

# Aviation CIP | Commission Study Session

October 13, 2020

# Agenda

**Strategic Process**

**Aviation CIP Funding Plan**

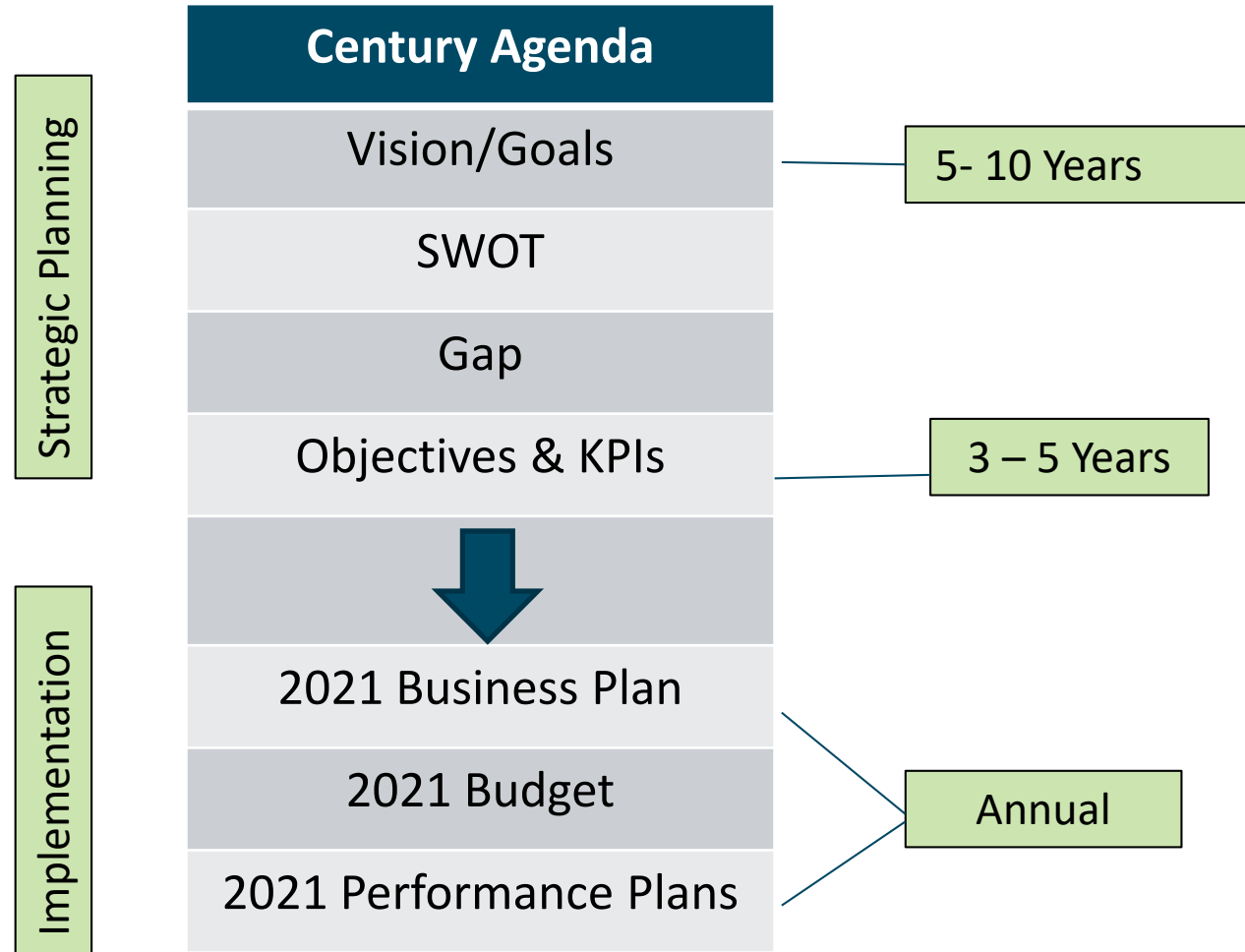
**Recently Proposed Projects**

**Peer Review Recommendations**

# Strategic Process

Lance Lyttle, Aviation Managing Director

# Strategy To Budget Process



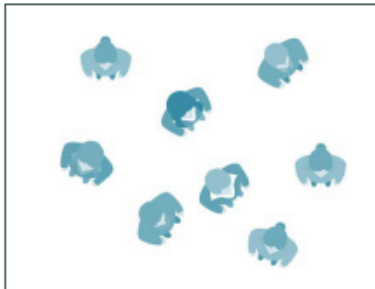
# SEA Strategic Priorities: Vision/Goals

AV Priorities	Vision/Long-term Goals
1. Health and Safety	Annually reduce major ground incidents by 5% 100% of employees go home safely, achieve 95% safety evaluation score annually
2. Security	Zero discrepancies on TSA audit Zero breaches, zero discovery of prohibited items in sterile area, zero incidents of intentional harm
3. Employees	75% of Aviation employees measure high engagement scores
4. Community	All Part 150 commitments met, additional noise reduction measures explored and implemented
5. Innovation	Lean and process improvements are ingrained in Port's culture
6. Social Responsibility	Sustainable share of Port economic opportunities go to disadvantaged businesses
7. Customer Experience	Skytrax 5-Star ranking; Top 10 ASQ U.S. mega-hub airports (25 in pool) 45 minutes from clocktower through security checkpoint Reduce international to domestic minimum connect times to 75 minutes 30 year-round int'l services over 2,000 miles by 2025
8. Environment & Sustainability	Achieve Port goals for green house gas emissions for 2030 and 2050 Sustainable Aviation Fuel 10% of jet fuel used at SEA by 2028
9. Financial Sustainability	Port can operate, maintain and upgrade facilities to accommodate regional demand while maintaining competitive CPE, manageable debt levels, and adequate debt service coverage
10. Asset Management Capital Development & Delivery	Provide facilities to meet demand for passenger and cargo service Achieve critical asset uptime of 99% Provide optimum level of service (at peak times)

