Infrastructure Capital Program & Process

03.03.2020

GLOBAL TRENDS

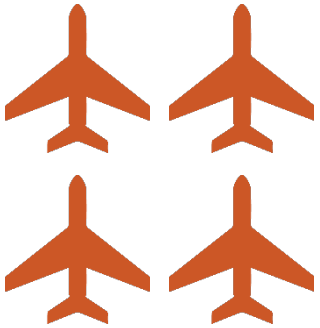
750 million Passengers

1980

1.8 Billion Passengers

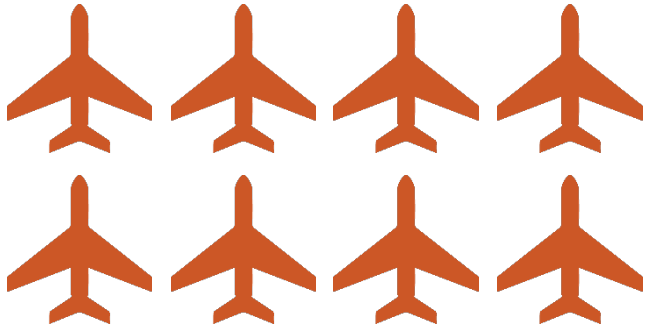
2000

4 Billion Passengers



2017

7.8 Billion Passengers



2036

200,000+

