Sustainable Airport Master Plan (SAMP) Update

Washington State Transportation Commission

July 25, 2017

Port of Seattle®

Sea-Tac Airport Today

- **Current Projects for Current Demand**
- Master Plan for Future Demand
- Next Steps

Sea-Tac Airport Today

2015

42.3 million passengers
Up 12.9%
381,000 flight operations
Up 12%

2016

45.7 million passengers
Up 8%
412,000 flight operations
Up 8.1%

- $220 million in retail and service sales
- 170,000 jobs related to airport activity

Major Current Projects:

- North Satellite Renovation
- South Satellite Renovation
- Baggage Optimization
- Concourse D Holdroom Terminal
- International Arrivals Facility

NorthSTAR – North Satellite Renovation

- North Satellite Renovation
- Increase gates from 12 to 20
- Add 180,000 sq ft
- Double dining and retail space
- Renovated interior to be cost-effective, environmentally friendly, & express NW culture

Budget: $636,000,000

Projected Opening: 2021

Begin Work in 2016

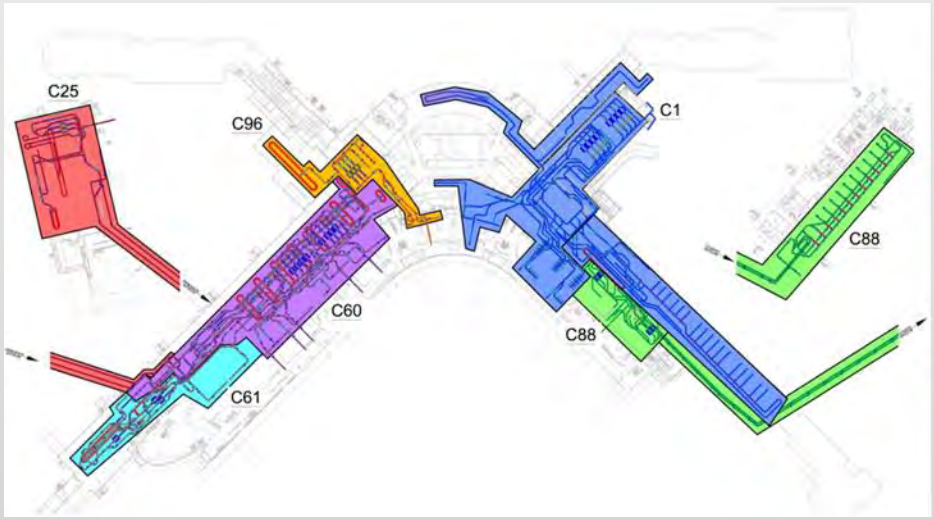
South Satellite Renovation

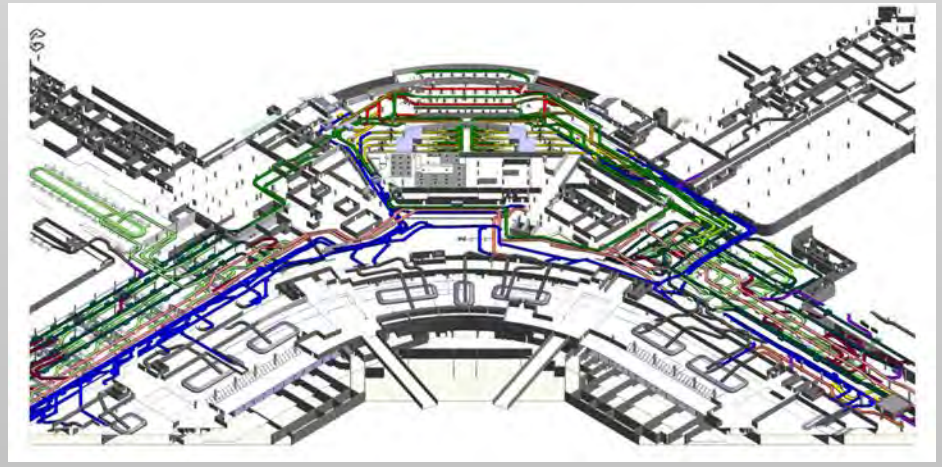
- Structural (Seismic) Upgrades
- HVAC Upgrades
- LEED
- Improved/positive passenger experience
- Interior Renovations
- Repurposing of current Federal Inspection Service Space
- Airport Dining and Retail Upgrades