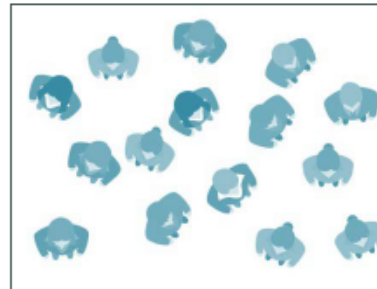
# Terminal Industry Level of Service Metrics

- International Air Transport Association (IATA) service standards used to determine many terminal requirements

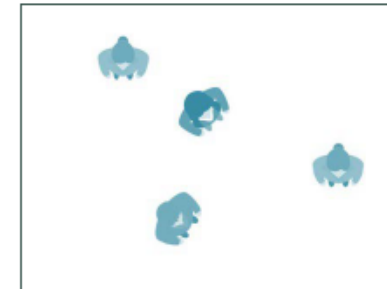
	ADRM 10TH EDITION	ADRM 9TH EDITION	FLows	DELAYS	COMFORT
	Over Design	A - Excellent	Free	None	Excellent
	Over Design	B - High	Stable	Very Few	High
Goal	Optimum	C - Good	Stable	Acceptable	Good
	Suboptimum	D - Adequate	Unstable	Passable	Adequate
	Suboptimum	E - Inadequate	Unstable	Unacceptable	Inadequate
	Under-Provided	F - Failure	System Breakdown	System Breakdown	Unacceptable



**Optimum:** Acceptable level of service; conditions of adequate to above-average space and reasonable to very few delays; good level of comfort.



**Suboptimum:** Unsatisfactory level of service; conditions that provide crowded and uncomfortable spaces and present unacceptable processing and wait times; inadequate level of comfort.



**Overdesign:** Poor level of service; conditions of either excessive or empty space and over provision of resources; immoderate or unacceptable level of comfort.

