



# VISION 100: GREAT HALL COMPLETION

DECEMBER 15, 2021



# REQUESTED COUNCIL ACTION & AGENDA



- Approve amendments to enable Great Hall Completion
- Estimated \$1.3 billion budget
  - Total completion range: Spring 2027 to Summer 2028 (with components opening along the way)
- Agenda
  - Outlining the need to complete
  - Phase 1 and Phase 2 status update
  - Completion phase overview
    - Scope, schedule, budget
    - Budget breakdown
    - Financial metrics
    - Compare & contrast to original P3
    - Small business development/workforce/community impact
- Proposed contract amendments for council action

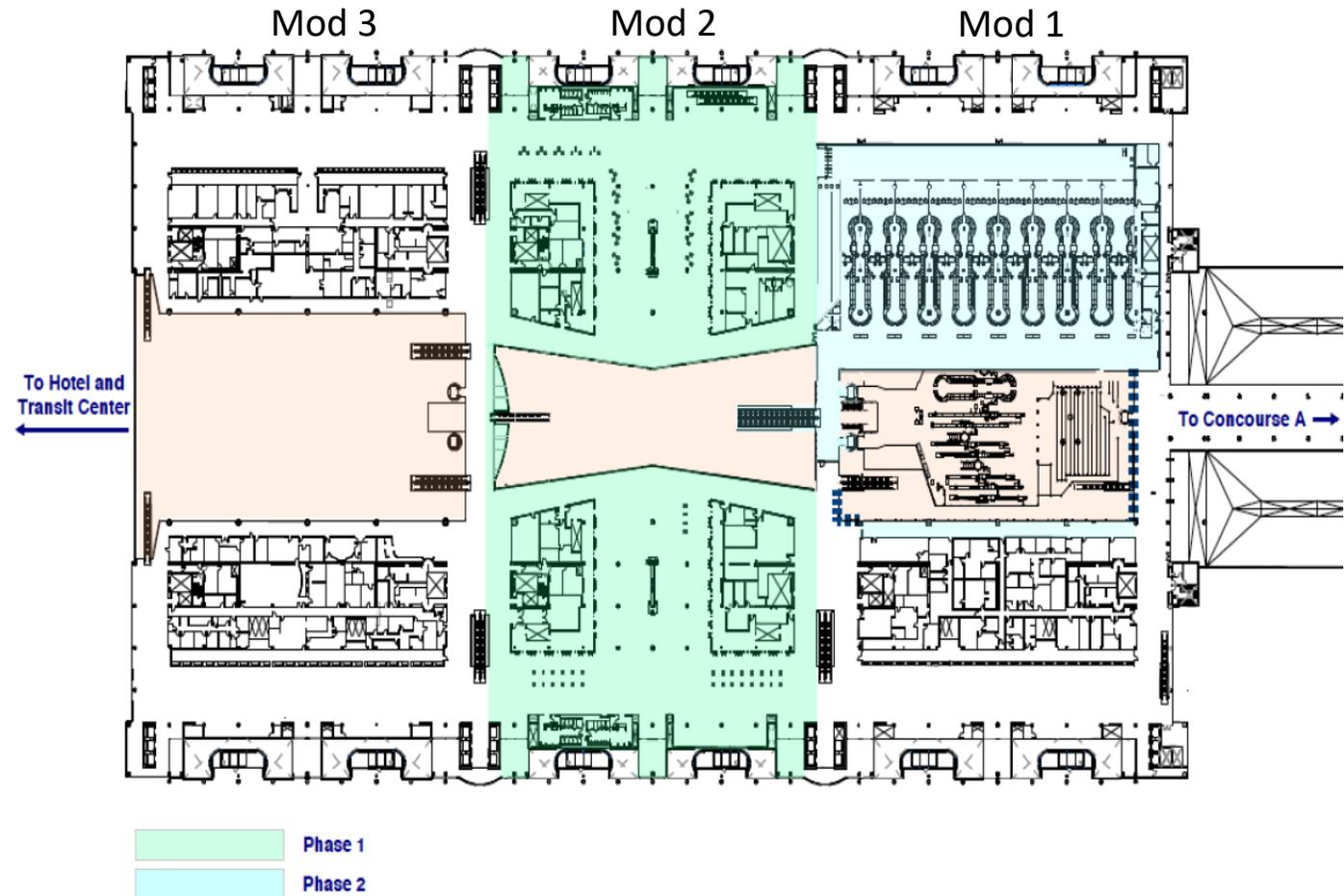
# WHY COMPLETION PHASE IS NEEDED



- Relocating and creating new security checkpoints will address the vulnerabilities we have today
- DEN is an aging facility that undergoes significant wear and tear and must be maintained
- DEN is crowded and operating over capacity
- COVID fundamentally changed DEN's position
  - Significant hub for United, Southwest and Frontier
  - Airlines want to grow here and expect facilities to meet their needs or they will invest elsewhere
  - We are recovering faster than most U.S. airports
- We have a responsibility to build our future workforce and provide our community with business, career and economic opportunities

# PHASE 1 AND PHASE 2 OVERVIEW/STATUS

- All authorized work in Phase 1 and 2 will be accomplished within the \$770 million Great Hall Project budget
- Phase 1 of the Great Hall is open, operational and under budget
  - Savings are being rolled into Phase 2, which is projected to be complete in mid-2024
- Phase 2 broke ground in July 2021 with a brief overlap of Phase 1 to achieve schedule acceleration
  - Work is on schedule and budget



