



# Engineering

## Capital Development Group

**Imad Haq, P.E.**

Engineering Manager

May 28, 2024



City of Philadelphia,  
Department of Aviation



**PHLPNE**

PHILADELPHIA INTERNATIONAL AIRPORT  
NORTHEAST PHILADELPHIA AIRPORT

# Overview



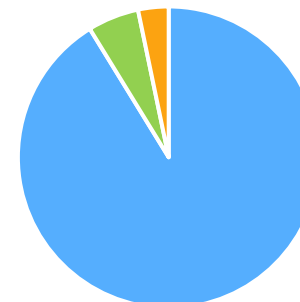
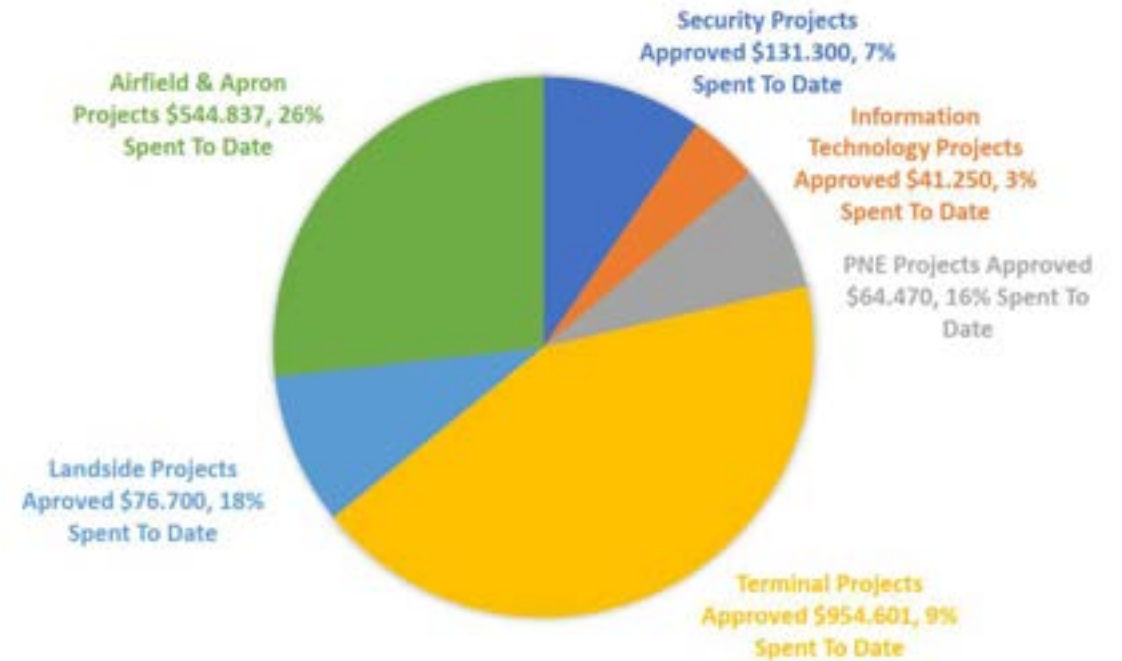
- Design and Construction Project Management for PHL and PNE
  - Airfield
  - Terminals & Landside
  - MEP (**M**echanical, **E**lectrical, **P**lumbing)
  - Special Systems
  - Development and Growth
  - On Call and Interdepartmental support
  - Tenants Coordination
- More than 70 team members, IP2 2<sup>nd</sup> Floor
  - Weekly staff meeting, Monthly Reporting sessions
- Major arm of the Capital Development Group
  - Works closely with **Planning, Environmental, Sustainability, GIS, and Architecture** teams within CDG
- Significant coordination with other DOA Groups
  - Facilities and Maintenance Shops, IT, Properties, Guest Experience, Custodial, Pavement & Grounds, Operations, Finance
  - Quarterly Meetings with Facilities, Maintenance, American Airlines, Consultants, Other Stakeholders
  - Stakeholder Coordination – Monthly meetings for Terminal A Managers, Terminal D/E Managers, case-by-case specific
  - Weekly PM Meetings
  - Joint ventures with IT



# Overview

- Projects receive funding via:

- Operating Budget
- General Airport Revenue Bonds (G.A.R.B.s)
- Commercial Paper
- Grants (Open/Active - \$164.6M+)
  - Federal (\$150M+)**
    - Bipartisan Infrastructure Law (BIL) – AIG and ATP
  - State (\$9M+)**
  - TSA (\$5.3M+)**
- Projects Receiving Major Grants:
  - Restrooms Renovations (\$39M)
  - Airfield - Twy S, Twy P, Twy J, Twy K (\$83.8M)
  - Terminal Energy Optimization Plan (TEOP) Ph. 1 (\$15M)
  - VALE (\$5.9M)
  - PNE (\$6.4M)
- Upcoming Grants:
  - Runway 9R-27L Rehabilitatino (AIP - \$16.3M)
  - Terminal Energy Optimization Plan (TEOP) Ph. 2 (\$20.4M)
  - PNE Twy Charlie & Twy Lima (\$4M)
  - BIL AIG - West Apron, EMAS, Twy Y & U (\$27.5M)
  - Future BIL AIG – Cargo (\$62.6M)



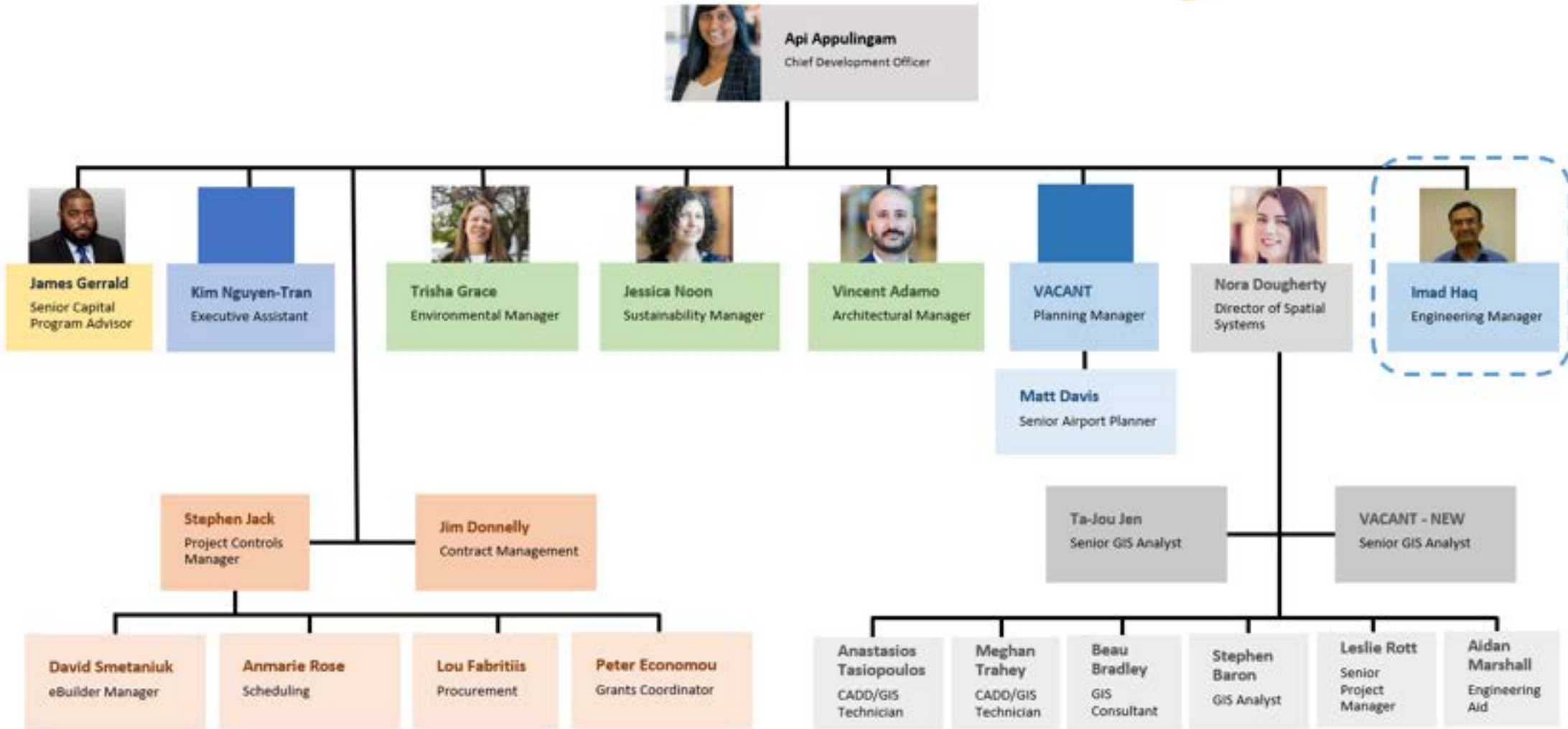
Grants (Open/Active - \$164.6M+)

