



# CHAPTER E - EXECUTIVE SUMMARY

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## INTRODUCTION

Ryan Airfield (RYN) is 14 miles southwest of Tucson in southern Arizona's Pima County. RYN property comprises a total of 1,804 acres, and the airfield has an elevation of 2,417 feet above mean sea level (MSL). It is classified as a general aviation (GA) reliever airport by the Federal Aviation Administration (FAA), relieving Tucson International Airport (TUS). RYN is one of five GA airports located in Pima County.

RYN was initially developed for the Army Air Corps in 1942 as a pilot training base during World War II. The pilot school was closed in 1944, and the Federal Government transferred ownership to the State of Arizona in 1948. The State executed a lease agreement with the Tucson Airport Authority (TAA) to manage the airfield in 1951; however, the State retained land ownership. The State transferred land ownership and the airfield lease with TAA to the City of Tucson in 1960, and this arrangement is current as of 2020.

The preparation of this Master Plan has been conducted under the direction of TAA staff and an advisory committee of public and private stakeholders. Financial assistance came from the FAA Airport Improvement Program and the Arizona Department of Transportation (ADOT). The purpose of this Master Plan is to define RYN's long-range development plan. The Master Plan is not a decision document on whether an improvement will be built; rather, it is a planning tool that indicates how the land at the Airport might best be used in consideration of anticipated future demand.

## GOALS AND OBJECTIVES

Mission statements guide long-range planning; they help define the purpose of an organization and its direction. The TAA mission statement is to:

**"Provide a sustainable airport system and constantly pursue initiatives that promote and grow business opportunities."**

In support of the mission statement and to help guide the master planning process, the TAA developed an initial list of goals and objectives for the RYN Master Plan:

- ▶ Maximize the safety and efficiency of aircraft operational areas and achieve compliance with FAA guidance.
- ▶ Recognize airfield deficiencies and needed improvements to address the FAA Hotspot, direct runway access from aircraft apron areas, and high energy intersections.

- ▶ Consider the significant amounts of airport property that can be developed for aeronautical and non-aeronautical uses, maximizing revenue generation.
- ▶ Consider the layout of the airfield based upon the demands related to existing and all potential future aircraft types that could regularly operate at the Airport. This includes consideration of all safety and object clearing standards and current FAA configuration guidance.
- ▶ Consider comprehensive improvements for airside and landside facilities (e.g. Air Traffic Control Tower [ATCT], Aircraft Rescue and Firefighting Facility [ARFF], fuel storage and delivery, Fixed Base Operator [FBO], instrument approaches, aircraft parking, storage hangars, maintenance hangars, and others).
- ▶ Continue to work with the surrounding communities to promote land use compatibility initiatives that minimize the potential for negative impacts, while not being restrictive of potential airport improvements and increased activity.
- ▶ Promote a Capital Improvement Plan that provides financial sustainability, anticipates reasonable levels of expense and income, and balances facility improvements and infrastructure recommendations with revenues and funding sources.
- ▶ Recognize environmental development constraints and appropriately consider the constraints in improvement recommendations.
- ▶ Identify infrastructure and drainage improvements on airport utilities.

## THE MASTER PLANNING PROCESS

This Master Plan is the result of a comprehensive process that provides a strategic vision for growth and operation at RYN. The Master Plan documents the process used and the results of the tasks performed to conform with FAA guidance, including FAA's Advisory Circular 150/5070-6B, *Airport Master Plans*.

The Master Plan requires multiple steps from establishing a vision and goals to production and adoption of final documents as identified in **Figure E-1**.

**Figure E-1: Master Planning Process**



Stakeholder and community outreach were integral to this effort. This included the use of two committees: the Stakeholder's Working Group (SWG) and the Technical Advisory Committee (TAC). The SWG, largely community members, was established to engage its members for input and review of working papers, materials, and alternatives early in the planning process. The TAC was established to engage with its members for input and review of working

papers, materials, and alternatives early in the planning process. The TAC provided more detailed feedback on operational plan elements due to committee member familiarity with RYN as tenants and airfield users.

Public workshops were also held to inform the community at-large about the project and gather feedback throughout the process. When the COVID-19 pandemic eliminated the opportunity to meet in person, a mailer was sent to the community surrounding RYN to provide the stakeholders with updates. During the master plan, four SWG and TAC meetings, one mailer, two public open house workshops, and three TAA Executive Team and subsequent TAA Board of Directors briefings were conducted at key milestones.

A Master Plan project website also informed interested parties of the project status and encouraged public participation. The site invited visitor comments or questions concerning the Master Plan through the website or through the mail.

## AVIATION ACTIVITY FORECASTS

The RYN activity forecasts project future aircraft operations (20-year projection) and based aircraft at the Airport as seen in **Table E-1**. The forecasts identify the base year 2018 and the future years 2023, 2028, and 2038. Forecasts estimate future activity levels and help guide decision makers in envisioning future airport development. The forecasts are used to determine facility demands and requirements and estimate the timing of demand-driven improvement projects. The aviation activity forecast considers the effects of regional socioeconomics, the regional aviation market, and the national aviation market.

**Table E-1: FAA-Approved Aircraft Operations and Based Aircraft Forecast**

	Base Year	Base Year +1	Forecast				Compounded Annual Growth Rate		
	2018	2019	2023	2028	2033	2038	2018-2023	2023 -2028	2028 -2038
Aircraft Operations Total	94,621	100,370	104,338	109,655	115,469	121,725	1.97%	1.00%	1.05%
Itinerant									
General Aviation	34,859	38,000	39,100	40,500	42,000	43,500	2.32%	0.71%	0.72%
Military	11,866	11,900	11,900	11,900	11,900	11,900	0.06%	0.00%	0.00%
Local									
General Aviation	45,900	48,470	51,338	55,255	59,569	64,325	2.26%	1.48%	1.53%
Military	1,996	2,000	2,000	2,000	2,000	2,000	0.04%	0.00%	0.00%
Based Aircraft Total	256	260	271	289	306	327	1.15%	1.29%	1.24%
Single-Engine Piston	189	191	198	208	218	229	0.93%	0.99%	0.97%
Jet & Turboprop	1	2	2	2	2	2	14.87%	0.00%	0.00%
Multi-Engine Piston	10	10	8	7	5	4	-4.36%	-2.64%	-5.44%
Helicopter	0	0	0	0	0	0	0.00%	0.00%	0.00%
Other	56	57	63	72	81	92	2.38%	2.71%	2.48%

## FAA FORECAST AND FLIGHT SCHOOL IMPACT

The FAA approved forecasts do not account for the impact a flight school has on aircraft operations and based aircraft. RYN was previously home to a flight school, and it is possible one will return in the future. Reintroducing a

flight school to RYN will increase operations and based aircraft, and the level of this increase depends on the nature of the flight training operation.

