



**The City of Lee's Summit**  
**Final Agenda**  
**Board of Aeronautic Commissioners**

Monday, October 10, 2016

7:00 PM

City Council Committee Room

City Hall

220 SE Green Street

Lee's Summit, MO 64063

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CALL TO ORDER

ROLL CALL

1. APPROVAL OF AGENDA
2. APPROVAL OF ACTION LETTER

- A. [2016-0495](#) Approval of August 8, 2016 Action letter

**Recommendation:** Recommendation: [Enter Recommendation Here]

**Committee Recommendation:** Committee Recommendation: [Enter Committee Recommendation text Here]

**Attachments:** [Action Letter-8-8-16.pdf](#)

3. PUBLIC COMMENTS:

4. BUSINESS

- A. [2016-0589](#) Presentation on "No-Tax Increase" General Obligation Bond Election

- B. [2016-0593](#) Finance Report

**Recommendation:** Recommendation: [Enter Recommendation Here]

**Committee Recommendation:** Committee Recommendation: [Enter Committee Recommendation text Here]

**Attachments:** [June 30 2016.pdf](#)

- C. [TMP-0249](#) AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT. (BOAC 10-10-16) (PWC 10-10-16)

**Recommendation:** Recommendation: Staff recommends approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

**Committee Recommendation** Board of Aeronautic Commissioners Recommendation: Board of Aeronautic Commissioners voted unanimously 8-0 to recommend to City Council approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Public Works Committee Recommendation: The Public Works Committee voted unanimously 4-0 to recommend to City Council approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

**Attachments:**

[Ordinance](#)

[Amendment 4 to State Block Grant Agreement](#)

- D. [TMP-0250](#) AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT. (BOAC 10-10-16) (PWC 10-10-16)

**Recommendation:** Recommendation: Staff recommends approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT

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**Attachments:**

[Ordinance](#)

[Fourth Supplemental Airport Aid Agreement](#)

- E. [2016-0379](#) A RESOLUTION FOR THE AIRPORT DIVISION TO MAKE APPLICATION FOR AN ENERGY EFFICIENCY IMPROVMENT PROJECT ELIGIBLE WITH THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT DIVISION OF ENERGY FOR AIRPORT PROJECTS

**Recommendation:** Recommendation: Staff Recommends A RESOLUTION FOR THE AIRPORT DIVISION TO MAKE APPLICATION FOR AN ENERGY EFFICIENCY IMPROVMENT PROJECT ELIGIBLE WITH THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT DIVISION OF ENERGY FOR AIRPORT PROJECTS

**Committee Recommendation:** Committee Recommendation: The Board of Aeronautic Commissioners voted unanimously 8-0 to recommend Staff make application on behalf of the Airport Division for a Resolution For An Energy Efficiency Improvement Projects eligible with the Missouri Department of Economic Development Division of Energy for Airport Projects.

**Attachments:** [Program Application](#)  
[Electrical History-Airfield Lighting](#)  
[EMIL-L LED Elevated Runway Edge Lighting Info](#)  
[Old Style Light Info](#)  
[New Style Light Info](#)  
[L861T Light Fixture Info](#)

- F. [2016-0578](#) Presentation of Hangar Survey Results of Based Customers and 600 Aircraft Owners in the Kansas City Area

**Recommendation:** Recommendation: Staff recommends work continue on

**Committee Recommendation:** Committee Recommendation: [Enter Committee Recommendation text Here]

**Attachments:** [Airport Hangar Demand Survey Results](#)  
[Hangar Survey for Based Customers](#)  
[Metro Area Hangar Survey](#)  
[2017 Lees Summit Airport Marketing Plan](#)

*John Ohrazda reported the Airport did a survey of the base customers and six hundred postcards were sent to aircraft owners to inquire what interest they might have*

- G. [2016-0594](#) Staff Report

**Attachments:** [Staff Report initialed by DEM.pdf](#)

5. SUGGESTION BOX
6. **Election of Officers**
7. MEMBERS DISCUSSION
8. ROUNDTABLE:
9. ADJOURNMENT

For your convenience, City Council agendas, as well as videos of City Council and Council Committee meetings, may be viewed on the City's Internet site at "www.cityofls.net".

## Packet Information

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**File #:** 2016-0495, **Version:** 1

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Approval of August 8, 2016 Action letter

Issue/Request:

[Enter text here]

Key Issues:

[Enter text here]

Proposed City Council Motion:

[Enter text here]

Background:

[Enter text here]

Impact/Analysis:

[Enter text here]

Timeline:

Start: \_\_\_\_

Finish: \_\_\_\_

Other Information/Unique Characteristics:

[Enter text here]

Presenter: [Enter Presenter Here]

Recommendation: [Enter Recommendation Here]

Committee Recommendation: [Enter Committee Recommendation text Here]



**The City of Lee's Summit**  
**Action Letter - Draft**  
**Board of Aeronautic Commissioners**

Monday, August 8, 2016  
7:00 PM  
City Council Committee Room  
City Hall  
220 SE Green Street  
Lee's Summit, MO 64063

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CALL TO ORDER

Chair Tom Townsend called the 8/8/16 BOAC meeting to order at 7:01 p.m. Notice of said meeting was provided by posting a proposed agenda at least 24 hours in advance for public notice.

ROLL CALL

All Commissioners were present for the 8/8/16 BOAC meeting.

**Present:** 9 - Chairperson Tom Townsend  
Vice Chair Garey Reeves  
Commissioner James Brady  
Commissioner Gary Fox  
Commissioner Phil Mall  
Commissioner Ken Stremming  
Commissioner Joseph Towns  
Commissioner Molly Waller  
Liaison Phyllis Edson

1. APPROVAL OF AGENDA

**A motion was made by Vice Chair Reeves, seconded by Commissioner Mall, that this agenda was approved. The motion carried unanimously.**

**Aye:** 9 - Chairperson Townsend  
Vice Chair Reeves  
Commissioner Brady  
Commissioner Fox  
Commissioner Mall  
Commissioner Stremming  
Commissioner Towns  
Commissioner Waller  
Liaison Edson

2. APPROVAL OF ACTION LETTER

A. [2016-0069](#) Action Letter for April 11, 2016

**Attachments:** [MeetingMinutes20-Apr-2016-01-58-10.pdf](#)

**A motion was made by Vice Chair Reeves, seconded by Commissioner Towns, to approve**

Board of Aeronautic Commissioners

Action Letter - Draft

August 8, 2016

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the April 11, 2016 Action Letter. The motion carried unanimously.

**Aye:** 9 - Chairperson Townsend  
Vice Chair Reeves  
Commissioner Brady  
Commissioner Fox  
Commissioner Mall  
Commissioner Stremming  
Commissioner Towns  
Commissioner Waller  
Liaison Edson

3. PUBLIC COMMENTS:

There were no public comments.

4. BUSINESS

A. [2016-0447](#) Finance Report

**Presenter:** Presenter: Darlene Pickett

**Attachments:** [Finance Report.pdf](#)

Please click on the Financial Report pdf link to view the full report.

**This matter was received and filed**

B. [TMP-0156](#) AN ORDINANCE APPROVING A FIXED BASE OPERATOR AGREEMENT WITH LEGACY AVIATION, INC. d/b/a FLYING KC FOR THE LEASE OF SUITE C IN THE AIRPORT MODULAR BUILDING TO PERFORM FLIGHT TRAINING, AIRCRAFT RENTAL, AIRCRAFT MANAGEMENT/CONSULTING AND AIRCRAFT SALES AT THE LEE'S SUMMIT MUNICIPAL AIRPORT AND AUTHORIZING THE CITY MANAGER TO ENTER INTO THE SAME WITH LEGACY AVIATION, INC. d/b/a FLYING KC FOR A PERIOD OF ONE YEAR WITH A ONE YEAR AUTOMATIC RENEWAL OPTION.

**Presenter:** Presenter: John Ohrazda, Airport Manager

**Attachments:** [Flying KC Plan for KLXT.pdf](#)

[KC Flying FBO.docx](#)

[ORDINANCE - FLYING KC.docx](#)

**A motion was made by Commissioner Mall, seconded by Commissioner Stremming, to recommend this Ordinance for approval to the Finance and Budget Committee. The motion carried unanimously.**

**Aye:** 9 - Chairperson Townsend  
Vice Chair Reeves  
Commissioner Brady  
Commissioner Fox  
Commissioner Mall  
Commissioner Stremming  
Commissioner Towns  
Commissioner Waller  
Liaison Edson

C. [2016-0439](#) Staff Report

Board of Aeronautic Commissioners

Action Letter - Draft

August 8, 2016

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**Presenter:** Presenter: John Ohrazda

**Attachments:** [Staff Report Initialed-DEM.pdf](#)

John Ohrazda reported the Tenant Open House has been scheduled for November. The invitations will be mailed out in October. The grant offer from the State of Missouri & the Federal Aviation Administration (FAA), is expected in August or early September and will go to City Council for approval. By November, the Contractor will have a work schedule, so more definite information will be available at the Tenant Open House.

**This Report was received and filed.**

5. SUGGESTION BOX

Vice Chair Garey Reeves reported no suggestions in the suggestion box.

6. MEMBERS DISCUSSION

There was no member's discussion.

7. ROUNDTABLE

There was discussion regarding the Oshkosh event. It was rainy weather, so it was one of their slowest years. There were several contingencies of 12 & 14 plane groups that were planning on stopping at the L. S. Airport, but due to the weather, had to divert further east. On Saturday and Sunday, hotdogs and hamburgers were served to the pilots that did make it to the Airport. They were all very pleased with that.

Commissioner Towns said the City needed to go ahead and start designing the monument sign to be erected, possibly at the Lee's Summit Road-Douglas Road intersection that leads to the Airport. John Ohrazda said he has inquired about the space the City has purchased for it, but Lee's Summit Road must be completed first.

Commissioner Waller said she thinks there is a tremendous opportunity for the Airport to take advantage of the high school being built next to it. There is a big boom in curriculums geared towards aviation for high schools, where these students can actually get a kit plane donated; they build the plane, the seniors auction it off and the profit goes back into funding the program. There are several organizations that are trying to standardize a high school curriculum. Commissioner Waller said she wanted to see if the BOAC would be interested in meeting with the new Principal and giving a presentation about the Airport and piloting. The benefit to the Airport could be a very successful flight school because all these students would graduate with a certificate and a license to fly. They would be that much further ahead on getting their license should they choose to fly for a profession. John Ohrazda said they had been discussing this with the Legacy Flight School. Mr. Ohrazda said this would be

**Board of Aeronautic Commissioners**

**Action Letter - Draft**

**August 8, 2016**

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something they would pursue. Commissioner Waller offered to reach out to the Principal of the St. Michael the Archangel Catholic High School and facilitate any meetings. The BOAC encouraged Commissioner Waller to proceed and to also reach out to the R-7 School District.

The next BOAC meeting is at 7:00 p.m. on Monday, Oct. 10.

**8. ADJOURNMENT**

Chair Townsend called the August 8, 2016, Board of Aeronautic Commissioners meeting adjourned at 7:45 p.m.

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## Packet Information

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**File #:** 2016-0589, **Version:** 1

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Presentation on "No-Tax Increase" General Obligation Bond Election

### Issue

On Tuesday, November 8, 2016, voters in Lee's Summit will be asked to consider a \$14.5-million "No-Tax Increase" General Obligation Bond improvement initiative to fund public safety improvements.

City staff will present educational information.

## Packet Information

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**File #:** 2016-0593, **Version:** 1

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Finance Report

Issue/Request:

Monthly Review of Airport Financial Operations

Key Issues:

[Enter text here]

Proposed City Council Motion:

[Enter text here]

Background:

[Enter text here]

Impact/Analysis:

Reports through June 2016 show the Airport fund with a net operating loss of \$493,759.

The fund has operating revenues of \$1,270,604 against expenditures of \$1,764,363.

After deducting depreciation of \$566,064 the Airport Operations reflect a net income of \$72,305.

Nonoperating items and transfers bring the fund to a year-to-date net income of \$4,671,842. When depreciation expense of \$566,064 is excluded (added back), net income adjusted for depreciation is \$5,237,906.

**Operating Revenues** ended the year below budget by \$156,091 or 11%, and below prior year, \$50,330 or 4%.

Rental revenues exceeded budget by 6% for FY2016 and up 2% compared to last year.

Fuel revenues were below budget \$167,277 (20%) and down \$56k (8%) compared to last year. Lower fuel prices are the primary driver for lower revenues compared to last year. Overall, sales in gallons are up 14,665 gallons or 10% compared to last year. Average prices at the pump are \$1.16/gallon (24%) lower than last year.

**Expenditures** ended the year under budget \$162,040 or 8%.

Supplies for resale (fuel) are the main driver in the overall decrease coming in at \$175,546 or 28% under budget.

OSS&C is under budget \$42k or 18%. Items included in this category include fuel used in airport vehicles/equipment and fuel discounts earned on purchases. Both of these are below budget due to lower costs. Also in the category are supplies such as asphalt, concrete and pavement marking. Maintenance and repairs ended the year \$21k or 36% over budget. This was due to expenditures to extend a drain pipe and fill to grade near a hangar, replace tractor tires and unanticipated tractor repairs. All other expense categories performed within 10% or \$10,000 of budget.

The large fluctuations in the Non- Operating Items and P/L categories are due to grant reimbursements (pending and actually received).

Grant funds vary based on capital project expenditures.

Timeline:

Start: \_\_\_\_

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**File #: 2016-0593, Version: 1**

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Finish: \_\_\_\_

Other Information/Unique Characteristics:

[Enter text here]

Presenter: Darlene Pickett

Recommendation: [Enter Recommendation Here]

Committee Recommendation: [Enter Committee Recommendation text Here]

# LS Memorandum

## City of Lee's Summit

To: BOAC

From: Darlene Pickett, Assistant Finance Director

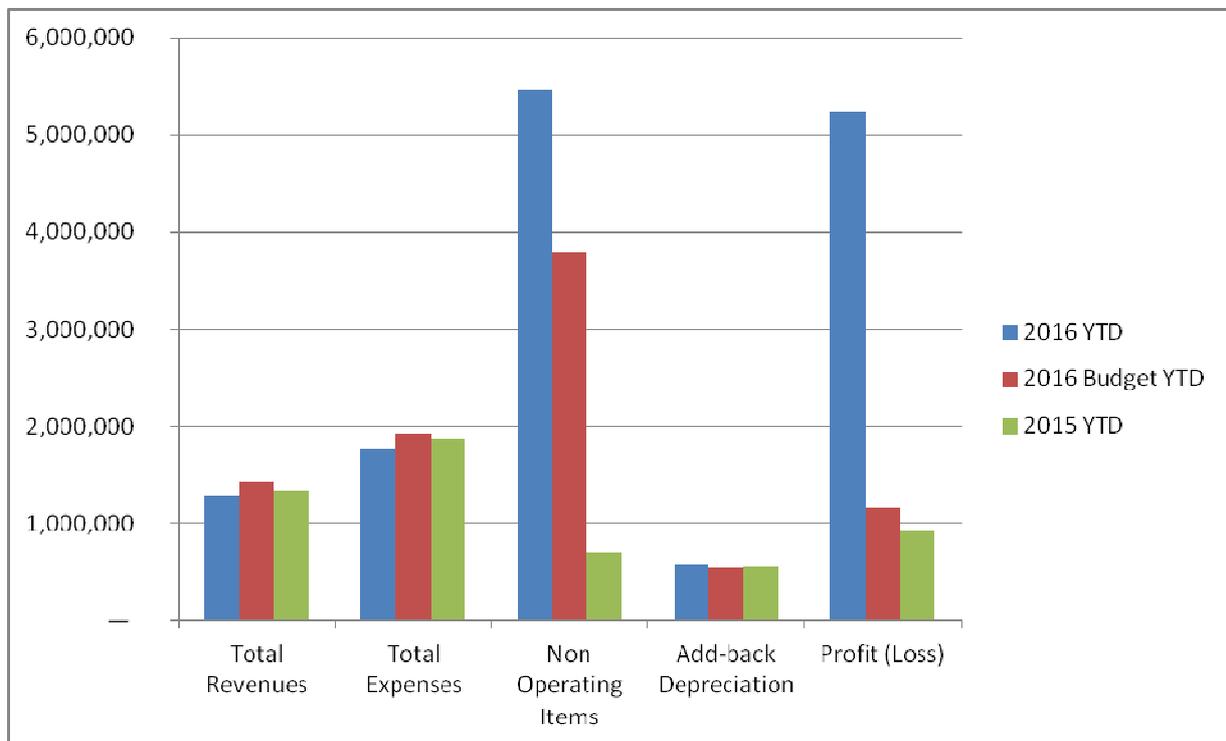
C: Conrad Lamb, Finance Director; Steve Arbo, City Manager

John Ohrazda, Airport Manager; Dena Mezger, Public Works Director

Date: October 4, 2016

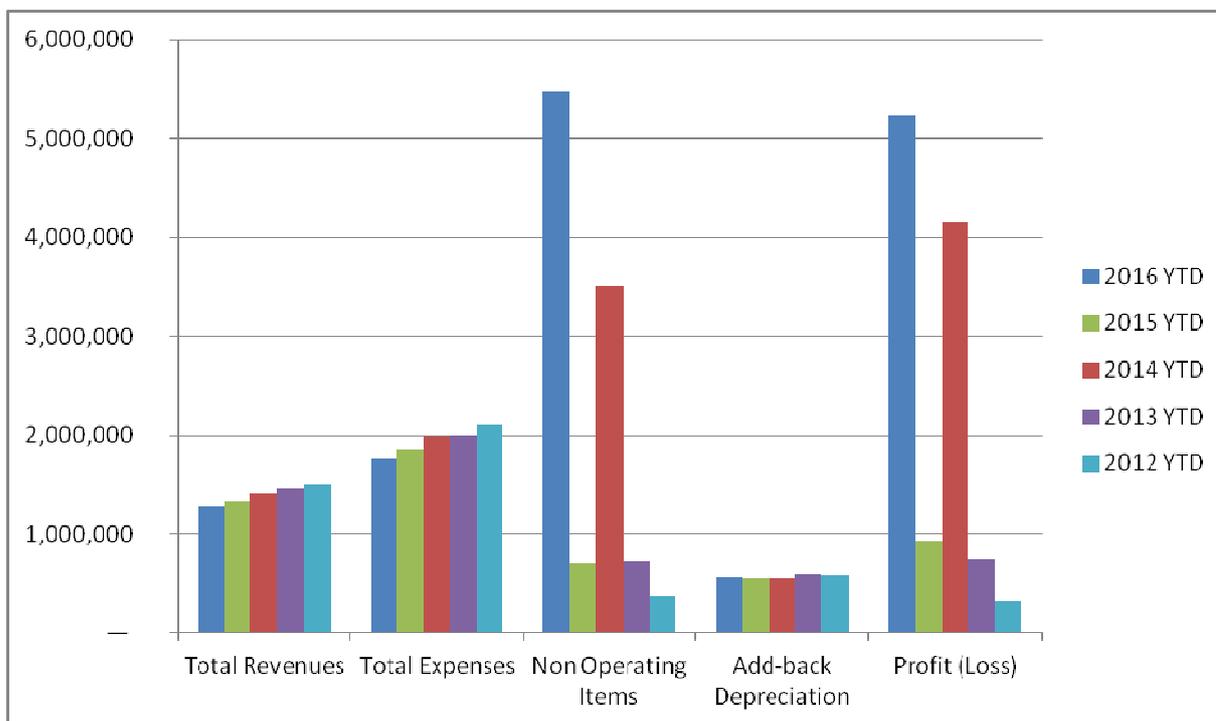
Re: Airport Financial Statements – June 30, 2016 – PRELIMINARY & UNAUDITED

- Reports through June 2016 show the Airport fund with a net operating loss of \$493,759. The fund has operating revenues of \$1,270,604 against expenditures of \$1,764,363. Nonoperating items and transfers bring the fund to a year-to-date net income of \$4,671,842. When depreciation expense of \$566,064 is excluded (added back), net income adjusted for depreciation is \$5,237,906.



# LS Memorandum

- Operating Revenues** ended the year below budget by \$156,091 or 11%, and below prior year, \$50,330 or 4%. Rental revenues exceeded budget by 6% for FY2016 and up 2% compared to last year. Fuel revenues were below budget \$167,277 (20%) and down \$56k (8%) compared to last year. Lower fuel prices are the primary driver for lower revenues compared to last year. Overall, sales in gallons are up 14,665 gallons or 10% compared to last year. Average prices at the pump are \$1.16/gallon (24%) lower than last year.
- Expenditures** ended the year under budget \$162,040 or 8%. Supplies for resale (fuel) are the main driver in the overall decrease coming in at \$175,546 or 28% under budget. OSS&C is under budget \$42k or 18%. Items included in this category include fuel used in airport vehicles/equipment and fuel discounts earned on purchases. Both of these are below budget due to lower costs. Also in the category are supplies such as asphalt, concrete and pavement marking. Maintenance and repairs ended the year \$21k or 36% over budget. This was due to expenditures to extend a drain pipe and fill to grade near a hangar, replace tractor tires and unanticipated tractor repairs. All other expense categories performed within 10% or \$10,000 of budget.
- The chart below compares year-to-date amounts for the last 5 years. The large fluctuations in the Non-Operating Items and P/L categories are due to grant reimbursements (pending and actually received). Grant funds vary based on capital project expenditures.



**CITY OF LEE'S SUMMIT, MISSOURI**

Combining Statement of Revenues, Expenses, and Changes in Retained Earnings – Airport Funds

Year to Date thru June 30, 2016 (UNAUDITED)

	Fiscal Year 2016 (YTD)			Budget 2016 (YTD)			Last Fiscal Year-2015 (YTD)		
	510 Airport Operating	321 Construction Fund	Consolidated 2015	Budget 2016	Budget Remaining	% Used	PY Actual 2015	\$ Change	% Change
1 Operating revenues:									
2 Charges for services	574,883	\$ -	\$ 574,883	541,016	\$ (33,867)	106%	565,810	\$ 9,073	2%
3 Fuel sales	672,008	0	672,008	839,285	167,277	80%	728,383	(56,375)	-8%
4 Other	23,714	0	23,714	46,394	22,681	51%	26,742	(3,029)	-11%
5 Total operating revenues	1,270,604	0	1,270,604	1,426,695	156,091	89%	1,320,935	(50,330)	-4%
6 Operating expenses:									
7 Salaries, wages, and employee									
8 benefits	365,748	0	365,748	354,753	(10,995)	103%	348,469	17,279	5%
9 Supplies for resale	445,304	0	445,304	620,851	175,546	72%	530,852	(85,547)	-16%
Maintenance and repairs	81,457	0	81,457	60,110	(21,348)	136%	72,204	9,253	13%
Utilities	46,743	0	46,743	39,320	(7,423)	119%	57,195	(10,453)	-18%
Depreciation and amortization	566,064	0	566,064	546,169	(19,895)	104%	553,591	12,474	2%
12 Interdepartment charges	68,482	0	68,482	72,849	4,367	94%	83,507	(15,025)	-18%
13 Other supplies, services, & charges	190,564	0	190,564	232,351	41,787	82%	217,086	(26,523)	-12%
15 Total operating expenses	1,764,363	0	1,764,363	1,926,403	162,040	92%	1,862,904	(98,541)	-5%
16 Operating income (loss)	(493,759)	0	(493,759)	(499,708)			(541,970)		
17 Nonoperating revenues (expenses):									
18 Interest income	41,458	0	41,458	0	(41,458)	#DIV/0!	19,105	22,353	117%
19 Interest expense	(769)	(51,758)	(52,527)	(120,753)	(68,226)	43%	(37,274)	(15,253)	41%
20 Gain (loss) on disposal of fixed assets	0	0	0	0	0	#DIV/0!	0	0	#DIV/0!
21 Grant reimbursements	2,414,497	3,065,588	5,480,085	3,905,382	(1,574,703)	140%	718,401	4,761,684	663%
22 Total nonoperating revenues (expenses)	2,455,186	3,013,830	5,469,016	3,784,629	(1,684,387)	145%	700,232	4,768,784	681%
23 Net income (loss) before operating transfers	1,961,428	3,013,830	4,975,258	3,284,922	(1,690,336)	151%	158,263	4,816,995	3044%
24 Operating transfers in	220,753	0	220,753	220,753	0	100%	297,449	(76,696)	-26%
25 Operating transfers out (includes G&A)	(524,169)	0	(524,169)	(2,887,696)	(2,363,527)	18%	(76,696)	(447,473)	583%
26 Net income (loss)	1,658,012	3,013,830	4,671,842	617,979	(4,053,863)	756%	379,016	4,292,826	1133%
27 Add back depreciation expense	566,064		566,064	546,169	(19,895)	104%	553,591	12,474	2%
28 Net income (loss) adjusted for depreciation expense	2,224,076	3,013,830	5,237,906	1,164,148	(4,073,758)	450%	932,606	4,305,299	462%
29 Net position beginning of year	35,752,092	0	35,752,092	35,752,092			31,684,185		
30 Net position end of year	\$ 37,976,168	\$ 3,013,830	\$ 40,989,998	\$ 36,916,240			\$ 32,616,791		

## Packet Information

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**File #:** TMP-0249, **Version:** 1

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AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT. (BOAC 10-10-16) (PWC 10-10-16)

Issue/Request:

AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Key Issues:

The approved Lee's Summit Municipal Airport master plan provides for a ultimate runway length of 5,500 feet.

- The city purchased several tracts of property west of the airport for the extension of Runway 18-36
- This grant is for \$2,232,789.00, 90% of the purchase of the property plus the commissioners' fees
- Local matching funds of \$124,044.00 (5%) are required. An additional grant of \$124,044.00 (5%) from the State Airport Aid Program from the Missouri Department of Transportation (MoDOT) will be used to fund this project.

Proposed City Council Motion:

FIRST MOTION: I move for a second reading of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

SECOND MOTION: I move for adoption of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Background:

The approved Lee's Summit Municipal airport master plan provides for an ultimate runway length of 5,500 feet. The earthwork to accommodate the new runway length was completed by Emery Sapp and Sons in the summer of 2016. Bids for the runway pavement were received in May 2016, with Emery Sapp and Sons being the low bidder. Award of the construction of the concrete pavement for the 1,500 foot extension of the Runway 18/36 and other incidental work was made in October 2016.

This State Block grant is in the amount of \$2,232,789, funding 90% of the cost of the land acquisition for land association with the runway improvements. Local matching funds of \$124,044.00, 5% of the project cost are required and are available from the Airport Capital Improvement Program. An additional 5% of the project cost, \$124,044.00 will come from a State Airport Aid Agreement.

Impact/Analysis:

[Enter text here]

Timeline:

Start: \_\_\_\_

Finish: \_\_\_\_

Other Information/Unique Characteristics:

[Enter text here]

Presenter: John Ohrazda, Airport Manager

Recommendation: Staff recommends approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Board of Aeronautic Commissioners Recommendation: Board of Aeronautic Commissioners voted unanimously 8-0 to recommend to City Council approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Public Works Committee Recommendation: The Public Works Committee voted unanimously 4-0 to recommend to City Council approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND

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**File #:** TMP-0249, **Version:** 1

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ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

BILL NO.

ORDINANCE NO.

AN ORDINANCE AUTHORIZING THE EXECUTION OF A MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION AMENDMENT NO. 4 TO STATE BLOCK GRANT AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, GRANTING FEDERAL FUNDS IN THE AMOUNT OF \$2,232,789.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

WHEREAS, this project will provide funds for land acquisition for the Runway 18-36 extension at the Lee's Summit Municipal Airport; and,

WHEREAS, this grant consists of funds from the Federal Airport Improvement Program (AIP) through the Missouri Department of Transportation; and,

WHEREAS, the grant will fund 90% of the eligible costs for the land acquisition at the Lee's Summit Municipal Airport; and,

WHEREAS, local matching funds of \$124,044.00 (5%) were required. An additional grant of \$124,044.00 (5%) from the State Airport Aid Program through the Missouri Department of Transportation (MoDOT) will be used to fund this project; and,

WHEREAS, the City and the Missouri Highways and Transportation Commission desire to enter into an agreement granting federal funds in the amount of \$2,232,789.00 for land acquisition for runway 18-36 extension at the Lee's Summit Municipal Airport.

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF LEE'S SUMMIT, MISSOURI, as follows:

SECTION 1. That Amendment No. 4 to Missouri Highways and Transportation Commission State Block Grant Agreement between the City of Lee's Summit and the Missouri Highways and Transportation Commission, a true and accurate copy being attached hereto and incorporated herein by reference be and the same is hereby approved.

