



MEETING DATE: April 22, 2015
TO: Board of Directors
FROM: Kevin Smith, General Manager
SUBJECT: Hangar 3 Project Update Report - Options Review and Guidance

OBJECTIVE: Review Hangar 3 options presented by the Ad Hoc Committee, consider Options Cost Summary, and Financial Results and Assumptions (Pro-forma). Provide Board observations, guidance, and recommendations to Ad Hoc Committee, staff, and consultants to assist in final preparation of the Concept and Budget Report (CBR).

The full CBR will be presented at the May 27, 2015 Board Meeting.

DISCUSSION:

Over the past few months, the Ad Hoc Committee, Staff, and the consultant team have been meeting to prepare various hangar options including renderings, cost estimates, along with various building layouts and options. The Staff Report includes three basic packets of information contained in the two attachments which will be reviewed with the Board and public in attendance. These include:

- **Financial Results and Assumptions:** Staff and the Ad Hoc Committee have performed some analytics on projected revenue and operating costs for the building. These are contained in the Results and Assumptions Analysis included in the staff report. This analysis includes operating revenue from the building, aviation revenue for services such as deicing, along with operating costs for utilities, personnel, and ongoing maintenance of the building.
- **Hangar 3 Project Options – Cost Estimates:** This sheet lays out the various options starting with the “Do Nothing” option up to Option 4A which is the all-inclusive hangar. As shown in the sheet, the range of cost for the hangar is substantial. The project starts at approximately \$3 million, up to almost \$9 million depending on the project selected by the Board. The Ad Hoc Committee and Staff will review cost estimates presented in the Options Sheet. The Board can then provide input and feedback regarding options that may be less desirable and options that should be researched in further detail.
- **Option Information Sheets –** These sheets provide renderings and floor plans of Options 1A through 4A. These correspond to the cost estimates contained in the Hangar 3 Project Options - Cost Estimates. Staff will review these individual options with the Board and public at the meeting.

Other items to be presented with the full Concept and Budget Report include a Hangar 3 Operating Policy. In staff's review of the options presented, it is very clear that community events and public use will always have priority over aeronautical use with the exception of emergency operations. Staff sees no conflict with accommodating community events and the anticipated aeronautical use of the building. This will be clearly outlined in the Hangar 3 Use Policy once the Board gives clearer direction as to which hangar option is preferred. As to whether the Board decides to charge a fee for community use will still need to be considered.

Staff is also working on an update to the Hangar Size Analysis conducted as part of the Executive Hangars Study. This report tells us what aircraft or portion of our fleet mix will fit in our existing hangars. We are adding how many of each of those aircraft visits our airport in a given year. We will include this as part of the final CBR.

Staff is working with the Nevada County Transportation Commission regarding the Airport Land Use Compatibility Plan to assure appropriate mitigation measures can be employed to allow over 200 to 600 person events in the building. Events of 200 or fewer likely can be accommodated with no mitigation. As part of the final CBR, operational and air traffic impacts of the hangar will also be analyzed.

Tim Dacey, Architect and Project Manager with Mead & Hunt will be present at the meeting to assist in our discussion of these options. Ultimately, the questions to be considered are which of these options are most attractive, are there options we do not want, and what options should the Ad Hoc Committee and Staff emphasize more in the final draft of the CBR.

FISCAL IMPACT:

Project costs range from a basic hangar at \$3,000,000 to a large multipurpose hangar with extensive community facilities for \$9,000,000. Other options, including the use existing facilities to accommodate community events, as well as deicing of aircraft, range in price from \$75,000-\$1,000,000. The Airport District's long term Financial Forecast completed in preparation for the Clear Capital project programmed \$5.4 million for this hangar facility.

PUBLIC COMMUNICATIONS:

Staff will prepare a Press Release along with running ads in the local newspapers notifying the public of the May 27, 2015 Board Meeting. Staff will also use the District website and eblast resources to notify the community of the May 27th meeting.

ATTACHMENTS:

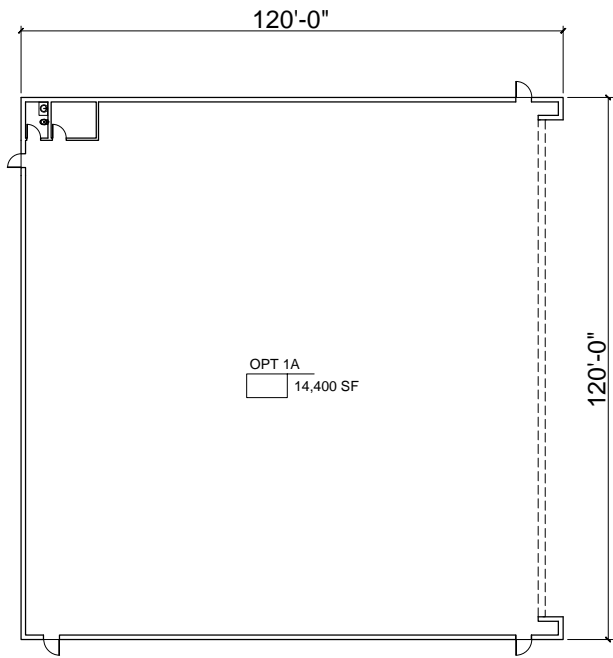
Hangar Three Project Options – Cost Estimates

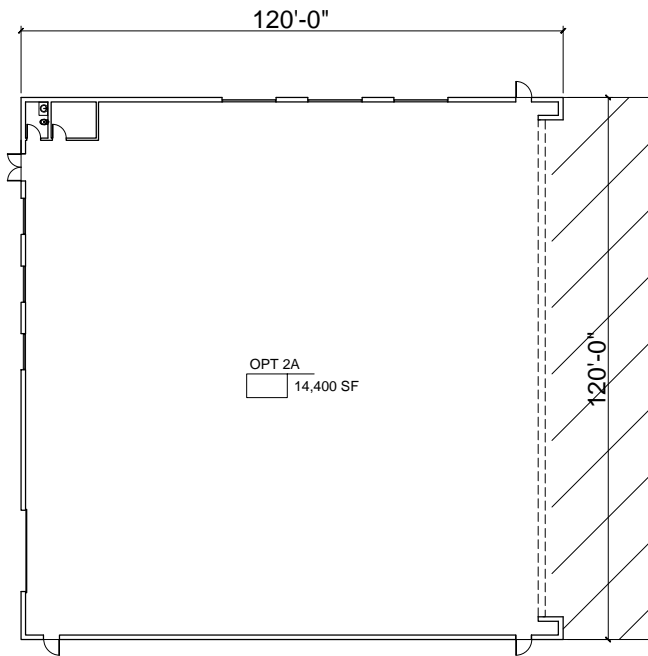
Option Information Sheets

Financial Results and Assumptions Analysis

FEATURES:
SMALL TO LARGE-SIZED AIRCRAFT WARMING
EVENTS UP TO 222 PEOPLE WITH PORTABLE TOILETS
ONE INTERNAL TOILET AND OFFICE

COST ESTIMATE:
\$3,020,700





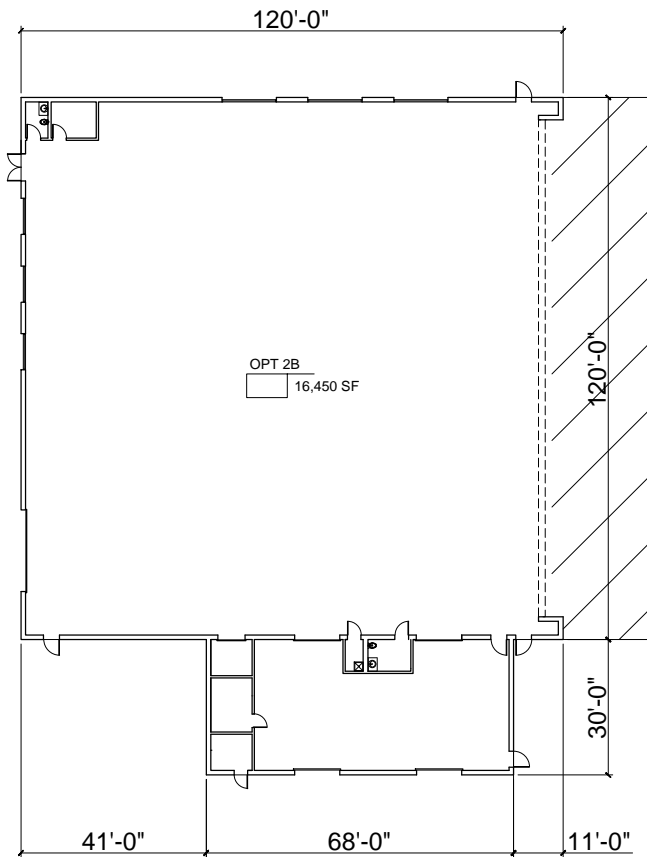
FEATURES:

- SMALL TO LARGE-SIZED AIRCRAFT WARMING
- EVENTS UP TO 222 PEOPLE WITH PORTABLE TOILETS
- ONE INTERNAL TOILET AND OFFICE
- MONO-PITCH ROOF W/ OVERHANGS
- ADDITIONAL ARCHITECTURAL ENHANCEMENTS
- ROOF AND GUTTER SNOW MELT SYSTEM
- CLERESTORY WINDOWS
- MEGA-DOOR
- HYDRONIC IN-FLOOR HEAT WITH BOILER
- INSULATED METAL WALL PANELS
- INTERIOR WALLS TO 8'
- SIDEWALKS, ENHANCED LANDSCAPING
- 20' OF HEATED RAMP
- ROOF AND WALL BLOCKING FOR METAL PANELS
- OVERHEAD MIXED-USE DOORS
- BOARD-FORMED CONCRETE WAINSCOTTING
- ELECTRICAL HIGH BAY LIGHTING

COST ESTIMATE:

\$5,020,912





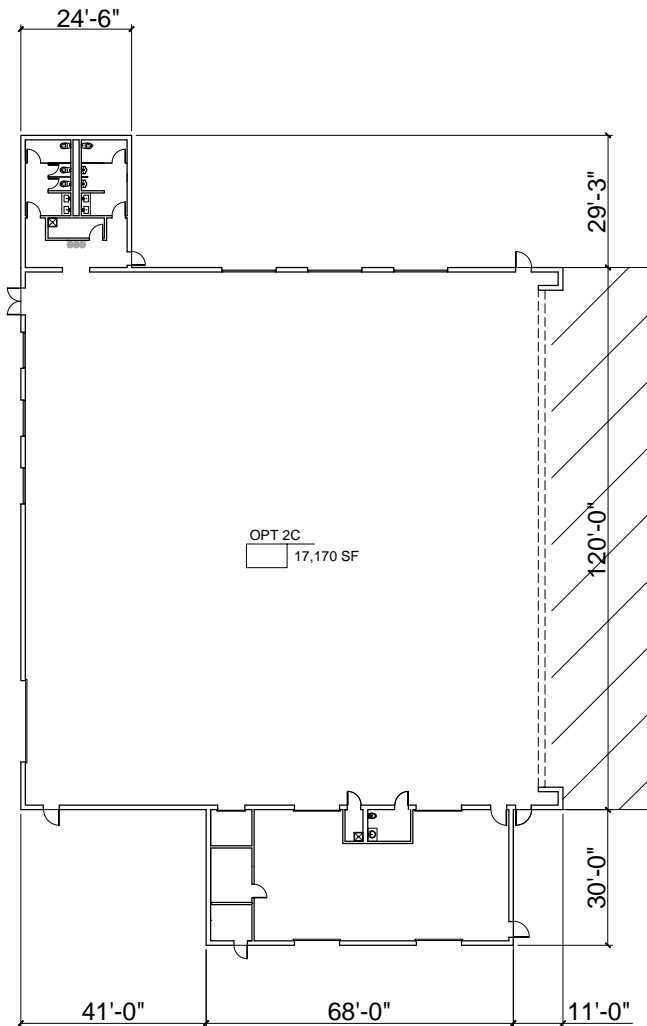
FEATURES:

- SMALL TO LARGE-SIZED AIRCRAFT WARMING
- EVENTS UP TO 222 PEOPLE WITH PORTABLE TOILETS
- ONE INTERNAL TOILET AND OFFICE
- MONO-PITCH ROOF W/ OVERHANGS
- ADDITIONAL ARCHITECTURAL ENHANCEMENTS
- ROOF AND GUTTER SNOW MELT SYSTEM
- CLERESTORY WINDOWS
- MEGA-DOOR
- HYDRONIC IN-FLOOR HEAT WITH BOILER
- INSULATED METAL WALL PANELS
- INTERIOR WALLS TO 8'
- SIDEWALKS, ENHANCED LANDSCAPING
- 20' OF HEATED RAMP
- ROOF AND WALL BLOCKING FOR METAL PANELS
- OVERHEAD MIXED-USE DOORS
- BOARD-FORMED CONCRETE WAINSCOTTING
- ELECTRICAL HIGH BAY LIGHTING
- BACK-UP GENERATOR
- EPOXY FLOORING
- AIRCRAFT RECTIFIER
- BASIC EXPANDED AIRCRAFT SERVICES (LAV DUMP, AIR, WATER, ICE, WASHER/DRYER), AND STORAGE FOR THOSE SERVICES

COST ESTIMATE:

\$5,728,489

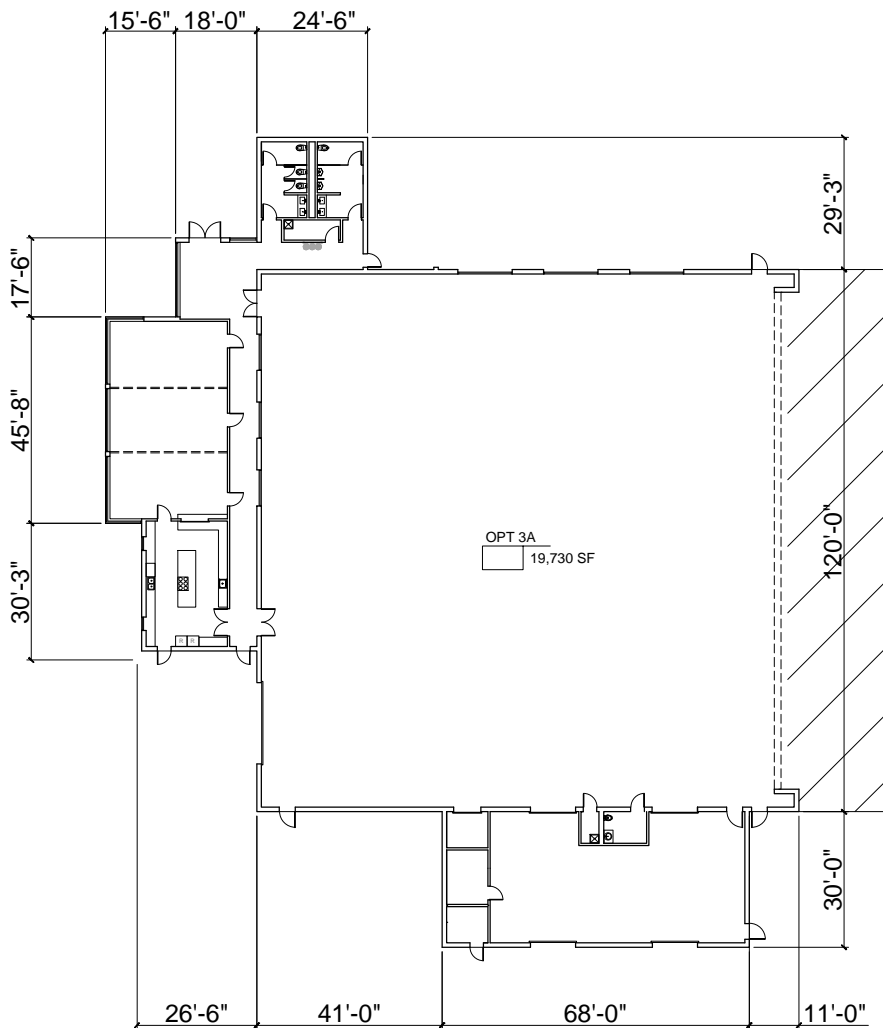




- FEATURES:**
- SMALL TO LARGE-SIZED AIRCRAFT WARMING
 - MONO-PITCH ROOF W/ OVERHANGS
 - ADDITIONAL ARCHITECTURAL ENHANCEMENTS
 - ROOF AND GUTTER SNOW MELT SYSTEM
 - CLERESTORY WINDOWS
 - MEGA-DOOR
 - HYDRONIC IN-FLOOR HEAT WITH BOILER
 - INSULATED METAL WALL PANELS
 - INTERIOR WALLS TO 8'
 - SIDEWALKS, ENHANCED LANDSCAPING
 - 20' OF HEATED RAMP
 - ROOF AND WALL BLOCKING FOR METAL PANELS
 - OVERHEAD MIXED-USE DOORS
 - BOARD-FORMED CONCRETE WAINSCOTING
 - ELECTRICAL HIGH BAY LIGHTING
 - BACKUP GENERATOR
 - EPOXY FLOORING
 - AIRCRAFT RECTIFIER
 - BASIC EXPANDED AIR SERVICES (LAV DUMP, AIR, WATER, ICE, WASHER/DRYER), AND STORAGE FOR THOSE SERVICES
 - RESTROOMS FOR 200 PEOPLE