Two sets of Federal Aviation Regulations (FAR) (Part 61 and Part 141) define minimum requirements for pilot training and certification. FAR Part 61 allows any FAA-approved flight instructor, associated with a flight school or not, to train students. FAR Part 141 defines the curriculum requirements and minimum pass rates for FAA-approved flight schools. Both require the same performance standards for pilot certification, but Part 61 allows for a more flexible schedule with a less structured training environment. Thus, a Part 61 training facility is assumed to have less based training aircraft than a Part 141 facility, and aircraft at a Part 61 facility are expected to operate less frequently (on average) than those at a Part 141 facility. **Table E-2** represents the forecasted activity and based aircraft levels accounting for FAR Part 61 and Part 141 flight schools at RYN.

**Table E-2: Forecasted Aircraft Operations + Based Aircraft with Both Part 61 and 141 Flight Schools**

	Base Year	Base Year +1	Forecast				Compounded Annual Growth Rate		
	2018	2019	2023	2028	2033	2038	2018-2023	2023-2028	2028-2038
Aircraft Operations Total	94,621	100,370	114,238	202,055	218,219	224,475	3.84%	12.08%	1.06%
Itinerant									
General Aviation	34,859	38,000	39,100	40,500	42,000	43,500	2.32%	0.71%	0.72%
Military	11,866	11,900	11,900	11,900	11,900	11,900	0.06%	0.00%	0.00%
Local									
General Aviation (FAR Part 61 and 141)	45,900	48,470	61,238	147,655	162,319	167,075	5.94%	19.25%	1.24%
Military	1,996	2,000	2,000	2,000	2,000	2,000	0.04%	0.00%	0.00%
Based Aircraft Total	256	260	293	374	414	435	2.74%	5.00%	1.52%
Single-Engine Piston	189	191	218	278	308	319	2.90%	4.98%	1.39%
Jet & Turboprop	1	2	2	2	2	2	14.87%	0.00%	0.00%
Multi-Engine Piston	10	10	10	19	20	19	0.00%	13.70%	0.00%
Helicopter	0	0	0	3	3	3	0.00%	-n/a-	0.00%
Other	56	57	63	72	81	92	2.38%	2.71%	2.48%

## FACILITY REQUIREMENTS

The next step in the process was to translate the forecasts into facility requirements for the 5-, 10-, and 20-year planning periods. The comparison between future facility needs and the Airport's inventory of existing facilities determined the level of development required to meet future demand. Existing facilities were evaluated according to the design standards in Advisory Circular (AC) 150/5300-13A, *Airport Design*, correlating to the critical aircraft. The critical aircraft was Airport Reference Code (ARC) B-II; however, due to development around RYN, the ARC D-II design standards identified in the previous master plan are to be maintained throughout the planning period.

For a detailed list of airside facilities and landside aeronautical and non-aeronautical facilities evaluated and the deficiencies noted, see **Chapter 3 – Facility Requirements**.

## MASTER PLAN RECOMMENDATIONS

The recommended conceptual development plan outlines the proposed development and facility improvements that will not only meet the forecasted demand presented in **Chapter 2 - Forecasts**, but also mitigate the deficiencies presented in **Chapter 3 - Facility Requirements** of the Master Plan. The future airport development projects included in the conceptual development plan are as follows:

### Airfield Development Improvements

- ▶ Extend Runway 6R/24L by 2,797 feet to a runway length of 8,300 feet and a width of 100 feet. This project is planned to occur in multiple phases. Phase I includes an 800-foot runway extension to the west, and Phase II further extends the runway by an additional 1,997 feet.
- ▶ Extend Taxiway B by 2,797 feet to resolve FAA-identified Hot Spot 1. This project is planned to occur in multiple phases. Phase I includes an 800-foot taxiway extension to the west, and Phase II further extends the taxiway by an additional 1,997 feet.
- ▶ Relocate Runway 15/33 550 feet north and maintain the full runway length of 4,000 feet and the existing width of 75 feet.
- ▶ Construct a new full-length parallel taxiway north of Runway 6L/24R.
- ▶ Eliminate multiple taxiway connectors that provide aircraft direct runway access from apron areas and have non-standard geometry.
- ▶ Develop property north of Runway 6L/24R for aeronautical and non-aeronautical purposes to include aircraft storage and a maintenance, repair, and overhaul (MRO) operation.

### Airport Facility Improvements

- ▶ Reconstruct the existing ATCT in its current location and increase the tower height to resolve an existing blind spot along Taxiway D near the approach end of Runway 33.
- ▶ Construct new administrative offices for TAA staff adjacent to the existing conference room.

### Flight Schools/GA Facility Improvements

- ▶ Develop property for a new FAR Part 141 certified flight school east of Airport Drive that includes new hangars, tie-down areas, helicopter parking and apron areas, maintenance and support facilities, a student dormitory, a school cafeteria, administrative space, and vehicle parking.
- ▶ Develop property for an expanded FAR Part 61 certified flight school south of the existing flight training facility to include additional hangars, administrative space, and maintenance and support facilities.
- ▶ Construct eight dedicated helicopter parking pads north of the existing ATCT apron.

### Airport Land Development Improvements

- ▶ Develop airport property that maximizes aeronautical and non-aeronautical revenues through sensible airside and landside development.
- ▶ Construct a frontage road that parallels Ajo Highway to connect the West, Airport, and East Quadrants.
- ▶ Relocate the Pima County Waste Transfer facility to an acceptable location for the local community.

- ▶ Construct roadways that provide signalized and efficient access to Ajo Highway, Postvale Road, Valencia Road, Kushmaul Road, and Continental Road.
- ▶ Integrate access to the Airport through a potential interchange for Interstate (I-11) and Valencia Road.
- ▶ Construct utility infrastructure to support airside and landside development.

The Airport's Conceptual Development Plan is depicted in **Figure E-2**.









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## IMPLEMENTATION & FINANCIAL PLAN

Individual projects are separated into four development phases through the planning horizon (**Tables E-3** through **E-6**) and are identified on **Figure E-3**. If funding or facility needs arise sooner or later than projected in the phasing plan, projects can be shifted between phases. Preliminary planning level program cost estimates prepared for the projects identified are shown by development phase. The costs are presented in 2020 dollars.