SECTION 2. That the Mayor is hereby authorized to execute the same by and on behalf of the City of Lee's Summit, Missouri.

SECTION 3. That this Ordinance shall be in full force and effect from and after the date of its passage and adoption, and approval by the Mayor.

PASSED by the City Council of the City of Lee's Summit, Missouri, this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Mayor Randall L. Rhoads

ATTEST:

\_\_\_\_\_  
City Clerk Denise R. Chisum

APPROVED by the Mayor of said city this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
Mayor Randall L. Rhoads

ATTEST:

\_\_\_\_\_  
City Clerk Denise R. Chisum

APPROVED AS TO FORM:

\_\_\_\_\_  
Brian Head, City Attorney

CCO Form: AC10-A  
Approved: 05/94 (MLH)  
Revised: 01/15 (MWH)  
Modified:

Sponsor: City of Lee's Summit  
Project No. 11-109A-2

CFDA Number: CFDA #20.106  
CFDA Title: Airport Improvement Program  
Federal Agency: Federal Aviation Administration, Department of Transportation

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
AMENDMENT TO STATE BLOCK GRANT AGREEMENT**

**AMENDMENT #4**

THIS AGREEMENT AMENDMENT is entered into by the Missouri Highways and Transportation Commission (hereinafter, "Commission") and the City of Lee's Summit (hereinafter, "Sponsor").

WITNESSETH:

WHEREAS, the parties entered into an Agreement executed by the Sponsor on May 23, 2011, and executed by the Commission on June 3, 2011, (hereinafter, "Original Agreement") under which the Commission granted the sum not to exceed One Hundred Sixty Two Thousand Eighty Hundred Seventy Three Dollars (\$162,873) to the Sponsor to assist with Land Acquisition for Runway 18/36 Extension; and

WHEREAS, the parties entered into an Amendment #1 executed by the Sponsor on April 8, 2013, and executed by the Commission on April 17, 2013, (hereinafter, "Amendment #1") under which the original project time period was extended from June 30, 2012 to December 31, 2013; and

WHEREAS, the parties entered into an Amendment #2 executed by the Sponsor on January 14, 2014, and executed by the Commission on March 21, 2014, (hereinafter, "Amendment #2") under which the Commission granted the sum not to exceed Two Million Eight Hundred Twenty-Five Thousand Five Hundred Seventy-Five Dollars (\$2,825,575) and extended the project time period from December 31, 2013 to December 31, 2014 to allow for completion of the project; and

WHEREAS, the parties entered into an Amendment #3 executed by the parties on October 1, 2014, (hereinafter, "Amendment #3") under which the Commission granted the sum not to exceed One Hundred Thirty-Six Thousand Nine Hundred Fifty-Three Dollars (\$136,953) to the Sponsor to assist with Land Acquisition for Runway 18/36 Extension and extended the project time period from December 31, 2014 to December 31, 2015 to allow for completion of the project; and

WHEREAS, the Commission previously approved funds for Land Acquisition for Runway 18/36 Extension; and

WHEREAS, the level of funding originally approved is not sufficient to cover the costs associated with Land Acquisition for Runway 18/36 Extension.

WHEREAS, the Commission has sufficient funds to increase the grant amount for Land Acquisition for Runway 18/36 Extension.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations in this Agreement, the parties agree as follows:

(1) ADDITIONAL GRANT: The Commission grants to the Sponsor an additional sum not to exceed Two Million Two Hundred Thirty-Two Thousand Seven Hundred Eighty-Nine Dollars (\$2,232,789) for Land Acquisition for Runway 18/36 Extension subject to the following conditions:

(A) The Sponsor shall provide matching funds of not less than One Hundred Twenty-Four Thousand Forty-Four Dollars (\$124,044) toward the project in addition to those previously committed by the Sponsor in the Original Agreement, Amendment #2, and Amendment #3. The amount of matching funds stated above represents fifty percent (50%) of the estimated local match required for the eligible project costs. The remaining One Hundred Twenty-Four Thousand Forty-Four Dollars (\$124,044) will be paid with funds from a grant provided under the Commission's airport aid program pursuant to section 305.230.4(1), RSMo.

(B) The project will be carried out in accordance with the assurances (Exhibit 1) given by the Sponsor to the Commission as specified in Amendment #3.

(C) This Amendment shall expire and the Commission shall not be obligated to pay any part of the costs of the project unless this grant amendment has been executed by the Sponsor on or before November 30, 2016, or such subsequent date as may be prescribed in writing by the Commission.

(D) Based upon the revised project schedule, the original project time period of December 31, 2015, will be extended to December 31, 2017, to allow for completion of the work. Paragraph (1)(E) of Amendment #3 is hereby amended accordingly.

(E) All other terms and conditions of the Original Agreement, Amendment #1, Amendment #2, and Amendment #3 entered into between the parties shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date last written below:

Executed by the Sponsor this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Executed by the Commission this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**MISSOURI HIGHWAYS AND  
TRANSPORTATION COMMISSION**

**CITY OF LEE'S SUMMIT**

\_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

\_\_\_\_\_  
Secretary to the Commission

By \_\_\_\_\_

Title \_\_\_\_\_

Approved as to Form:

Approved as to Form:

\_\_\_\_\_  
Commission Counsel

\_\_\_\_\_  
Title \_\_\_\_\_

Ordinance No. \_\_\_\_\_  
(if applicable)

**CERTIFICATE OF SPONSOR'S ATTORNEY**

I, \_\_\_\_\_, acting as attorney for the Sponsor do hereby certify that in my opinion the Sponsor is empowered to enter into the foregoing grant Agreement under the laws of the State of Missouri. Further, I have examined the foregoing grant Agreement and the actions taken by said Sponsor and Sponsor's official representative have been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the said state and the Airport and Airway Improvement Act of 1982, as amended. In addition, for grants involving projects to be carried out on property not owned by the Sponsor, there are no legal impediments that will prevent full performance by the Sponsor. Further, it is my opinion that the said grant constitutes a legal and binding obligation of the Sponsor in accordance with the terms thereof.

**CITY OF LEE'S SUMMIT**

\_\_\_\_\_  
Name of Sponsor's Attorney (typed)

\_\_\_\_\_  
Signature of Sponsor's Attorney

Date \_\_\_\_\_

## Packet Information

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**File #:** TMP-0250, **Version:** 1

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AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT. (BOAC 10-10-16) (PWC 10-10-16)

Issue/Request:

AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Key Issues:

The approved Lee's Summit Municipal Airport master plan provides for a ultimate runway length of 5,500 feet.

- The earthwork to accommodate the new runway length was completed in the summer of 2016.
- Award of the paving contract was made in October 2016.
- This Grant is for the reimbursement of the purchase of property associated with the runway improvements.
- This grant is in the amount of \$124,044.00, for 5% of the purchase price of the property plus the commissioners' fees.
- Local matching funds of \$124,044.00 (5%) are required.

Proposed City Council Motion:

FIRST MOTION: I move for a second reading of AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT

SECOND MOTION: I move for adoption of AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS

AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT

Background:

The approved Lee's Summit Municipal airport master plan provides for an ultimate runway length of 5,500 feet. The earthwork to accommodate the new runway length was completed by Emery Sapp and Sons in the summer of 2016. Bids for the runway pavement were received in May 2016, with Emery Sapp and Sons being the low bidder. Award of the construction of the concrete pavement for the 1,500 foot extension of the Runway 18/36 and other incidental work was made in October 2016.

This State Block grant is in the amount of \$2,232,789, funding 90% of the cost of the land acquisition for land association with the runway improvements. Local matching funds of \$124,044.00, 5% of the project cost are required and are available from the Airport Capital Improvement Program.

Impact/Analysis:

[Enter text here]

Timeline:

Start: \_\_\_\_

Finish: \_\_\_\_

Other Information/Unique Characteristics:

[Enter text here]

Presenter: John Ohrazda, Airport Manager

Recommendation: Staff recommends approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT

Board of Aeronautic Commissioners Recommendation: Board of Aeronautic Commissioners voted unanimously 8-0 to recommend to City Council approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

Public Works Committee Recommendation: The Public Works Committee voted unanimously 4-0 to recommend to City Council approval of AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF

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**File #:** TMP-0250, **Version:** 1

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\$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18/36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

BILL NO.

ORDINANCE NO.

AN ORDINANCE AUTHORIZING THE EXECUTION OF AN AIRPORT AID AGREEMENT BY AND BETWEEN THE CITY OF LEE'S SUMMIT, MISSOURI, AND THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION SUPPLEMENTAL NO. 4, GRANTING STATE FUNDS IN THE AMOUNT OF \$124,044.00 FOR LAND ACQUISITION FOR RUNWAY 18-36 EXTENSION AT THE LEE'S SUMMIT MUNICIPAL AIRPORT.

WHEREAS, this project will provide funds for land acquisition for the Runway 18/36 extension at the Lee's Summit Municipal Airport; and,

WHEREAS, this Airport Aid Agreement is in the amount of \$124,044.00 (funding 5% of the cost of land acquisition for Runway 18/36 extension) and is to be used for the cost of the Project; and,

WHEREAS, local matching funds of \$124,044.00 (5% of the Project cost) are required and are available from the Airport Construction Fund.

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF LEE'S SUMMIT, MISSOURI, as follows:

SECTION 1. That the airport agreement Supplement No. 4 by and between the Missouri Highways and Transportation Commission and the City of Lee's Summit, Missouri for runway 18/36 extension improvements at the Lee's Summit Municipal Airport, being attached hereto and incorporated hereby reference be and the same is hereby approved.

SECTION 2. That the Mayor is hereby authorized and directed to execute the same by and on behalf of the City of Lee's Summit, Missouri.

SECTION 3. That this Ordinance shall be in full force and effect from and after the date of its passage and adoption, and approval by the Mayor.

PASSED by the City Council of the City of Lee's Summit, Missouri, this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Mayor Randall L. Rhoads

ATTEST:

\_\_\_\_\_  
City Clerk Denise R. Chisum

APPROVED by the Mayor of said city this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Mayor Randall L. Rhoads

ATTEST:

\_\_\_\_\_  
City Clerk Denise R. Chisum

APPROVED AS TO FORM:

\_\_\_\_\_  
Brian Head, City Attorney

CCO Form: AC05  
Approved: 7/94 (MLH)  
Revised: 01/15 (MWH)  
Modified: 09/16 (MWH)

Project No. AIR 116-109A-1

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
FOURTH SUPPLEMENTAL AGREEMENT TO AIRPORT AID AGREEMENT**

THIS AGREEMENT AMENDMENT is entered into by the Missouri Highways and Transportation Commission (hereinafter, "Commission") and the City of Lee's Summit (hereinafter, "Sponsor").

WITNESSETH:

WHEREAS, the parties entered into an Airport Aid Agreement executed by Sponsor on May 23, 2011, and executed by the Commission on June 3, 2011 (hereinafter, "Original Agreement") under which the Commission granted the sum of Four Thousand Two Hundred Eighty Six Dollars (\$4,286) to the Sponsor to assist in specified Land Acquisition for Runway 18/36 extension; and

WHEREAS, the parties entered into the First Supplemental Agreement to Airport Aid Agreement executed by Sponsor on April 8, 2013, and executed by the Commission on April 17, 2013 (hereinafter, "First Supplemental Agreement") under which the original project time period was extended from June 30, 2012, to December 31, 2013; and

WHEREAS, the parties entered into an Second Supplemental Agreement to Airport Aid Agreement executed by the Sponsor on January 16, 2014, and executed by the Commission on March 21, 2014 (hereinafter, "Second Supplemental Agreement") under which the Commission agreed to increase the grant by Seventy-Four Thousand Three Hundred Fifty-Seven Dollars (\$74,357) to the Sponsor to assist in specified Land Acquisition for Runway 18/36 extension and to extend the project time period from December 31, 2013 to December 31, 2014, to allow for completion of the project; and

WHEREAS, the parties entered into an Third Supplemental Agreement to Airport Aid Agreement executed by the parties on October 3, 2014 (hereinafter, "Third Supplemental Agreement") under which the Commission agreed to increase the grant by Seven Thousand Six Hundred Nine Dollars (\$7,609) to the Sponsor to assist in specified Land Acquisition for Runway 18/36 extension and to extend the project time period from December 31, 2014 to December 31, 2015, to allow for completion of the project; and

WHEREAS, the Commission previously approved funds for this project; and

WHEREAS, the level of funding originally approved is not sufficient to cover costs associated with this project; and

WHEREAS, the Commission has sufficient funds to increase the grant amount for this project.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations in this Agreement, the parties agree as follows:

(1) ADDITIONAL GRANT: The Commission hereby grants to the Sponsor an additional sum of One Hundred Twenty-Four Thousand Forty-Four Dollars (\$124,044) for this project, which is equal to fifty percent (50%) of the additional match required for the Sponsor's State Block Grant for Project No. 11-109A-2.

(2) PROJECT TIME PERIOD: Based upon the revised project schedule, the project time period of December 31, 2015, will be extended to December 31, 2017, to allow for completion of the work. Paragraph (2) of the Third Supplemental Agreement is hereby amended accordingly.

(3) ORIGINAL AGREEMENT: Except as otherwise modified, amended, or supplemented by this Supplemental Agreement, the Original Agreement between the parties shall remain in full force and effect and the unaltered terms of the Original Agreement, the First Supplemental Agreement, the Second Supplemental Agreement, and the Third Supplemental Agreement shall extend and apply to this Fourth Supplemental Agreement.

*[Remainder of Page is Intentionally Left Blank.]*

IN WITNESS WHEREOF, the parties have entered into and accepted this Agreement on the last date written below.

Executed by the Sponsor this \_\_\_\_ day of \_\_\_\_\_, 2016.

Executed by the Commission this \_\_\_\_ day of \_\_\_\_\_, 2016.

MISSOURI HIGHWAYS AND  
TRANSPORTATION COMMISSION

CITY OF LEE'S SUMMIT

\_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Attest:

By \_\_\_\_\_

Title \_\_\_\_\_

Approved as to Form:

Title \_\_\_\_\_

Ordinance No. \_\_\_\_\_  
(if applicable)

## Packet Information

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**File #:** 2016-0379, **Version:** 1

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A RESOLUTION FOR THE AIRPORT DIVISION TO MAKE APPLICATION FOR AN ENERGY EFFICIENCY IMPROVMENT PROJECT ELIGIBLE WITH THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT DIVISION OF ENERGY FOR AIRPORT PROJECTS

### Issue/Request:

Resolution For Application For An Energy Efficiency Improvement Project Eligible With The Missouri Department of Economic Development Division of Energy for Airport Projects

### Key Issues:

- Projects with energy cost savings are eligible through the Energy Loan Program.
- The upcoming runway paving project includes \$248,070.00 in high efficiency lighting fixtures and lamps.
- Retrofit of any buildings not already upgraded.
- A preliminary review by staff from the Missouri Department of Economic Development Division of Energy indicates this project would be eligible for participation once an application is received.
- The Airport has other projects that would also be eligible in the future and would like to seek funding for other projects also.
- Application would be made in the fall of 2016 for consideration of eligible projects in 2017.

### Proposed Committee Motion:

I move to recommend staff Make A RESOLUTION FOR THE AIRPORT DIVISION TO MAKE APPLICATION FOR AN ENERGY EFFICIENCY IMPROVMENT PROJECT ELIGIBLE WITH THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT DIVISION OF ENERGY FOR AIRPORT PROJECTS

### Background:

The Division of Energy has a program whereby public schools (K-12), public/private colleges and universities, city/county governments, public owned airport facilities (municipal, county, regional, and international), public water and wastewater treatment facilities, and public/private not-for-profit hospitals are eligible to participate in an energy costs reduction program. This program provides funding for various energy-saving

investments, including projects such as upgrading insulation, lighting systems, heating and cooling systems, windows and other items that affect energy usage.

The program provides recipients the benefit of reduced energy costs. The program also frees up tax dollars that local governments can use for essential services or other capital improvements. The program is operated on monies saved on energy costs as a result of implementing the energy-efficiency projects.

Since this program was initiated in 1989, the Division of Energy has participated in over 577 projects, which has resulted in nearly \$103 million in completed energy-efficiency projects and more than \$181 million in estimated cumulative energy savings.

Projects with energy cost savings are eligible with this Energy Loan Program. Examples of eligible projects include:

- High efficiency lighting fixtures and lamps
- High efficiency heating, ventilation and air conditioning systems
- Combined heat and power systems
- Renewable energy systems
- Waste heat recovery
- Energy efficient fine bubble diffusers and high efficiency pumps
- Building shell improvements such as insulation and other infiltration measures
- Other measures that reduce energy use and cost

Applications will be reviewed on a competitive basis until all available funds are awarded.

Impact/Analysis:

Results from this program will result in the City receiving credits for the installation of energy reduction equipment and lower electrical expense for the Airport.

Timeline:

Start: \_\_\_\_

Finish: \_\_\_\_

Other Information/Unique Characteristics:

The Airport did a similar project through KCP&L in 2015/2016 which involved replacing the lighting fixtures in 23 buildings with LED lights and the replacement of airfield lighting fixtures on Runway 11/29 and supporting taxi way. The fixtures were provided free of charge, airport staff replaced the fixtures and airfield lighting. The result was a reduction in kilowatt usage of 48 percent and a reduction in electrical expense of 28 percent.

Presenter: John Ohrazda, Airport Manager

Recommendation: Staff Recommends A RESOLUTION FOR THE AIRPORT DIVISION TO MAKE APPLICATION FOR AN ENERGY EFFICIENCY IMPROVMENT PROJECT ELIGIBLE WITH THE MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT DIVISION OF ENERGY FOR AIRPORT PROJECTS

Committee Recommendation: The Board of Aeronautic Commissioners voted unanimously 8-0 to recommend Staff make application on behalf of the Airport Division for a Resolution For An Energy Efficiency Improvement Projects eligible with the Missouri Department of Economic Development Division of Energy for Airport Projects.



MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT  
 DIVISION OF ENERGY - ENERGY LOAN PROGRAM  
**APPLICATION AUTHORIZATION FORM**

1. SECTOR			
<input type="checkbox"/> School K-12 <input checked="" type="checkbox"/> Local Government <input type="checkbox"/> Higher Education <input type="checkbox"/> Other, please specify:			
2. HOW DID YOU FIND US? (CHECK ALL THAT APPLY)			
<input type="checkbox"/> Website <input checked="" type="checkbox"/> Meeting/Event <input type="checkbox"/> Direct Mail <input type="checkbox"/> Colleague <input type="checkbox"/> Other, please specify: Missouri Airport Managers Meeting.			
3. ORGANIZATION NAME			4. Federal Tax ID (EIN) Number:
City of Lee's Summit Municipal Airport			44-6000208
5. NUMBER OF PEOPLE (students, staff, patients, customers, general public) THAT WOULD BENEFIT FROM THE IMPLEMENTATION OF THIS ENERGY PROJECT		6. MAILING ADDRESS	
50,000 per year		2751 NE Douglas	
7. COUNTY		8. CITY	9. ZIP + 4
Jackson		Lee's Summit	64064
10. CONTACT NAME		11. TITLE	12. PHONE NUMBER
John Ohrazda		Airport Manager	816-969-1180
13. FAX NUMBER		14. E-MAIL ADDRESS	
816-969-1184		john.ohrazda@cityofls.net	
15. TOTAL PROPOSED PROJECT COST		16. TOTAL LOAN AMOUNT REQUESTED	
\$248,070		\$248,070	
17. PROJECT TYPE		18. ESTIMATED START DATE	
<input type="checkbox"/> Building <input checked="" type="checkbox"/> System, specify: Airfield lighting		7/1/2017	
19. ESTIMATED PROJECT COMPLETION DATE			20. PROJECT LOCATION (ATTACH LIST OR MAP FOR MULTIPLE LOCATIONS)
11/1/2017			21. ESTIMATED ANNUAL ENERGY COST SAVINGS
\$4,000			
BUILDING SPECIFIC INFORMATION: FOR MULTIPLE BUILDINGS, USE ADDITIONAL PAGES - INCLUDE INFORMATION FOR ITEMS 22 - 36			
22. TOTAL BUILDING AREA IN SQUARE FEET		23. TOTAL AFFECTED BUILDING AREA IN SQUARE FEET	
24. APPROXIMATE NO. OF BUILDING OCCUPANTS		25. YEAR OF CONSTRUCTION	
FOR ORIGINAL BUILDING		26. HEATED AREA IN SQUARE FEET	
		27. COOLED AREA IN SQUARE FEET	
FOR ADDITION #1		28. YEAR OF CONSTRUCTION	
		29. HEATED AREA IN SQUARE FEET	
		30. COOLED AREA IN SQUARE FEET	
FOR ADDITION #2		31. YEAR OF CONSTRUCTION	
		32. HEATED AREA IN SQUARE FEET	
		33. COOLED AREA IN SQUARE FEET	
FOR ADDITION #3		34. YEAR OF CONSTRUCTION	
		35. HEATED AREA IN SQUARE FEET	
		36. COOLED AREA IN SQUARE FEET	
37. NAME, TITLE, COMPANY, AND PHONE NUMBER OF ENERGY ANALYST OR OTHERS WHO PREPARED ENERGY SAVINGS CALCULATIONS			
password			
38. BUSINESS TYPE NAMED IN 37 ABOVE			
<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Engineering <input type="checkbox"/> ESCO <input type="checkbox"/> Other, please specify:			
APPROPRIATE DISTRICT NUMBERS BASED ON THE APPLICANT'S LOCATION		39. U.S. CONGRESSIONAL DISTRICT	40. MO SENATORIAL DISTRICT
41. MO LEGISLATIVE DISTRICT			
The governing board or body has reviewed the ECM Summary and agrees that the building or system information is correct and the project and associated energy conservation measures have been correctly described. Any scanned or photocopied version of the signed original Application Authorization Form shall be considered original, and the governing board or body hereby waives any applicable objection on this basis. The governing board or body authorizes the contact person, named above, to provide any additional information relevant to the review and/or approval of this application.			
The building, facility or system is owned and operated by the applicant. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Is the completion of this project contingent on DED/DE Energy Loan Program financing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
By signing this form, you have agreed to and understand the "Requirements" specified on the instruction page.			
PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL		SIGNATURE OF AUTHORIZED OFFICIAL	
		DATE	

## AUTHORIZATION FORM INSTRUCTIONS

We recommend that loan applicants contact a Division of Energy loan manager before completing an application. A loan manager can be reached at 1-855-522-2796.

**Below are instructions for selected Application Authorization Form fields.**

6-9. Enter the information for the organization's administrative office location.

10-14. Enter the contact person's information. The contact person is the individual who can answer the majority of the questions related to this application.

15. Enter the total project cost for all energy conservation measures. This can include reasonable fees for design and commissioning.

17. Select the project type. If selecting "System," give a short description, such as motors or traffic signals.

18-19. Enter the planned start and completion dates of construction activities.

20. Some projects may include several building and/or system locations. Enter the total number of buildings or locations that will be directly affected by the proposed project. If a list or map is needed, enter "see attached."

21. Enter the estimated annual energy cost savings calculated on the Energy Conservation Measure (ECM) Summary.

22. Enter the total area of the building that is served by the utility meters on the Fuel Use Summary.

23. Enter the area of the building that will be affected by energy conservation measures.

37. Enter the contact information for those who provided the technical documentation.

38. Select the business type of the energy analyst identified in 37. If selecting "Other," please describe.

39-41. Enter the appropriate district numbers based on the applicant's location.

An authorized official must sign and date the application. An authorized official is an individual with authority to obligate an eligible entity by signature to a loan agreement and promissory note to repay the loan. Please understand that this is an application only, and it does not obligate your organization to accept a loan, if approved by the Division of Energy.

**U.S. Mail Submission:** Print Application Authorization Form, Fuel Usage Summary form, ECM worksheets and ECM summary page. Sign the Application Authorization Form and mail the original application and all supporting documents to the address below.

**Electronic Submission:** Print, sign, and scan the Application Authorization Form. Email the scanned Application Authorization Form with the electronic application to the address below.

Missouri Department of Economic Development  
Division of Energy  
Attn: Loan Program Clerk  
P.O. Box 1766  
301 W. High, Ste. 720  
Jefferson City, MO 65102  
Email: [energy@ded.mo.gov](mailto:energy@ded.mo.gov)

	<u>Service Address</u>	<u>Meter #</u>	<u>G/L ACCOUNT</u>
	2750 NE HAGAN RD (Vault)		
2015-16	2750 NE HAGAN RD (Vault)	LG18603382	028 010 2820 736 300
2014-15	2750 NE HAGAN RD (Vault)	LG15072589	028 010 2820 736 300
2013-14	2750 NE HAGAN RD (Vault)	SA16910088	028 010 2820 736 300
2012-13	2750 NE HAGAN RD (Vault)	SA16910088	028 010 2820 736 300

<u>G/L ACCOUNT</u>	July \$\$\$	July Kilo	Aug \$\$\$	Aug Kilo	Sept \$\$\$	Sept Kilo	Oct \$\$\$
510852000477403	<b>433.06</b>	2440	<b>464.42</b>	2720	<b>289.65</b>	2640	<b>331.96</b>
510852000477403	<b>412.31</b>	2400	<b>382.61</b>	2120	<b>440.57</b>	2560	<b>294.03</b>
510852000477403	<b>338.23</b>	1720	<b>397.49</b>	2240	<b>405.83</b>	2280	<b>277.93</b>
510852000477403	<b>335.91</b>	1760	<b>367.14</b>	2040	<b>389.04</b>	2240	<b>261.18</b>

Oct Kilo	Nov \$\$\$	Nov Kilo	Dec \$\$\$	Dec Kilo	Jan \$\$\$	Jan Kilo	Feb \$\$\$	Feb Kilo
3160	<b>315.05</b>	3200	<b>431.99</b>	5040	<b>515.75</b>	6000	<b>469.51</b>	5040
2680	346.7	3360	<b>316.73</b>	2960	<b>360.94</b>	3520	332.90	3160
2560	358.66	3640	<b>337.38</b>	3680	<b>370.73</b>	3840	358.66	3640
2440	343.58	3720	<b>331.9</b>	3480	<b>337.43</b>	3520	400.03	4320

Mar \$\$\$	Mar Kilo	Apr \$\$\$	Apr Kilo	May \$\$\$	May Kilo	June \$\$\$	June Kilo	Total \$\$\$
293.88	2720	<b>258.75</b>	2120	<b>251.79</b>	1960			<b>4055.81</b>
281.09	2440	<b>273.35</b>	2320	<b>250.82</b>	2040	<b>381.74</b>	2000	
277.43	2600	<b>266.62</b>	2440	<b>231.17</b>	1960	<b>361.23</b>	1880	<b>3981.36</b>
475.44	5720	<b>277.60</b>	2560	<b>215.23</b>	1720	<b>357.09</b>	1840	<b>4091.57</b>

Total Kilo

37040

31560

32480

35360

## RUNWAY LIGHTING

# EMIL-L

## LED Elevated Runway Edge Light

### MEDIUM-INTENSITY



### Compliance with Standards

- FAA:** L-861(L) and L-861E(L) AC 150/5345-46 (Current Edition) and the FAA Engineering Brief No. 67. ETL Certified.
- ICAO:** Annex 14, Vol. I, par. 5.3.9.7 to 5.3.9.9
- T/C:** Transport Canada TP 312 Par. 5.3.10.11 to 5.3.10.13
- CE:** Complies with the requirements of the EMC Directive 2004/108/EC.

### Uses

FAA L-861(L)	<ul style="list-style-type: none"> <li>Runway edge</li> <li>Visual runways or non-precision IFR runways</li> </ul>
FAA L-861E(L)	<ul style="list-style-type: none"> <li>Runway threshold/end</li> <li>Visual runways or non-precision IFR runways</li> </ul>
ICAO & T/C	<ul style="list-style-type: none"> <li>Runway edge</li> <li>Runway threshold/end</li> </ul>

### Features

- Average LED life of 56,000 hours under high-intensity conditions and more than 150,000 hours under typical operating conditions, resulting in significant reduction or even elimination of ongoing maintenance costs and periodic re-lamping expenses
- Single-latch, stainless steel clamp allows easy removal and replacement of top cover and lens
- A gasket is used between the lens and the top cover and also between the top and bottom fixture head assemblies to form a watertight seal
- EMIL with arctic option (U.S. Patent 7192155 B2) uses a thermostatically controlled heater to prevent ice and snow buildup from obscuring light output. Melts ice similar to traditional incandescent fixtures.
- Three screws allow a 4° leveling adjustment of the fixture after installation
- Fixture comes standard with a 1.5-inch coupling, but is available with a 2-inch coupling and in alternative thread patterns
- Sealed entry at cord set to optical assembly interface prevents insect entry
- For additional features common to all of ADB's elevated LED fixtures, see data sheet 3043.