# COMPLETED PHASE 1

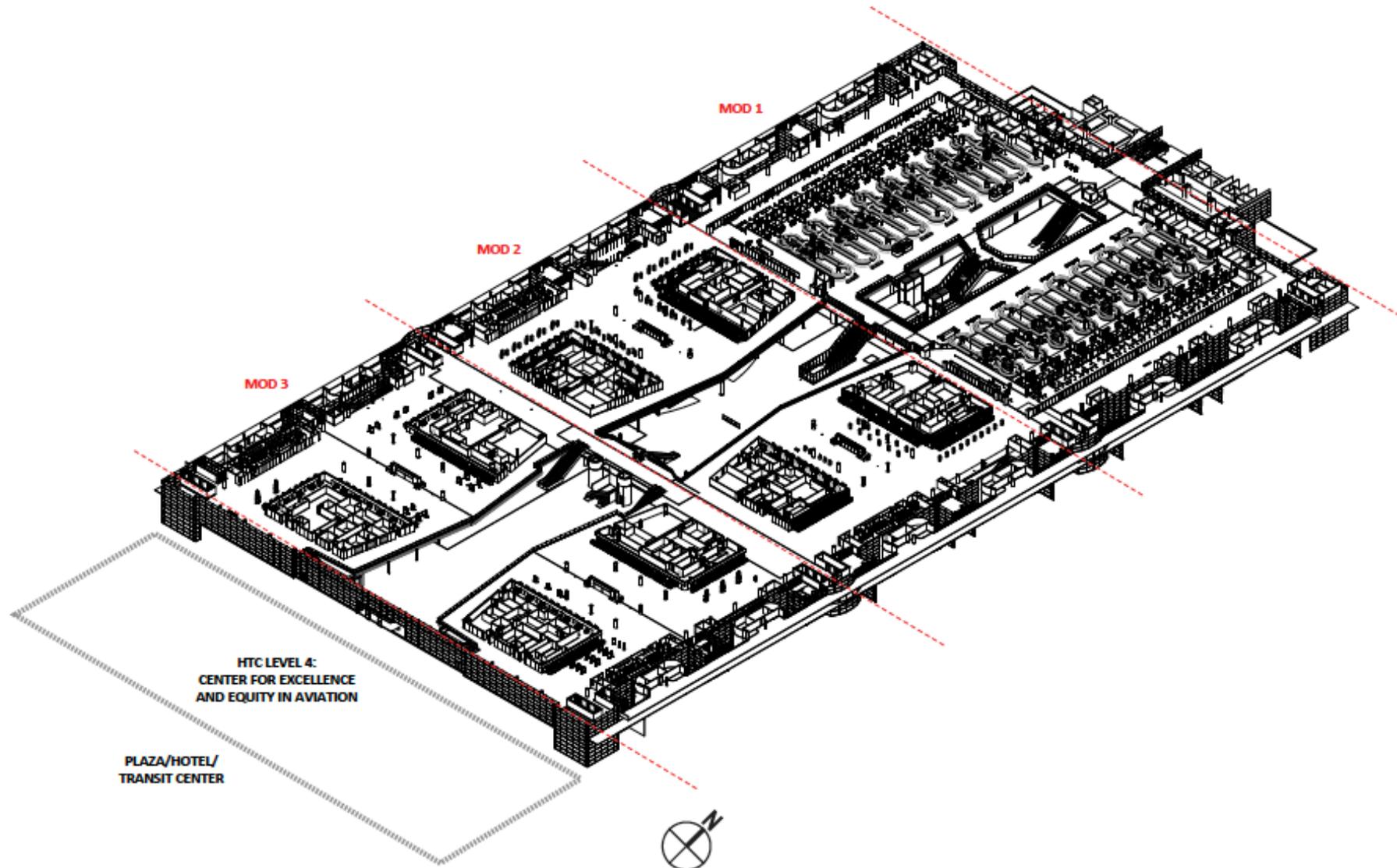


# PROPOSED GREAT HALL COMPLETION



- Constructs a more secure checkpoint in the northeast corner of Level 6 that will mirror the one being constructed in the northwest corner of Level 6
  - Increases from 32 to up to 42 future screening lanes
  - Increases passenger throughput by 62% (4,650 passengers per hour pre-construction to a minimum of 7,480 per hour post construction)
  - Increases passenger safety and convenience
- Completes the modernization of ticketing spaces on Level 6 for all remaining airlines
- Refreshes baggage claim and curbside areas on Levels 4 through 6 on the east and west side with new flooring
- Creates a new space for meeting and greeting passengers at both domestic and international arrivals on Level 5
- Builds the Center of Excellence and Equity in Aviation – a key resource for creating greater opportunity

# COMPLETED GREAT HALL



# TEMPORARY TICKETING SOLUTION



- One of the most significant challenges to keep construction within acceptable durations is the location of temporary facilities for airlines
- These were the criteria used to assess temporary locations:
  - Passenger experience
  - Ticketing space
  - Baggage system, including oversize baggage
  - Employee experience
  - Airline ticket office space and proximity, wheelchair staging
  - Minimize airline moves
- The DEN team reviewed options outside the terminal including within the parking structure or the Westin Hotel, but they were deemed unacceptable
- The recommended alternative based on the guiding principles for future phases was a temporary accommodation in the center (Mod 2) of the Terminal on Level 5

# CONCESSIONS OPPORTUNITIES



- Significant concession space on Level 5 throughout the terminal with an estimated 12 individual locations and an estimated 18,000 total available square feet
- Activation at the entry from the Hotel and Transit Plaza entrance on Level 5
- Design will explore additional space for mobile concession opportunities throughout the terminal
- All concessions opportunities in the Jeppesen Terminal will be pre-security