**Federal**

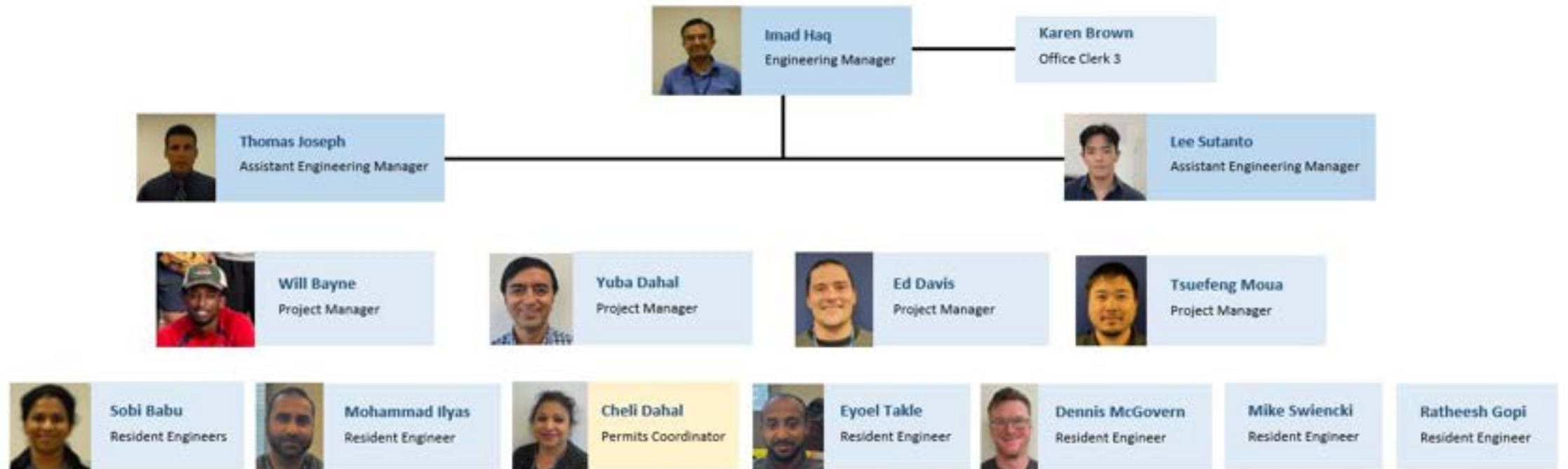
**State**

**TSA**

# Capital Development Group · Organization

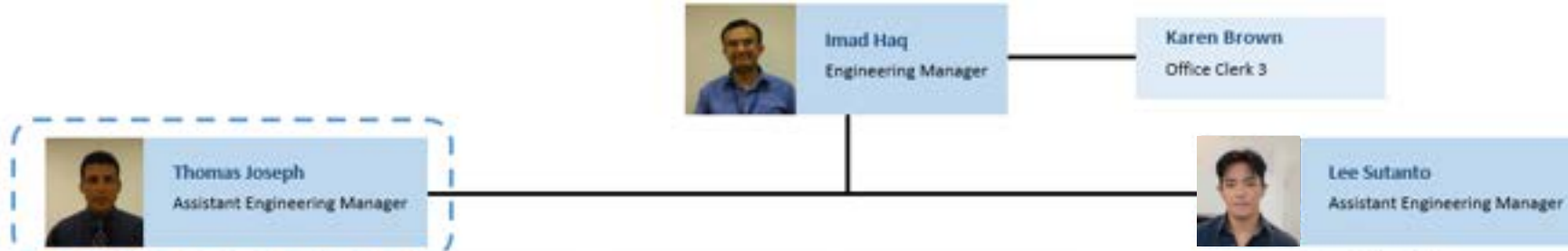


# Engineering · City Team Members



Summer 2024 Co-Ops  
John Bruzzese  
Sebastian Kielar  
Nick Moore  
Marguerite Parker  
Jason Walat

