BROWNSVILLE
PUBLIC UTILITIES BOARD

Facilities/Program Committee

MONDAY, NOVEMBER 17, 2025

BROWNSVILLE
PUBLIC UTILITIES BOARD

Call Open Meeting to Order

BROWNSVILLE
PUBLIC UTILITIES BOARD

Public Comments

Items For Presentation and Discussion

1. Presentation and Discussion regarding the Analytical Laboratory Design Phase Remodel - Travis Menchaca, Gabriel Coronado
2. Presentation and Discussion on the Brownsville Public Utilities Board (BPUB) Transmission Planning Strategy - Javier Martinez, Jr
3. Presentation and Discussion of the AV project upgrade — Annex Board Room - Jose Luis Lopez Jr
4. Presentation and Discussion on the Brownsville Public Utilities Board (BPUB) Credit Card Fee Structure - Eduardo Campirano

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Analytical Laboratory Design Phase Remodel

FACILITIES / PROGRAM COMMITTEE | November 17,2025

Gabriel Coronado & Travis Menchaca

Laboratory Manager & Facility Manager

Analytical Laboratory Department & Facility Maintenance Department

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Laboratory Facility Issues

Category	Issue
HVAC Equipment & Infrastructure	▪ HVAC equipment has reached end of the life expectancy • Frequent HVAC equipment failures • Chiller system leaks freon regularly • Mold growth due to condensation and humidity • Stained ceiling tiles and walls
Laboratory Operations	▪ Analytical lab team cannot use Laboratory's main building/facility. ▪ Mold and temperature fluctuation prevent safe and accurate lab work. ▪ DW & Micro Laboratory sections have been relocated to a temporary mobile unit.
Temporary Facilities	▪ Analytical Laboratory has been decentralized. ▪ Mobile unit is too small for lab operations ▪ Mobile unit was intended as a short-term solution ▪ Monthly rental cost adds financial burden

Corrective Actions

Task	Description
Design Collaboration	▪ Partner with Halff Associates for a comprehensive redesign of the space. • Including all Mechanical, Electrical, and Plumbing (MEP) systems.
HVAC Replacement	▪ Remove existing HVAC (Heating, ventilation, and air conditioning) system. ▪ Install BPUB-owned Johnson Controls Inc. (JCI) HVAC system. • Replace all chilled water supply and return lines to ensure efficient thermal regulation. • Install a new duct system equipped with dampers for improved airflow control and zoning.
Lab Building Rehabilitation	▪ A complete rehabilitation/remodel of the facility to fit the needs of the analytical laboratory team.

Scope

Halff Associates will develop a design scope for BPUB that aligns with current laboratory operational needs.

The design scope includes:

- Proposal for professional architectural, mechanical, electrical, and structural engineering services in support of the remodel.
  - The laboratory rehab/renovation of approximately 4,000 square feet
  - Expansion of laboratory space ranging from 400 to 600 square feet.
  - The design will incorporate a new diesel generator to provide full backup power for the entire facility.

Cost Breakdown

Professional Services	Professional Fee	Fee Type
1. MEP Basic Engineering Design Services	$115,000	Lump Sum
2. Backup Generator Design Services	$32,100	Lump Sum
3. ICT & ESS Professional Services	$51,400	Lump Sum
4. Architectural Design Services	$150,000	Lump Sum
5. Civil Engineering Design &	$3,500	Lump Sum
6. Survey Services	$1,500	Lump Sum
7. Structural Design Services	$4,600	Lump Sum
8. Construction Administration MEP	$42,000	Lump Sum
Construction Administration Architectural	$50,000	Lump Sum
Construction Administration Structural	$1,200	Lump Sum
Existing Analytical Lab Remodel Design Total:	$451,300	Lump Sum

Timeline

November 17, 2025	December 2025	January 2026	January 2026	March 2026	April 2026	March 2027
• Present design phase project Facilities Committee	• Present project design phase to BPUB Board for approval.	• PO issued to Halff Associates	• Halff Associates to begin the design of the project	• Halff Associates to begin the bidding process	• Present project construction phase to BPUB Board for approval.	• Completion of the Analytical Laboratory Remodel

Photos

ANALYTICAL LABORATORY MAIN ENTRANCE

MOLD GROWTH ON CEILING PANELS

Photos

REMOVAL OF CEILING PANELS

REMOVAL OF CEILING PANELS

Photos

MOLD GROWTH ON CEILING PANELS

MOLD GROWTH ON CEILING PANELS

Proposed Conceptual Floor Plan

- REMOVE WALL
- ADD WALL
- ADD COUNTER AND SHELF SPACE
- FUMEHOOD
- ELECTRICAL PANNEL INCREASE NEEDED
- RO SYSTEM AREA
- ICE MACHINE
- POWER GENERATOR

Analytical Laboratory Building

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Next Steps

December 2025

Present project design phase to BPUB Board for approval.

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Questions?

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BPUB Transmission Planning Strategy

PLANNING FOR THE FUTURE

FACILITIES/PROGRAM COMMITTEE | November 17, 2025

Javier Martinez Jr. P.E.

