



AN EARLY COLLEGE DISTRICT

BROWNSVILLE

INDEPENDENT SCHOOL DISTRICT

Facilities Committee Meeting

October 9, 2024

BISD Boardroom

6:00 PM

Dr. Jesus Chavez, Superintendent of Schools

Alejandro Cespedes, Chief Financial Officer

Alonso Guerrero, Director of Health and Operations



AN EARLY COLLEGE DISTRICT

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INDEPENDENT SCHOOL DISTRICT

AGENDA

- **Relationship Between School Building Conditions and Student Achievement**
- **Deferred Maintenance**
- **Maintenance of Equipment of Buildings**
- **Current Condition of Campus Buildings and Facilities**
- **District Facilities Standards**
- **Citizens Facilities Committee and Sub-Committees**
- **Process and Timeline**

DISTRICT-WIDE FACILITY NEEDS

- At the July 30, 2024, Facilities Committee Workshop it was discussed the many facility needs across all campuses and departments including:
 - HVAC
 - Roofing
 - Electrical/Lighting
 - Plumbing
 - Flooding & Drainage
- It was also discussed the life expectancy of equipment and buildings, given certain factors such as dealing with coastal corrosion on equipment and roofs, as well as how often equipment and buildings are properly maintained.
- A brief introduction on the facilities assessment was introduced, including the creation of a Citizens Facilities Committee (CFC) and several sub-committees (Elementary, Secondary, District-Wide, and Finance).

RELATIONSHIP BETWEEN SCHOOL BUILDING CONDITIONS AND STUDENT ACHIEVEMENT

- Researchers have found that students in deteriorating school buildings score between 5 to 11 percentile points lower on standardized achievement tests than students in modern buildings...
- ...the negative impact of substandard school buildings may be cumulative and continue to increase the longer the student attends an older, deteriorating school.

(Filardo et al., 2011; Hatfield, 2011; Cash & Twiford, 2010; Wilson, 2008; Earthman, 2004; U.S. Department of Education, 2000)

- During the 1970s and 1980s, many schools were built with no windows, in order to save energy. Studies have been conducted to determine how much of an increase in student performance can be attributed directly to lighting conditions. Students exposed to controlled daylight, combined with appropriate artificial lighting when needed, were found to have a significant increase in performance compared to students exposed to the least daylight.

(Baker & Bernstein, 2012; Cash & Twiford, 2010; American Federation of Teachers, 2006; Schneider, 2002)

