



Bond 2025 Steering Committee

Committee Meeting #2
December 12, 2024

Meeting Agenda

- The following topics will be discussed tonight:
 - Instructional Focus
 - Career and Technical Education (CTE)
 - Co-Curricular Focus
 - Athletics and Fine Arts
 - Operational Focus
 - Safety & security
 - Transportation
 - Environmental Services
 - Technology
 - Facilities

Remaining Questions

- If you have any questions about questions from the previous meeting, we want to hear from you so we can answer your questions before our final meeting on January 7, 2025
- For the sake of time tonight, use the QR code to submit questions





Instructional Focus: Career and Technical Education (CTE)

Dr. Michael Webb
Chief Academic Officer



TOMBALL

INDEPENDENT SCHOOL DISTRICT



Tomball ISD
Career and
Technical
Education

Bottom Line Up Front

1. CTE has experienced exponential growth in the last three years, in part, as a result direct result of Bond 2021.
2. There are seven possible CTE expansion programs.
3. ROTC needs a Raider Program to enhance recruitment.
4. Libraries must expand beyond literature to include include maker spaces, research design spaces, project-based learning, and application learning.



2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2026-2027
7th Graders enroll in Career & College Exploration	Electrical Technology	Aviation	Ag Mechanics - Project Show	Open THS CTE Center	P-TECH Teaching & Learning
	IBCs in all Programs of Study	Cyber-Security	Open Law Enforcement Simulator	Aviation-Maintenance @ TIC	
Aligned JumpStart Classes (Grade 8)		Graphic-Design Fab Lab (TMHS)	Open Tomball Agriculture Center	Aviation- Pilots @ TIC	
Audio/Visual		Law Enforcement	Open TIC Courtroom	Graphic Design Fab Lab @ TIC	
Game & App Development		Legal Services	Open TIC 911 Call Center	Horticulture Project Show	
Robotics			Open P-TECH Healthcare		

A Leader in Career and Technical Education



27 Programs of Study

40 CTE Courses Added Since 2021

1 / 3 of CTE courses added in last four years

9 CTE Dual Credit Courses

1,417 Industry-Based Certifications Earned in 23-24

2028 - 2032

Automotive & Collision Repair

Information Technology Support Services

Diesel & Heavy Equipment

Family & Community Services

Plumbing & Pipefitting

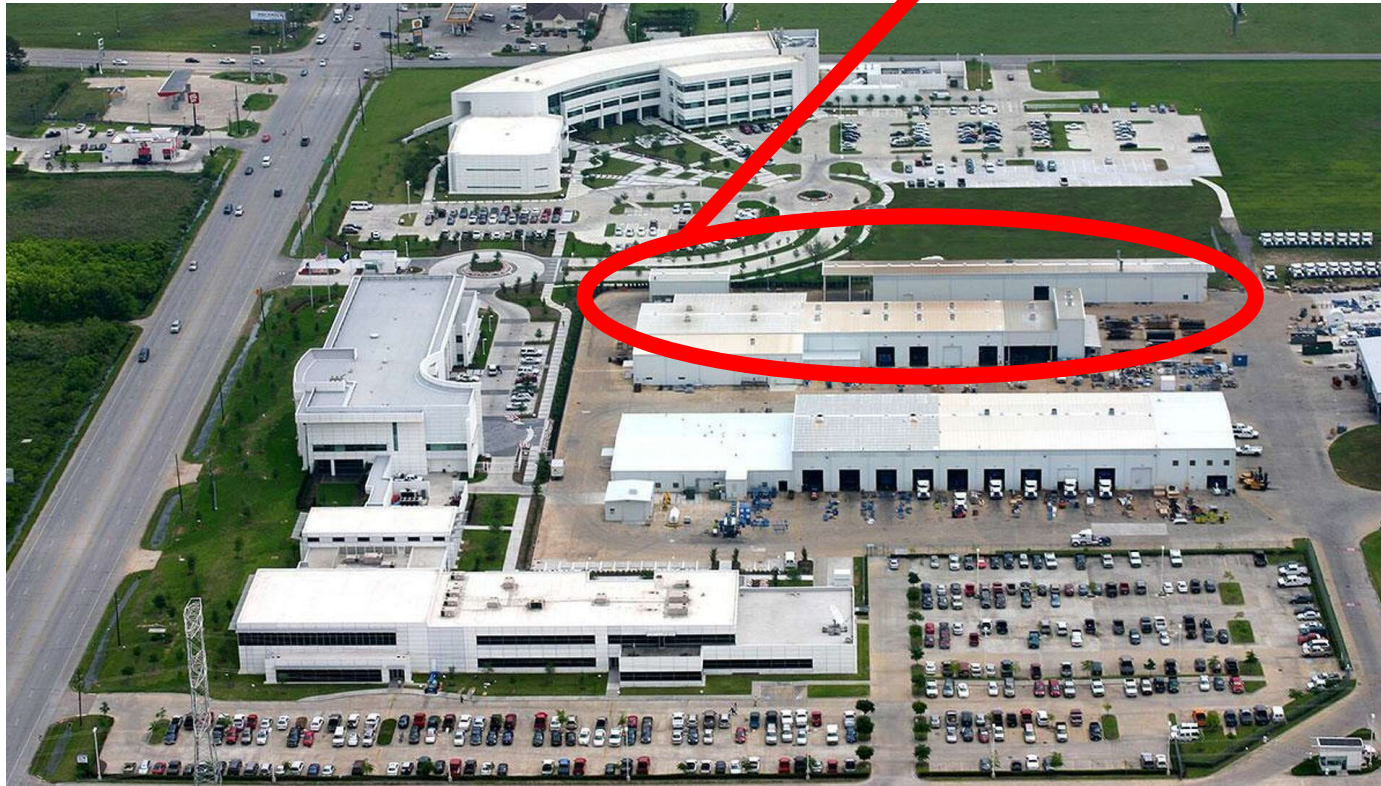
HVAC & Sheet Metal

Fire Science

Prioritize programs through labor market data, future market forecasting, and advisory boards, (including the economic council and Chamber of Commerce, and student surveys)

Proposed Future CTE Location (Industrial Programs)

Warehouse 7
(Practicum Levels)