Construction Schedule

Early Works:	**2020 – 2022**
Major Construction:	**2022 – 2026**
Budget:	**TBD**

Baggage Optimization





- Existing configuration is at capacity
- Current system inflexible for airline relocation
- Improved configuration will accommodate airport growth
- New system will support airline and gate relocation

Budget: $320,400,000

Beneficial Occupancy, Phase 1: 2019

Project Completion: 2023

Concourse D Hardstand Holdroom

- Holdroom and passenger processing space for six to seven hardstand operations
- Busing Operations
- LEED Silver
- Improved passenger experience

Budget: $38,000,000

Notice to Proceed: 2017

Project Completion: 2018

International Arrivals Facility

International Arrivals Facility (IAF)

- Progressive Design Build Project Delivery
- Approximately 400,000 sq ft
- Bridge between satellite & facility
- Sterile corridor

Budget: $660,000,000

Projected Opening: 2019

Begin Work in 2017

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Briefing overview

- Background
  - Planning context
  - Plan development
  - Development constraints
- Development concept progression
- Implementation plan
- Next steps
- Environmental review

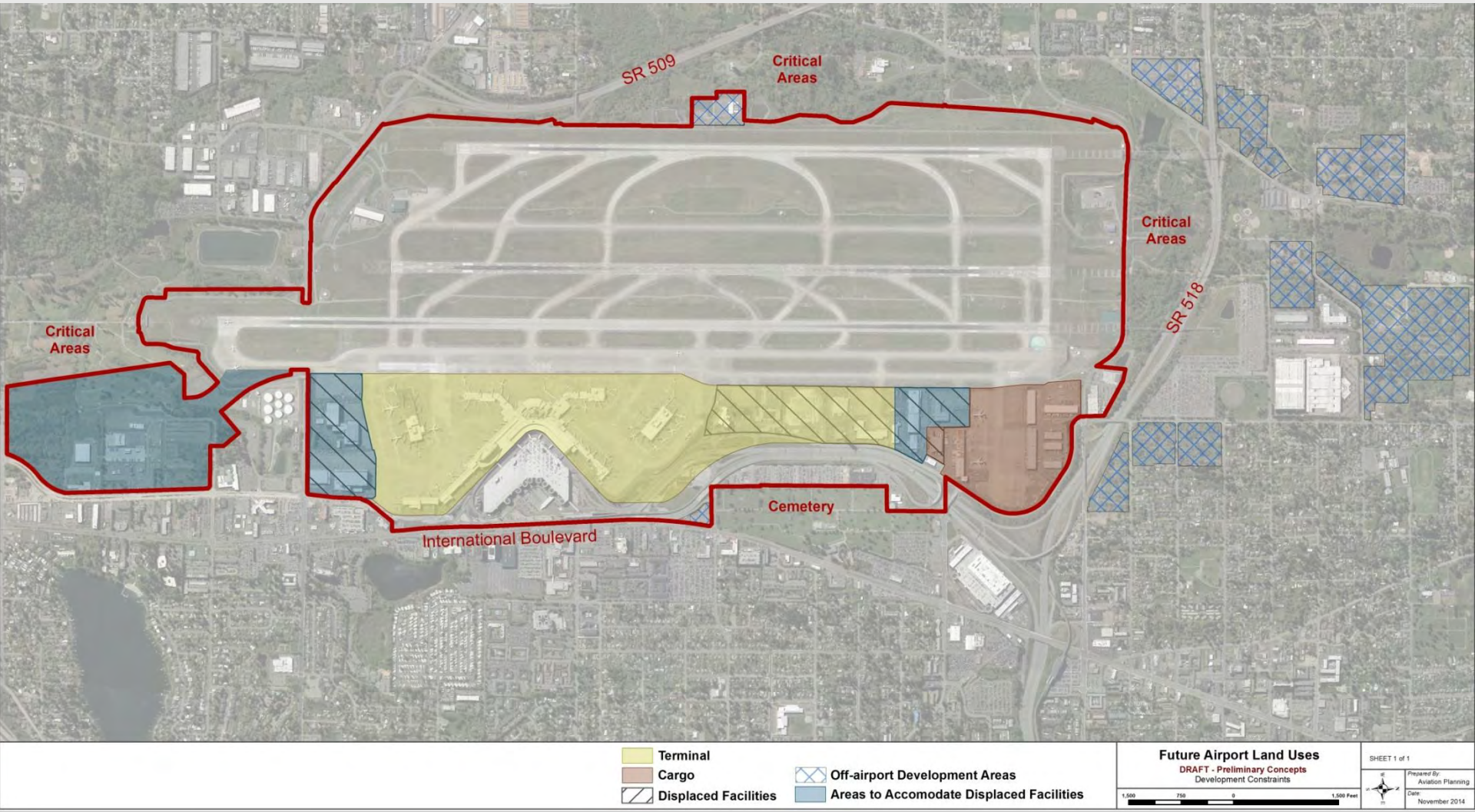
Background

Planning context