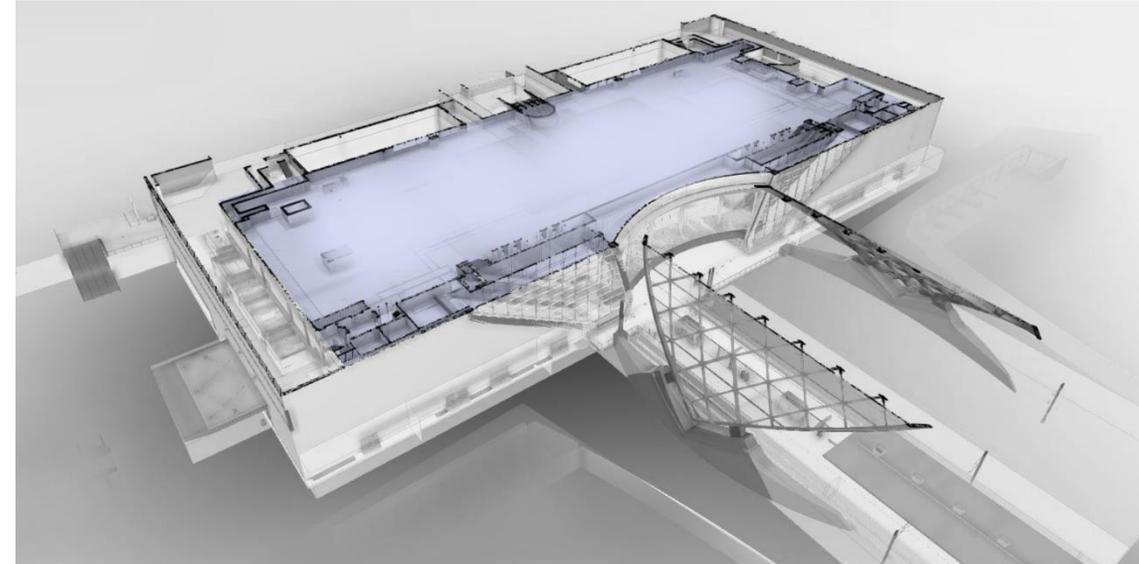


# CENTER OF EXCELLENCE AND EQUITY IN AVIATION



DEN Center of Excellence and Equity in Aviation (DC-EEA) is designed to:

- Engage, educate, empower, motivate and provide opportunities for under-represented students and young people who are interested and passionate about careers in aviation
- Be a focal point for aviation knowledge management (capturing new knowledge and practices from inside and outside the aviation industry)



*DC-EEA on the 4<sup>th</sup> Floor of the HTC with RTD A-Line Connectivity*

# CENTER OF EXCELLENCE AND EQUITY IN AVIATION



The Center of Excellence and Equity in Aviation (DC-EEA) is designed to:

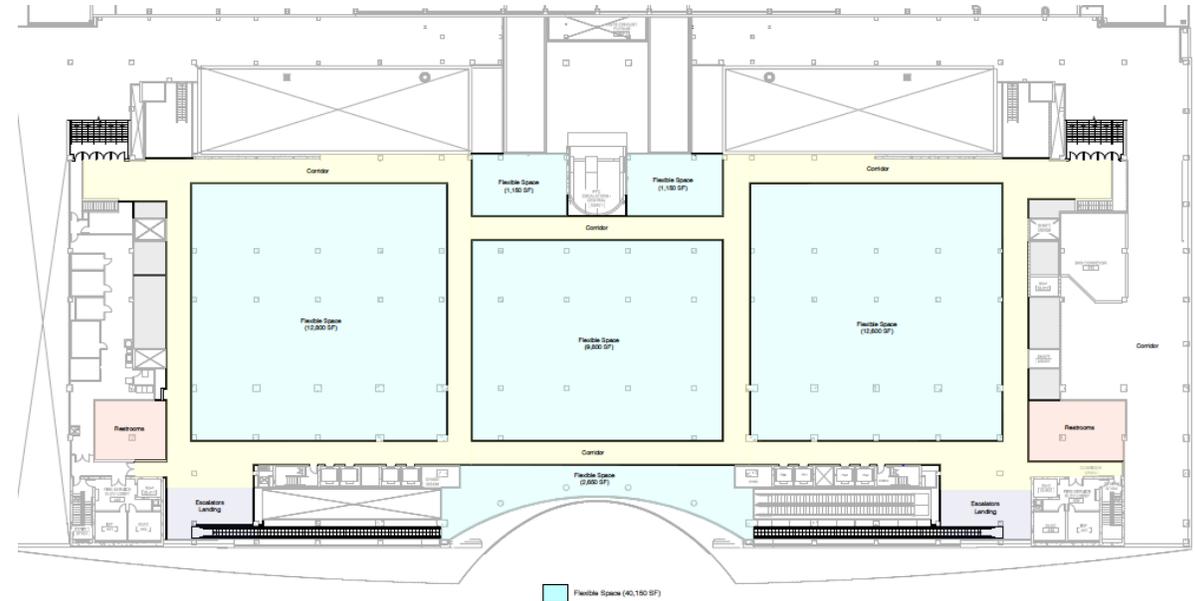
- Find worldwide aviation best practices and disseminate them to the industry
- Adapt new technology systems or study new technology as a means to improve the aviation industry
- Provide aviation research
- Provide training and guidance for DEN employees, including introduction of an aviation career pathway to all employees, including non-City & County of Denver employees



