released summer 2023
      - Previously, drainage improvements were planned at 10 – 15% of the site
      - Currently, 15 – 25% with new guidelines
        - KISD NW Site – 40 of the 232 acres lost to drainage (17%)
        - Lennar development west of our site lost 40%

- Stability of the economy and potential impact on projected student enrollment.

- Unintended/unplanned costs associated with maintaining vacant land by the Maintenance & Operations department.
SCHEDULES

• Schedules are typically based on a campus opening in the fall at the start of the new school year. We therefore work our schedule backwards and typical timeframes for design and construction:
  • Elementary – repeat design - 20 to 22 months
  • Junior High – repeat design - 25 to 28 months
  • High School – repeat design - 36 to 40 months

• Within these time frames, Board of Trustees meetings are for contracts and design approvals.

• Projects are spread out across a 3-year bond cycle for:
  • Cashflow
  • Construction market (general and subcontractors)
  • In house management
COSTS

• Total Project Cost Components
• Cost Reduction Initiatives
• Construction Cost & Drivers
• Building Materials
• Quality Assurance
TOTAL PROJECT COST COMPONENTS

• Design - Architect/Engineer Fees
• Construction Cost/General Contractor
• Non-Contract Cost
• Furniture, Equipment & Technology
ARCHITECT/DESIGN FEES

• Architect – Professional Service – by law, Texas Government Code 2269, services cannot be bid

• Why is there a cost at all for a repeat design?
  o Unique site conditions must have new civil designs, and each require construction administration services by architect and consultants
  o Other minor changes (including feedback from principals during a post-occupancy review) and code changes are also reviewed prior to finalizing the construction documents
CONSTRUCTION COST

• Square footage of facility
• Cost/SF applied based upon project scope
• Construction Inflation
• Cost sources:
  o Katy ISD historical
  o Local (other area school districts)
  o Outside resources – i.e., Association of General Contractors (AGC)
CONSTRUCTION INFLATION AND SUPPLY CHAIN ISSUES

Construction Inflation

• Hopefully stabilizing
• 2021 – 2022
  • Planned 5%
  • Actual 19%

Supply Chain Issues

Freezer Coolers
Electrical Switchgear
Emergency Generators
## Producer price indexes, 1- & 12-mo. change (not seasonally adjusted)

<table>
<thead>
<tr>
<th>Product</th>
<th>Jan 2023 (1 month)</th>
<th>Feb 2022 (12 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>1.1%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Asphalt paving mixtures and blocks</td>
<td>2.2%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Flat glass</td>
<td>4.0%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Gypsum building products</td>
<td>0.4%</td>
<td>12.5%</td>
</tr>
<tr>
<td><strong>Subcontractor price indexes, nonresidential building work</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roofing contractors</td>
<td>0.5%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Plumbing contractors</td>
<td>0.2%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Electrical contractors</td>
<td>0.3%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Concrete contractors</td>
<td>0.2%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

Source: BLS, producer price indexes, [www.bls.gov/ppi](http://www.bls.gov/ppi)
CONSTRUCTION DELIVERY METHODS

Based upon the Texas Government Code 2269 and the nature of the project (i.e., new school vs. 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 with design team to address project complexities
FURNITURE, EQUIPMENT, and TECHNOLOGY

- Desks, library materials, lab materials, musical instruments, and program materials

- Technology
  - SB30 effects
  - Switches, routers, hardware, security cameras, and UPS
  - Computers, copiers, and interactive devices
COST INITIATIVES

• **Architect Fees for Design:** typical for new construction is 6%; typical for refined repeat design is 3 - 3.5%. Percentage based off construction cost

• **Material selection and design to minimize on-going maintenance**
  • Flooring – less maintenance, 20-year warranty
  • LED lighting
  • Natural Light – Solatubes
  • Glass – low E insulated double pane
  • Energy code requirements