- ✓ Long-range plan *(e.g. SAMP)*
  - Campus wide, comprehensive planning
  - Facility requirements for airport activity in 5-year increments to 20-years
  - Alternatives analysis for major plan elements
  - Narrowing alternatives down to Preferred Alternative(s)
  - 20-year facilities development plan
    - Balance capacity in all key functional areas to fixed capacity of 3-runway airfield
    - Phasing plan to maintain adequate level of service and continuity of operations
  - Capital program / plan of finance
- ✖ Project definition *(e.g., concourse layouts for new gate piers)*
  - Program development for individual projects
  - Adequate detail required to transition projects to design
- ✖ Project design

Background

Development constraints & key functional areas



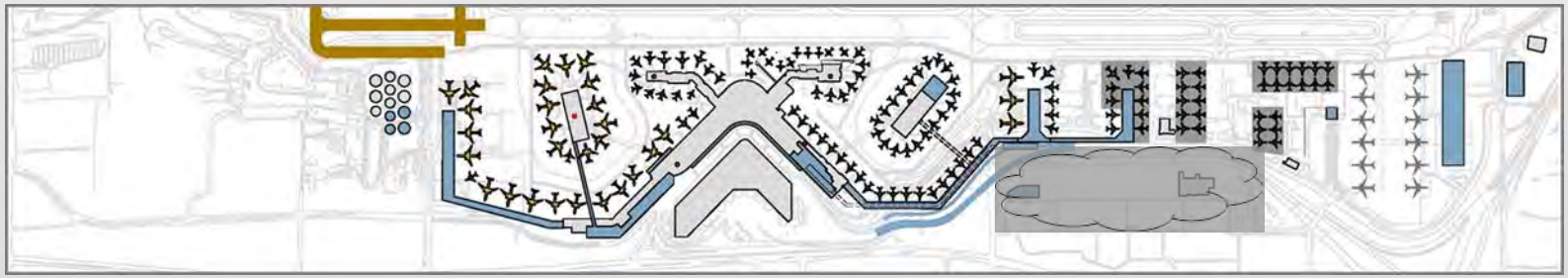
Current work

- Implementation plan & financial feasibility
  - Project phasing
  - Program cost model
- Landside concept refinement
- South Aviation Support Area (SASA) concept refinement
- No action alternative
- Airside modeling
  - Determine annualized delay for 2029 & 2034
  - Determine delay reduction benefit of potential airside improvements
- Airfield compliance study to determine safety & efficiency improvements
- Airport Layout Plan (ALP)
- Documentation

