Concord-Padgett Regional Airport (JQF)

December 3, 2019

Aviation Forecast Summary

	2017 (Existing)		2018		2023		2028		2038	
	Forecast	TAF	Forecast	TAF	Forecast	TAF	Forecast	TAF	Forecast	TAF
Enplanements and Average Annual Growth Rate										
Air Carrier Enplanements	115,074	36,866	117,491	37,634	130,356	41,724	144,631	46,256	178,040	56,858
(% Difference from TAF)	**(212.1%)**		**(212.2%)**		**(212.4%)**		**(212.7%)**		**(213.1%)**	
Based Aircraft and Average Annual Growth Rate										
Single-Engine Piston	107		107		108		108		107	
Multi-Engine Piston	15		15		16		16		17	
Turboprop	8		8		9		9		11	
Jets	23		24		26		30		37	
Helicopters	5		5		5		6		7	
Total Based Aircraft	**158**	**169**	**159**	**171**	**164**	**185**	**169**	**195**	**179**	**215**
			(0.6%)		**(0.6%)**		**(0.6%)**		**(0.6%)**	
(% Difference from TAF)	**(-6.5%)**		**(-7.0%)**		**(-11.4%)**		**(-13.3%)**		**(-16.7%)**	
Aircraft Operations and Average Annual Growth Rate										
GA Local	21,844	19,902	21,975	20,200	22,642	21,761	23,329	23,441	24,767	27,203
GA Itinerant	31,205	32,484	31,392	32,517	32,345	32,682	33,328	32,847	35,382	33,177
Air Carrier	2,496	1,979	2,511	2,006	2,588	2,147	2,666	2,299	2,831	2,636
Air Taxi	6,179	6,551	6,216	6,643	6,404	7,112	6,599	7,610	7,006	8,720
Military	686	833	691	833	712	833	734	833	779	833
Total Operations	**62,410**	**68,623**	**62,785**	**74,065**	**64,691**	**76,766**	**66,655**	**79,662**	**70,764**	**86,116**
			(0.6%)		**(0.6%)**		**(0.6%)**		**(0.6%)**	
(% Difference from TAF)	**(-9.1%)**		**(-15.2%)**		**(-15.7%)**		**(-16.3%)**		**(-17.8%)**	
Operations per Based Aircraft	395	406	395	433	395	414	394	409	395	401

FAA Forecast Approval

U.S. Department of Transportation
Federal Aviation Administration

Memphis Airports District Office
2600 Thousand Oaks Blvd., Suite 2250
Memphis, TN 38118

Phone: 901-322-8180

March 1, 2018

Mr. Dirk Vanderleest
Concord Regional Airport
Aviation Director
9000 Aviation Boulevard
Concord, NC 28027

Chapter 3 – Aviation Forecast Review
AIP Project No. 3-37-0015-003-2017
Airport Master Plan Update
Concord Regional Airport (JQF)

Dear Mr. Vanderleest:

We have reviewed the revised draft copy of the Chapter 3 Aviation Forecasts transmitted to us on January 18, 2018. All comments regarding the range of forecast growth have been addressed. We have no other comments in reference to this submittal. We, thererfore, find the subject forecast approved for use.

Should you have any questions, please contact me at (901) 322-8187 or by email at Leonard.Green@faa.gov.

Sincerely,

L. Bernard Green, CM, AICP
Airport Planner, Memphis Airports District Office

cc: Judy Elder, Talbert & Bright

Enclosure

Concord-Padgett REGIONAL AIRPORT
JQF-USA

Airfield Design Standards

Runway Design Factors	Existing	Future (RDC D-III) Precision Approach Requirements
Runway Width	100'	150'
Runway Safety Area (RSA): RSA width RSA length beyond runway end	 500' 1,000' (600' RWY 20)	 500' 1,000' (600' EMAS)
Object Free Area (OFA): OFA width OFA length beyond runway end (Precision OFA)	 800' 1,000'	 800' 1,000'
Building Restriction Line (BRL)	800' from centerline	800' from centerline
Taxiway width	50'	50'
Runway to taxiway distance Runway to parking distance Taxiway to parking distance	400' 500' 100'	400' 500' 100'

Storage Requirements

Based Aircraft Storage Ratios

Aircraft Types	Apron Tie-Downs	T-Hangars	Conventional Hangars
Single-Engine	26%	49%	25%
Multi-Engine	20%	60%	20%
Turboprop	0%	0%	100%
Jet	12%	0%	88%
Rotorcraft	0%	0%	100%

Conventional Hangar Requirements

* Single-Engine – 1,000 square feet
* Multi-Engine – 3,000 square feet
* Turboprop – 6,000 square feet
* Jet – 8,000 square feet
* Helicopter – 4,000 square feet