Implementing and funding the Master Plan Capital Improvement Program (CIP) for RYN will largely be a function of FAA Airport Improvement Program (AIP) grants, ADOT aeronautics and highway grant funds, and TAA local matching funds available at the time of specific project implementation. **Tables E-7** through **E-9** address the estimated capital costs for Phase-I, -II, and -III, estimated to cover the FYs 2021 – 2040. The estimated project costs were developed in 2020 dollars but do not include escalation. The financial projections reflect the anticipated effects of funding the CIP, to the extent of the availability of the identified funding sources through FY 2040. **Table E-10** addresses projects outside of the 20-year planning period and only includes cost estimates. These projects were included for informational purposes only.

Table E-3: Phase-I (0 to 5 Years) Development Program Project Costs

Federal FY	MP Project Number	Airport Project Number	Project Title	Estimated Total Project Cost 2020 Dollars
<b>Proposed FY 2021 to 2025 CIP Projects</b>				
<b>0 to 5 Years</b>	A1	20117966	Install (3) PAPIs to the approach to Runway 6L, 6R, and 24R. Project includes FAA flight check.	\$567,190
	A2	20119088	Phase 1 - Upgrade/replacement of Air Traffic Control Tower (ATCT) equipment. Work will include purchase or equipment, installation, and training.	\$362,130
	A3	20119088	Phase 2 - Upgrade/replacement of ATCT equipment. Work will include purchase or equipment, installation, and training.	\$164,727
	P1	20120303	Conduct environmental assessment for the 800' extension of Runway 6R/24L with supporting taxiway connectors and taxiway F. Includes A2, A4, A5, B2, B4 and B5.	\$425,000
	I1	20314554	Loader with Attachments	\$246,577
	I2	20319100	2018 Cyclone CY 5500 (RYN)	\$140,000
	I3	20219035	B-11 Admin Building Upgrades	\$120,000
	I4	20219019	Ryan Maintenance - Bathroom and Water Heaters	\$85,000
	L1	20210109	Continental Road Pavement Maintenance	\$12,629
	I5	20219174	Herbicide Shed & Spill Containment	\$100,000
	I6	20112225	Install CCTV cameras throughout Ryan Airfield complex	\$150,000
	L2	20112202A	Extend RYN sewer 1,700 feet along Aviator Lane. Includes connecting all tenants to sewer along Aviator Lane. Mill and overlay Aviator Lane (approximately 43,700 sf). Project includes pavement, markings, and restriping. Overall PCI is 50. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$455,780
	L3	20112202B	Reconstruct Aviator Lane parking lot (approximately 12,750 sf) and Gate 3. Project includes pavement, markings, and restriping. Overall PCI is 33.	\$118,219
	L4	20120331	Extend main trunk of RYN sewer west for 1,300 feet from Airfield Drive to Aviator Lane. Connect TAA administration building and restaurant to sewer line. Project also includes reconstruct connector roadway between Aviator Lane and Airfield Drive (approximately 34,000 sf). Project includes pavement, markings, and restriping. Roadway is called C Road - 02 and overall PCI is 54. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$351,896
	A4	20116872	APMS-Taxiway A (TWARY 10) - PCI 94 (2017)	\$28,624
	I7	20120349 (801)	Design access control at RYN	\$260,000
	I8	20120349 (802)	Construct access control at RYN	\$550,000
	I9	20120350	Replace airfield lighting control computers (3)	\$310,000
	L5	20120326	Extend RYN sewer 1,400 feet along Airfield Drive. Includes connecting all tenants to sewer along Airfield Drive. Project includes a sealcoat of the entire length of Airfield Drive. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$240,235
	A5	20120300 (801)	Design a 4,000' asphalt mill and overlay for Runway 15/33. Project includes supporting taxiway connectors. ADOT PMMP RW1533RY-10 PCI 64 (2017).	\$220,200
	A6	20120300 (802)	Construct a 4,000' asphalt mill and overlay for Runway 15/33. Project includes supporting taxiway connectors.	\$2,750,000
	A7	20120351	Acquire 2.81 acres of land on the westside of the Airport (ROFA/RPZ).	\$54,183
	A8	20120304 (801)	Design Runway 6R/24L Extension Phase I - Extend Runway 6R/24L in asphalt by 800', Taxiway B by 800', and new Taxiway F. Relocate associated aircraft run-up areas, and the FAA glideslope 800' to the east. Project includes grading, drainage, utilities, lighting, and markings. Includes the design of the supporting taxiway systems and A2, A4, A5, B2, B4 and B5.	\$373,800
	P2	20120297	Conduct Air Traffic Control Tower (ATCT) siting study. Includes evaluating the use of a remote tower option.	\$175,000
	<b>Total Phase-1 (0-5 Years) Development Program Project Costs</b>			<b>\$8,261,190</b>



Table E-4: Phase-II (6 to 10 Years) Development Program Project Costs

Federal FY	MP Project Number	Airport Project Number	Project Title	Estimated Total Project Cost 2020 Dollars
<b>Proposed FY 2026 to 2030 CIP Projects</b>				
<b>6 to 10 Years</b>	A9	20120304 (802)	Construct Runway 6R/24L Extension Phase I - Extend Runway 6R/24L in asphalt by 800', Taxiway B by 800', and new Taxiway F. Relocate associated aircraft run-up areas, and the FAA glideslope 800' to the east. Project includes grading, drainage, utilities, lighting, and markings. Includes the design of the supporting taxiway systems and A2, A4, A5, B2, B4 and B5.	\$4,720,000
	A10	20120304 (803)	Construct the relocation of Taxiway Connector B5 to the east by 100' and construct new B5 and A5 to the approach end of Runway 24R.	\$1,310,000
	A11	20120304 (804)	Construct the removal of Taxiway Connectors A2, A4, B2, and B4.	\$420,000
	P3	20120352	Conduct Instrument Approach Procedure Feasibility Study.	\$450,000
	P4	20120327	Conduct new Airport Master Plan Study.	\$800,000
	P5	20120353	Conduct environmental assessment to acquire 39.5 acres (North Quadrant - future development).	\$200,000
	A12	20109023	Acquire 39.5 acres of land north of Runway 6L/24R, which is between two TAA parcels of land on the east and west.	\$761,653
	L6	20120333	Extend main trunk of RYN sewer 5,300 feet east of Airfield Drive to boundary of east quadrant. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$802,821
	L7	20120334	Extend main trunk of RYN sewer 9,000 feet west of Aviator Lane to boundary of west quadrant. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$1,341,565
	A13	20109017	Construct airside service road (approximately 3,400 sy) and parking in front of the wash rack and along the southern edge of the tower apron. Project includes pavement, markings, striping and signage.	\$236,960
	A14	20120328	Realign and relocate fence along northern perimeter road to match the northern property line of RYN.	\$590,000
	A15	20120296 (801)	Design a new asphalt helicopter parking apron capable of supporting eight new 100' x 80' parking positions north of the existing tower apron, south of Taxiway B, east of Taxiway D, and west of Taxiway B2.	\$125,000
	A16	20120296 (802)	Construct a new asphalt helicopter parking apron capable of supporting eight new 100' x 80' parking positions north of the existing tower apron, south of Taxiway B, east of Taxiway D, and west of Taxiway B2.	\$1,275,000
	P6	20120298	Conduct environmental assessment to relocate RYN Air Traffic Control Tower (ATCT)	\$250,000
	I10	20109030 (801)	Design the RYN ATCT to increase the height of the cab or to use a remote tower.	\$2,450,000
	I11	20109030 (802)	Construct the RYN ATCT to increase the height of the cab or to use a remote tower.	\$7,000,000
	A17	20120312	Acquire land (2.83 acres) for remaining Runway 6L approach RPZ	\$54,569
	I12	20120316 (801)	Design a new 2,000 sf building to support TAA Administration stationed at RYN. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$297,500
	I13	20120316 (802)	Construct a new 2,000 sf building to support TAA Administration stationed at RYN. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$850,000
	L8	20120318 (801)	Design a new 5,000', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the East Quadrant of the Airport.	\$127,885
	L9	20120318 (802)	Construct a new 5,000', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the East Quadrant of the Airport.	\$1,593,000
	L10	20120319 (801)	Design the minor interior roadway network in the East Quadrant of the Airport.	\$375,181
	L11	20120319 (802)	Construct the minor interior roadway network in the East Quadrant of the Airport.	\$4,673,447
	L12	20120322	Design and construct a full signalized intersection on W. Ajo Highway to access East Quadrant of the Airport.	\$435,978
<b>Total Phase-II (6-10 Years) Development Program Project Costs</b>				<b>\$31,140,599</b>

