



Appendix K
MPU Phase 1 Capital Improvement
Program Project Request Forms

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Professional Services for Master Plan (Previously Architectural Services for Master Plan)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: Will Castillo
 Area: General & Administrative

Project ID: 104416
 Fund: 40350
 Airport: FLL
 Timeline: Multi-year
 Start Year: FY 2018

CIP 2020 Budget: \$ 10,000,000
 2021 - 2024 Budget: 20,000,000
 Previously Budgeted: 5,000,000
Total \$ 35,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This proposed Professional Services request for Master Plan Projects cover various disciplines which include but are not limited to: advanced planning related to the airside, terminal, landside and support facility areas of the Airport, architectural design, engineering, construction, environmental planning, financial planning and business planning services. Planning and design services provided include, but are not limited to: the development of program definition documents (PDD) and basis of design (BOD) reports for proposed facilities, modeling landside traffic, modeling passenger traffic within the terminal environment, contract document production, design (including construction administration and inspection services), commissioning, avionics, ground service vehicle routing and other AOA features, site investigation, engineering disciplines (site civil, structural, MEP, geotechnical and surveying), environmental review and support for environmental impact statement (EIS) revisions and/or preparation, cost estimating, obtaining jurisdictional approvals, supporting and supplementing the County's bidding and award process, construction contract administration and post-construction services. Upon completion of design and cost estimating services, BCAD will submit a budget request for the construction costs.

Project Justificaiton: The Broward County Aviation Department (BCAD) is completing the Master Plan (MPU) for Fort Lauderdale-Hollywood International Airport (FLL) with an anticipated completion date in FY2019. Keeping an up-to-date MPU is a federal requirement governed by the Federal Aviation Administration (FAA). Once complete and accepted by the FAA, the MPU will provide BCAD a cohesive and cost-effective plan that focuses on addressing the long-term (20+ years) needs of the Airport by establishing a roadmap for incremental development to meet demand.

PROJECT ALTERNATIVES

The alternatives analyzed airside, landside and terminal needs to support the unprecedented growth the Airport is currently experiencing, which is forecasted to continue throughout the 20-year planning horizon. A do nothing alternative is the other option. Doing nothing will ultimately delay enacting the developments identified in the Master Plan until the enabling projects can be completed.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Project Costs	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design		35,000,000	5,000,000	10,000,000	10,000,000	5,000,000	5,000,000		
Construction									
Security Component			-						
Other			-						
TOTAL	\$	35,000,000	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	35,000,000	5,000,000	10,000,000	10,000,000	5,000,000	5,000,000		
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 35,000,000	\$ 5,000,000	\$ 10,000,000	\$ 10,000,000	\$ 5,000,000	\$ 5,000,000	\$ -	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: FLL Noise & Operations Monitoring System (NOMS) Upgrade/Replacement
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: Winston Cannicle
 Area: _____

Project ID: NEW
 Fund: 40350
 Airport: FLL
 Timeline: FY 2020
 Start Year: FY 2020

CIP 2020 Budget: \$ 800,000
 2021 - 2024 Budget: _____
 Previously Budgeted: _____
 Total \$ 800,000

PROJECT DESCRIPTION & JUSTIFICATION

The BCAD is seeking to upgrade and replace FLL's existing Noise and Operating Monitoring System (NOMS) which include all hardware and software components. This will include, but not limited to:
 1. Noise monitoring terminal hardware upgrade/replacement (11 sites + 2 new)
 2. Radar / Flight Tracking and Noise Monitoring Software Upgrades
 3. Providing Community / Public Flight Tracking Web Portal

BCAD completed their first Title 14 of the Code of Federal Regulations (CFR) Part 150 Study (Airport Noise Compatibility Planning) in 1987. One of the recommendations from that Part 150 Study was the installation and use of a permanent noise and operations monitoring system for the Airport. The existing NOMS at FLL was installed in the mid-1990s and still utilizes equipment from that time. The current NOMS has reach its lifespan and now requires a full system replacement / upgrade.

PROJECT ALTERNATIVES

N/A

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Project Costs	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2029
Planning & Design									
Construction									
Security Component			-						
Other		800,000	-	800,000					
TOTAL \$		800,000	\$ -	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD			800,000					
BONDS	-	-						
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ -	\$ -	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	(x)	Enhance	()
Expansion of Facilities	()	Security	Preserve	(x)	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	()
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Intermodal Center (Transit Center, 4,500 - Space Garage) Phase 1
Planning and Design
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Parking/Landside

Project ID: NEW
 Fund: 40350
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2020

CIP 2020 Budget: \$ 10,000,000
 2021 - 2024 Budget: 179,800,000
 Previously Budgeted: 0
Total \$ 189,800,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project is for Phase 1 of an Intermodal Center located east of the Cypress Garage within the “donut” parcel created by the I-95 exit ramp to Airport Drive. The proposed facility is anticipated to be an 8-level parking garage providing approximately 4,500 spaces at 400 square feet per space. Level 1 of the facility is reserved for future development of a bus transfer area and transit center. A phased implementation approach has been defined in the master plan as a means to incrementally add parking capacity without overbuilding parking capacity. This also allows BCAD to push unnecessary costs off until additional capacity is required. A future Phase 2 may be constructed as demand dictates that could provide an additional 2,500 parking spaces.

Project Justification: This project is needed to meet vehicular parking demand forecast at the 37 million annual passenger demand level. At this demand level the Airport is forecast to have a parking deficiency of 1,580 spaces. The additional parking spaces constructed as a part of this project will be necessary to offset the loss of 2,500 vehicular parking spaces associated with the Palm Garage demolition, which is required to facilitate the Supplemental Curb construction.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

The intermodal center is a key project to the long-term vision of the Airport, however, the implementation schedule of this project may change based on the on-going multi-agency coordination effort. If the project is delayed, a replacement parking facility will be required to offset at least the 2,500 spaces lost during the Palm Garage redevelopment, which is the key enabling project to ALL landside improvements necessary to begin alleviating the landside roadway system. As such, a request to reallocate a portion of the bond funding outlined below may occur to fund the more immediate parking construction project.

