



Aeronautics Division
Tennessee Department of Transportation

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Executive Summary

TDOT Aeronautics Division Hangar and Land Lease Guidebook

Tennessee's airports are as diverse as the State itself, providing numerous services and crucial access to areas across Tennessee. The Tennessee aviation system facilitates thousands of operations per year, bringing visitors to the State, bolstering business activity, and supporting the transport of goods and services. Tennessee's airports are also home to thousands of based aircraft, which support air travel for the State's residents and visitors. Ninety-five percent of Tennessee's airports provide publicly available hangars that are rented on a recurring monthly basis. Meanwhile, 69% of Tennessee's airports report that they offer land leases, with private hangar ground leases being the most common.

Hangar rentals and land leases are not isolated financial transactions; they are part of a broader ecosystem within an airport. By setting fair market hangar and land lease rates, airport authorities can help balance multiple airport interests, including compliance with federal regulations, revenue generation, economic development, land use

decisions, and airport infrastructure. The Tennessee Department of Transportation (TDOT) Aeronautics Division recognizes that hangars and airport lands are important revenue-generating areas for airports.

In addition, airport sponsors that accept federal grants must also abide by Federal Aviation Administration (FAA) Grant assurances that apply to the rates and charges for the use and lease of hangars and airport lands.

In order to enhance airport financial self-sustainability across the State, TDOT Aeronautics Division has developed a web-based Hangar and Land Lease Module. This Module, when used as directed in this Executive Summary, will provide users with a fair market rent value for hangars and private hangar land leases at their airport. The companion Module Guidebook also equips airport sponsors with the necessary resources and tools to set appropriate rates for public-use aircraft hangars, manage tenant lease agreements, as well as to effectively manage aircraft hangar waitlists across the State.

Fair Market Value

Definition of Fair Market Value

FAA Compliance Guidance Letter 2018-3, *Appraisal Standards for the Sale and Disposal of Federally Obligated Airport Property*, defines fair market value as follows:

*“The **highest price** estimated in terms of money that a property will bring if exposed for sale in the open market allowing a reasonable time to find a purchaser or tenant who buys or rents with knowledge of all the uses to which it is adapted and for which it is capable of being used. It is also frequently referred to as the price at which a willing seller would sell and a willing buyer buy, neither being under abnormal pressure. FMV [fair market value] will fluctuate based on the economic conditions of the area.”*

TDOT Aeronautics Division has designed the Hangar and Land Lease Module to produce results which constitute fair market value for the selected hangar. Airports are highly encouraged to use the Module to ensure their hangar and land rents are within the range of fair market value.

The Module is informed by the following background information:

- Tennessee Aviation System Plan (TASP) Classification
- County Specific Per Capita Personal Income (PCPI)
- Development Cost per Sqft by Hangar Type/Year of Hangar Construction
- Average Industrial Building Rent
- Minimum M&O Cost by State Classification
- Based Aircraft
- Suggested Useful Life of a Hangar

**More information on how this background data affects the Module is provided in the Guidebook.*

Tool Walk-Through

Step 1: Select Hangar or Private Hangar Land Lease Mode

Welcome to the TDOT Aeronautics Division Interactive Hangar & Private Hangar Land Lease Rate Module.

Please select what mode you are using from the dropdown menu.

Inputs:

- Mode Selection

A Module Mode is self-selected by using a drop-down menu to select the desired Mode. The selection of the Mode triggers the population of either the Hangar Mode or the Private Hangar Land Lease Mode of the tool.

Step 2: Airport Selection

Airport Selection

Airport Name*

Inputs:

- Airport Name

Users will begin by selecting their airport from the dropdown list under the label “Airport Name.” Airports are listed alphabetically by name.

Step 3: Selected Hangar: Attributes

Selected Hangar: Attributes

Type of Hangar*

Number of Units*

Year of Hangar Construction
(to calculate age of hangar)

Inputs:

- Hangar Type
- Hangar Size
- Year of Construction

During this step, users will select the type of hangar, the size of the hangar, and the year of hangar construction. Under “Type of Hangar,” users can select either “T-Hangar,” “Box Hangar,” or “Shade Hangar.” This selection should be made only for the hangar type for which a rent determination is desired. If “T-Hangar” or “Shade Hangar” are selected, users must input the number of units in the respective input box. If “Box Hangar” is selected, users must input the length and width of the selected hangar, and the total square footage will be automatically calculated.

Step 4: Selected Hangar: Associated Costs

Selected Hangar: Associated Costs

Monthly Maintenance & Operation Cost (\$) (entire facility)

OR

Monthly Facility Insurance (\$) (entire facility)

Monthly Utility Usage & Maintenance (\$) (e.g., Electricity, Gas, Water, Sewer)

Monthly Facility Maintenance & Enforcement (\$) (painting, inspections)

Other Monthly Costs (\$) (entire facility)

Inputs:

- Monthly Maintenance & Operation (M&O) Cost

The M&O cost section has two input options: the total monthly M&O cost for the entire facility, or users can input monthly facility insurance, monthly utility usage and maintenance (e.g., electricity, gas, water, sewer), monthly facility maintenance and enforcement (painting, inspections), and other monthly costs.