Daily Passengers

TRAVEL & TOURISM GLOBAL ECONOMIC IMPACT

10.4%
GDP

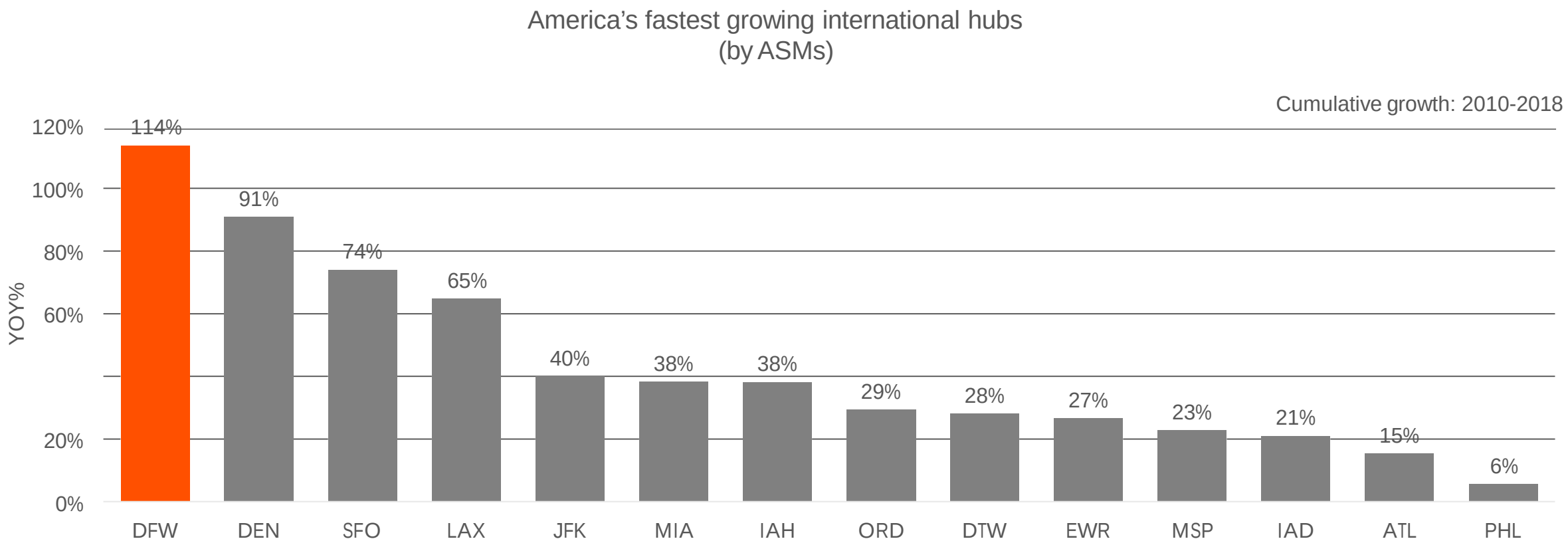
300
Million Jobs

1 of 5
New Jobs

260 Destinations

67 International and 193 Domestic Destinations

INTERNATIONAL GROWTH



3rd in the world for flights

11th in the world for passengers