Phase 2 of the intermodal facility has a preliminary cost estimate of \$350,000,000 which includes an additional 3,500 parking stalls, a dedicated APM station, and the mixed use development. The timeline of Phase 2 is driven by when BCAD and based on employee parking needs, assuming the desire remains to locate all employee parking in a single parking facility. Based on current projections, Phase 2 would like occur on or around 2034 timeframe but could always be accelerated or delayed based on need. A separate cost estimate of approximately \$185,000,000 was established for the parking only portion of Phase 2 intermodal center.

PROJECT ALTERNATIVES

None. The intermodal center location illustrated here was prescribed in the Sunport PD&E. The master plan modified the shape and implementation phasing but kept the access plan and ground level layout the same. No other alternatives exist that provide the close-in connectivity opportunity as this location.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

Project Costs	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design	10,000,000		10,000,000					
Construction	179,800,000			90,000,000	89,800,000			
Security Component		-						
Other		-						
TOTAL \$	189,800,000	\$ -	\$ 10,000,000	\$ 90,000,000	\$ 89,800,000	\$ -	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	189,800,000	-	10,000,000	90,000,000	89,800,000			
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 189,800,000	\$ -	\$ 10,000,000	\$ 90,000,000	\$ 89,800,000	\$ -	\$ -	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or				()
Reduce Costs	()	among air carriers at the airport				()
Generate Revenue	()	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	()	airport				()

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Five Gate Remote Terminal (Previously Gate Expansion)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: 103991
 Fund: 40350
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2017

CIP 2020 Budget: \$ 245,000,000
 2021 - 2024 Budget:
 Previously Budgeted: 5,000,000
 Total \$ 250,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: The project is for an overall gate expansion program that includes immediate need of a 5-Gate Remote Gate Concourse estimated cost at \$100M. The Activity Forecast was prepared as a part of the Master Plan Update (MPU) for Fort Lauderdale-Hollywood International Airport. These aircraft gate requirements are based on the demand projections included in the MPU's Aviation Activity Forecasts. Because of the rapid increase during the past several years in enplanements coupled with robust projections for additional air service and enplanements in the future, the gate requirements presented below are based on the accelerated baseline forecast.

Project Justification: In order to serve the near-term aviation activity demand as outlined in the FAA approved accelerated baseline forecast, FLL requires an additional five (5) gates, beyond the 66 gates that will be available upon completion of the current capital program. Utilizing feedback received from the airlines to establish the accelerated growth forecast, the average day, peak month (ADPM), which represents the design day for the planning and design of facilities and infrastructure, grows daily operations from 708 in March 2015 up to potentially 1,022 on or around 2025. The projected gate requirements also assume increased utilization of the existing gates from 6.1 average turns per gate in 2015 to 7.2 average turns per gate on or around 2025, further establishing the need for additional gate capacity. The first step of gate expansion has been identified as a Remote 5-gate Concourse (RGC) facility that would enable Broward County Aviation Department (BCAD) to accommodate the continued growth the Airport is already experiencing while the long-term capacity enhancement plans are established and approved by the Board of County Commissioners. To efficiently implement this expansion, BCAD Planning has initiated the development of a Project Definition Document (PDD) which includes detailed criteria for the Remote Terminal, relocation of the RON to an area north of Runway 10R-28L (south runway) and the Terminal 4 bus station. The Remote Terminal project should initiate design/construction in FY2020 to complete/open the facility for airline and passenger use in FY2023.

NOTES: This project includes the replacement hardstand/ROM aircraft parking along the south runway wall as well as the south AOA gate (gate 504). Individually, these projects were estimated to cost \$8.1M and \$1.2M, respectively. These were rolled into the 5-Gate Remote Terminal Project.

This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC. This project is triggered by the projected passenger demand of 37 Million Annual Passengers (MAP) on or before 2020.

PROJECT ALTERNATIVES

A do nothing alternative would have a negative ripple effect throughout the Airport as demand for passenger activity continues to grow. The gate requirements already consider an increased utilization of existing gates by over 1 additional average turn per gate per day. If FLL continues to grow at the current rate without additional gate capacity in the short-term, passenger levels of service will diminish rapidly and the potential for airline delay will increase as demand for existing gates overcomes capacity.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Project Costs	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design		25,000,000	5,000,000	12,000,000	8,000,000				
Construction		225,000,000	-		45,000,000	90,000,000	90,000,000		
Security Component			-						
Other			-						
TOTAL \$		250,000,000	\$ 5,000,000	\$ 12,000,000	\$ 53,000,000	\$ 90,000,000	\$ 90,000,000	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	250,000,000	5,000,000	12,000,000	53,000,000	90,000,000	90,000,000		
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 250,000,000	\$ 5,000,000	\$ 12,000,000	\$ 53,000,000	\$ 90,000,000	\$ 90,000,000	\$ -	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or				()
Reduce Costs	()	among air carriers at the airport				()
Generate Revenue	(x)	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	()	airport				()

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Automated People Mover (APM) Circulator
 Sponsor: Marc Gambrell
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: 104907
 Fund: 40450
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2019

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 525,000,000
 Previously Budgeted: 1,000,000
 Total \$ 526,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: One of the most significant and essential mid-term improvements for enhancing FLL's landside capacity, efficiency and connectivity is a new, on-airport, Automated People Mover (APM) Circulator. The APM Circulator for FLL is the initial phase of a three phase APM development which could eventually connect the Airport to Broward County's seaport and convention center.

This Capital Project request is for Phase 1 (APM Circulator) which is comprised of approximately 8,000 linear feet of elevated, dual-lane guideway that will traverse the full landside areas of the terminal complex as a bi-directional system with seven (7) stations within the terminal area, providing access to each of the unit terminals, as well as the Palm, Cypress, and Hibiscus Garages. One of these stations may be located along the east side of the terminal area to allow for connectivity to existing regional rail lines that may consider an airport station along the eastern perimeter of FLL, within the inbound and outbound terminal roadway system. An off-line Maintenance and Storage Facility needed to support the APM's operation, also located on-airport, is included in this capital project request form.

The first step of this capital project is the programming of the APM Circulator (2019). The programming will include the preparation of a Program Definition Document (PDD), Validation/Refinement of the final alternative identified in the master plan and construction phasing.