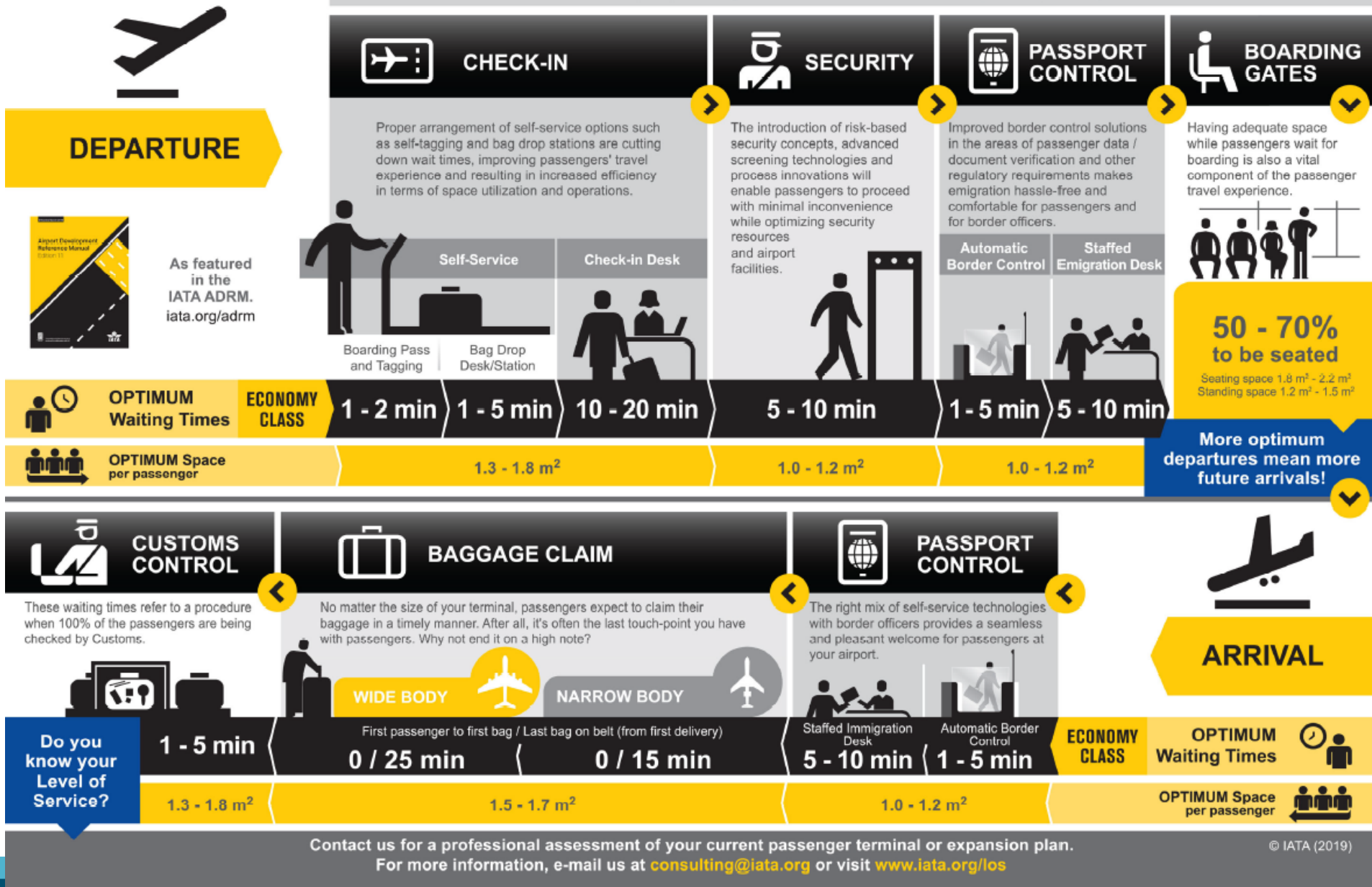
# Requirements Development

## Terminal Industry Level of Service Metrics

PASSENGER TERMINAL PROCESSOR		NOTES	(sq ft/pax unless otherwise noted)				(minutes)					
UNITS ADRM 9 <sup>th</sup> Edition ADRM 10 <sup>th</sup> Edition, 4th Release			IATA				Economy Class (min)					
			A	B	C	D	E	A	B	C	D	E
			Over-Design		Optimum	Sub-Optimum	Under-Provided	Over-Design		Optimum	Sub-Optimum	Under-Provided
Public Departure Hall			>24.8		21.5-24.8		<21.5	n/a		n/a		n/a
Check-in												
	Self-Service Kiosk	boarding pass/bag tagging	>19.4		14.0-19.4		<14.0	<0		0-2		>2
	Bag Drop Desk	queue width 1.4-1.6 m or 4.5-5.0 ft	>19.4		14.0-19.4		<14.0	<0		0-5		>5
	Check-in Desk	queue width 1.4-1.6 m or 4.5-5.0 ft	>19.4		14.0-19.4		<14.0	<10		10-20		>20
		queue width 1.4-1.6 m or 4.5-5.0 ft	>19.4		14.0-19.4		<14.0	<10		10-20		>20
Security Checkpoint		queue width 1.2 m or 4 ft	>12.9		10.8-12.9		<10.8	<5		5-10		>10
Emigration Control (Outbound Passport Control)		queue width 1.2 m or 4 ft	>12.9		10.8-12.9		<10.8	<5		5-10		>10
Gate Holdrooms / Departure Lounges												
	Seated		>18.3		16.2-18.3		<16.2	n/a		n/a		n/a
	Standing		>12.9		10.8-12.9		<10.8	n/a		n/a		n/a
Immigration Control (Inbound Passport Control)		queue width 1.2 m or 4 ft	>12.9		10.8-12.9		<10.8	<5		5-10		>10
Customs Control		queue width 1.2 m or 4 ft	>19.4		14.0-19.4		<14.0	<1		1-5		>5
Baggage Claim Area												
	Narrow Body		>18.3		16.2-18.3		<16.2	<0		0-15		>15
	Wide Body		>18.3		16.2-18.3		<16.2	<0		0-25		>25
Public Arrival Hall			>24.8		21.5-24.8		<21.5	n/a		n/a		n/a

# Is Your Airport Terminal Operating At An Optimum Level?

IATA's Level of Service (LoS) Concept is the industry benchmark for optimum passenger terminal facilities.



# Funding

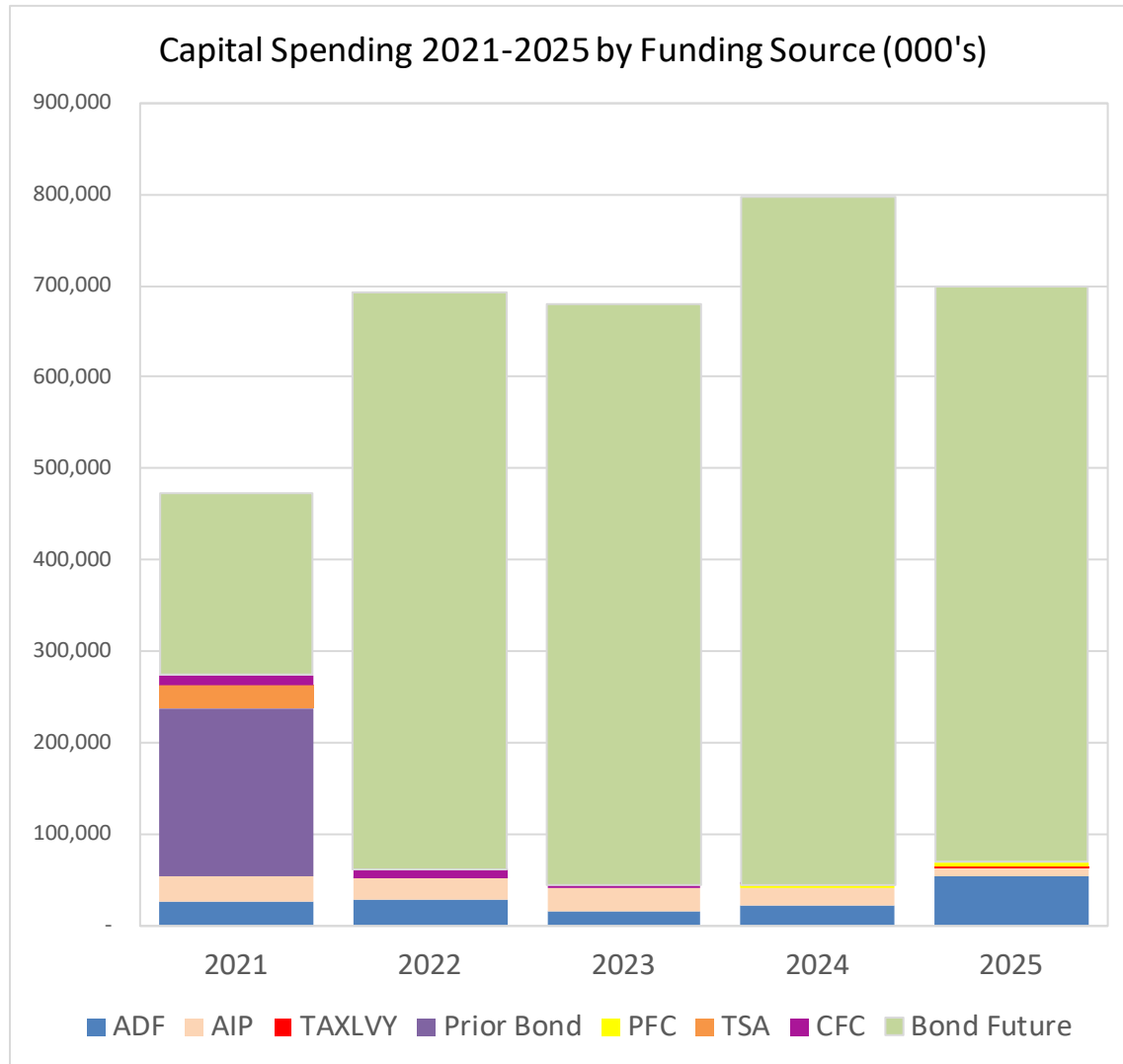
Borgan Anderson, Director Aviation Finance & Budget