• **Direct purchase on specific equipment**

• ** Bundling of projects when appropriate**

• **Timing of bidding projects**
DESIGN FEES – FUTURE PROJECTS

• Demographics provide data to determine school opening dates

• Timing of bonds may not provide necessary design time needed to meet opening date – next slide will show timelines

• Design dollars fund design work

• Amount being recommended will cover fees for an elementary, junior high, high school, and/or existing facility
Thank you!
Table Talk

(5 MINUTES TO DEVELOP A TABLE QUESTION)
Q&A Process

(20 MINUTES TO ASK QUESTIONS AT MIC)

20:00

Q/A
MAINTENANCE & OPERATIONS

PRESENTED BY:

NATHAN FUCHS
EXECUTIVE DIRECTOR OF
MAINTENANCE & OPERATIONS
What is a Building Component Life-Cycle Replacement Schedule?
Every building is comprised of equipment and items that have a life expectancy, or a specific number of years that they should last given proper care and upkeep.

Why do we follow a life-cycle replacement schedule?
Following these schedules gives us a good idea of when to expect these items to wear out and need replacing. This helps us avoid major breakdowns and emergencies, which can cause instructional disruptions, and allows the district to plan from a budgetary standpoint as efficiently as possible.

What kind of equipment does the Replacement Schedule include?
- Flooring
- Chillers & Cooling Towers
- HVAC Equipment
- Roofing
- Water Softeners
- Fire Alarms/Emergency Generators
Controls Replacement (BMCS):
BMCS are an integrated system that controls and monitors the operations of a building's HVAC, lighting, and other systems. BMCS systems optimize energy efficiency and provide a safe and comfortable environment for the occupants of the building.

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS Controls</td>
<td>15-20</td>
</tr>
</tbody>
</table>
Chiller/Cooling Tower:

Chillers transfer heat away from a space that requires climate control much like a traditional split system or package unit does, but they use water (or a water solution) to do so instead of air. There are two types of chillers: water-cooled and air-cooled.

A cooling tower is a specialized heat exchanger in which air and water are brought into direct contact with each other in order to reduce the water's temperature. As this occurs, a small volume of water evaporates, reducing the temperature of the water being circulated through the tower. A cooling tower works with water-cooled chillers to provide reliable, efficient cooling to our schools.

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Cooled Chiller</td>
<td>15</td>
</tr>
<tr>
<td>Gear Boxes</td>
<td>30</td>
</tr>
<tr>
<td>Piping Insulation</td>
<td>30</td>
</tr>
<tr>
<td>Cooling Tower</td>
<td>20</td>
</tr>
<tr>
<td>Pumps/VFDs</td>
<td>15</td>
</tr>
</tbody>
</table>
**HVAC Equipment (Hydronic Boiler):**

*Hydronic boilers* burn combustible fuel or use electricity to heat water, which can be used to provide comfort heat in schools. Heat is generated by the burner, which then heats the water inside the boiler via the heat exchanger. Hydronic heating is an energy-efficient way to provide clean, warm, and comfortable heat throughout the school.

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydronic Boiler</td>
<td>15</td>
</tr>
</tbody>
</table>
Life Safety and Special Systems Upgrades (Fire Alarm/PA System/Emergency Generator):

A **fire alarm system** warns people when smoke, fire, carbon monoxide, or other fire-related or general notification emergencies are detected.

A **public address system** is an electronic system comprising microphones, amplifiers, loudspeakers, and related equipment. It increases the apparent volume of a human voice, musical instrument, or other acoustic sound source or recorded sound or music.

A **standby generator** is a back-up electrical system that operates automatically. Within seconds of a utility outage an automatic transfer switch senses the power loss, commands the generator to start and then transfers the electrical load to the generator. The standby generator begins supplying power to the circuits.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Generator</td>
<td>20</td>
</tr>
<tr>
<td>Fire Alarm System</td>
<td>15</td>
</tr>
<tr>
<td>Integrated Audio (PA) System</td>
<td>20</td>
</tr>
</tbody>
</table>
Roofing and Building Envelopes:

A roof is the top covering of a building which provides protection against rain, snow, sunlight, wind, and extreme temperature. A roof is part of the building envelope.