Apron Requirements

* Single-Engine – 1,000 square yards
* Multi-Engine – 2,000 square yards
* Turboprop – 3,000 square yards
* Jet – 4,000 square yards
* Helicopter – 4,000 square yards

Concord-Padgett REGIONAL AIRPORT

Based Aircraft Storage Requirements

Conventional Hangar

Aircraft Types	2017	2023	2028	2038
Single-Engine	27,000	27,000	27,000	27,000
Multi-Engine	9,000	9,000	9,000	9,000
Turboprop	48,000	54,000	54,000	66,000
Jet	160,000	184,000	208,000	264,000
Rotorcraft	20,000	24,000	24,000	28,000
Total Conventional Hangar Space	**264,000**	**298,000**	**322,000**	**394,000**

Apron

Aircraft Types	2017	2023	2028	2038
Single Engine Piston	28,000	28,000	28,000	28,000
Multi Engine Piston	6,000	6,000	6,000	8,000
Turboprop	0	0	0	0
Business Jet	12,000	12,000	16,000	20,000
Rotorcraft	0	0	0	0
Total Apron Area	**46,000**	**46,000**	**50,000**	**56,000**

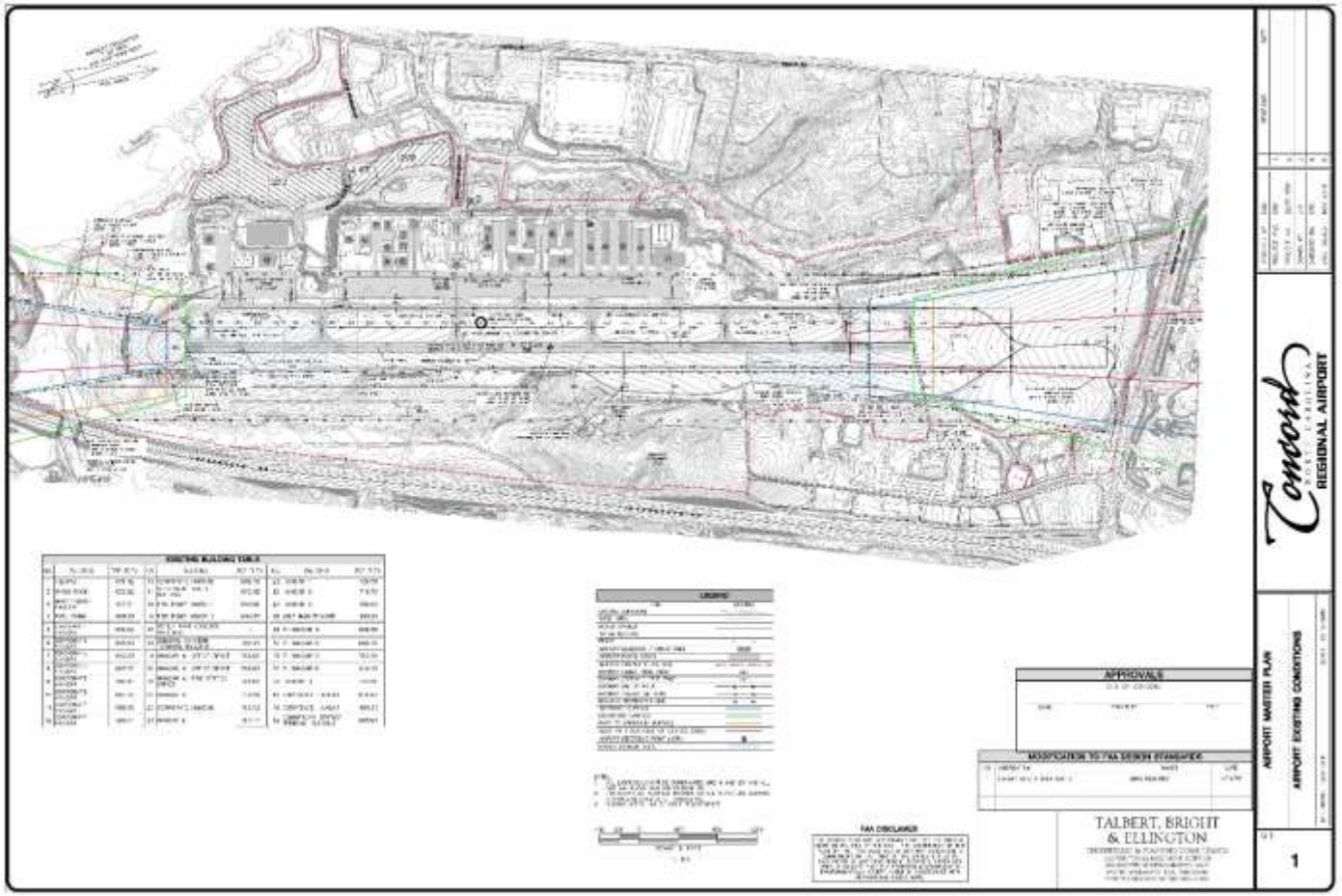
Transient Aircraft Storage Requirements

Year	Apron Area (Square Yards)	Conventional Hangars (Square Feet)
2017	217,700	101,800
2023	224,800	105,100
2028	231,900	108,400
2038	246,000	115,000