# Capital Budget 2021 - 2025

	2020 FCST	Cash Flows (Figures in \$000s)					
		2021	2022	2023	2024	2025	2021 - 25 TOTAL
<b>Three Mega Projects</b>							
International Arrivals Facility	185,340	57,679	-	-	-	-	57,679
NSAT	156,246	93,014	32,956	-	-	-	125,970
Baggage Optimization	19,748	95,000	100,000	113,500	111,000	96,429	515,929
Subtotal - Three Major Projects	<b>361,334</b>	<b>245,693</b>	<b>132,956</b>	<b>113,500</b>	<b>111,000</b>	<b>96,429</b>	<b>699,578</b>
<b>Other Capital Projects</b>	170,914	266,434	277,259	227,201	266,296	255,312	1,292,502
<b>SAMP Preliminary Planning / Design</b>	2,440	5,903	97,739	93,392	62,000	21,050	280,084
<b>Proposed New Projects</b>	1,249	30,897	122,810	145,861	240,063	189,279	728,910
<b>CIPs Reserves</b>	-	-	5,000	60,000	112,516	130,000	307,516
Subtotal	<b>535,937</b>	<b>548,927</b>	<b>635,764</b>	<b>639,954</b>	<b>791,875</b>	<b>692,070</b>	<b>3,308,590</b>
<b>CIP Cashflow Adj Reserve</b>	-	(84,693)	50,816	33,877	-	-	-
<b>Total Proposed CIP</b>	<b>535,937</b>	<b>464,234</b>	<b>686,580</b>	<b>673,831</b>	<b>791,875</b>	<b>692,070</b>	<b>3,308,590</b>

- Proposing 28 projects totaling \$728M spending through 2025.
- CIP Reserve CIPs represent 9.2% of five-year capital budget
- Implementing CIP cash flow adjustment reserve to adjust 2021 cash flows

# Funding Plan 2021-2025



- Revenue bonds are primary funding source
- Bond issue planned for 2021
- Most PFCs used to pay revenue bond debt service
- Extent of FAA grant funding for accelerated Noise program uncertain

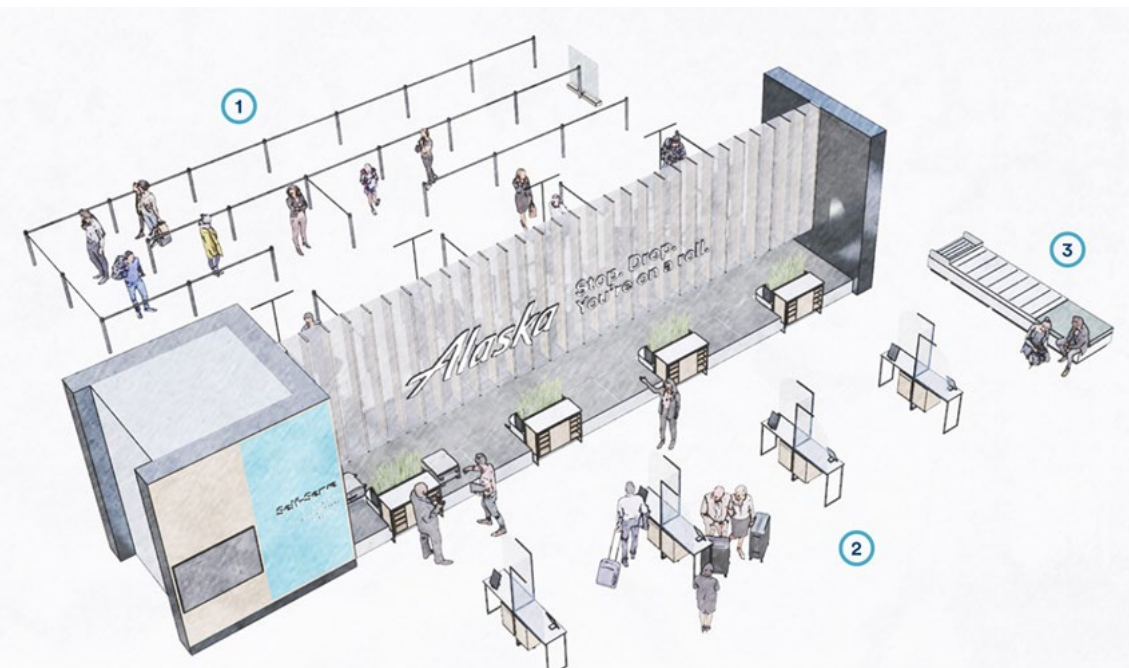
# MII Provisions of Airline Lease Agreement

- Signatory Lease and Operating Agreement (SLOA) IV defines majority-in-interest (MII) as airlines with 55% of number and 55% of revenues by aeronautical cost center (meeting eligibility criterion of minimum annual landed weight)
- SLOA IV allows airlines to vote to disapprove a project (negative MII) with aeronautical rate base cost  $\geq$  \$10 million.
- Negative vote (disapproval) cannot stop a project but can delay a project by 12 months
- If cost of project grows by more than 10% prior to Port electing to proceed with construction, another MII vote may be required
- Projects meeting certain criteria are exempt from MII vote