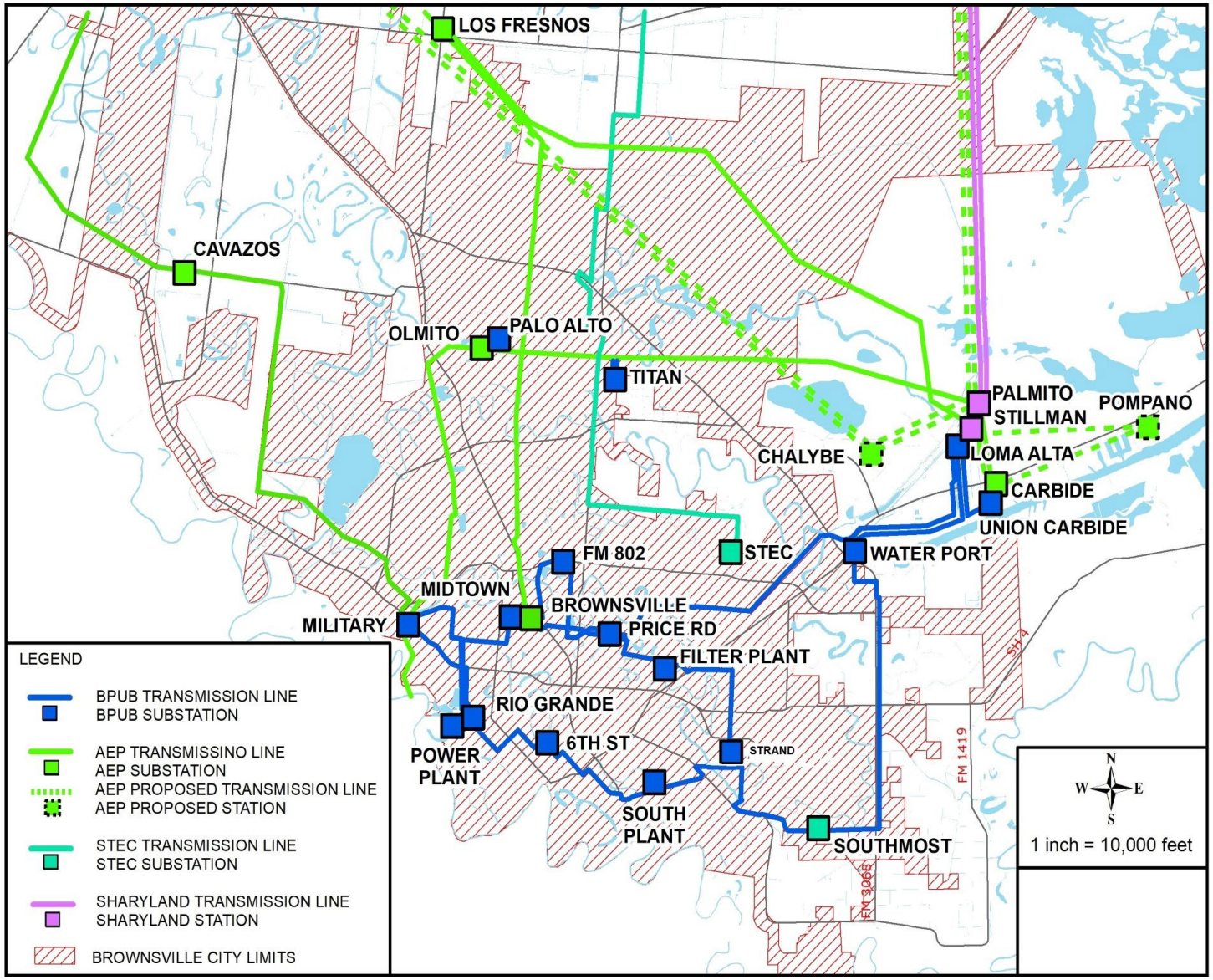
Electrical System Planning Manager

Electrical Engineering & System Operations Division

BPUB Transmission System

Brownsville Public Utilities Board Transmission System Summary:

- (15) 138kV Substation
- 50 miles of Transmission Line
- Historical Peak loading 334MW
- 138kV Ring System