- MWBE participation to catalyze generational wealth building opportunities:
  - 18% construction
  - 35% design
  - 20% program management
  - 56% key project leadership and support roles through Minority/Woman-Owned Business Enterprise (MWBE)-led partnership
- Beyond MWBE goals, completing the Great Hall will provide enhanced opportunities:
  - Unbundling bid packages to broaden opportunities
  - Prime contract work bid opportunities for MWBE firms and joint ventures
  - Mentor Protégé Program
- Business to business development
- Large firms as subcontractors to smaller firms
- Building strong local businesses with relationships and experience to work in other cities

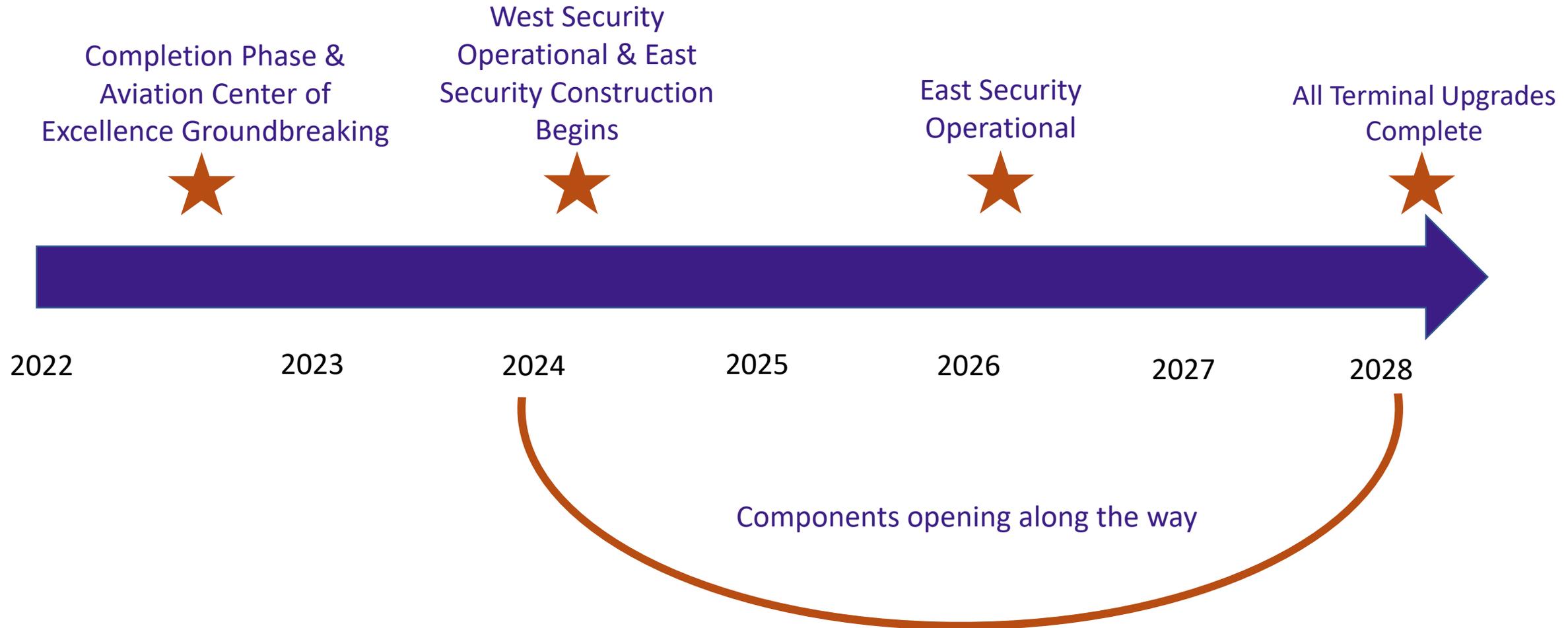
# WORKFORCE DEVELOPMENT IMPACT

- Completion phase provides jobs (forecasted):
  - 6,500 direct jobs
  - 500 indirect jobs
  - 1,300 induced jobs
- Estimated 54,000 additional apprenticeship hours
- Provides aviation industry career pathways through DEN's Center of Excellence and Equity in Aviation
  - Hotel and Transit Center, Level 4



*Level 4 of the Hotel and Transit Center*

# GREAT HALL COMPLETION TIMELINE



# EAST AND WEST SECURITY – VIEW TO THE NORTH



# CENTER OF TERMINAL – VIEW TO THE NORTH



# SOUTH END – VIEW TO THE NORTH



## **\$496 Million – Security Completion**

- Completion of East Security on Level 6, shared East and West elevators, escalators, stairways and connection bridges and procurement of automated security equipment for all lanes on East and West Level 6