Project Justification: This project is intended to meet increasing passenger demands by providing an additional means of accessing the terminal core. Congestion will be reduced along Terminal Drive and passenger access to the terminal core will be streamlined.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

Many alternative layouts were considered for the APM circulator. The ultimate configuration will be defined during design, however, this recommended layout provides the most flexibility for station locations to maximize pedestrian access from each Terminal as well as providing connectivity to the intermodal center location.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

Project Costs	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design	31,000,000	1,000,000		30,000,000				
Construction	475,000,000	-			75,950,000	77,000,000	154,000,000	168,050,000
Security Component	-	-						
Other	20,000,000	-		20,000,000				
TOTAL \$	526,000,000	\$ 1,000,000	\$ -	\$ 50,000,000	\$ 75,950,000	\$ 77,000,000	\$ 154,000,000	\$ 168,050,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-							
BONDS	311,075,000	-		40,000,000	60,050,000	50,000,000	77,000,000	84,025,000
FAA	-	-						
TSA	-	-						
FDOT	213,925,000	-		10,000,000	15,900,000	27,000,000	77,000,000	84,025,000
PFC	1,000,000	1,000,000						
Total	\$ 526,000,000	\$ 1,000,000	\$ -	\$ 50,000,000	\$ 75,950,000	\$ 77,000,000	\$ 154,000,000	\$ 168,050,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among				()
Reduce Costs	(x)	air carriers at the airport				()
Generate Revenue	()	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	()	airport				

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Supplemental Curb (Includes demo of Palm Garage)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Landside

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2021

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 40,700,000
 Previously Budgeted: 0
 Total \$ 40,700,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project includes the construction of a supplemental curbside and demolition of the Palm Garage to reduce congestion along Terminal Drive.

Project Justification: The supplemental curb is necessary to alleviate congestion on Terminal Drive along Terminals 2, 3, and 4 which are currently operating at a LOS F. The demolition of the existing Palm Garage allows the facility to be reconstructed with a smaller footprint which provides the necessary corridors for the supplemental curb and APM, both of which are critical landside capacity projects.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

Other alternatives were looked into that utilized various routes of a potential supplemental roadway. However, the lateral spacing necessary to construct a two land roadway with additional curbing was not able to be achieved with the existing Palm in place. As a result, and due to the model testing demonstrating the capacity benefits that this layout provides, this alternative was ultimately selected.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design					4,070,000				
Construction						4,300,000	32,330,000		
Security Component			-						
Other			-						
TOTAL \$		40,700,000	\$ -	\$ -	\$ 4,070,000	\$ 4,300,000	\$ 32,330,000	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	21,250,000	-		2,035,000	7,315,000	7,000,000	4,900,000	
FAA	-	-						
TSA	-	-						
FDOT	21,250,000	-		2,035,000	7,315,000	7,000,000	4,900,000	
PFC	-	-						
Total	\$ 42,500,000	\$ -	\$ -	\$ 4,070,000	\$ 14,630,000	\$ 14,000,000	\$ 9,800,000	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	(x)					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Palm Garage Redevelopment
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Parking

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2022

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 222,600,000
 Previously Budgeted: 0
 Total \$ 222,600,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project is for the design and construction of a new seven- to nine-level parking garage with a Ground Transportation Center (GTC) on level 1. The GTC will provide 2,100 linear feet of curb front. Levels 2-7 will provide 3,600 parking spaces to replace the original Palm Garage Capacity and assist in meeting anticipated future parking demands.

Project Justification: This project is needed to provide vehicular parking to accommodate forecast demand at 42 million annual passengers (MAP). The vehicular parking needs at 42 MAP are 14,150 parking spaces and the parking spaces available are estimated to be 13,290 spaces , for a shortfall of 1,220 spaces

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC. This project is triggered by the vehicular parking demand at 42 Million Annual Passenger (MAP) on or before 2025.

PROJECT ALTERNATIVES

None. The current footprint and parking capacity of the existing garage is inefficient. Instead of investing money into the facility, a rebuild will provide a high-capacity garage that enables landside capacity improvements to alleviate the arrivals level curbside.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design						13,400,000			
Construction							23,400,000	97,900,000	87,900,000
Security Component			-						
Other			-						
TOTAL \$		222,600,000	\$ -	\$ -	\$ -	\$ 13,400,000	\$ 23,400,000	\$ 97,900,000	\$ 87,900,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	215,900,000	-			13,400,000	30,100,000	97,900,000	74,500,000
FAA	-	-						
TSA	-	-						
FDOT	6,700,000	-				6,700,000		
PFC	-	-						
Total	\$ 222,600,000	\$ -	\$ -	\$ -	\$ 13,400,000	\$ 36,800,000	\$ 97,900,000	\$ 74,500,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Airport Hotel
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: General & Administrative

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2022

CIP 2020 Budget: \$ -
 2021 - 2025 Budget: 196,500,000
 Previously Budgeted: 0
 Total \$ 196,500,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project establishes a commercial center, hotel and courtyard connected to the new palm garage. The amenities and hotel lobby contain approximately 157,800 square feet between levels 3-6. The airport hotel provides 300 rooms on levels 7-12 with approximately 50 rooms per level.

Project Justification: This project enhances the customer experience by providing transit stations, public space, and an airport hotel. The commercial center will act as a metaphorical front door to the new terminal. Customers from the airport and seaport are provided with landside commercial opportunities. The hotel and commercial opportunities provide the airport with non-aeronautical revenue.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A range of hotel alternatives was considered to identify 2-3 final sites for land preservation. As long as the Palm Garage redevelopment occurs, with corresponding GTC and commercial center, the Palm site is the preferred location for the Airport hotel given its proximity to Terminal 2,3 and 4 as well as the anticipated passenger desinity utilizing the new facilities within this area.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2030
Planning & Design			-			\$ 37,200,000			
Construction			-				\$ 51,300,000	\$ 53,100,000	\$ 54,900,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ 37,200,000	\$ 51,300,000	\$ 53,100,000	\$ 54,900,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2030
BCAD	-	-						
BONDS	196,500,000	-			\$ 37,200,000	\$ 51,300,000	\$ 53,100,000	\$ 54,900,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 196,500,000	\$ -	\$ -	\$ -	\$ 37,200,000	\$ 51,300,000	\$ 53,100,000	\$ 54,900,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	()
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Terminal 4 Expansion Phase 1 (Concourse G West Expansion)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2025

CIP 2020 Budget: \$ -
 2025 - 2029 Budget: 826,000,000
 Previously Budgeted: 0
 Total \$ 826,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project includes the expansion of Terminal 4 (Concourse G) to the west to provide eleven additional gates, for a total of 77 gates at FLL. The gates will accommodate up to Airplane Design Group (ADG) V aircraft, with five of the gates constructed as multiple apron ramp system (MARS) positions. MARS positions provide a 2 for 1 narrowbody to widebody alternative. In order to accommodate the expansion of Terminal 4, five gates at Concourse F gates will be decommissioned. All new gates will be international capable with a mezzanine level sterile corridor. The new building will also provide expanded ticket counters, TSA security lanes, and an expanded Federal Inspection Station (FIS). The Zulu Ramp which is currently used for remain overnight (RON) parking positions will be repurposed as a taxilane to support the new terminal, the RON capacity will be replaced in-kind adjacent to the existing ARFF facility, just north of the existing midfield RON parking area.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC. This project is triggered by the passenger demand of 42 Million annual Passenger (MAP) on or before 2025.