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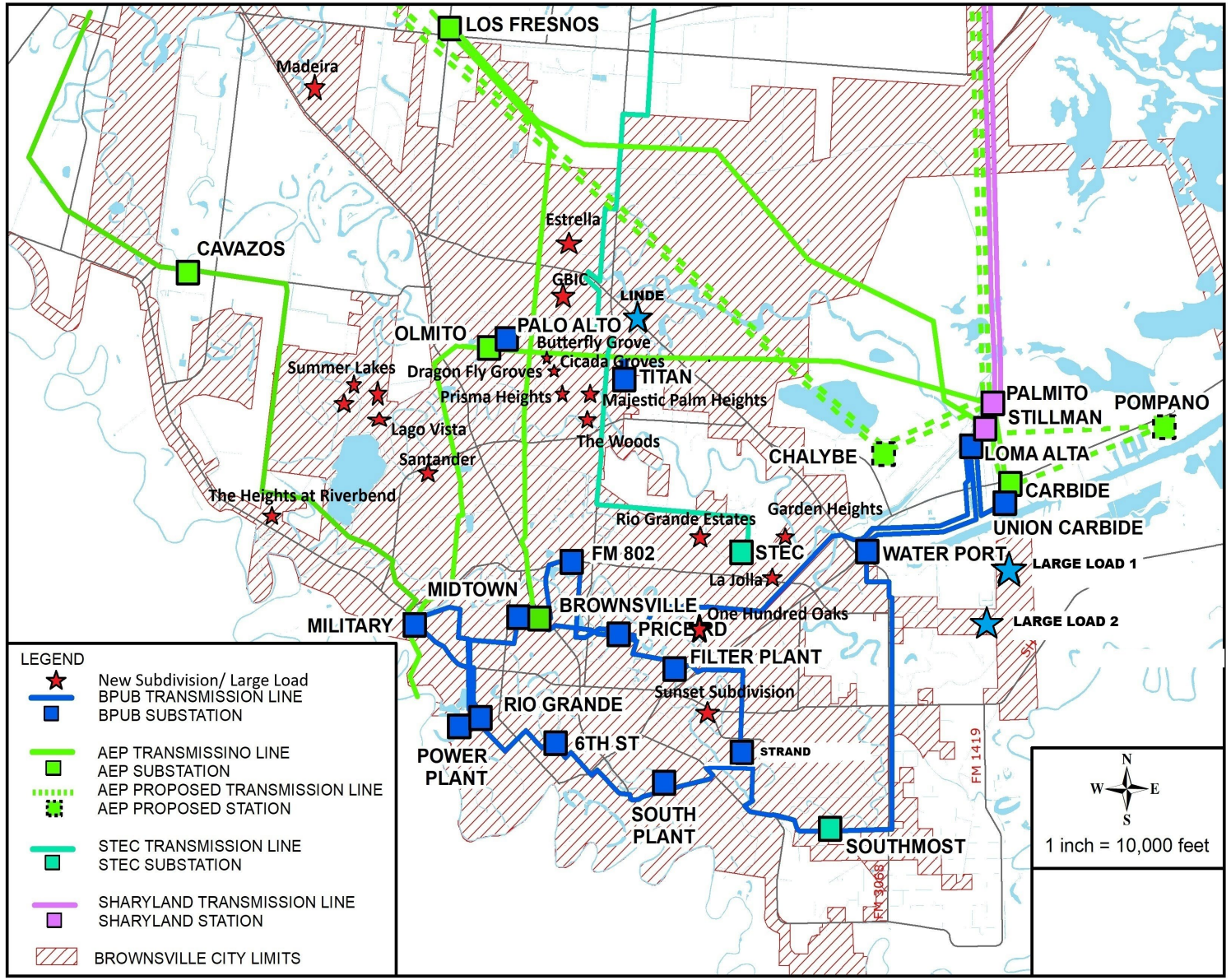
City of Brownsville Development Growth

BPUB is experiencing a significant increase in residential subdivision developments and large load interconnections requests, reflecting development growth and increase demand on electrical infrastructure.



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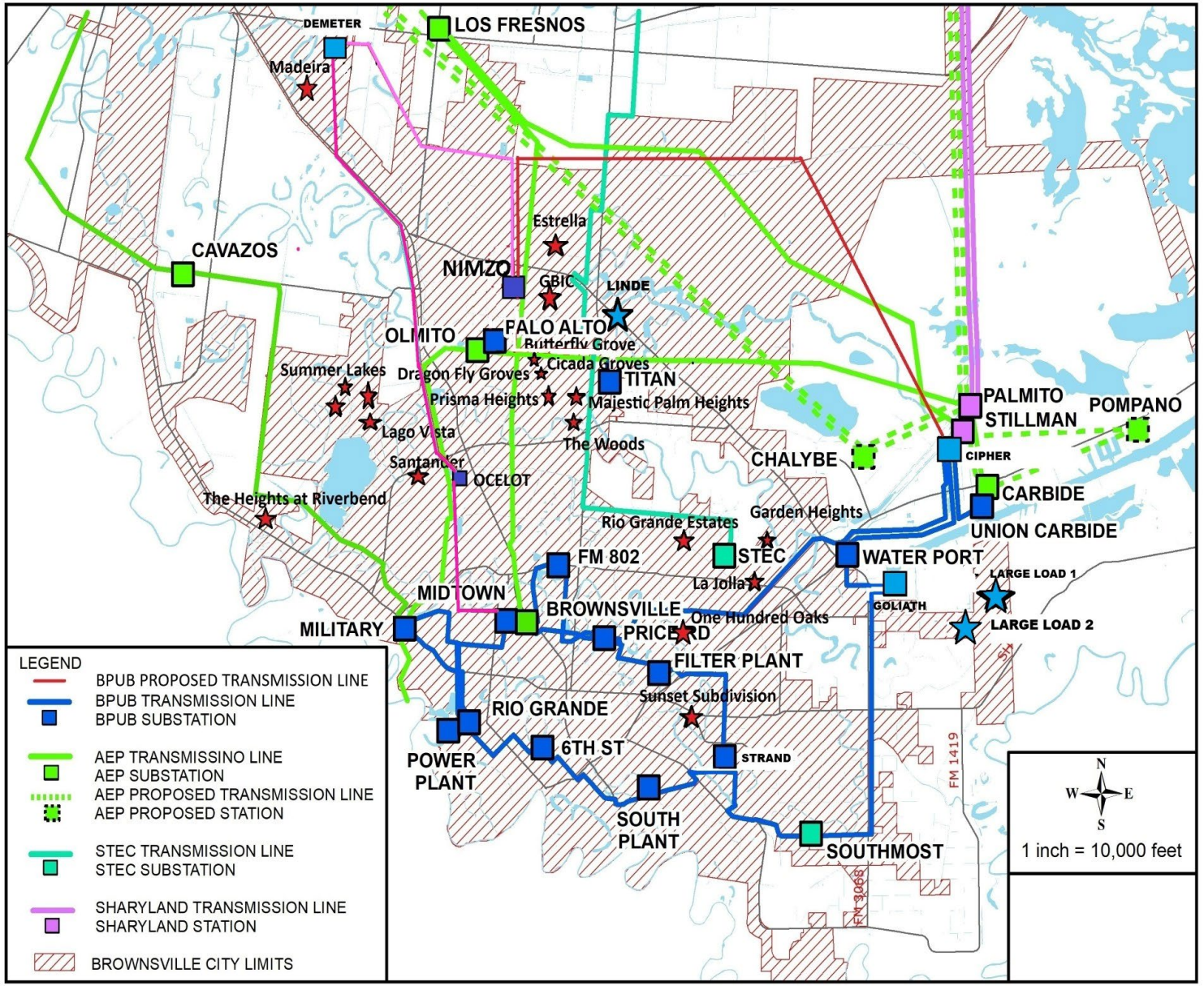
Staff Recommendation

BPUB Planning staff recommends expanding the existing 138 kV transmission system to strengthen reliability and support future growth.