Table E-5: Phase-III (11 to 20 Years) Development Program Project Costs

Federal FY	MP Project Number	Airport Project Number	Project Title	Estimated Total Project Cost 2020 Dollars
<b>Proposed FY 2031 to 2041 CIP Projects</b>				
11 to 20 Years	L13	20120335	Connect South Quadrant to sewer line. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$6,228
	L14	20120336	Connect North Quadrant to sewer line. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$763,583
	L15	20112263	Realign perimeter road along boundary of North Quadrant.	\$7,174,870
	P7	20120299	Conduct environmental assessment for the relocation of Runway 15/33 550' to the north. Includes all connecting taxiways and geometry.	\$425,000
	A18	20120301 (801)	Design the relocation of Runway 15/33 550' to the north, eliminating pavement on the south and new asphalt pavement to the north. Includes the design of taxiway D1, D2, and connecting taxiways D and E. Eliminate 185' of Taxiway Connector D1 to the approach end of Runway 33. Construct new segment of Taxiway D to connect to the approach end of Runway 15. Relocate the aircraft runup areas and compass rose.	\$247,700
	A19	20120301 (802)	Construct the relocation of Runway 15/33 550' to the north, eliminating pavement on the south and new asphalt pavement to the north. Eliminate 185' of Taxiway Connector D1 to the approach end of Runway 33. Construct new segment of Taxiway D to connect to the approach end of Runway 15. Relocate the aircraft runup areas and compass rose.	\$2,308,300
	A20	20120301 (803)	Construct the relocation of the D1 Taxiway connector north to connect Taxiway D, E to the new approach end of Runway 15/33. Remove two taxiway connectors east of Taxiway D providing access to the FAR Part 61 existing apron.	\$310,000
	A21	20120301 (804)	Construct the relocation of Taxiway D2 to the north by 185' connecting Taxiway D, E and Runway 15/33.	\$520,000
	A22	20100918	Construct new apron at the end of Airfield Drive (44,700 SY).	\$4,800,000
	A23	20120302 (801)	Design a 5,500' asphalt mill and overlay for Runway 6R/24L. Project includes supporting taxiway connectors. ADOT PMMP RW6R24LRY-10 PCI 77 (2017) and RW6R24LRY-20 PCI 78 (2017).	\$250,000
	A24	20120302 (802)	Construct a 5,500' asphalt mill and overlay for Runway 6R/24L. Project includes supporting taxiway connectors.	\$2,750,000
	P8	20120309	Conduct environmental assessment new 4,900 asphalt taxiway parallel to Runway 6L/24R, including 4 new taxiway connectors and supporting taxiways.	\$350,000
	A25	20120310 (801)	Design a new 4,900' asphalt taxiway parallel to Runway 6L/24R, including 4 new taxiway connectors. Includes the design for the taxiway connector between Runway 6L/24R and Taxiway Alpha and the removal of 1,370' of asphalt on Taxiway A, west of Taxiway D to the approach end of Runway 6L.	\$450,000
	A26	20120310 (802)	Construct a new 4,900' asphalt taxiway parallel to Runway 6L/24R, including 4 new taxiway connectors.	\$3,400,000
	A27	20120310 (803)	Construct a new asphalt taxiway connector between Runway 6L/24R and Taxiway Alpha.	\$1,500,000
	A28	20120310 (804)	Construct the removal of 1,370' of asphalt on Taxiway A west of Taxiway D to the approach end of Runway 6L, including the aircraft runup apron bump out. Includes removal of taxiway lighting and associated infrastructure.	\$350,000
	I14	20120314	Design and replace two underground fuel storage tanks.	\$387,800
	I15	20120317 (801)	Design a new 7,700 sf joint-use fire-fighting station to support RYN and local emergencies. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$1,505,000
	I16	20120317 (802)	Construct a new 7,700 sf joint-use fire-fighting station to support RYN and local emergencies. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$4,300,000
	I17	20120320 (801)	Design a new 8,997', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the West Quadrant of the Airport.	\$230,116
	L16	20120320 (802)	Construct a new 8,997', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the West Quadrant of the Airport.	\$2,866,443
	L17	20120323	Design and construct 3 full signalized intersection on W. Ajo Highway to access West Quadrant of the Airport.	\$1,307,933
<b>Total Phase-III (11-20 Years) Development Program Project Costs</b>				<b>\$36,202,973</b>

