APPENDIX D

Alternatives Workshops

APPENDIX D.1

Alternatives Workshop #1

Alternatives Workshop #1

July 30, 2019

MASTER PLAN **2040**

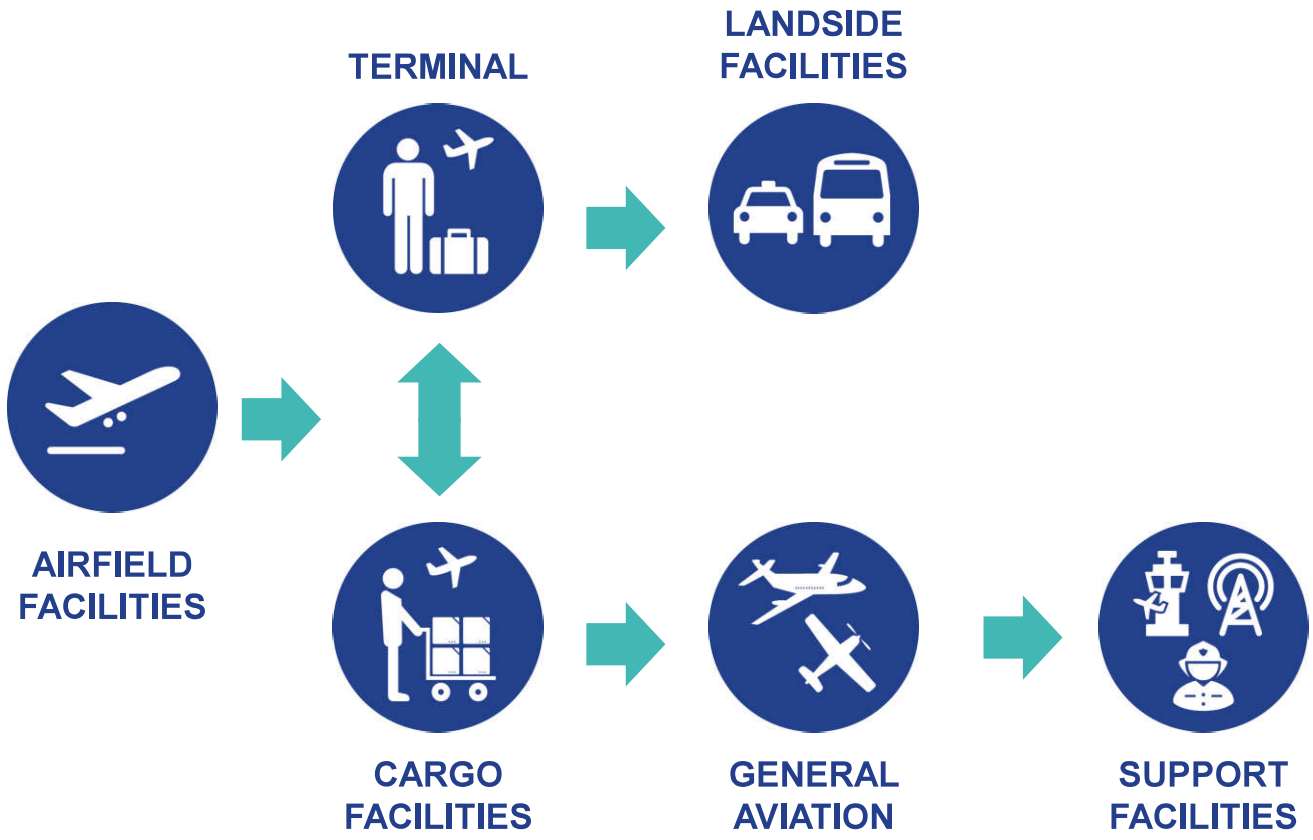
MKE
MILWAUKEE

Alternatives Planning Overview

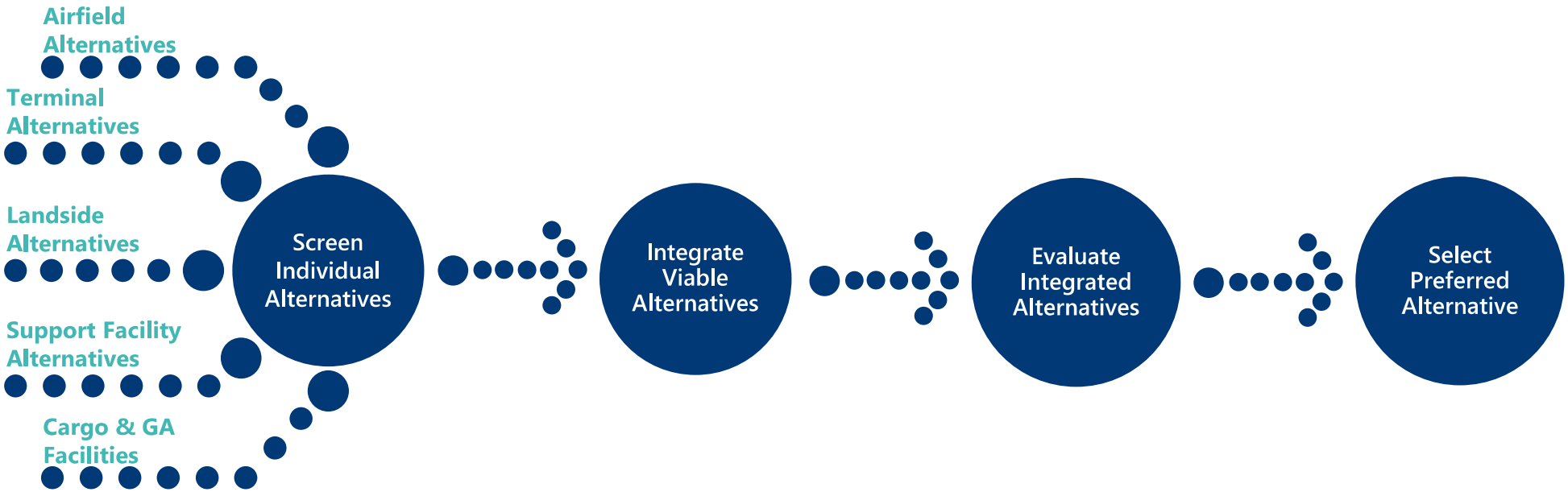
- Workshop schedule
- Process
- Goals
- Subject areas
  - Airfield facilities (runway focus)
  - Cargo/General Aviation/Support facilities
  - Terminal facilities
  - Landside facilities (curbside, roadway, parking, rental car, etc.)

Alternatives Planning Process

- Meet defined aeronautical needs
- Comply with FAA criteria
- Consider operational safety and efficiency
- Recognize hierarchy among facilities



Alternatives Planning Process



Workshop #1

Workshop #2

Workshop #3

Workshop #1 Goals

- Explore conceptual alternatives to meet needs
  - Accommodate High Scenario Forecast requirements to protect flexibility
  - Develop Airport Layout Plan, Implementation Plan, Financial Analysis, and CIP on Baseline Forecast
- Generate additional and derivative development alternatives
- Reflect MKE priorities and preferences
- Generate comprehensive groups of alternatives (by topic)
- Next steps (Workshop #2)
  - Present full range of initial alternatives
  - Present screening results (eliminate infeasible/undesirable alternatives)
  - Present set of integrated alternatives for further evaluation