# Engineering · Landside

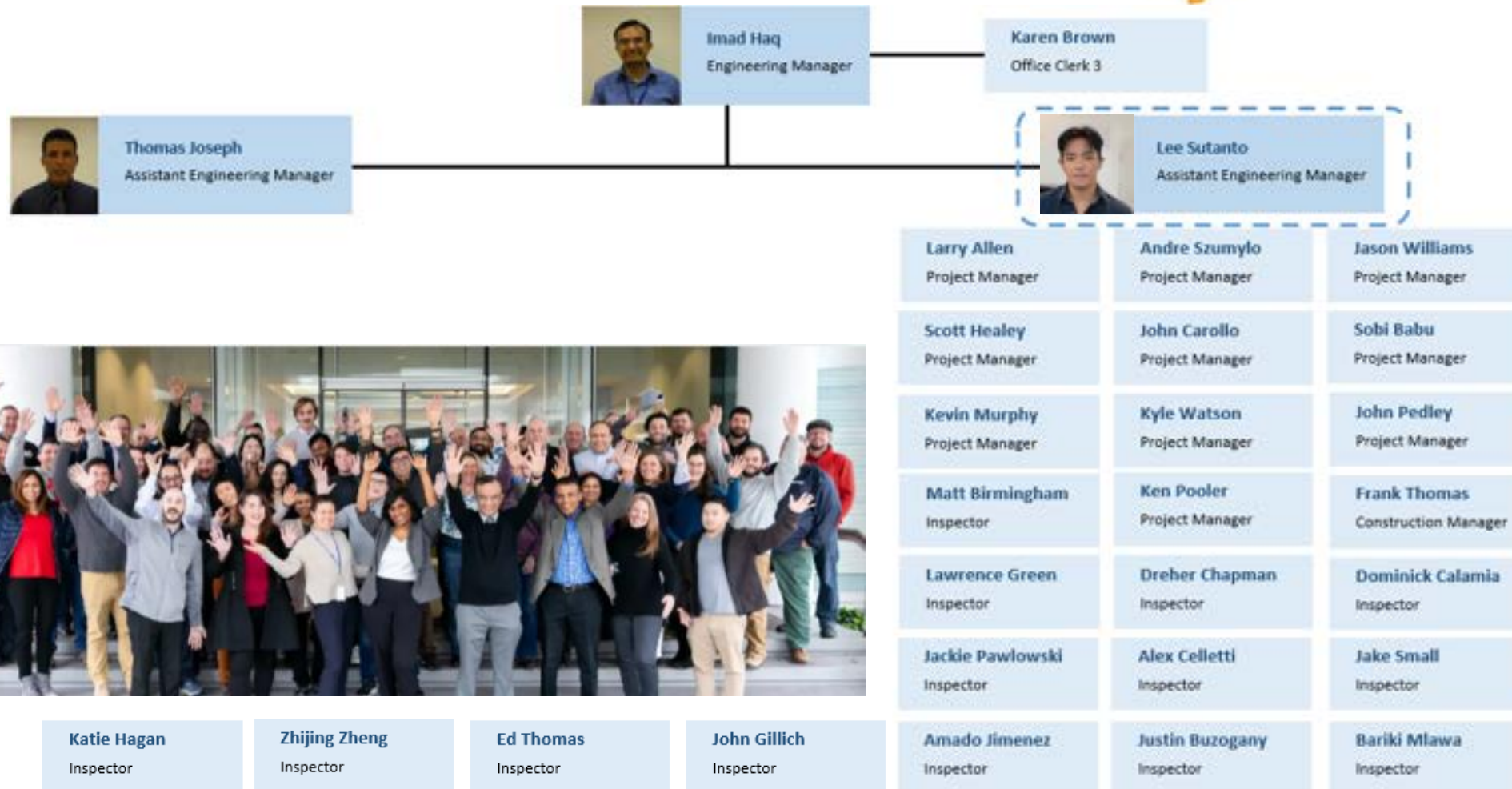


Yuba Dahal Project Manager	Tsuefeng Moua Project Manager	Will Bayne Project Manager	Kalpesh Trivedi Project Manager	Julie Coyle Project Manager	
Tim Hayes Project Manager	Ed Davis Project Manager	Colleen Parker Project Manager	Dan Drumm Senior Inspector	Francesco Zampetti Project Manager	Tonia Karoo Document Control
Bob Kurilla Project Manager	Ratheesh Gopi Resident Engineer	Jeff Campbell Senior Inspector	Wayne Darney Sr. Electrical Engineer	Sarina Stoor Construction Manager	Kyle Lank Cost Control
Lynne Perry Construction Manager	Dennis McGovern Resident Engineer	Carl Johnson Project Manager	Keith McCall Senior Inspector	Gurjant Mehat Resident Engineer	Brian Christiansen Inspector