A building envelope is the physical separator between the conditioned and unconditioned environment of a building including the resistance to air, water, heat, light, and noise transfer.

The District maintains a detailed database and inventory of each facilities’ roof and waterproofing. The identified roofs have met their life expectancies and are no longer under manufacturer warranty.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof</td>
<td>20</td>
</tr>
<tr>
<td>Building Envelope</td>
<td>10</td>
</tr>
</tbody>
</table>
Water Softener:

*Water softening* is the removal of calcium, magnesium, and certain other positively charged ions in hard water. The resulting soft water requires less soap for the same cleaning effort, as soap is not wasted bonding with calcium ions. The use of water softeners also extends the ability of the boilers and kitchen equipment to reach their potential life expectancies.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Softener</td>
<td>20</td>
</tr>
</tbody>
</table>
Bleacher Components:
This is a fully automatic power system designed to open and close wall-attached, recessed or reverse-fold telescopic bleachers at the touch of a button.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleachers</td>
<td>35</td>
</tr>
</tbody>
</table>
**Stage Curtains:**
Theater drapes and *stage curtains* are large pieces of cloth that are designed to mask backstage areas of a theater from spectators. They are designed for a variety of specific purposes, moving in different ways and constructed from various fabrics. Stage curtains are regulated by the fire marshal and life safety codes.

*CFR (Chemically Flame Resistant)* - Flame retardant chemicals are dissolved in water and then applied to the fabric through dipping or spraying.

*IFR (Inherently Flame Retardant)* - Inherently Flame Retardant refers to fabrics that are woven with naturally flame resistant fibers. Their flame retardancy will last for the life of the fabric as it has been woven into the fabric itself.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage Curtains</td>
<td>10</td>
</tr>
</tbody>
</table>
Markerboards:
A whiteboard is a glossy, usually white surface for making non-permanent markings. Whiteboards are analogous to blackboards, but with a smoother surface allowing for rapid marking and erasing of markings on their surface.

Whiteboards are comparatively cleaner and provide for clearer presentation of information. Markers are easier to hold and handle than chalk, are cleaner to use, and are available in a wide variety of colors.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markerboards</td>
<td>15</td>
</tr>
</tbody>
</table>
Flooring:  
*Flooring* is the general term for a permanent covering for an interior concrete surface. Flooring standards include carpet, tile, and sealed concrete.

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramic Tile</td>
<td>40</td>
</tr>
<tr>
<td>Carpet</td>
<td>15-20</td>
</tr>
</tbody>
</table>
Natatorium:

- **Pool Deck Coating** - A specialized protective layer applied to the horizontal surfaces of building components.
- **Chemical Controller** - A chemical controller system measures both pH and disinfectant levels in the water. When it detects that either level is out of range, the chemical controller will automatically feed bleach and acid into your pool until pH and disinfectant levels reach ideal ranges again.
- **Pump/VFD** - The pool pump is the heart of your pool's circulatory system. It pulls water from the pool and pushes it to other equipment to be heated, treated, and filtered, returning cleaner, healthier, and warmer pool water. VFDs in pool pump applications are able to cut electricity and maintenance costs monumentally. The VFD allows the pump, even if oversized, to be run at slower speeds using less electricity, and the VFD can easily change the pump speed depending on the pool's conditions.
- **Re-Plastering** - Pool plaster is the final seal and coating for a concrete pool. It's usually the last step in creating and finishing your pool. Its main purpose is to add a watertight seal for in-ground concrete pools. Depending on the type of plaster you choose, it can give you a variety of different feels, colors, and designs.
- **Lighting** - Pool lighting allows pool owners to change the mood, highlight water features and architectural elements, and improve the visibility and safety of a pool.
- **Bulk Heads** - A bulkhead is a structure that can separate a pool into different sections. Typically, these structures are moveable and allow the pool to be adjusted to accommodate different field of play (Yards and Meters).
- **Air Handling Units** - Air handling for indoor swimming pools is the process in which your air handling unit reconditions the warm wet air from inside and brings fresh outside air in to replace it. Making your pool hall a fresh pleasant place to be, by keeping pool water within 2 degrees of the air temperature.