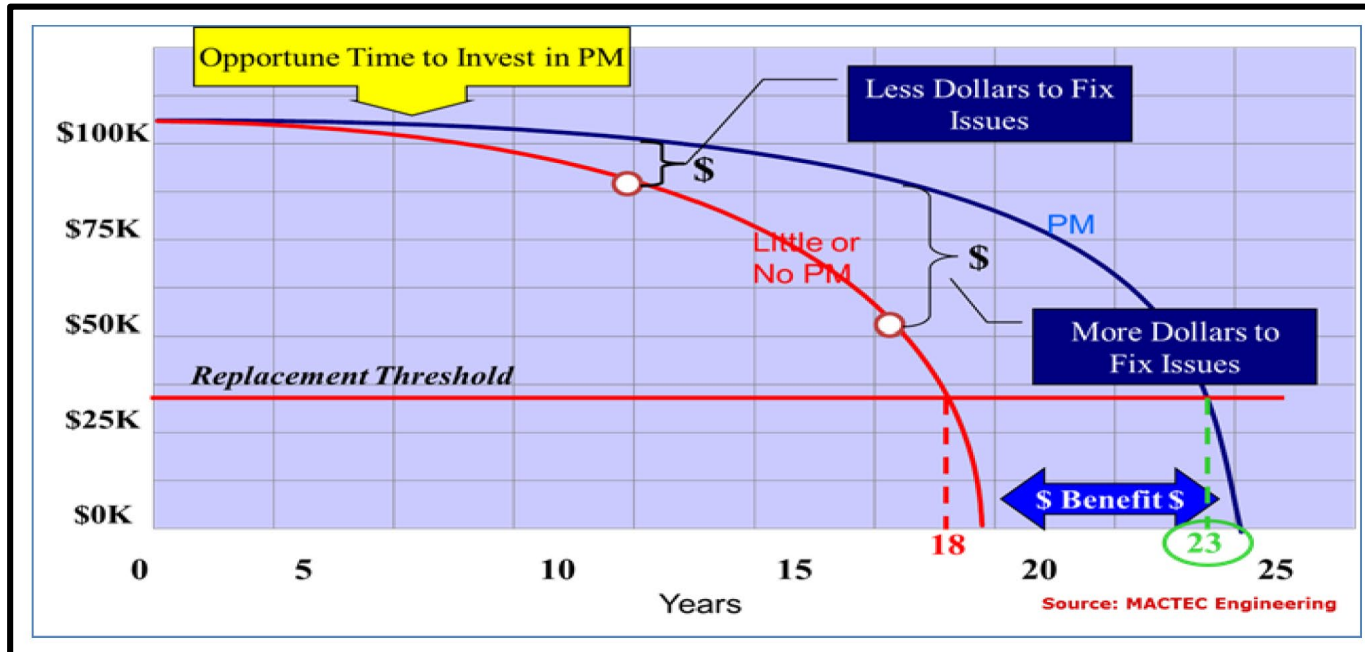
DEFERRED MAINTENANCE

- Deferred maintenance is a measure of the preventive and regular maintenance, minor and capital repairs, that are needed to extend the life of equipment and buildings to achieve its projected life expectancy **but that have been postponed** to a future date beyond the recommended service interval or breakdown.
- Deferred maintenance is high because the funding for maintenance and operating costs for facilities has been sparse, leading to decaying infrastructures, deteriorating facilities, and inadequate support for current teaching and learning technology.
- Insufficient maintenance funding prevents capital assets from achieving their designed life expectancy, and results in a premature need for costly capital improvements to replace buildings, equipment, and systems that were neglected beyond repair.
- These poor conditions create obstacles to teaching and learning and undermine all of the other considerable investments being made in education.

THE DESIGN-LIFE CURVE

- When facility systems (roof, HVAC, plumbing, electrical, safety, security, etc.) are not maintained, such systems follow an accelerated deterioration curve and fail prematurely, sometimes years before their designed life expectancy.
- Repairing an asset lowers the cost of the maintenance work and extends the life of the system or component. Identifying facilities management practices that plan, schedule and perform on-time routine and preventive maintenance provides the greatest return on investment (ROI).
- Preventive Maintenance (PM) reduces breakdown maintenance work hours, and greatly reduces disruption to teaching and learning.

THE DESIGN-LIFE CURVE



- In the exhibit to the left, the “Design-Life Curve” illustrates an example of an asset originally costing \$100,000 with a life expectancy of 25 years. The replacement threshold is the economic moment where replacement is justified over continued repair. With adequate preventive maintenance, the asset life to the replacement threshold is 23 years; without preventive maintenance the replacement threshold is reached five years earlier. Over the life of the asset, the amount saved by deferring maintenance in the short-term comes at a significant price; over the 50-year life of a typical school, deferring maintenance will result in an additional capital replacement cycle.
- The Design-Life Curve illustrates the basic foundation for the facility condition index (FCI). In year 18 of this example, the asset has lost 75 percent of its life-cycle value and has an FCI of 75. However, with preventive maintenance it only loses 12 percent and has an FCI of 12.

MAINTENANCE OF EQUIPMENT & BUILDINGS

- Lack of effective planning, including predictive, and preventive maintenance of facilities can significantly increase the rate of decay, and increase the overall costs of maintaining buildings and equipment at the level that allows them to effectively serve students and staff and to achieve their designed life expectancy.
- Dealing with coastal corrosion – salt corrosion, high humidity, strong winds, UV exposure – can wear down the efficiency and life expectancy of equipment and roofs.
 - Ex. With HVAC equipment, coil corrosion is a major problem, and it can lead to decreased efficiency and eventual equipment failure.
- I&S funds cannot by law be used to pay M&O expenses, which means that voter-approved bonds cannot be used to increase teacher salaries or pay rising costs for utilities and services.

WHICH BUCKET TO USE FOR FUNDING

GENERAL OPERATING FUND

(MAINTENANCE & OPERATIONS)

Day-to-day operations & expenses



For school districts this includes:

- staff salaries
- utilities
- supplies
- repairs
- fuel

For the average citizen this is similar to:

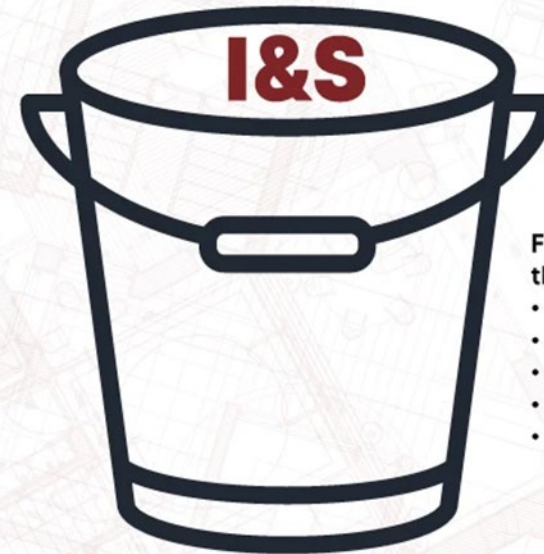
- groceries
- utilities
- minor home repairs
- routine services
- car fuel

BOND FUNDS CANNOT BE USED FOR SALARIES, UTILITIES, OR OTHER DAY-TO-DAY EXPENSES.

DEBT SERVICES FUND

(INTEREST & SINKING)

Principal and interest payments on debt issued



For school districts this includes:

- new construction
- Renovations
- HVAC Systems
- Roofing
- Technology

For the average citizen this is similar to:

- Mortgage
- Home renovation
- Major Appliances
- Land
- Car

BOND ELECTIONS ONLY AFFECT THE I&S PART OF THE TAX RATE.

HVAC ISSUES



ROOFING ISSUES



FLOODING ISSUES



DRAINAGE ISSUES



SCHOOL FACILITIES STANDARDS

- **Part I, Educational Program** – will consist of the District’s educational vision, mission, and strategic goals, and the instructional programs provided in accordance with Texas Education Agency curriculum requirements relating to essential knowledge and skills.
- **Part II, Educational Specifications** – will consist of the instructional programs (described in Part I), grade configuration and type of facility. This part contains detailed information on spatial relationships, specialized classrooms, instructional and non-instructional support areas and external activity spaces, the number and size of all spaces, provisions for outdoor instruction, and safety and security considerations.
- **Part III, Design Criteria** – will specify the instructional area size and design requirements, gymnasium and library standards, support area requirements, and other provisions such as electrical, technology, HVAC, sustainable school design and accessibility standards.
- **Part IV, Long Range School Facility Plan** – the District will develop a long range plan, or Master Plan, and include as part of the School Facilities Standards.

The District will develop a master standards database that provides the minimum requirements for any new school facility, additions and renovations. Additional requirements specific to a new campus would be attached to the standards and would address the detailed needs of the new facility based on grade level and type of facility.

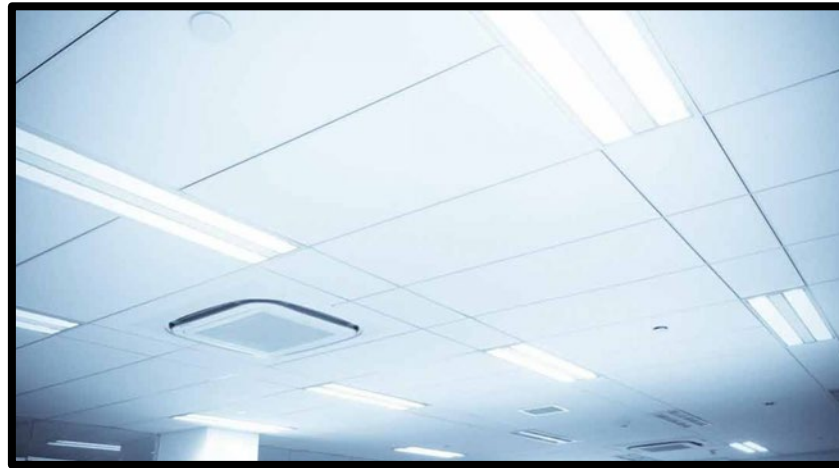
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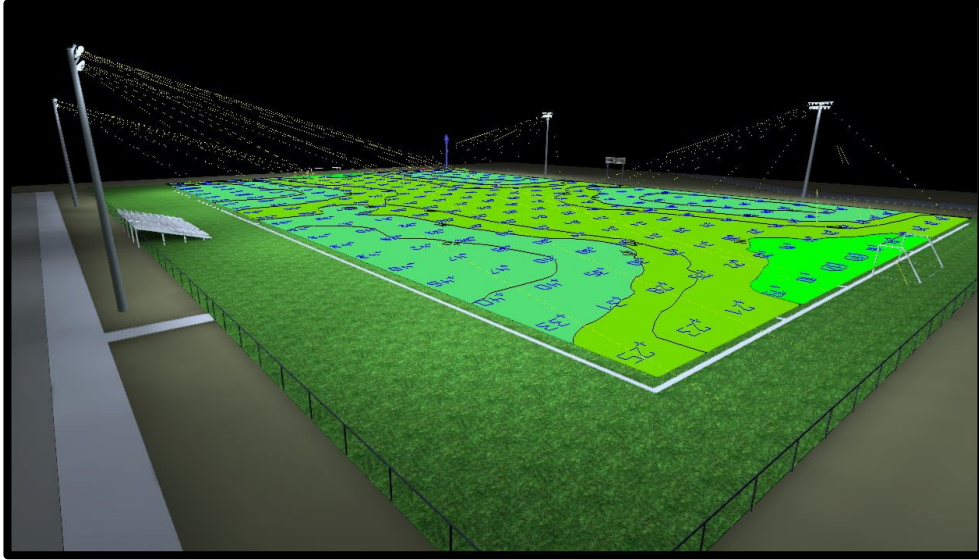