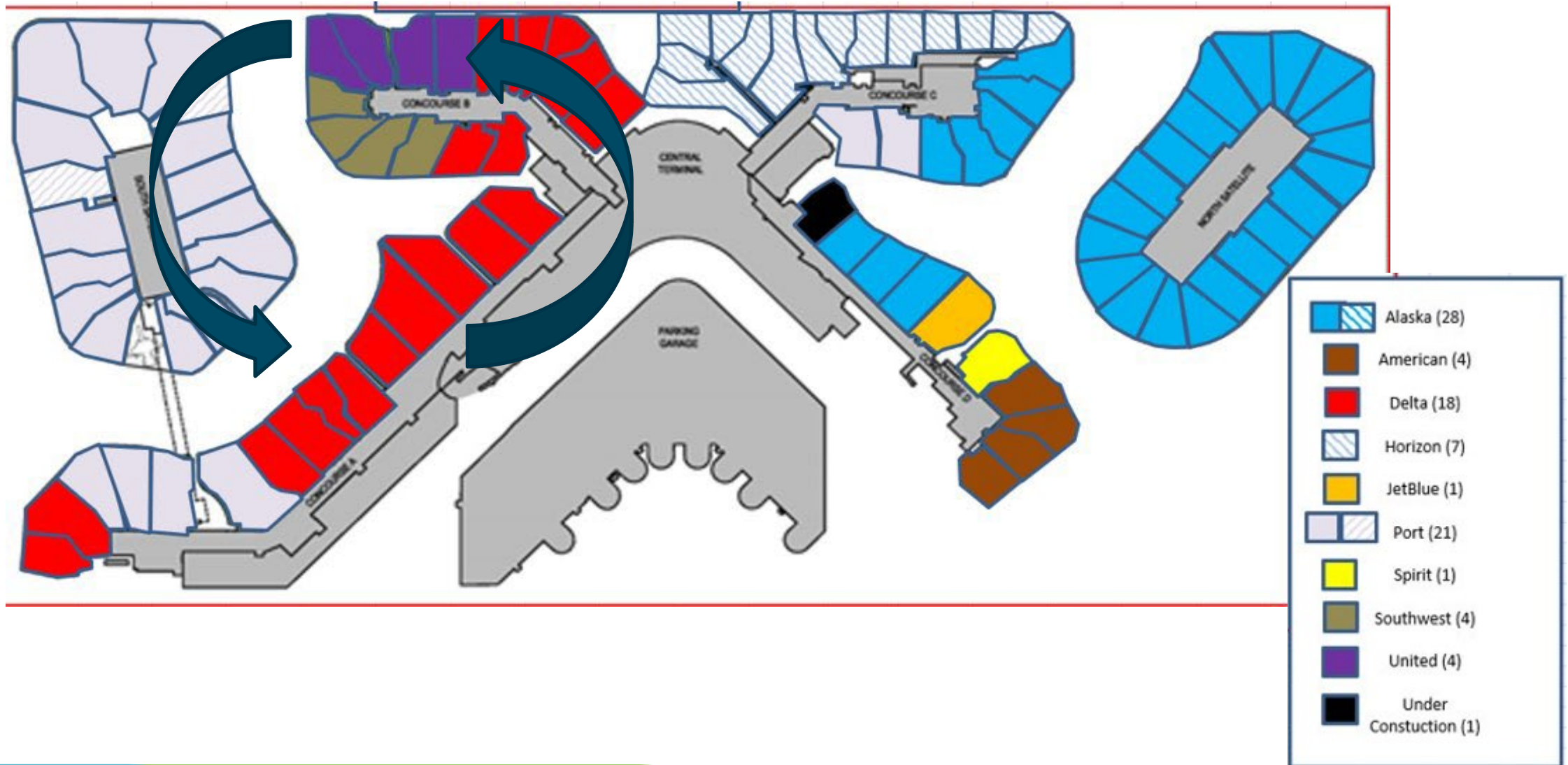
# CIP Recently Proposed Projects

Keri Stephens, Aviation Capital Programs Manager

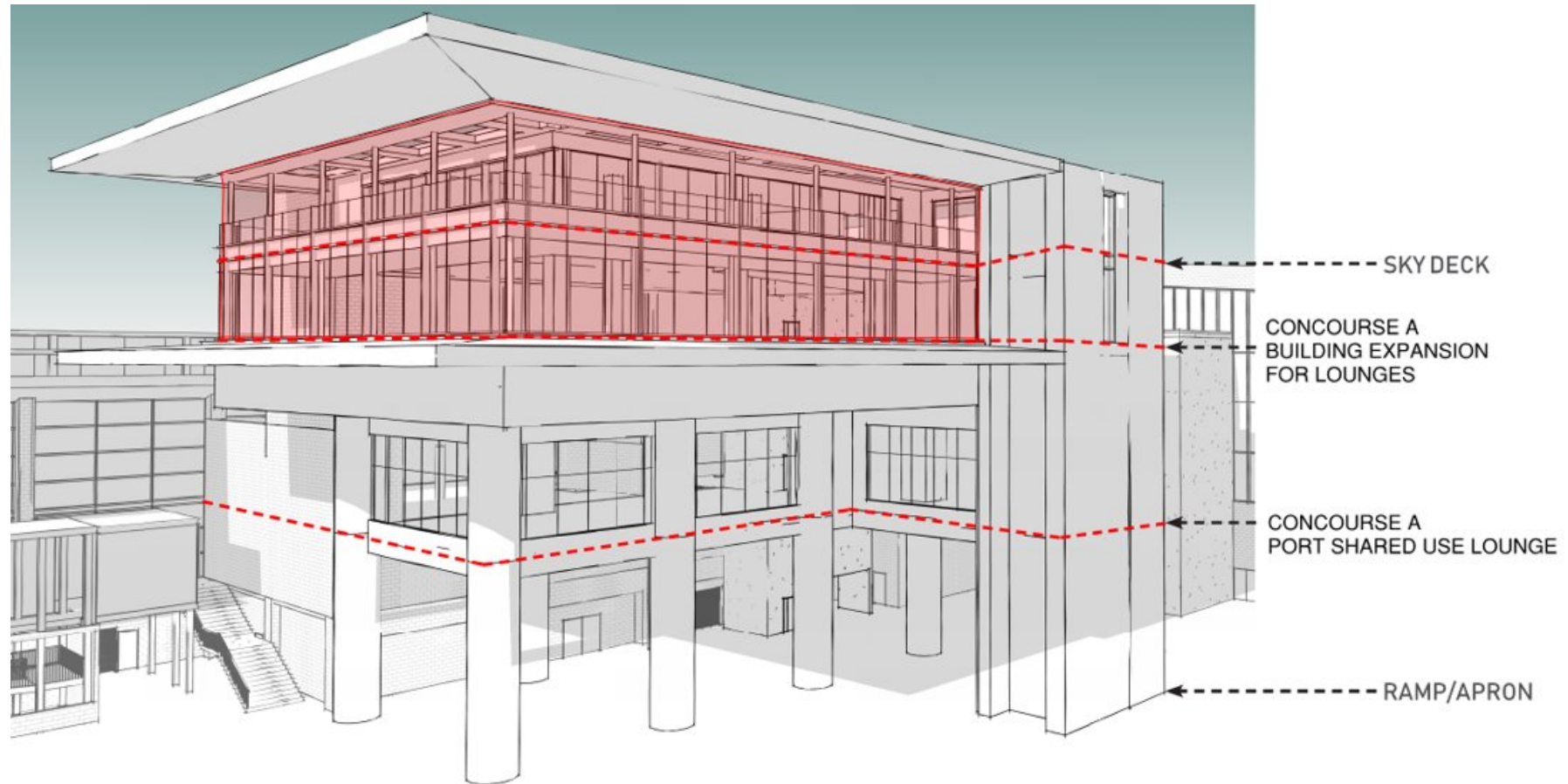
# Zones 6&7 Renovation



# Airline Realignment



# Lounges



# Peer Review

Jeffrey Brown, Aviation Chief Operating Officer

# Peer Review Participating Airports

- Airport Authority Jamaica (AAJ)
- Hartsfield Jackson Atlanta Intl Airport (ATL)
- Denver International Airport (DEN)
- Dallas/Fort Worth International Airport (DFW)
- Fort Lauderdale/Hollywood Intl Airport (FLL)
- Greater Orlando Airport Authority (MCO)
- Los Angeles World Airports (LAX)
- Port Authority New York/New Jersey (LGA)
- Portland International Airport (PDX)
- San Francisco International Airport (SFO)
- San Diego Airport Authority (SAN)
- Executive Review Panel (ERP)



# Peer Review Recommendations

- Present the Vision
- Organizational Structure
- CIP Delivery Methods
- Process Improvements
- Improve program controls
  - Reporting and information flow
  - Cost estimating
  - Scheduling



# Peer Review – Next Steps

- Engage Port HR and ERP
- Implementation





# APPENDIX

# Summary by Project Status

		2020 FCST	Cash Flows (Figures in \$000s)					2021 - 25 TOTAL
			2021	2022	2023	2024	2025	
Capital Projects	CIP							
<b><u>Construction Authorized (Status 5-6)</u></b>								
NS NSAT Renov NSTS Lobbies	C800556	156,246	93,014	32,956	-	-	-	125,970
International Arrivals Fac-IAF	C800583	185,340	57,679	-	-	-	-	57,679
Checked Bag Recap/Optimization	C800612	19,748	95,000	100,000	113,500	111,000	96,429	515,929
2021-25 AFLD Pvmnt&Spprt Infr	C800930	2,149	40,500	37,106	19,934	30,568	19,079	147,187
N. Terminals Utilities Upgrade	C800717	8,538	8,577	8,344	5,280	4,941	-	27,142