The north loop transmission expansion will provide the flexibility needed to accommodate new large loads and facilitate the construction of additional substations, ensuring BPUB infrastructure keeps pace with increasing demand.



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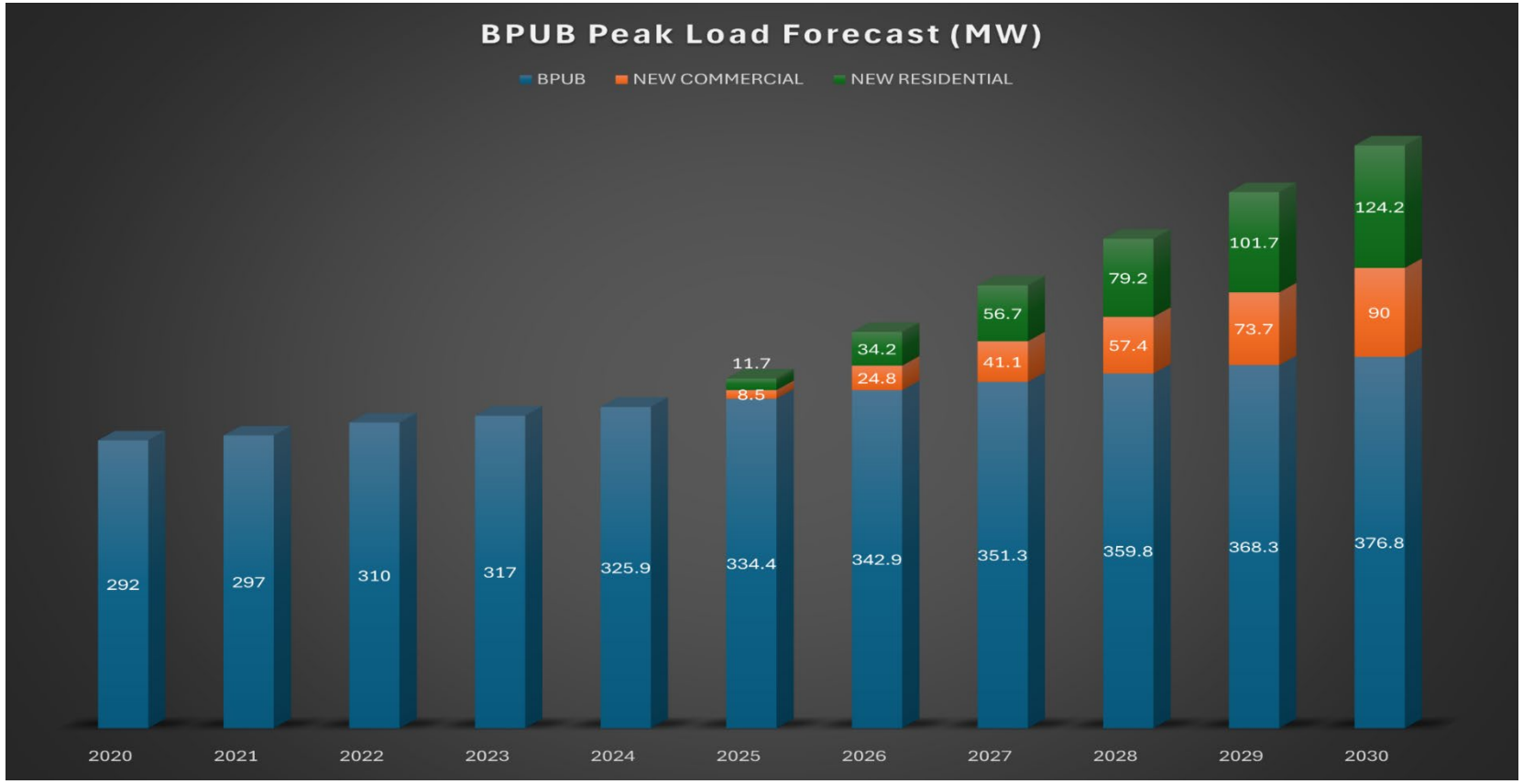
BPUB Projected Load Forecast



Substation Improvement Projects

1. **Construction of Ocelot Substation**
   - New 138kV Substation
   - Capacity of Station: 56MVA
   - Energization Q2 of 2026

2. **Palo Alto Substation Upgrade**
   - Adding a new 28MVA transformer (T2)
   - Energization Q1 of 2027

3. **Waterport Substation Upgrade**
   - Adding a new 28MVA transformer (T1)
   - Energization Q1 of 2027

4. **Loma Alta Substation Rebuild**
   - New 138kV Substation
   - Capacity of Station: 100MVA
   - Energization Q3 of 2028

5. **Airport Substation Rebuild**
   - New 138kV Substation
   - Capacity of Station: 56MVA
   - Energization Q3 of 2026
   - Mobile Substation (Strand)- 28MVA Capacity

Completed Milestones

I. Electrical System Planning has coordinated with the BPUB Grants Department to pursue funding opportunities for critical infrastructure projects such as the Loma Alta Substation. The planning department will continue seeking and applying for new grant opportunities to support future substation projects, in effort to strengthen BPUB transmission system.