2018 - 2019 GROWTH

6.1%	6.0%	6.6%	5.8%
Passenger	Operations	Cargo	Total Seats

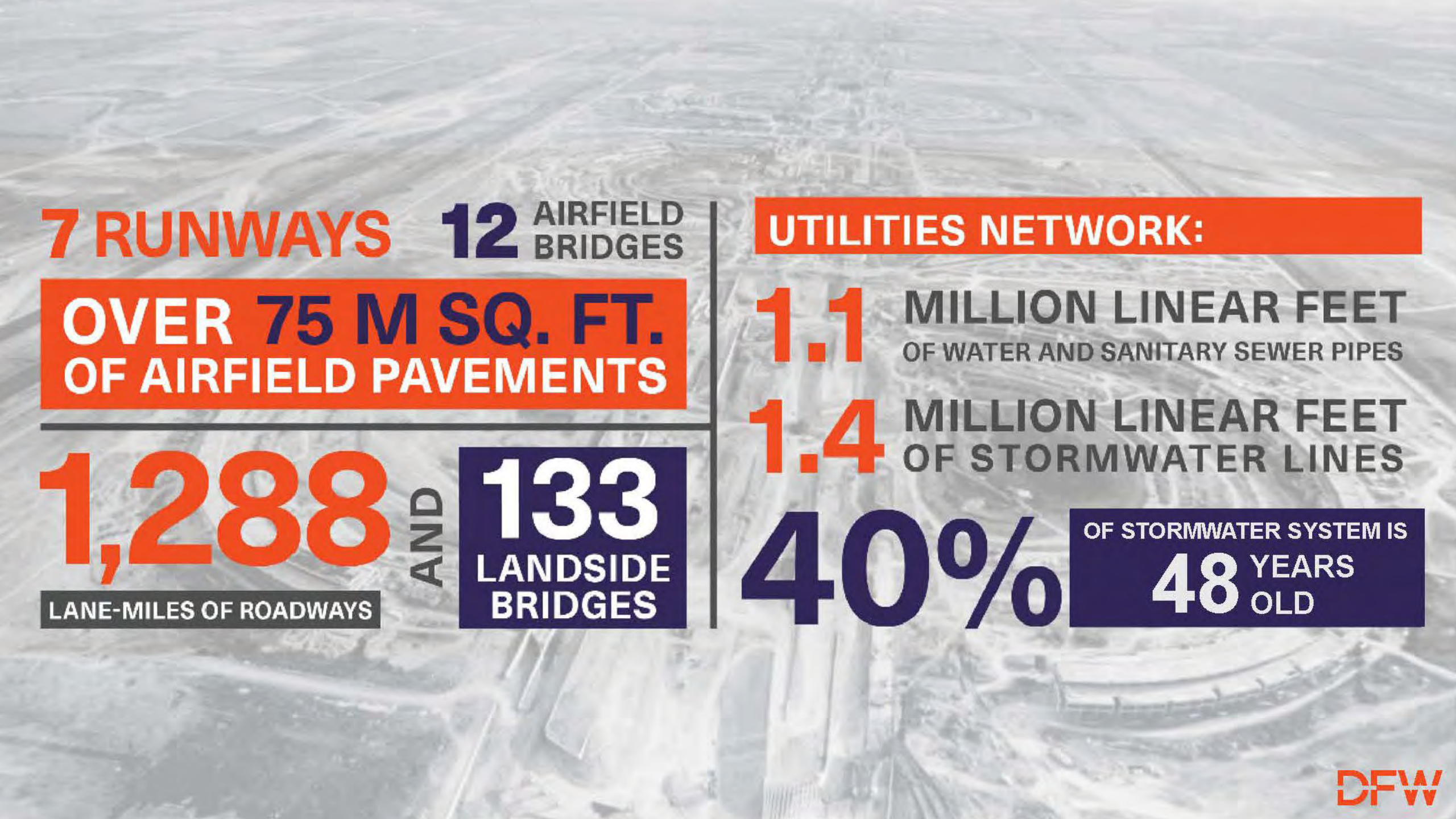
$37* BILLION

Annual **financial impact** on the DFW region

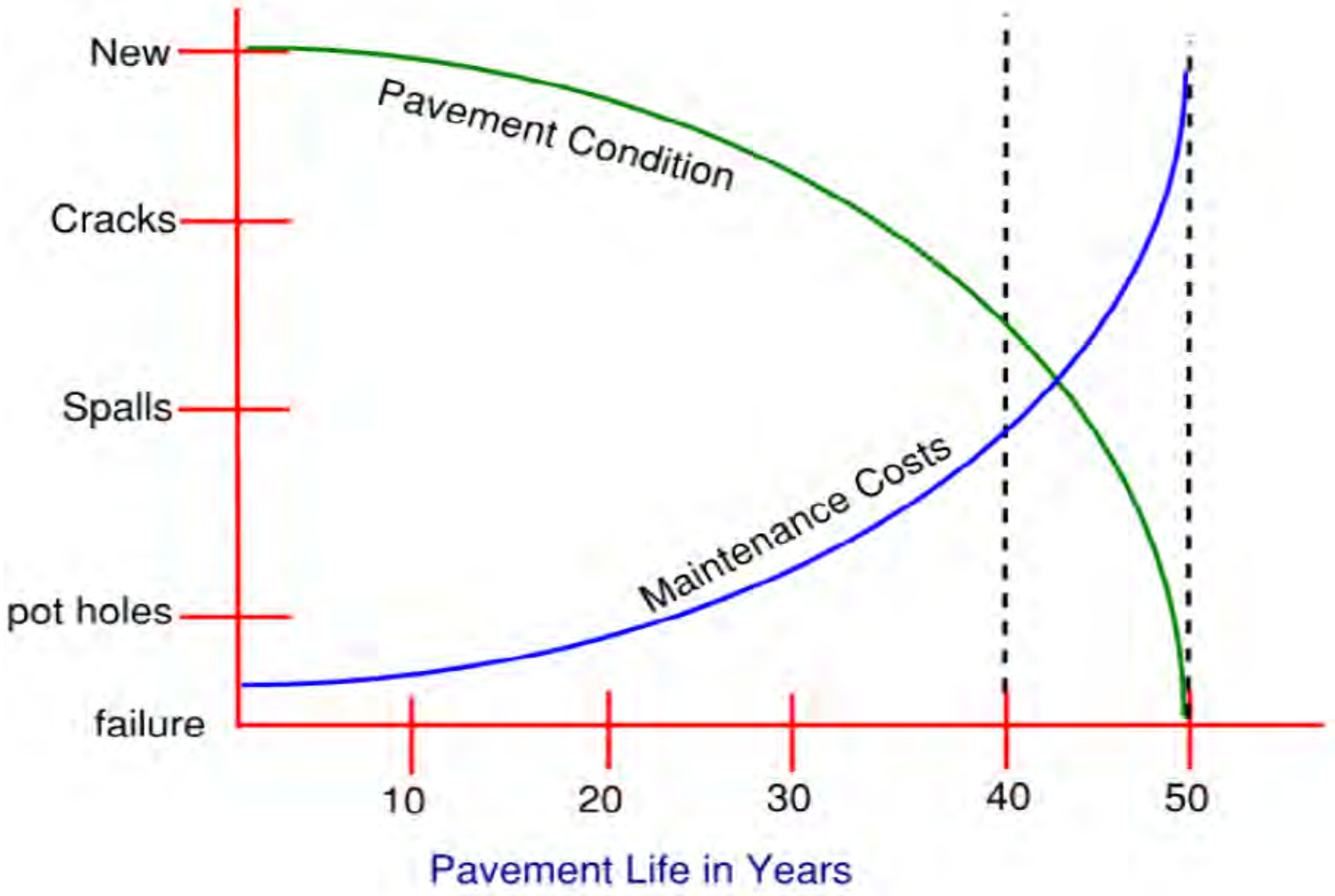
Largest **Carbon Neutral** Airport in the World