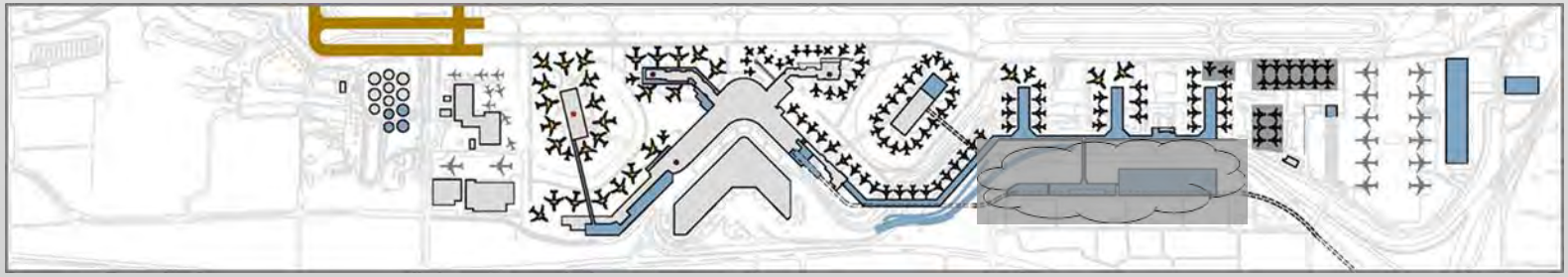
Development concept progression

Early development concept iterations

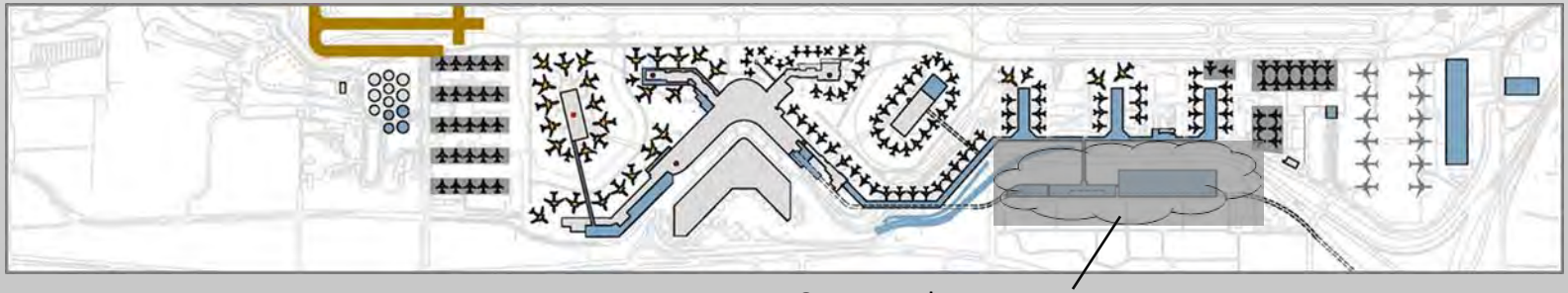
Concept 1



Concept 2



Concept 3



NOTE: Development concepts illustrate major plan elements independent of 1 vs 2 terminals

Development concept progression

Concept 4 selected as preferred development concept

Key elements

- New widebody international gates on Concourse B
- Gate expansion to the north
- Aircraft hold positions provided north and south of existing and future gates
- SASA to accommodate functions displaced by gate and hardstand expansion