### Operating Conditions

Temperature: -40°F to +131°F (-40°C to +55°C)

Wind: Withstands wind velocities up to 300 mph (480 kph)

### L-861(L)/L-861E(L) Leveling Device

#### Ordering Code \_\_\_\_\_ 44A7061

For accurate aiming and leveling it is recommended to have one leveling device per airfield.

### Ordering Code

#### LED Color

- 1 = Omnidirectional White (L-861)
- 2 = Omnidirectional Yellow (L-861)
- 3 = Bidirectional White/Yellow (L-861)
- 4 = Bidirectional White/Red (L-861)
- 5 = Bidirectional Yellow/Red (L-861)
- 9 = Unidirectional Green/Obscure (L-861E)
- B = Unidirectional Yellow/Obscure (L-861)
- C = Unidirectional White/Obscure (L-861)<sup>1</sup>
- E = Bidirectional Red/Green (L-861E)<sup>5</sup>
- F = Bidirectional Red/Red (L-861E)<sup>5</sup>
- G = Bidirectional Red/Obscure (L-861E)<sup>5</sup>
- H = Bidirectional Green/Yellow (L-861)
- I = Bidirectional Green/White (L-861)<sup>1</sup>

#### Fixture Height

- 1 = 14-inch OAH with 1.5-inch coupling, 12 TPI
- 2 = 24-inch OAH with 1.5-inch coupling, 12 TPI
- 3 = 30-inch OAH with 1.5-inch coupling, 12 TPI
- 4 = 14-inch OAH with 2-inch coupling, 11.5 TPI
- 5 = 24-inch OAH with 2-inch coupling, 11.5 TPI
- 6 = 30-inch OAH with 2-inch coupling, 11.5 TPI
- 7 = 14-inch OAH with 2-inch coupling, 11 TPI<sup>2</sup>
- 8 = 24-inch OAH with 2-inch coupling, 11 TPI<sup>2</sup>
- 9 = 30-inch OAH with 2-inch coupling, 11 TPI<sup>2</sup>
- A = 14-inch OAH without coupling<sup>1,3</sup>
- B = 20-inch OAH with 1.5-inch coupling, 12 TPI
- C = 18-inch OAH with 1.5-inch coupling, 12 TPI
- D = 18-inch OAH with 2-inch coupling, 11.5 TPI
- E = 18-inch OAH with 2-inch coupling, 11 TPI<sup>2</sup>
- F = 18-inch OAH without coupling<sup>1,3</sup>

#### Power

- 1 = Current Driven, 60 Hz
- 2 = Current Driven, 50 Hz<sup>4</sup>
- A = APS<sup>1,6</sup>

#### Arctic Option

- 0 = Without arctic option
- 1 = With arctic option

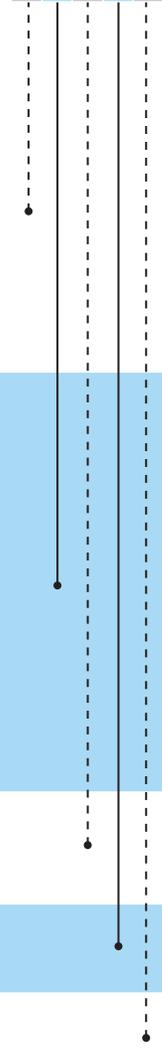
#### Cord Set

- 0 = Standard Configuration
- E = External<sup>1</sup>

#### Notes

- <sup>1</sup> Not ETL Certified
- <sup>2</sup> Normally used in metric applications
- <sup>3</sup> Configuration sold with no column and no coupling
- <sup>4</sup> All 50 Hz EMIL fixtures carry the CE mark
- <sup>5</sup> Optics for red side enhanced to provide a beam much wider than FAA requirements
- <sup>6</sup> APS fixture is not available with an arctic option

### EMIL- \_\_\_\_\_



### Electrical Supply, Current Driven

Medium-intensity runway fixtures should be operated on 3-step power supplies. 6.6 A through an L-830-1 (for 60 Hz) or L-831-1 (for 50 Hz) isolation transformer. EMIL LED lights have been designed to work with any IEC or FAA-compliant transformer up to 30/45 W without affecting performance or lifetime of the light or the transformer. See catalog sheet 3033 for more details on recommended isolation transformers specified below.

	Fixture Load	Isolation Transfmr.	Isol. XF Load	CCR Load
<b>EMIL L-861(L)</b>				
W/out heater	19.6 VA	20/25 W	7.6 VA	27.2 VA
With heater	42 VA	30/45 W	12 VA	54 VA
<b>EMIL L-861E(L) - Bidirectional</b>				
W/out heater	11.8 VA	10/15 W	6.2 VA	18 VA
With heater	33 VA	30/45 W	14 VA	47 VA
<b>EMIL L-861E(L) - Unidirectional</b>				
W/out heater	9.9 VA	10/15 W	6.1 VA	16 VA
With heater	31 VA	30/45 W	14 VA	45 VA

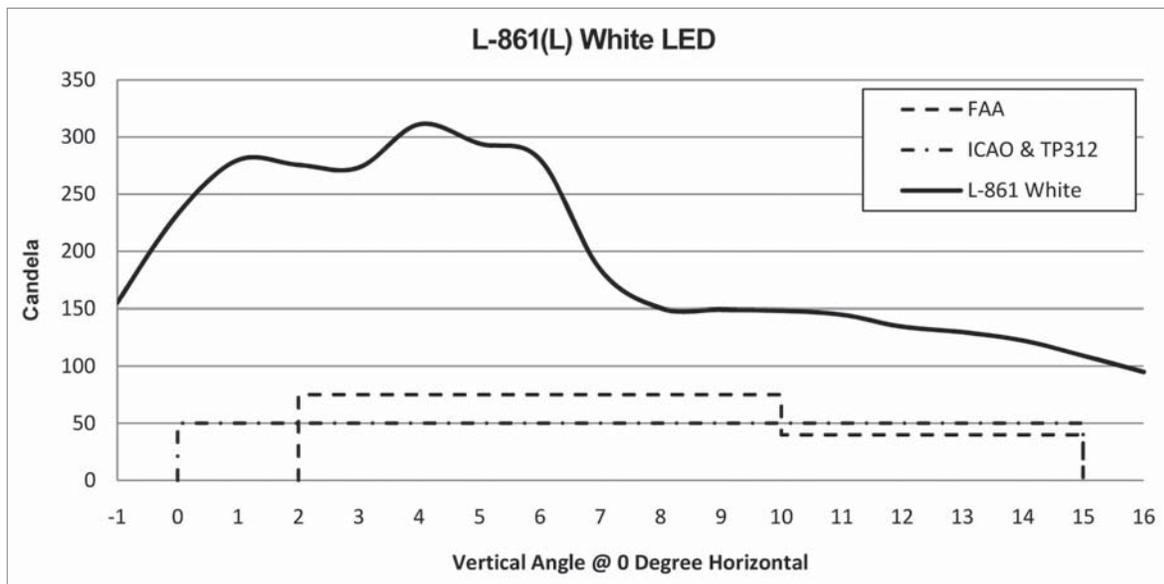
### Packaging

Assembled Fixtures	Dimensions of Cartons in (cm)		Indiv. Weight
	Individual	9 Per Box	
14-inch OAH	6.5 x 6.5 x 20.5 (17 x 17 x 52)	19.5 x 19.5 x 20.5 (50 x 50 x 52)	5 lb 2.3 kg
24-inch OAH	6.5 x 6.5 x 31 (17 x 17 x 79)	19.5 x 19.5 x 31 (50 x 50 x 79)	6.25 lb 2.8 kg
30-inch OAH	6.5 x 6.5 x 37 (17 x 17 x 94)	19.5 x 19.5 x 37 (50 x 50 x 94)	7 lb 3.2 kg

### Spare Components

Refer to the manual to order spare parts.

### Photometric Data



Product specifications may be subject to change, and specifications listed here are not binding. Confirm current specifications at time of order.

ADB Airfield Solutions  
Leuvensesteenweg 585  
B-1930 Zaventem  
Belgium

ADB Airfield Solutions, LLC  
977 Gahanna Parkway  
Columbus, OH 43230  
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Telephone: +32 (0)2 722.17.11  
www.adb-air.com

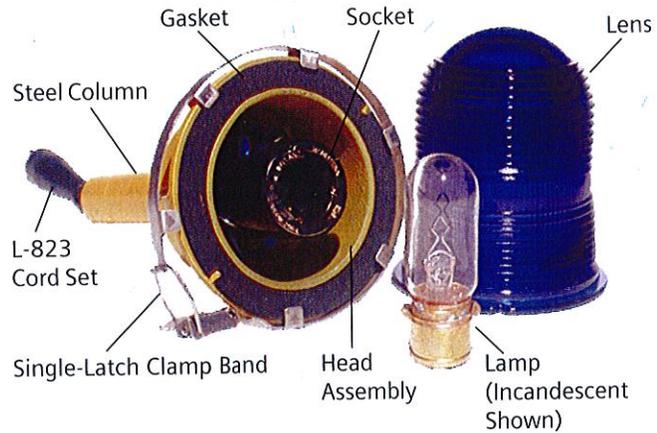
Telephone: +1 614.861.1304  
+1 800.545.4157

## Photometric Data

Color	FAA Avg. Intensity (cd)	Peak Intensity (cd)	Performance	
			Average Intensity (cd)	Beam Spread
<b>Omnidirectional</b>				
L-861 Quartz - 30W				
Yellow	67	107	95	2 to 10°-V
L-861 - 45W				
White	125	321	273	2 to 10°-V
L-861 - 45W				
Yellow	67	182	172	2 to 10°-V
L-861 Quartz - 45W				
White	125	354	290	2 to 10°-V
L-861 Quartz - 45W				
Yellow	67	201	171	2 to 10°-V
L-861T - 30W				
Blue	2.0 (min.)	7.1	N/A	0 to 6°-V
L-861T Incand. - 45W				
Blue	2.0 (min.)	10.5	N/A	0 to 6°-V
L-861T Quartz - 30W				
Blue	2.0 (min.)	6.9	N/A	0 to 6°-V
L-861T Quartz - 45W				
Blue	2.0 (min.)	12.2	N/A	0 to 6°-V
<b>Bidirectional</b>				
L-861E - 45W				
Red	10	578-H 222-V	663	5 to 5°-H 0 to 10°-V
L-861E - 45W				
Green	300	415-H 414-V	374	-1.5 to 1.5°-H 3.5 to 5.5°-V
	180	396-H 360-V	364	-3 to 3°-H 1.5 to 7.5°-V
	90	362-H 331-V	328	5 to 5°-H 0 to 7°-V
L-861E Quartz - 45W				
Red	10	757-H 718-V	697	5 to 5°-H 0 to 7°-V
L-861E Quartz - 45W				
Green	300	445-H 445-V	423	1.5°-H 3.5 to 5.5°-V
	180	428-H 373-V	415	-3 to 3°-H 1.5 to 7.5°-V
	90	389-H 361-V	328	-5 to 5°-H 0 to 7°-V

V = Vertical H = Horizontal

## Inside View



## Spare Components

Description	Part No.
Column (steel) 6" (15.24 cm) for 14" OAH	62A0007-6
Column, (steel) 16" (40.64 cm) for 24" OAH	62A0007-16
Column, (steel) 22" (55.88 cm) for 30" OAH	62A0007-22
Frangible coupling	62B0073
Frangible reducer coupling 2"-1"	61A0281
Gasket	63B0015
Head assembly with phenolic socket	44B1079-1X
Head assembly with quartz socket	44B1484-1X
Lamp, prefocus, 30W/6.6A (ETL Certified)	48A0006
Lamp, prefocus, 45W/6.6A (ETL Certified)	48A0007
Lamp, quartz, 30W/6.6A (ETL Certified)	48A0085
Lamp, quartz, 45W/6.6A (ETL Certified)	48A0083
Lamp socket, phenolic for incandescent	49A0002
Lamp socket, quartz	49A0032
Lamp base	62C0005
Lamp bracket (quartz lamp socket)	60C1169
Lens, white (FAA L-861)	63A0141
Lens, white/yellow (FAA L-861)	63A0142
Lens, white/red (FAA L-861)	63A0144
Lens, white/green (FAA L-861) <sup>1</sup>	63A0146
Lens, blue (FAA L-861T)	63A0151
Lens, red/green (FAA L-861E)	63A0148
Lens, red (FAA L-861E)	63A0149
Lens, green (FAA L-861E)	63A0150
Lens, yellow <sup>1</sup>	63A0143
Lens, yellow/red <sup>1</sup>	63A0156
Lens, red/blue (FAA L-861E)	63A0157
Lens clamp assembly	44B0023

<sup>1</sup>Color and/or color configuration not recognized by the FAA

## Compliance with Standards

**FAA:** L-861, L-861E, & L-861T AC 150/5345-46  
(Current Edition) ETL Certified  
**ICAO:** Annex 14, Vol. 1, para. 5.3.16

## Uses

- L-861**
  - Runway edge
  - Non-precision IFR runways
- L-861E**
  - Runway threshold/end
  - Non-precision IFR runways
  - Declared distance
- L-861T**
  - Taxiway edge

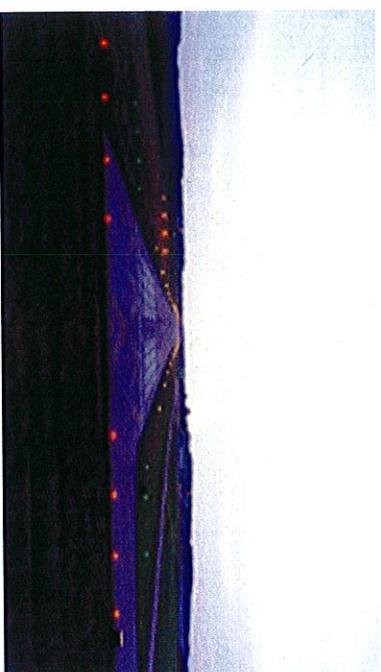
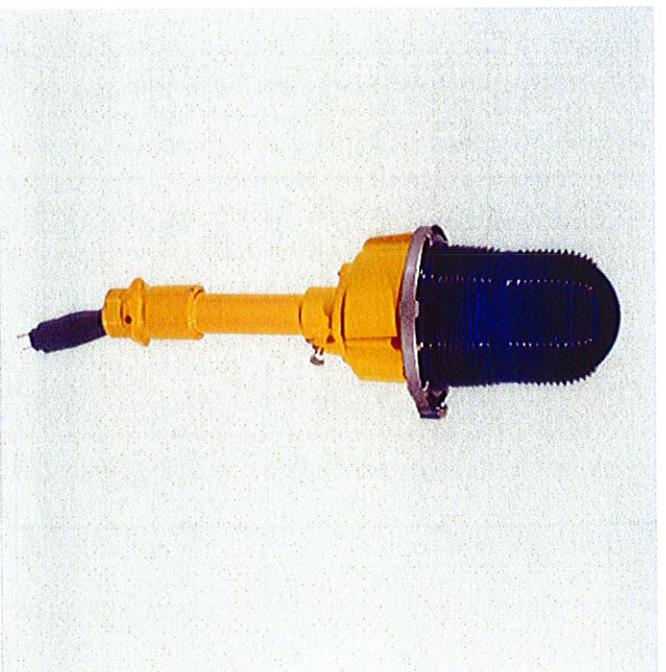
The L-861 quartz/incandescent medium-intensity elevated light fixtures are used to delineate the edges of airport runways (L-861), taxiways (L-861T), and the threshold end (L-861E).

## Features

- Easy maintenance, no special tools required
- Multiple lamp wattages and types (6.6A quartz or 6.6A incandescent) available
- Single-latch, stainless steel clamping band allows easy removal of lens for lamp changes
- Lamp life: rated at 1,000 hours
- Fixtures mount either on a 30-inch galvanized steel stake or on a base plate for a 12- or 16-inch L-867 base
- Heat- and shatter-resistant glass lens
- A gasket is used between the lens and the head assembly to form a tight seal
- Four screws allow a 4° leveling adjustment of the fixture after installation
- Weather-resistant to rain, snow, ice, and standing water

## Operating Conditions

- Temperature: -67°F to +131°F (-55°C to +55°C)
- Wind: Withstands wind velocities up to 350 mph (560 kph)



## Installation

Series 6.6A fixtures are normally installed on a 30-inch steel stake or an L-867 base. Base mounting is the preferred method of installation from a maintenance standpoint and provides added protection for equipment.

## Finish

- Aluminum head assembly
- Light fixture is protected with aviation yellow enamel paint
- Stainless steel hardware provides added protection for equipment

## Packaging

Assembled Fixtures	Dimensions of Cartons		Indiv. Weight
	Individual	9 Per Box	
14-inch OAH	6.5 x 6.5 x 20.5 in	19.5 x 19.5 x 20.5 in	5 lb
	16.5 x 16.5 x 52 cm	49.5 x 49.5 x 52 cm	2.27 kg
24-inch OAH	6.5 x 6.5 x 31 in	19.5 x 19.5 x 31 in	6.25 lb
	16.5 x 16.5 x 79 cm	49.5 x 49.5 x 79 cm	2.84 kg
30-inch OAH	6.5 x 6.5 x 37 in	19.5 x 19.5 x 37 in	7 lb
	16.5 x 16.5 x 94 cm	49.5 x 49.5 x 94 cm	3.18 kg

## Ordering Code

44C1081-XXXX

### Lamp

- 1 = 30W/6.6A Incandescent (ETL Certified)
- 2 = 45W/6.6A Incandescent<sup>2</sup>
- 5 = 30W/6.6A Quartz (ETL Certified)
- 6 = 45W/6.6A Quartz (ETL Certified)
- 7 = No Lamp, Incandescent Socket
- 8 = No Lamp, Quartz Socket

### Lens Color

- 0 = Non-standard Lens (must specify when ordering)<sup>1</sup>
- 1 = Omnidirectional Clear (FAA L-861)<sup>3,4</sup>
- 2 = Bidirectional Clear/Yellow (FAA L-861)<sup>3,4</sup>
- 3 = Bidirectional Clear/Red (FAA L-861)<sup>3,4</sup>
- 4 = Bidirectional Clear/Green (FAA L-861)<sup>1</sup>
- 5 = Omnidirectional Blue (FAA L-861T)<sup>3,4</sup>
- 6 = Bidirectional Red/Green (FAA L-861E)<sup>3,4</sup>
- 7 = Omnidirectional Red (FAA L-861E)<sup>3,4</sup>
- 8 = Omnidirectional Green (FAA L-861E)<sup>1,3,4</sup>
- 9 = Omnidirectional Yellow
- B = Unidirectional Green/Obscure

### Fixture Height

- 1 = 14 in (35.6 cm)
- 2 = 24 in (61.0 cm)
- 3 = 30 in (76.2 cm)
- 4 = 20 in (50.8 cm)

### Notes

Contact the Siemens Airfield Solutions Sales Department for optional color configurations or for non-prefocus, screw-base lamp style fixtures, 44C1082-XXXX.<sup>1,2</sup>

- <sup>1</sup> Color and/or color configuration not recognized by the FAA
- <sup>2</sup> Wattage not submitted for certification for all fixtures
- <sup>3</sup> 30W Incandescent
- <sup>4</sup> 30W and 45W Quartz

Elevated Lighting

*The information contained in this document is subject to change without notice. Siemens reserves the right to make changes and improvements to its products and assumes no responsibility for making these modifications on any equipment previously sold.*

Siemens Airfield Solutions, Inc.  
977 Gahanna Parkway  
Columbus, OH 43230

Telephone: 614-861-1304  
Fax: 614-864-2069  
<http://www.sas.siemens.com>

# SIEMENS

## L-861, L-861E, & L-861T Elevated Runway/Taxiway Edge Light

1011 Rev. F

### Compliance with Standards

**FAA:** L-861, L-861E, & L-861T AC 150/5345-46  
(Current Edition) ETL Certified  
**ICAO:** Annex 14, Vol. 1, para. 5.316

### Uses

#### L-861

- Runway edge
- Non-precision IFR runways

#### L-861E

- Runway threshold/end
- Non-precision IFR runways

#### L-861T

- Taxiway edge

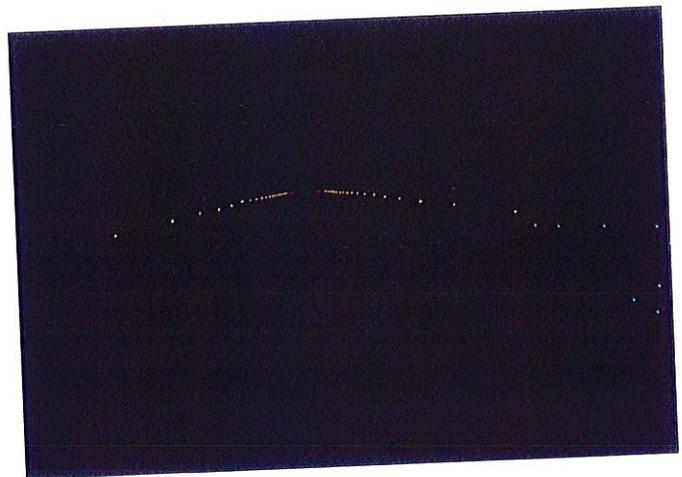
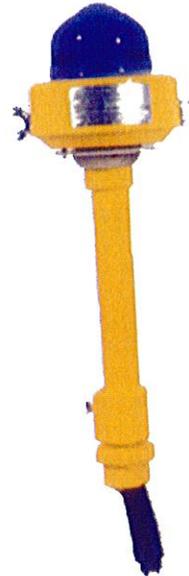
The L-861 quartz medium-intensity elevated light fixtures are used to delineate the edges of airport runways (L-861), taxiways (L-861T), and threshold/end (L-861E).

### Features

- Unique patented design permits rapid lamp changes (U.S. Patent 4,521,836)
- Easy elevation and azimuth positioning
- Integral snow flag holder
- Unique low-profile design reduces damage due to jet blast
- Designed for mounting on a 30-inch galvanized steel stake or on a base plate for a 12- or 16-inch L-867 base
- Heat- and shatter-resistant glass lens
- Easy maintenance, no special tools required
- Multiple lamp wattages available
- Lamp life: rated at 1,000 hours at 45W/6.6A
- Standard overall fixture height is 14 inches. Additional column lengths are available for mounting heights of 24 and 30 inches for use in regions with heavy snowfall
- Weather-resistant to rain, snow, ice, and standing water

### Operating Conditions

- Temperature: -67°F to +131°F (-55°C to +55°C)
- Wind: Withstands wind velocities up to 350 mph (560 kph)



Elevated Lighting

## Finish

- Aluminum castings
- Light fixture is protected with aviation yellow enamel paint
- Stainless steel hardware

## Installation

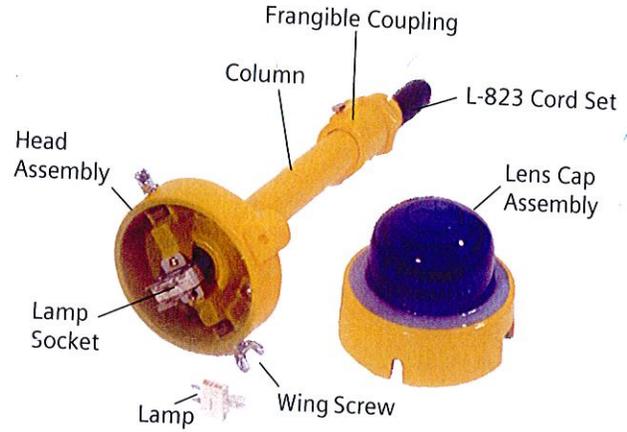
The L-861 and L-861T light fixtures are used in conjunction with either a 30-inch metal stake or with a base plate for a 12- or 16-inch L-867 base. Base mounting is the preferred method of installation from a maintenance standpoint and provides added protection for equipment.

## Photometric Data

Color	FAA Avg. Intensity (cd)	Peak Intensity (cd)	Performance	
			Average Intensity (cd)	Beam Spread
<b>L-861 - 45W</b>				
White	125	331	210	2 to 10°-V
Yellow	67			10° to 15°-V
<b>L-861T - 45W</b>				
Blue	2	10.1	N/A	0 to 6°-V

V = Vertical

## Inside View



## Spare Components

Description	Part No.
Ball	62A0527
Clamp	62B0472
Column 8.6" (21.9 cm) for 14" OAH	62A0007-9
Column, 18.6" (47.3 cm) for 24" OAH	62A0007-19
Column, 24.6" (62.48 cm) for 30" OAH	62A0007-25
Cord set	44A1701
Frangible coupling	62B0073
Frangible reducer coupling 2"-1"	61A0281
Head assembly with cord set for 14" OAH	44C1774-1
Head assembly with cord set for 24" OAH	44C1774-2
Head assembly with cord set for 30" OAH	44C1774-3
Lamp, 45W/6.6A (ETL Certified)	48A0083
Lamp, 30W/6.6A (ETL Certified)	48A0085
Lamp socket	49A0063
Lamp base	62C0532
Lens cap assembly, L-861T, blue	44A1773-1
Lens cap assembly, L-861, clear	44A1773-2
Lens cap assembly, L-861, clear/yellow	44A1773-3
Lens cap assembly, L-861E <sup>3</sup> , red/green	44A1773-4
Lens cap assembly, L-861E <sup>3</sup> , red	44A1773-5
Lens cap assembly, L-861E, green/obscure	44A1773-6
Lens cap assembly, L-861E, green/yellow <sup>3</sup>	44A1773-7
Lens cap assembly, L-861, red/yellow	44A1773-8
Lens cap assembly, L-861T, blue/obscure	44A1773-9
Lens cap assembly, L-861, yellow	44A1773-0
Lens cap assembly, L-861E, green	44A1773-A
Lens cap assembly, L-861, clear/red	44A1773-C
Lens cap without lens	62C0531
Lens, L-861T, blue	63B0378-1
Lens, L-861, clear	63B0378-2
Lens, L-861, clear/yellow	63B0378-3
Lens, L-861E <sup>3</sup> , red/green	63B0378-4
Lens, L-861E <sup>3</sup> , red	63B0378-5
Lens, L-861E, green/obscure	63B0378-6
Lens, L-861, yellow	63B0378-7
Lens, L-861E, green	63B0378-8
Lens, L-861T, blue/obscure	63B0378-9
Lens, L-861, clear/red	63B0378-11
Lens sealant	67A0006-3

## Ordering Code

44C1752-XXX

### Lamp

1 = 30W/6.6A Quartz (ETL Certified)  
2 = 45W/6.6A Quartz (ETL Certified)

### Lens Cap Color

1 = Blue (L-861T)<sup>2</sup>  
2 = Clear (L-861)<sup>1</sup>  
3 = Clear/Yellow (L-861)<sup>2</sup>  
4 = Red/Green (L-861E)<sup>2,3</sup>  
5 = Red/Yellow (L-861)<sup>2,4</sup>  
6 = Green/Obscure (L-861E)<sup>2,3</sup>  
7 = Green/Yellow<sup>2,4</sup>  
8 = Red (L-861E)<sup>2,3</sup>  
9 = Blue/Obscure (L-861T)<sup>2</sup>  
0 = Yellow (L-861)<sup>2</sup>  
A = Green (L-861E)<sup>2,3</sup>  
B = Clear/Red (L-861)<sup>1</sup>

### Fixture Height

1 = 14 in (35.6 cm)  
2 = 24 in (61.0 cm)  
3 = 30 in (76.2 cm)

Contact the Siemens Airfield Solutions Sales Department for optional color configurations.

### Notes

- <sup>1</sup> 30W and 45W
- <sup>2</sup> 45W only
- <sup>3</sup> Not submitted for ETL Certification
- <sup>4</sup> Color not recognized by FAA

## Packaging

Assembled Fixtures	Dimensions of Cartons		Indiv. Weight
	Individual	9 Per Box	
14-inch OAH	6.5 x 6.5 x 20.5 in	19.5 x 19.5 x 20.5 in	5 lb
	16.5 x 16.5 x 52 cm	49.5 x 49.5 x 52 cm	2.27 kg
24-inch OAH	6.5 x 6.5 x 31 in	19.5 x 19.5 x 31 in	6.25 lb
	16.5 x 16.5 x 79 cm	49.5 x 49.5 x 79 cm	2.84 kg
30-inch OAH	6.5 x 6.5 x 37 in	19.5 x 19.5 x 37 in	7 lb
	16.5 x 16.5 x 94 cm	49.5 x 49.5 x 94 cm	3.18 kg

The information contained in this document is subject to change without notice. Siemens reserves the right to make changes and improvements to its products and assumes no responsibility for making these modifications on any equipment previously sold.