First Carbon Neutral Airport in North America


third largest airport
in the world
17,207 ACRES
DFW

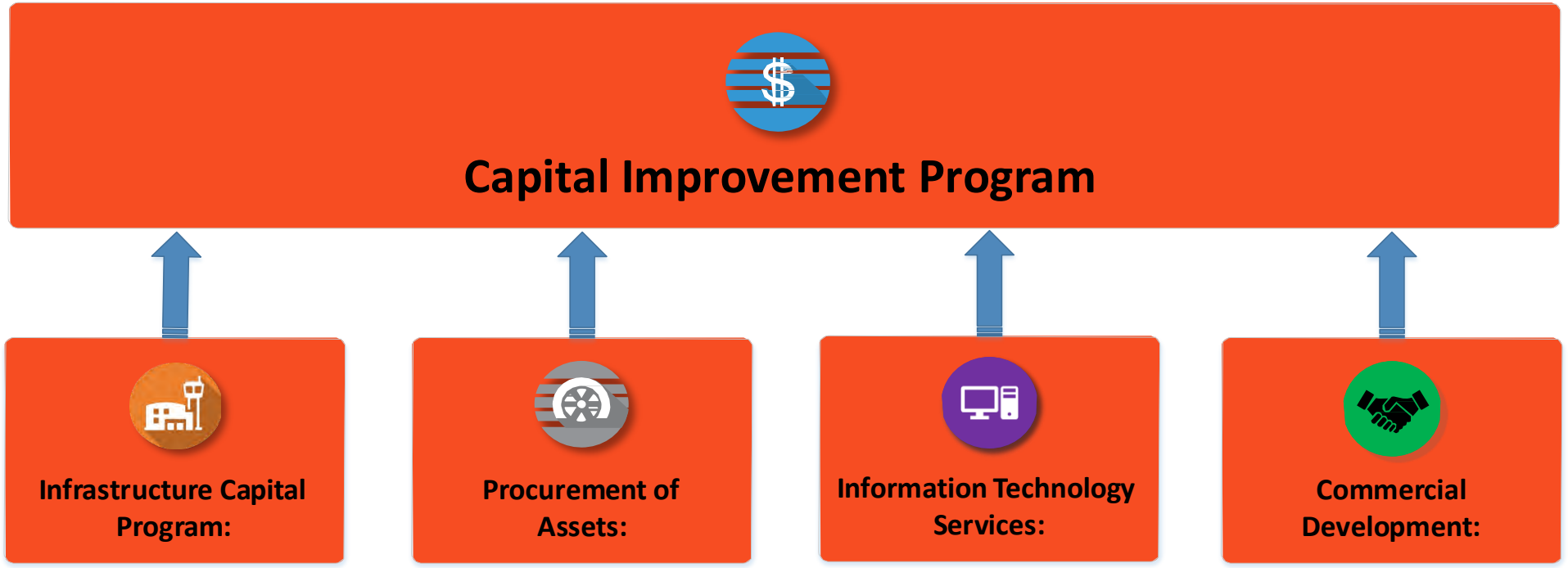

7 RUNWAYS
12 AIRFIELD BRIDGES
OVER 75 M SQ. FT.
OF AIRFIELD PAVEMENTS
1,288
LANE-MILES OF ROADWAYS
AND
133
LANDSIDE BRIDGES
UTILITIES NETWORK:
1.1 MILLION LINEAR FEET
OF WATER AND SANITARY SEWER PIPES
1.4 MILLION LINEAR FEET
OF STORMWATER LINES
40%
OF STORMWATER SYSTEM IS
48 YEARS
OLD
DFW

Concrete Pavement Life Cycle



Purpose

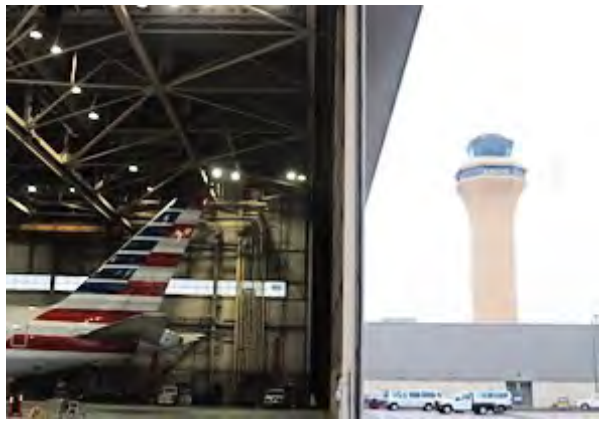
To provide a rolling 10-year working blueprint for sustaining and modernizing the Airport's existing infrastructure and the development of new assets.