Fire Science



Occupations	Median Wage	Annual Openings	% Growth (2032)
Firefighters	\$54,315	2,235	10.84%
Fire Inspectors and Investigators	\$77,310	92	11.89%
First-Line Supervisors of Firefighting and Prevention Workers	\$80,300	597	11.13%

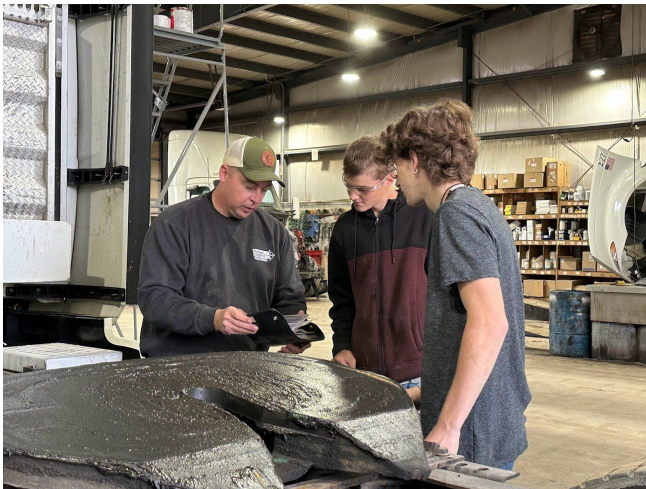
Career Cluster: Law and Public Service

Program of Study: Fire Science

Industry Based Certification Options:

- Emergency Medical Technician- Basic
- Basic Structure Fire Protection
- IAED Emergency Telecommunicator
- Emergency Medical Responder

Automotive and Collision Repair



Occupations	Median Wage	Annual Openings	% Growth
Automotive Body and Related Repairers	\$48, 783	1,445	12.94%
Automotive Service Technicians and Mechanics	\$47, 382	7,491	13.92%

Career Cluster: Transportation, Distribution, and Logistics

Program of Study: Automotive and Collision Repair

Sample of Available Industry Based Certifications: *(22 Currently Available)*

- ASE Entry-Level Collision Painting and Refinishing
- Principles of Small Engine Technology
- Industrial Technology Maintenance- Basic Mechanical Systems

Diesel and Heavy Equipment



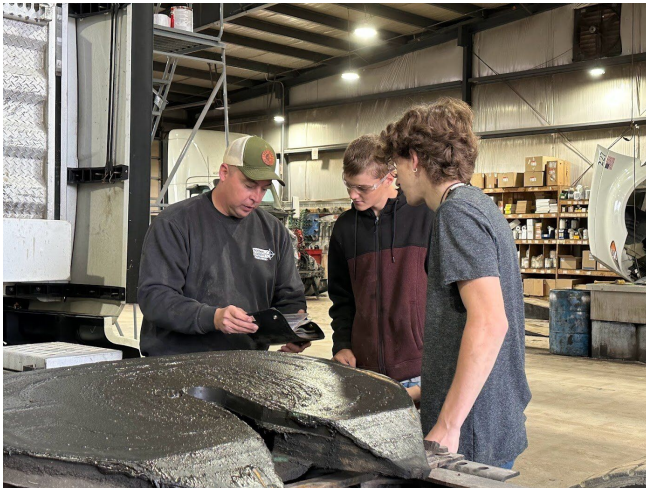
Occupations	Median Wage	Annual Openings	% Growth
Bus and Truck Mechanics and Diesel Engine Specialists	\$58,848	2,615	12.68%
Mobile Heavy Equipment Mechanics	\$61,890	2,315	1.79%

Career Cluster: Transportation, Distribution, and Logistics

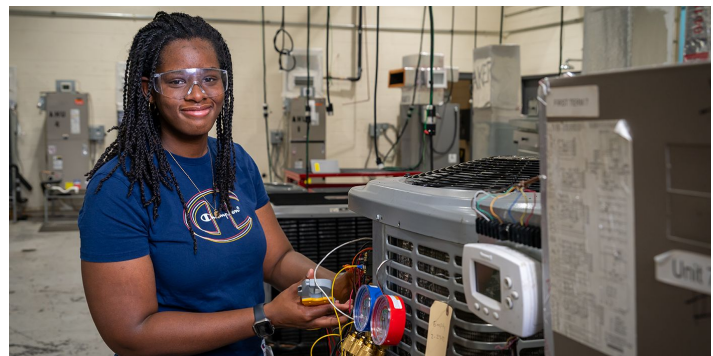
Program of Study: Diesel and Heavy Equipment

Sample of Available Industry Based Certifications: *(16 Currently Available)*

- ASE Entry-Level Medium/Heavy Truck, Brakes
- Diesel Technology- Job Ready
- Heavy Equipment Maintenance and Repair- Job Ready



HVAC and Sheet Metal



Occupations	Median Wage	Annual Openings	% Growth
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$54,209	3,519	17.36%
Sheet Metal Workers	\$51,015	920	8.35%
Construction Managers	\$100,872	5,403	15.30%

Career Cluster: Architecture and Construction

Program of Study: HVAC and Sheet Metal

Sample of Available Industry Based Certifications: *(13 Currently Available)*

- Employment Ready Certification- Air Conditioning
- HBI Pre-Apprenticeship Certificate Training
- Refrigerant Handling (IPA 608)

Plumbing and Pipefitting



Occupations	Median Wage	Annual Openings	% Growth
Plumbers, Pipefitters, and Steamfitters	\$60,281	4,336	13.26%
Pipelayers	\$45,426	413	5.15%
Septic Tank Services and Sewer Pipe Cleaners	\$50,37	353	27.36%

Career Cluster: Architecture and Construction

Program of Study: Plumbing and Pipefitting

Sample of Available Industry Based Certifications: *(8 Currently Available)*

- HBI Pre-Apprenticeship Certificate Training, Core
- NCCER Industrial Pipefitter
- Tradesman Plumber- Limited

Informational Technology Support and Services



This program of study focuses on administering, testing, and implementing computer databases and applying knowledge of database management systems. It also includes research, design, and testing of computer or computer-related equipment. (Example: TISD Technology Department)

Occupations	Median Wage	Annual Openings	% Growth
Computer User Support Specialists	\$55,018	6,387	23.41%
Computer Systems Analysts	\$112,518	4,559	29.85%
Network and Computer Systems Administrators	\$96,651	2,292	18.61%