Touchless Faucets



Metering Faucets

SCHOOL FACILITIES STANDARDS



VISION AND MISSION STATEMENT

- **Vision** – Brownsville ISD empowers students to be life-long learners who are prepared to contribute to our community and succeed in a global society.
- **Mission** – In collaboration with our families and community, Brownsville ISD provides a safe, healthy, and nurturing learning environment. We offer specialized supports and equitable resources to implement high-quality curricula, student-centered instruction, and exemplary programs.
- **2024-2029 Strategic Goals**
 - By 2029, 100% of Brownsville ISD graduating students will be college, career, trade, or military ready based upon their individual goals.
 - By 2029, 100% of Brownsville ISD students will make significant growth in order to meet or exceed grade-level standards, closing the academic achievement gap.
 - By 2029, 100% of Brownsville ISD students will attend school daily and the district enrollment will increase from 37,000 to 39,500.
 - By 2029, 100% of Brownsville ISD staff and teachers will be highly effective.

CITIZENS FACILITIES COMMITTEE

- The purpose of these facilities assessments is to identify necessary capital repairs for our schools and evaluate the condition of major infrastructure systems, including HVAC systems, roofs, and other critical areas.
- The Citizens Facilities Committee (CFC) will be responsible for assessing the facility needs described above, determine the most cost-effective solutions, prioritize list of projects, and provide a final report to the Superintendent and School Board.
- The Citizens Facilities Committee will be broken down into five sub-committees that will spearhead these facility assessments.
 - Elementary Facilities Sub-Committee (2)
 - Secondary Facilities Sub-Committee
 - District-Wide Facilities Sub-Committee
 - Finance Facilities Committee