Benefits and Features

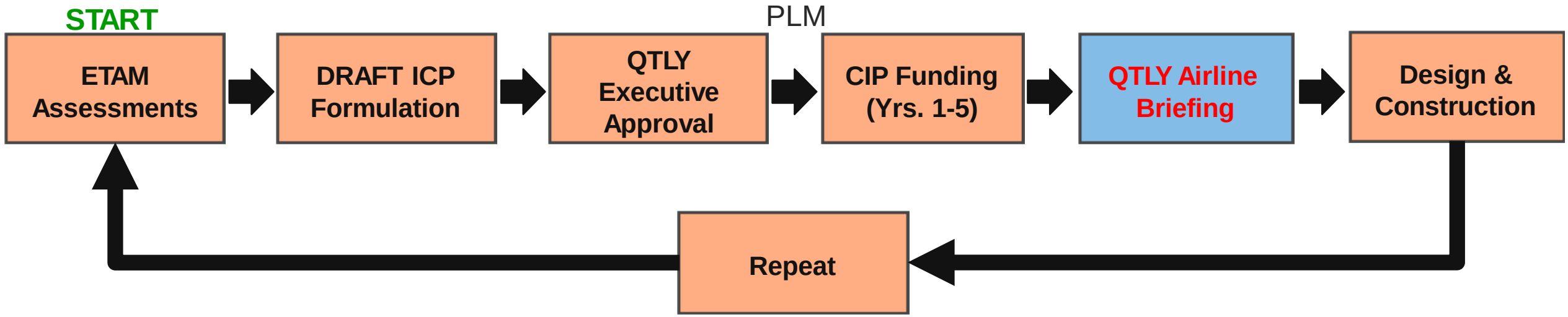
- ✓ Establishes a systematic evaluation and approach for all potential infrastructure capital projects;
- ✓ Ranks projects based on prioritization criteria (e.g. criticality, operational need, strategic imperatives);
- ✓ Ensures efficient use of funds and alignment with the Board's Strategic Plan;
- ✓ Provides transparent timetable of capital investment for infrastructure projects;
- ✓ Conducts cyclical reviews and updates to reflect changing needs, priorities, and funding opportunities;
- ✓ Promotes collaboration between DFW internal and external stakeholders and business partners;
- ✓ Coordinates strategic planning, financial capacity and physical development of our future infrastructure needs.



ICP Process Overview

Existing Assets



* New stakeholder requirements (emerging/market) follow the same process with the exception that a business case will be required to justify the requirement prior to CIP Funding.

10-Year ICP Baseline FY 21-30

$2.3 BILLION

Includes 2.5% Escalation

Airside 45%

Landside 30%

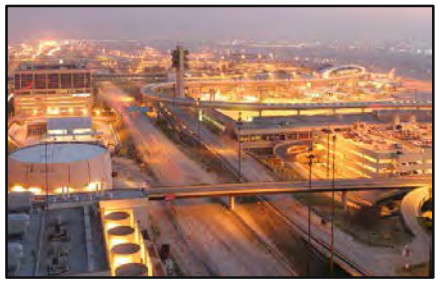
Facilities 25%

Infrastructure Assessments

Program Schedule

ASSESSMENT CATEGORY	FREQUENCY	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Facility/Building Assessments	Approx. 30 Buildings/Year	■	■	■	■	■	■	■	■	■	■
Landside Bridge Inspections & 12 Aircraft Bridges (Consultant)	Every 2 Years		■		■		■		■		■
Landside Bridge Inspections (TxDOT)	Every 2 Years	■		■		■		■		■	
Landside Roadways LIDAR/GPR/LCMS Steps	Every 5 Years	■					■				
Airfield Pavement Condition Index	Every 2 Years	■		■		■		■		■	
Potable Water System - Pipeline Leakage	Every 2 Years		■		■		■		■		■
Storm Drain Pipe - Airside and Landside	Annual	■	■	■	■	■	■	■	■	■	■
Wastewater - Sanitary Sewer System	Every 10 Years	■									
Airfield Lighting Photometric Measurement	Annual	■	■	■	■	■	■	■	■	■	■
Landside Roadway Inspections	Annual	■	■	■	■	■	■	■	■	■	■
Environmental Assessments	Annual	■	■	■	■	■	■	■	■	■	■

NOTE: Assessments in **RED** font above are regulatory requirements

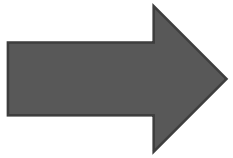


- ✓ DFW conducts over 400 different Infrastructure Assessments and Infrastructure Inspections
- ✓ Frequency determined by regulatory requirements or industry best practices

ETAM Asset Condition Assessment Process

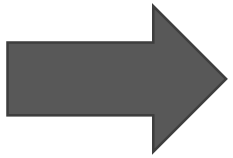
Assessment Initiation Phase

- Assessment Master Schedule
- CMMS
  - ✓ Modeling
  - ✓ work orders
  - ✓ End of Life
- Regulatory
  - ✓ Code Compliance
  - ✓ Environmental
  - ✓ Life Safety
- Engineering Judgement



Assessment Production Phase

- In House teams for small facilities and routine inspections
- Consultant teams for large facilities and complex systems
- Draft Report Review
  - ✓ Internal Stakeholders
  - ✓ External partners
- Issue Final Report



Capital Project Development Phase

- Develop Assessment Executive Summary
- Develop Project Data Sheet & ROM Estimate
- Submit to Planning for prioritization into the ICP
- Assets not requiring capital funding go back into the assessment cycle

DFW ICP Prioritization Criteria

Existing Assets

Priority 1 Critical (ICP Years 1-3)

Urgent priority based upon an emergency or condition assessment, remedy a condition dangerous to public health, welfare and safety, regulatory compliance, actual or highest potential impact to aviation operations.