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*(Signature Series™)*

## L-861T Elevated Taxiway Edge LED (ETEL) Light

**Document No. 96A0297**

Issued: September 3, 2002

Rev. H: May 27, 2010

Patented: Patent No.: US 7,083,315 B2

ETL Certified to FAA Specification  
AC 150/5345-46B

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# Warranties

**WARRANTY FOR GOODS AND SERVICES:** Seller warrants, to the extent to which any of the same may be applicable, that (a) on the date of shipment the goods are of the kind and quality described herein and are free of non-conformities in workmanship and material, (b) the engineering services performed by it will be performed in accordance with generally accepted professional standards, (c) any specialized tools, equipment and instruments for the use of which a charge is made to the Buyer shall be adequate for the work to be performed and (d) any replacement or other parts furnished by it or any work done by it on the Buyer's equipment or both shall be free of defects in workmanship and materials. This warranty does not apply to goods delivered by Seller but manufactured by others.

Buyer's exclusive remedy for any failure of the goods or services to conform to any of the applicable warranties shall be to have Seller re-perform services, repair or replace (at Seller's option) the nonconforming item and any affected part of the goods provided by Seller. Seller's obligation to re-perform services or to repair or replace goods shall be in effect for a period of one (1) year from initial operation of the goods or completion of Services but not more than eighteen (18) months from Seller's shipment of the goods. Seller shall correct any failure to conform to any of the applicable foregoing warranties of which it is notified in writing within that period of time specified.

Repaired and replacement parts and repair services shall be warranted for the remainder of the original period of notification set forth above, but in no event less than 12 months from repair or replacement. In the case of any other breach of the foregoing warranty, Seller shall furnish engineering services or specialized tools, equipment and instruments, to the same extent as on the original work. Buyer shall grant Seller access to the goods or services at all reasonable times in order for Seller to determine any nonconformity in the goods or services. It is understood and agreed that, unless otherwise agreed to in writing by Seller, Seller assumes no responsibility with respect to the suitability of the Buyer's equipment or any latent defects in the same. In no event shall Seller be responsible for providing working access to the defect, including the removal, disassembly, replacement or reinstallation of any equipment, materials or structures to the extent necessary to permit Seller to perform its warranty obligations, or transportation costs to and from the Seller factory or repair facility, or for damage to equipment components or parts resulting in whole or in part from improper maintenance or operation or from their deteriorated condition. Seller shall have the right of disposal of items replaced by it. If Seller is unable or unwilling to repair or replace, or if repair or replacement does not remedy the nonconformity, Seller and Buyer shall negotiate an equitable adjustment in the contract price, which may include a full refund of the contract price for the nonconforming goods or services. All warranty work shall be performed in a single shift straight time basis Monday through Friday. In the event the Buyer requires correction of warranty items on an overtime schedule, the premium portion of such overtime shall be for the Buyer's account.

**THIS IS SELLER'S SOLE GUARANTEE AND WARRANTY WITH RESPECT TO THE GOODS AND SERVICES. THERE ARE NO OTHER EXPRESS OR IMPLIED WARRANTIES OR WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY IMPLIED WARRANTIES OTHER THAN THOSE MADE EXPRESSLY HEREIN. ALL SUCH WARRANTIES ARE EXPRESSLY DISCLAIMED.**

## Disclaimers

This manual could contain technical inaccuracies or typographical errors. ADB Airfield Solutions reserves the right to revise this manual from time to time in the contents thereof without obligation of ADB Airfield Solutions to notify any person of such revision or change.

Details and values given in this manual are average values and have been compiled with care. They are not binding, however, and ADB Airfield Solutions disclaims any liability for damages or detriments suffered as a result of reliance on the information given herein or the use of products, processes or equipment to which this manual refers. No warranty is made that the use of the information or of the products, processes or equipment to which this manual refers will not infringe any third party's patents or rights. The information given does not release the buyer from making their own experiments and tests.

# Section 1

## Safety

---

### 1. Safety

---

This section contains general safety instructions for using your ADB Airfield Solutions equipment. Some safety instructions may not apply to the equipment in this manual. Task- and equipment-specific warnings are included in other sections of this manual where appropriate. Note all warnings and follow all instructions carefully. Failure to do so may result in personal injury, death, or property damage.

To use this equipment safely,

- refer to the FAA Advisory Circular AC 150/5340-26, *Maintenance of Airport Visual Aids Facilities*, for instructions on safety precautions.
- observe all safety regulations. To avoid injuries, always remove power prior to making any wire connections and touching any parts. Refer to FAA Advisory Circular AC 150/5340-26.
- read and become familiar with the general safety instructions provided in this section of the manual before installing, operating, maintaining, or repairing this equipment.
- read and carefully follow the instructions given throughout this manual for performing specific tasks and working with specific equipment.
- store this manual within easy reach of personnel installing, operating, maintaining, or repairing this equipment.
- follow all applicable safety procedures required by your company, industry standards, and government or other regulatory agencies.
- obtain and read Material Safety Data Sheets (MSDS) for all materials used.

---

### 2. Safety Symbols

---

Become familiar with the safety symbols presented in this section. These symbols will alert you to safety hazards and conditions that may result in personal injury, death, or property and equipment damage.



**WARNING:** Failure to observe this warning may result in personal injury, death, or equipment damage.

---

## 2. Safety Symbols (*contd.*)

---



**WARNING:** Risk of electrical shock. Failure to observe this warning may result in personal injury, death, or equipment damage.



**WARNING:** Disconnect equipment from line voltage. Failure to observe this warning may result in personal injury, death, or equipment damage.



**WARNING:** Wear safety goggles. Failure to observe may result in serious injury.



**CAUTION:** Failure to observe may result in equipment damage.

---

## 3. Qualified Personnel

---

The term *qualified personnel* is defined here as individuals who thoroughly understand the equipment and its safe operation, maintenance, and repair. Qualified personnel are physically capable of performing the required tasks, familiar with all relevant safety rules and regulations and have been trained to safely install, operate, maintain, and repair the equipment. It is the responsibility of the company operating this equipment to see that its personnel meet these requirements.

---

## 4. Intended Use

---



**WARNING:** Use of this equipment in ways other than described in this manual may result in personal injury, death, or property and equipment damage. Use this equipment only as described in this manual.

ADB Airfield Solutions cannot be responsible for injuries or damages resulting from nonstandard, unintended applications of its equipment. This equipment is designed and intended only for the purpose described in this manual. Uses not described in this manual are considered unintended uses and may result in serious personal injury, death, or property damage. Unintended uses may result from taking the following actions:

- making changes to equipment that have not been recommended or described in this manual or using parts that are not genuine ADB Airfield Solutions replacement parts
- failing to make sure that auxiliary equipment complies with approval agency requirements, local codes, and all applicable safety standards

---

#### 4. Intended Use(*contd.*)

---

- using materials or auxiliary equipment that are inappropriate or incompatible with your ADB Airfield Solutions equipment
- allowing unqualified personnel to perform any task

---

#### 5. Installation

---

Read the installation section of all system component manuals before installing your equipment. A thorough understanding of system components and their requirements will help you install the system safely and efficiently.



**WARNING:** Failure to follow these safety procedures can result in personal injury or death.

- Allow only qualified personnel to install ADB Airfield Solutions and auxiliary equipment. Use only approved equipment. Using unapproved equipment in an approved system may void agency approvals.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Follow all instructions for installing components and accessories.
- Install all electrical connections to local code.
- Use only electrical wire of sufficient gauge and insulation to handle the rated current demand. All wiring must meet local codes.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Protect components from damage, wear, and harsh environment conditions.
- Allow ample room for maintenance, panel accessibility, and cover removal.
- Protect equipment with safety devices as specified by applicable safety regulations.
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning.

---

## 6. Operation

---

Only qualified personnel, physically capable of operating the equipment and with no impairments in their judgment or reaction times, should operate this equipment.

Read all system component manuals before operating this equipment. A thorough understanding of system components and their operation will help you operate the system safely and efficiently.

- Before starting this equipment, check all safety interlocks, fire-detection systems, and protective devices such as panels and covers. Make sure all devices are fully functional. Do not operate the system if these devices are not working properly. Do not deactivate or bypass automatic safety interlocks or locked-out electrical disconnects or pneumatic valves.
- Never operate equipment with a known malfunction.
- Do not attempt to operate or service electrical equipment if standing water is present.
- Use this equipment only in the environments for which it is rated. Do not operate this equipment in humid, flammable, or explosive environments unless it has been rated for safe operation in these environments.
- Never touch exposed electrical connections on equipment while the power is ON.

---

## 7. Action in the Event of a System or Component Malfunction

---

Do not operate a system that contains malfunctioning components. If a component malfunctions, turn the system OFF immediately.

- Disconnect and lock out electrical power.
- Allow only qualified personnel to make repairs. Repair or replace the malfunctioning component according to instructions provided in its manual.

---

## 8. Maintenance and Repair

---

Allow only qualified personnel to perform maintenance, troubleshooting, and repair tasks. Only persons who are properly trained and familiar with ADB Airfield Solutions equipment are permitted to service this equipment.

- Always use safety devices when working on this equipment.
- Follow the recommended maintenance procedures in your equipment manuals.
- Do not service or adjust any equipment unless another person trained in first aid and CPR is present.

---

**8. Maintenance and Repair***(contd.)*

---

- Connect all disconnected equipment ground cables and wires after servicing equipment. Ground all conductive equipment.
- Use only approved ADB Airfield Solutions replacement parts. Using unapproved parts or making unapproved modifications to equipment may void agency approvals and create safety hazards.
- Check interlock systems periodically to ensure their effectiveness.
- Do not attempt to service electrical equipment if standing water is present. Use caution when servicing electrical equipment in a high-humidity environment
- Use tools with insulated handles when working with electrical equipment.

## Section 2

# Description

### 1. Introduction

See Figure 2-1. This section describes the ADB Airfield Solutions *Signature Series*<sup>™</sup> patented L-861T elevated taxiway edge LED (ETEL) Patent No: US 7,083,315 B2. The L-861T elevated taxiway edge LED light is used to delineate the edges of airport taxiways, holding bays, and aprons. These elevated lights are ETL certified according to FAA specification AC 150/5345-46B, and FAA LED specifications.

**NOTE:** *Signature Series* is a trademark of ADB Airfield Solutions.

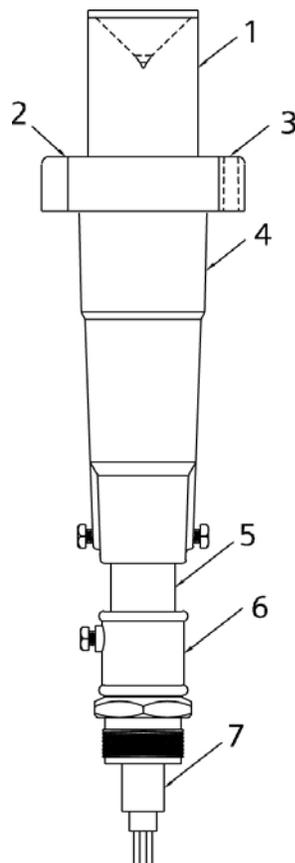


Figure 2-1 L-861T Elevated Taxiway Edge Light

- |                           |                       |            |
|---------------------------|-----------------------|------------|
| 1. Optical Column         | 4. Housing            | 7. Cordset |
| 2. Locking Ring           | 5. Column             |            |
| 3. Hole for Optional Flag | 6. Frangible Coupling |            |

1.

**1. Introduction** (*contd.*)

See Figure 2-1. The L-861T elevated light fixtures consist of the following physical elements:

- Optical column (1)
- Locking ring (2)
- Housing (4)
- Column (5)
- Frangible coupling (6)
- Cordset (7)
- LED assembly (electronic module)  
(See Figure 3-1, Item 9)

The fixtures can be stake mounted on a 30-inch galvanized steel stake. The fixtures can also be mounted on a base plate for a 12- or 16-inch diameter L-867 base with 1-1/2–12 NPS or a special 2 NPT frangible reducer coupling for an existing installation that has 2-inch NPT hubs in the base plate. Base mounting is recommended because maintenance is easier to perform. Stake-mounted lights require transformers, cables, and connectors that are designed for direct earth burial.

The mounting column is available in three lengths. Refer to Table 2-1.

**NOTE:** The measurements in Table 2-1 are taken from the grade to the top of the light fixture.

Table 2-1 Mounting Columns

Type	Height in. (mm)
Standard (FAA minimum)	14 (355.6)
Standard	24 (610)
Standard (FAA maximum)	30 (762)

**2. L-861T Elevated Light Fixture: Required Equipment**

Refer to Table 2-2 for required equipment that is supplied. Refer to Table 2-3 for required equipment that is not supplied. Refer to the *Parts* section for part numbers.

Table 2-2 Required Equipment Supplied

Description	Quantity
L-861T light fixture (with optical column, frangible fitting, LED module, and L-823 cordset)	1
Instruction manual	1

---

## 2. L-861T Elevated Light Fixture: Required Equipment *(contd.)*

---

Table 2-3 Required Equipment Not Supplied

Description	Quantity
Torque wrench (0 to 200 inch-pounds)	1 (if required)
Loctite number 243 or equivalent	As required
L-867 base plate assembly with 1-1/2-12 NPS with gasket (for 12- or 16-inch diameter L-867 base) when fixture is base mounted	1 (if required)
Stake assembly (30-inch galvanized steel) when fixture is stake mounted	1 (if required)
Isolation transformer for series circuit (Refer to Table 2-4 for appropriate transformers.)	1 (if required)

Table 2-4 Isolation Transformers

For a...	Then use this isolation transformer...	Note
6.6 A series circuit	L-830-1 (6.6 A/6.6 A, 45 W) for 60 Hz L-831-1 (6.6 A/6.6 A, 45 W) for 50 Hz	A
20 A/6.6 A series circuit	L-830-2 (20 A/6.6 A, 45 W) for 60 Hz L-832-2 (20 A/6.6 A, 45 W) for 50 Hz	
NOTE A: To match the fixture load for optimal efficiency, use the 10 W, 6.6 A/6.6 A transformer (Part Number 35A0578).		

---

## 3. Specifications

---

This subsection provides specifications for the L-861T light fixtures.

### Input

2.8-6.6 A (3-Step or 5-Step)

### Expected LED Life

56,000 hours in high intensity conditions.  
More than 150,000 hours in actual operating conditions.

### Light Source

One watt high lumen density (brightness) LED

### Environmental Operating Conditions

The L-861T light fixture is designed to operate under the conditions presented below for temperature, wind, altitude, and relative humidity.

#### Temperature

-55 to +55 °C (-67 to +131 °F)

#### Wind

Velocities up to 350 mph (560 kph)

#### Altitude

Sea level to 10,000 feet (3000 m)

**Relative Humidity**

Up to 100 %

**Weight**

Refer to Table 2-5.

Table 2-5 Light Fixture Weight

<b>Assembled Fixture</b>	<b>Fixture Weight</b>
14-Inch overall height	5 lb (2.27 kg)
24-Inch overall height	6.25 lb (2.84 kg)
30-Inch overall height	7 lb (3.18 kg)

**Photometric Data**

This subsection provides photometric data for the L-861T light fixture.  
Refer to Table 2-6.

Table 2-6 Photometric Data

<b>Color</b>	<b>Light Source</b>	<b>Measured Peak Intensity (candelas)</b>	
		<b>5 Degrees Vertical</b>	<b>FAA Minimum</b>
Blue	1 light emitting diode	2.3 minimum	2

# Section 3

## Installation



**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

---

### 1. Introduction

---

This section provides instructions for installing the L-861 medium intensity elevated light fixture. Refer to the airport project plans and specifications for the specific installation instructions.

---

### 2. Unpacking

---

The equipment is shipped ready for installation. Handle equipment very carefully to prevent component damage. Unpack the carton upon receipt and check the contents and their condition. Note any exterior damage to the carton that might lead to detection of equipment damage.

If you note any damage to any equipment, file a claim with the carrier immediately. The carrier may need to inspect the equipment.

---

### 3. Placement

---

This subsection describes the placement of the L-861T light fixtures. Follow the guidelines below, along with FAA specification AC 150/5340-24 and site plans, when placing the L-861T light fixture.

- The L-861T light fixture is normally positioned a maximum of 10 feet (3.048 m) off the edge of the hard surface of the taxiway, and in a straight line with all other light fixtures on the same side of the runway.
- The longitudinal spacing of the light fixtures should not exceed 200 feet (60.96 m) to define the lateral limits of the taxiing paths. The longitudinal spacing of the lights is influenced by the physical layout of the taxiways.
- Closer spacing of the lights should be provided on short taxiway sections, curves, and entrances to taxiways from runways or aprons.

---

## 4. Installation

---

This subsection provides installation instructions for the L-861T light fixtures.

### Base Mounting

L-861T light fixtures can be mounted on an L-867 base mated with a base plate with a diameter and bolt-hole corresponding to either a 12-inch- (304.8 mm-) diameter L-867B base or a 16-inch- (406.4 mm-) diameter L-867D base. The base plate is designed to receive a frangible coupling using a female thread. A gasket is used with the base plate to form a watertight seal between the base plate and the L-867 base.

**NOTE:** Install the base according to appropriate FAA specifications and site plans.

**Base Mounting** (*contd.*)

To install the base, perform the following procedure:

1. See Figure 3-1. Install the L-867 base (2) on undisturbed soil. If the soil is unsuitable, remove soil to an adequate depth and replace with compacted acceptable material.

**NOTE:** In closed duct systems, install in soil conditions with good drainage. Use light bases having a drain hole to prevent water accumulation.

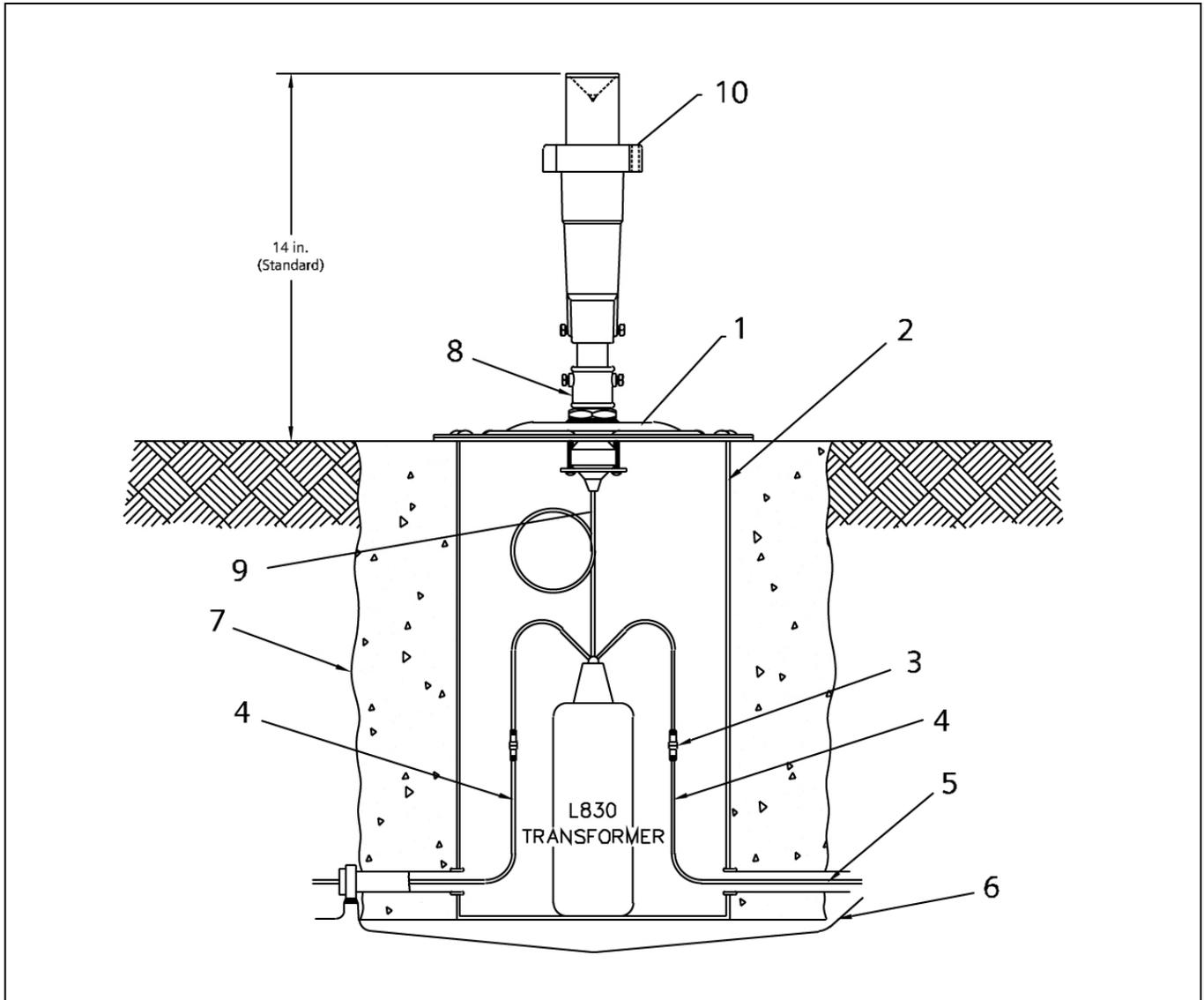


Figure 3-1 Base Mounting

- |                            |   |  |
|----------------------------|---|--|
| 1. L-867 Base Plate        | 4. Two-foot Slack for Connections (Minimum) | 7. Four-Inches Concrete Backfill Recommended |
| 2. L-867 Base              | 5. 5 KV, L-824 Cable                        | 8. Frangible Coupling and Disconnect Plug    |
| 3. L-823 Primary Connector | 6. Optional Bare Copper Counterpoise Wire   | 9. L-823 Secondary Connector                 |
|                            |   | 10. Hole for Flag                            |

**Base Mounting** (*contd.*)

2. Orient the cable entrance hubs of the base in the proper directions.
3. Level the light base so that the mounting flange surface is level with the finished grade.
4. With the base at the proper orientation and held at proper elevation, place approximately 4 inches (101.6 mm) of concrete backfill (7) around the outside base.

**NOTE:** If the concrete backfill is omitted, the earth backfill must be compacted to maintain proper elevation and orientation of the base.

5. Slope the top of the concrete away from the flange portion of the base so the sloped outer edges of the concrete are at surface grade.
6. To install the LED light fixture, connect the primary power line to the appropriate isolation transformer. Refer to Table 2-4.

**NOTE:** Use a brick to raise the transformer about 3 inches above the bottom surface of the L-867 base to avoid the possibility of the transformer being partially immersed in water in case water accumulates above the level of the ducts or pipes.

7. After you have connected the transformer, check the continuity of the series loop.
8. Wrap the connector joints in the primary circuit with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape one-half lapped, extending at least 1-1/2 inches (3.81 cm) on each side of the joint.
9. Clamp the female secondary plug from the isolation transformer to the L-867 base plate fitting.
10. Bolt the base plate (1) with the base plate gasket to the L-867 base using six 3/8-16 stainless steel bolts. Apply a drop of Loctite number 243 to each bolt thread, and use a torque wrench to torque bolts down to 100/110 inch-pounds (11.3 Nt-m).

11. Connect the male L-823 plug (Figure 3-1, Item 3) from the light fixture to the female plug on the secondary lead of the isolation transformer by first loosening the frangible coupling hex screw (Figure 3-2, Item 7) until the coupling is free. Then retighten the hex screw finger-tight.

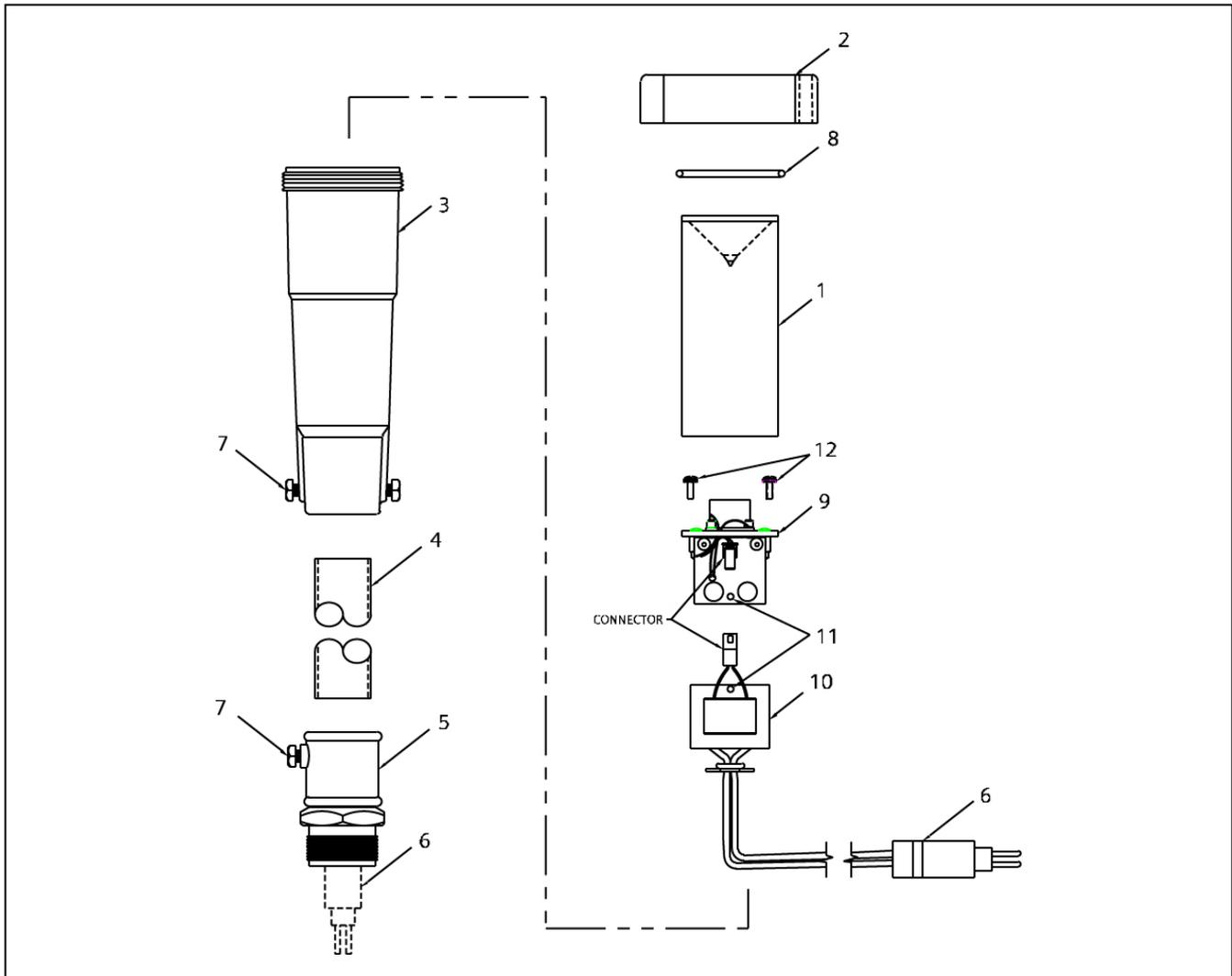


Figure 3-2 L-861T Elevated Light Fixture Installation

- |                   |                       |                                  |
|-------------------|-----------------------|----------------------------------|
| 1. Optical Column | 5. Frangible Coupling | 9. Electronic Module (with LED)  |
| 2. Locking Ring   | 6. L-823 Cordset      | 10. Transformer/Cordset Assembly |
| 3. Housing        | 7. Hex Screw          | 11. Nylon Wire Tie               |
| 4. Column         | 8. O-ring seal        | 12. Self-Locking Screw           |

**Base Mounting** (*contd.*)

12. Plug the L-823 into the mating isolation transformer secondary lead.
13. Loosen the hex screw on the coupling to free the coupling. Handscrew the coupling into the base plate hub. Finish tightening the coupling with a wrench.