Career Cluster: Information Technology

Program of Study: Information Technology Support and Services

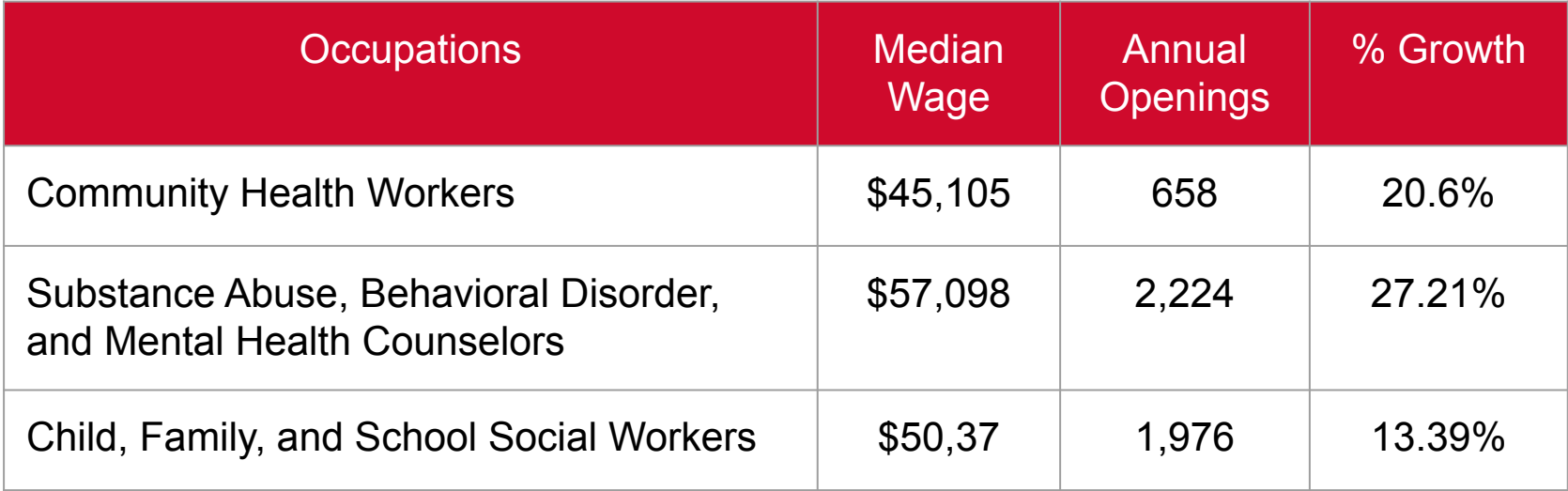
Sample of Available Industry Based Certifications: *(11 Currently Available)*

- CompTIA IT Fundamentals +
- Microsoft 365 Fundamentals
- Microsoft Security, Compliance, and Identity Fundamentals

Informational Technology Support and Services Location



Keefer Street, between
EEA and TCA. Former
Student Support Office.

[illegible]

Program of Study: Family and Community Services

- Child Development Associate
- Community Health Worker

Family and Community Services Location



Located at Tomball ISD Comprehensive High Schools



ESports (extracurricular)



Keefer Street - Gymnasium



Acoustics · Screens · Chairs

ESports (extracurricular)



Keefer Street - Gymnasium



Acoustics · Screens · Chairs

ESports (extracurricular)



Comparable CTE Spaces

Est. 1973



Est. 2012



Est. 2026



Improve facilities and equipment for Engineering, Architecture, A/V, Robotics and Health CTE clusters.

Tomball High School NJROTC

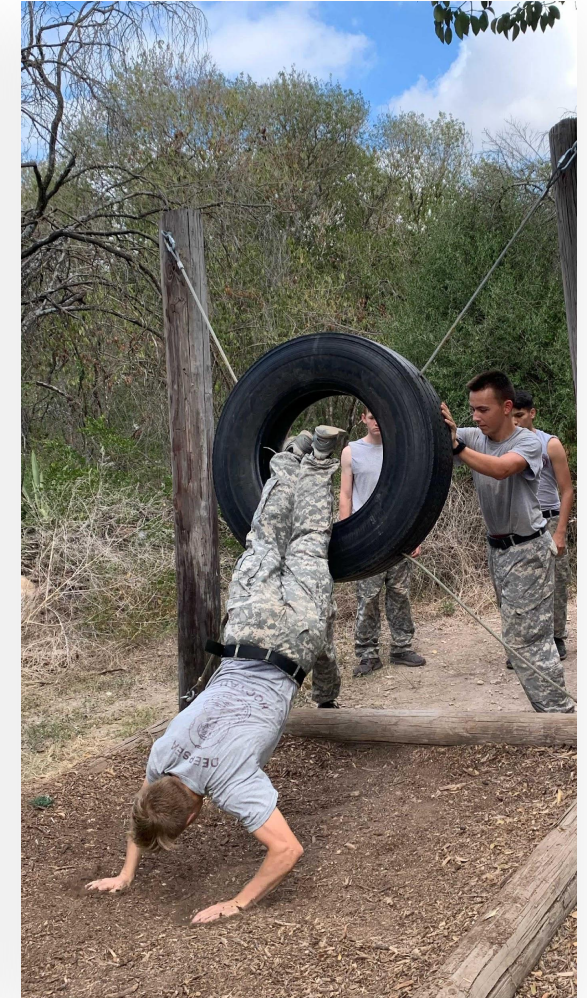


RAIDER PROGRAM

Memorial MCJROTC



The Raider program is a competitive program in the Junior Reserve Officer Training Corps (JROTC) that tests cadets' physical fitness and teamwork skills