Priority 2 Essential (ICP Years 4-6)

High-priority projects based upon condition assessment, validity of timing have been established by condition assessments, High potential to impact aviation operations or revenue.

Priority 3 Acceptable Risk (ICP Years 7-9)

Lower-priority projects, not high priority based upon condition assessment. Validity of timing in question. Low potential impact to aviation operations or revenue.

Priority 4 Deferrable (ICP Years 10+)

Lowest-priority projects, desirable not immediately essential, adequate condition but modernization planned based upon life expectancy. Long range strategic initiative.

Modernization of Assets

MII Approval Process

Modernization Projects determined to be Priority 1 Critical are automatically approved for MII funding

Projects are identified through cyclical Infrastructure Assessments conducted by licensed engineers.

- ✓ The basis of the Infrastructure Assessments will be clearly defined;
- ✓ Rationale supporting all findings and recommendations will be clearly documented.

Review and validation of draft Infrastructure Assessment reports

- ✓ ETAM will circulate draft Infrastructure Assessment reports to all internal and external stakeholders:
  - Conduct a reconciliation workshop with the Infrastructure Assessment team and all internal and external stakeholders;
  - Ensure the rationale supporting all findings and recommendations are supportable and valid.

Validated Infrastructure Assessment report generates modernization projects for MII funding

Modernization projects are submitted for automatic MII funding approval on a quarterly basis and include:

- ✓ Project Data Sheet;
- ✓ Signed and sealed Infrastructure Assessment report;
- ✓ Project Controls Group (PCG) Cost and Schedule;
- ✓ CIP Funding Approved.

DFW ICP Prioritization Criteria

New Requirements

Priority 1 Strategic Imperative (ICP Years 1-3)

Urgent priority based upon a business case, revenue opportunity with a ROI equal to or less than two years and included in the Strategic Plan, remedy a condition dangerous to public health, welfare and safety, regulatory compliance, actual or highest potential impact to aviation operations or revenue.

Priority 2 Essential (ICP Years 4-6)

High-priority projects based upon a business case, revenue opportunity with a ROI equal to or less than three years, validity of timing have been established by business case. High potential to impact aviation operations or revenue.

Priority 3 Acceptable Risk (ICP Years 7-9)

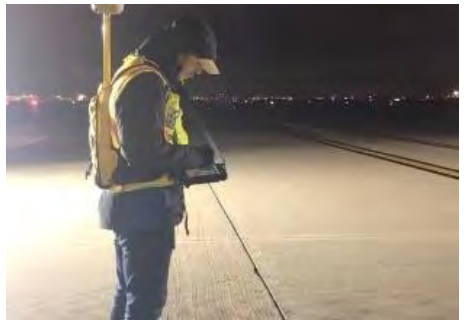
Lower-priority projects, revenue opportunity with a ROI equal to or less than four years. Validity of timing in question. Low potential impact to aviation operations or revenue.

Priority 4 Deferrable (ICP Years 10+)

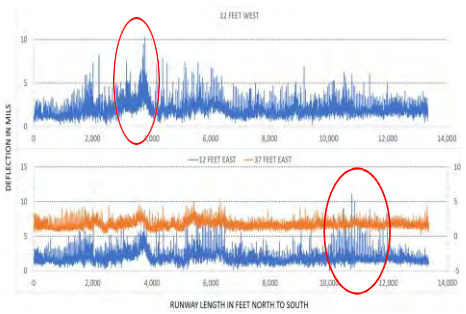
Lowest-priority projects, desirable not immediately essential, revenue opportunity with a ROI equal to or less than five years. Long range strategic initiative.

Planning Approach Validation: Airside

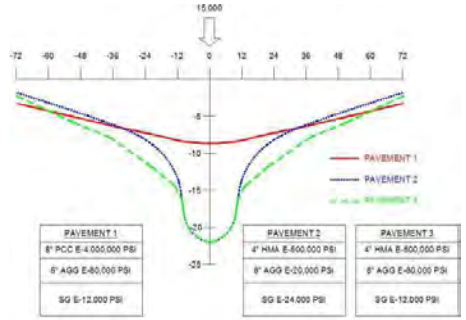
Airfield Pavement Assessment



Visual pavement condition index (PCI)