PROJECT ALTERNATIVES

A total of nine terminal development alternatives were considered as part of the master plan process. These alts were compared quantitatively to short-list three options. Upon refinement, Concept 6, (shown here) was selected as the preferred alternative. The FAA approved Master Plan accelerated baseline forecasts estimate a demand level of 42 million annual passengers (MAP) by 2025. Based on these forecasts, the Airport will need 77 aircraft gates on or before 2025. In addition to meeting passenger demand, the additional gates will provide operational flexibility given they are able to accommodate international operations.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design									82,600,000
Construction									743,400,000
Security Component			-						
Other			-						
TOTAL		\$ 826,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 826,000,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	809,480,000	-						809,480,000
FAA	-	-						
TSA	-	-						
FDOT	16,520,000	-						16,520,000
PFC	-	-						
Total	\$ 826,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 826,000,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				(x)
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Airfield Improvements Associated with Terminal Development Phase 1
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Airfield

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2025

CIP 2020 Budget: \$ -
 2025 - 2029 Budget: 122,200,000
 Previously Budgeted: 0
 Total \$ 122,200,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project reconfigures taxiways and taxilanes serving the Terminal 3 and Terminal 4 gate areas by paving and grading the existing taxiway islands and relocating the remain overnight (RON) aircraft parking positions. An ADG V taxilane will be constructed to serve the gates on the north side of the new Terminal 4 Concourse G. The RON parking positions currently located on the Zulu Ramp will be displaced by the expansion of Terminal 4 and will be relocated adjacent to the existing ARFF facility. The new RON positions will be served by a new ADG V taxilane running north-south parallel to Taxiway Q. Stormwater retention capacity lost from this project will be modeled in the Airport-wide stormwater master plan update which should also recommend the necessary improvements to support the development plan.

Project Justification:

In order to accommodate passenger demand, Terminal 4 (Concourse G) will be expanded to the west. As a result of the terminal expansion, the airfield must be reconfigured to allow for the efficient movement of aircraft into and out of the gate complex. The relocation of the impacted RON is required to maintain gate flexibility for off-gate aircraft parking.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC. This project is required to accommodate terminal gate demand at 42 Million Annual Passenger (MAP) on or before 2025.

PROJECT ALTERNATIVES

None.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design									12,200,000
Construction									110,000,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122,200,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	-	-						
FAA	62,322,000	-						62,322,000
TSA	-	-						
FDOT	-	-						
PFC	59,878,000	-						59,878,000
Total	\$ 122,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122,200,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	()
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Terminal Expansion Dependencies and Code Compliance Improvements
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2021

CIP 2020 Budget: \$ -
 2021 - 2025 Budget: 91,300,000
 Previously Budgeted: 0
 Total \$ 91,300,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project involves the design and construction of code compliant improvements to Terminal 4.

Project Justification: This project is required to meet current Broward County code compliance triggered by the expansion of Terminal 4 (Concourse G) to the west. At completion the entirety of Terminal 4 will meet the current standards and codes.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

None. This project is required to address code compliance and expansion dependencies triggered by current and future terminal facility development.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design			-		4,500,000				
Construction			-			4,700,000	26,500,000	27,300,000	28,300,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ 4,500,000	\$ 4,700,000	\$ 26,500,000	\$ 27,300,000	\$ 28,300,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	91,300,000	-		4,500,000	4,700,000	26,500,000	27,300,000	28,300,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 91,300,000	\$ -	\$ -	\$ 4,500,000	\$ 4,700,000	\$ 26,500,000	\$ 27,300,000	\$ 28,300,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or				(x)
Reduce Costs	()	among air carriers at the airport				
Generate Revenue	(x)	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	(x)	airport				

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Central Utility Plant (Central Chiller Plant)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2022

CIP 2020 Budget: \$ -
 2021 - 2026 Budget: 148,100,000
 Previously Budgeted: 0
 Total \$ 148,100,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project will be to construct a central utility plant capable of supporting all future and some current facilities within the terminal core. It has been identified that the current approach of separate chillers spread throughout the terminal facilities is inefficient and difficult to maintain/service. A single plant, capable of providing all chilled water requirements centrally located will aid in long-term facility phasing and should reduce costs during these expansion phases. During the PDD phase, additional facilities amenities such as central emergency power should be considered and analyzed.

Project Justification: This project will avoid the addition of numerous, individual chillers spread throughout the terminal campus as FLL expands to meet current and anticipated demand. This facility will provide significant efficiency gains in long-term maintenance and servicing of equipment and should also be constructed with adequate capacity to chill new facilities which will significantly improve the phasing of future development.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

Due to facility operational needs, this CUP needs to be located within the central terminal area, near or a part of the Palm Garage redevelopment. An initial task of the PDD should be a detailed facility siting analysis to identify the preferred location for this facility.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design			-			7,400,000	1,600,000		
Construction			-				6,100,000	42,800,000	90,200,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ 7,400,000	\$ 7,700,000	\$ 42,800,000	\$ 90,200,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	148,100,000	-			7,400,000	7,700,000	42,800,000	90,200,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 148,100,000	\$ -	\$ -	\$ -	\$ 7,400,000	\$ 7,700,000	\$ 42,800,000	\$ 90,200,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or				(x)
Reduce Costs	(x)	among air carriers at the airport				
Generate Revenue	()	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	(x)	airport				

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: **Utility Improvements (Consolidated Utility Duct Bank) Phase 1 - Terminal 4**
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2027

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 30,000,000
 Previously Budgeted: 0
Total \$ 30,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project consists of the construction of a consolidated utility duct bank to serve the airport during and at completion of the long-term terminal development program. The utility duct bank will be constructed during phase 1 of the terminal development program as the new Terminal 4 comes online.