II. The Electrical System Planning Department has consulted with BPUB's Real Estate Department to secure the necessary right-of-way for the proposed transmission line route. This collaboration ensures that land acquisition and easement requirements are addressed early in the process, supporting timely project execution and system expansion.

III. Planning staff has developed detailed power flow cases incorporating the proposed BPUB North Loop transmission project and submitted them to ERCOT for review during ERCOT Regional Transmission Planning (RTP) studies. These cases help evaluate system performance, reliability, and capacity under future load scenarios, ensuring compliance with ERCOT standards and supporting regional grid planning.

Next Steps

- ✓Planning staff will continue evaluating the transmission system through BPUB's annual TPL (Transmission Planning) Studies. These studies ensure compliance with reliability standards, identify potential system weaknesses, and guide future upgrades to maintain a resilient and efficient grid.
- ✓Planning staff will develop a comprehensive plan for implementation, outlining key steps, timelines, cost estimates, and resource requirements needed to expand BPUB 138kV transmission system. This step is essential for evaluating project feasibility, securing funding, and ensuring that the investment aligns with BPUB's long-term reliability and growth objectives.
- ✓Planning staff will seek Board approval for future Capital Improvement Program (CIP) FY2027 to ensure alignment with BPUB's strategic objectives and secure authorization for funding and implementation.

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Questions?

THANK YOU!

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Presentation and Discussion of the AV Project Upgrade – Annex Boardroom

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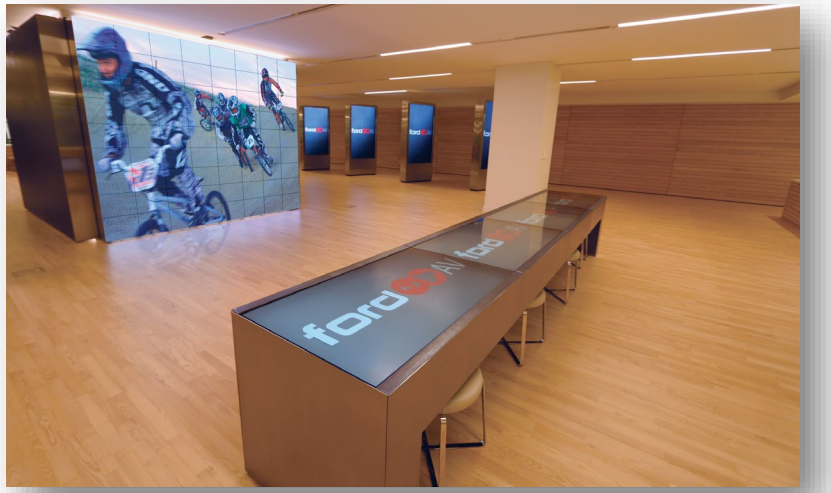
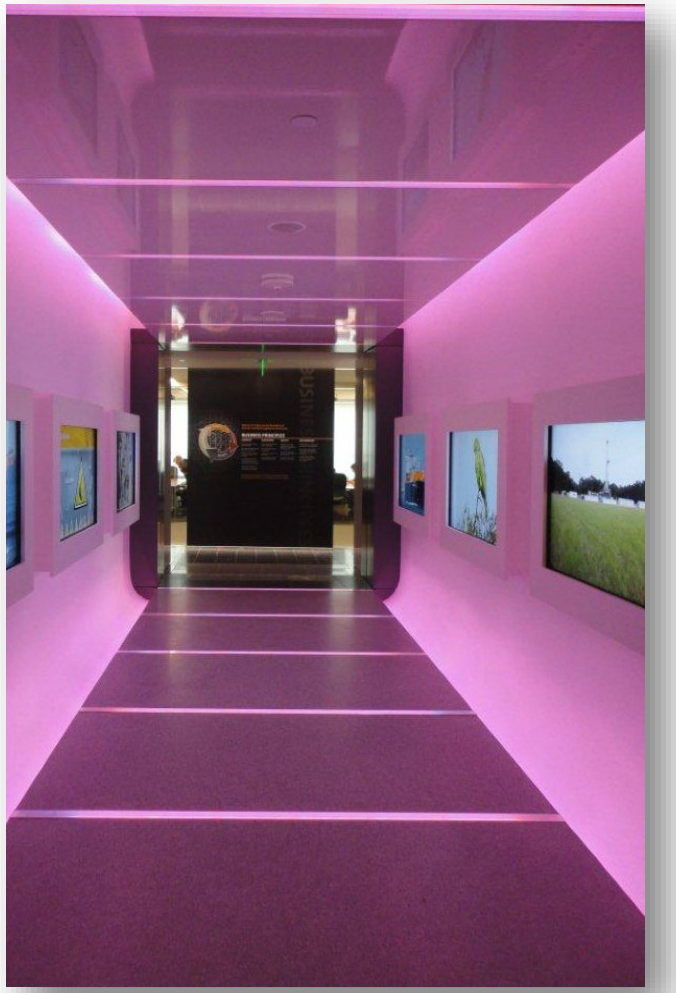
- Jose Luis Lopez, Jr.
- IT Hardware Support Manager
- IT Hardware, Cyber & Network Management





Houston | Oklahoma City | Tulsa | Dallas | Denver | Las Vegas | Honolulu | San Antonio | Austin
Phoenix | Atlanta | Salt Lake City | Washington DC | New Jersey | Manhattan | Orlando

Boardroom | GOALS as presented to Ford AV

- To Provide an improved Audio and Video experience in the PUB Council Chambers, accommodating both Board Meetings, and Joint PUB and City meetings.