Facility Requirements

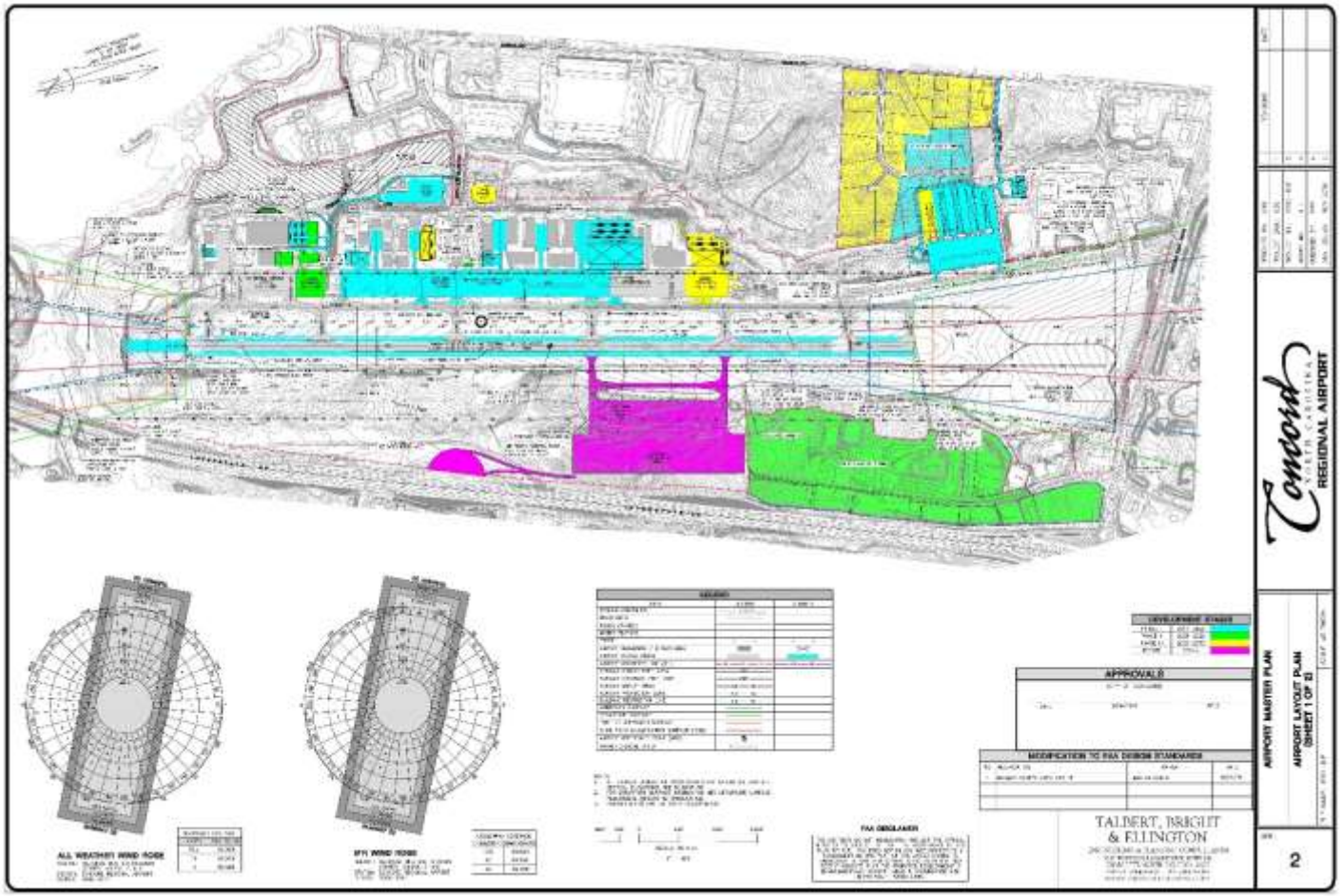
Facility	Current Capacity	Existing	Phase 1 (2018-2023)	Phase 2 (2024-2028)	Phase 3 (2029-2038)
Runway		7,400' x 100'	7,400' x 150'	7,400' x 150'	7,400' x 150'
Taxiway		Full-Parallel	Full-Parallel	Full-Parallel	Full-Parallel
T-Hangar Units	67	62	63	63	63
Conventional Hangar (sf)	399,637 sf	365,800 sf	403,100 sf	430,400 sf	509,000 sf
Excess		**+33,837 sf**			
Total Apron Area (sy)	178,953 sy	263,700 sy	270,800 sy	281,900 sy	302,000 sy
Deficiency		**-84,747 sy**			
Automobile Parking Spaces		1,513	1,513	1,713	2,213
Commercial Service Terminal (sf)		25,000 sf	35,182 sf	37,123 sf	43,327 sf
General Aviation Terminal (sf)		12,618 sf	20,086 sf	21,027 sf	22,215 sf