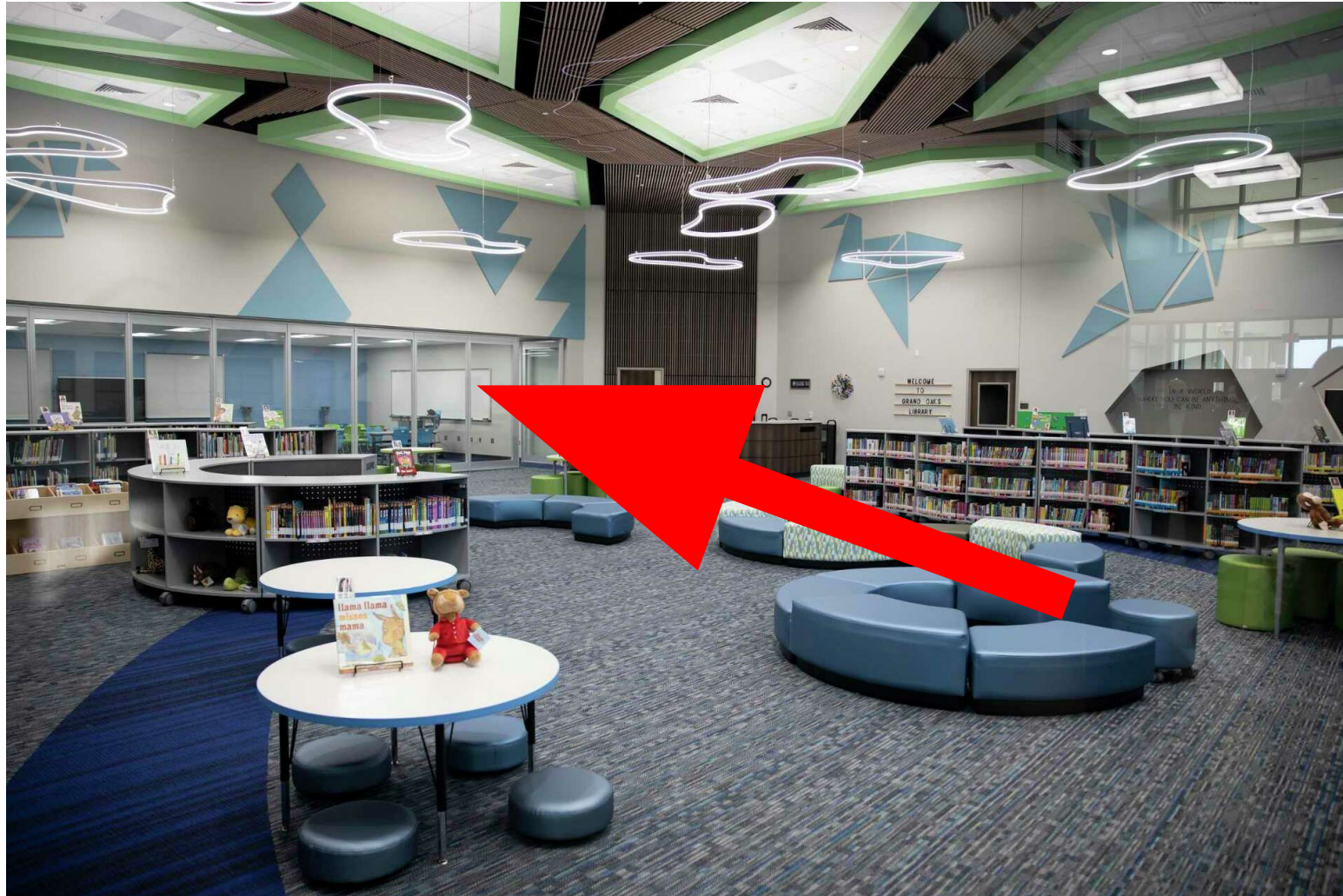




Leadership
through
Competition



Tomball ISD Elementary Libraries (GOES & WEST)



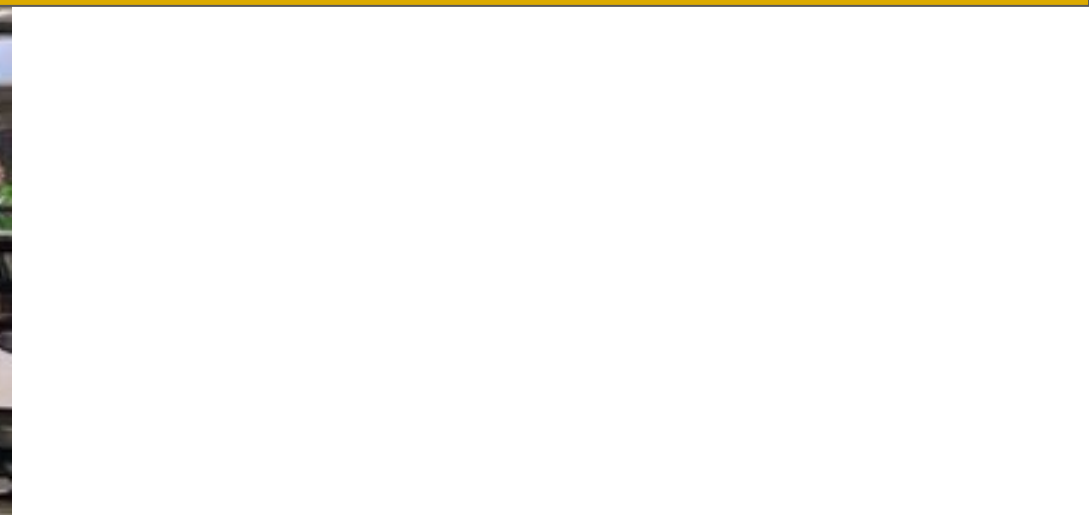
Tomball ISD Elementary Libraries













- 🎓 Equip elementary libraries with SMART labs.
- 🎓 Expand all elementary libraries to include maker spaces, research design spaces, project-based learning and application-based learning.
- 🎓 Connect learning to the workforce.
- 🎓 Enhance cross-curricular connection.