Other Construction Authorized Capital Projects	Multiple	125,451	128,497	75,651	36,483	20,889	5,885	267,405
<b>Total - Construction Authorized</b>		<b>497,472</b>	<b>423,267</b>	<b>254,057</b>	<b>175,197</b>	<b>167,398</b>	<b>121,393</b>	<b>1,141,312</b>
<b><u>Design Authorized (Status 4)</u></b>								
Widen Arrivals Roadway	C800866	2,020	1,254	1,514	3,539	15,491	16,221	38,019
Checkpoint 1 Relocation	C801093	989	3,600	29,306	3,564	-	-	36,470
Perimeter Intrusion Detect Sys	C800844	189	4,300	6,700	10,000	7,215	-	28,215
Condo Sound Insulation	C200095	878	2,609	4,929	7,651	6,890	163	22,242
Other Design Authorized Capital Projects	Multiple	26,145	64,567	61,053	85,621	111,698	143,283	466,222
<b>Total - Design Authorized</b>		<b>30,221</b>	<b>76,330</b>	<b>103,502</b>	<b>110,375</b>	<b>141,294</b>	<b>159,667</b>	<b>591,168</b>
<b><u>Pending Authorization (Status 2-3)</u></b>								
MT Infrastructure Upgrades	C801202	277	3,222	4,070	3,788	3,817	18,772	33,669
South Satellite Improvement	C801203	750	10,000	20,000	34,000	140,000	122,800	326,800
Apartment Sound Insulation	C200096	-	64	6,218	13,554	11,342	20,547	51,725
Zone 6&7 Reconfiguration	C801204	-	5,000	30,000	30,000	25,000	10,000	100,000
Other Pending Capital Projects	Multiple	7,217	31,044	217,917	273,040	303,024	238,891	1,063,916
<b>Total - Pending Authorization</b>		<b>8,244</b>	<b>49,330</b>	<b>278,205</b>	<b>354,382</b>	<b>483,183</b>	<b>411,010</b>	<b>1,576,110</b>
<b>Subtotal</b>		<b>535,937</b>	<b>548,927</b>	<b>635,764</b>	<b>639,954</b>	<b>791,875</b>	<b>692,070</b>	<b>3,308,590</b>
<b>CIP Cashflow Adj Reserve</b>	C801141	-	(84,693)	50,816	33,877	-	-	-
<b>Grand Total</b>		<b>535,937</b>	<b>464,234</b>	<b>686,580</b>	<b>673,831</b>	<b>791,875</b>	<b>692,070</b>	<b>3,308,590</b>