Existing Conditions



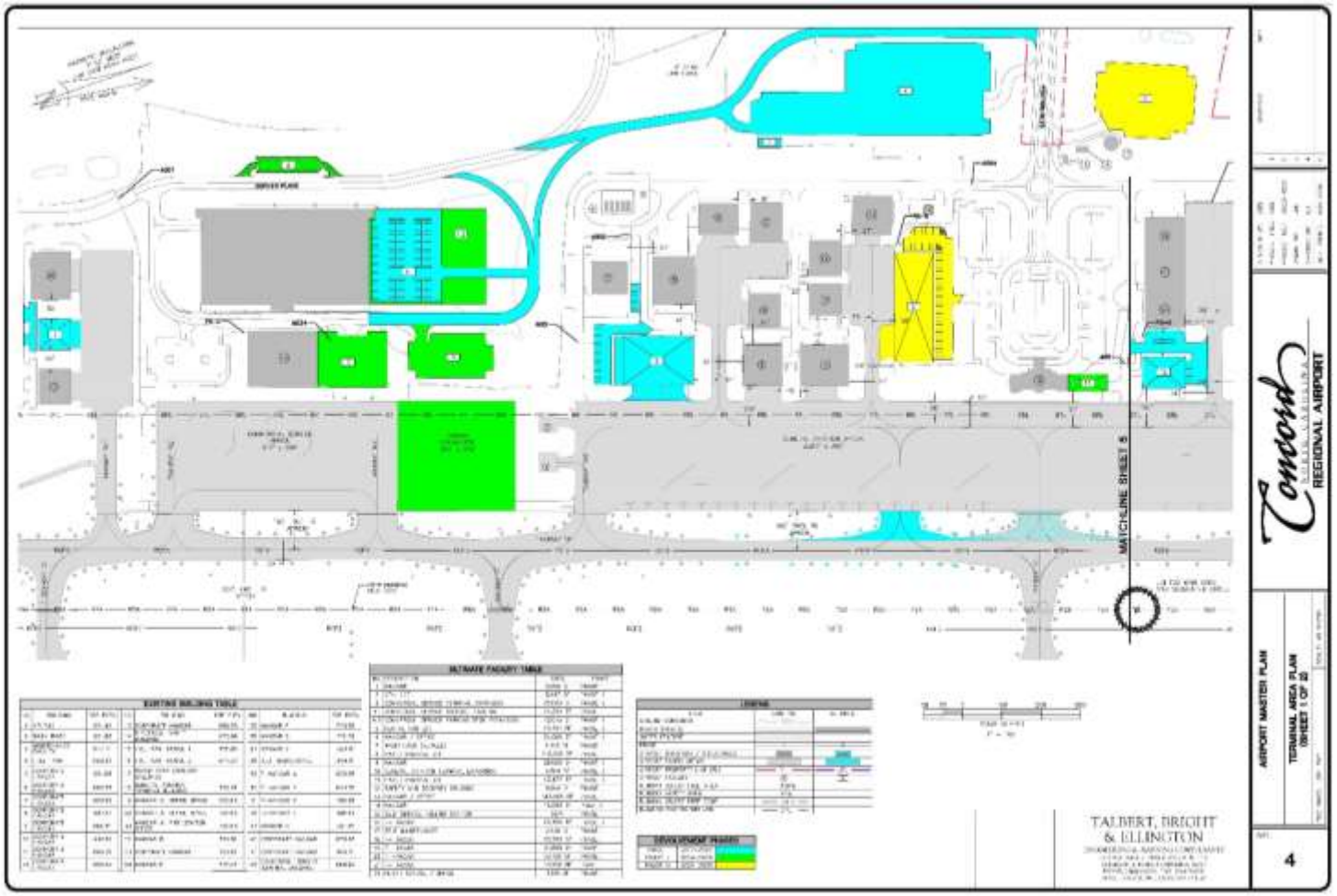
Concord-Padgett REGIONAL AIRPORT