TOMBALL

INDEPENDENT SCHOOL DISTRICT



Co-Curricular Focus: Athletics & Fine Arts

Dr. Steven Gutierrez
Chief Operating Officer

Co-Curricular Impact

- 11,784 Total Athletes, ROTC Students & Fine Arts Students
- Students involved in extracurricular activities perform better academically, behaviorally and have higher attendance rates
- Tomball High School 2022 National Football Foundation 6A Academic Excellence State Champions
- Tomball High School Baseball 2024 6A State Champions
- 145 Tomball ISD Senior Athletes named to the 2023-2024 Texas High School Coaches Association Academic All-State Teams

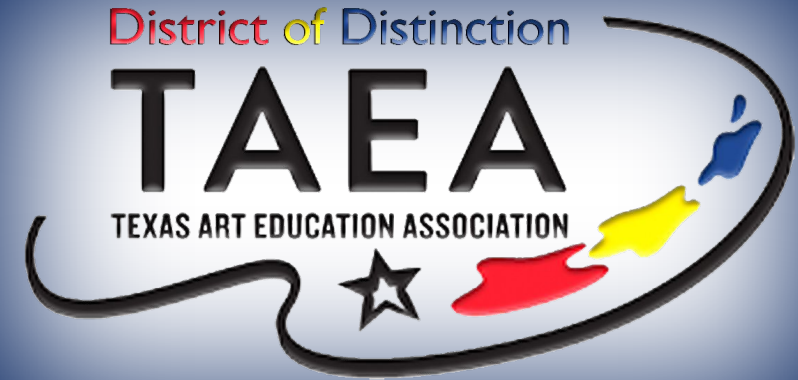
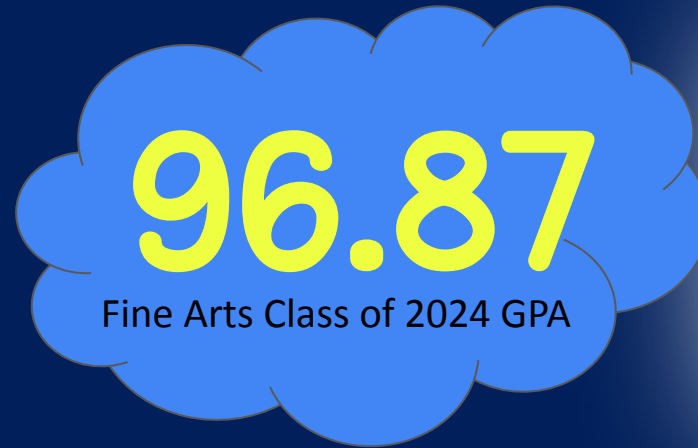


Co-Curricular Impact

- Students in Athletics/Fine Arts have markedly stronger attendance - an average of 7 additional school days over the course of a year
- Skills learned in Athletics/Fine Arts classes and activities transfer into workforce skills
- Hundreds of thousands in scholarship money for TISD fine arts/athletics graduates



Co-Curricular Impact



This year's accomplishments:

- TISD Fine Arts featured at txEDCON24 in San Antonio
- TMHS Band State Championship advancement
- THS Winter Guard State Champions
- TMHS Choir & Orchestra performance at Carnegie Hall
- Artwork selected for State Capitol Art Show
- TMHS Thespians national qualifiers
- THS One Act Play District Champions



Multi-Purpose Facilities



WBGT Activity Guidelines		
Class 3	Class 2	Activity Guidelines
< 82.0	<79.7	Normal Activities - Provide at least three separate rest breaks each hour with a minimum duration of 3 min each during the workout.
82.0 - 86.9	79.7 - 84.6	Use discretion for intense or prolonged exercise; Provide at least three separate rest breaks each hour with a minimum duration of 4 min each.
87.0 - 90.0	84.7 - 87.6	Maximum practice time is 2 hours; For Football: players are restricted to helmet, shoulder pads, and shorts during practice. If the WBGT rises to this level during practice, players may continue to work out wearing football pants without changing to shorts. For All Sports: Provide at least four separate rest breaks each hour with a minimum duration of 4 min each.
90.1 - 92.0	87.7 - 89.7	Maximum practice time is 1 hour; For Football: No protective equipment may be worn during practice, and there may be no conditioning activities. For All Sports: There must be 20 min of rest breaks distributed throughout the hour of practice.
≥92.1	≥89.8	No outdoor workouts. Delay practices until a cooler WBGT is reached.

**Values in the above chart are WBGT measurements (not temperature or heat index measurements).*

Weather Safety Concerns

- Record breaking heat conditions
- Between 2019 and 2023
 - 7,627 total heat-related illnesses reported in Harris County
- During 2023-2024 school year
 - 100 days affected by weather conditions including heat, cold, lightning and rain in Tomball ISD
- Many practices are beginning at 5:00 am and some are ending after 8:00 pm to accommodate weather restrictions
 - Safety and competitive concerns

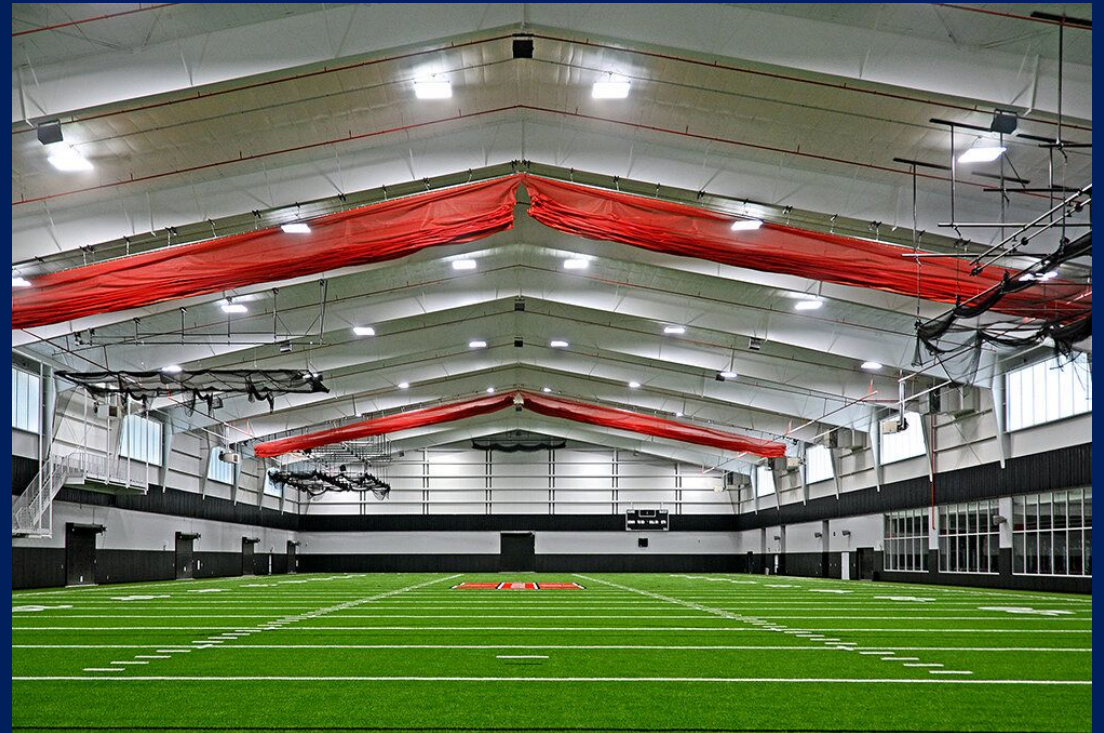
Multi-Purpose Facilities

- Band: Heat/Lightning Safety
Ability to host competitions
- Cheerleading/Dance
Ability to host clinics, additional practice space
- JROTC: Ability to host drill meets