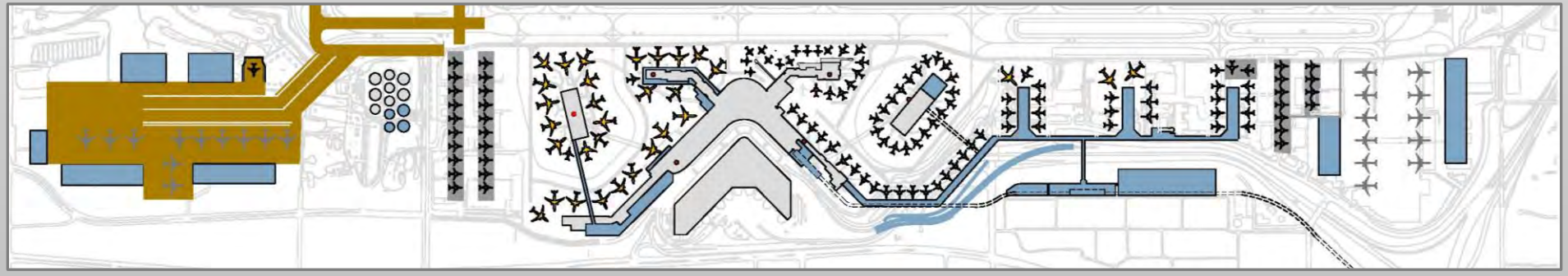
Primary advantages

- Meets program needs
- Best operational layout

Primary challenges

- Complexity of developing new airfield-connected land
- Complexity of construction phasing