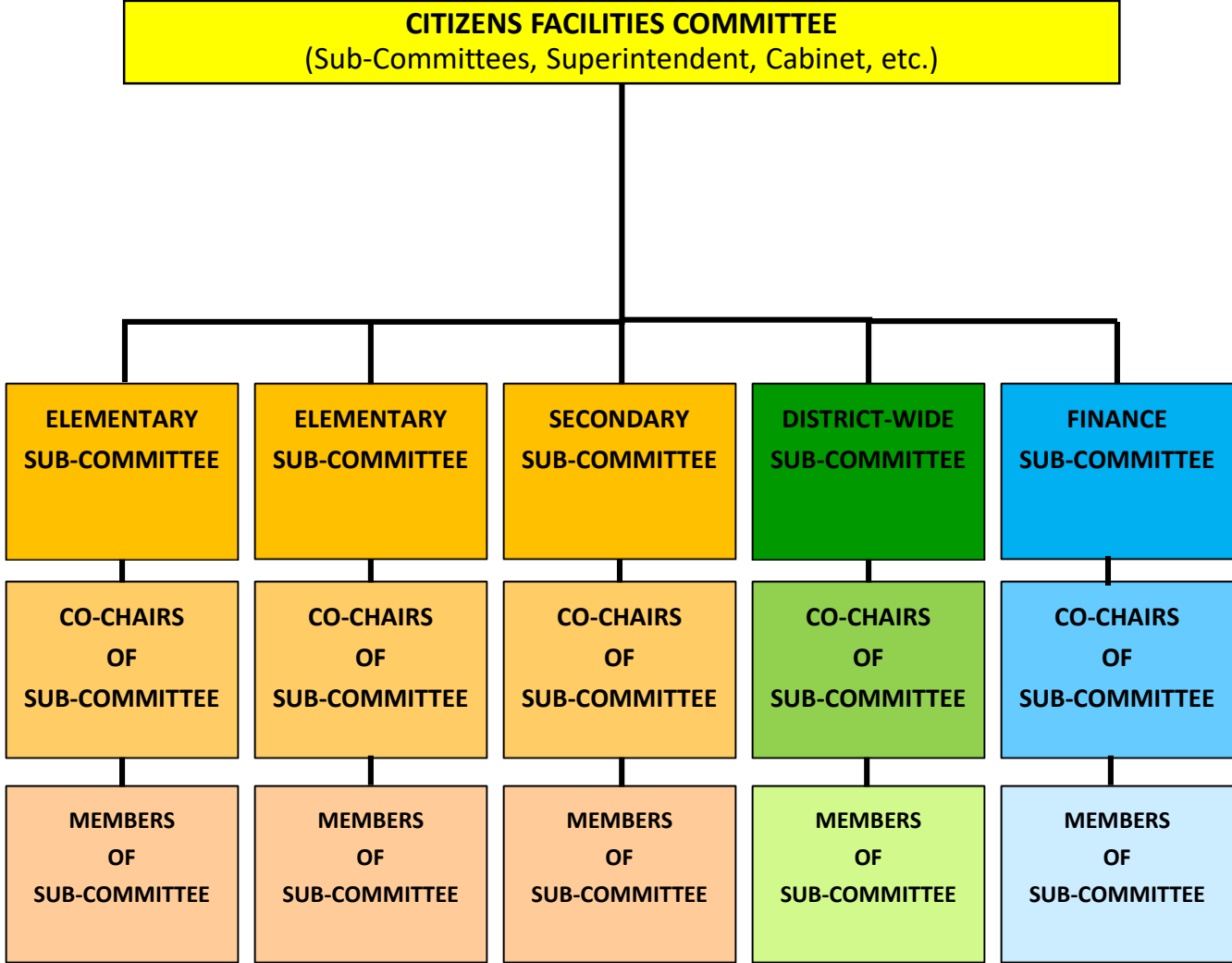
CITIZENS FACILITIES COMMITTEE ROLES & RESPONSIBILITIES

- BISD School Board
 - Approve charge of Citizens Facilities Committee (CFC)
 - Provide input on the creation of the Citizen Facilities Sub-Committees
 - Approve scope of work for CFC
- BISD Superintendent
 - Member/part of the Citizen Facilities Committee
 - Ensure that the District needs are being effectively communicated to the sub-committees
- BISD Staff
 - Provide valuable input and information that the sub-committees might request or require to conduct assessments
 - Facilitate school/campus visits
 - Facilitate meeting logistics

CITIZENS FACILITIES COMMITTEE ROLES & RESPONSIBILITIES

- Citizens Facilities Committee
 - Participate in all committee meetings
 - Draft final report and present to the School Board
- Sub-Committee Chairs
 - Lead the CFC sub-committees
 - Ensure that all needs are being assessed
 - Ensure that all cost-effective solutions are being considered and evaluated
 - Prepare sub-committee reports to provide to the CFC
- CFC Members
 - Participate in the assessment of facilities
 - Participate in the evaluation of cost-effective solutions
 - Participate in the prioritization of the overall needs of their respective sub-committee

CITIZENS FACILITIES COMMITTEE



WHY A FACILITIES ASSESSMENT?

Age of Buildings

22 Schools (43%) of Schools are 20+ Years Old - Built Between 1980-2004

20 Schools (39%) are 45+ Years Old - Built on or Before 1979

Construction Costs Rising

Inflation 4-7% increase each year for the past 4 years

18 Years Since BISD's Last Bond

2006 Was The Last Time BISD Passed a Bond to Address Facilities Needs

50+ Facilities

48 Campuses
3 Alternative/Special Schools
5+ District-Wide Facilities



PROCESS & TIMELINE



At-a-glance

SCHOOL BOARD

Call a Special Meeting to approve charge of CFC, name Co-Chairs of committees, and approve scope of work.

2024

Early Nov



CITIZENS SUB-COMMITTEES

Have 1st meeting with all members of CFC, break up into sub-committees and begin to outline work and assessment of facilities.

2024

Nov



CITIZENS FACILITIES COMMITTEE

Compile reports from sub-committees and prepare report with list of projects and priorities to address.

2024

Dec



CITIZENS FACILITIES COMMITTEE

Present facilities assessment final report to the school board for review.

2025

Jan



SCHOOL BOARD

Finalize priority projects report.

Last day to call election for May 2025

2025

Feb 14