Multi-Purpose Facilities

- Athletics
 - Baseball/Softball
 - Drop down netting for hitting stations & inlaid bases
 - Soccer
 - Able to host soccer games
 - Wrestling room / Golf bays
 - Football
 - Heat/Lightning Safety



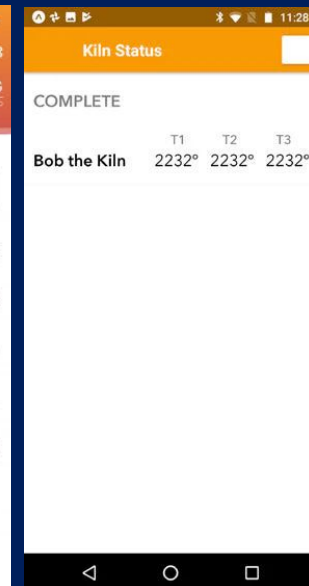
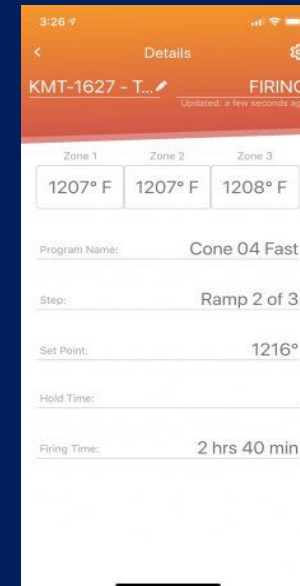
Replacement Cycle

- Fine Arts equipment only lasts so long before it needs replacing. Lifespans vary, but here are some examples:
 - Uniforms: 7-8 years
 - Instruments: 15-20 years
 - Kilns: 25 years
 - Auditorium Curtains: 12-20 years
 - Risers: 15 years
- Need a system to replace aging equipment
- Will allow us to upgrade to industry standard



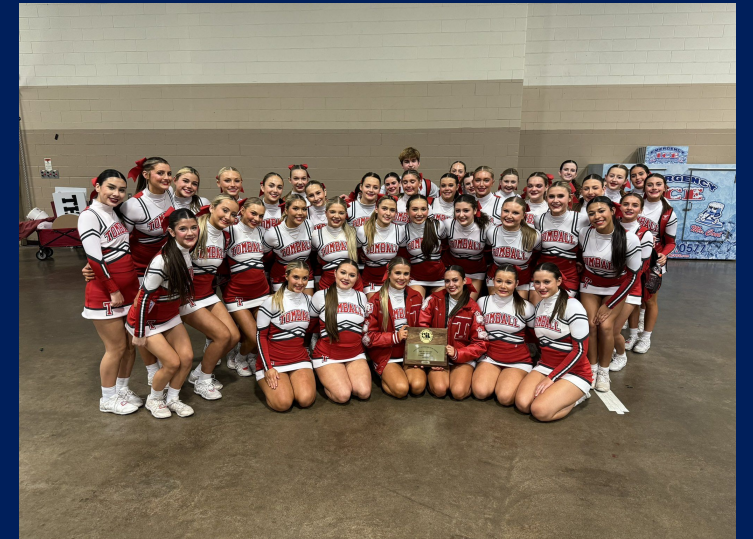
Replacement Cycle Impact: Art

- New kilns with KilnLink technology
 - Safety for operating kilns remotely
 - Kiln cycle monitoring and notifications
 - Diagnostic capability to save on inspections for repair



Replacement Cycle Impact: Dance & Cheer

- Uniforms
- Mats
- Dance floor replacements



Replacement Cycle Impact: Music

- Instruments
- Risers
- Stands/Chairs
- Uniforms



What does LBJ have in common with these removable bell tubas at TIS? They were both all the rage in 1968!

Replacement Cycle Impact: Theatre*

- Curtains - up to date flame retardant
- Lighting/Sound upgrades
- Projectors



*Much of this benefits the WHOLE district as it is equipment used in auditoriums for events outside of Fine Arts as well!