**Table E-6: Phase-IV (20+ Years) Development Program Project Costs**

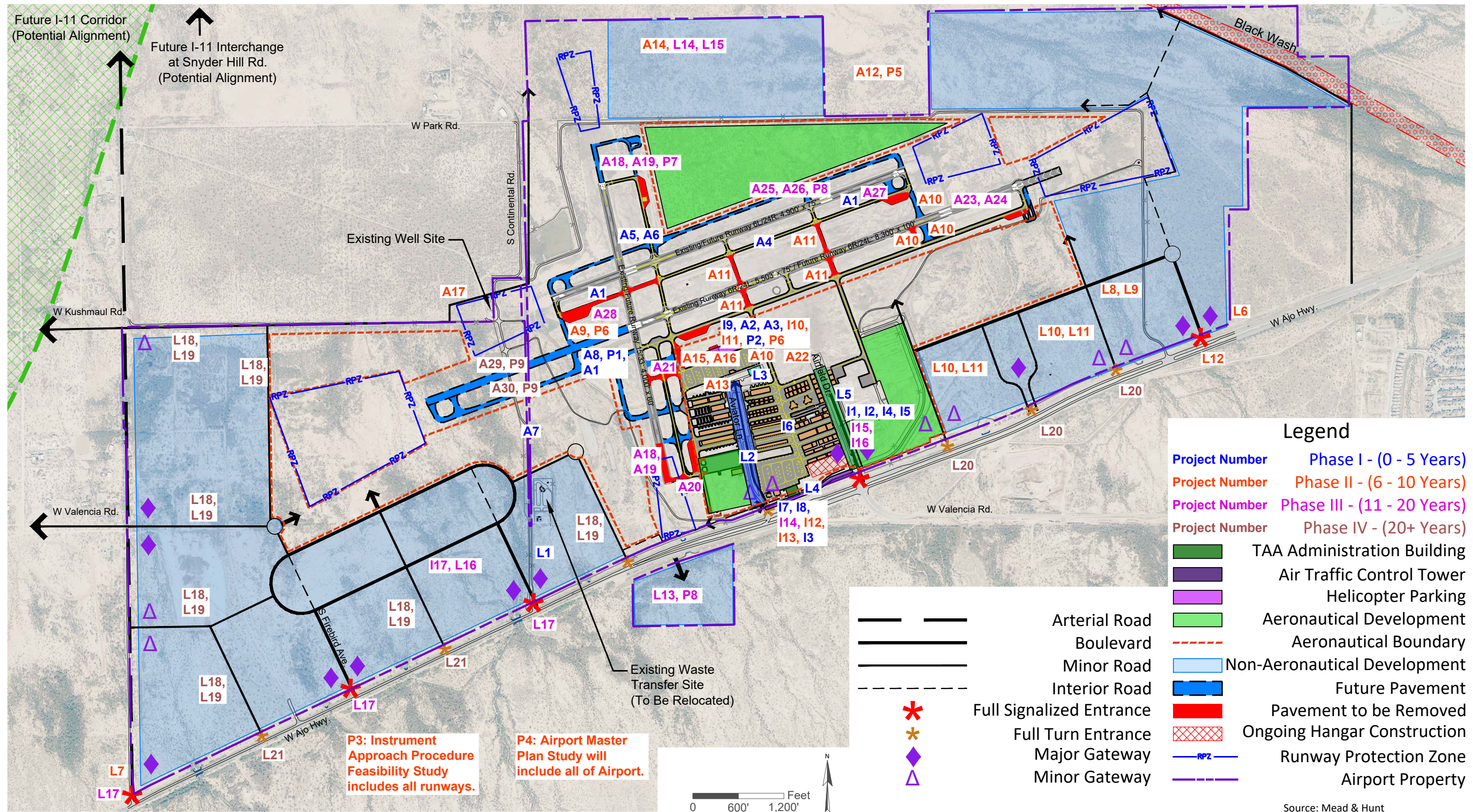
Federal FY	MP Project Number	Airport Project Number	Project Title	Estimated Total Project Cost 2020 Dollars
<b>Proposed CIP Projects Beyond FY 2042</b>				
<b>20+ Years</b>	A29	20120306 (801)	Design Runway 6R/24L Extension Phase II - Extend runway 6R/24L in asphalt by 1,997' and widen the entire runway by 25' to a full width of 100', Taxiway B by 1,997' with supporting connector taxiway. Relocate aircraft run-up areas, and the FAA glideslope 1,997' to the east. Project includes grading, drainage, utilities, lighting, and markings.	\$1,000,200
	P9	20120305	Conduct environmental assessment for the 1,997' extension of Runway 6R/24L with supporting taxiway connectors.	\$350,000
	A30	20120306 (802)	Construct Runway 6R/24L Extension Phase II - Extend runway 6R/24L in asphalt by 1,997' and widen the entire runway by 25' to a full width of 100', Taxiway B by 1,997' with supporting connector taxiway. Relocate aircraft run-up areas, and the FAA glideslope 1,997' to the east. Project includes grading, drainage, utilities, lighting, and markings.	\$11,344,800
	L18	20120321 (801)	Design minor interior roadway network in the West Quadrant of the Airport.	\$926,494
	L19	20120321 (802)	Construct minor interior roadway network in the West Quadrant of the Airport.	\$11,540,877
	L20	20120324	Design and construct 3 new full turn entrances on W. Ajo Highway to access East Quadrant of the Airport.	\$1,009,238
	L21	20120325	Design and construct 2 new full turn entrances on W. Ajo Highway to access West Quadrant of the Airport.	\$672,825
	<b>Total Phase-IV (20+ Years, Post Planning Period) Development Program Project Costs</b>			<b>\$26,844,434</b>



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Source: Mead & Hunt



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**Table E-7: Phase-I (0 to 5 Years) Estimated Capital Costs and Funding Sources**