**CAUTION:** Do not tighten the coupling if the coupling hex screw is still tight. Failure to follow these instructions will damage the L-823 connection to the transformer (Figure 3-2, Item 10).

14. Tighten the coupling screw that secures the column to the frangible coupling and the adjustable head.
15. Level the light fixture. Refer to *Light Fixture Leveling* in this section.

**Light Fixture Leveling**

Level the light fixture only after mounting it on the base.

To level the light fixture, perform the following procedure:

1. See Figure 3-2. Slightly loosen the three hex screws (7) in the bottom of the housing (3).
2. Place a level on top of the locking ring (2) and rotate housing (3) until level. Tighten the three hex screws (7) to lock in place.

## Stake Mounting

Mount the column light fixtures on 30-inch (762-mm) galvanized steel stakes with a fitting attached to the top of each stake to receive the male thread of the frangible coupling. Stake mounting requires cables and connections that are designed for direct earth burial. Install according to appropriate FAA and local contractor specifications.

To mount the L-861T light fixture on a stake, perform the following procedure:

1. See Figure 3-3. Assemble the stake by attaching the stake hub (2) to the metal stake (5) using two 3/8–16 x 3/4-in. hex head screws (3) and 3/8-in. lockwashers (4).

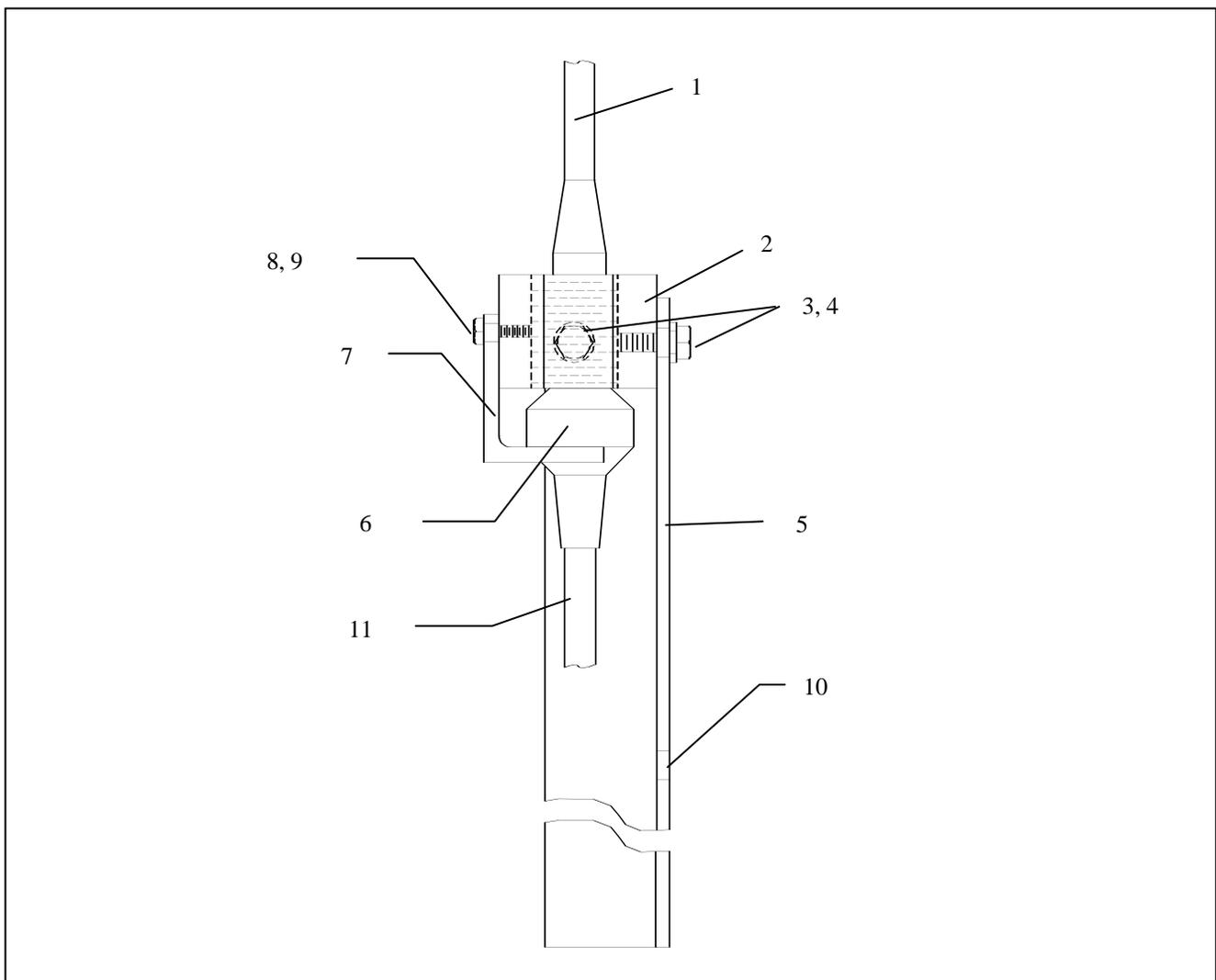


Figure 3-3 Stake Assembly

- |                    |                                      |                                |
|--------------------|--------------------------------------|--------------------------------|
| 1. L-823 Male Plug | 5. Metal Stake                       | 9. Lockwasher                  |
| 2. Stake Hub       | 6. Transformer Secondary Female Plug | 10. Grounding Screw Hole       |
| 3. Hex Head Screw  | 7. Cable Connector Support           | 11. Transformer Secondary Lead |
| 4. Lockwasher      | 8. Hex Head Screw                    |                                |

**Stake Mounting** (*contd.*)

- See Figure 3-4. Install the stake (4) in 6-inch- (152.4-mm-) diameter holes in the ground at a depth of 30 inches (762 mm) so that the mounting hub (8) of the stake is level.

**NOTE:** The top of the stake should be even with the ground within one degree of the vertical. In areas where frost may cause heaving, anchor the stake with concrete and use a permeable backfill material such as sand around the buried electrical components. Cover the top surface with an impervious material to reduce moisture penetration.



**CAUTION:** Do not drive stakes. Driving stakes may damage the stake and cause light fixture misalignment. Refer to FAA specification AC 150/5340-24.

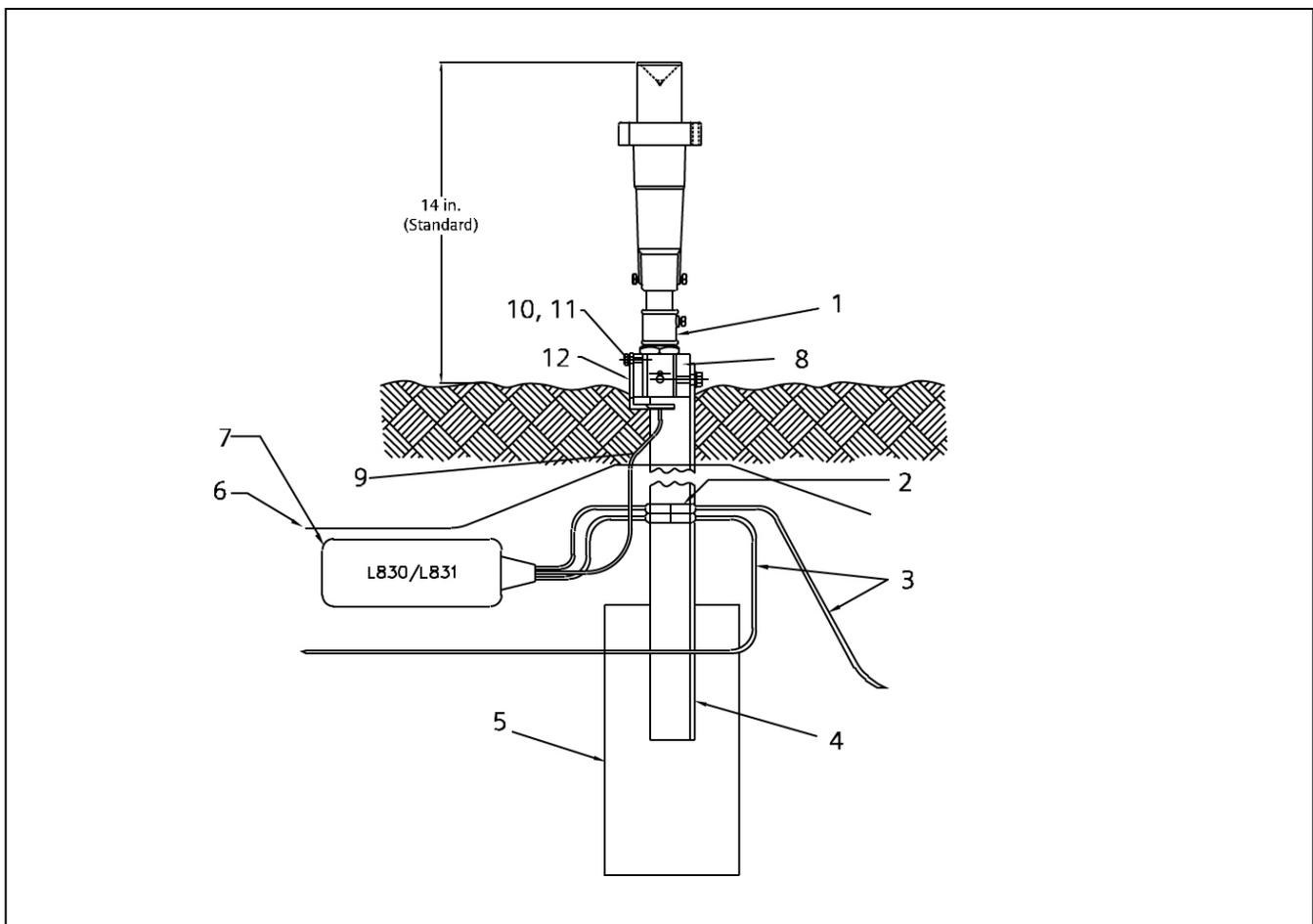


Figure 3-4 Stake Mounting

- |   |                               |
|---|-------------------------------|
| 1. Frangible Coupling and Disconnect Plug       | 7. Isolation Transformer      |
| 2. Connectors                                   | 8. Stake Hub                  |
| 3. 5 KV, L-824 Cable                            | 9. Transformer Secondary Plug |
| 4. Metal Stake (30 in.)                         | 10. Hex Head Screw            |
| 5. Concrete Anchor (Recommended 6 x 6 x 12-in.) | 11. Lockwasher                |
| 6. Optional Bare Copper Counterpoise Wire       | 12. Cable Connector Support   |

**Stake Mounting** (*contd.*)

3. Backfill around the stake with compacted earth passing a 1-inch (25.4 mm) sieve.

**NOTE:** Use a bubble level or carpenter's level to ensure the stake is vertical before backfilling around stake. Backfill with concrete (5) in case of unstable soil conditions.

4. Make electrical connections by installing the transformer primary cables (3) to the field circuit. Then insert the transformer secondary plug (9) in the cable connector support's forked tine and attach the cable connector support (12) to the stake hub (8) using 1/4-20 x 3/4-in. hex head screw (10) and 1/4-in. split lockwasher (11).

**NOTE:** The small hole at the lower end of the stake is provided for a counterpoise wire connection (6).

5. Install the light fixture on the stake.

# Section 4

## Maintenance

### 1. Introduction

This section provides maintenance information for the L-861T LED elevated light.

### 2. Maintenance Schedule

To keep the L-861T light fixtures operating efficiently, follow a preventive maintenance schedule. Refer to Table 4-1. Refer to FAA AC 150/5340-26 for more detailed information.

Table 4-1 L-861T Light Fixture Maintenance

Interval	Maintenance Task	Action
Weekly	Check for vegetation.	Remove vegetation. Use weed killer.
Monthly	Check for misaligned fixture.	Straighten, level, and align.
	Check for dirty optical column.	Clean with glass cleaner.
	Check for dirty frangible coupling weep holes (for stake-mounted fixtures only).	Clean weep holes.
Annually	Check for improper ground elevation.	Grade so frangible point is approximately 1 inch (25.4 mm) above ground elevation.
	Check for improper light elevation.	Maintain same elevation for all light fixtures.
	Check for corrosion present or paint loose or chipped.	Scrape and repaint.
	Check for chipped paint on exterior body and fixture.	Touch up paint as necessary.
		<b>NOTE:</b> The locking ring (Figure 2-1, Item 2) must remain blue in color. The blue color identifies the fixture as a taxiway fixture during daylight hours when power is off.
Unscheduled	Make prediction of heavy snowfall, if necessary.	Use red flags or sticks to mark the location of fixtures to facilitate snow removal and lessen the chance of damage to fixtures by snow removal equipment. Refer to the optional snow flag kit in <i>Optional Parts</i> in the <i>Parts</i> section.

---

### 3. Assembly Instructions

---

**NOTE:** The L-861T LED elevated light is assembled at the factory. Use the assembly instructions below when you need to assemble parts for repair or maintenance purposes.

To assemble parts, perform the following procedure:

1. See Figure 3-2. Attach the electronic module (9) to the cordset assembly (10) using the wire tie (11). Insert the assembled parts into the housing (3) and secure the self-locking screws (12).
2. Insert the optical column (1) into the housing (3) until it contacts the LED on the electronic module (9). Slide the O-ring seal (8) over the optical column and secure with the locking ring (2).

**NOTE:** Apply a light coat of anti-seize compound on the locking ring threads to make assembly and disassembly easier.



**CAUTION:** The optical column must mate to the top of the LED module. Failure of the optical column to touch the LED will create distorted photometric output.

3. Insert the cord through the column (4) and the frangible coupling (5) and secure both with the hex screws (7).

# Section 5

## Troubleshooting



**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.



**WARNING:** De-energize the circuit and lock out the circuit or regulator so that the circuit cannot be energized by remote means before attempting to service the fixture.

### 1. Introduction

This section contains troubleshooting information for the L-861T light fixture. This information covers only the most common problems that you may encounter. If you cannot solve the problem with the information given here, contact your local ADB Airfield Solutions representative for help.

### 2. Troubleshooting Procedures

Refer below for troubleshooting procedures for the L-861T LED elevated light.

Problem	Possible Cause	Corrective Action
<b>1. LED not lighting</b>	Defective electronic module	Replace the electronic module.
	Loose wire connections	Tighten wire connections.
	Deteriorated wire insulation	Replace wires.
	Moisture present in fixture	Open and dry the fixture. Inspect the optical column for cracks. Replace the electronic module, O-ring seal, and damaged optical column. Refer to the procedure under <i>LED Electronic Module Replacement</i> in the <i>Repair</i> section.
<b>2. LED too dim</b>	Dirty optical column	Clean the optical column.
	Service life of LED exceeded  NOTE: Refer to <i>Expected LED Life</i> under <i>Specifications</i> in the <i>Description</i> section.	Replace the electronic module.

# Section 6

## Repair



**WARNING:** Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.



**WARNING:** De-energize the circuit and lock out the circuit or regulator so that the circuit cannot be energized by remote means before attempting to service the fixture.

---

### 1. Introduction

---

This section provides instructions for repairing the L-861T LED light fixture. It includes replacing the L-861T LED electronic modules and replacing an existing fixture with an L-861 LED fixture.

---

### 2. LED Electronic Module Replacement

---

To replace an LED electronic module, perform the following procedure:

1. De-energize and lock out the circuit.
2. Remove the light fixture from the mounting base by performing the following procedure:
  - a. See Figure 3-1. Loosen the hex bolt (7) that attaches the frangible coupling (5) to the column (4).
  - b. Remove the frangible coupling from the base plate female thread.
  - c. Disconnect the L-823 plug of the light fixture from the female plug on the secondary lead of the isolation transformer.
3. Remove the locking ring (2) from the fixture by rotating it counterclockwise. Lift the optical column (1) from the housing (3).

**NOTE:** An O-ring seal (8) is provided with the replacement electronic module assembly. Remove and discard the old O-ring seal.

4. Remove the two screws (12) attaching the electronic module to the housing and remove the electronic module (9) and the cordset assembly (10). The L-823 cordset will fit through the clearance hole in the housing.
5. Separate the connectors between the electronic module and the cordset assembly.

---

**2. LED Electronic Module Replacement** (*contd.*)

---

6. Cut the nylon wire tie (11) to separate the electronic module.
7. Attach the replacement electronic module. Refer to the light fixture assembly procedure in *Assembly Instructions* in Section 3, *Installation*.
8. Level the light fixture. Refer to the fixture leveling procedure in *Light Fixture Leveling* in Section 3, *Installation*.

---

**3. Replacing Existing Fixture with L-861T LED Fixture**

---

This subsection provides two procedures for replacing the existing quartz or incandescent light fixture with the L-861T LED fixture:

- a) replacing existing light fixture and isolation transformer and
- b) replacing only the existing light fixture.

**Replacing Existing Light Fixture and Transformer**

The preferred method is replacing the existing light fixture and transformer. This method matches fixture load for optimal efficiency.

To replace the existing transformer and light fixture with the L-861T LED fixture and new 10 W isolation transformer, perform the following procedure:

1. Remove the existing L-861T light fixture and isolation transformer.
2. Install the new 10 W isolation transformer. Seal the primary connections according to local airport practice.
3. Plug the LED fixture into the new 10W, 6.6 A/6.6 A isolation transformer (Part Number 35A0578). Seal the isolation transformer secondary joint according to local airport practice.
4. Mount the new L-861T LED fixture.

**Replacing Only Light Fixture**

To replace only the existing light fixture with the L-861T LED fixture, perform the following procedure:

1. Remove the existing L-861T fixture.
2. Unplug the fixture from the isolation transformer.
3. Plug the LED fixture into the existing isolation transformer. Seal the isolation transformer secondary joint according to local airport practice.
4. Mount the new L-861T LED fixture.

# Section 7

## Parts

### 1. Introduction

To order parts, call ADB Airfield Solutions Customer Service or your local representative. Use this four-column parts list, and the accompanying illustration, to describe and locate parts correctly.

### 2. Using the Illustrated Parts List

This subsection describes how to use the illustrated parts list covered later in this section. It does not provide the actual parts list.

The Part Number column gives the ADB Airfield Solutions part number.

The Description column gives the part name, as well as its dimensions and other characteristics when appropriate. Indentions show the relationships between assemblies, subassemblies, and parts.

Part Number	Description	Quantity	Note
XXXXXXXX	Assembly	1	A
XXXXXXXX	Part	1	
XXXXXXXX	Part or Assembly		
XXXXXXXX	Assembly	1	
NOTE A			

The Quantity column contains the quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

The Note column contains letters that refer to notes at the end of each parts list. Notes contain special ordering or product/part version information.

**3. L-861T LED Light Fixture  
Ordering Code**

Figure 7-1 shows the ordering code for an L-861T LED light fixture.

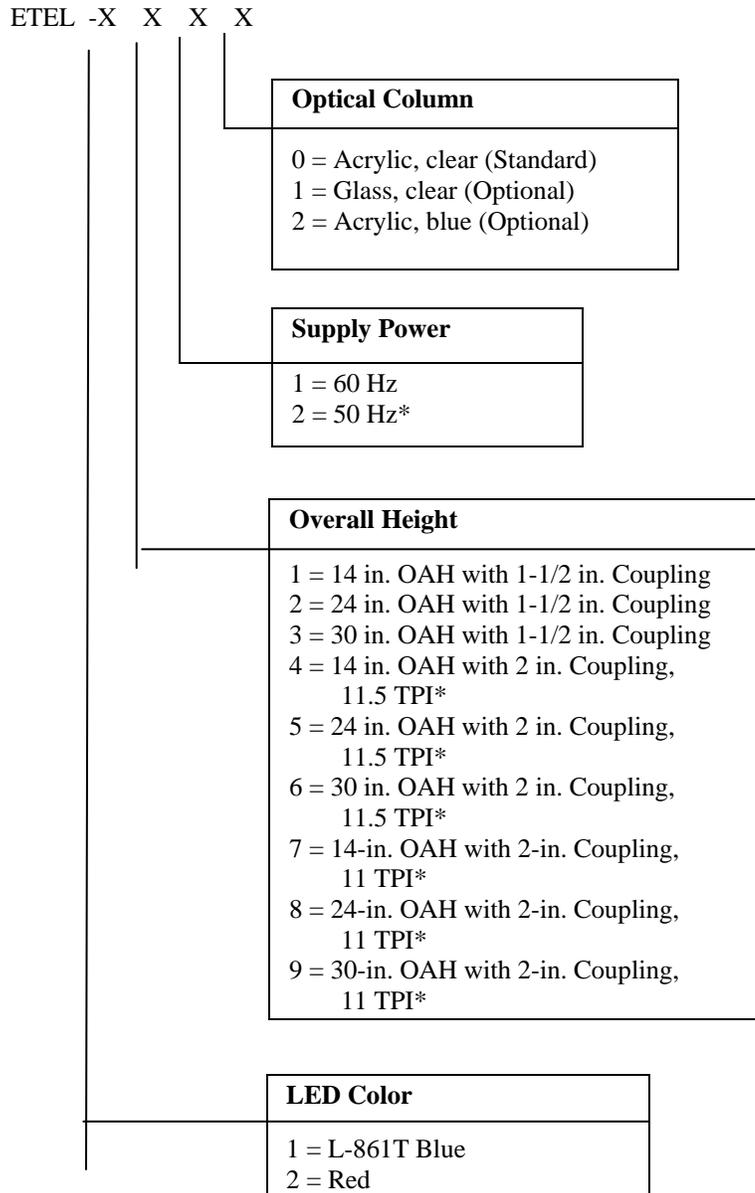


Figure 7-1 L-861T Light Fixture Ordering Code

\*Not submitted for ETL testing.

---

**4. L-861T Light Fixture Parts List**


---

See Figure 7-2.

Part Number	Description	Quantity	Note
44A6227-50	Electronic module assembly, 50 Hz	1	
44A6227-60	Electronic module assembly, 60 Hz	1	
44A6233-1	Cordset assembly for 14 in. overall height	1	
44A6233-2	Cordset assembly for 24 in. overall height	1	
44A6233-3	Cordset assembly for 30 in. overall height	1	
61A0281	Frangible fitting for 2 in. coupling	1	
62A0007-3	Column for 14 in. overall height	1	
62A0007-13	Column for 24 in. overall height	1	
62A0007-19	Column for 30 in. overall height	1	
62B0073	Frangible coupling, 1-1/2 in.	1	
63A1020-1	Optical column, acrylic, clear (standard)	1	
63A1020-2	Optical column, glass, clear (optional)	1	
63A1020-3	Optical column, acrylic, blue (optional)	1	
63B0267-226	O-ring	1	
88A2146	Housing	1	
88A2147	Locking ring	1	

### 4. L-861T Light Fixture Parts

List (*contd.*)

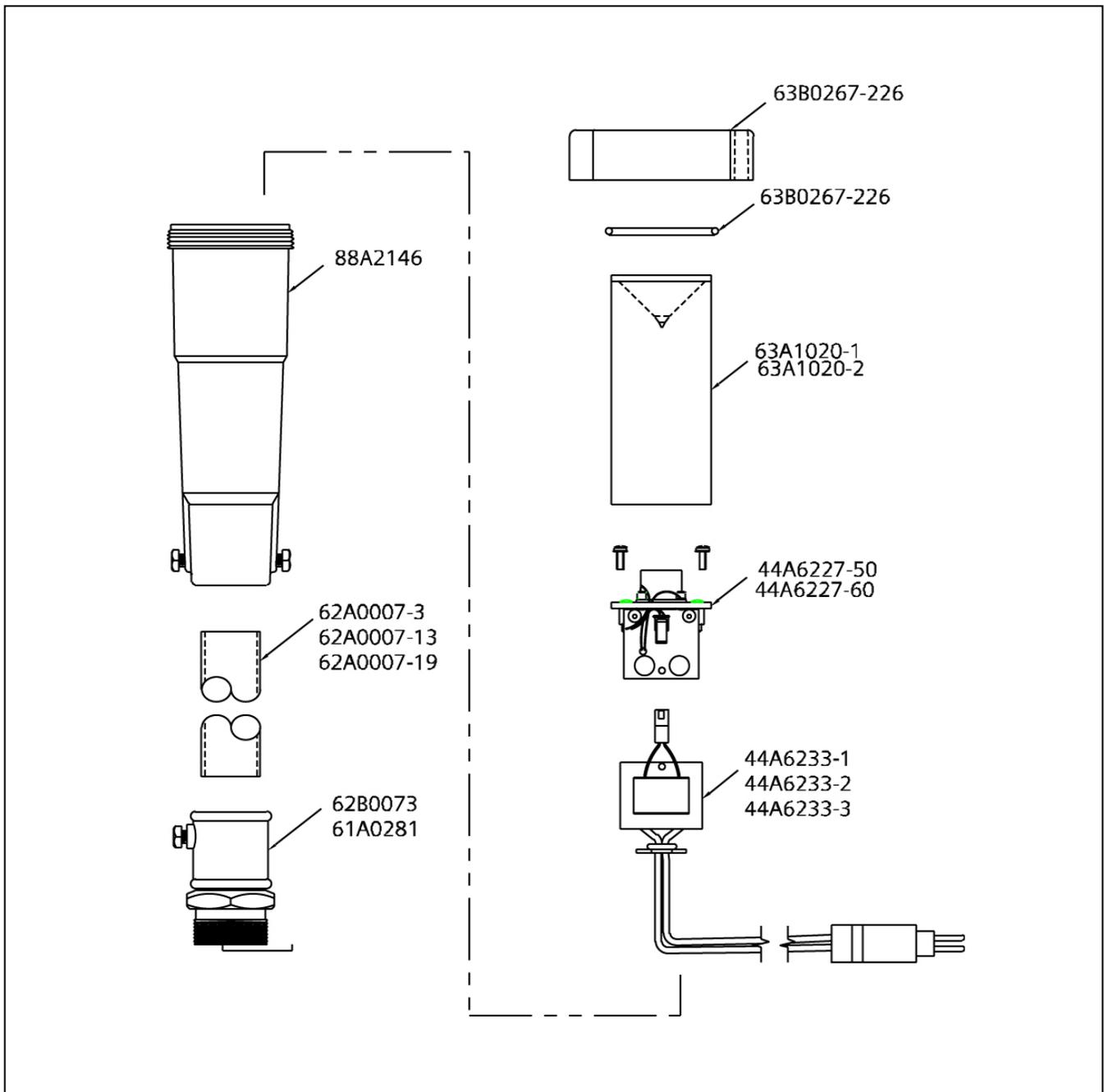


Figure 7-2 L-861T Light Fixture

**5. L-861T Optional Stake Assembly Parts List**

See Figure 7-5. The optional stake assembly part number is 44B0348.