COST ESTIMATE:
\$6,020,989





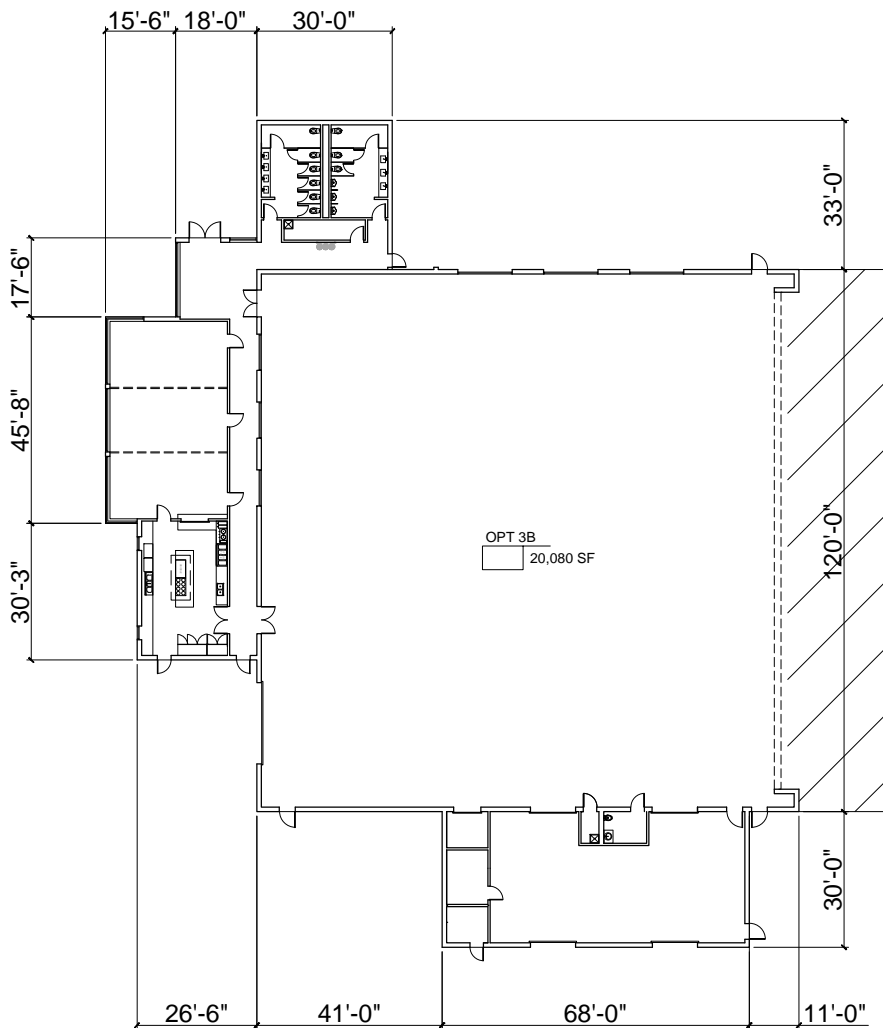
FEATURES:

- SMALL TO LARGE-SIZED AIRCRAFT WARMING
- MONO-PITCH ROOF W/ OVERHANGS
- ADDITIONAL ARCHITECTURAL ENHANCEMENTS
- ROOF AND GUTTER SNOW MELT SYSTEM
- CLERESTORY WINDOWS
- MEGA-DOOR
- HYDRONIC IN-FLOOR HEAT WITH BOILER
- INSULATED METAL WALL PANELS
- INTERIOR WALLS TO 8'
- SIDEWALKS, ENHANCED LANDSCAPING
- 20' OF HEATED RAMP
- ROOF AND WALL BLOCKING FOR METAL PANELS
- OVERHEAD MIXED-USE DOORS
- BOARD-FORMED CONCRETE WAINSCOTTING
- ELECTRICAL HIGH BAY LIGHTING
- BACKUP GENERATOR
- EPOXY FLOORING
- AIRCRAFT RECTIFIER
- BASIC EXPANDED AIR SERVICES (LAV DUMP, AIR, WATER, ICE, WASHER/DRYER), AND STORAGE FOR THOSE SERVICES
- RESTROOMS FOR 200 PEOPLE
- MORE COMMUNITY SPACE AND UPGRADED SERVICES FOR EVENTS
- EXTERIOR CANOPIES AT ENTRY AND KITCHEN
- STANDARD KITCHEN AREA

COST ESTIMATE:

\$7,338,401

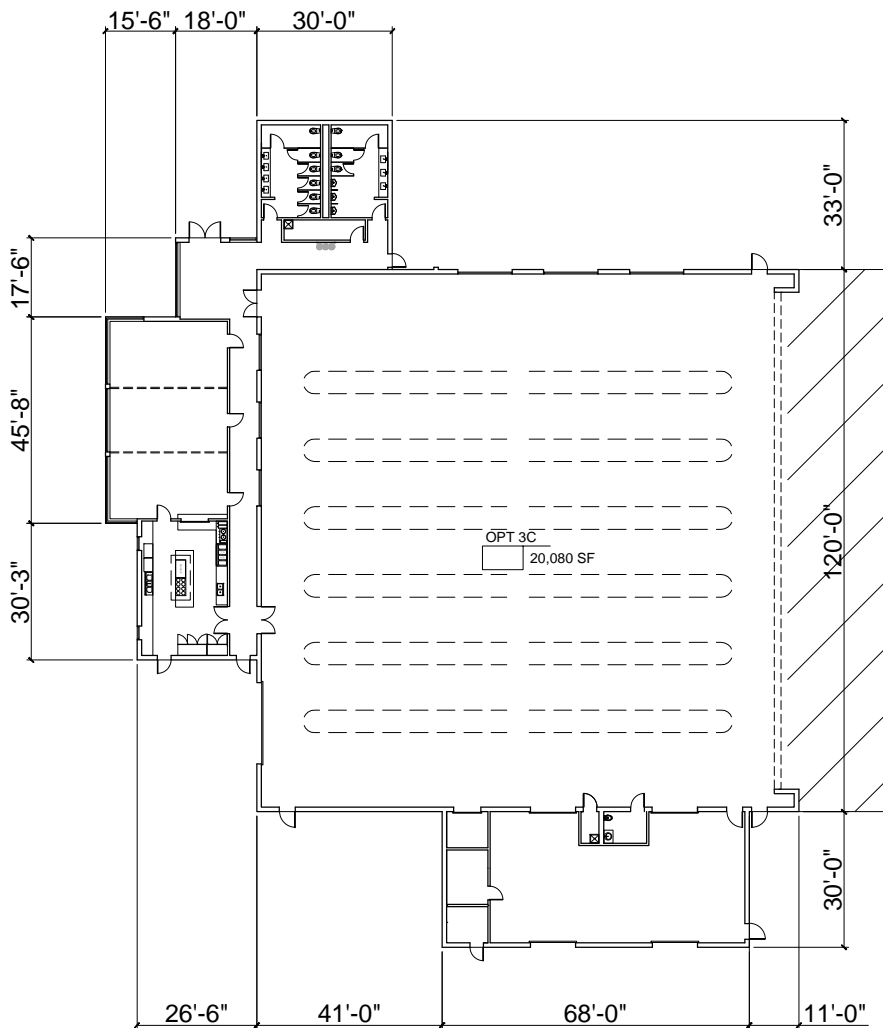




- FEATURES:**
- MONO-PITCH ROOF W/ OVERHANGS
 - ADDITIONAL ARCHITECTURAL ENHANCEMENTS
 - ROOF AND GUTTER SNOW MELT SYSTEM
 - CLERESTORY WINDOWS
 - MEGA-DOOR
 - HYDRONIC IN-FLOOR HEAT WITH BOILER
 - INSULATED METAL WALL PANELS
 - INTERIOR WALLS TO 8'
 - SIDEWALKS, ENHANCED LANDSCAPING
 - 20' OF HEATED RAMP
 - ROOF AND WALL BLOCKING FOR METAL PANELS
 - OVERHEAD MIXED-USE DOORS
 - BOARD-FORMED CONCRETE WAINSCOTTING
 - ELECTRICAL HIGH BAY LIGHTING
 - BACKUP GENERATOR
 - EPOXY FLOORING
 - AIRCRAFT RECTIFIER
 - BASIC EXPANDED AIR SERVICES (LAV DUMP, AIR, WATER, ICE, WASHER/DRYER), AND STORAGE FOR THOSE SERVICES
 - RESTROOMS FOR 600 PEOPLE
 - MORE COMMUNITY SPACE AND UPGRADED SERVICES FOR EVENTS
 - EXTERIOR CANOPIES AT ENTRY AND KITCHEN
 - COMMERCIAL KITCHEN AREA

COST ESTIMATE:
\$7,539,554





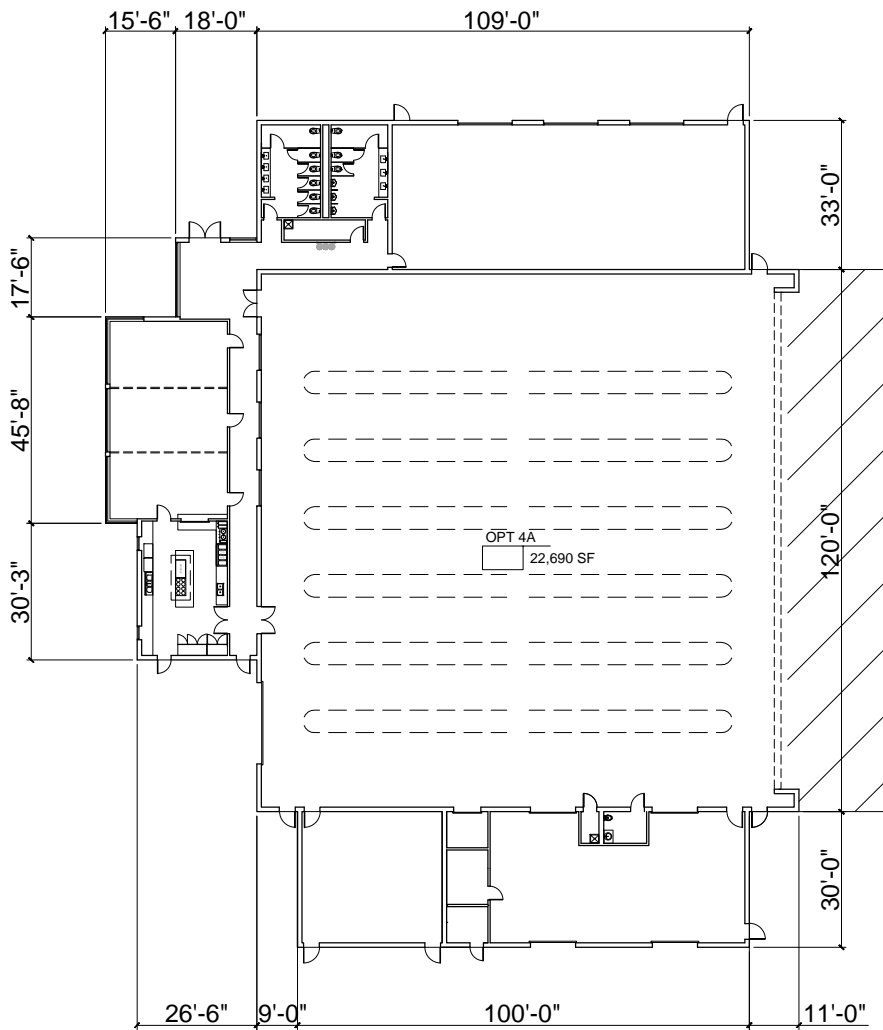
FEATURES:

- SMALL TO LARGE-SIZED AIRCRAFT WARMING
- MONO-PITCH ROOF W/ OVERHANGS
- ADDITIONAL ARCHITECTURAL ENHANCEMENTS
- ROOF AND GUTTER SNOW MELT SYSTEM
- CLERESTORY WINDOWS
- MEGA-DOOR
- HYDRONIC IN-FLOOR HEAT WITH BOILER
- INSULATED METAL WALL PANELS
- INTERIOR WALLS TO 8'
- SIDEWALKS, ENHANCED LANDSCAPING
- 20' OF HEATED RAMP
- ROOF AND WALL BLOCKING FOR METAL PANELS
- OVERHEAD MIXED-USE DOORS
- BOARD-FORMED CONCRETE WAINSCOTTING
- ELECTRICAL HIGH BAY LIGHTING
- BACKUP GENERATOR
- EPOXY FLOORING
- AIRCRAFT RECTIFIER
- BASIC EXPANDED AIR SERVICES (LAV DUMP, AIR, WATER, ICE, WASHER/DRYER), AND STORAGE FOR THOSE SERVICES
- RESTROOMS FOR 600 PEOPLE
- MORE COMMUNITY SPACE AND UPGRADED SERVICES FOR EVENTS
- EXTERIOR CANOPIES AT ENTRY AND KITCHEN
- COMMERCIAL KITCHEN AREA
- DE-ICING SYSTEM CAPABLE OF MELTING 3" OF SNOW IN 20 MINUTES

COST ESTIMATE:

\$7,864,554





FEATURES:

- SMALL TO LARGE-SIZED AIRCRAFT WARMING
- MONO-PITCH ROOF W/ OVERHANGS
- ADDITIONAL ARCHITECTURAL ENHANCEMENTS
- ROOF AND GUTTER SNOW MELT SYSTEM
- CLERESTORY WINDOWS
- MEGA-DOOR
- HYDRONIC IN-FLOOR HEAT WITH BOILER
- INSULATED METAL WALL PANELS
- INTERIOR WALLS TO 8'
- SIDEWALKS, ENHANCED LANDSCAPING
- 20' OF HEATED RAMP
- ROOF AND WALL BLOCKING FOR METAL PANELS
- OVERHEAD MIXED-USE DOORS
- BOARD-FORMED CONCRETE WAINSCOTTING
- ELECTRICAL HIGH BAY LIGHTING
- BACKUP GENERATOR
- EPOXY FLOORING
- AIRCRAFT RECTIFIER
- BASIC EXPANDED AIR SERVICES (LAV DUMP, AIR, WATER, ICE, WASHER/DRYER), AND STORAGE FOR THOSE SERVICES
- RESTROOMS FOR 600 PEOPLE
- MORE COMMUNITY SPACE AND UPGRADED SERVICES FOR EVENTS
- EXTERIOR CANOPIES AT ENTRY AND KITCHEN
- COMMERCIAL KITCHEN AREA
- DE-ICING SYSTEM CAPABLE OF MELTING 3" OF SNOW IN 20 MINUTES
- AREA EAST OF BATHROOMS AND WEST OF GSE BUILT TO VANILLA SHELL

COST ESTIMATE:

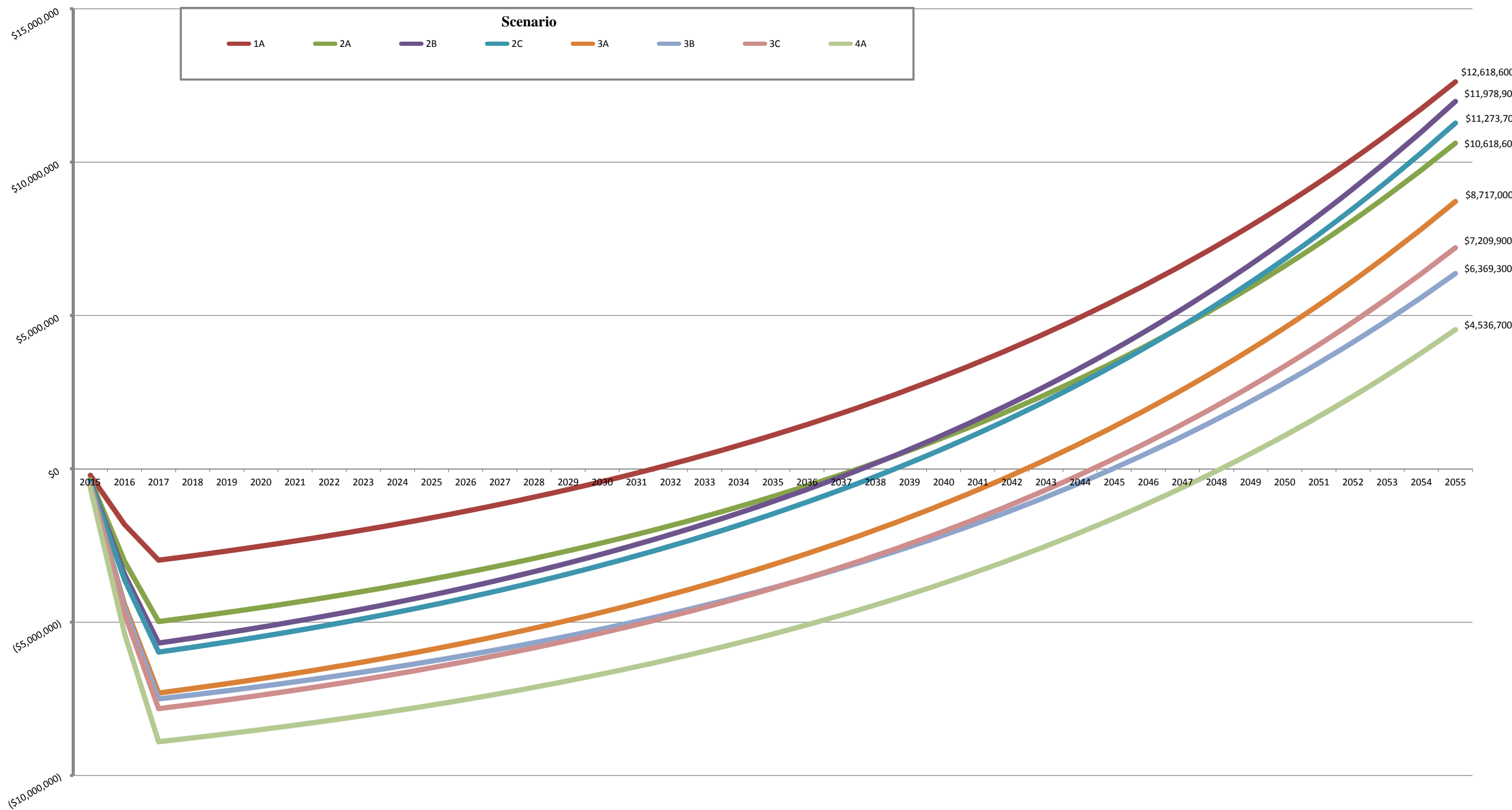
\$8,939,004



**Truckee Tahoe Airport District
Hangar 3 Feasibility Analysis
Results & Assumptions
4/15/2015**

	Scenario							
	Results thru 2055							
	1A	2A	2B	2C	3A	3B	3C	4A
Operating Revenues								
Hangar Rental	22,805,000	22,805,000	25,085,300	25,085,300	25,085,300	25,085,300	25,085,300	25,085,300
De-Icing	3,757,300	3,757,300	3,757,300	3,757,300	3,757,300	3,757,300	5,635,500	5,635,500
Community Space	-	-	-	-	-	-	-	-
Other Revenue	-	-	-	-	-	-	-	-
Total Operating Revenues	26,562,300	26,562,300	28,842,600	28,842,600	28,842,600	28,842,600	30,720,800	30,720,800
Operating Expenditures								
Hangar	10,359,400	10,359,400	10,759,500	10,009,300	10,009,300	10,009,300	10,534,700	10,747,100
De-Icing	563,300	563,300	376,200	376,200	376,200	376,200	563,400	563,400
Community Space	-	-	-	1,162,400	2,387,100	4,548,800	4,548,800	5,935,600
Other Expenditures	-	-	-	-	-	-	-	-
Total Operating Expenditures	10,922,700	10,922,700	11,135,700	11,547,900	12,772,600	14,934,300	15,646,900	17,246,100
Net Operating Cash Flow	15,639,600	15,639,600	17,706,900	17,294,700	16,070,000	13,908,300	15,073,900	13,474,700
Development Cost								
Hangar	3,021,000	3,725,000	3,914,000	3,914,000	3,914,000	3,914,000	4,239,000	4,239,000
GSE Space	-	-	518,000	518,000	518,000	518,000	518,000	680,000
Community Space	-	1,296,000	1,296,000	1,589,000	2,921,000	3,107,000	3,107,000	4,019,000
Total Development Cost	3,021,000	5,021,000	5,728,000	6,021,000	7,353,000	7,539,000	7,864,000	8,938,000
Net Cash Flow	12,618,600	10,618,600	11,978,900	11,273,700	8,717,000	6,369,300	7,209,900	4,536,700
Base Year Results								
Total Operating Revenues	246,000	246,000	267,100	267,100	267,100	267,100	284,500	284,500
Total Operating Expenditures	(101,200)	(101,200)	(103,200)	(107,000)	(118,300)	(138,300)	(144,900)	(159,800)
Net Operating Cash Flow	144,800	144,800	163,900	160,100	148,800	128,800	139,600	124,700
Financial Results								
IRR %	8.06%	5.09%	5.05%	4.67%	3.33%	2.55%	2.73%	1.67%
Break Period	2032	2038	2038	2039	2043	2045	2045	2049
Years to Break Even	16	22	22	23	27	29	29	33
Community Contribution	-	1,296,000	1,296,000	2,751,400	5,308,100	7,655,800	7,655,800	9,954,600
IRR % w/o Community Contribution	8.06%	6.76%	6.47%	6.71%	6.71%	6.71%	6.66%	6.40%
Assumptions								
Operations								
Hangar Rental Revenue								
Hangar Rental Events/Day	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hangar Rental Average Rate/Day	\$500	\$500	\$550	\$550	\$550	\$550	\$550	\$550
De-Icing Revenue & COGS								
De-Icing Events/Year	30	30	30	30	30	30	30	30
De-Icing Rate	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,500	\$1,500
De-Icing COGS	15%	15%	10%	10%	10%	10%	10%	10%
Staffing, Utilities, Maintenance								
Utilities & Janitorial/Year - Hangar	12,100	12,100	13,800	13,800	13,800	13,800	13,800	14,600
Utilities & Janitorial/Year - Community Space	-	-	-	2,200	9,800	10,900	10,900	18,700
Staffing/Year - Hangar	60,000	60,000	60,000	54,000	54,000	54,000	54,000	54,000
Staffing/Year - Community Space	-	-	-	6,000	6,000	21,000	21,000	21,000
Repairs, Maintenance, Refurbishment/Year - Hangar	10,800	10,800	12,300	12,300	12,300	12,300	16,500	17,400
Repairs, Maintenance, Refurbishment/Year - Community Space	-	-	-	1,100	3,300	4,500	4,500	7,800
Escalation Factor								
	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Development								
Development Cost								
Hangar	3,021,000	3,725,000	3,914,000	3,914,000	3,914,000	3,914,000	4,239,000	4,239,000
GSE Space	-	-	518,000	518,000	518,000	518,000	518,000	680,000
Community Space	-	1,296,000	1,296,000	1,589,000	2,921,000	3,107,000	3,107,000	4,019,000
Total Development Cost (including contingency)	3,021,000	5,021,000	5,728,000	6,021,000	7,353,000	7,539,000	7,864,000	8,938,000
Incremental Development Cost								
Hangar	-	704,000	189,000	-	-	-	325,000	-
GSE Space	-	-	518,000	-	-	-	-	162,000
Community Space	-	1,296,000	-	293,000	1,332,000	186,000	-	912,000
Total Development Cost (including contingency)	-	2,000,000	707,000	293,000	1,332,000	186,000	325,000	1,074,000
Cumulative Incremental Development Cost								
Hangar	-	704,000	893,000	893,000	893,000	893,000	1,218,000	1,218,000
GSE Space	-	-	518,000	518,000	518,000	518,000	518,000	680,000
Community Space	-	1,296,000	1,296,000	1,589,000	2,921,000	3,107,000	3,107,000	4,019,000
Total Development Cost (including contingency)	-	2,000,000	2,707,000	3,000,000	4,332,000	4,518,000	4,843,000	5,917,000
Building Size								
Hangar	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400
GSE Space	-	-	2,050	2,050	2,050	2,050	2,050	3,010
Community Space	-	-	-	720	3,280	3,630	3,630	6,240
Total Building Size	14,400	14,400	16,450	17,170	19,730	20,080	20,080	23,650
Development Cost / Square Foot								
Hangar	210	259	272	272	272	272	294	294
GSE Space	-	-	253	253	253	253	253	226
Community Space	-	-	-	2,207	891	856	856	644
Total Development Cost / Square Foot	210	349	348	351	373	375	392	378