Project Justification: The Airport spends excessively on iterative utility capacity and maintenance improvements while additional terminal facilities come online. The consolidated utility duct bank builds sufficient capacity directly into the system to satisfy anticipated long-term needs. This allows the Airport to access the capacity as future demand increases. The consolidated utility duct bank minimizes operational impacts by avoiding future utilities construction.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

None.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design			-						3,000,000
Construction			-						27,000,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	30,000,000	-						30,000,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 30,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	()	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				(x)
Reduce Costs	(x)	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	(x)					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Terminal Expansion Phase 1 (Processing)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2025

CIP 2020 Budget: \$ -
 2025 - 2028 Budget: 349,800,000
 Previously Budgeted: 0
Total \$ 349,800,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project includes the expansion of terminal processor associated with Terminal 4 (Concourse G). This project will add security screening checkpoints, ticket counters, airline support space and baggage conveyence systems.

Project Justification: Additional screening and support areas are anticipated to be needed to serve the Concourse G expansion and passenger activity levels forecasted to occur at approximately 2030. Adding this two-level facility also enables a future Terminal 4 mezzanine level FIS to enhance the international arrival processing capabilities for the Airport.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A total of nine terminal development alternatives were considered as part of the master plan process. These alts were compared quantiatively to short-list three options. Upon refinement, Concept 6, (shown here) was selected as the preferred alternative.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2033
Planning & Design			-						41,000,000
Construction			-						308,800,000
Security Component			-						
Other			-						
TOTAL \$		349,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 349,800,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2033
BCAD	-	-						
BONDS	406,896,000	-						406,896,000
FAA	-	-						
TSA	-	-						
FDOT	8,304,000	-						8,304,000
PFC	-	-						
Total	\$ 415,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 415,200,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				(x)
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Terminal Expansion Phase 1 (T4 FIS)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Terminal

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2032

CIP 2020 Budget: \$ -
 2032 - 2034 Budget: 339,300,000
 Previously Budgeted: 0
Total \$ 339,300,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project includes the expansion of the international arrivals facility (FIS) within Terminal 4. The Concept 6 development plan proposes to construct a FIS hall capable of processing 3,500 pph - 4,000 pph above the terminal processer expansion, on the mezzanine level of the new facility.

Project Justification: Through technological improvements, the current T4 FIS may be capable of processing 2,200 pph. However, as international activity continues to grow, the level of service of this FIS will diminish and eventually reach unacceptable levels. To meet future demand, a new FIS needs to be constructed. The new facility will also have the flexibility of expanding beyond the opening day processing rate given it will be the only functional space on the mezzanine level. This provides full flexibility to modify the space to meet long-term demands.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A total of nine terminal development alternatives were considered as part of the master plan process. These alts were compared quantitatively to short-list three options. Upon refinement, Concept 6, (shown here) was selected as the preferred alternative.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2034
Planning & Design			-						33,900,000
Construction			-						305,400,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 339,300,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2034
BCAD	-	-						
BONDS	332,514,000	-						332,514,000
FAA	-	-						
TSA	-	-						
FDOT	6,786,000	-						6,786,000
PFC	-	-						
Total	\$ 339,300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 339,300,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				(x)
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Taxilane ADG III Serving Westside Parcels (Previously Taxiway M)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: Will Castillo
 Area: Airfield

Project ID: New
 Fund: 40450
 Airport: FLL
 Timeline: Multi Year
 Start Year: FY 2021

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 16,100,000
 Previously Budgeted: 0
Total \$ 16,100,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project replaces a previous project called "Taxiway M". At the 1/10/2019 Annual Work Program meeting with the FAA and FDOT, BCAD addressed the need for a taxilane to serve the westside parcels that will replace the existing taxiway M project. FDOT recommended that the taxiway M project will need to be requested for deletion and a new project will need to be added to the FLL Capital Improvement Plan for continued funding consideration. Based on the alternatives analysis conducted as part of the master plan update, it was determined that Taxiway M will no longer be needed at the original location identified. The master plan process has identified the need for a new taxilane on the westside of the airport. This taxilane will be a Airplane Design Group (ADG) III taxilane, parallel to Taxiway C, to serve future development on the westside parcels. This taxilane has the option to connect to Taxiway L, the future crossfield taxiway or maintain stormwater retention in Pond K. This project provides approximately 4,000 linear feet of taxilane.

Project Justification: This project is necessary to allow aircraft movement to and from the westside development parcels. A new dedicated taxilane will minimize disruptions to the existing aircraft movements and queuing on Taxiways B and C.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

Other airplane design group alternatives were considered to maximize the utilization of the westside development area. As development plans were identified for these parcels, it was determined that the ADG III taxilane alternative provide the necessary aircraft operational flexibility without overbuilding the site.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design					1,700,000				
Construction					6,300,000	8,100,000			
Security Component			-						
Other			-						
TOTAL \$		16,100,000	\$ -	\$ -	\$ 8,000,000	\$ 8,100,000	\$ -	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	4,100,000	-		500,000	3,600,000			
FAA	-	-						
TSA	-	-						
FDOT	6,000,000	-		3,750,000	2,250,000			
PFC	6,000,000	-		3,750,000	2,250,000			
Total	\$ 16,100,000	\$ -	\$ -	\$ 8,000,000	\$ 8,100,000	\$ -	\$ -	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or				()
Reduce Costs	()	among air carriers at the airport				
Generate Revenue	()	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	()	airport				

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Airfield Electrical Vault
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: Will Castillo
 Area: Airfield

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2024

CIP 2020 Budget: \$ -
 2021 - 2025 Budget: 6,000,000
 Previously Budgeted: 0
 Total \$ 6,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project is for the construction of a new airfield electrical vault approximately 200 feet west of the current vault's location. The vault will be designed to accommodate existing and future airfield needs.