### Component: Standard Life Expectancy:

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard Life Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool Deck Coating</td>
<td>10</td>
</tr>
<tr>
<td>Chemical Controller</td>
<td>10</td>
</tr>
<tr>
<td>VFD + Filter Pump</td>
<td>8</td>
</tr>
<tr>
<td>Bulk Head</td>
<td>20</td>
</tr>
<tr>
<td>Re-plaster</td>
<td>20</td>
</tr>
<tr>
<td>Air handlers</td>
<td>25</td>
</tr>
<tr>
<td>Lighting</td>
<td>20</td>
</tr>
</tbody>
</table>
**Athletic Turf:**
One type of *synthetic turf* is fabricated using synthetic fibers, manufactured to resemble natural grass, and an infill base material that stabilizes and cushions the playing surface.

<table>
<thead>
<tr>
<th>Component:</th>
<th>Standard Life Expectancy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Turf</td>
<td>8</td>
</tr>
</tbody>
</table>
Portable Classrooms and Bard Units:
Modular classrooms—also known as portable classrooms—are prefabricated classroom buildings. It means they are constructed completely offsite and then delivered to the location. A portable classroom, is a type of portable building installed at a school to temporarily and quickly provide additional classroom space where there is a shortage of capacity.

The Bard units are responsible for the cooling and heating of the portable classrooms. The new units provide improved efficiency and adequate air quality inside these classrooms. Existing Bard units have refrigerant that is no longer in production.
M&O COMPONENT REPLACEMENT

Thank you!
Table Talk

(5 MINUTES TO DEVELOP A TABLE QUESTION)
Q&A Process

(20 MINUTES TO ASK QUESTIONS AT MIC)
FINANCIAL CAPACITY

PRESENTED BY:

CHRISTOPHER J SMITH
CHIEF FINANCIAL OFFICER
What is a Bond Election?

School districts are required to ask their local voters for permission to sell bonds.

A school board calls a bond election, and voters decide whether they want to authorize the District to issue bonds (debt) for identified needs.
If voters approve the bond election, the school district then sets the Interest & Sinking tax rate at a level necessary to repay the debt to investors.
SCHOOL FINANCE & BONDS

What does KISD buy with Bond funds?
SCHOOL FINANCE OVERVIEW

District’s Budget

- Two Tax Rates
- General Operating Fund
  - Maintenance & Operations
- Interest and Sinking
  - Debt Service
FINANCIAL CAPACITY

Tax Rates

Interest & Sinking (I&S)
General (M&O)

2006-07: 1.49
2007-08: 0.33
2008-09: 0.40
2009-10: 0.40
2010-11: 0.40
2011-12: 0.40
2012-13: 0.40
2013-14: 0.39
2014-15: 0.37
2015-16: 0.37
2016-17: 0.39
2017-18: 0.39
2018-19: 0.39
2019-20: 0.39
2020-21: 0.39
2021-22: 0.39
2022-23: 0.39