Airport Layout Plan



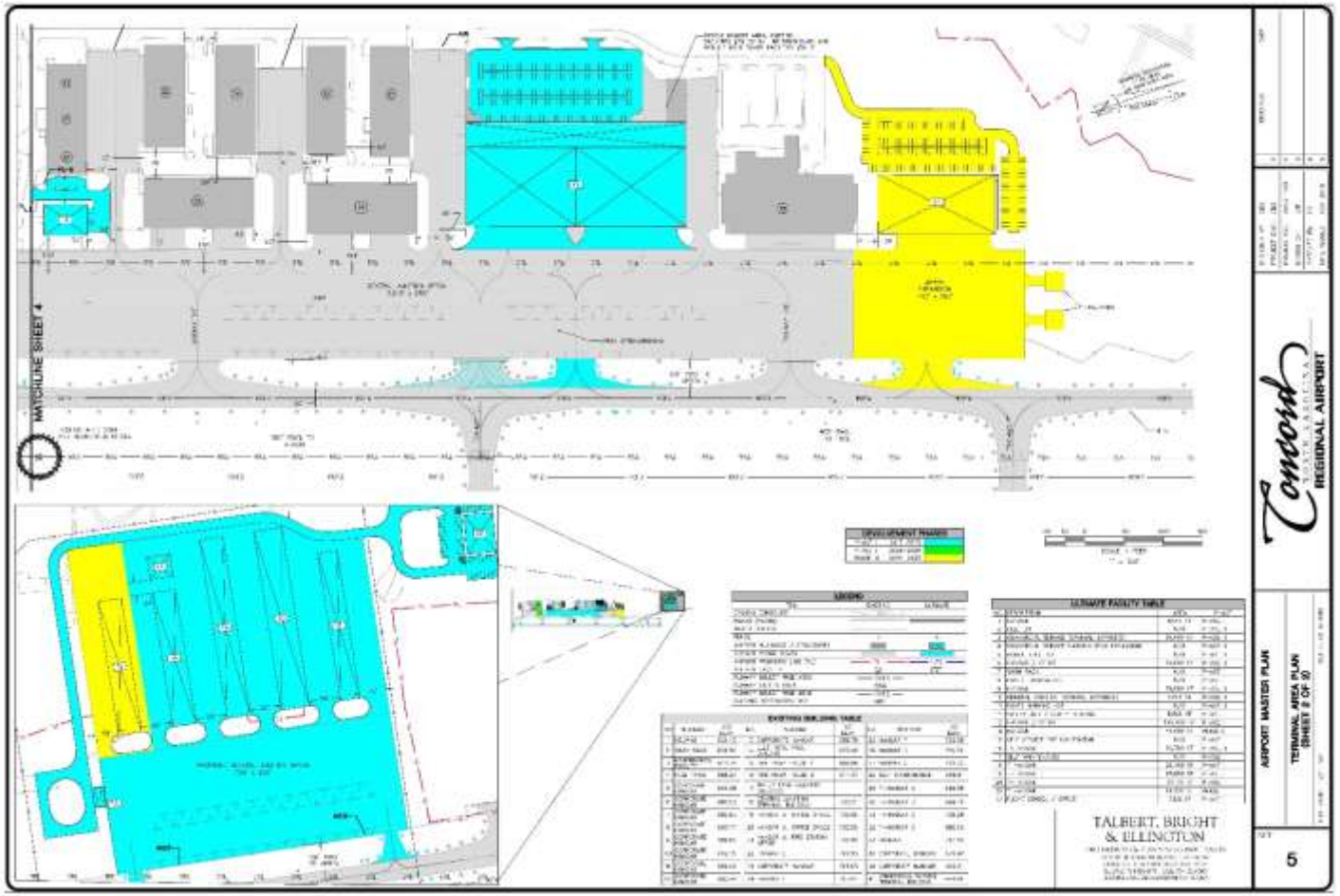
Concord-Padgett
REGIONAL AIRPORT
JQF-USA