  - \$60 million for Automated Security Lane Equipment at new East and West checkpoint lanes

## **\$604 Million– Mod 3 (South End) Buildout**

- Completion of Mod 3 check-in facilities with self-bag drops, efficient counter layout allowing airline growth, temporary check-in locations for Mod 3 airlines during construction and Level 5 restoration
  - \$40 million for temporary passenger check-in solution

## **\$200 Million– Center of Excellence and Equity in Aviation; Terminal Modernization and Capacity Upgrades**

- Buildout of Level 4 in Hotel and Transit Center, curbside modernization, baggage claim area renovation and additional upgrades that will contribute to future operations and maintenance savings
  - \$40 million for Center of Excellence and Equity in Aviation

To be able to deliver the Great Hall Completion Phase and upcoming future needs of the airport, DEN can and will manage to a total bond-funded Capital Improvement Plan (CIP) of ~\$2B\* over the next 5 years (2023-2027)

Resulting Key Metrics	2026	2030
All-bonds debt service coverage <sup>1</sup>	1.46	1.43

<sup>1</sup>Per DEN's Bond Ordinance, a 1.10 All-bonds debt service coverage is required.

- According to Fitch Ratings, the airport industry average debt service coverage is currently 1.40 and is projected to decline to 1.30 in 2031
- Under this option, debt service coverage will be 1.50 by the end of the current United/Southwest lease period (2035)

\*An illustration of the potential buildup is shown on the following slide  
NOTE: Metrics are subject to change upon finalization of the future CIP