  - Prepare evaluation criteria/matrix

Airfield Challenges

- Qualitative
  - 10,000-foot runway requirement to meet WI ANG mission preferences
  - Airfield hot spots / complex intersections
  - Compliance with FAA criteria/standards
  - FAA funding challenges
  - Proximity of RW 1R-19L to WI ANG facilities
  - Operational redundancy (in case of runway out of service)
  - Runway length to serve international markets
  - Noise Abatement
- Quantitative
  - Forecast demand between 60 and 75 percent of Annual Service Volume (trigger for planning additional capacity)
  - Preserve adequate wind coverage and crosswind capabilities

Cargo Facilities Challenges

- Qualitative
  - Inefficient facility configuration for some tenants
  - Dispersed facilities
  - Long term growth opportunities/capabilities
  - Ramp congestion and facility adjacency challenges
- Quantitative
  - Cargo ramp expansion
  - Existing unmet need/demand
  - Penetrations of CFR Part 77 surfaces (parked aircraft)
  - Landside adequacy for larger transportation vehicles (truck maneuvering)

GA Facilities Challenges

- Qualitative
  - Inefficient facility configuration for some tenants
  - Dispersed facilities
  - Long term growth opportunities/capabilities
  - Opportunity for consolidation
  - Airfield/runway/landside (non-secure) access
- Quantitative
  - GA ramp expansion
  - Existing unmet need/demand