Terminal Area Plan



Concord-Padgett REGIONAL AIRPORT

Terminal Area Plan



Concord-Padgett REGIONAL AIRPORT

Preliminary Engineer's Opinion of Probable Cost

Phase	Project	Estimated Cost	Federal	Local
I	Runway Widening (25' Each Side)	$10,984,600	$9,886,140	$1,098,460
I	Runway Shoulder (25' Each Side)	$8,976,000	$8,078,400	$897,600
I	Apron Strengthening	$5,522,000	$4,969,800	$552,200
I	Taxilane Rehabilitation	$2,561,000	$2,304,900	$256,100
I	Runway 02 EMAS	$5,417,000	$4,875,300	$541,700
I	Hangar 1	$2,594,000	$0	$2,594,000
I	Hangar 4	$7,471,920	$0	$7,471,920
I	Hangar 13	$42,613,640	$0	$42,613,640
I	Fire Station - Security Center Building	$4,543,570	$4,089,213	$454,357
I	Air Traffic Control Tower	$3,402,000	$3,061,800	$340,200
I	Land Acquisition Phase 1	$1,955,374	$1,759,837	$195,537
I	T-Hangars - North	$39,503,330	$9,883,370	$29,619,960
	SUBTOTAL	**$135,544,434**	**$48,908,760**	**$86,635,674**
II	South Apron Expansion	$6,942,000	$6,247,800	$694,200
II	Commercial Service Terminal Expansion	$10,377,000	$9,339,300	$1,037,700
II	Parking Deck Expansion	$12,599,000	$0	$12,599,000
II	General Aviation Terminal Expansion	$5,095,000	$4,585,500	$509,500
II	Rental Car Parking Lot Pavement	$1,431,000	$0	$1,431,000
II	Cell Phone Parking Lot	$286,000	$257,400	$28,600
II	Rental Car Wash Rack	$669,000	$602,100	$66,900
II	Commercial Service Terminal Access Road	$3,268,000	$2,941,200	$326,800
II	Pave South Gravel Lot	$941,000	$0	$941,000
II	Land Acquisition Phase 2	$7,369,949	$6,632,954	$736,995
	SUBTOTAL	**$48,977,949**	**$30,606,254**	**$18,371,695**
III	Hangar 9	$8,040,900	$0	$8,040,900
III	Hangar 14 and North Apron Expansion	$20,037,550	$3,599,940	$16,437,610
III	Hangar 16	$3,711,310	$0	$3,711,310
III	Pave North Gravel Lot	$428,000	$0	$428,000
III	Helipads	$405,000	$364,500	$40,500
III	Land Acquisition Phase 3	$6,962,500	$6,266,250	$696,250
	SUBTOTAL	**$39,585,260**	**$10,230,690**	**$29,354,570**
	TOTAL 20-YEAR PROGRAM	**$224,107,643**	**$89,745,704**	**$134,361,939**

Concord-Padgett REGIONAL AIRPORT

TALBERT, BRIGHT & ELLINGTON

Passenger Facility Charge (PFC) Eligible Projects

Phase	Project	Estimated Cost	Federal	Local
I	Runway Widening (25' Each Side)	$10,984,600	$9,886,140	$1,098,460
I	Runway Shoulder (25' Each Side)	$8,976,000	$8,078,400	$897,600
I	Runway 02 EMAS	$5,417,000	$4,875,300	$541,700
I	Fire Station - Security Center Building	$4,543,570	$4,089,213	$454,357
	SUBTOTAL	**$29,921,170**	**$26,929,053**	**$2,992,117**
II	South Apron Expansion	$6,942,000	$6,247,800	$694,200
II	Commercial Service Terminal Expansion	$10,377,000	$9,339,300	$1,037,700
II	Parking Deck Expansion	$12,599,000	$0	$12,599,000
II	Rental Car Parking Lot Pavement	$1,431,000	$0	$1,431,000
II	Cell Phone Parking Lot	$286,000	$257,400	$28,600
II	Rental Car Wash Rack	$669,000	$602,100	$66,900
II	Commercial Service Terminal Access Road	$3,268,000	$2,941,200	$326,800
II	Pave South Gravel Lot	$941,000	$0	$941,000
	SUBTOTAL	**$36,513,000**	**$19,387,800**	**$17,125,200**
	TOTAL	**$66,434,170**	**$46,316,853**	**$20,117,317**
Projects eligible for PFCs are driven by commercial service operations.				