Rolling dynamic deflectometer (RDD) testing

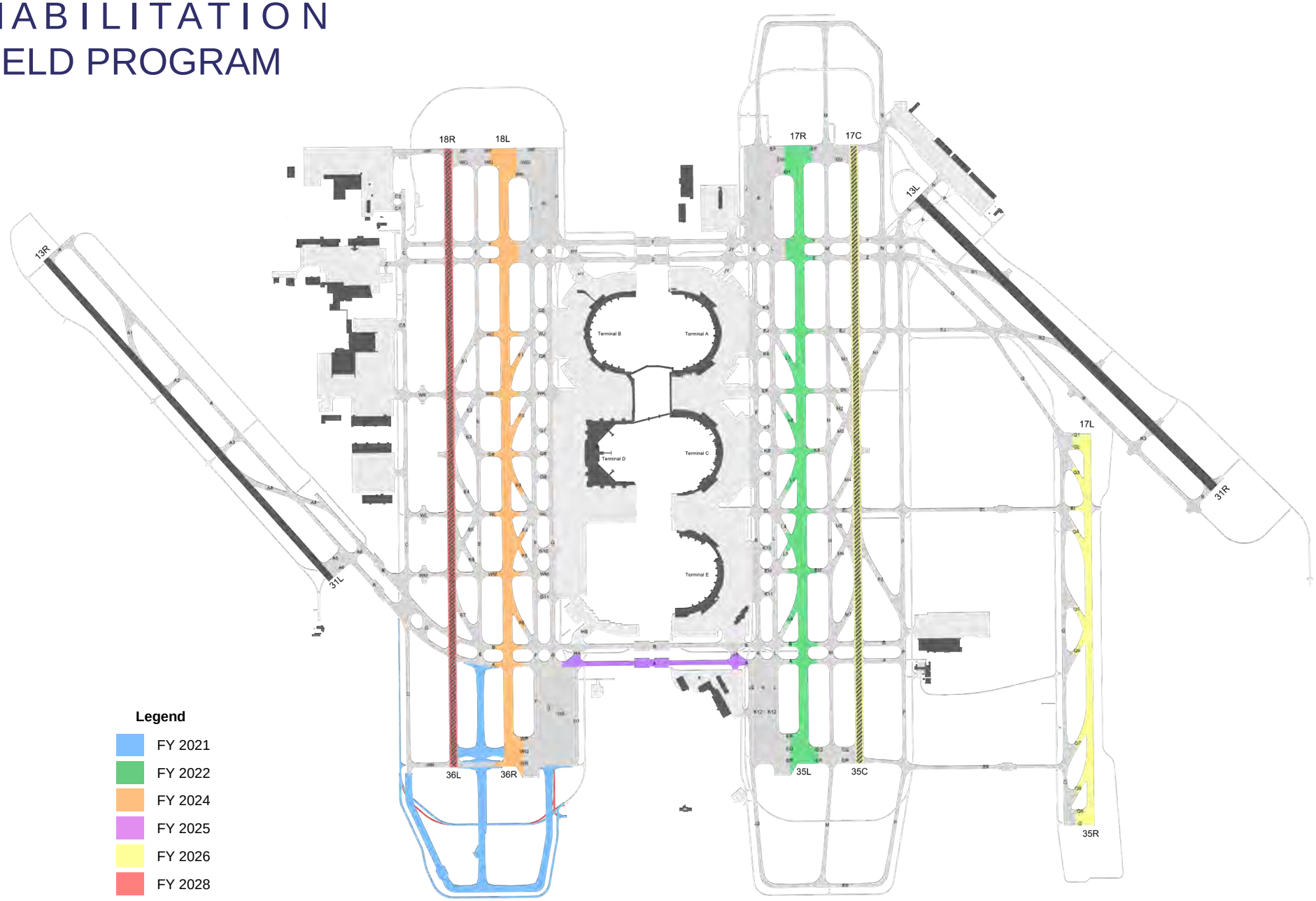


Heavy weight deflectometer (HWD) testing

Airfield

Airfield Simulation

REHABILITATION
AIRFIELD PROGRAM



Landside and Utilities Infrastructure

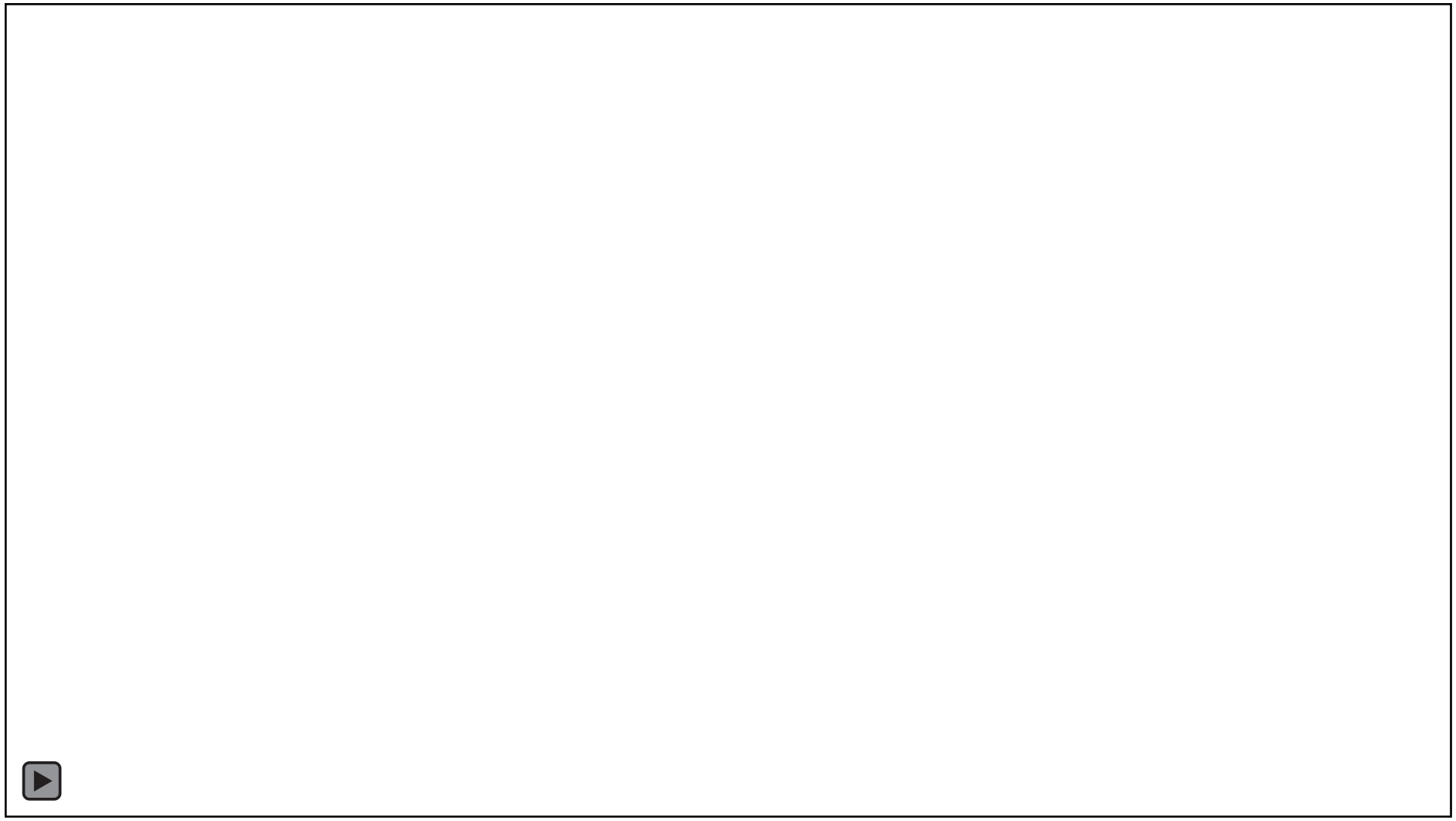
Traffic studies and roadway capacity improvements

Landside and Utility Infrastructure Master Plan

Predictive traffic modelling and subsurface utility assessments

Landside

Landside Simulation



IMPROVING ROADWAYS

1/3

BRIDGES IN NEED OF REPLACEMENT

Landside & Utilities Infrastructure Projects

North Airfield Drive Bridge FY'21

Glade Road Reconstruction FY'20

South Airfield Drive Bridge FY'20

International Parkway Rehabilitation FY'24

Crossunder #6 Bridge FY'26

Crossunder #7 Bridge FY'25

Rehab 31st, 32nd, 33rd, and SW Construction FY'20

FACILITY PROJECTS


Terminal F
• Up to 24 Gates
• Open as soon as 2025
F1: 4 Gates
Open as soon as
Q2 2021

Terminal F

Activities to Date

May 20, 2019

Terminal F Announcement

June 14, 2019

Opportunity Forum Announcement of Additional Enabling Work Required

August 1, 2109

Terminal F Phase 1 Groundbreaking

November 1, 2019

Advertisement of Master Planner, Master Architect & Master Civil Engineering Professional Services Contracts

December 2019

Design Delivery Orders for Supplemental CUP, Terminal F Site Clearance and Relocation of Impacted Operations

January 2020

Advertisement for Programming, Administrative, and Inspection components

Thank You