Rui DaSilva Senior Inspector	VACANT - NEW Project Manager	Allyson Radford On Call Construction Manager	Simeon Snyder Project Manager	Vincent LaRussa Resident Engineer	Lisa Devine-Darney Tenants Project Manager
Bill McMenamin Project Manager	Mohammad Ilyas Resident Engineer	Jack Farrell Senior Inspector	Darshan Patel Inspector	Ernie Van Sant Inspector	Cheli Dahal Permits Coordinator
Anthony Cieri Resident Engineer	Mike Swiencki Project Manager	Mark Jankowski Resident Engineer	Bhavit Uphadyay Inspector	VACANT Resident Engineer	Dave Murphy Tenants Inspector
Steve Schonewolf Resident Engineer	Eyoel Takle Resident Engineer	VACANT RE/Inspector	VACANT RE/Inspector	VACANT RE/Inspector	Joe Foley Tenants Permits Reviews

See Next Page

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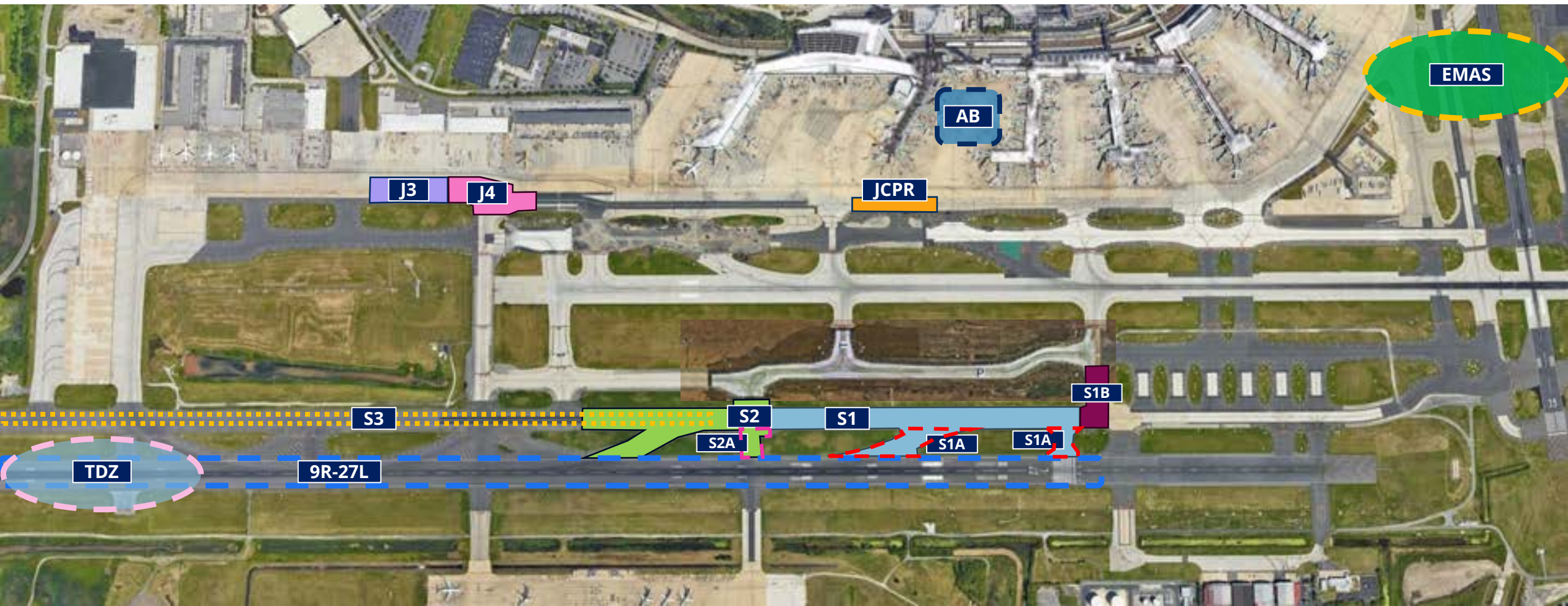
# Organization · Airside