# Major Projects

Major Projects	Cash Flows (Figures in \$000s)						
	Estimated Cost	2021	2022	2023	2024	2025	2021 - 25 TOTAL
SSAT Renovation/Renewal	1,000,000	10,000	20,000	34,000	140,000	122,800	326,800
IAF	931,445	57,679	-	-	-	-	57,679
Baggage Optimization	839,584	95,000	100,000	113,500	111,000	96,429	515,929
NSAT	691,916	93,014	32,956	-	-	-	125,970
MT Infrastructure Upgrades	350,000	3,222	4,070	3,788	3,817	18,772	33,669
Noise Programs	344,055	10,322	13,409	26,075	27,376	30,340	107,522
C1 Building	340,000	8,798	9,637	20,705	60,814	118,449	218,403
SAMP Planning	300,000	5,903	97,739	93,392	62,000	21,050	280,084
Airfield pavement	153,500	40,500	37,106	19,934	30,568	21,050	149,158
Zone 6&7 Reconfiguration	100,000	5,000	30,000	30,000	25,000	10,000	100,000
MT Low Voltage	86,760	7,258	12,372	21,814	22,608	16,152	80,204
Upgrade STS	76,000	4,494	10,238	26,084	27,326	7,157	75,299
CIPs Reserves		-	5,000	60,000	112,516	130,000	307,516
Other Capital Projects		123,044	314,053	224,539	168,850	99,871	930,357
<b>Total</b>	<b>5,213,260</b>	<b>464,234</b>	<b>686,580</b>	<b>673,831</b>	<b>791,875</b>	<b>692,070</b>	<b>3,308,590</b>

# New Proposed Projects

CIP	Description	Cost Estimate	Cash Flows (Figures in \$000s)						2021 - 25
			2020	2021	2022	2023	2024	2025	TOTAL
C801158	Post IAF Realignment	35,000	22	110	460	12,500	18,600	2,000	33,670
C801171	Snow Dump Improvements	8,177	-	202	853	1,811	3,012	2,238	8,116
C801172	Water Reservoir Rehabilitation	1,572	-	196	493	862	21	-	1,572
C801173	Tyee Pond Effluent Pipe Replac	2,791	-	220	476	1,051	1,044	-	2,791
C801174	Stair Jet bridge Compliance	2,576	-	20	202	345	378	385	1,330
C801175	Single Piers on Concourse D	14,758	-	725	2,268	4,200	4,918	2,647	14,758
C801176	Out-bound Search Rooms in SSAT	353	-	63	35	148	107	-	353
C801177	Airfield Sanitary Sewer Improv	34,592	-	485	1,532	7,181	7,200	6,424	22,822
C801178	Concourse B HVAC	35,000	-	46	1,765	2,418	6,044	9,098	19,371
C801179	Building 161E Retro Commission	10,556	-	31	1,653	3,088	4,320	1,464	10,556
C801180	PLB Renew and Replacement	12,165	-	297	3,680	6,633	1,555	-	12,165
C801181	Chiller Panel Upgrades - II	1,288	-	31	291	665	301	-	1,288
C801182	Flow Meter Replacement CMP	2,954	-	31	493	976	1,438	16	2,954
C801183	Replace Elevators SSB SSC	3,877	-	31	576	798	993	991	3,389
C801184	Smart Restrooms	1,300	-	100	315	460	425	-	1,300
C801185	Keys to Card Readers	1,946	-	-	140	351	1,066	389	1,946
C801186	160th Lot Permanent Lighting	3,728	-	31	528	665	1,340	1,164	3,728
C801187	Potable Water Box Replacements	2,203	-	26	300	524	1,005	349	2,204
C801188	PAX Flow Measurements	630	-	-	630	-	-	-	630
C801189	IAF Enhancements Project	1,511	-	-	100	47	339	492	978
C801202	MT Infrastructure Upgrades	350,000	277	3,222	4,070	3,788	3,817	18,772	33,669
C801203	SSAT Renovation/Renewal	1,000,000	750	10,000	20,000	34,000	140,000	122,800	326,800
C801204	Zone 6&7 Reconfiguration	100,000	-	5,000	30,000	30,000	25,000	10,000	100,000
C801205	Concourse A Lounge Expansion	60,000	-	5,000	40,000	15,000	-	-	60,000
C801206	Concourse A Duty Free	25,180	-	630	1,350	1,100	12,050	10,050	25,180
C801207	Port Shared-Lounge Conc A	22,000	-	-	5,000	12,000	5,000	-	22,000
C801208	SSAT Lounge & ADR Upgrade	5,000	-	1,000	1,000	3,000	-	-	5,000
C801209	RCF CSB Re-demising	10,540	200	3,400	4,600	2,250	90	-	10,340
		1,749,697	1,249	30,897	122,810	145,862	240,063	189,279	728,911

# Proposed New Projects

# of Projects	Description	Cost Estimate	Cash Flows (Figures in \$000s)					2021 - 25 TOTAL
			2021	2022	2023	2024	2025	
9	Renewal and replacement	1,102,635	10,978	30,290	56,283	162,856	141,142	401,549
10	Business Need	254,349	11,871	79,383	74,772	62,754	23,706	252,486
8	Regulatory and Contractual	390,767	8,048	12,997	14,455	13,387	24,042	72,929
1	Safety/Security	1,946	-	140	351	1,066	389	1,946
28	<b>TOTAL</b>	<b>1,749,697</b>	<b>30,897</b>	<b>122,810</b>	<b>145,861</b>	<b>240,063</b>	<b>189,279</b>	<b>728,910</b>