Part Number	Description	Quantity	Note
62B0268-1	Stake hub	1	
64A0176-12	Hex head screw, 3/8-16 x 3/4 in.	1	
66A0026-29	Split lockwasher, 3/8 in.	1	
62B0284	Stake	1	
62B0269	Cable connector support	1	
64A0173-12	Hex head screw, 1/4-20 x 3/4 in.	1	
66A0026-24	Split lockwasher, 1/4 in.	1	

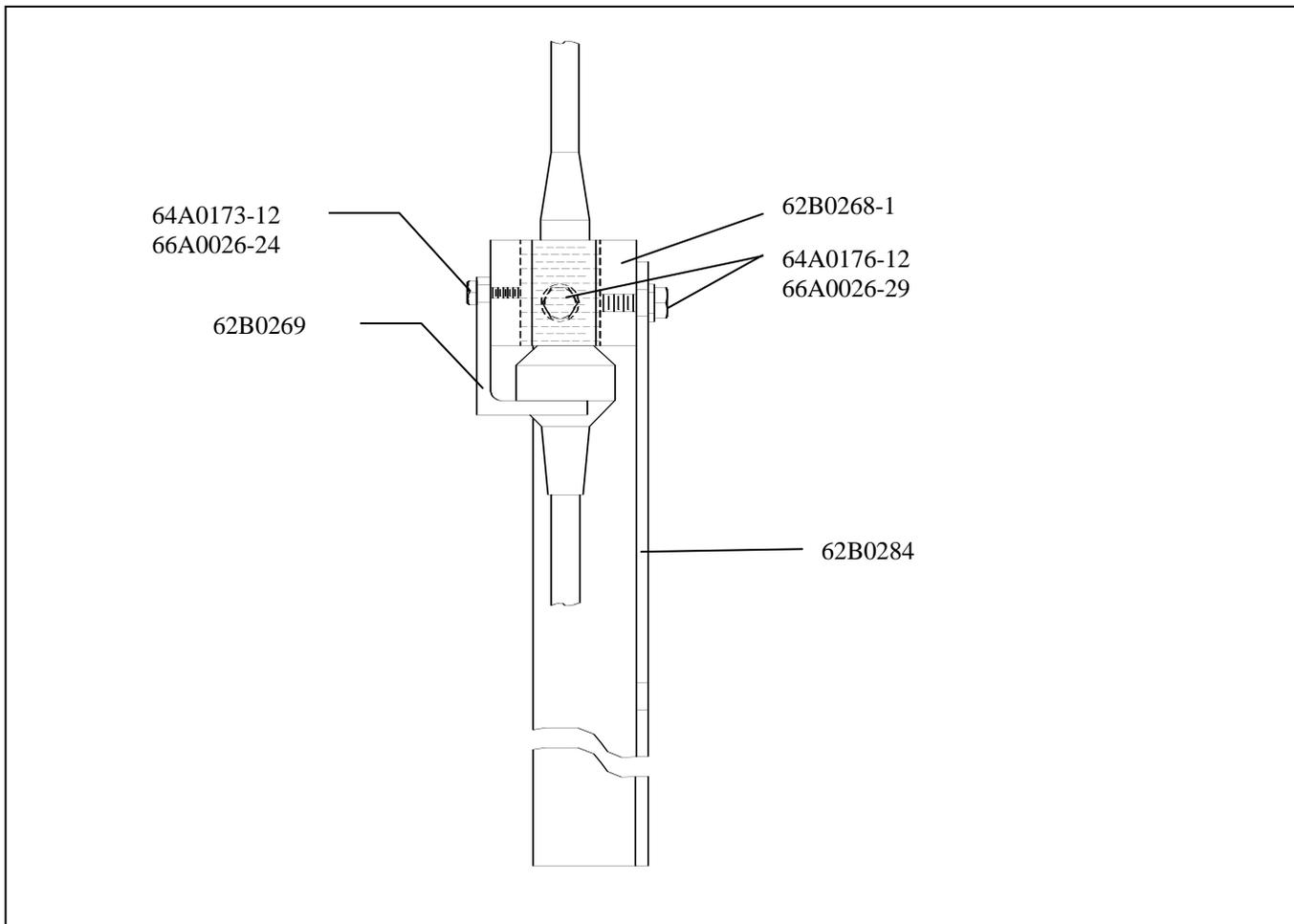


Figure 7-3 Stake Assembly

**6. Optional Parts**

Refer below for optional parts.

Part Number	Description	Quantity	Note
1935	12-inch-diameter base plate, 1.5–12 UNF tap	1	A
44B1070	Flag	1	B
NOTE A: Supplied with gasket. NOTE B: Special order.			

**7. Recommended Spare Parts**

See Figure 7-2.

Part Number	Description	Note
44A6227-50	Electronic module assembly, 50 Hz	
44A6227-60	Electronic module assembly, 60 Hz	
44A6233-1	Cordset for 14-inch OAH	
44A6233-2	Cordset for 24-inch OAH	
44A6233-3	Cordset for 30-inch OAH	
61A0281	Frangible 2 in. reducer coupling	
62A0007-3	Column for 14-inch OAH	
62A0007-13	Column for 24-inch OAH	
62A0007-19	Column for 30-inch OAH	
62B0073	Frangible coupling, 1-1/2 in.	
62B0461	Frangible coupling, 1-1/2 in., with slot	A
63A1020-1	Optical column, acrylic, clear (standard)	
63A1020-2	Optical column, glass, clear (optional)	
63A1020-3	Optical column, acrylic, blue (optional)	
63B0267-226	O-ring	
88A2146	LED module chamber	
88A2147	Optical column Locking ring	
NOTE A: Slot across threaded end allows easy access replacement of broken frangible coupling.		

## Packet Information

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**File #:** 2016-0578, **Version:** 2

---

Presentation of Hangar Survey Results of Based Customers and 600 Aircraft Owners in the Kansas City Area

Issue/Request:

Review or results of Hangar Survey Performed With Based Customers and 600 Aircraft Owners in the Kansas City Area

Key Issues:

The hangar survey follows steps outlined in the Airport's Marketing Plan to attract new customers and maintain existing customers.

The survey serves two purposes; one is to find what interest there is from existing customers for new hangars, and the second is to find out if there are customers in the Kansas Area who would like to relocate to Lee's Summit if hangar space is available.

Planned construction of a new taxiway (Taxiway Alpha) in spring 2018 will impact four to seven hangar buildings. The seven buildings represent approximately 33% of the 134 units operated by the Airport and represent 29% of the total based aircraft.

Proposed City Council Motion:

[Enter text here]

Background:

The Lee's Summit Municipal Airport conducted a hangar survey to investigate demand for current and future hangar space at the Lee's Summit Municipal Airport (LXT).

With the earthwork project completed and the paving grant being initiated at this time, we need to look at upcoming construction projects taking place in 2018 and in the coming years. The need to move the parallel taxiway for Runway 18/36 further west to meet the Federal Aviation Administration safety design standards will affect Open-T hangars and possibly the S and L hangars. It is anticipated design work on this project will be far enough along in February 2017 to determine the full impact.

The intent of the survey was to determine if there enough customer demand to consider building new hangars at LXT and what type(s) of hangar units are most desirable. If the results indicate a significant demand existed and a business case could be made justifying the need, then additional steps to determine a

time frame for taxiway and grading plans, building cost, rental rates needed to support a financing plan.

Impact/Analysis:

The Open-T hangars generate approximately \$19,800 in annual revenues. The S & L hangars generate annual revenues of \$78,432. Any replacement hangar units would need to be addressed as part of the annual budget process which begins in the next several months if so determined. Any changes in the Statewide Transportation Improvement Plan (STIP) such as hangar access taxiways, would need to occur prior to December 31, 2016 as this is the deadline for STIP submittals.

Timeline:

Start: \_\_\_\_

Finish: \_\_\_\_

Other Information/Unique Characteristics:

[Enter text here]

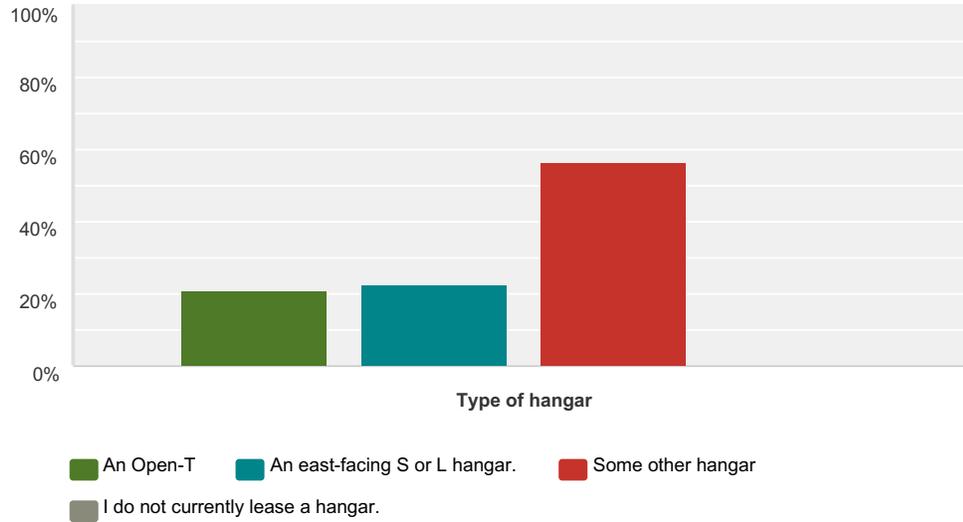
Presenter: John Ohrazda, Airport Manager

Recommendation: Staff recommends work continue on

Committee Recommendation: [Enter Committee Recommendation text Here]

**Q1 What type of hangar do you currently lease at the Lee's Summit Airport? (Check all that apply)**

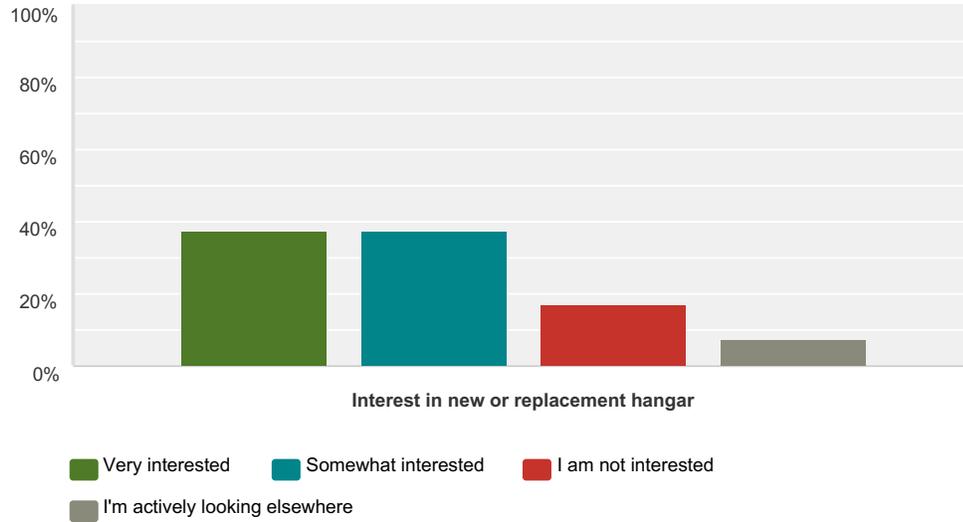
Answered: 53 Skipped: 0



Type of hangar	An Open-T	An east-facing S or L hangar.	Some other hangar	I do not currently lease a hangar.	Total	Weighted Average
Type of hangar	20.75% 11	22.64% 12	56.60% 30	0.00% 0	53	2.36

**Q2 Please check one of the boxes below showing your level of interest in a new or replacement hangar.**

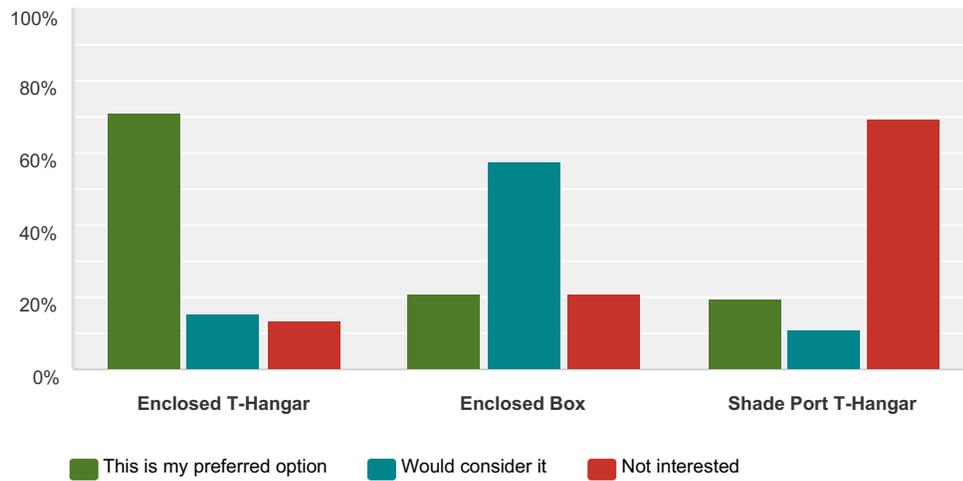
Answered: 53 Skipped: 0



	Very interested	Somewhat interested	I am not interested	I'm actively looking elsewhere	Total	Weighted Average
Interest in new or replacement hangar	37.74% 20	37.74% 20	16.98% 9	7.55% 4	53	1.94

### Q3 What type of hangar unit are you interested in? (Check all that apply)

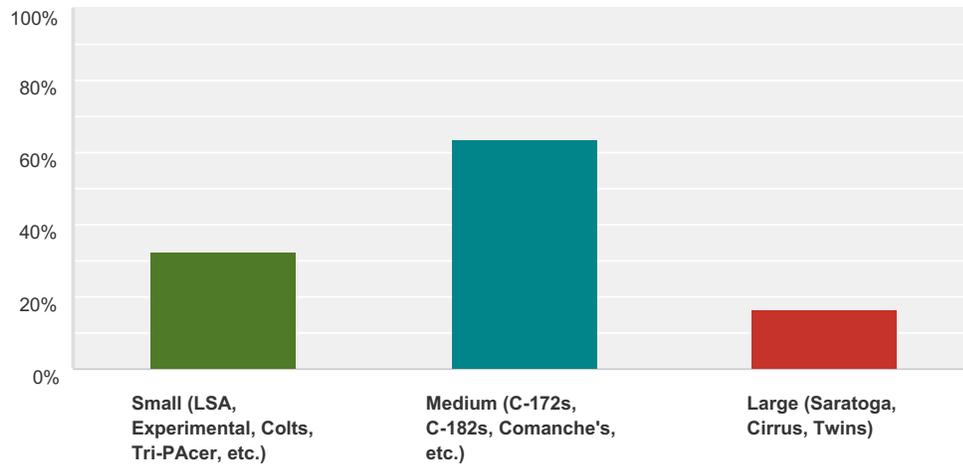
Answered: 50 Skipped: 3



	This is my preferred option	Would consider it	Not interested	Total	Weighted Average
Enclosed T-Hangar	71.11% 32	15.56% 7	13.33% 6	45	1.42
Enclosed Box	21.21% 7	57.58% 19	21.21% 7	33	2.00
Shade Port T-Hangar	19.44% 7	11.11% 4	69.44% 25	36	2.50

**Q4 What size of aircraft would that hangar accomodate? Select any/all aircraft types that interest you.**

Answered: 49 Skipped: 4

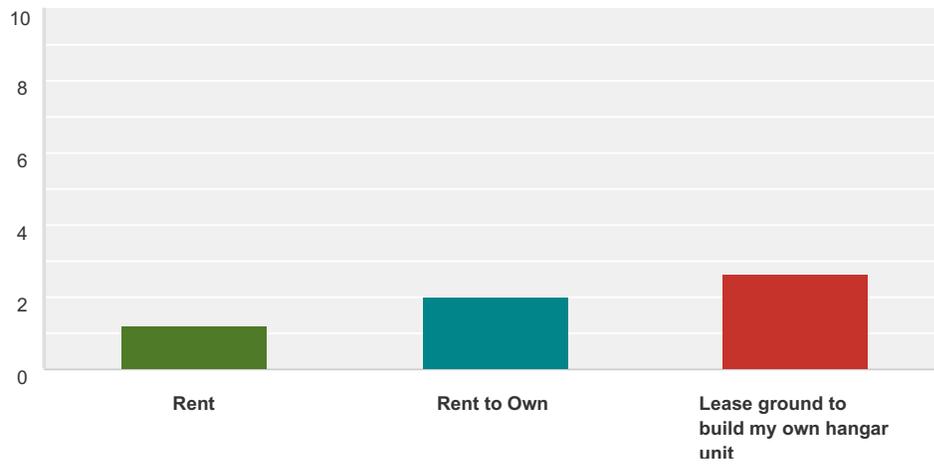


Answer Choices	Responses
Small (LSA, Experimental, Colts, Tri-Pacer, etc.)	32.65% 16
Medium (C-172s, C-182s, Comanche's, etc.)	63.27% 31
Large (Saratoga, Cirrus, Twins)	16.33% 8
<b>Total Respondents: 49</b>	

#	Other (please specify)	Date
1	a small and medium	9/12/2016 11:45 AM
2	prefer large so 2 experimentals can share cost	8/16/2016 12:52 PM
3	I prefer the hanger that is there.	8/16/2016 12:30 PM

### Q5 What type of tenancy are you interested in?

Answered: 52 Skipped: 1

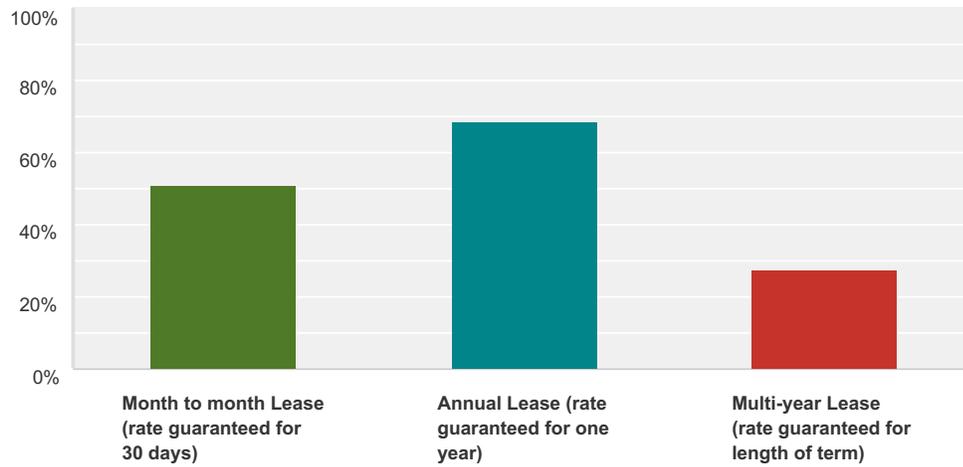


	This is my preferred option	Would consider it	Not interested at all	Total	Weighted Average
Rent	80.00% 36	17.78% 8	2.22% 1	45	1.22
Rent to Own	23.26% 10	55.81% 24	20.93% 9	43	1.98
Lease ground to build my own hangar unit	5.71% 2	22.86% 8	71.43% 25	35	2.66

#	Other (please specify)	Date
1	Would absolutely rent an open T but would consider a rent to own option depending upon the price	8/17/2016 8:58 AM

### Q6 If you prefer renting a hangar, what length of lease would you consider? (Check all that apply)

Answered: 51 Skipped: 2

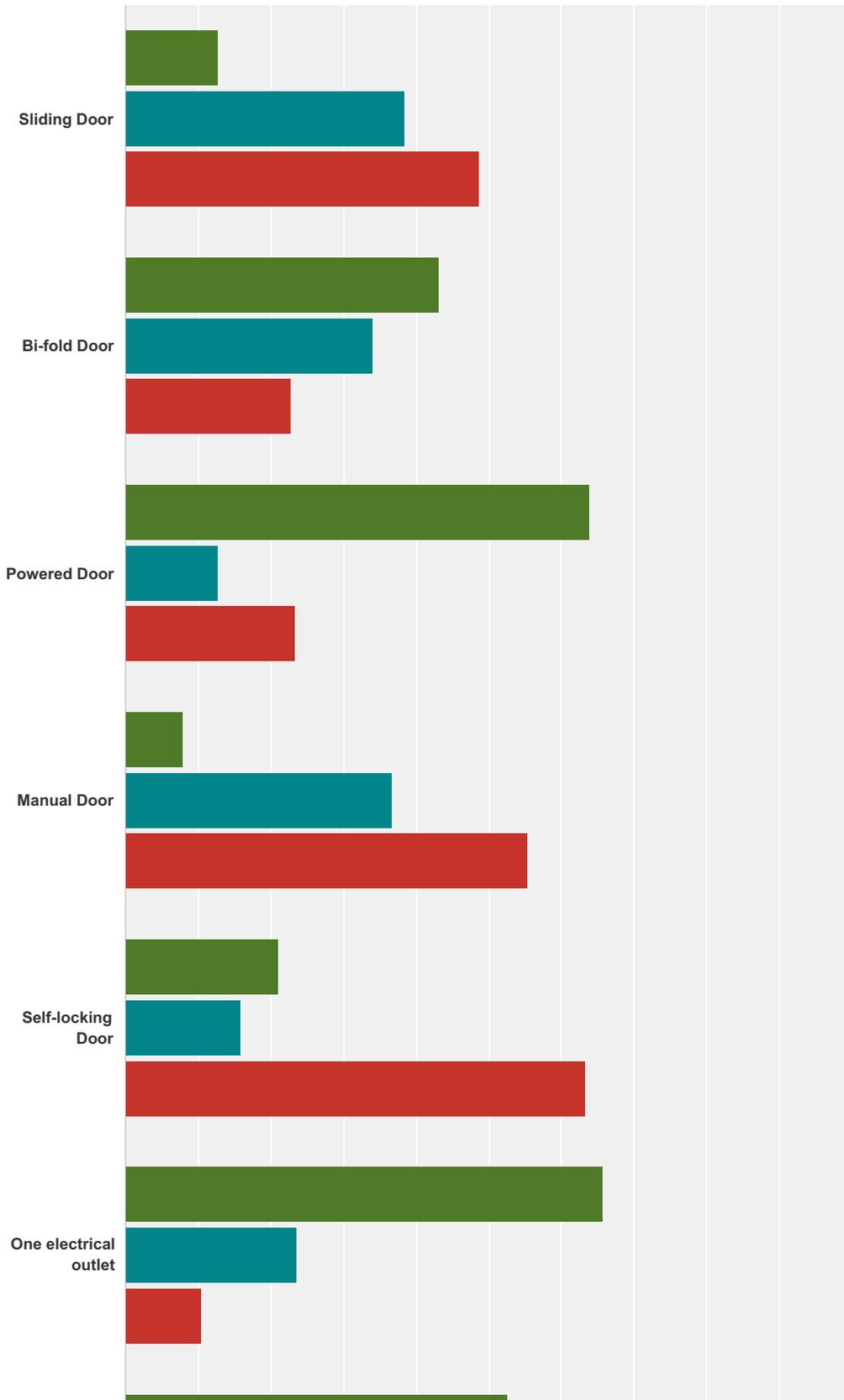


Answer Choices	Responses
Month to month Lease (rate guaranteed for 30 days)	50.98% 26
Annual Lease (rate guaranteed for one year)	68.63% 35
Multi-year Lease (rate guaranteed for length of term)	27.45% 14
<b>Total Respondents: 51</b>	

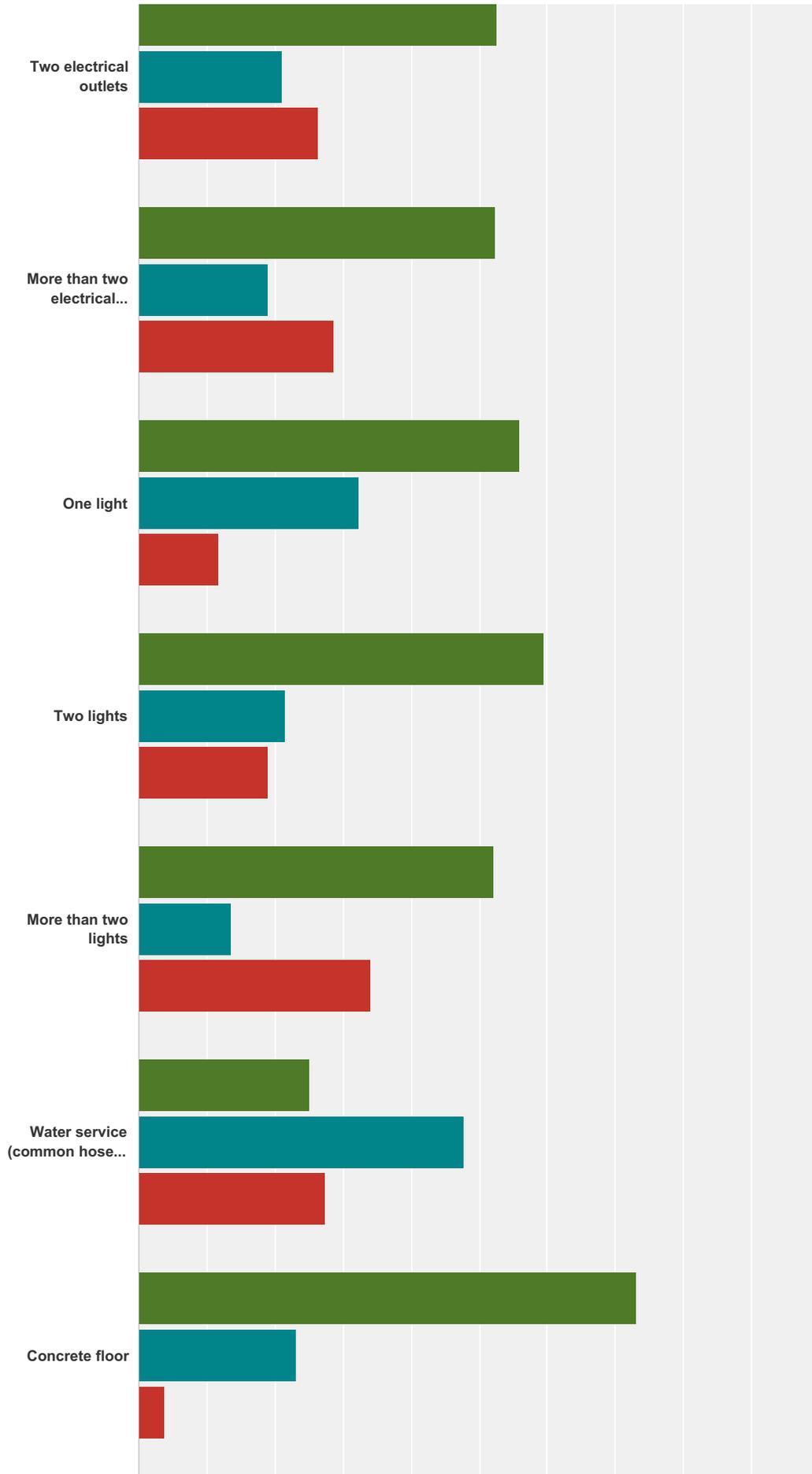
#	Other (please specify)	Date
1	I would consider a long term is there was a discount	9/9/2016 11:11 AM

### Q7 Please rate the importance of the following features:

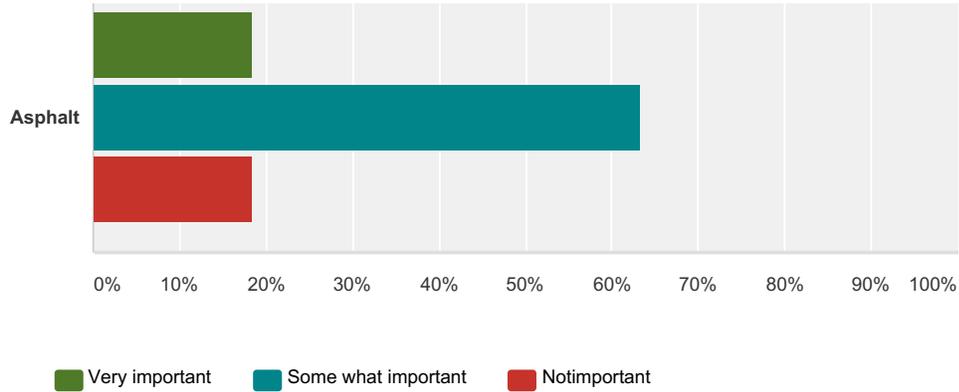
Answered: 52 Skipped: 1



# City of Lee's Summit Municipal Airport Hangar Demand Survey



## City of Lee's Summit Municipal Airport Hangar Demand Survey



	Very important	Some what important	Notimportant	Total	Weighted Average
Sliding Door	12.82% 5	38.46% 15	48.72% 19	39	2.36
Bi-fold Door	43.18% 19	34.09% 15	22.73% 10	44	1.80
Powered Door	63.83% 30	12.77% 6	23.40% 11	47	1.60
Manual Door	7.89% 3	36.84% 14	55.26% 21	38	2.47
Self-locking Door	21.05% 8	15.79% 6	63.16% 24	38	2.42
One electrical outlet	65.79% 25	23.68% 9	10.53% 4	38	1.45
Two electrical outlets	52.63% 20	21.05% 8	26.32% 10	38	1.74
More than two electrical outlets	52.38% 22	19.05% 8	28.57% 12	42	1.76
One light	55.88% 19	32.35% 11	11.76% 4	34	1.56
Two lights	59.52% 25	21.43% 9	19.05% 8	42	1.60
More than two lights	52.27% 23	13.64% 6	34.09% 15	44	1.82
Water service (common hose bibb to all)	25.00% 11	47.73% 21	27.27% 12	44	2.02
Concrete floor	73.08% 38	23.08% 12	3.85% 2	52	1.31
Asphalt	18.42% 7	63.16% 24	18.42% 7	38	2.00