# Airfield



- Many layers of Safety and Operational Considerations, programmatic approach





# Airfield



- Notable Projects

- Taxiway P Relocation – **NEC-AAAE 2024 Project of the Year**
- Taxiway J – **1<sup>st</sup> Envision Certified in PA** (Sustainability Award)
- Taxiway K – *Critical taxiway with challenging phasing, signif. FAA tower and Ops input*
- Taxiways Y & U – *UPS Access points, BIL grant funding*
- Taxiway S – *Reconstruction of primary feeder for primary runway, improved efficiency*
- Taxiway Z – *Reconstruction of one of the primary N/S Taxiways, adjacent to deicing facility*
- Taxiway E – *supporting FAA tech center research to test use of recycled asphalt*
- PNE Taxiway L Rehab – *primary feeder to 6-24 and corporate hangars*
- Runway 8-26 EMAS – *First use of EMAS at PHL*
- Runway 9R-27L Rehabilitation – *Primary and Most Used Runway at PHL, challenging nightly closures, optimizing high-speed exits to reduce ROT (Runway occupancy time)*
- Apron Improvements (D/E) – **S.L.A.M. Safety Award**, *scope increase from 59 to 113 slabs based on positive response*
- Apron Improvements (A/B) – *Similar to D/E, alleyway function maintained while reconstructing parts of it*
- Sacrificial Slab Repairs – *address tripping hazards and protect building foundation from apron pavement expansion*
- Lavatory Dump Station – *for newer model lavatory waste carts*
- Stockpile Relocation and Soil Management – *Clean fill for projects, mitigate contamination*



# Terminals

- Notable Projects

- **Restrooms Renovations** – Currently in Ph. 5 of 8, Recd. \$39M in BIL grants, **2024 March of Dimes Mission Award** recipient
- LED Upgrades – energy efficiency savings, TEOP
- ADA Improvements – improving accessibility throughout campus
- **B Tower Demo and Infill** – removing 70-year-old structure
- **Ticketing Vestibules** – Higher R-rating (Thermal Efficiency) for Functional AND Aesthetic Improvements to face of PHL, beautiful, new, consistent improvement
- Roof Replacements – Higher R-rating for more energy efficient roofs *Unsung Heroes, Don't think about them until they're a problem, first line of defense for interior improvements, Bag Claim Roofs are among next to proceed, Indiscriminate Impacts*

- 2026 Focus Projects

- A-F Refresh – Improvements that “Touch Every Surface”
- E Holdroom Improvements – Challenge of Cohesive Design and Planning with multiple airlines represented
- D/E Façade Improvements – Building energy efficiency meets Aesthetics
- **D/E Exit Lane Improvements** – Safety, Security, and Passenger Flow



# Landside

- Notable Projects
  - **SEPTA Platform Improvements** – *Multimodal, Heavy Coordination and Public Facing*
  - **Landside Roadway Improvements** – *fixing potholes in public facing areas*
  - **South Commercial Road** – *Repaving a pothole-riddled road, better for TNC vendors and taxis, with improved safety and appearance*
  - **Signage Improvements** – *Wayfinding and Navigation*
  - **Tug Tunnels** – *repaving and improving air circulation*
- 2026 Focus Projects
  - C Garage Renewal
  - Departures Road Landscaping