# LIKELY FUTURE CIP BUILDUP



	<b>Amount</b>
2023-2027 CIP - \$200 Million Per Year For Major Maintenance	\$1 billion
Great Hall Completion Phase	\$1.3 billion
Other Major Capital Projects	\$300 million
<b>Subtotal for Future Projects</b>	<b>\$2.6 billion</b>
Less: Major Maintenance Savings from GH Completion Phase	(\$200 million)
Less: Potential Infrastructure Bill proceeds	(\$400 million)
<b>Subtotal Maintenance Savings &amp; Infrastructure Bill Proceeds</b>	<b>(\$600 million)</b>
<b>Potential Bond Funding Requirements For Future Projects</b>	<b>\$2 billion</b>

# FEDERAL INFRASTRUCTURE BILL



- On Nov. 13, President Biden signed the \$1 trillion bipartisan infrastructure bill into law
- Based on preliminary estimates, DEN expects to potentially receive \$400 million in funding for future capital needs
- Important features of the bill relating to airports is summarized below:

## Important Features

**\$25**

*Billion dollars allocated to airports*

**Program expires September 30, 2026  
(5 Years)**

=

**\$15**

*Billion dollars for the **Airport Infrastructure Program***

**\$5**

*Billion dollars for the **Airport Terminal Program***

**\$5**

*Billion dollars for the **FAA***

# COMPARATIVE CONTEXT TO FORMER DEVELOPER



# COMPARE AND CONTRAST TO ORIGINAL P3



Scope	P3/Developer	DEN Managed
Funding Mechanism	<ul style="list-style-type: none"> <li>• Design and construction funded in part by the City and in part by Developer through private financing</li> <li>• Developer’s costs and financing repaid through concession revenue share over 34 years</li> <li>• No cap on potential developer revenue share</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional airport funding</li> <li>• Airport preserves all revenue streams for bond payment and other purposes</li> </ul>
Budget	<ul style="list-style-type: none"> <li>• \$1.8 billion for 34-year P3</li> <li>• \$770 million                             <ul style="list-style-type: none"> <li>• \$650 million for design &amp; construction</li> <li>• \$120 million owner contingency</li> <li>• Former developer at risk for further design and construction costs, subject to change orders</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• \$2.07 billion                             <ul style="list-style-type: none"> <li>• Includes owner contingency</li> </ul> </li> </ul>
Schedule for Project Completion	<ul style="list-style-type: none"> <li>• November 2021 – original contract</li> <li>• May 2024 – Based on last publicly reported schedule in Developer’s April 2019 Construction Project Report</li> </ul>	<ul style="list-style-type: none"> <li>• Spring 2027 to Summer 2028</li> </ul>

# COMPARE AND CONTRAST TO ORIGINAL P3



Scope	P3/Developer	DEN Managed
Delivery Assumptions and Operational Impacts	<ul style="list-style-type: none"><li>• Terminal completely closed in thirds</li><li>• Security moved up to Level 6 at the end of the project</li><li>• Airline check-in facilities finished prior to security moving to Level 6 which would have required full closure of South Security Checkpoint prior to constructing new check-in facilities</li><li>• Terminal train access closed for at least one year which would have required all passengers to go over the A bridge to access train at Concourse A to reach Concourses B and C</li><li>• Expedited construction plan with significant access and security impacts</li></ul>	<ul style="list-style-type: none"><li>• Security move up to Level 6 completed prior to build out of additional airline check-in facilities</li><li>• Train access maintained in the terminal throughout construction</li><li>• Longer construction period that minimizes impacts to passengers and prioritizes fully building out security as the next phase rather than as the last phase</li></ul>