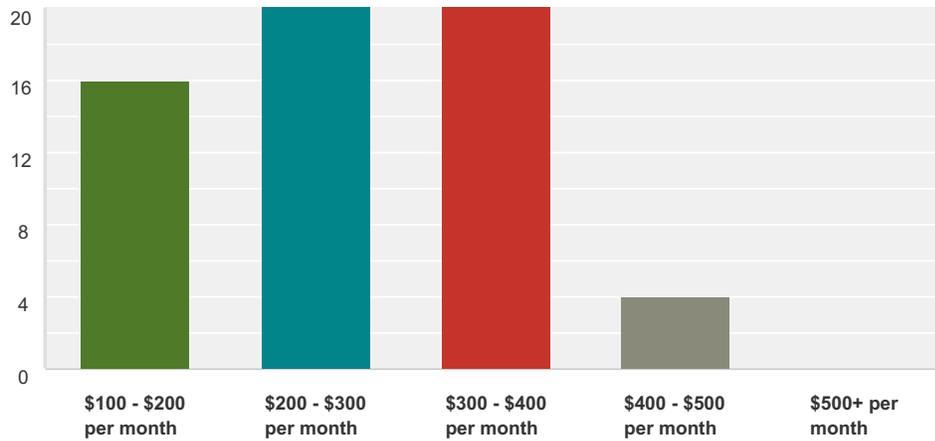
#	Other features that are important to you (please specify)	Date
1	insulated	9/12/2016 11:45 AM
2	The ability to have an office with sewer/restroom facilities.	9/9/2016 11:11 AM
3	insulated	9/9/2016 10:27 AM
4	full-width pavement to door (grass & snow issues)	8/29/2016 2:28 PM
5	A closer water source to remote hangars would be nice for emergency eyewash or other safety concerns.	8/18/2016 1:53 PM

City of Lee's Summit Municipal Airport Hangar Demand Survey

6	Fire suppression and resistant features. Also see additional comments	8/16/2016 6:49 PM
7	Concrete floor!!!	8/16/2016 4:33 PM
8	Open T hangar, not too tall	8/16/2016 1:23 PM

**Q8 With the features that you've selected, how much would you be willing to pay per month? (Check all that apply)**

Answered: 50 Skipped: 3



Answer Choices	Responses
\$100 - \$200 per month	32.00% 16
\$200 - \$300 per month	40.00% 20
\$300 - \$400 per month	40.00% 20
\$400 - \$500 per month	8.00% 4
\$500+ per month	0.00% 0
<b>Total Respondents: 50</b>	

#	Other (please specify)	Date
1	i've already over paid, least expensive, not raising rent, just because you can	9/12/2016 11:45 AM
2	I would pay more if I have an approved office within	9/9/2016 11:11 AM
3	it depends	8/16/2016 1:05 PM

## Q9 What is your zip code?

Answered: 51 Skipped: 2

#	Responses	Date
1	64133	9/15/2016 3:35 PM
2	66224	9/15/2016 9:13 AM
3	64133	9/12/2016 11:45 AM
4	64055	9/9/2016 11:45 AM
5	64086	9/9/2016 11:11 AM
6	64064	9/9/2016 10:27 AM
7	64015	9/9/2016 9:53 AM
8	64064	9/9/2016 9:31 AM
9	64134	8/30/2016 8:19 AM
10	64082	8/29/2016 2:28 PM
11	64082	8/24/2016 6:43 PM
12	64086	8/24/2016 1:04 PM
13	64086	8/18/2016 1:53 PM
14	64064	8/18/2016 6:39 AM
15	64138	8/17/2016 6:04 PM
16	64064	8/17/2016 3:57 PM
17	64078	8/17/2016 1:45 PM
18	64086	8/17/2016 11:17 AM
19	64136	8/17/2016 8:58 AM
20	64082	8/17/2016 8:57 AM
21	64063	8/17/2016 7:14 AM
22	64064	8/17/2016 5:36 AM
23	66072	8/16/2016 10:49 PM
24	64064	8/16/2016 10:47 PM
25	66204	8/16/2016 10:38 PM
26	64086	8/16/2016 10:00 PM
27	64055	8/16/2016 9:47 PM
28	64118	8/16/2016 9:12 PM
29	64134	8/16/2016 7:20 PM
30	65049	8/16/2016 6:49 PM
31	64082	8/16/2016 5:54 PM
32	64082	8/16/2016 5:42 PM
33	64034	8/16/2016 4:33 PM
34	64016	8/16/2016 4:09 PM
35	66214	8/16/2016 3:30 PM

## City of Lee's Summit Municipal Airport Hangar Demand Survey

36	64034	8/16/2016 3:16 PM
37	64034	8/16/2016 3:07 PM
38	64055	8/16/2016 3:07 PM
39	66224	8/16/2016 2:50 PM
40	66206	8/16/2016 2:23 PM
41	64082	8/16/2016 2:04 PM
42	64081	8/16/2016 1:53 PM
43	64114	8/16/2016 1:29 PM
44	64086	8/16/2016 1:23 PM
45	64050	8/16/2016 1:14 PM
46	64133	8/16/2016 1:05 PM
47	64014	8/16/2016 1:02 PM
48	64082	8/16/2016 12:52 PM
49	64137	8/16/2016 12:30 PM
50	66208	8/16/2016 12:30 PM
51	64081	8/16/2016 12:29 PM

City of Lee's Summit Municipal Airport Hangar Demand Survey

**Q10 Pleaseshare any additional comments.**

Answered: 18 Skipped: 35

#	Responses	Date
1	new more expensive growth is not needed	9/15/2016 3:35 PM
2	San Diego's Gillespi field should be studied as they permit apartments above the hangar. They have a lengthy waiting list.	9/9/2016 11:11 AM
3	I tried to explore leasing land to build or buy P-hangar. I was paying almost \$1000/Mo. Too much not to have it be some kind of investment. Consequently I downsized to rent only one hangar.	9/9/2016 10:27 AM
4	The above are only relevant if the current practice of holding tenants hostage to a fuel "surcharge" is eliminated; otherwise I will seek hangar space elsewhere.	9/9/2016 9:53 AM
5	I will be moving my plane when I find another hangar. With the fuel surcharge, the cost is not acceptable.	9/9/2016 9:31 AM
6	airport already take care of me now. good job	8/24/2016 6:43 PM
7	The open-T hangars are great for the shade. I would love to upgrade to an enclosed hangar for greater protection from the elements, but the increase in cost is a little much for me right now.	8/18/2016 1:53 PM
8	I currently have an open T facing east. I would, at a minimum, like to continue having a hangar facing east. Thanks.	8/17/2016 8:58 AM
9	Level driveway into hanger very important.	8/17/2016 8:57 AM
10	Open T Hangers is all i can afford	8/16/2016 9:47 PM
11	A comment please, It is ridiculous that you are removing hangar space capacity from the airport and not, by default, replacing it or moving it to a new location on the airport grounds. There is a minimum of 6-12-24 month waiting list for hangars at the general aviation airports in the four-county metro area. There should be as a default feature minimum 20 amp service with 4, 120 V duplex receptacles per hangar. LED lighting should be standard for efficiency, low power bills and acceptable task lighting so we can perform safe preflight and maintenance tasks One and two outlet and single light fixtures should not even be considered as acceptable. The hangars should also incorporate some natural, convection based airflow design.	8/16/2016 6:49 PM
12	I am perfectly happy with my current hangar. However, if I were to move, these are the features that are important to me.	8/16/2016 5:42 PM
13	Does insulation ever help keep the temperature at some level even though it will not have heat.	8/16/2016 4:33 PM
14	Currently paying 384 per month. Seems like a lot. Considering moving to a cheaper place. If rents increase significantly (more than \$25 per month) in the next year, I will move.	8/16/2016 4:09 PM
15	If new open T-hangars are priced too high, may consider an enclosed hangar.	8/16/2016 1:23 PM
16	We need to keep the costs as low as possible. Other airports within reasonable distances from LXT have hangars available at lower prices. The rental rates at LXT are at the top of the market.	8/16/2016 1:14 PM
17	I like the hanger that is there.	8/16/2016 12:30 PM
18	Electrical service capacity of 20A is barely sufficient to support basic power tools and appliances (compressor) and in some cases that 20A breaker is shared. Existing tenants should have first option on any new hangars.	8/16/2016 12:29 PM



# LEE'S SUMMIT MISSOURI

## City of Lee's Summit Municipal Airport Hangar Demand Survey

The Lee's Summit Municipal Airport (LXT) management is investigating the demand for present and future hangar space at LXT, and we'd like your input.

With the earthwork project nearly completed, the expectation of a paving grant this fall, and paving construction in 2017, the airport is currently and will continue to experience major facility improvements in the coming years. Due to this construction, the open-T hangars and east-facing S and L hangars may be removed as early as 2018.

The intent of this survey is to determine if the customer demand is sufficient to build new hangars at LXT, and what type(s) of hangar units our patrons may be interested in. If the demand is sufficient, we can make a business case that justifies financing of replacement hangars.

Our target is to have all surveys returned by Sept. 15, 2016, and to evaluate the results by Oct. 1, 2016. With the results, staff will determine the next steps in the process and the timeline for implementation.

We would appreciate your feedback. Please click the button below to start this brief survey, which we estimate will take about 3 minutes to complete.

Thank you for your participation!

Yours truly,

John Ohrazda  
Airport Manager  
(816) 969-1800  
John.Ohrazda@cityofls.net





## City of Lee's Summit Municipal Airport Hangar Demand Survey

### LXT Hangar Demand Survey

The Lee's Summit Municipal Airport (LXT) management is investigating the demand for present and future hangar space at LXT, and we would appreciate your input. Our target is to have all surveys returned by Sept. 15, 2016, and to evaluate the results by Oct. 1, 2016.

#### 1. What type of hangar do you currently lease at the Lee's Summit Airport? (Check all that apply)

An Open-T

An east-facing S or L hangar.

Some other hangar

I do not currently lease a hangar.

#### 2. Please check one of the boxes below showing your level of interest in a new or replacement hangar.

Very interested

Somewhat interested

I am not interested

I'm actively looking elsewhere

#### 3. What type of hangar unit are you interested in? (Check all that apply)

This is my preferred option

Would consider it

Not interested

Enclosed T-Hangar

Enclosed Box

Shade Port T-Hangar

**4. What size of aircraft would that hangar accommodate?**

Select any/all aircraft types that interest you.

Small (LSA, Experimental, Colts, Tri-Pacer, etc.)

Medium (C-172s, C-182s, Comanche's, etc.)

Large (Saratoga, Cirrus, Twins)

Other (please specify)

**5. What type of tenancy are you interested in?**

	This is my preferred option	Would consider it	Not interested at all
Rent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rent to Own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lease ground to build my own hangar unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

**6. If you prefer renting a hangar, what length of lease would you consider? (Check all that apply)**

Month to month Lease (rate guaranteed for 30 days)

Annual Lease (rate guaranteed for one year)

Multi-year Lease (rate guaranteed for length of term)

Other (please specify)

**7. Please rate the importance of the following features:**

	Very important	Some what important	Not important
Sliding Door	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bi-fold Door	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Powered Door	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manual Door	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-locking Door	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One electrical outlet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Two electrical outlets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than two electrical outlets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One light	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Two lights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than two lights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water service (common hose bibb to all)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concrete floor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asphalt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other features that are important to you (please specify)

**8. With the features that you've selected, how much would you be willing to pay per month? (Check all that apply)**

- \$100 - \$200 per month
- \$200 - \$300 per month
- \$300 - \$400 per month
- \$400 - \$500 per month
- \$500+ per month

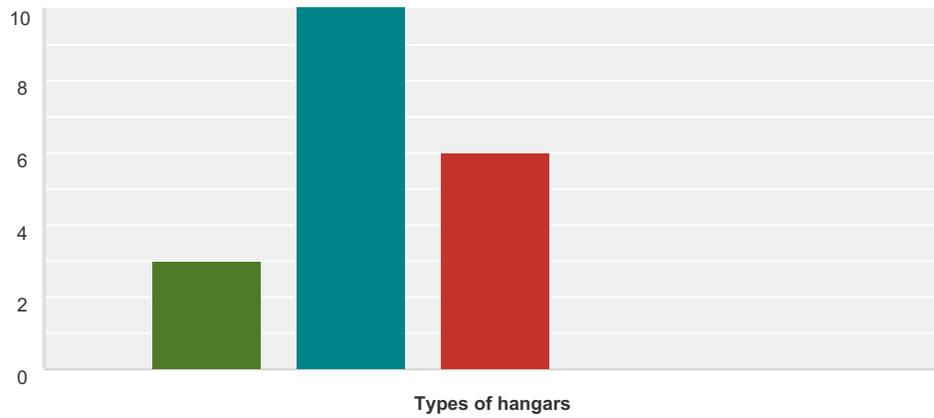
Other (please specify)

**9. What is your zip code?**

**10. Please share any additional comments.**

### Q1 What type of hangar do you currently rent/lease? (Check all that apply)

Answered: 19 Skipped: 4



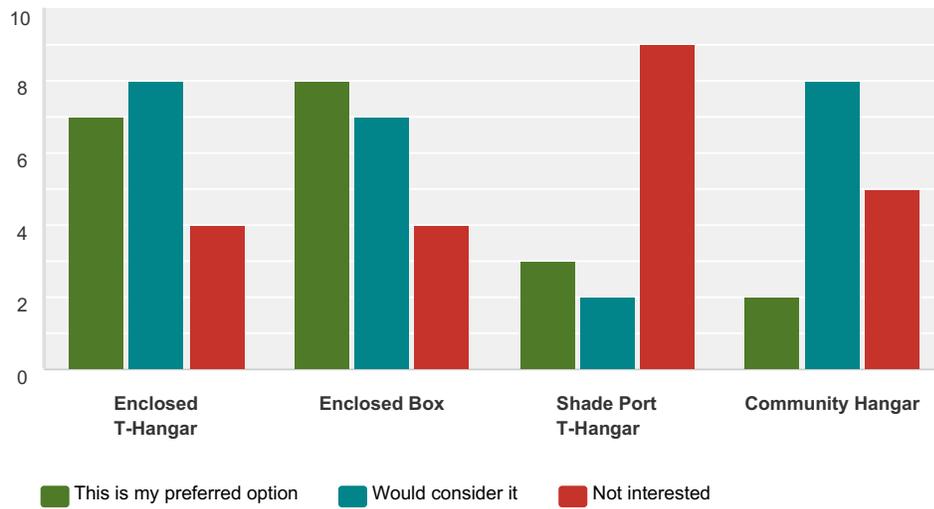
■ Small (LSA, Experimental, Colts, Tri-PAcer, etc.) 
 ■ Medium (C-172, C-182, Comanche, Archer) 
 ■ Large (Saratoga, Cirrus, Twin) 
 ■ Jet (King Air, Citation, Learjet, etc.) 
 ■ Community Hangar

	Small (LSA, Experimental, Colts, Tri-PAcer, etc.) (1)	Medium (C-172, C-182, Comanche, Archer) (2)	Large (Saratoga, Cirrus, Twin) (3)	Jet (King Air, Citation, Learjet, etc.) (4)	Community Hangar (5)	Total	Weighted Average
Types of hangars	15.79% 3	52.63% 10	31.58% 6	0.00% 0	0.00% 0	19	2.16

Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	3.00	2.00	2.16	0.67

## Q2 What type of hangar unit are you interested in? (Check all that apply)

Answered: 23 Skipped: 0

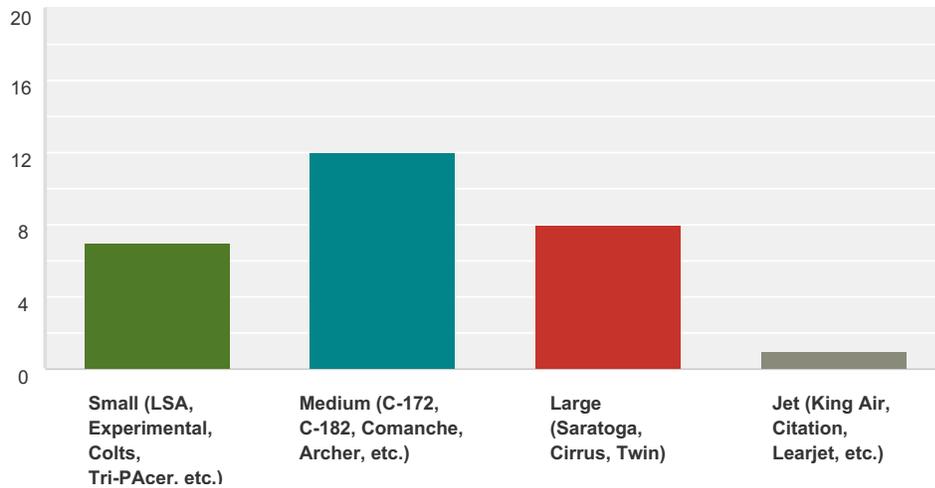


	This is my preferred option (1)	Would consider it (2)	Not interested (3)	Total	Weighted Average
Enclosed T-Hangar	36.84% 7	42.11% 8	21.05% 4	19	1.84
Enclosed Box	42.11% 8	36.84% 7	21.05% 4	19	1.79
Shade Port T-Hangar	21.43% 3	14.29% 2	64.29% 9	14	2.43
Community Hangar	13.33% 2	53.33% 8	33.33% 5	15	2.20

Basic Statistics					
	Minimum	Maximum	Median	Mean	Standard Deviation
Enclosed T-Hangar	1.00	3.00	2.00	1.84	0.74
Enclosed Box	1.00	3.00	2.00	1.79	0.77
Shade Port T-Hangar	1.00	3.00	3.00	2.43	0.82
Community Hangar	1.00	3.00	2.00	2.20	0.65

### Q3 What size of aircraft would that hangar accomodate? Select any/all aircraft types that interest you.

Answered: 21 Skipped: 2



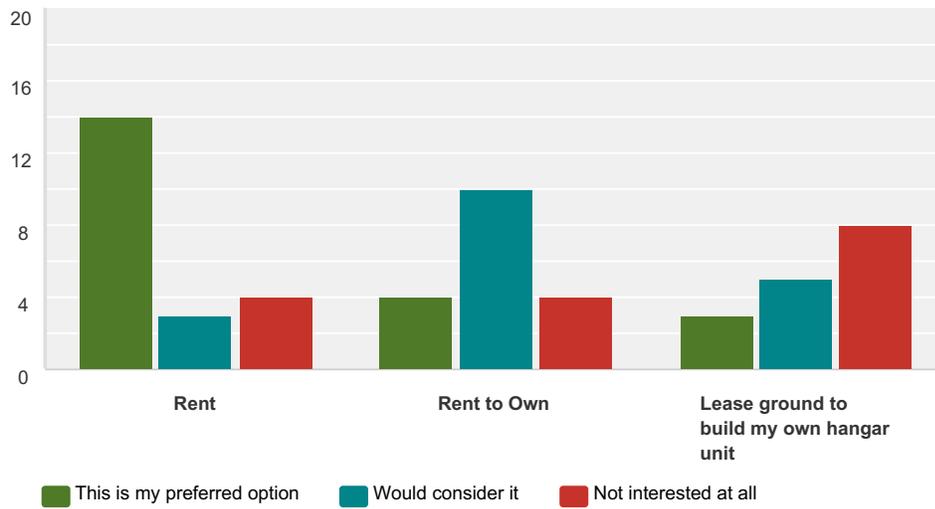
Answer Choices	Responses
Small (LSA, Experimental, Colts, Tri-Pacer, etc.) (1)	33.33% 7
Medium (C-172, C-182, Comanche, Archer, etc.) (2)	57.14% 12
Large (Saratoga, Cirrus, Twin) (3)	38.10% 8
Jet (King Air, Citation, Learjet, etc.) (4)	4.76% 1
<b>Total Respondents: 21</b>	

Basic Statistics				
<b>Minimum</b> 1.00	<b>Maximum</b> 4.00	<b>Median</b> 2.00	<b>Mean</b> 2.11	<b>Standard Deviation</b> 0.82

#	Other (please specify)	Date
1	Cessna 150	9/19/2016 3:44 PM
2	No e	8/24/2016 8:41 AM

### Q4 What type of tenancy are you interested in?

Answered: 23 Skipped: 0



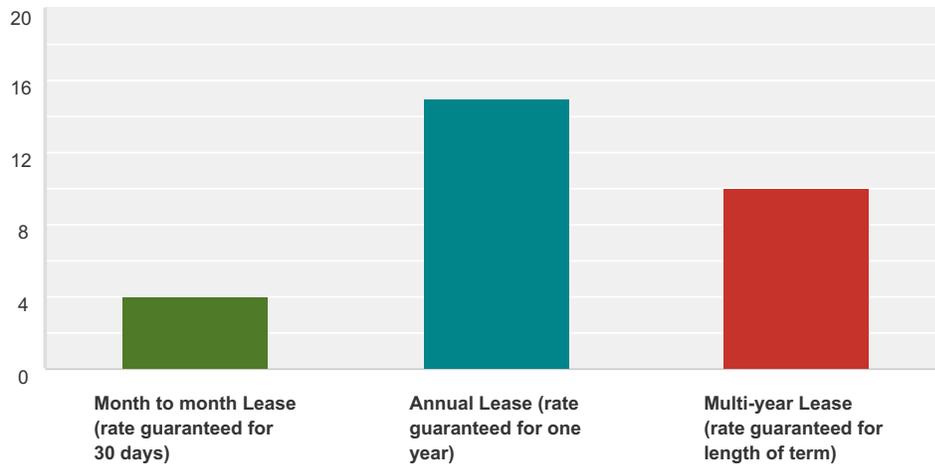
	This is my preferred option (1)	Would consider it (2)	Not interested at all (3)	Total	Weighted Average
Rent	66.67% 14	14.29% 3	19.05% 4	21	1.52
Rent to Own	22.22% 4	55.56% 10	22.22% 4	18	2.00
Lease ground to build my own hangar unit	18.75% 3	31.25% 5	50.00% 8	16	2.31

Basic Statistics					
	Minimum	Maximum	Median	Mean	Standard Deviation
Rent	1.00	3.00	1.00	1.52	0.79
Rent to Own	1.00	3.00	2.00	2.00	0.67
Lease ground to build my own hangar unit	1.00	3.00	2.50	2.31	0.77

#	Other (please specify)	Date
	There are no responses.	

### Q5 If you prefer renting a hangar, what length of lease would you consider? (Check all that apply)

Answered: 19 Skipped: 4



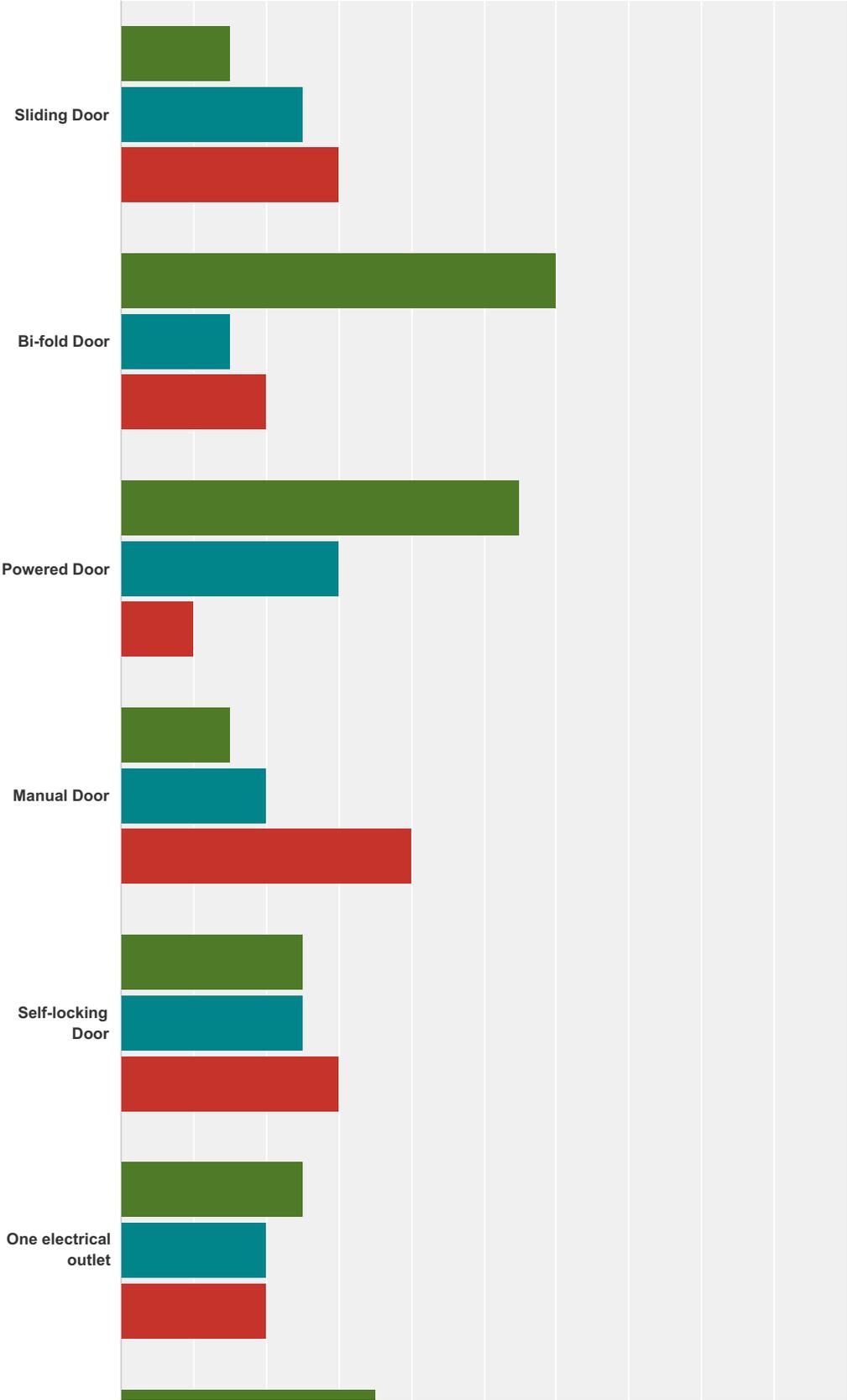
Answer Choices	Responses
Month to month Lease (rate guaranteed for 30 days) (1)	21.05% 4
Annual Lease (rate guaranteed for one year) (2)	78.95% 15
Multi-year Lease (rate guaranteed for length of term) (3)	52.63% 10
<b>Total Respondents: 19</b>	

Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	3.00	2.00	2.21	0.66

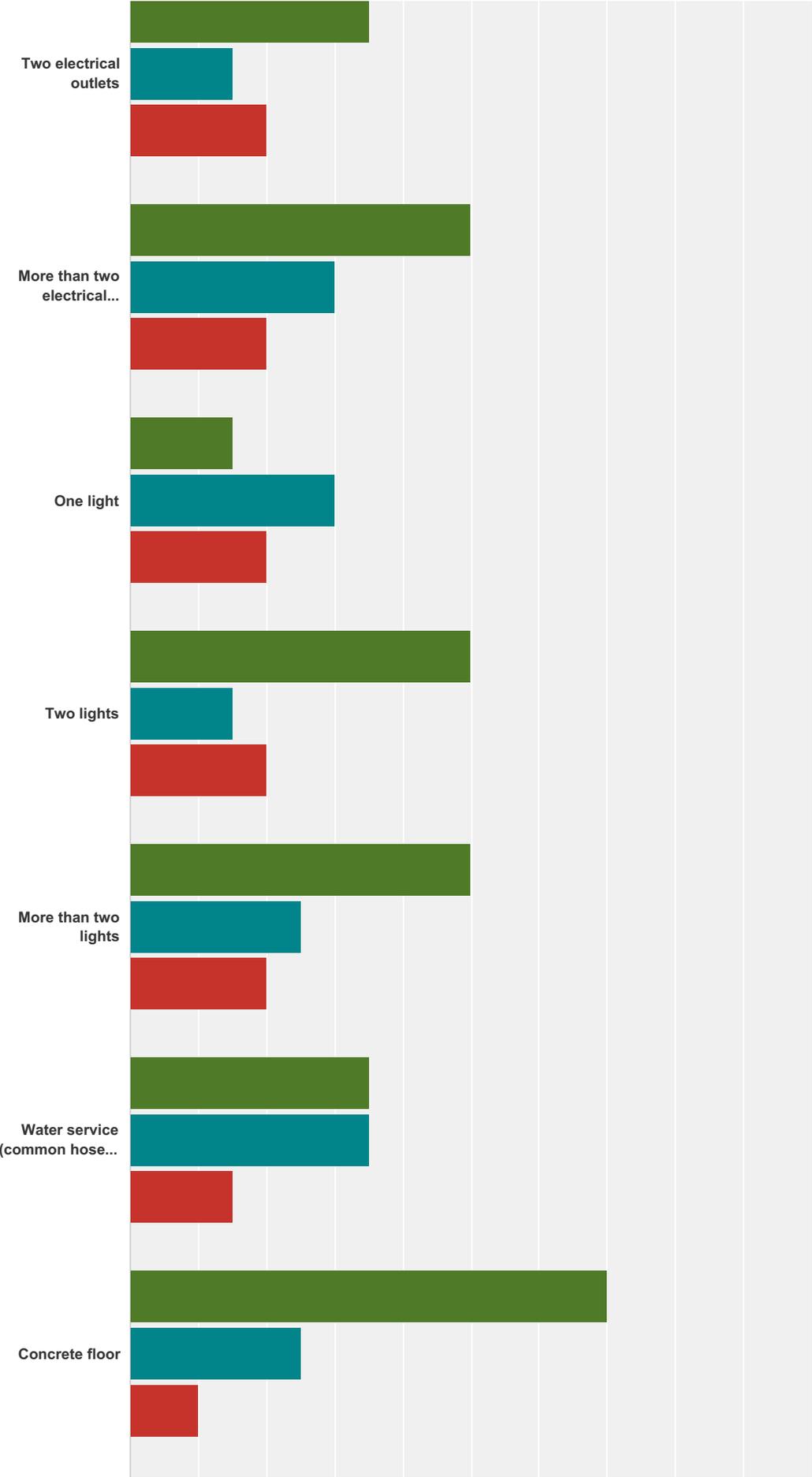
#	Other (please specify)	Date
1	Most expensive way	8/24/2016 8:41 AM
2	Annual then month to month	8/23/2016 9:00 PM