# Renewal and Replacement

## Renewal and Replacement

#	CIP	Description	Cost Estimate	Cash Flows (Figures in \$000s)					2021 - 25 TOTAL
				2021	2022	2023	2024	2025	
1	C801177	Airfield Sanitary Sewer Improv	34,592	485	1,532	7,181	7,200	6,424	22,822
2	C801178	Concourse B HVAC	35,000	46	1,765	2,418	6,044	9,098	19,371
3	C801179	Building 161E Retro Commission	10,556	31	1,653	3,088	4,320	1,464	10,556
4	C801180	PLB Renew and Replacement	12,165	297	3,680	6,633	1,555	-	12,165
5	C801181	Chiller Panel Upgrades - II	1,288	31	291	665	301	-	1,288
6	C801182	Flow Meter Replacement CMP	2,954	31	493	976	1,438	16	2,954
7	C801183	Replace Elevators SSB SSC	3,877	31	576	798	993	991	3,389
8	C801187	Potable Water Box Replacements	2,203	26	300	524	1,005	349	2,204
9	C801203	SSAT Renovation/Renewal	1,000,000	10,000	20,000	34,000	140,000	122,800	326,800
TOTAL			1,102,635	10,978	30,290	56,283	162,856	141,142	401,549

# Business Need

## Business Need

#	CIP	Description	Cost Estimate	Cash Flows (Figures in \$000s)					2021 - 25 TOTAL
				2021	2022	2023	2024	2025	
1	C801184	Smart Restrooms	1,300	100	315	460	425	-	1,300
2	C801188	PAX Flow Measurements	630	-	630	-	-	-	630
3	C801189	IAF Enhancements Project	1,511	-	100	47	339	492	978
4	C801158	Post IAF Realignment	35,000	110	460	12,500	18,600	2,000	33,670
5	C801204	Zone 6&7 Reconfiguration	100,000	5,000	30,000	30,000	25,000	10,000	100,000
6	C801205	Concourse A Lounge Expansion	60,000	5,000	40,000	15,000	-	-	60,000
7	C801206	Concourse A Duty Free	25,180	630	1,350	1,100	12,050	10,050	25,180
8	C801207	Port Shared-Lounge Conc A	22,000	-	5,000	12,000	5,000	-	22,000
9	C801208	SSAT Lounge & ADR Upgrade	5,000	1,000	1,000	3,000	-	-	5,000
10	C801186	160th Lot Permanent Lighting	3,728	31	528	665	1,340	1,164	3,728
TOTAL			254,349	11,871	79,383	74,772	62,754	23,706	252,486

# Regulatory and Contractual

## Regulatory and Contractual

#	CIP	Description	Cost Estimate	Cash Flows (Figures in \$000s)					2021 - 25 TOTAL
				2021	2022	2023	2024	2025	
1	C801171	Snow Dump Improvements	8,177	202	853	1,811	3,012	2,238	8,116
2	C801172	Water Reservoir Rehabilitation	1,572	196	493	862	21	-	1,572
3	C801173	Tyee Pond Effluent Pipe Replac	2,791	220	476	1,051	1,044	-	2,791
4	C801174	Stair Jet bridge Compliance	2,576	20	202	345	378	385	1,330
5	C801175	Single Piers on Concourse D	14,758	725	2,268	4,200	4,918	2,647	14,758
6	C801176	Out-bound Search Rooms in SSAT	353	63	35	148	107	-	353
7	C801209	RCF CSB Re-demising	10,540	3,400	4,600	2,250	90	-	10,340
8	C801202	MT Infrastructure Upgrades	350,000	3,222	4,070	3,788	3,817	18,772	33,669
TOTAL			390,767	8,048	12,997	14,455	13,387	24,042	72,929

# Safety

## Safety

#	CIP	Description	Cost Estimate	Cash Flows (Figures in \$000s)					2021 - 25 TOTAL
				2021	2022	2023	2024	2025	
1	C801185	Keys to Card Readers	1,946	-	140	351	1,066	389	1,946
TOTAL			1,946	-	140	351	1,066	389	1,946

# Projects Deferred

CIP Number	CIP Description	Capital Project Budget	Aviation Objectives	Prioritization
C800900	Garage Ancillary Renewal/Replacement	\$1,935,434	Asset Management; Capacity	Med High
C801121	Port Shared Lounge Concourse A	\$7,700,000	Financial Sustainability; Partners	Med High
C800804	Water Hammer Attenuation	\$500,000	Asset Management; Environment	Med Low
C801133	SSAT Meditation room	\$1,100,000	Customer Experience	Med Low
C801131	North End Airport Support	\$10,000,000	Capacity; Partners	Med Low
C801132	Pre-Security Tenant Offices	\$7,900,000	Capacity	Med Low
C801056	New Leasable Space	\$28,600,000	Capacity; Partners	Med low
C801129	Play Area Renovation	\$1,100,000	Customer Experience	Med Low
C801054	Smoking Shelters South Upper Drive	\$550,000	Customer Experience	Med Low
C801047	Cooling Tower Upgrades	\$3,800,000	Asset Management	Med Low
C800940	Utility Meter Networking	\$10,367,000	Environment	Med Low
C801039	Elevator/Escalator Communication Cards	\$6,000,000	Customer Experience; Asset Management	Low
C800864	Water System Alternate Source	\$3,000,000	Financial Sustainability	Low
C801135	North Cargo Area Improvements	\$5,500,000	Partners	Low
C801049	Restroom A, CTE Renewal/Replacement	\$16,000,000	Customer Experience; Asset Management	Low
C800951	AOB Capacity Upgrades & Carpet	\$4,828,000	Capacity	Low
C801044	Carpet Replacement Concourse D	\$1,300,000	Asset Management	Low
C801158	Post IAF Airline Realignment	\$70,800,000	Partners	Low
C800903	Concourse B Mechanical Equipment	\$1,328,255	Asset Management	
C800947	South Satellite Mezzanine Club	\$2,030,000	Financial Sustainability	
C801160	A12A Jet Bridge	\$10,478,000	Customer Experience; Partners	
	<b>Total Capital Budget</b>	<b>\$194,816,689</b>		