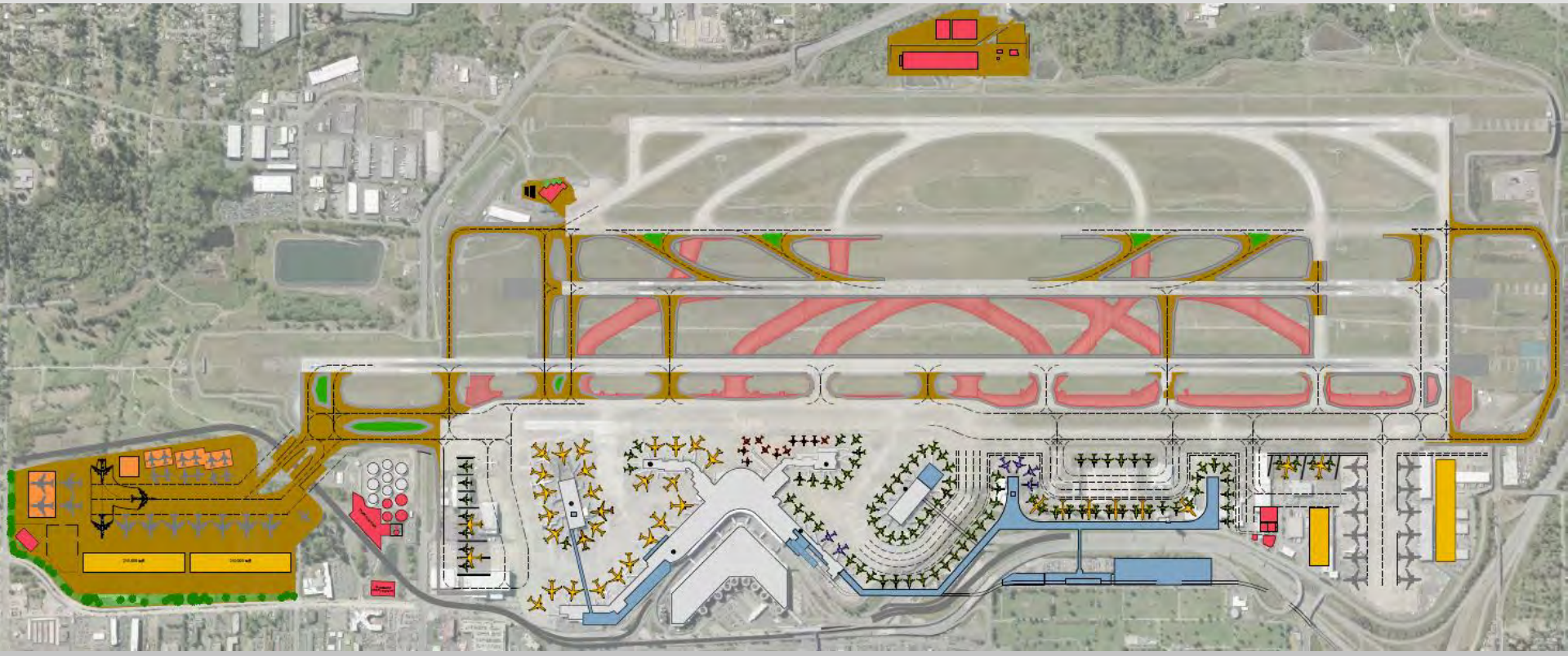
Concept 4



Development concept progression

Status of current development concept

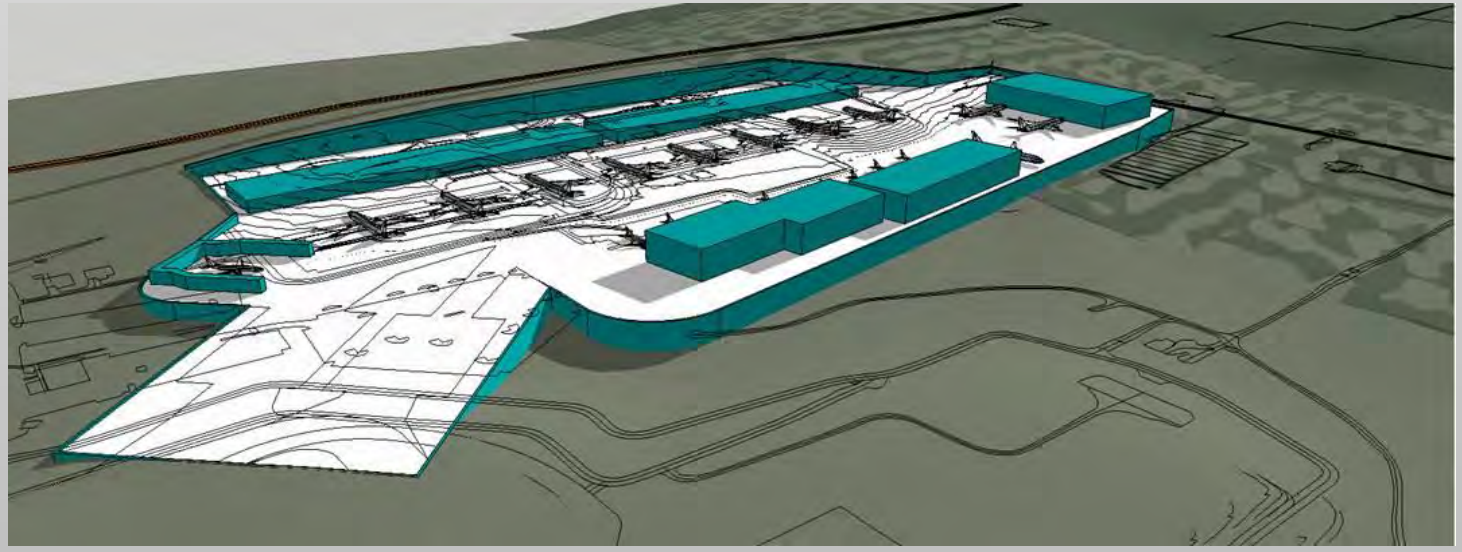
- On-going study to determine recommendations for the following:
  - Airside improvements
  - Implementation plan
  - Commercial development in SASA *(working with CoST)*