Boardroom | GOALS as presented to Ford AV

Board Meeting Goals:

- Improve the AUDIO experience in the Boardroom for both the audience and on-dais participants.
- Improve the VIDEO presentation quality in the high ambient light room.
- Provide Video monitors for the Board that can reduce the profile
- Provide a camera solution to focus on the speaker.
- Provide a microphone and speaker solution for those on the dais.

Boardroom | GOALS as presented to Ford AV

Combined Meeting Goals:

- Improve the AUDIO experience in the workshop configuration.
- Improve the VIDEO presentation quality in the high ambient light room.
- Provide a camera solution to focus on the speaker.
- Provide a microphone and speaker solution for those in the joint meeting.

ford AV

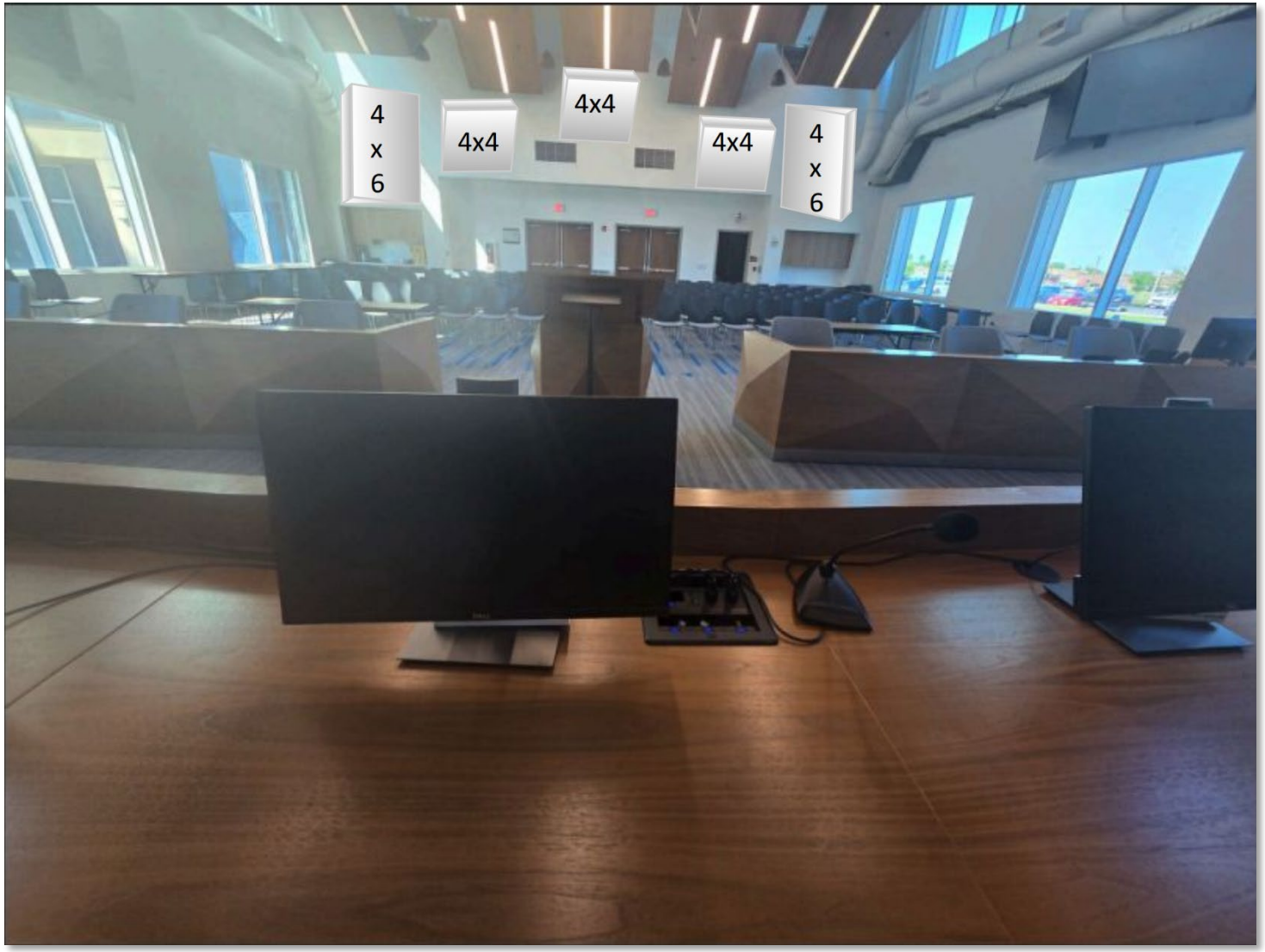
Boardroom | Acoustical Treatment

Boardroom:

- Improve the AUDIO experience in the Boardroom, the first recommendation is to improve the physics in the room. The hard surfaces create a very reverberant room. Acoustical paneling can help overcome the reverberant issues.
- The panels are IFR rated, and the colors can be selected by the PUB.
- The following are suggested layouts.