Step 5: Selected Hangar: Other Information

Selected Hangar: Other Information

Hangar Location on Airfield*

Existing Hangar Condition

Existing Hangar Lease Rate (flat fee)

Inputs:

- Airfield Location
- Hangar Facility Condition (for existing hangars only)
- Existing Hangar Lease Rate (for existing hangars only)

The user will select the hangar location on the airfield, the current hangar condition, and the existing hangar lease rate in the form of a flat fee. If the hangar for which rent is being determined is a new hangar, then the option for the current hangar condition and existing hangar lease rate will not be available.

Step 6: Selected Hangar: Amenities Available

Inputs:

Selected Hangar: Amenities Available

Electric Utilities NO

Gas, Water, Sewer NO

Automatic Door NO

- Utility/Amenity Availability

If the user selected either Box Hangar or T-Hangar in Step 2, the user will now select “yes” or “no” to indicate which amenities the selected hangar includes. If the selected hangar is a Shade Hangar, this step will not be available.

Step 7: ALL Current Hangar Availability and Occupancy

ALL Current Hangar Availability and Occupancy

Current Hangar Occupancy Rate (percentage)

Number of Waitlisted Aircraft (assume Cessna 172 aircraft size)

Inputs:

- Existing Hangar Capacity
- Hangar Waitlist

The user will input the percentage of current hangar occupancy at the airport and the number of waitlisted aircraft.

Step 8: Calculate

The user will click the “Calculate” button and the module will present the results of the analysis.

How to Utilize Results

After selecting “Calculate,” the results of the Module will appear:

Results	
Standard Monthly Rate	\$352.50
Suggested Monthly Rate	\$528.75
<input type="button" value="Export to PDF"/>	

Results are also available to be exported into a pdf:

HANGAR RATES	
Airport	Franklin County Airport
Selected Hangar Attributes	
Type of Hangar	T-Hangar
Number of Units	10
Year of Hangar Construction (to calculate age of hangar)	2023
Selected Hangar-Associated Costs	
Monthly Maintenance and Operation Cost (entire facility)	\$200
Selected Hangar: Other Information	
Hangar Location on Airfield	Desirable
Existing Hangar Condition	Good
Existing Hangar Lease Rate (flat fee)	\$0
Selected Hangar: Amenities Available	
Utilities (electric)	Yes
Utilities (gas, water, sewer)	No
Automatic Door	Yes
ALL Current Hangar Availability and Occupancy	
Percent of All Hangars Currently Occupied	100%
Number of Waitlisted Aircraft (assume Cessna 172 aircraft size)	5
Result	
Standard Monthly Rate	\$352
Suggested Monthly Rate	\$529

Tool Walk-Through

Step 1: Select Hangar or Private Hangar Land Lease Mode

Welcome to the TDOT Aeronautics Division Interactive Hangar & Private Hangar Land Lease Rate Module.

Please select what mode you are using from the dropdown menu.

Inputs:

- Mode Selection

A Module Mode is self-selected by using a drop-down menu to select the desired Mode. The selection of the Mode triggers the population of either the Hangar Mode or the Private Hangar Land Lease Mode of the tool.

Step 2: Airport Selection

Airport Selection

Select an airport

Inputs:

- Airport Name

Users will begin by selecting their airport from the dropdown list under the label "Airport Name." Airports are listed alphabetically by name.

Step 3: Selected Land: Attributes

Selected Land: Attributes

Land Type*
 Lot Size (ft²)
 Length of lease term until reversion (years)*

 Lot Location on Airport*

Inputs:

- Land Type
- Lot Size
- Length of Lease term until reversion (years)
- Lot Location on Airport

During this step, users will enter the lot's size unit (acres or square feet), the lot's size, the length of the lease term until reversion, and the lot's location on the airport. Under Land Type, users will select either "Acres" or "Square Feet" to set the measurement unit. If calculating rent for multiple lots, run the Module separately for each lot. After selecting the land type, enter the lot size in the Lot Size field using the chosen unit. These inputs feed into calculations designed to ensure the airport achieves an appropriate return on investment for the lot.

Step 4: Selected Land: Investment

Selected Land: Investment

Funding Spent to Develop Pad* (\$)

Inputs:

- Funding Spent to Develop Pad (\$)

In this step, users will enter the total amount of airport-funded (non-federal and non-state) expenditures used to develop the pad site to date. This figure should include all eligible costs directly incurred by the airport, such as grading, utility installation, paving, or other site preparation expenses. Do not include any costs funded by federal or State grants. These inputs are used in subsequent calculations to determine the lease rate needed for the airport to achieve an appropriate return on its investment in the lot.