Project Justification: The airfield electrical vault houses the equipment necessary for the powering and operation of the airfield lights and navigational aids. A new airfield electrical vault is necessary to allow space for the construction of a new aircraft rescue and firefighting (ARFF) station, which is being displaced to accommodate demand associated with the Phase 2 terminal development program. The ARFF will not need to be relocated until Phase 2 of the terminal buildout is ready to commence.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

None.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design								600,000	
Construction									5,400,000
Security Component			-						
Other									
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000	\$ 5,400,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD								
BONDS	6,000,000	-					600,000	5,400,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 6,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000	\$ 5,400,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	()
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Gate 100 Relocation and Expansion
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: Will Castillo
 Area: General and Administrative

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2024

CIP 2020 Budget: \$ -
 2021 - 2025 Budget: 12,000,000
 Previously Budgeted: 0
 Total \$ 12,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project is for the relocation and expansion of the Gate 100 airfield security gate. A study was conducted to address traffic deficiencies in the FLL North East Quadrant Area, this study included short term improvements (addressed in a separate capital project) and long term improvements (confirmed in the FLL Master Plan Update). The master plan process identified a new preferred Gate 100 relocation site which is immediately west of the existing belly cargo facility, on the southeast corner of the existing Jetscape leasehold. After the existing retention area is mitigated, this site will achieve all of the programmatic needs to an expanded Gate 100 and leave the previously identified site available for future BCAD development.

Project Justification: Currently, all facilities within the Northeast Quadrant, with the exception of two, are accessed via SW 2nd Avenue, resulting in significant daily congestion associated with the movement of vehicles into and out of the area. This congestion is further generated by the location of Gate 100 and queue lengths that are generated for security screening requirements. Originally, the plan was to relocate Gate 100 to the parcel currently occupied by the AEP Modular Buildings to allow for additional queuing space and staging areas for Gate 100 vehicles and removes unnecessary traffic in front of the Cargo Building. However, the master plan recommends to relocate Gate 100 to the green parcel immediately south of the existing Jetscape site, due west of the existing belly cargo facility. An existing retention pond will need to be relocated, but this plan further maximizes the contiguous airfield property by maintaining a revenue generating parcel but achieves a required capacity enhancing project by relocating and expanding Gate 100 to include multiple queue lanes, a dedicated rejection lane, and enhanced vehicular inspection areas.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

Originally, the MPU adopted the NE Quadrant Study recommendation. However, upon further coordination with BCAD staff, a new Gate 100 relocation and expansion alternative was ultimately selected that achieves the capacity benefits of the NE Quad recommendation but also leaves the original identified site open for future BCAD related development, such as a recycling facility.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design								120,000	
Construction									11,880,000
Security Component			-						
Other			-						
TOTAL \$		12,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000	\$ 11,880,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-							
BONDS	12,000,000	-					120,000	11,880,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 12,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000	\$ 11,880,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or				()
Reduce Costs	()	among air carriers at the airport				()
Generate Revenue	()	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	()	airport				()

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Fuel Farm Expansion (Short-Term) & Oil/Water Separator
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Support Facility

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2025

CIP 2020 Budget: \$ -
 2025 - 2026 Budget: 7,390,000
 Previously Budgeted: 0
Total \$ 7,390,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project will take place in two phases and will consist of an expansion of the existing fuel farm from four fuel storage tanks to nine fuel storage tanks. Also, included in this project is a new fuel testing lab and an oil/water separator. Phase 1, will include the construction of two fuel tanks with a capacity of 1.5 million gallons each, a fuel testing lab, and an oil/water separator on the existing fuel farm parcel. Phase 2, will include the expansion of the airports fuel farm to a triangular parcel north of the existing fuel farm with three fuel storage tanks with a capacity of 1.5 million gallons each.

Project Justification: An immediate need for additional JetA fuel storage is needed to meet the immediate fuel storage needs of the airport. JetA fuel demand has increased by 20% in 2017 as compared to the fuel demand in 2015. Future fuel storage totaling 6.4 million gallons is required to meet forecasted aircraft operational demand and the current fuel storage capacity is 4.6 million gallons. Additionally, the existing storage tanks run at 70% capacity based on demand and time needed to replenish the tanks which takes 24 hours. The airport also has a fuel reserve of 3.5 days and with the current capacity fuel reserve will decrease to 3 days based on forecasted airport operations. The goal is to have a 7-day fuel reserve to reduce the effect of any possible disruption in the fuel supply chain due to FLL's lack of nearby storage capacity and refineries. A disruption in the fuel supply chain can occur as FLL is very prone to hurricanes.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC. Approximately \$7,390,000 (or 90%) of cost to be covered by fuel farm operator.

PROJECT ALTERNATIVES

A range of fuel farm expansion alternatives were analyzed as part of the master plan update. Through coordination with BCAD stakeholders and ASIG, the preferred development plan was selected to provide the capacity expansion needed but also preserve as much contiguous property as possible. If it is ultimately found that above ground fuel storage is not approved within the triangle parcel, the Airport may default to the fuel farm expansion contingency plan by adding tanks immediately to the south of the existing fuel farm.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2029
Planning & Design			-						7,390,000
Construction			-						
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,390,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	7,390,000	-						7,390,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 7,390,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,390,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Centralized Receiving and Distribution Facility
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Support Facility

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2023

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 20,900,000
 Previously Budgeted: 0
Total \$ 20,900,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: A facility located in the NE quadrant along perimeter road in which all airport concession deliveries and distribution will take place for security screening. The facility will be on a parcel approximately 1.5 to 2.0 acres and include a 30,000 square foot building, vehicular parking, and truck loading docks.

Project Justification: The Transportation Safety Administration (TSA) has requested that the airport establish a Central Receiving and Distribution Facility for security screening of all airport concessions. This facility will not only enhance the safety of the airport with additional security screening for concessions but will also reduce congestion at terminal security screening lanes.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A preliminary site selection analysis was completed as part of the master plan process. The ultimate location and facility layout will be defined during the PDD phase and may change based on the site availability and implementation timing.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design			-				2,200,000		
Construction			-					18,700,000	
Security Component			-						
Other			-						
TOTAL \$		20,900,000	\$ -	\$ -	\$ -	\$ -	\$ 2,200,000	\$ 18,700,000	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	20,900,000	-				2,200,000	18,700,000	
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 20,900,000	\$ -	\$ -	\$ -	\$ -	\$ 2,200,000	\$ 18,700,000	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	(x)	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Airport Maintenance Expansion ALLOWANCE
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Support Facility

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2027

CIP 2020 Budget: \$ -
 2027 - 2029 Budget: 33,600,000
 Previously Budgeted: 0
Total \$ 33,600,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: A project consisting of an expansion of the airports maintenance facilities. Two buildings will be built, the first a materials recycling facility which will be 45,000 square feet and a shop, warehouse, and indoor storage which will be 22,000 square feet. The acquired parcel will also include outdoor storage areas, the first, a paved area totaling 2 acres and a landscaping storage grassy area also totaling 2 acres.