Baseball/Softball

- Dugout to dugout cabling system for safety
- Expanded covered seating



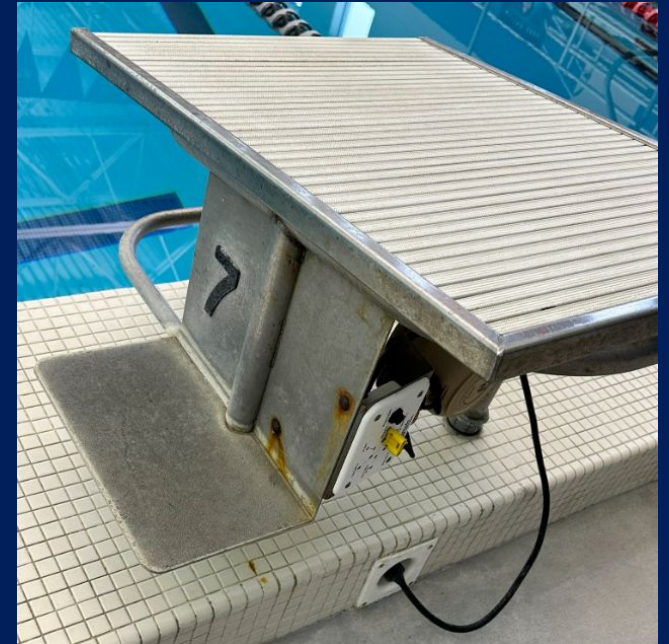
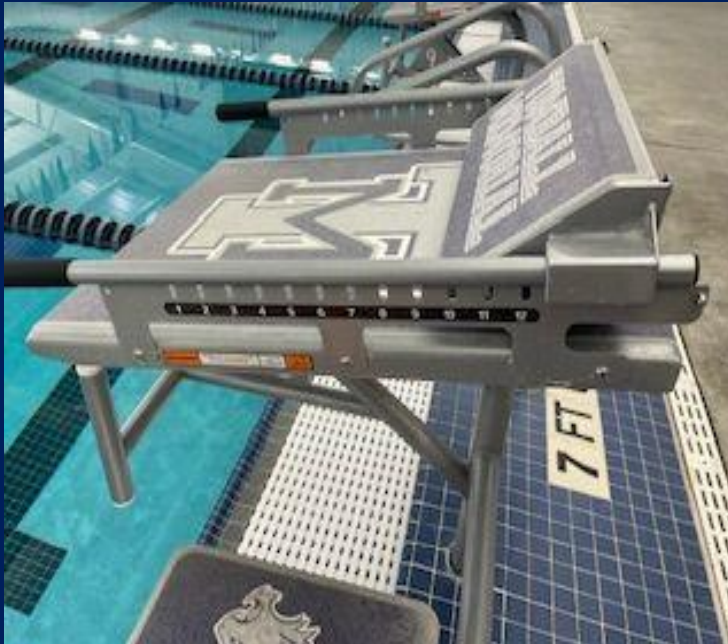
Baseball/Softball/Soccer/Tennis Complex

- Concrete walkways for increased accessibility
- New netting for baseball, softball and soccer for safety



Tomball West Natatorium & Tomball High Natatorium Upgrades

- Tomball West will have to bus athlete's daily for practice
- Tomball High School blocks are outdated and corroded which has made the timing system inoperable



Tomball High Gym

- Flooring: Over 20 years since floor sanded and painted
- Bleachers: ADA and safety concerns
- Goals: Missing required safety straps (several gyms)



Track and Turf

- Track: High School & Junior High tracks need resurface/striping
 - New markings for exchange zones
- Turf: Normal wear & Gmax testing indicates unsafe conditions



Small & Whole Group Discussion

- Based on the information presented by staff:
 - What key observations did you make?
 - What questions remain to be answered?
- Individual reflection: 5 minutes
- Group discussion: 10-15 minutes
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Operational Focus: Transportation & White Fleet Vehicles

Dr. Steven Gutierrez
Chief Operating Officer

Transportation Services

- Tomball ISD offers transportation services to all families in the District who choose to utilize the service
- Many Districts in our area and across the state have reduced transportation services in a cost-savings effort
- In addition to home to school services, TISD transports students for:
 - Athletic events
 - Fine Arts performances
 - Field trips
 - Amazing hands-on learning experiences
- Over 1,675,000 route miles driven last school year!

Bus Fleet Information

- TEA guidelines suggest 10-12 years on the road for a school bus lifetime
- The following is the model year and number of buses on the road:

2008	2009	2011	2013	2015	2016	2018	2019	2020	2021	2022	2024	2025	TOTAL
16	13	18	10	8	8	19	9	11	13	5	28	6	164
16 YEARS	15 YEARS	13 YEARS	11 YEARS	9 YEARS	8 YEARS	6 YEARS	5 YEARS	4 YEARS	3 YEARS	2 YEARS	1 YEAR	NEW!	7.38 AVG

- Significant investment will be needed over the course of this potential bond cycle to keep up with need/demand and replacing aging buses
 - Projecting a need of 90 buses over the next 5-7 years

White Fleet Information

- The Transportation Department manages the entire white vehicles for all District departments
- Guidelines suggest 10-12 years on the road for cost efficiency due to maintenance and repair costs
- The following is the model year and number of vehicles on the road:

2002	2005	2006	2007	2011	2013	2015	2018	2020	2021	2022	2023	2024	TOTAL
6	5	8	6	4	9	7	2	1	13	8	3	3	75
22 YEARS	19 YEARS	18 YEARS	17 YEARS	13 YEARS	11 YEARS	9 YEARS	6 YEARS	4 YEARS	3 YEARS	2 YEARS	2 YEAR	1 YEAR!	10.06 AVG

White Fleet Information Continued

- The District own 4 SUVs for District use
 - 2014 (2) and 2021 (2) SUVs are used for unique home to school situations, athletic purposes and staff travel
- Semi-trucks and trailers
 - Semis are 13 and 20 years old
 - Enclosed trailers are 25 and 30 years old
- 3 open trailers
 - 8, 21 and 24 years old
- Box trucks are rented for football season
- We have spent approximately \$300,000 during the last 2 school years on rentals

Transportation Department Footprint

- The Transportation Department is located at the Baker Dr building that was built in 1989 and we were staffed with approximately 50 employees
- In 2012 the 2nd building was added to same location and the employee count was a little over 100.
- Currently, we are in the same buildings with over 200 employees
- Limited parking available for expected need of buses and employees over the next 5-7 years
- Need for expansion of meeting and office space, as well as an expanded secured parking area

Small & Whole Group Discussion

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Thank You



Needs Assessment: Safety & Security Environmental Services

Dr. Steven Gutierrez
Chief Operating Officer

Communications

Emergency Scenarios



During mass emergency events cell service in the area is typically lost within the first 10 minutes

Daily Operations



Provide campuses to consistent reception in all areas of the building

Enhance Security



Select Fencing

- Provide campuses additional support not covered by State safety grants
- Possible supports
 - additional fencing
 - secure pedestrian gates with push bar exits and locks