# Mechanical – Electrical – Plumbing (“MEP”)



- Notable Projects

- Mechanical

- **A West Thermal Plant Cooling Tower**
    - E Concourse Roof Air Handlers
    - BC/DE Bag Claim RTU Replacement
    - Chilled Water Express and Gas Piping - *will minimize major impacts in future, reinventing pathways for less disturbance for maintenance efforts*

- Electrical

- A West Electrical Substation
    - Cargo City Substation
    - Emergency Substation Replacement
    - **Ramp Lighting Program**
    - **SCADA**

- Plumbing

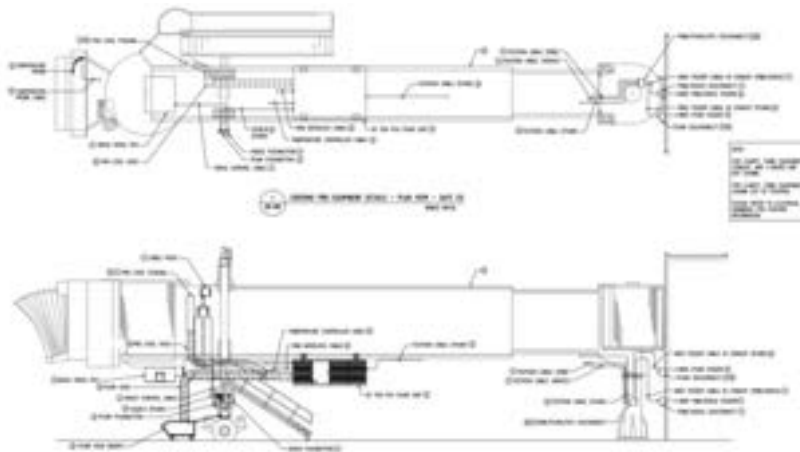
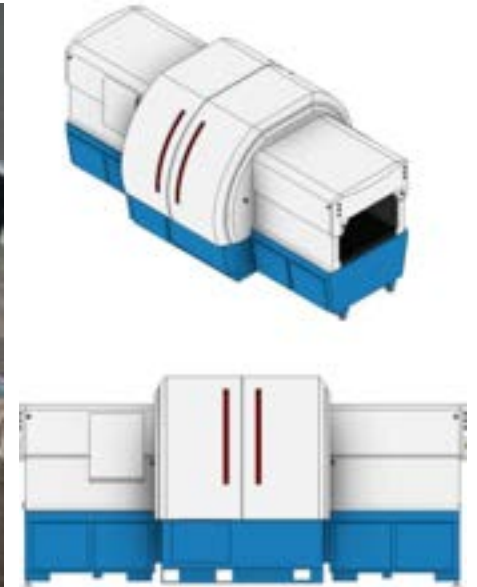
- Lift Station Improvements
    - Sanitary Pipeline Rehabilitation & Replacement



# Special Systems



- Notable Projects
  - **CCTV and Video Surveillance**
  - PC Air and GPU Replacements – *1st 120-ton PC Air units to PHL which can service Dreamliners*
  - **Passenger Boarding Bridges**
  - Biometrics – *reduce check-in time for passengers, facial scanning*
  - Queue Management System
  - **TSA Recapitalization of CTX Machines**



# Interdepartmental Support

- Notable Projects

- Pavement & Grounds Facilities
- ARFF Facility Improvements
- Airport Operations Center
- C Dolly Restroom Renovation
- Custodial Ops Offices in A East

- Other Efforts

- Tenants and Marketplace Coordination
- Burn Permits and Tenant Advisories
- As-Built Drawings
- Operation & Maintenance Manuals
- On Call Construction



# Development & Growth

- Notable Projects
  - Master Plan Updates
  - West Cargo Expansion
  - Tinicum Island Road
  - FDR Park Wetland Mitigation
  - West Apron



# Goals for the Future



- Support for 2026 efforts
- Support for Asset Management
  - Improve system
  - Provide timely response to repairs, rehabilitation, replacement for aging facilities.
  - Planned Maintenance Cycles (PBB, Pavements, Enhanced Systems, etc.).
- Support development of airport expansion and growth in close coordination with Planning Department

2026





Happy CDG-Giving!



Softball



Go Birds!



NEC-AAAE 2024 Project of the Year – Twy P



IP2 Welcome



# Thank You!

Imad Haq



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Department of Aviation



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