Truckee Tahoe Airport District Hangar 3 Feasibility Analysis Projected Net Cash Flow 4/15/2015



**Truckee Tahoe Airport District
Hangar 3 Feasibility Analysis
Operation Expenditure Assumptions
4/15/2015**

	Scenario							
	1A	2A	2B	2C	3A	3B	3C	4A
Summary								
Hangar & GSE								
Utilities, Janitorial and Other Operational Cost	12,100	12,100	13,800	13,800	13,800	13,800	13,800	14,600
Staffing Cost	60,000	60,000	60,000	54,000	54,000	54,000	54,000	54,000
Repair & Maintenance Reserve	10,800	10,800	12,300	12,300	12,300	12,300	16,500	17,400
Total Operating Revenues	82,900	82,900	86,100	80,100	80,100	80,100	84,300	86,000
Community Space								
Utilities, Janitorial and Other Operational Cost	-	-	-	2,200	9,800	10,900	10,900	18,700
Staffing Cost	-	-	-	6,000	6,000	21,000	21,000	21,000
Repair & Maintenance Reserve	-	-	-	1,100	3,300	4,500	4,500	7,800
Total Operating Expenditures	-	-	-	9,300	19,100	36,400	36,400	47,500
Total								
Utilities, Janitorial and Other Operational Cost	12,100	12,100	13,800	16,000	23,600	24,700	24,700	33,300
Staffing Cost	60,000	60,000	60,000	60,000	60,000	75,000	75,000	75,000
Repair & Maintenance Reserve	10,800	10,800	12,300	13,400	15,600	16,800	21,000	25,200
Total Operating Expenditures	82,900	82,900	86,100	89,400	99,200	116,500	120,700	133,500

Detail								
Utilities, Janitorial and Other Operational Cost								
Utilities, Janitorial, Operational Cost/Sq.Ft./Month								
Hangar & GSE	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07
Community Space	\$0.00	\$0.00	\$0.00	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Building Size (Aviation/Community Space)								
Aviation Space	14,400	14,400	16,450	16,450	16,450	16,450	16,450	17,410
Community Space	-	-	-	720	3,280	3,630	3,630	6,240
Total	14,400	14,400	16,450	17,170	19,730	20,080	20,080	23,650
Utilities & Janitorial Cost/Month								
Aviation Space	1,008	1,008	1,152	1,152	1,152	1,152	1,152	1,219
Community Space	-	-	-	180	820	908	908	1,560
Total	1,008	1,008	1,152	1,332	1,972	2,059	2,059	2,779
Utilities & Janitorial Cost/Year								
Aviation Space	12,100	12,100	13,800	13,800	13,800	13,800	13,800	14,600
Community Space	-	-	-	2,200	9,800	10,900	10,900	18,700
Total	12,100	12,100	13,800	16,000	23,600	24,700	24,700	33,300

Staffing Cost								
Staffing Cost/Year								
Fully Loaded FTE	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Estimated FTEs	100%	100%	100%	100%	100%	125%	125%	125%
Total Staffing Cost/Year	60,000	60,000	60,000	60,000	60,000	75,000	75,000	75,000
Staffing Allocation								
Aviation	100.000%	100.000%	100.000%	90.000%	90.000%	72.000%	72.000%	72.000%
Community Space	0.000%	0.000%	0.000%	10.000%	10.000%	28.000%	28.000%	28.000%
Staffing Cost Allocation/Year								
Aviation	60,000	60,000	60,000	54,000	54,000	54,000	54,000	54,000
Community Space	-	-	-	6,000	6,000	21,000	21,000	21,000
Total Staffing Cost/Year	60,000	60,000	60,000	60,000	60,000	75,000	75,000	75,000

Repair & Maintenance Reserve								
Repairs/Maintenance/Refurbishment Reserve/Sq.Ft./Year								
Aviation Space	0.75	0.75	0.75	0.75	0.75	0.75	1.00	1.00
Community Space	-	-	-	1.50	1.00	1.25	1.25	1.25
Building Size (Aviation/Community Space)								
Aviation Space	14,400	14,400	16,450	16,450	16,450	16,450	16,450	17,410
Community Space	-	-	-	720	3,280	3,630	3,630	6,240
Total	14,400	14,400	16,450	17,170	19,730	20,080	20,080	23,650
Repairs/Maintenance/Refurbishment Reserve/Year								
Aviation Space	10,800	10,800	12,300	12,300	12,300	12,300	16,500	17,400
Community Space	-	-	-	1,100	3,300	4,500	4,500	7,800
Total	10,800	10,800	12,300	13,400	15,600	16,800	21,000	25,200

assumes cost related to operation beyond 7-7 and event specific cost will be covered by fee based charges

Truckee Tahoe Airport District Hangar 3 Project Options - Cost Estimates 4/15/2015