Enhance Security



Public Address

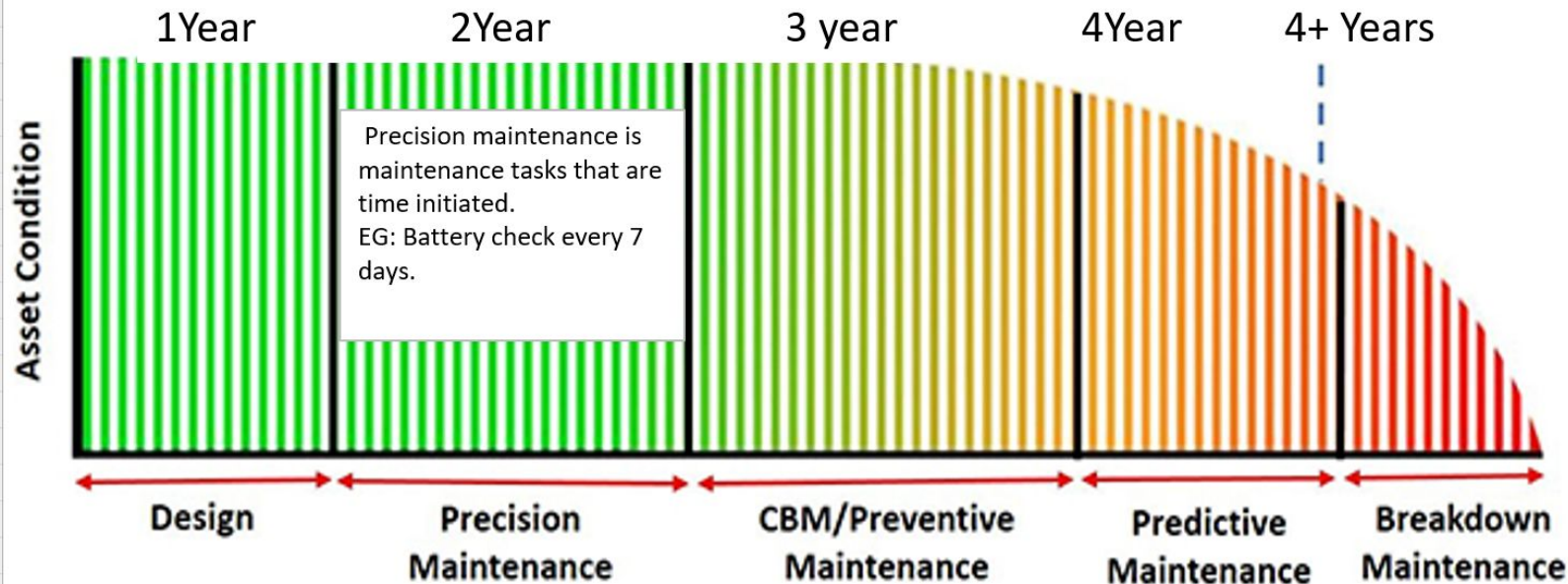
Provide a system to communicate with all stakeholders at district facilities or events in the event of an emergency that is not reliant on cell service or wifi.

Severe Weather - Active Shooter - Train Derailment - Police Activity in the Area

Impact & Life Expectancy of Cleaning Equipment

- Industry leading standards of cleanliness ensuring environmental safety in all facilities
- High volume use of essential equipment
- Fiscally responsible selection and use of equipment

A residential vacuum cleaner may last as long as 10 years if properly maintained. However, a good quality **commercial vacuum** cleaner may only last **about five years**, even with the best of care.



Commercial Cleaning Equipment



Essential Equipment		
Equipment	Average Age	Oldest
Carpet Extractors	8 yrs	10 yrs
Floor Scrubbers	8 yrs	11 yrs
Vacuums	7 yrs	10 yrs
Burnishers	7 yrs	11 yrs

Vehicle Replacement Program

- Vehicles are need to get our floor tech, facility specialist, and leadership to the campus.
- There are six department leaders that round the facilities for safety, quality, and overall cleanliness.
- Limited vehicles require use of personal vehicle by leadership and District payment of mileage
- Industry Standards show that well maintained work vehicle can last up to 10 year in service.



Essential Vehicles		
Equipment	Purchase of Vehicle	Age
Van 797103	1997	27 Years
Van 702106	2002	22 Years
Van 705101	2005	19 Years
Van 707102	2007	17 Years
Truck 713104	2013	11 Years

Industrial Washer & Dryers

- CDC recommends daily laundering of cleaning cloths & mops to prevent the spread of germs and viruses.
- Industry leading standards of cleanliness to ensure environmental cleanliness and safety in all facilities.
- Our laundry team services 14 district facilities on daily basis; we clean 5,200 microfiber cleaning cloths and 1,400 microfiber flat mops.





Technology Upgrades

Jason Piazza
Director of Technology

Technology



- Physical Security Systems
 - Access Control Deficiencies
 - Security Camera Lifecycle
 - GOES (2027), GLJHS & TEC/Stadium (2028), THS, TMHS, TSA (2029)
 - Intrusion Alarms
- Data Center Infrastructure
 - Power Distribution
 - Fire Protection
 - Server Growth
- Facility usage
- Vehicle needs



Technology



- Network Infrastructure
 - Campus switching and routing lifecycle replacement
 - Cabling EOL / Network Closets
 - Cybersecurity
- Lifecycle Replacements
 - Chromebooks (25,000 EOL in June 2027)
 - CTE Computer Labs
 - SMART Interactive Panels - GOES (2027), GLJHS (2028), TSA (2029)
 - Document Cameras
- District Growth
 - Teacher & Staff Computers
 - Chromebooks & Chromebook Carts



Facilities Maintenance Upgrades

Zack Boles
Chief Financial Officer

Facility Quick Facts

- 44 Facilities (Including Non-Instructional)
- 4.5 Million Square Feet
- 50% of Schools 20+ Years Old
- 4 Schools > 40 Years Old

Facility Deficiencies

Carpentry

- Roof replacements at several campuses
- Replacement of bleachers at Tomball High gyms
- Replacement of select campus flooring

HVAC

- Replacement of equipment that has reached or exceeded life expectancy
 - Chillers, Boilers, Roof Top Units, Building Automation

Facility Deficiencies

Plumbing

- Water softener replacements
- Fixture replacements
- Water Line replacements where lines are beyond repair

Electrical

- Generator Replacements - end of life
- Conversion of lighting to LED
- Transformer and Electrical Panel replacements

Facility Deficiencies

Communication

- Replacement of Life Safety Equipment
 - Fire Panel & Alarm systems
- Replacement of Sound Systems

Irrigation

- District-wide updates

Vehicles

- Roughly 50% of all Maintenance vehicles are 15+ years old
- Fleet expansion to accommodate staff

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