21.2 cent reduction
TAXABLE VALUE GROWTH
## Tax Base Assumptions

<table>
<thead>
<tr>
<th>FYE 31-Aug</th>
<th>Tax Base</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$36,351,443,912</td>
<td>10.46%</td>
</tr>
<tr>
<td>2018</td>
<td>$37,980,513,157</td>
<td>4.48%</td>
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<tr>
<td>2019</td>
<td>$39,446,447,913</td>
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<tr>
<td>2020</td>
<td>$41,628,778,765</td>
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<tr>
<td>2021</td>
<td>$44,889,943,725</td>
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<tr>
<td>2022</td>
<td>$48,132,317,884</td>
<td>7.22%</td>
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<tr>
<td>2023</td>
<td>$53,349,961,143</td>
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<tr>
<td>2024</td>
<td>$53,883,369,754</td>
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<td>2025</td>
<td>$55,499,860,547</td>
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<td>2026</td>
<td>$57,164,866,363</td>
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<td>2027</td>
<td>$58,309,153,490</td>
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<td>2028</td>
<td>$59,474,316,560</td>
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<td>2029</td>
<td>$60,069,069,726</td>
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<td>2030</td>
<td>$60,669,750,323</td>
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<tr>
<td>2031</td>
<td>$60,669,750,323</td>
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<tr>
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<td>$60,669,750,323</td>
<td>0.00%</td>
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<tr>
<td>2051</td>
<td>$60,669,750,323</td>
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<tr>
<td>2056</td>
<td>$60,669,750,323</td>
<td>0.00%</td>
</tr>
<tr>
<td>2057</td>
<td>$60,669,750,323</td>
<td>0.00%</td>
</tr>
<tr>
<td>2058</td>
<td>$60,669,750,323</td>
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</table>

* - 2017-2023 Values are Certified Taxable Values per appraisal districts.
### Parameter Size & Proposed Issuance

<table>
<thead>
<tr>
<th>Year</th>
<th>Final Issuance</th>
<th>Projected Issuance</th>
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<tbody>
<tr>
<td>2021</td>
<td>676,226,420</td>
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<tr>
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<td>$145,000,000</td>
<td>$256,246,420</td>
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<tr>
<td>2022</td>
<td>5/17/2021</td>
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<tr>
<td></td>
<td>30 Yr @ 2.388%</td>
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<tr>
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<td>5/24/2022</td>
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</tr>
<tr>
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<td>30 Yr @ 3.867%</td>
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<tr>
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<td>30 Yr @ 5.00%</td>
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<tr>
<td></td>
<td>274,980,000</td>
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</table>

**I&S Tax Rate Projections**

- **Growth 1**
- **Growth 2**

*Issuance timing and amounts subject to change*
Prospective $900,000,000 November 2023 Bond Election Scenario

<table>
<thead>
<tr>
<th>Prospective</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>IOSD 2023</td>
<td>$900,000,000</td>
<td>$250,000,000</td>
<td>$300,000,000</td>
<td>$200,000,000</td>
<td>$150,000,000</td>
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</tr>
<tr>
<td>Bond Authorization</td>
<td>5/15/2024</td>
<td>5/15/2025</td>
<td>5/15/2026</td>
<td>5/15/2027</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 Yr @ 5.00%</td>
<td>$0.3900</td>
<td>$0.3900</td>
<td>$0.3900</td>
<td>$0.3900</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

I&S Tax Rate Projections

- Issuance timing and amounts subject to change
Long-Term Tax-Exempt Interest Rates – Bond Buyer 20 Year Index

Bond Buyer 20 Year GO Index
September 1981 - March 23, 2023

Bond Buyer 20 Year GO Index is a weekly index estimating the composite yield on 20 general obligation bonds rated “A” or better.

This graph depicts historical interest rates. Future interest rates are dependent upon many factors such as, but not limited to, interest rate trends, tax rates, the supply and demand of short term securities, changes in laws, rules and regulations, as well as changes in credit quality and rating agency considerations. The effect of changes in such factors individually or in any combination could materially affect the relationships and effective interest rates. These results should be viewed with these potential changes in mind as well as the understanding that there may be interruptions in the short term market or no market may exist at all.
Table Talk

(5 MINUTES TO DEVELOP A TABLE QUESTION)
Q&A Process

(20 MINUTES TO ASK QUESTIONS AT MIC)
Thank you!
<table>
<thead>
<tr>
<th>Proposed Bond 2023 Project Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Facilities</td>
</tr>
<tr>
<td>Component Replacements</td>
</tr>
<tr>
<td>Existing Facilities</td>
</tr>
<tr>
<td>Technology</td>
</tr>
<tr>
<td>Safety &amp; Security</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>(Infrastructure, buses, furniture replacement)</td>
</tr>
</tbody>
</table>