Project Justification: Currently, airport maintenance functions are in multiple locations on the airport leading to inefficient operations and a deficiency in space requirements over the planning horizon through 2035. These deficiencies include approximately 22,000 square feet of shop, warehouse, and indoor storage, and 10,400 square feet of outdoor storage. A major constraint with the current airport maintenance facilities is parking, which is at a deficiency presently, especially when it comes to employee shift changes. In 2020 an additional 40 parking spaces will be required and at 2035 an additional 70 parking spaces will be required. Obtaining the necessary space requirements for the airport’s maintenance functions is important so the airport can have storage space for essential maintenance equipment to maintain the safety and security of the airport. The airport also plans to increase its sustainability initiatives by reducing the amount of waste by constructing a waste and recycling facility which will process solid waste and separate out recyclable products.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A preliminary site selection analysis was completed as part of the master plan process. The ultimate location and facility layout will be defined during the PDD phase and may change based on the site availability and implementation timing.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2029
Planning & Design			-						3,360,000
Construction			-						30,240,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,600,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	33,600,000	-						33,600,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 33,600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,600,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	()
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	(x)					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Aircraft Rescue and Firefighting (ARFF)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Support Facility

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2029

CIP 2020 Budget: \$ -
 2029 - 2030 Budget: 40,000,000
 Previously Budgeted: 0
 Total \$ 40,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project includes the full relocation and expansion of the airports ARFF facility.

Project Justification: The relocation of the airports ARFF facility is necessary to provide for the Terminal 3 phase 2 west expansion which will take place in PAL 2 per the Master Plan forecast. The existing ARFF facility is located approximately 1,000 feet from the terminal, restricting the ability for the terminal to be expanded to provide additional aircraft parking gates. Additional aircraft parking gates are necessary to cope with future parking position forecasted demand of 71 in PAL 2. An expansion of the existing ARFF facility footprint is also needed to provide for an additional 6,700 square feet for office space and equipment storage. The new facility will maintain the Airport's compliance with 14 CFR Part 139 with the necessary equipment and response time to serve a ARFF index E. Currently, the ARFF index at the airport is D. The expanded and relocated facility will be able to serve FLL if its ARFF index were to increase to E in the future.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A preliminary site selection analysis was completed as part of the master plan process. The ultimate location and facility layout will be defined during the PDD phase and may change based on the site availability and implementation timing.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2030
Planning & Design			-						4,000,000
Construction			-						36,000,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2030
BCAD	-	-						
BONDS	40,000,000	-						40,000,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 40,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	(x)					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Enabling In-Kind Hangar Replacement (Taxiway H)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: General and Administrative

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2029

CIP 2020 Budget: \$ -
 2029 - 2030 Budget: 12,000,000
 Previously Budgeted: 0
Total \$ 12,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project is for the like-in-kind replacement of storage hangars currently operated by Sheltair that will be impacted by the eventual extension of Taxiway H.

Project Justification: Extending Taxiway H would provide full dual parallel taxiways for Runway 10R-28L which will help with aircraft sequencing, departure queues and taxiing operations. The southern portion of the existing hangars would be located within the Taxiway Object Free Area (TOFA) and would require relocation to enable the extension project. This project would also also Sheltair to extend its ramp area and operate a fully contiguous site, potentially avoiding the need to move aircraft on movement areas between the main apron and the T-hangar facilities.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

None.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2030
Planning & Design			-						1,200,000
Construction			-						10,800,000
Security Component			-						
Other			-						
TOTAL \$		12,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2030
BCAD	-	-						
BONDS	12,000,000	-						12,000,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 12,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	()
Expansion of Facilities	()	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				(x)
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Public Safety Office
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: General and Administrative

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2021

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 12,200,000
 Previously Budgeted: 0
Total \$ 12,200,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project will construct a purpose built facility for all BCAD safety functions after they are relocated from the NE quadrant to enable the development of a centralized receiving and distribution facility. This facility will house airport Security, airport credentialing office, and Broward Sheriff's office.

Project Justification: Consolidation of the public safety office functions will increase operational efficiency of the various airport security functions. The public safety office functions will be at a deficit of approximately 13,000 square feet in 2035 if they remain at their current locations scattered around the airport. Consolidation of the various security, credentialing, and county police functions will provide a secure environment for users of the airport.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

None. A preliminary site selection analysis was completed as part of the master plan process. The ultimate location and facility layout will be defined during the PDD phase and may change based on the site availability and implementation timing.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
Planning & Design			-		1,300,000				
Construction			-			10,900,000			
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ 1,300,000	\$ 10,900,000	\$ -	\$ -	\$ -

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2029
BCAD	-	-						
BONDS	12,200,000	-		1,300,000	10,900,000			
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 12,200,000	\$ -	\$ -	\$ 1,300,000	\$ 10,900,000	\$ -	\$ -	\$ -

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	(x)					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: General Aviation Customs Relocation (Includes Airside Ramp)
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Support Facility

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2030

CIP 2020 Budget: \$ -
 2030 - 2031 Budget: 17,600,000
 Previously Budgeted: 0
Total \$ 17,600,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: A full relocation of the airports general aviation Customs and Border Protection (CBP) passenger processing building and an apron expansion will be developed on the west portion of the airport.

