

March 23, 2016

What is the Goal of this Project?

- Consider solutions to resolving our long standing demand for Executive Box Hangar.
- Hear analysis on leasing land vs. District construction and management of Hangars.
- Hear analysis on operational impacts
- Give direction to staff.



Three Options to Consider

- 1. Do Nothing
- 2. Lease Land For Hangar Development
- 3. TTAD Develops Hangars and Rents to End-User.

Study does not advocate a position



PRESENTATION OF EXECUTIVE HANGAR FINANCIAL STUDY

- Market Assessment
 - Operational Impact
- Cost Estimation
- Pro Forma Projections
- Risk Assessment and Mitigation
- Appendices
 - Pro Forma and Cost Details





<u>Market Assessment</u> <u>Wait List</u>

14 aircraft with wingspans >50 feet

Not able to fit in any of the existing T-hangars



Aircraft Type	Aircraft Model	A/C Dim. WS/Lth/Ht
Single Engine Piston	Beech Bonanza Sierra (G02 preference)	33'/26'/9'
Multi Engine Piston	C-310 / G02 would be preference	37'/32'/14'
Multi Engine Piston	Aero Commander 500B	50'/37'/15'
Single Engine Turboprop	PA 46 Meridian, needs min. 47' door width	43'/30'/12'
Single Engine Turboprop	PC12	54'/48'/14'
Single Engine Turboprop	Epic E1000	43'/36'/13'
Single Engine Turboprop	Piper Meridian PA-46	43'/30'/12'
Single Engine Turboprop	Pilatus PC-12 / wants minimum 60' wide	54'/48'/14'
Multi Engine Turboprop	C421-C 1980	41'1/2"
Multi Engine Turboprop	King Air 350	58'/47'/15'
Jet	Phenom 300	53'/52'/17'
Jet	Falcon 7X / needs 100'x100' hangar	86'/77'/26'
Jet	future CJ-3 multiple planes	54'/51'/16'
Jet	PC 24	56'/55'/18'
Jet	PC 24	56'/55'/18'
Single Engine Piston	Cub J3 & Mooney/wants to park both in 1 hgr	varies
Single Engine Turboprop	Pilatus PC-12 / same size, not on end of row	54'/48'/14'
Single Engine Turboprop	Pilatus PC-12 / has 2 T hgrs also waiting for exec	54'/48'/14'
Single Engine Turboprop	TBM 8, 366JM, sharing F-20	42'/35'/15'
Single Engine Turboprop	Upsizing to a TBM or Meridian, open to sh	42'/35'/15'
Multi Engine Turboprop	King Air 90 wants to upgrade to a 200	51'/
Multi Engine Turboprop	C-421 & a Light Sport Vulcanair	42'/37'/12'
Multi Engine Turboprop	C425 Corsair	45'/36'/14'
Multi Engine Turboprop	King Air 90 / shrs w/ H-02	51'/36'/15'
Jet	Citation Jet CJ4 / currently sharing LO4	52'/53'/16'
Helicopter	upgrading to Eurocopter 4 bladed	43'/47'/15'
	to be used as a gang hangar for multiple aircraft	

Operational Impact Analysis

- Existing tenants move from T-hangars or shared executive hangars to new executive hangars.
- New TRK tenants, but existing users, occupy the new executive hangars
- New executive hangars filled by a combination of existing and new tenants.



Operational Impact Analysis

- An increase in based aircraft is in line with projections in the 2014 AMP.
- The AMP assumed full capacity for the existing T-hangars.
- The ALP shows an additional 24 executive hangars.



OPERATIONAL IMPACT ANALYSIS

Wait List Survey: New Tenants

- 7 responses out of 15
- All operate at TRK today most 4-6 ops/month
- 6 of the 7 state they would operate same amount as today with Executive Hangar.
- 2 respondents use charter service today and/or reposition if needed.



OPERATIONAL IMPACT ANALYSIS

Wait List Survey: Existing Tenants (Transfers)

- 6 responses out of 13
- 5 of the 6 state they would operate same amount as today with Executive Hangar.
- Looking for 'nicer' hangar
- Size ranges from 50' to 70' doors



SITE SELECTION : SITE 1



SITE SELECTION : SITE 2

AIRPORT



Cost Estimation: Specifications

- Bi-fold doors 65 feet wide, 20 feet tall.
- 6" thick concrete slab foundation.
- Hangar is approximately 62 feet deep, from door to back wall.
- Pre-engineered metal hangar building with 130 pound per square foot roof snow load, 80 miles per hour Exposure B wind load and Seismic Zone 3 design.
- Single community bathroom for the row at one end.
- Separate electrical meter 220 volt / 40 amp needed for each hangar
- Fire suppression: sprinkler system required.



Cost Estimation:

- Prep: \$330k \$400k
- Construction: \$1.8m
- Second Construction Estimate: \$1.7m

• Assumes many variables!



Lease versus Build Options

- 1. Do Nothing
- 2. Lease Land For Third-Party (End-User) Hangar Development
- 3. TTAD Develops Hangars and Leases (to End-User)



Pro Forma Process

- 30 year analysis
- Revenue basis
 - -Current vs. market
 - Adjustments
 - -Vacancy



Pro Forma Process

- Expense basis
 Direct vs. Indirect
- Financial performance
 - Cash Flow Analysis
 - Return on Investment
 - Internal Rate of Return
 - Net Present Value
 - Discounted Cash Flow



Summary of Pro Forma Findings

TABLE A: Pro Forma Summary							
Scenario	Lease Rate Principle	Initial Investment	Lease Rate (2016) per square foot per year	Investment NPV	Full Table (Appendix B)		
TTAD Build Hangars	Current Rate	\$2,320,250	\$5.172	\$923,522	Table 15		
TTAD Builds Hangars	Cost Recovery	\$2,320,250	\$3.999	-\$3,985	Table 16		
TTAD Prepares Site	Market Rate	\$424,950	\$0.550	-\$288,555	Table 17		
TTAD Prepares Site	Cost Recovery	\$424,950	\$0.947	\$2,028	Table 18		



Risk Assessment and Mitigation

- Monte Carlo Simulation
- Net Present Value

TABLE 14: Monte Carlo Simulation Results

Net Present Value		
-\$392,126		
-\$90,769		
-\$36,717		
\$3,751		
\$33,322		
\$65,415		
\$96,246		
\$125,457		
\$163,542		
\$214,033		
\$469,833		

Note: Net present value uses discount rate of 1 percent. Occupancy varies between 50 and 100 percent in simulation.



Staff Recommendations and Findings

- Agree with option for TTAD to Build and Manage Hangars.
- Board my want to consider Revenue Bonds to finance a portion of construction.
- Staff agrees with the Operational Impact Analysis in Report.
- The District will have greater control and leverage of hangars if we build and maintain.
- Staff recommends Site 2.



Next Steps

- Do Nothing.
- Continue to future meeting pending additional analysis
- Lease property for private construction
- TTAD Build Hangars
- Approve funds to begin design and engineering on project.







THANK YOU