Support Facilities Challenges

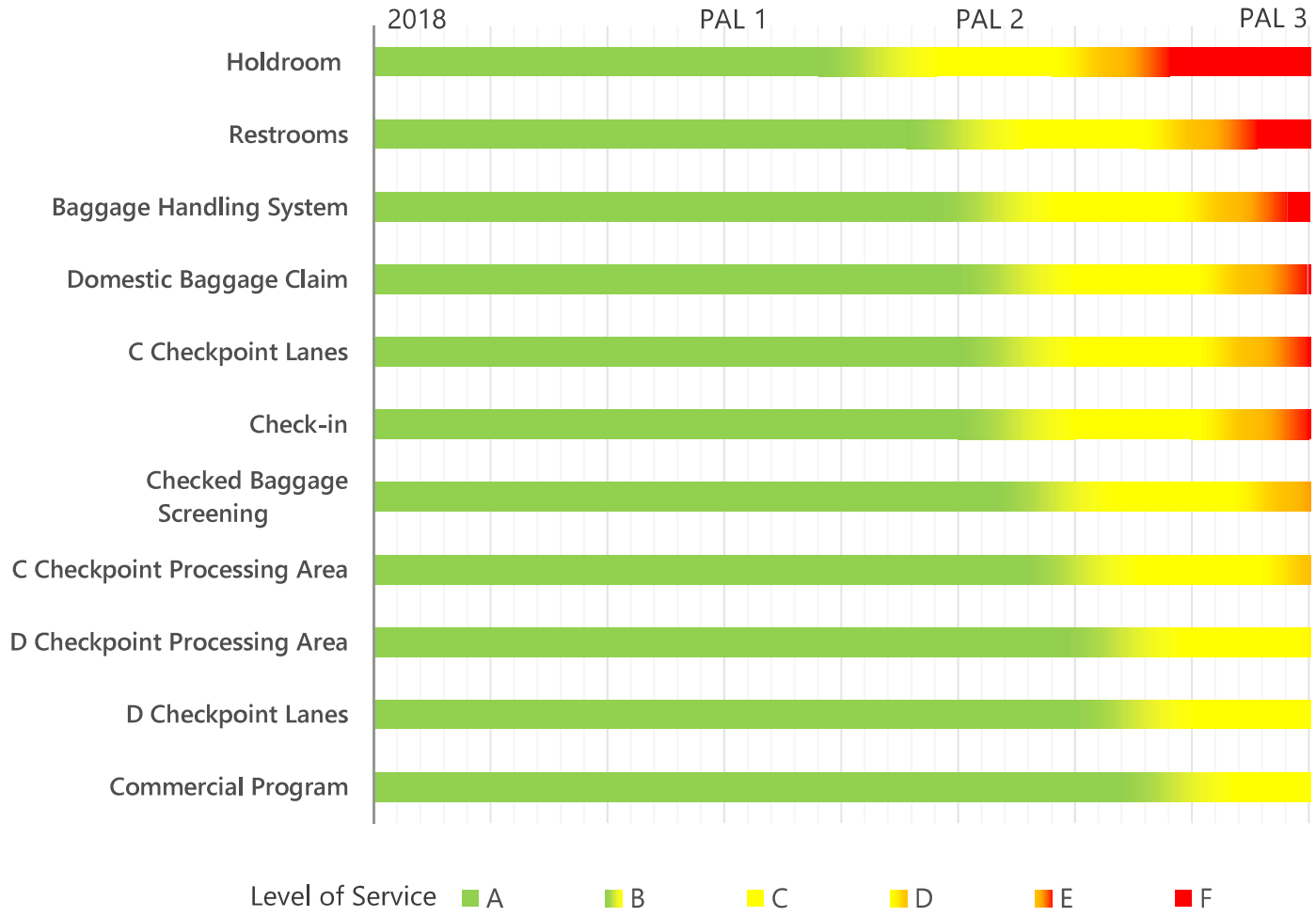
- Qualitative
  - Preserve flexibility for demand-based expansion
  - Meet pent-up demand and ability to accommodate future needs
  - Supplemental GRE capability (ground noise coverage)
  - Future ARFF index changes
  - Potential relocation of facilities to allow for “highest and best use” of existing land/facilities
- Quantitative
  - Maintenance area expansion and consolidation of facilities

Terminal Challenges

- Qualitative
  - Concourse E integration
  - SSCP Consolidation potential
  - Integration of near-term gating considerations (Gate Optimization Study)
- Quantitative
  - Aircraft spacing allowing for maximum parking flexibility
  - Holdroom and passenger amenities spaces/dimensions
  - Additional check-in positions required after 2028
  - Additional SSCP lanes required by 2028 (Concourse C, if no consolidation)
  - Additional 10,000-15,000 sq ft baggage make-up space required (through 2040)
  - Additional gates: +4 to +10 gates, depending on operational assumptions (does not include Concourse E)

Terminal Challenges

- Terminal Requirements Summary – Forecast High Scenario LOS



Note: LOS reflects facility capacity relative to space required to meet demand.

Landside Challenges

- Qualitative
  - Create “front-door” visibility at MKE entrance
  - Potential for enhancing parking revenue by expanding on-airport facilities
  - Vertical clearances/low ceiling heights in parking structure
  - Driver experience and ease of wayfinding (complexity of navigation)
  - Simplify access along Howell Ave. and Airport Spur
  - Taxi dispatch and circulation within terminal roadway
- Quantitative
  - Short sight distances and vehicle weave distances
  - Ease curbside and on-airport roadway congestion during peak periods
  - Potential for consolidation of facilities (CONRAC and/or Ground Transportation Center [GTC])
    - Close-in vs. remote facilities (off-airport site options?)
    - Ability to repurpose future facilities should mode share shift
- Additional public parking (2,600-4,600 spaces required by 2040)