Project Title	Estimated Total Project Cost 2020 Dollars	AIP Non Primary Entitlements	AIP Discretionary	ADOT	Local
<b>Proposed FY 2021 to 2025 CIP Projects (0-5 Years)</b>					
Install (3) PAPIs to the approach to Runway 6L, 6R, and 24R. Project includes FAA flight check.	\$567,190	\$0	\$0	\$510,471	\$56,719
Phase 1 - Upgrade/replacement of Air Traffic Control Tower (ATCT) equipment. Work will include purchase or equipment, installation and training.	\$362,130	\$300,000	\$44,024	\$9,053	\$9,053
Phase 2 - Upgrade/replacement of Air Traffic Control Tower (ATCT) equipment. Work will include purchase or equipment, installation and training.	\$164,727	\$150,000	\$6,491	\$4,118	\$4,118
Conduct Environmental Assessment for the 800' extension of Runway 6R/24L with supporting taxiway connectors and taxiway F. Includes A2, A4, A5, B2, B4 and B5.	\$425,000	\$0	\$403,750	\$10,625	\$10,625
Loader with Attachments	\$246,577	\$0	\$0	\$0	\$246,577
2018 Cyclone CY 5500 (RYN)	\$140,000	\$0	\$0	\$0	\$140,000
B-11 Admin Building Upgrades	\$120,000	\$0	\$0	\$0	\$120,000
Ryan Maint. Bathroom and Water Heaters	\$85,000	\$0	\$0	\$0	\$85,000
Continental Road Pavement Maintenance	\$12,629	\$0	\$0	\$0	\$12,629
Herbicide Shed & Spill Containment	\$100,000	\$0	\$0	\$0	\$100,000
Install CCTV Cameras Throughout Ryan Airfield Complex	\$150,000	\$0	\$0	\$0	\$150,000
Extend RYN Sewer 1,700 feet along Aviator Lane. Includes connecting all tenants to sewer along Aviator Lane. Mill and overlay Aviator Lane (approximately 43,700 sf). Project includes pavement, markings, and restriping. Overall PCI is 50. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$455,780	\$0	\$432,991	\$11,394	\$11,394
Reconstruct Aviator Lane parking lot (approximately 12,750 sf) and Gate 3. Project includes pavement, markings, and restriping. Overall PCI is 33.	\$118,219	\$0	\$0	\$0	\$118,219
Extend main trunk of RYN Sewer west for 1,300 feet from Airfield Drive to Aviator Lane. Connect TAA administration building and restaurant to sewer line. Project also includes Reconstruct connector roadway between Aviator Lane and Airfield Drive (approximately 34,000 sf). Project includes pavement, markings, and restriping. Roadway is called C Road - 02 and overall PCI is 54. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$351,896	\$0	\$0	\$0	\$351,896
APMS- Taxiway A (TWARY 10) PCI 94 (2017)	\$28,624	\$0	\$0	\$25,762	\$2,862
Design access control at RYN	\$260,000	\$0	\$0	\$0	\$260,000
Construct access control at RYN	\$550,000	\$0	\$0	\$0	\$550,000
Replace airfield lighting control computers (3)	\$310,000	\$0	\$0	\$0	\$310,000
Extend RYN Sewer 1,400 feet along Airfield Drive. Includes connecting all tenants to sewer along Airfield Drive. Project includes a sealcoat of the entire length of Airfield Drive. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$240,235	\$0	\$0	\$0	\$240,235
Design a 4,000' asphalt mill and overlay for Runway 15/33. Project includes supporting taxiway connectors. ADOT PMMP RW1533RY-10 PCI 64 (2017).	\$220,200	\$0	\$209,190	\$5,505	\$5,505
Construct a 4,000' asphalt mill and overlay for Runway 15/33. Project includes supporting taxiway connectors.	\$2,750,000	\$300,000	\$2,312,500	\$68,750	\$68,750
Acquire 2.83 acres of land on the westside of the Airport.	\$54,183	\$0	\$51,474	\$1,355	\$1,355
Design Runway 6R/24L Extension Phase I - Extend Runway 6R/24L in asphalt by 800', Taxiway B by 800', and new Taxiway F. Relocate aircraft run-up areas, and the FAA glideslope 800' to the east. Project includes grading, drainage, utilities, lighting, and markings. Includes the design of the supporting taxiway systems and A2, A4, A5, B2, B4 and B5.	\$373,800	\$0	\$355,110	\$9,345	\$9,345
Conduct Air Traffic Control Tower (ATCT) siting study. Includes evaluating a using a remote tower option for RYN.	\$175,000	\$0	\$166,250	\$4,375	\$4,375
<b>Total Phase-I (0-5 Years) Development Program Project Costs</b>	<b>\$8,261,190</b>	<b>\$750,000</b>	<b>\$3,981,779</b>	<b>\$660,753</b>	<b>\$2,868,658</b>

**Table E-8: Phase-II (6 to 10 Years) Estimated Capital Costs and Funding Sources**

Project Title	Estimated Total Project Cost 2020 Dollars	AIP Non Primary Entitlements	AIP Discretionary	ADOT	Local
<b>Proposed FY 2026 to 2030 CIP Projects (6-10 Years)</b>					
Construct Runway 6R/24L Extension Phase I - Extend Runway 6R/24L in asphalt by 800', Taxiway B by 800', and new Taxiway F. Relocate aircraft run-up areas, and the FAA glideslope 800' to the east. Project includes grading, drainage, utilities, lighting, and markings. Includes the design of the supporting taxiway systems and A2, A4, A5, B2, B4 and B5.	\$4,720,000	\$300,000	\$4,184,000	\$118,000	\$118,000
Construct the relocation of Taxiway Connector B5 to the east by 100' and construct new B5 and A5 to the approach end of Runway 24R.	\$1,310,000	\$0	\$1,244,500	\$32,750	\$32,750
Construct the removal of Taxiway Connectors A2, A4, B2, and B4.	\$420,000	\$0	\$399,000	\$10,500	\$10,500
Conduct Instrument Approach Procedure Feasibility Study	\$450,000	\$0	\$0	\$0	\$450,000
Conduct new Airport Master Plan Study.	\$800,000	\$0	\$760,000	\$20,000	\$20,000
Conduct Environmental Assessment to acquire 39.5 acres.	\$200,000	\$0	\$190,000	\$5,000	\$5,000
Acquire 39.5 acres of land north of Runway 6L/24R, which is between two TAA parcels of land on the east and west.	\$761,653	\$0	\$0	\$685,488	\$76,165
Extend main trunk of RYN Sewer 5,300 feet east of Airfield Drive to boundary of east quadrant. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$802,821	\$0	\$0	\$0	\$802,821
Extend main trunk of RYN Sewer 9,000 feet west of Aviator Lane to boundary of west quadrant. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$1,341,565	\$0	\$0	\$0	\$1,341,565
Construct airside service road (approximately 3,400 sy) and parking in front of the wash rack and along the southern edge of the tower apron. Project includes pavement, markings, striping and signage.	\$236,960	\$0	\$225,112	\$5,924	\$5,924
Realign and relocate fence along northern perimeter road to match the northern property line of RYN.	\$590,000	\$0	\$560,500	\$14,750	\$14,750
Design a new asphalt helicopter parking apron capable of supporting eight new 100' x 80' parking positions north of the existing tower apron, south of Taxiway B, east of Taxiway D, and west of Taxiway B2.	\$125,000	\$0	\$118,750	\$3,125	\$3,125
Construct a new asphalt helicopter parking apron capable of supporting eight new 100' x 80' parking positions north of the existing tower apron, south of Taxiway B, east of Taxiway D, and west of Taxiway B2.	\$1,275,000	\$0	\$1,211,250	\$31,875	\$31,875
Conduct Environmental Assessment to relocate RYN Air Traffic Control Tower (ATCT)	\$250,000	\$0	\$237,500	\$6,250	\$6,250
Design the RYN Air Traffic Control Tower (ATCT) to increase the height of the cab or to use a remote tower.	\$2,450,000	\$0	\$2,327,500	\$61,250	\$61,250
Construct the RYN Air Traffic Control Tower (ATCT) to increase the height of the cab or to use a remote tower.	\$7,000,000	\$300,000	\$6,350,000	\$175,000	\$175,000
Acquire land (2.83 acres) for remaining Runway 6L approach RPZ	\$54,569	\$0	\$51,841	\$1,364	\$1,364
Design a new 2,000 sf building to support TAA Administration stationed at RYN. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$297,500	\$0	\$0	\$0	\$297,500
Construct a new 2,000 sf building to support TAA Administration stationed at RYN. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$850,000	\$0	\$0	\$0	\$850,000
Design a new 5,000', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the East Quadrant of the Airport.	\$127,885	\$0	\$120,596	\$0	\$7,289
Construct a new 5,000', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the East Quadrant of the Airport.	\$1,593,000	\$0	\$1,502,199	\$0	\$90,801
Design the minor interior roadway network in the East Quadrant of the Airport.	\$375,181	\$0	\$353,796	\$0	\$21,385
Construct the minor interior roadway network in the East Quadrant of the Airport.	\$4,673,447	\$0	\$4,407,061	\$0	\$266,386
Design and construct a full signalized intersection on W. Ajo Highway to access East Quadrant of the Airport.	\$435,978	\$0	\$411,127	\$0	\$24,851
<b>Total Phase-II (6-10 Years) Development Program Project Costs</b>	<b>\$31,140,559</b>	<b>\$600,000</b>	<b>\$17,859,953</b>	<b>\$7,966,054</b>	<b>\$4,714,553</b>