Development concept progression

SASA 3D model perspectives

- Aerial view of SASA looking southeast



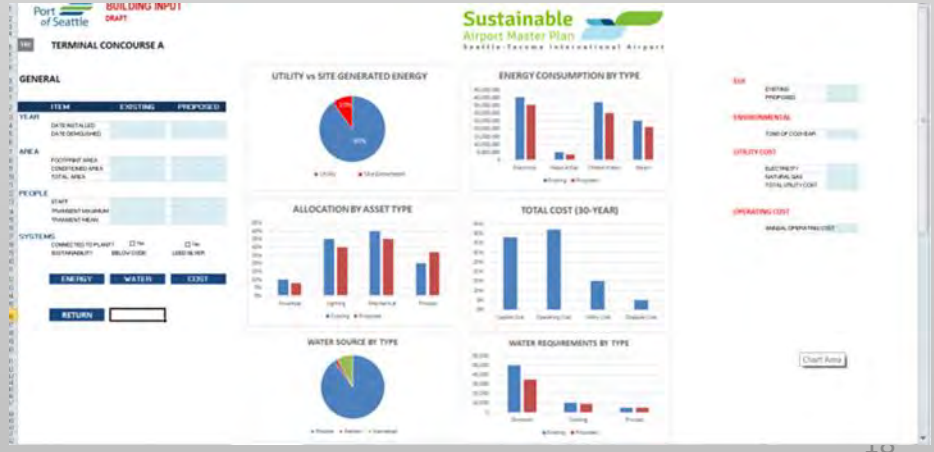
Sustainability Integration

Green Buildings

- **Evaluating the gap between goals and future emissions**
- Build spreadsheet model to measure energy, water, GHGs, and operational costs
- Evaluate building options (BAU, LEED Silver, net zero/neutral)
- Estimate future emissions based on energy and water use

Preliminary results

- 5 to 10% improvement in natural gas use with sustainable building attributes
- Approximately 70% reduction in lighting energy use with advanced technology



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Next steps

- Implementation plan
  - Finalize phasing plan recommendation
  - Refine program cost model
- Continued coordination with FAA
  - Airfield compliance and airside modeling
  - SAMP documentation
- Refine North Terminal roadway and curbside concept
- Coordination with SAMP environmental review team

Implementation plan

Purpose

- Determine logical sequence of projects to deliver needed capacity thru full build-out of airport facilities
- Target capital investments to minimize throwaway
- Determine high level scope, purpose and timing of projects to inform environmental review
- Build program cost model to inform plan of finance

Implementation plan

Approach

- Sequence projects to add gate & hardstand capacity as soon as possible
- Sequence North Terminal to align with gate expansion
- Minimize impacts to cargo facilities until additional capacity is constructed in SASA
- Construct people movers and improved light rail access as soon as possible
- Maintain Airport Rescue and Firefighting (ARFF) response capabilities (airside, terminal & landside)

Environmental Review

Extensive environmental impact evaluation under federal and state requirements.

- **National Environmental Policy Act (NEPA)** – Compliance with FAA requirements.
- **State Environmental Policy Act (SEPA)** – Compliance with Port Commission Resolution No. 3650

Current Status

- Landrum & Brown selected to conduct the environmental review
- Coordinate with planning team
- Evaluating baseline conditions and developing outreach/engagement strategy
- Public and Agency scoping in Q4 2017 or Q1 2018
- Anticipated completion by Q2 2019 (12 – 18 months)

Environmental Impact Categories

- Air Quality and Greenhouse Gases
- Coastal Resources
- Compatible Land Use
- Construction Impacts
- Public Land and Recreational Impacts
- Endangered and Threatened Species
- Essential Fish Habitat
- Migratory Bird Act
- Floodplains
- Solid Waste Impacts
- Cumulative Impacts
- Hazardous Materials
- Historical and Archeological Resources
- Light Emissions and Visual Impacts
- Energy Supply and Sustainable Design
- Noise
- Induced Impacts
- Socio-Economic
- Environmental Justice
- Environmental Health
- Water Quality
- Wetland
- Transportation
- Shoreline

SAMP Public Outreach

- Community open houses
  - 1st Series: SAMP process, goals, forecast (March 2015)
  - 2nd Series: Major Plan Elements (March 2016)
  - 3rd Series: Moving Into Environmental Review(Q4 2017 or Q1 2018)
- Commission Roundtables
  - In 2016: February, March, April, June , August, September, November
- Targeted engagement with external stakeholders
  - Social justice community leaders
  - Airport-area business leaders
  - Regional business and labor leaders
- Ongoing engagement with tenants, operators, FAA, & TSA
- Outreach report and coordination with Port calendars
- Environmental Review in 2018
  - Coordinated outreach program between SAMP planning and environmental

Economic Development

Airport growth provides economic development opportunities

SAMP helps define airport operation needs for off-airport properties

Port has hosted business roundtable meetings with airport cities:

- Business and civic leadership provide input towards economic development initiatives and aspirations
- Specific plans and strategies can be coordinated with SAMP
- Development can occur even when not specific to SAMP