Project Justification: The existing CBP apron is undersized and poorly configured to serve the existing international GA activity at the airport. Forecasted demand indicates an additional 25,000 square feet of apron space will be needed through 2035. The existing CBP site cannot be expanded as it is in between two existing leaseholds. Additionally, the construction of the airport's new midfield taxiway will eat up additional CBP apron space which is already at capacity. A relocation of CBP building and apron will provide the necessary capacity to meet forecasted demand and free up apron and automobile parking space which is currently shared with an existing GA tenant. A parcel exclusive to CBP usage will be increase security as it reduces the possibility of interfacing between pre and post processed passengers.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

A preliminary site selection analysis was completed for various CBP options as part of the master plan process. This location was identified as the preferred site to serve all existing and planned FBO facilities at the Airport.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2031
Planning & Design			-						1,760,000
Construction			-						15,840,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,600,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2031
BCAD	8,800,000	-						8,800,000
BONDS	-	-						
FAA	-	-						
TSA	-	-						
FDOT	8,800,000	-						8,800,000
PFC	-	-						
Total	\$ 17,600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,600,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	(x)
Expansion of Facilities	()	Security	Preserve	()	Enhance	(x)
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	()	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	(x)					

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Taxiway H Extension
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Airfield

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2030

CIP 2020 Budget: \$ -
 2030 - 2031 Budget: 8,700,000
 Previously Budgeted: 0
 Total \$ 8,700,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: This project extends Taxiway H approximately 930 feet to the west. This project provides two full length parallel taxiways serving Runway 10R/28L. This project will require the relocation of impacted sheltair hangars.

Project Justification: This project will benefit aircraft flow by mitigating congestion caused by aircraft taxing to and from the runway. The taxiway extension provides additional queue space for departing aircraft.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

None.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2031
Planning & Design			-						870,000
Construction			-						7,830,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,700,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2031
BCAD	-	-						
BONDS	2,175,000	-						2,175,000
FAA	6,525,000	-						6,525,000
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 8,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,700,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	()	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or				()
Reduce Costs	()	among air carriers at the airport				()
Generate Revenue	()	Mitigate noise impacts resulting from aircraft operations at the				()
Health & Safety	()	airport				()

BCAD CAPITAL PROJECT REQUEST FORM

Date: 9/13/2019

Project Title: Crossfield Taxiway
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Airfield

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: Multi-Year
 Start Year: FY 2030

CIP 2020 Budget: \$ -
 2030 - 2031 Budget: 26,000,000
 Previously Budgeted: 0
Total \$ 26,000,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: Construction of a Crossfield ADG V taxiway parallel to Taxiway L. This project provides Crossfield access from Taxiway B to Taxiway H. This taxiway spans approximately 2,800 linear feet.

Project Justification: Phase 2 of the Terminal Development program Taxiway Q is decommissioned and turned into ADG III taxilanes serving ARFF positions. Dual parallel ADG V taxiways will be enhance taxiway flows and aircraft movement on the airfield. The Terminal Development program increases ADG V type aircraft gate opportunities requiring greater airfield flexibility to reduce congestion.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

PROJECT ALTERNATIVES

Various crossfield taxiways were considered with the terminal development alternatives to maintain and promote airfield capacity and operational flexibility.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2031
Planning & Design			-						2,600,000
Construction			-						23,400,000
Security Component			-						
Other			-						
TOTAL			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,000,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2031
BCAD	-	-						
BONDS	6,500,000	-						6,500,000
FAA	19,500,000	-						19,500,000
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 26,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,000,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	(x)	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	()	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	()					
Health & Safety	()					

BCAD CAPITAL PROJECT REQUEST FORM

FY 2020-2024

Date: 9/13/2019

Project Title: Cypress Garage Expansion
 Sponsor: Michael Pacitto
 Sponsor Division: Airport Development
 Project Manager: William Castillo
 Area: Landside

Project ID: _____
 Fund: _____
 Airport: FLL
 Timeline: _____
 Start Year: _____

CIP 2020 Budget: \$ -
 2021 - 2024 Budget: 151,750,000
 Previously Budgeted: 0
Total \$ 151,750,000

PROJECT DESCRIPTION & JUSTIFICATION

Project Description: To meet demand, the green area immediately adjacent (to the east) of existing Cypress Garage/RCC will be developed as an expansion of the Cypress Garage. There remains to be a range of alternative needs that could be met by developing this parcel of land including but not limited to: rental car center (RCC) expansion for additional QTA and vehicle storage, public parking expansion to meet short-term parking needs, APM station to aid in the initial phasing the the APM/Palm Garage redevelopment, commercial center and passenger dwelling area to help alleviate the public dwelling in the terminal areas.

Project Justification: This parcel is required to meet many short-term BCAD needs as described above. Additional analyses is being undertaken in the landside programming process to further define the highest and best use of this parcel and refine the associated development costs of the use. The protection and preservation of this parcel for BCAD use is critical for the phasing and development of the preferred master plan development, specifically for the landside enhancement projects.

NOTES: This project is part of the on-going master plan update and is currently planned as a Phase 1 project. Phase 1 is currently under review for final refinement and project implementation scheduling. Final costs will be refined in the programming phase after the preferred development plan and associated implementation plan has been approved by the BOCC.

The costs outlined below will be updated through the programming analysis. These costs represent preliminary costs associated with a multi-level QTA (first 5 levels), 1 level dedicated to a potential APM station @ \$30M, and the upper 3 levels for public parking. The RCC expansion component, funded by BCAD, would be 100% CFC eligible whereas the remaining levels of development would be bond funded.

PROJECT ALTERNATIVES

Various crossfield taxiways were considered with the terminal development alternatives to maintain and promote airfield capacity and operational flexibility.

PROJECT SCHEDULE AND COST ESTIMATES (Sponsor needs to get input from CIP Division for all design & construction projects)

	Est Start Date	Est. Completion Date	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025- 2031
Planning & Design			-						15,100,000
Construction			-						136,650,000
Security Component			-						
Other			-						
TOTAL \$		151,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 151,750,000

TOTAL PROJECT COST BY FUNDING SOURCE & SCHEDULE

Funding Source	Total	Prior Years	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 - 2031
BCAD	103,000,000	-						103,000,000
BONDS	48,750,000	-						48,750,000
FAA	-	-						
TSA	-	-						
FDOT	-	-						
PFC	-	-						
Total	\$ 151,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 151,750,000

PROJECT OBJECTIVE (Check all applicable)

Replacement of Facilities	()	Safety	Preserve	()	Enhance	()
Expansion of Facilities	(x)	Security	Preserve	()	Enhance	()
Enhance Service to Public	(x)	Capacity	Preserve	()	Enhance	(x)
Enhance Service to Tenants	(x)	Furnish opportunity for enhanced competition between or among air carriers at the airport				()
Reduce Costs	()	Mitigate noise impacts resulting from aircraft operations at the airport				()
Generate Revenue	(x)					
Health & Safety	()					