# COMPARE AND CONTRAST TO ORIGINAL P3



Scope	P3/Developer	DEN Managed
Security Enhancements	<ul style="list-style-type: none"> <li>• 34 Lanes on new Level 6 East and West Security with Automated Screening Lane (ASL) technology</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 42 Lanes:                             <ul style="list-style-type: none"> <li>• 34 Lanes on Level 6 East and West with ASL technology</li> <li>• Up to 8 lanes of future capacity and new technology innovations to meet 100 million annual passengers in the Terminal</li> </ul> </li> </ul>
Airline Check-In	<ul style="list-style-type: none"> <li>• New Level 6 Mod 2 and 3 (center and south end) airline check-in facilities</li> </ul>	<ul style="list-style-type: none"> <li>• New Level 6 Mod 2 and 3 (center and south end) airline check-in facilities, plus 28 positions in Level 5 Mod 2 (center)</li> </ul>
Concessions: Shopping and Dining	<ul style="list-style-type: none"> <li>• Significant concessions and passenger shopping facilities located post-security with concession opportunities pre-security on south end of terminal</li> </ul>	<ul style="list-style-type: none"> <li>• All concessions in the terminal located pre-security and throughout the Terminal facility</li> </ul>
Additional Components	<ul style="list-style-type: none"> <li>• Curbside and baggage claim refresh</li> </ul>	<ul style="list-style-type: none"> <li>• Center for Excellence and Equity in Aviation</li> <li>• Curbside and baggage claim refresh</li> </ul>

# COMPLETION AMENDMENTS



# COMPLETION AMENDMENTS



- Contracts initially procured competitively and to be extended through 2028:
  - Hensel Phelps Construction Amendment – \$900 million
    - 18% MWBE
  - Jacobs Program Management – \$50 million
    - 20% MWBE
  - LS Gallegos Program Support – \$50 million
    - 56% MWBE
  - Stantec Design – \$100 million
    - 35% MWBE
- DEN costs including project oversight, permits, hazardous waste disposal, quality assurance support and management reserves - \$200 million

- Hensel Phelps – Prime contractor (Resolution 21-1516)
  - \$900 million additional capacity
  - 2028 contract term
  - 18% MWBE (currently at 26.9%)
- Original Great Hall contract competitively sourced
- Scope of work
  - Preconstruction services
  - Construction management
  - Workforce, apprenticeship and small business outreach
  - Site management
  - Procurement support
  - Planning and scheduling
  - Airport special systems, including baggage handling system and security installation

**CERTIFIED SUB UTILIZATION:**  
First tier MWBE partners: 45  
Second tier MWBE partners: 53

# CONTRACT AMENDMENT - JACOBS



- Jacobs - Program management (Resolution 21-1517)
  - \$50 million additional capacity
  - 2028 contract term
  - 20% MWBE (currently at 22.6%)
- Scope of work
  - Program management
  - Subject matter experts
  - Program controls and reporting
  - Risk management

**CERTIFIED SUB UTILIZATION:**  
CMTS, LLC  
Civil Technology, Inc.

# CONTRACT AMENDMENT – LS GALLEGOS



- LS Gallegos - Program support (Resolution 21-1518)
  - \$50 million additional capacity
  - 2028 contract term
  - 56% MWBE (currently at 58.9%)
- Scope of work
  - Program delivery support
  - Subject matter expertise
  - Planning and reporting
  - Construction management
  - Operational readiness
  - Commissioning support
  - Quality assurance
  - Stakeholder engagement
  - Facility Assessment

**CERTIFIED SUB UTILIZATION:**  
CMTS, LLC  
CIG  
Shrewsberry & Associates, LLC  
Civil Technology, Inc.

# CONTRACT AMENDMENT - STANTEC



- Stantec - Design (Resolution 21-1519)
  - \$100 million additional capacity
  - 2028 contract term
  - 35% MWBE (Currently at 29.8%)
- Scope of work
  - Design
  - Commissioning support
  - LEED certification
  - Construction support

## CERTIFIED SUB UTILIZATION:

CE Group

Corey Electrical Engineering, Inc.  
Entitlement & Engineering Solutions

Group 14 Engineering, PBC

Integral Engineering Company

K2 Audio

PK Group (SBE)

RNN Architects

San Engineering, LLC

Studio Completiva, Inc

SynEnergy

Zann & Associates, Inc.

# Q&A