Boardroom | Acoustical Treatment

Boardroom | Acoustical Treatment



Boardroom | Acoustical Treatment

Boardroom | A DAIS Audio Solution

- The Boardroom dais participants rely on the room speakers to be able to hear presentation content an each other. A delegate unit for each position will bring a microphone and speaker to each participant. This will allow reducing the overall room speaker volume and minimize the potential of audio feedback.

Boardroom | A DAIS Solution

- Each delegate unit has a built-in gooseneck microphone, as well as a speaker for an improved experience.
- Each units has headset ports, and the speaker volume is controllable by the user.

Boardroom | A Combined Workshop Solution

- On table wireless delegate units
- These will look and operate like the on-dais units.

Boardroom | Video Presentation

- A Direct View LED wall to replace the projector and screen. The PUB logo can be featured on the LED wall. The image will be visible in daylight conditions.

City of Mont Belvieu, TX Council Chambers

LED Wall at 1.5mm – please note the overhead lighting doesn’t affect the image.

City of Mont Belvieu, TX Council Chambers

LED Wall at 1.5mm and Electronic Name Plates

Capitol One Headquarters

LED Wall at 1.5mm

Boardroom| The Video Solution

- **Ford AV recommends 22” tilt-able displays for the Board Members to view presentation content. The displays tilt from 0° to 70°.**

Boardroom| The Video Solution

- PTZ Camera coverage for Streaming, includes automated camera switching that follows the person speaking.
- The auto camera switching will also be programmed for joint meetings, utilizing the delegate unit audio signal.

Boardroom | GOALS achieved by Ford AV

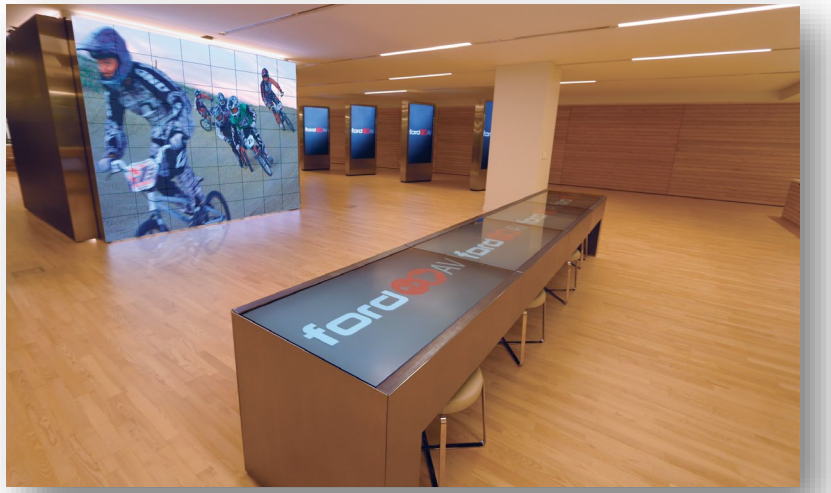
Boardroom Goals:

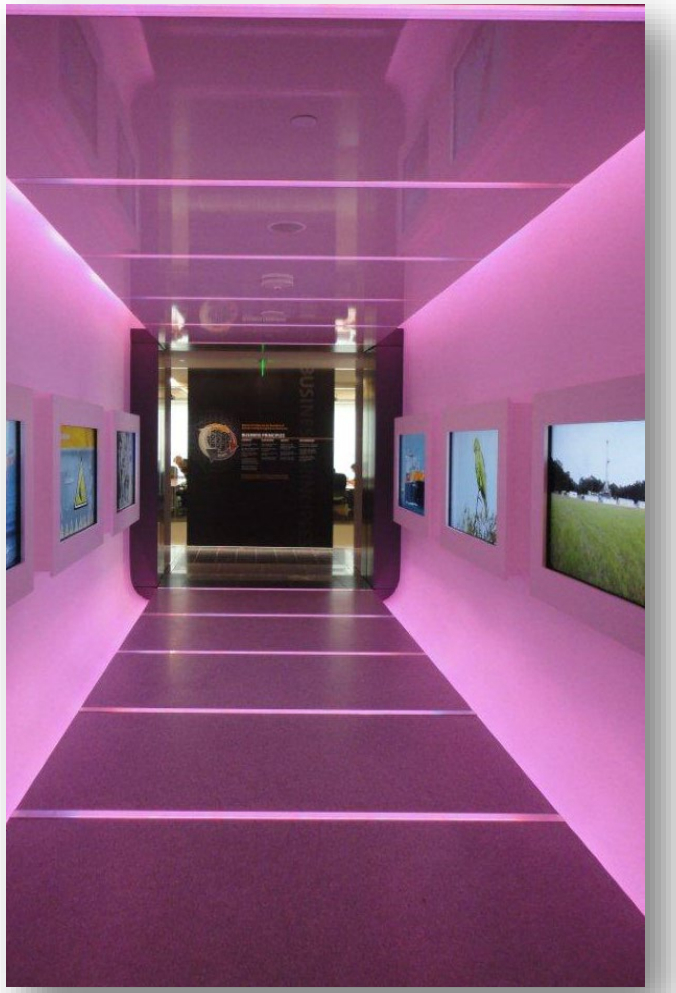
- Ford is please to have designed a system for the PUB, that meets the goals to provide an improved audio and video experience for both the Boardroom and Joint PUB experience.