**Table E-9: Phase-III (11 to 20 Years) Estimated Capital Costs and Funding Sources**

Project Title	Estimated Total Project Cost 2020 Dollars	AIP Non Primary Entitlements	AIP Discretionary	ADOT	Local
<b>Proposed FY 2031 to 2040 CIP Projects (11-20 Years)</b>					
Connect south quadrant to sewer line. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$6,228	\$0	\$0	\$0	\$6,228
Connect north quadrant to sewer line. Establish a new TAA telecommunications conduit and pullboxes along the entire length of the sewer line.	\$763,583	\$0	\$0	\$0	\$763,583
Realign perimeter road along boundary of northern quadrant.	\$7,174,870	\$150,000	\$6,666,126	\$179,372	\$179,372
Conduct Environmental Assessment for the relocation of Runway 15/33 550' to the north. Includes all connecting taxiways and geometry.	\$425,000	\$0	\$403,750	\$10,625	\$10,625
Design the relocation of Runway 15/33 550' to the north, eliminating pavement on the south and new asphalt pavement to the north. Includes the design of taxiway D1, D2, and connecting taxiways D and E. Eliminate 185' of Taxiway Connector D1 to the approach end of Runway 33. Construct new segment of Taxiway D to connect to the approach end of Runway 15. Relocate the aircraft runup areas and compass rose.	\$247,700	\$0	\$235,315	\$6,193	\$6,193
Construct the relocation of Runway 15/33 550' to the north, eliminating pavement on the south and new asphalt pavement to the north. Eliminate 185' of Taxiway Connector D1 to the approach end of Runway 33. Construct new segment of Taxiway D to connect to the approach end of Runway 15. Relocate the aircraft runup areas and compass rose.	\$2,308,300	\$300,000	\$1,892,885	\$57,708	\$57,708
Construct the relocation of the D1 Taxiway connector north to connect Taxiway D, E to the new approach end of Runway 15/33. Remove two taxiway connectors east of Taxiway D providing access to the FAR Part 61 existing apron.	\$310,000	\$0	\$294,500	\$7,750	\$7,750
Construct the relocation of Taxiway D2 to the north by 185' connecting Taxiway D, E and Runway 15/33.	\$520,000	\$0	\$494,000	\$13,000	\$13,000
Construct New Apron at the end of Airfield Drive (44,700 SY)	\$4,800,000	\$150,000	\$4,410,000	\$120,000	\$120,000
Design a 5,500' asphalt mill and overlay for Runway 6R/24L. Project includes supporting taxiway connectors. ADOT PMMP RW6R24LR-10 PCI 77 (2017) and RW6R24LR-20 PCI 78 (2017).	\$250,000	\$0	\$237,500	\$6,250	\$6,250
Construct a 5,500' asphalt mill and overlay for Runway 6R/24L. Project includes supporting taxiway connectors.	\$2,750,000	\$300,000	\$2,312,500	\$68,750	\$68,750
Conduct Environmental Assessment new 4,900 asphalt taxiway parallel to Runway 6L/24R, including 4 new taxiway connectors and supporting taxiways.	\$350,000	\$150,000	\$182,500	\$8,750	\$8,750
Design a new 4,900' asphalt taxiway parallel to Runway 6L/24R, including 4 new taxiway connectors. Includes the design for the taxiway connector between Runway 6L/24R and Taxiway Alpha and the removal of 1,370' of asphalt on Taxiway A, west of Taxiway D to the Approach end of Runway 6L.	\$450,000	\$150,000	\$277,500	\$11,250	\$11,250
Construct a new 4,900' asphalt taxiway parallel to Runway 6L/24R, including 4 new taxiway connectors.	\$3,400,000	\$150,000	\$3,080,000	\$85,000	\$85,000
Construct a new asphalt taxiway connector between Runway 6L/24R and Taxiway Alpha.	\$1,500,000	\$150,000	\$1,275,000	\$37,500	\$37,500
Construct the removal of 1,370' of asphalt on Taxiway A west of Taxiway D to the Approach end of Runway 6L, including the aircraft runup apron bump out. Includes removal of taxiway lighting and associated infrastructure.	\$350,000	\$150,000	\$182,500	\$8,750	\$8,750
Design and replace two underground fuel storage tanks.	\$387,800	\$0	\$0	\$0	\$387,800
Design a new 7,700 sf joint-use fire-fighting station to support RYN and local emergencies. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$1,505,000	\$0	\$0	\$0	\$1,505,000
Construct a new 7,700 sf joint-use fire-fighting station to support RYN and local emergencies. Project includes grading, drainage, asphalt parking lot, access road, and associated utilities.	\$4,300,000	\$0	\$0	\$0	\$4,300,000
Design a new 8,997', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the West Quadrant of the Airport.	\$230,116	\$0	\$0	\$217,000	\$13,117
Construct a new 8,997', two lane, bi-directional asphalt frontage road parallel to W. Ajo Highway to provide access to the West Quadrant of the Airport.	\$2,866,443	\$0	\$0	\$2,703,056	\$163,387
Design and construct 3 full signalized intersection on W. Ajo Highway to access West Quadrant of the Airport.	\$1,307,933	\$0	\$0	\$1,233,380	\$74,552
<b>Total Phase-III (11-20 Years) Development Program Project Costs</b>	<b>\$36,202,973</b>	<b>\$1,650,000</b>	<b>\$21,944,076</b>	<b>\$4,774,333</b>	<b>\$7,834,564</b>