Step 5: Selected Land: Amenities Available

Selected Land: Amenities Available

Utilities (electric)*
 Utilities (gas, water, sewer)*
 Connecting Taxiway*

 Pre Graded Pad*

Inputs:

- Electric Utilities
- Gas, Water, Sewer Utilities
- Connecting Taxiway
- Pre Graded Pad

Select whether utilities (electric), utilities (gas, water, sewer), or pre graded pad are available on the land being priced. Accurately identifying these features helps ensure the calculation reflects the lot's actual market value and readiness for occupancy, which can influence both lease pricing and potential tenant interest.

Step 6: Selected Land: Other Information Section

Inputs:

Selected Land: Other Information

Existing Monthly Land Lease Rate (flat fee) (\$) N/A

- Existing Monthly Land Lease Rate (flat fee) (\$)

Users will enter the current land lease rate for the lot, if applicable. Providing this information allows the calculation to compare the existing lease terms with the model's recommended rate. This helps assess how the current lease aligns with market conditions and supports a more accurate evaluation of the airport's overall leasing landscape. If no lease rate is currently established, this field can be left blank.

Step 7: ALL Current Land Availability and Occupancy Section

Inputs:

- Unit of Land Availability
- Total Amount of Land Currently Available for Lease – Including

ALL Current Land Availability and Occupancy

Unit of Land Availability*
 Total Amount of Land Currently Available for Lease - Including Current Lot*

Current Lot

Users will enter the total amount of land on the airport property that is available for future development. This figure should include all developable parcels, regardless of whether they are currently marketed, reserved, or planned for a specific use, but should exclude land that is unsuitable for development due to environmental constraints, operational safety areas, or regulatory restrictions.

Step 8: Calculate

Once all required information has been entered in Steps 1–7, the tool will process the data and return a recommended fair market land lease rate for the selected lot

How to Utilize Results

After completing Steps 1-7, the results of the Module will appear:

Results are also available to be exported into a pdf:

Land Lease Rate Calculation

Standard Rate (Base Price + ROI)

	Amount
Base Rent	\$1,279
Development Costs ROI	N/A

Standard Yearly Rent Base Rent + Development Cost ROI

Standard Rate (Yearly)	\$15,352
Standard Rate (Monthly)	\$1,279

Pricing Optimization

	Amount
Standard Rate (per year)	\$15,352
Scaling Factors	
State Classification	6%
Airport Location	2%
Airfield Location	5%
Pad Readiness	10%
Land Availability Adjustment	0%
Total Scaling Factor	120%
Suggested Rate (Yearly)	\$18,423
Suggested Rate (Monthly)	\$1,535

Export to PDF

After using the Module to calculate appropriate hangar and land lease rates, airport sponsors are responsible for implementation. This is a critical step that should not be taken lightly, as it will likely be a monthly increase for most airports. Hangar and land rent changes should be implemented thoughtfully to address comments and concerns from existing tenants and other airport stakeholders. Airport sponsors should develop a hangar and land lease rate change action plan to ensure the implementation of the Module findings goes as smoothly as possible.

Part of that plan will involve determining whether an immediate or gradual roll out of the increased hangar and land lease rates is needed. Although results of the Module are backed by sound fair market value principles, immediately raising rates significantly for existing tenants can create potential problems or negatively impact future business development and investment at the airport. Instead, a gradual roll out of the new rates in a phased approach can help mitigate potential resistance and other issues from tenants and other stakeholders. A gradual roll out can also allow more time for education concerning the importance and necessity of fair market

value rents. If the Module results in a modest suggested increase, an immediate roll-out may be appropriate.

The implementation plan should include steps for ensuring legal compliance with local, State, and federal regulations governing hangar and land leases. The airport's billing system will need to be updated and clear communication should be provided to explain to tenants how they should expect to see changes in their lease statements. Finally, it is important to maintain detailed documentation of the calculations, notifications, and any formal tenant engagement or discussions.

For more information, please see the full Hangar and Land Lease Guidebook. The Guidebook provides further information on hangar fair market value, using the Module, implementing Module findings, examples, and best practices.

Low hangar and land rents are common across the State. Regardless of the airport classification, TDOT Region, hangar condition, or hangar size, hangar rates generally are low when compared to similar storage options, such as off airport self-storage. In addition to the risk of a federally funded airport not being in compliance with Federal Grant Assurances, charging hangar and land lease rates lower than fair market value loses potential revenue for the airport.

Due to the undervalued price of hangars and airport lands, this demand is likely overinflated as individuals who would not otherwise place

themselves on a hangar waitlist are enticed to do so by low prices. In addition, undervalued pricing also discourages private investments that could ultimately help address hangar shortages. Hangars and airport lands are revenue-generating areas that should assist airport sponsors in achieving financial self-sufficiency. Ideally, airports should adopt a hangar and land lease pricing strategy to match demand with supply and support future airport improvements. But at a minimum, airport sponsors should be setting hangar and land lease rates to cover facility expenses.



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