Option	Square Feet	Description	Functions/Components	Added Cost	Estimated Project Costs	Hangar	GSE	Aviation	Community Space	Total
0		Do nothing		0						0
0A	3,333	Refit A9 with Infrared Heaters	Small to medium sized aircraft warming, Events up to 222 people with portable toilets		75,000		75,000	75,000		75,000
0B	3,433	0A with Restrooms	Add Restrooms for 200 people (M: 1WC, 2UR - F: 3WC) to the side of A9	200,000	275,000		275,000	275,000		275,000
0C		0 Deicing Truck & Site Improvements	Deicing & anti-icing of planes		450,000		450,000	450,000		450,000
0D		Refit A9 & A10 for Maintenance and Hangar 1 for Overnights and Events	Offices and bathroom at A9 (also add fire suppression), new door and heating for Hangar 1		900,000					
1A	14,400	Basic GA Hangar	Small-large aircraft warming (1-2 Hours) and over-nighting, Events capable with portable toilets, 1 internal toilet & office, Very Basic Looks		3,021,000	3,021,000	-	3,021,000	-	3,021,000
			+ Mono-pitch roof with overhangs	489,000		-	-	-	489,000	489,000
			+ Additional architectural enhancements	130,000		-	-	-	130,000	130,000
			+ Roof & gutter snow melt system	22,000		-	-	-	22,000	22,000
			+ Clerestory windows	29,000		-	-	-	29,000	29,000
			+ Mega-door	209,000		209,000	-	209,000		209,000
			+ Hydronic in-floor heat with boiler	64,000		-	-	-	64,000	64,000
			+ Insulated metal wall panels	229,000		-	-	-	229,000	229,000
			+ Interior walls to 8'	22,000		-	-	-	22,000	22,000
			+ Sidewalks, enhanced landscaping	38,000		-	-	-	38,000	38,000
			+ 20' of heated ramp	144,000		144,000	-	144,000		144,000
			+ Roof & wall blocking for metal panels	58,000		-	-	-	58,000	58,000
			+ Overhead coiling doors	36,000		36,000	-	36,000		36,000
			+ Board formed concrete wainscoting	69,000		-	-	-	69,000	69,000
			+ Electrical high bay lighting	170,000		170,000	-	170,000		170,000
			+ Additional permitting	35,000		17,000	-	17,000	18,000	35,000
			+ Duration (additional 3 months of General Conditions)	256,000		128,000	-	128,000	128,000	256,000
2A	14,400	Truckee Hangar Design		= 2,000,000	5,021,000	3,725,000	-	3,725,000	1,296,000	5,021,000
			+ Backup generator	58,000		58,000	-	58,000		58,000
			+ Epoxy flooring	131,000		131,000	-	131,000		131,000
			+ Aircraft rectifier	46,000		-	46,000	46,000		46,000
			+ Basic expected aircraft services (Lav dump, air, water, ice, washer/dryer), and storage for those services	472,000		-	472,000	472,000		472,000
2B	16,450	Truckee Hangar with Aircraft Services		= 707,000	5,728,000	3,914,000	518,000	4,432,000	1,296,000	5,728,000
			+ Restrooms for 200 people (M: 1WC, 2UR - F: 3WC)	293,000		-	-	-	293,000	293,000
2C	17,170	Truckee Hangar With Aircraft Services & Restrooms		= 293,000	6,021,000	3,914,000	518,000	4,432,000	1,589,000	6,021,000
			+ More community space and upgraded services for events	1,332,000		-	-	-	1,332,000	1,332,000
3A	19,730	Multi-Purpose Hangar		= 1,332,000	7,353,000	3,914,000	518,000	4,432,000	2,921,000	7,353,000
			+ Upgrade kitchen area to commercial	98,000		-	-	-	98,000	98,000
			+ Upgrade restrooms 600 people. (M: 3WC, 2UR - F: 6WC)	88,000		-	-	-	88,000	88,000
3B	20,080	Multi-Purpose Hangar with Commercial Kitchen & able to host large events		= 186,000	7,539,000	3,914,000	518,000	4,432,000	3,107,000	7,539,000
			+ Add de-icing system capable of melting 3" of snow in 20 minutes.	325,000		325,000	-	325,000		325,000
3C	20,080	Multi-Purpose Hangar with Commercial Kitchen & Rapid Snow/Ice melt		= 325,000	7,864,000	4,239,000	518,000	4,757,000	3,107,000	7,864,000
			+ 3B with storage space, the area to the east of the restrooms built to vanilla shell	1,074,000		-	162,000	162,000	912,000	1,074,000
4A	23,650	Multi-Purpose Hangar with Expanded Storage, Future Expansion Built Out		= 1,074,000	8,938,000	4,239,000	680,000	4,919,000	4,019,000	8,938,000

Notes:

- 1 GA Hangar includes minimal 120'x120' hangar structure with sectional sliding doors
- 2 Modified hangar includes clerestory windows, 3 panel vertical lift fabric door.
- 3 Cost and Extent of IR system still under review
- 4 Cost of Deicing pad based on another airport, adjusted for scale and location only. No design has yet been conducted.

Truckee Tahoe Airport District
 Hangar 3 Feasibility Analysis
 Sensitivity Tables - Scenario 2C
 4/15/2015

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Annual Hangar Revenue before Escalation									
Average Hangar Rate									
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	146,000	153,300	160,600	167,900	175,200	182,500	189,800	197,100	204,400
0.90	164,300	172,500	180,700	188,900	197,100	205,300	213,500	221,700	230,000
1.00	182,500	191,600	200,800	209,900	219,000	228,100	237,300	246,400	255,500
1.10	200,800	210,800	220,800	230,900	240,900	250,900	261,000	271,000	281,100
1.20	219,000	230,000	240,900	251,900	262,800	273,800	284,700	295,700	306,600
1.30	237,300	249,100	261,000	272,800	284,700	296,600	308,400	320,300	332,200
1.40	255,500	268,300	281,100	293,800	306,600	319,400	332,200	344,900	357,700
1.50	273,800	287,400	301,100	314,800	328,500	342,200	355,900	369,600	383,300

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Annual De-Icing Revenue before Escalation									
Average De-Icing Rate									
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	16,000	17,000	18,000	19,000	20,000	21,000	22,000	23,000	24,000
25	20,000	21,300	22,500	23,800	25,000	26,300	27,500	28,800	30,000
30	24,000	25,500	27,000	28,500	30,000	31,500	33,000	34,500	36,000
35	28,000	29,800	31,500	33,300	35,000	36,800	38,500	40,300	42,000
40	32,000	34,000	36,000	38,000	40,000	42,000	44,000	46,000	48,000
45	36,000	38,300	40,500	42,800	45,000	47,300	49,500	51,800	54,000
50	40,000	42,500	45,000	47,500	50,000	52,500	55,000	57,500	60,000
55	44,000	46,800	49,500	52,300	55,000	57,800	60,500	63,300	66,000

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Net Cash Flow thru 2055									
Average Hangar Rate									
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	4,432,500	5,344,700	6,256,900	7,169,100	8,081,300	8,993,500	9,905,700	10,818,200	11,730,100
0.90	6,713,000	7,739,200	8,765,300	9,791,600	10,818,200	11,844,800	12,870,000	13,896,300	14,922,600
1.00	8,993,400	10,133,600	11,273,700	12,414,300	13,554,300	14,694,800	15,835,200	16,975,300	18,115,600
1.10	11,273,700	12,527,900	13,782,400	15,036,800	16,291,200	17,545,800	18,799,600	20,053,600	21,308,300
1.20	13,554,300	14,922,600	16,291,200	17,659,300	19,027,700	20,395,900	21,764,400	23,133,000	24,501,000
1.30	15,835,200	17,317,500	18,799,600	20,281,600	21,764,400	23,246,600	24,728,900	26,211,300	27,693,400
1.40	18,115,600	19,711,900	21,308,300	22,904,500	24,501,000	26,097,300	27,693,400	29,289,500	30,886,300
1.50	20,395,900	22,106,300	23,816,500	25,527,200	27,237,000	28,947,700	30,658,400	32,368,500	34,078,900

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Net Cash Flow thru 2055									
Average De-Icing Rate									
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	9,695,900	9,808,800	9,921,500	10,033,500	10,146,300	10,258,900	10,371,900	10,485,300	10,598,000
25	10,146,300	10,287,800	10,428,500	10,569,400	10,710,000	10,850,900	10,992,100	11,132,700	11,273,700
30	10,598,000	10,766,600	10,935,700	11,104,700	11,273,700	11,443,000	11,612,200	11,781,000	11,949,900
35	11,048,800	11,245,900	11,443,000	11,640,200	11,837,500	12,034,800	12,231,900	12,429,300	12,626,700
40	11,499,200	11,724,700	11,949,900	12,175,400	12,401,300	12,626,700	12,851,900	13,077,200	13,302,600
45	11,949,900	12,203,600	12,457,300	12,711,100	12,964,700	13,218,200	13,471,500	13,725,200	13,979,800
50	12,401,300	12,683,100	12,964,700	13,246,300	13,528,400	13,810,100	14,092,100	14,373,600	14,655,400
55	12,851,900	13,162,000	13,471,500	13,781,200	14,092,100	14,402,000	14,711,500	15,021,900	15,331,600

Average Hangar Rate to Hangar Rentals/Day Sensitivity - IRR%									
Average Hangar Rate									
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	2.28%	2.66%	3.01%	3.34%	3.66%	3.96%	4.25%	4.53%	4.80%
0.90	3.18%	3.54%	3.89%	4.22%	4.53%	4.84%	5.13%	5.41%	5.69%
1.00	3.96%	4.33%	4.67%	5.00%	5.32%	5.63%	5.92%	6.21%	6.49%
1.10	4.67%	5.03%	5.38%	5.72%	6.04%	6.35%	6.65%	6.94%	7.23%
1.20	5.32%	5.69%	6.04%	6.38%	6.70%	7.02%	7.33%	7.63%	7.92%
1.30	5.92%	6.29%	6.65%	6.99%	7.33%	7.65%	7.97%	8.27%	8.57%
1.40	6.49%	6.86%	7.23%	7.58%	7.92%	8.25%	8.57%	8.89%	9.20%
1.50	7.02%	7.40%	7.77%	8.13%	8.48%	8.82%	9.15%	9.48%	9.80%