Boardroom | GOALS achieved by Ford AV

Project Budget:

- Ford Offer an excellent value with a turnkey solution at $325,610 utilizing a Government procurement contract.
- Ford includes training on the system use.
- Ford includes a 1 Year system warranty at no extra charge.
- Additional years of warranty and maintenance are available.





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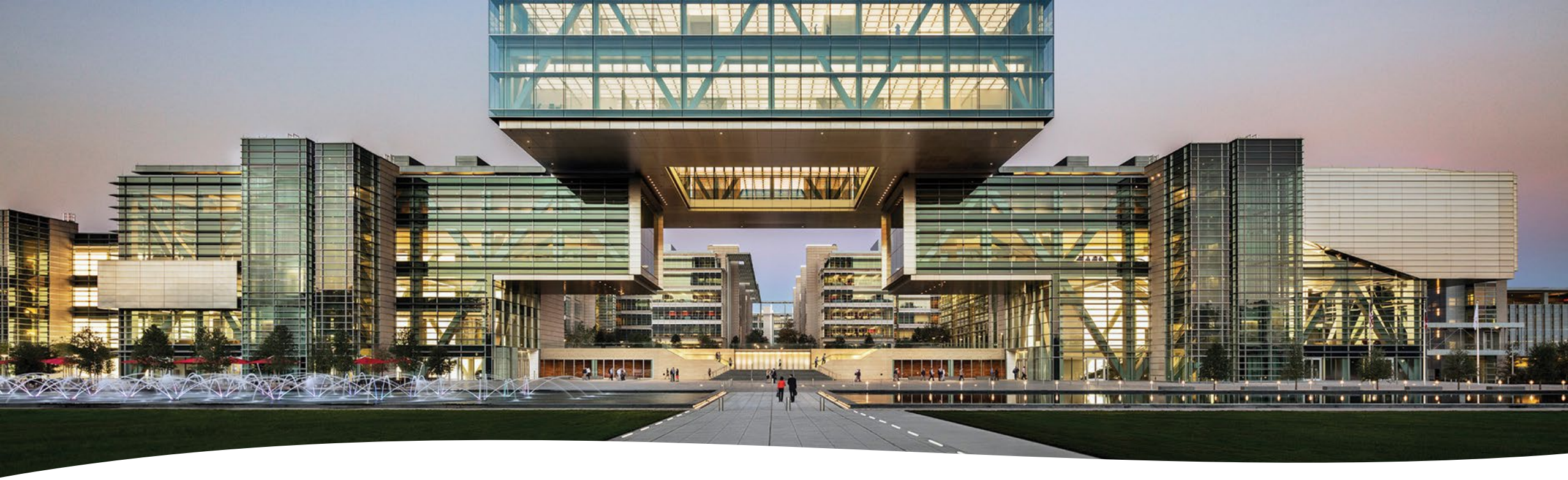

- ExxonMobil – 20 buildings, 1,500 rooms, 10,000+ AV equipment items

Apple global headquarters – Cupertino, CA

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Credit Card Payment Analysis

FACILITIES/PROGRAM COMMITTEE | November 17, 2025

Eddie Campirano Jr

Senior Customer Service Manager

Overview

Total billable accounts: 73,460

Total payments received FY 2025: 836,372

Breakdown by Payment Type FY 2025:

Online & IVR Credit Card:	391,581
POS Credit Card:	23,039
Online EFT:	182,719
Cash:	106,215
Check:	31,778
ACH:	40,610
WF IBP & Lockbox:	40,588
Substation Locations:	65,758
Wire Transfer:	86,670

49.6% of customers pay with a credit card.

Total Credit Card Costs Combined

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Total	$ 536,307.74	$ 565,626.29	$ 699,137.48	$ 718,892.96	$ 795,852.83
	5.5%	23.6%	2.8%	10.7%	

Total CC Fees FY2019 - FY2023:

$3,315,817.30

Estimated CC fees for FY2025:
$877,427.74

Current State & Comparison

Credit Card Fee		
Credit/Debit fee per transaction paid by payer	1.95% or $2.50	$1,000 max cap per transaction

	$1k Online Example		$5k Online Example		$10k Online Example	
Bill	Fee	Total	Fee	Total	Fee	Total
$ 100.00	$ 2.50	$ 102.50	$ 2.50	$ 102.50	$ 2.50	$ 102.50
$ 200.00	$ 3.90	$ 203.90	$ 4.50	$ 204.50	$ 5.00	$ 205.00
$ 500.00	$ 9.75	$ 509.75	$ 11.25	$ 511.25	$ 12.50	$ 512.50
$ 1,000.00	$ 19.50	$ 1,019.50	$ 22.50	$1,022.50	$ 25.00	$ 1,025.00
$ 2,000.00			$ 45.00	$2,045.00	$ 50.00	$ 2,050.00
$ 3,000.00			$ 58.50	$3,058.50	$ 75.00	$ 3,075.00
$ 5,000.00			$ 112.50	$5,112.50	$ 125.00	$ 5,125.00
$ 7,000.00					$ 175.00	$ 7,175.00
$ 10,000.00					$ 250.00	$ 10,250.00

Questions

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Recess to Closed Meeting

TO CONSIDER MATTERS PURSUANT TO TEX. GOVERNMENT CODE CHAPTER 551, ET SEQ.

BROWNSVILLE
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Reconvene Open Meeting

1. DISCUSSION AND POSSIBLE RECOMMENDATION ON CLOSED MEETING ITEMS –
2. DISCUSSION AND/OR REQUESTS FOR FUTURE AGENDA ITEMS -

BROWNSVILLE
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Adjournment