Concord-Padgett REGIONAL AIRPORT

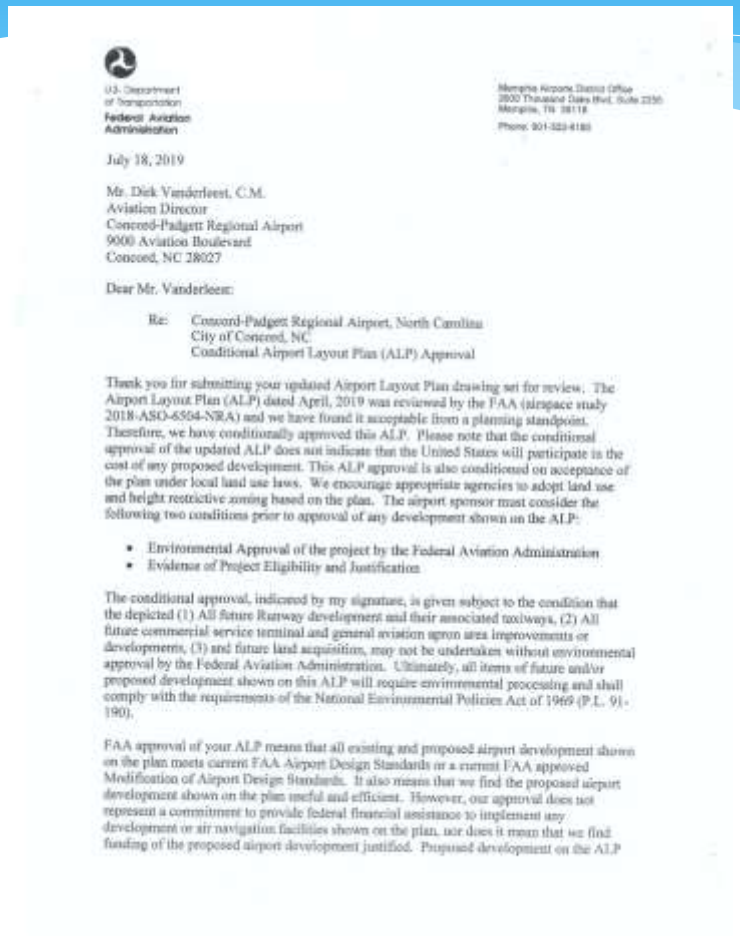
Derita Road Area Land Acquisition

Parcel #	Acreage	Estimated Acquisition Cost (2018 $)
Phase I (2018-2023)		
02-030a-0012.00	2.94 Ac	$ 300,183
02-030a-0011.00	4.52 Ac	$ 271,375
02-030a-0005.00	2.02 Ac	$ 202,982
02-030a-0006.00	2.12 Ac	$ 277,173
02-030a-0013.00	3.675 Ac	$ 330,135
02-030a-0004.00	2.28 Ac	$ 271,726
	Land Acquisition	**$ 1,653,574.00**
	Appraisals, Review Appraisals, Plat Surveys, Land Acquisition Assistance and Contingency (10%)	**$ 301,800.00**
	Phase I Land Acquisition Total	**$ 1,955,374.00**
Phase III (2028-2033)		
02-030a-0001.00	2.57 Ac	$ 275,821
02-002 -0030.50	3.05 Ac	$ 402,805
02-030a-0002.00	2.13 Ac	$ 189,800
02-030a-0018.00	2.28 Ac	$ 195,533
02-002 -0030.11	0.94 Ac	$ 45,760
02-030a-0015.00	5.29 Ac	$ 323,440
02-030a-0017.00	2.42 Ac	$ 239,590
02-030a-0014.00	3.4 Ac	$ 304,668
02-030a-0016.00	2.55 Ac	$ 296,881
02-002 -0030.60	1 Ac	$ 239,187
02-002 -0030.00	0.76 Ac	$ 37,440
02-030a-0003.10	1.14 Ac	$ 243,854
02-030a-0003.00	1.21 Ac	$ 242,905
02-002 -0030.70	1.12 Ac	$ 144,599
02-030a-0019.00	4.135 Ac	$ 112,320
02-030a-0021.00	0.93 Ac	$ 49,920
02-002 -0030.80	1 Ac	$ 1,095,614
02-002 -0030.30	1.128 Ac	$ 1,403,935
02-002 -0030.40	0.848 Ac	$ 142,428
02-030 -0040.00	1 Lt	$ 41,600
	Land Acquisition	**$ 6,028,100.00**
	Appraisals, Review Appraisals, Plat Surveys, Land Acquisition Assistance and Contingency (10%)	**$ 934,400.00**
	Phase III Land Acquisition Total	**$ 6,962,500.00**

Concord-Padgett REGIONAL AIRPORT

TALBERT, BRIGHT & ELLINGTON

FAA ALP Conditional Approval



U.S. Department of Transportation
Federal Aviation Administration

Memphis Airports District Office
2600 Thousand Oaks Blvd, Suite 2250
Memphis, TN 38118
Phone: 901-322-8180

July 18, 2019

Mr. Dirk Vanderleest, C.M.
Aviation Director
Concord-Padgett Regional Airport
9000 Aviation Boulevard
Concord, NC 28027

Dear Mr. Vanderleest:

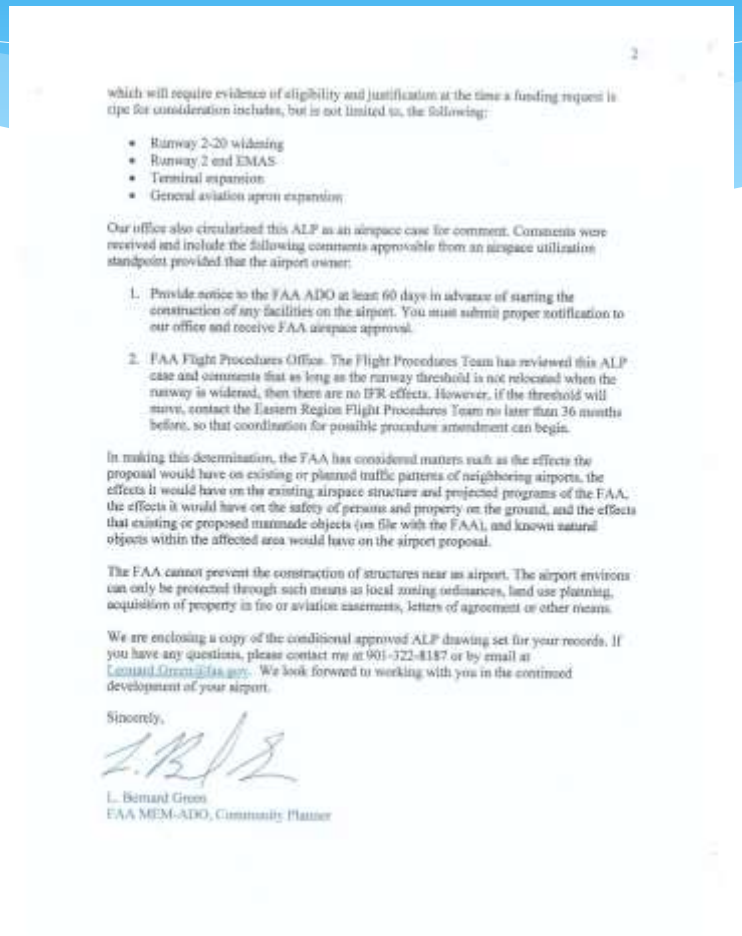
Re: Concord-Padgett Regional Airport, North Carolina
City of Concord, NC
Conditional Airport Layout Plan (ALP) Approval

Thank you for submitting your updated Airport Layout Plan drawing set for review. The Airport Layout Plan (ALP) dated April, 2019 was reviewed by the FAA (airspace study 2018-ASO-6504-NRA) and we have found it acceptable from a planning standpoint. Therefore, we have conditionally approved this ALP. Please note that the conditional approval of the updated ALP does not indicate that the United States will participate in the cost of any proposed development. This ALP approval is also conditioned on acceptance of the plan under local land use laws. We encourage appropriate agencies to adopt land use and height restrictive zoning based on the plan. The airport sponsor must consider the following two conditions prior to approval of any development shown on the ALP:

- Environmental Approval of the project by the Federal Aviation Administration
- Evidence of Project Eligibility and Justification

The conditional approval, indicated by my signature, is given subject to the condition that the depicted (1) All future Runway development and their associated taxiways, (2) All future commercial service terminal and general aviation apron area improvements or developments, (3) and future land acquisition, may not be undertaken without environmental approval by the Federal Aviation Administration. Ultimately, all items of future and/or proposed development shown on this ALP will require environmental processing and shall comply with the requirements of the National Environmental Policies Act of 1969 (P.L. 91-190).

FAA approval of your ALP means that all existing and proposed airport development shown on the plan meets current FAA Airport Design Standards or a current FAA approved Modification of Airport Design Standards. It also means that we find the proposed airport development shown on the plan useful and efficient. However, our approval does not represent a commitment to provide federal financial assistance to implement any development or air navigation facilities shown on the plan, nor does it mean that we find funding of the proposed airport development justified. Proposed development on the ALP



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which will require evidence of eligibility and justification at the time a funding request is ripe for consideration includes, but is not limited to, the following:

- Runway 2-20 widening
- Runway 2 end EMAS
- Terminal expansion
- General aviation apron expansion

Our office also circularized this ALP as an airspace case for comment. Comments were received and include the following comments approvable from an airspace utilization standpoint provided that the airport owner:

1. Provide notice to the FAA ADO at least 60 days in advance of starting the construction of any facilities on the airport. You must submit proper notification to our office and receive FAA airspace approval.

2. FAA Flight Procedures Office. The Flight Procedures Team has reviewed this ALP case and comments that as long as the runway threshold is not relocated when the runway is widened, then there are no IFR effects. However, if the threshold will move, contact the Eastern Region Flight Procedures Team no later than 36 months before, so that coordination for possible procedure amendment can begin.

In making this determination, the FAA has considered matters such as the effects the proposal would have on existing or planned traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, the effects it would have on the safety of persons and property on the ground, and the effects that existing or proposed manmade objects (on file with the FAA), and known natural objects within the affected area would have on the airport proposal.

The FAA cannot prevent the construction of structures near an airport. The airport environs can only be protected through such means as local zoning ordinances, land use planning, acquisition of property in fee or aviation easements, letters of agreement or other means.

We are enclosing a copy of the conditional approved ALP drawing set for your records. If you have any questions, please contact me at 901-322-8187 or by email at Leonard.Green@faa.gov. We look forward to working with you in the continued development of your airport.

Sincerely,

L. Bernard Green
FAA MEM-ADO, Community Planner

Concord-Padgett REGIONAL AIRPORT

TALBERT, BRIGHT & ELLINGTON