### Q6 Please rate the importance of the following features:

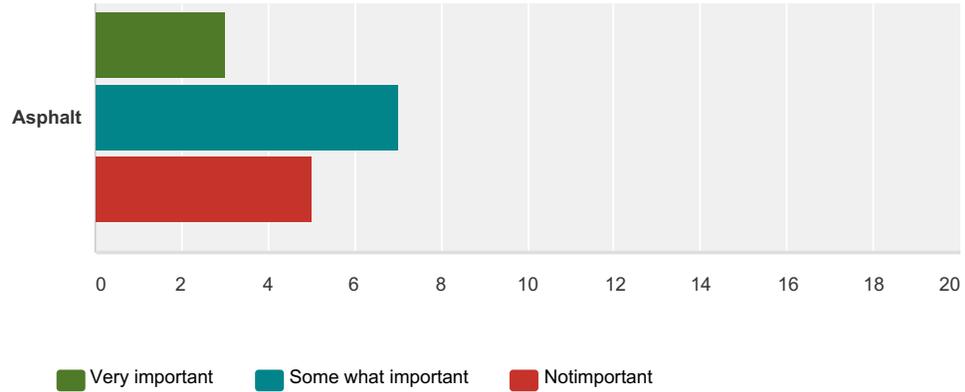
Answered: 22 Skipped: 1



City of Lee's Summit Municipal Airport Hangar Demand Survey for Metro Area



## City of Lee's Summit Municipal Airport Hangar Demand Survey for Metro Area



	Very important (1)	Some what important (2)	Notimportant (3)	Total	Weighted Average
Sliding Door	21.43% 3	35.71% 5	42.86% 6	14	2.21
Bi-fold Door	63.16% 12	15.79% 3	21.05% 4	19	1.58
Powered Door	57.89% 11	31.58% 6	10.53% 2	19	1.53
Manual Door	20.00% 3	26.67% 4	53.33% 8	15	2.33
Self-locking Door	31.25% 5	31.25% 5	37.50% 6	16	2.06
One electrical outlet	38.46% 5	30.77% 4	30.77% 4	13	1.92
Two electrical outlets	50.00% 7	21.43% 3	28.57% 4	14	1.79
More than two electrical outlets	50.00% 10	30.00% 6	20.00% 4	20	1.70
One light	23.08% 3	46.15% 6	30.77% 4	13	2.08
Two lights	58.82% 10	17.65% 3	23.53% 4	17	1.65
More than two lights	52.63% 10	26.32% 5	21.05% 4	19	1.68
Water service (common hose bibb to all)	41.18% 7	41.18% 7	17.65% 3	17	1.76
Concrete floor	66.67% 14	23.81% 5	9.52% 2	21	1.43
Asphalt	20.00% 3	46.67% 7	33.33% 5	15	2.13

Basic Statistics					
	Minimum	Maximum	Median	Mean	Standard Deviation
Sliding Door	1.00	3.00	2.00	2.21	0.77
Bi-fold Door	1.00	3.00	1.00	1.58	0.82

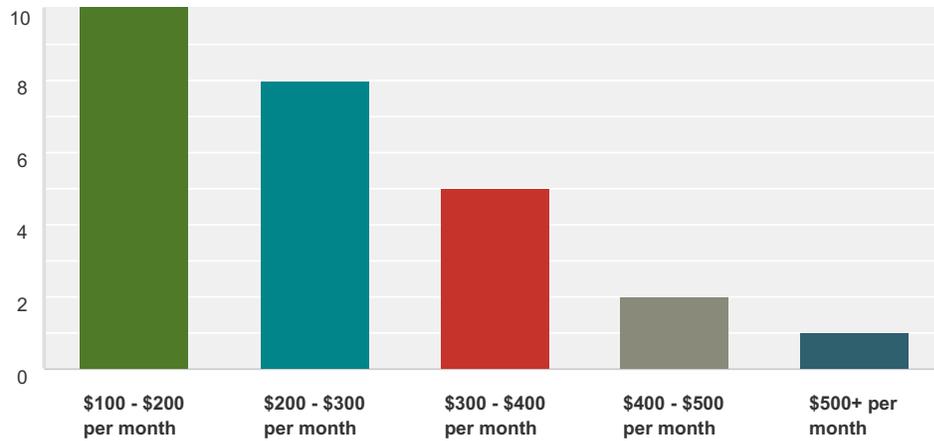
## City of Lee's Summit Municipal Airport Hangar Demand Survey for Metro Area

Powered Door	1.00	3.00	1.00	1.53	0.68
Manual Door	1.00	3.00	3.00	2.33	0.79
Self-locking Door	1.00	3.00	2.00	2.06	0.83
One electrical outlet	1.00	3.00	2.00	1.92	0.83
Two electrical outlets	1.00	3.00	1.50	1.79	0.86
More than two electrical outlets	1.00	3.00	1.50	1.70	0.78
One light	1.00	3.00	2.00	2.08	0.73
Two lights	1.00	3.00	1.00	1.65	0.84
More than two lights	1.00	3.00	1.00	1.68	0.80
Water service (common hose bibb to all)	1.00	3.00	2.00	1.76	0.73
Concrete floor	1.00	3.00	1.00	1.43	0.66
Asphalt	1.00	3.00	2.00	2.13	0.72

#	Other features that are important to you (please specify)	Date
1	keep it simple for the light sport community and the common citizen. People are growing old of only providing aviation services to the wealthy	8/30/2016 5:00 PM
2	Let users pay for all	8/24/2016 8:41 AM

**Q7 With the features that you've selected, how much would you be willing to pay per month? (Check all that apply)**

Answered: 21 Skipped: 2



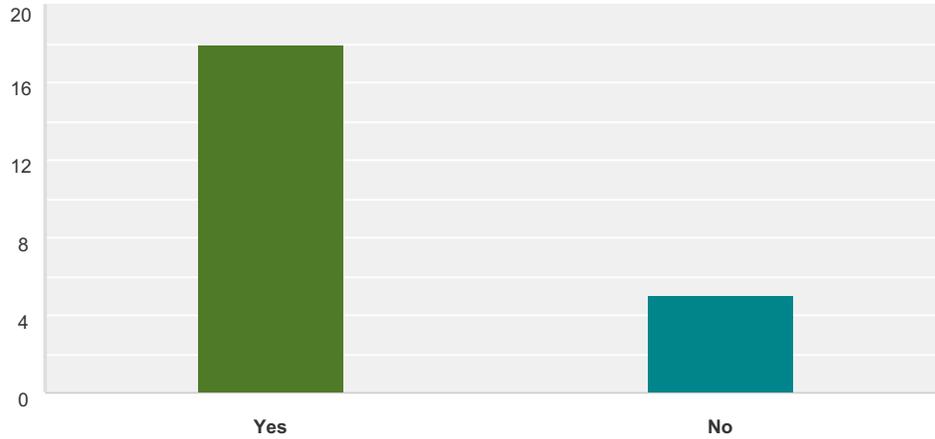
Answer Choices	Responses
\$100 - \$200 per month (1)	47.62% 10
\$200 - \$300 per month (2)	38.10% 8
\$300 - \$400 per month (3)	23.81% 5
\$400 - \$500 per month (4)	9.52% 2
\$500+ per month (5)	4.76% 1
<b>Total Respondents: 21</b>	

Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	5.00	2.00	2.08	1.11

#	Other (please specify)	Date
1	\$90 a month. I currently pay less than \$80, but the drive is further	8/30/2016 5:00 PM

**Q8 Would you consider moving your aircraft to the Lee's Summit Airport if the type of hangar and amenities you selected above were available?**

Answered: 23 Skipped: 0



Answer Choices	Responses
Yes (1)	78.26% 18
No (2)	21.74% 5
<b>Total</b>	<b>23</b>

Basic Statistics				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	2.00	1.00	1.22	0.41

## Q9 What is your zip code?

Answered: 21 Skipped: 2

#	Responses	Date
1	64086	9/24/2016 8:55 PM
2	64014	9/22/2016 3:47 PM
3	66212	9/19/2016 3:44 PM
4	66048	9/18/2016 6:00 PM
5	66213	9/12/2016 6:48 PM
6	66224	9/5/2016 7:13 PM
7	64055	9/4/2016 1:45 PM
8	66221	9/2/2016 5:00 PM
9	64114	8/31/2016 4:09 PM
10	63114	8/31/2016 12:12 PM
11	64068	8/31/2016 8:50 AM
12	66209	8/30/2016 7:14 PM
13	64082	8/30/2016 5:00 PM
14	64118	8/30/2016 1:34 PM
15	64064	8/24/2016 5:42 AM
16	64082	8/23/2016 9:00 PM
17	64082	8/23/2016 5:57 PM
18	64082	8/23/2016 5:54 PM
19	64081	8/23/2016 5:51 PM
20	64138	8/23/2016 3:36 PM
21	64105	8/23/2016 3:35 PM

**Q10 Pleaseshare any additional comments.**

Answered: 7 Skipped: 16

#	Responses	Date
1	I base my Bonanza ay KOJC which is 7 minutes from my house.	9/12/2016 6:48 PM
2	Am interested in owning hangar(s)	9/5/2016 7:13 PM
3	I have my own hangar at 3GV.	9/4/2016 1:45 PM
4	I really admire the KLXT airport. It feels like the people that run it really care about general aviation. Unfortunately I live 1.5 miles from KOJC and the drive is too far to KLXT. I wish the JOCO Airport Commission would take a lesson from you. Good job.	9/2/2016 5:00 PM
5	Need hangar with large doors (46'+) for large twin.	8/31/2016 4:09 PM
6	Open T Hangars with solid back walls were not even mentioned. These block the wind because they create a stagnation point where wind cannot enter and destroy airplanes. This should be considered as an option to allow for the light sport community to be able to use this taxpayer-paid facility rather than wealthier clientele. The current open T hangars are unsuitable for aircraft because they have no walls and allow unobstructed airflow through the hangar.	8/30/2016 5:00 PM
7	Users need to pay. Not taxpayers	8/24/2016 8:41 AM

*Yours Truly*

Lee's Summit Airport  
Marketing Plan  
2017

Board of Aeronautic Commissioners

April 11, 2016

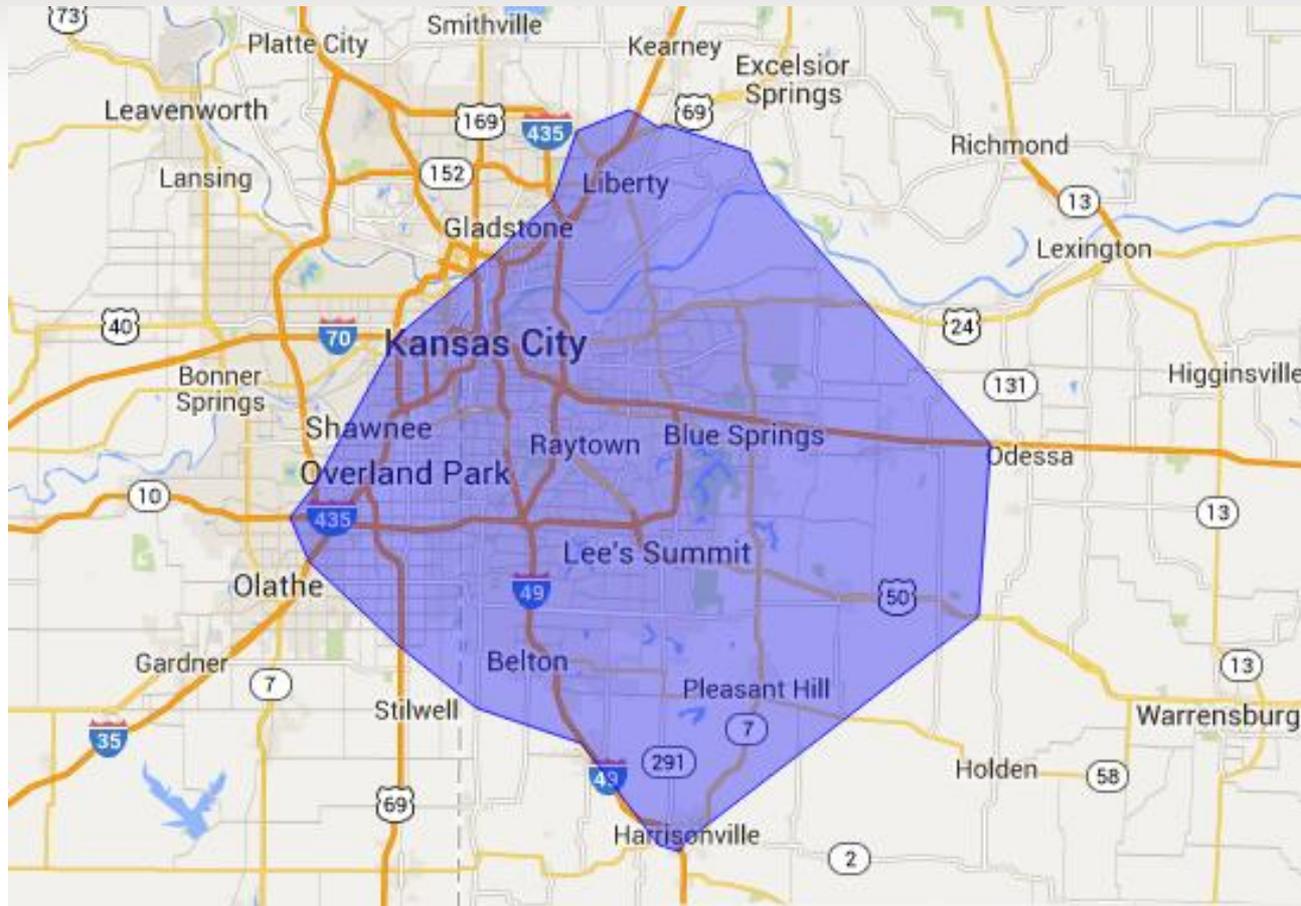
# Agenda

- Airport Context
- Marketing Goals
  - Contribute to the growth and development goals of the City
  - Retain based customers
  - Engage customers
  - Attract new based/transient customers
  - Maintain a safe operating environment
  - Hangar development
  - Increase number of operations
  - Commercial Site Development
  - Service Enhancements
- Staff Recommendations





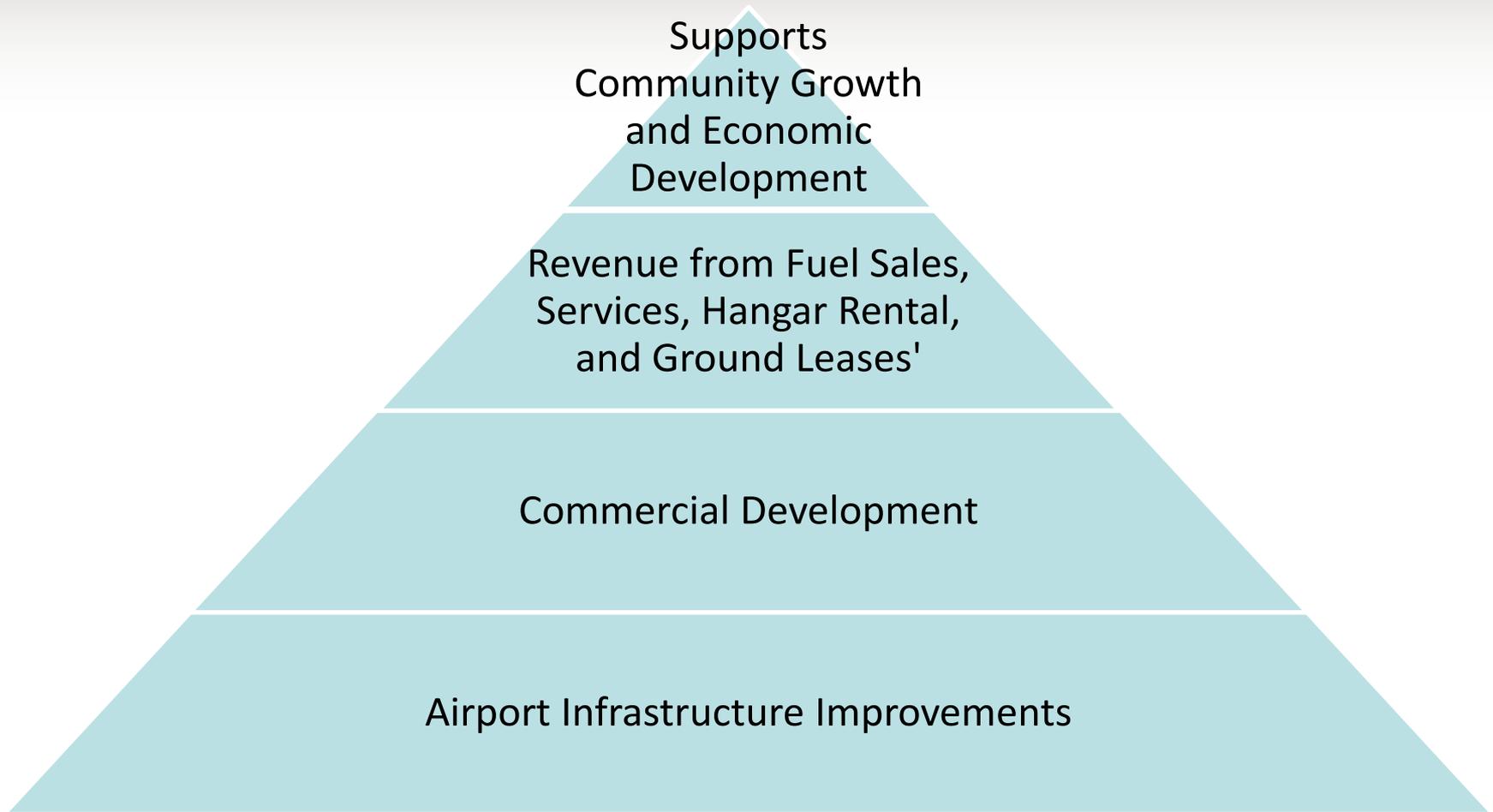
# Airport Context: 30 Min Drive Times From KLXT



# Marketing Goals

- Contribute to the growth and development goals of the City
- Retain based customers
- Engage customers
- Attract new based/transient customers
- Maintain a safe operating environment
- Hangar development
- Increase number of operations
- Commercial Site Development
- Service Enhancements

# Contribute to City's Growth & Development



# Retain Based Customers

- Customer Focus Driven
  - Maintain on call/after hours service
  - Expand hours of operations as needed
  - Improve customer amenities
- Fuel Incentive Program (effective 11-1-14)
  - Full/Self Service Discount (based aircraft only)
  - Volume and contract fuel programs

# Engage Customers

- Currently in use today
  - Facebook
  - City Website
  - Open House Events
  - Support local aviation groups and businesses
  - Airport tours
- Future plans
  - Expand social media usage
  - Local Partnerships
  - City publications

# Attract New Based/Transient Customers

- Maintain a safe operating environment
- Provide hangar space for overnight transient customers
- Implement a direct marketing plan to transient customers who can currently use the airport
- Develop and implement a targeted marketing plan to customers requiring a 5,500 ft runway one year prior to completion of runway improvements

# Maintain A Safe Operating Environment

- Twice daily Airport inspections
- Pavement Maintenance
- Pavement Sweeping
- Re-surfacing ramps
- Pre-treat/Snow removal operations
- Maintain grounds, fence line, and hangars areas

# Hangar Development

According to the Airport business plan adopted in 2010:

- A viable airport is a strong contributing partner in the economic development initiatives of the city
- The attraction of new corporate aviation users in the form of tenants and transient business activity offer the greatest long-term benefit to the city at the airport.
- Airport activity impacts in terms of revenue enhancement creates a strong opportunity to improve the long-term viability of the Airport

# Hangar Development

- Ability to store transient and based aircraft in a heated hangar
- Provides an available turnkey facility
- Airport becomes more attractive to Special Aviation Service operation businesses
  - Maintenance facilities
  - Avionics shops
  - Interiors
  - Paint shops
- Implement Fast Start Program

# Hangar Development



# Increase Number of Operations: Transient Aircraft

- Short-Term Marketing Plan
  - Co-Op direct marketing to regional pilots
    - » 6,290 Missouri/Kansas pilots (initial)
    - » 8,441 OK, AR, NE, and IA pilots

# Increase Number of Operations: Aircraft Requiring $\leq 4,000$ ft

- Short-Term Marketing Plan
  - Direct marketing mailings
  - Work with Lee's Summit Marketing and EDC

# Increase Number of Operations: Aircraft Requiring $\geq 5,000$ ft

- 2017 Marketing Plan

- Marketing program would begin in the fall of 2016 to promote the the runway improvements
- Attend annual National Business Aircraft Association (NBAA) Events in the fall of 2016
- Schedulers Convention spring of 2017
- Eastern Jackson County Business Expo spring of 2017

# Commercial Site Development

- Work with Local EDC and Chambers to Identify potential (Aviation/Non-Aviation) companies to include:
  - Corporate Headquarters
  - Flight Schools
  - Maintenance/Avionics facilities etc.
  - Market Non-Aviation Site development
  - Restaurants
  - Through the gate access

# Service Enhancements

- Short-Term

- Improve mobile communication
- Golf Cart: 6 person/baggage
- ~~Baggage cart~~ Done
- Upgrade Ground Power Unit (GPU)
- Online 3<sup>rd</sup> party hangar payment receiving system

- Intermediate

- Build a heated hangar to store overnight transient and based customers

# Service Enhancements

- Long Term (upon completion of runway improvement)
  - Full time front desk/concierge
  - Sleeper/Shower for pilots
  - Additional/Larger capacity fuel trucks
  - Improved snow removal capabilities; plans underway, propose of new facility fee.

# Staff Recommendations

- Implement short-term transient marketing plan
- Implement short-term service enhancements
- Plan for long-term marketing
- Staff to research and present hangar development plan

## Packet Information

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Staff Report

Presenter: John Ohrazda, Airport Manager



# LEE'S SUMMIT MISSOURI

Date: October 3, 2016  
To: Stephen A. Arbo, City Manager  
From: Dena Mezger, Director of Public Works *DEM*  
Sub: Lee's Summit Municipal Airport October 2016 Staff Report

## New Hangar Development

Hangar "T" construction began in early March, and completion is now expected in late October. At this time, all sheet metal is on the building and the bi-fold door has been installed, plumbing is completed and electrical work is underway.

## Runway 18-36 Pre-Grading Project

The earthwork project being performed by Emery Sapp & Sons was substantially complete in late July. A walk-through of the project was performed with City staff, the contractor, the Airport's engineering firm Crawford, Murphy & Tilly (CMT), along with individuals from the State Aviation Department, Army Corp of Engineers and the Missouri Department of Natural Resources. All parties involved have found the work, except for seeding, to be satisfactory. The contractor moved equipment onto the Airport the week of September 12, and final seeding and ditch stabilization was underway the week of September 19. This work will complete all elements of the project.

## New Flight School

The Legacy Aviation lease agreement was approved by City Council on September 15. The operators of Legacy Aviation are currently taking the steps necessary to begin operation at the Airport.

## Airport Incidents

On Sept. 20, 2016, at approximately 6:10 p.m., emergency crews responded to the Lee's Summit Municipal Airport after receiving a call regarding an aircraft accident on the Airport.

When crews arrived, they found a single engine plane that had come to rest on the west side of the airport on the tarmac. Both persons on board the aircraft were killed in the crash. Investigators with the Lee's Summit Police Department and Federal investigators worked to determine where the flight originated and what may have lead to the crash. The Lee's Summit Airport remained open for operations at all times since the accident wasn't in the immediate area of either of the runways.

The aircraft flown was a 1964 Piper PA-28-235 which has four seats and is a low wing and fixed gear aircraft. The initial investigation found that the flight originated in Des Moines and the occupants were travelling to Lee's Summit to meet family when the crash occurred.

The National Transportation Safety Board (NTSB) will release a preliminary report within 15-days of the accident. The final report won't be complete for six to eight months.

## Airport Inquiries & Noise Complaints

In September, the Airport received several inquiries regarding aircraft flying over their neighborhood. There were repeated references to the Airport's fly friendly program brochure, which is designed to provide users of the airport information about areas the Airport considers noise sensitive areas. Federal law prevents the City from denying or limiting access to any aircraft that can safely use the airport on a 24-hour basis. Although the City



cannot impose noise-related regulations, curfews or penalties, airport staff does work actively to communicate to pilots and flight instructors the need to be good neighbors and encourage the usage of quiet flying techniques when applicable, and the need to avoid residential area over flights whenever safely possible. This is why the brochure was developed The City of Lee's Summit and the airport staff take complaints seriously. Several of the most recent inquires received are from citizens who live under the flight paths of one of the runways. Unfortunately, some citizens may have read the brochure to mean the areas shaded in red to mean these areas are "NO FLY ZONES" and aircraft shouldn't be flying over their neighborhoods.

#### **Public Outreach**

On September 1, the local MoDOT Highway Department conducted testing at the Airport of the Truck Mounted Attenuator (TMA). This is the big square box like device on the back of a vehicle used by MoDOT to warn drivers of construction activities ahead. The testing was performed late in the evening when it was dark. The purpose of the testing was to try a variety of different light arrangements on the TMA to find an arrangement that provided the best lighting system to alert traffic of the work zone ahead, with the goal is to warn drivers to move over well in advance of reaching the work zone. The testing was performed on taxi way Charlie and involved the TMA truck and several MoDOT vehicles used to simulate motorist traveling at highway speeds approaching the TMA truck.

On September 6, several City staff members met with members of the new St. Michael the Archangel Catholic High School. This high school, located northwest of the airport, is under construction and is expected to open in the fall of 2017. The school will have an Introduction to Aviation in their curriculum and wanted to share their interest in exploring opportunities to partner with the Airport to expand their aviation program. Staff was able to share information on programs such as the Young Eagles programs, a new flight school starting operations in October, and the availability to provide tours of the airport. The school held an open house at the site of the new school on September 18, and a member of the Airport staff was in attendance providing information about the Airport to attendees.

The City's Public Works Department held their annual snow rodeo at the Airport during the week of September 12. This event provided an opportunity for snow removal operators to hone their skills prior to the winter activities and provided other city employees and officials the opportunity to operate a snowplow. Several airport staff were able to compete in the event and one staff member did well enough to qualify for the final round of completion. The activity was held on the East apron area.

The R-7 School District has a new Aerospace Engineering program being offered through their Project Lead the Way Program at the Summit Tech Center. Students from this program explore fundamentals of flight in air and space flight. As part of this program they toured the Airport on September 20. In addition to the tour the group was provided with information on the Young Eagles Program as an opportunity to take an introduction to flight. The Airport staff anticipates further opportunities will come available to provide assistance in this program similar to the new Catholic high school.

On October 3<sup>rd</sup> Airport staff participated in meet the new teacher program at the Mason Elementary school as part of the Lee's Summit School District's Partners in Education (PIE) Program.