**Table E-10: Phase-IV (20+ Years) Estimated Capital Projects**

MP Project Number	Airport Project Number	Project Title	Estimated Total Project Cost 2020 Dollars
<b>Proposed CIP Projects Beyond FY 2040 (20+ Years)</b>			
A29	20120306 (801)	Design Runway 6R/24L Extension Phase II - Extend runway 6R/24L in asphalt by 1,997' and widen the entire runway by 25' to a full width of 100', Taxiway B by 1,997' with supporting connector taxiway. Relocate aircraft run-up areas, and the FAA glideslope 1,997' to the east. Project includes grading, drainage, utilities, lighting, and markings.	\$1,000,200
P9	20120305	Conduct Environmental Assessment for the 1,997' extension of Runway 6R/24L with supporting taxiway connectors.	\$350,000
A30	20120306 (802)	Construct Runway 6R/24L Extension Phase II - Extend runway 6R/24L in asphalt by 1,997' and widen the entire runway by 25' to a full width of 100', Taxiway B by 1,997' with supporting connector taxiway. Relocate aircraft run-up areas, and the FAA glideslope 1,997' to the east. Project includes grading, drainage, utilities, lighting, and markings.	\$11,344,800
L18	20120321 (801)	Design minor interior roadway network in the West Quadrant of the Airport.	\$926,494
L19	20120321 (802)	Construct minor interior roadway network in the West Quadrant of the Airport.	\$11,540,877
L20	20120324	Design and construct 3 new full turn entrances on W. Ajo Highway to access East Quadrant of the Airport.	\$1,009,238
L21	20120325	Design and construct 2 new full turn entrances on W. Ajo Highway to access West Quadrant of the Airport.	\$672,825
<b>Total Phase-IV (20+ Years, Post Planning Period) Development Program Project Costs</b>			<b>\$26,844,4346</b>

**Table E-11: Sources and Uses of Capital Funding**

Sources of Capital Funding	Phase-I (0 to 5 Years)	Phase-II (6 to 10 Years)	Phase-III (11 to 20 Years)	Total
FAA AIP Entitlements	\$ 750,000.00	\$ 600,000.00	\$ 1,650,000.00	\$ 3,000,000.00
FAA AIP Discretionary	\$ 3,981,779.04	\$ 17,859,952.64	\$ 21,944,076.27	\$ 43,785,807.94
ADOT Grants	\$ 660,753.10	\$ 7,966,053.81	\$ 4,774,332.77	\$ 13,401,139.68
Local	\$ 2,868,657.55	\$ 4,714,552.99	\$ 7,834,564.49	\$ 15,417,775.04
<b>Total Sources</b>	<b>\$ 8,261,189.69</b>	<b>\$ 31,140,559.44</b>	<b>\$ 36,202,973.53</b>	<b>\$ 75,604,722.66</b>
Uses of Capital Funding	Phase-I (0 to 5 Years)	Phase-II (6 to 10 Years)	Phase-III (11 to 20 Years)	Total
Runway/Taxiway Projects	\$ 3,939,814.00	\$ 6,450,000.00	\$ 12,086,000.00	\$ 22,475,814.00
Apron Projects	\$ 0.00	\$ 1,400,000	\$ 4,800,000.00	\$ 6,200,000.00
Access Roads/Parking	\$ 130,848.02	\$ 7,442,450.62	\$ 11,579,361.83	\$ 19,152,660.48
Utility Infrastructure	\$ 1,047,910.22	\$ 2,144,386.48	\$ 769,811.70	\$ 3,962,108.40
Building Improvements	\$ 305,000.00	\$ 1,147,500.00	\$ 5,805,000.00	\$ 7,257,500.00
ATCT Improvements	\$ 526,857.00	\$ 9,450,000.00	\$ 0.00	\$ 9,976,857.00
Land Acquisition	\$ 54,183.44	\$ 816,222.34	\$ 0.00	\$ 870,405.78
Planning/Environmental	\$ 600,000.00	\$ 1,700,000.00	\$ 775,000.00	\$ 3,075,000.00
Other Projects	\$ 1,656,577.00	\$ 590,000.00	\$ 387,800.00	\$ 2,634,377.00
<b>Total Uses</b>	<b>\$ 8,261,189.69</b>	<b>\$ 31,140,559.44</b>	<b>\$ 36,202,973.53</b>	<b>\$ 75,604,722.66</b>

Notes:

<sup>1</sup> The assumed AIP Discretionary funding is based on the FAA's funding criteria and priority system.

<sup>2</sup> Phase IV projects were not included in the analysis as they are beyond the 20-year planning period.

<sup>3</sup> Escalation is not included in any of the project phases.

## AIRPORT CAPITAL IMPROVEMENT PROGRAM – PROJECT FUNDING

The CIP sources and uses by project type, associated with projects listed in **Tables E-7** through **E-9**, are summarized in **Table E-11**. The largest funding sources are AIP grants, which are estimated to fund 62 percent of the total capital improvement program costs (18 percent from ADOT grants, 20 percent from TAA local funds). The largest uses of CIP funding are estimated for runway and taxiway projects (30 percent), access roads and parking (25 percent), building improvements (10 percent), ATCT improvements (13 percent), apron projects (8 percent), utilities (5 percent), land acquisition (1 percent), planning and environmental (4 percent), and other projects (4 percent).

## ENVIRONMENTAL CONSIDERATIONS

The Master Plan process included an initial environmental overview of the potential impacts to be considered prior to construction of the Airport improvements identified by the recommended plan. The FAA's Airport Environmental Handbook identifies 20 impact categories. Of these environmental impact categories, analysis indicated that 14 proposed projects could require further environmental study based on the proposed conceptual development plan and the initial environmental review undertaken including:

- ▶ Land acquisition
- ▶ Extending RYN's sewer line to serve future tenants
- ▶ Relocation of the existing ATCT
- ▶ Phase I of the primary runway extension
- ▶ Relocation of the waste transfer facility
- ▶ Relocation of Runway 15/33
- ▶ Vehicle access roads to support aeronautical and non-aeronautical activity
- ▶ Widening and lengthening of Runway 6R/24L to accommodate a new critical aircraft.

As projects are undertaken, each will be subject to compliance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and the guidelines provided in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (Order 1050.1F) (effective July 16, 2015) for necessary documentation required by the FAA prior to initiation.

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