Average De-Icing Rate to De-Icing Event/Year Sensitivity - IRR%									
Average De-Icing Rate									
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	4.19%	4.22%	4.26%	4.29%	4.33%	4.36%	4.40%	4.43%	4.47%
25	4.33%	4.37%	4.42%	4.46%	4.50%	4.54%	4.59%	4.63%	4.67%
30	4.47%	4.52%	4.57%	4.62%	4.67%	4.72%	4.77%	4.82%	4.87%
35	4.60%	4.66%	4.72%	4.78%	4.84%	4.89%	4.95%	5.01%	5.06%
40	4.74%	4.80%	4.87%	4.93%	5.00%	5.06%	5.13%	5.19%	5.25%
45	4.87%	4.94%	5.02%	5.09%	5.16%	5.23%	5.30%	5.37%	5.44%
50	5.00%	5.08%	5.16%	5.24%	5.32%	5.39%	5.47%	5.54%	5.62%
55	5.13%	5.21%	5.30%	5.38%	5.47%	5.55%	5.63%	5.72%	5.80%

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Payback Period									
Average Hangar Rate									
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	30	29	28	27	26	25	24	23	23
0.90	27	26	25	24	23	23	22	21	21
1.00	25	24	23	22	21	21	20	19	19
1.10	23	22	21	21	20	19	19	18	17
1.20	21	21	20	19	18	18	17	17	16
1.30	20	19	19	18	17	17	16	16	15
1.40	19	18	17	17	16	16	15	15	14
1.50	18	17	16	16	15	15	14	14	14

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Payback Period									
Average De-Icing Rate									
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	24	24	24	24	24	24	24	24	24
25	24	24	24	24	24	24	23	23	23
30	24	23	23	23	23	23	23	23	23
35	23	23	23	23	23	23	22	22	22
40	23	23	23	22	22	22	22	22	22
45	23	22	22	22	22	22	21	21	21
50	22	22	22	22	21	21	21	21	21
55	22	22	21	21	21	21	21	21	20

Average Hangar Rate to Hangar Rentals/Day Sensitivity - IRR% before Community Space Impact									
Average Hangar Rate									
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	4.21%	4.59%	4.95%	5.30%	5.63%	5.95%	6.26%	6.56%	6.85%
0.90	5.13%	5.51%	5.87%	6.23%	6.56%	6.89%	7.21%	7.52%	7.82%
1.00	5.95%	6.34%	6.71%	7.07%	7.41%	7.75%	8.08%	8.39%	8.71%
1.10	6.71%	7.10%	7.48%	7.85%	8.20%	8.55%	8.89%	9.22%	9.54%
1.20	7.41%	7.82%	8.20%	8.58%	8.95%	9.31%	9.66%	10.00%	10.33%
1.30	8.08%	8.49%	8.89%	9.28%	9.66%	10.03%	10.39%	10.74%	11.09%
1.40	8.71%	9.13%	9.54%	9.94%	10.33%	10.71%	11.09%	11.46%	11.82%
1.50	9.31%	9.74%	10.17%	10.58%	10.98%	11.38%	11.77%	12.15%	12.53%

Average De-Icing Rate to De-Icing Event/Year Sensitivity - IRR% before Community Space Impact									
Average De-Icing Rate									
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	6.19%	6.23%	6.27%	6.30%	6.34%	6.38%	6.42%	6.45%	6.49%
25	6.34%	6.39%	6.43%	6.48%	6.53%	6.57%	6.62%	6.66%	6.71%
30	6.49%	6.55%	6.60%	6.66%	6.71%	6.76%	6.82%	6.87%	6.93%
35	6.64%	6.70%	6.76%	6.83%	6.89%	6.95%	7.01%	7.08%	7.14%
40	6.78%	6.85%	6.93%	7.00%	7.07%	7.14%	7.21%	7.27%	7.34%
45	6.93%	7.00%	7.08%	7.16%	7.24%	7.32%	7.39%	7.47%	7.55%
50	7.07%	7.15%	7.24%	7.33%	7.41%	7.50%	7.58%	7.66%	7.75%
55	7.21%	7.30%	7.39%	7.49%	7.58%	7.67%	7.76%	7.85%	7.94%

Escalation Impact									
Escalation Rate (combination of Inflation and Utilization)									
	3.00%	3.50%	4.00%	4.50%	5.00%	5.50%	6.00%	6.50%	7.00%
Net Cash Flo	4,476,600	5,837,900	7,402,100	9,202,400	11,273,700	13,662,600	16,418,500	19,598,800	23,272,200
IRR%	2.55%	3.08%	3.61%	4.14%	4.67%	5.20%	5.73%	6.26%	6.79%
Payback	28	27	25	24	23	22	21	21	20
IRR%	4.53%	5.08%	5.62%	6.17%	6.71%	7.26%	7.80%	8.35%	8.89%

Truckee Tahoe Airport District
 Hangar 3 Feasibility Analysis
 Sensitivity Tables - Scenario 3A
 4/15/2015

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Annual Hangar Revenue before Escalation									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
	0.80	146,000	153,300	160,600	167,900	175,200	182,500	189,800	197,100
0.90	164,300	172,500	180,700	188,900	197,100	205,300	213,500	221,700	230,000
1.00	182,500	191,600	200,800	209,900	219,000	228,100	237,300	246,400	255,500
1.10	200,800	210,800	220,800	230,900	240,900	250,900	261,000	271,000	281,100
1.20	219,000	230,000	240,900	251,900	262,800	273,800	284,700	295,700	306,600
1.30	237,300	249,100	261,000	272,800	284,700	296,600	308,400	320,300	332,200
1.40	255,500	268,300	281,100	293,800	306,600	319,400	332,200	344,900	357,700
1.50	273,800	287,400	301,100	314,800	328,500	342,200	355,900	369,600	383,300

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Annual De-Icing Revenue before Escalation									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
	20	16,000	17,000	18,000	19,000	20,000	21,000	22,000	23,000
25	20,000	21,300	22,500	23,800	25,000	26,300	27,500	28,800	30,000
30	24,000	25,500	27,000	28,500	30,000	31,500	33,000	34,500	36,000
35	28,000	29,800	31,500	33,300	35,000	36,800	38,500	40,300	42,000
40	32,000	34,000	36,000	38,000	40,000	42,000	44,000	46,000	48,000
45	36,000	38,300	40,500	42,800	45,000	47,300	49,500	51,800	54,000
50	40,000	42,500	45,000	47,500	50,000	52,500	55,000	57,500	60,000
55	44,000	46,800	49,500	52,300	55,000	57,800	60,500	63,300	66,000

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Net Cash Flow thru 2055									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
	0.80	1,875,800	2,788,000	3,700,200	4,612,400	5,524,600	6,436,700	7,349,000	8,261,500
0.90	4,156,300	5,182,500	6,208,600	7,234,900	8,261,500	9,287,300	10,313,300	11,339,600	12,365,900
1.00	6,436,700	7,576,900	8,717,000	9,857,600	10,997,600	12,138,100	13,278,500	14,418,600	15,558,900
1.10	8,717,000	9,971,200	11,225,700	12,480,100	13,734,500	14,989,100	16,242,900	17,496,900	18,751,600
1.20	10,997,600	12,365,900	13,734,500	15,102,600	16,471,000	17,839,200	19,207,700	20,576,300	21,944,300
1.30	13,278,500	14,760,800	16,242,900	17,724,900	19,207,700	20,689,900	22,172,200	23,654,600	25,136,700
1.40	15,558,900	17,155,200	18,751,600	20,347,800	21,944,300	23,540,600	25,136,700	26,732,800	28,329,600
1.50	17,839,200	19,549,600	21,259,800	22,970,500	24,680,300	26,391,000	28,101,700	29,811,800	31,522,200

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Net Cash Flow thru 2055									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
	20	7,139,200	7,252,100	7,364,800	7,476,800	7,589,600	7,702,200	7,815,200	7,928,600
25	7,589,600	7,731,100	7,871,800	8,012,700	8,153,300	8,294,200	8,435,400	8,576,000	8,717,000
30	8,041,300	8,209,900	8,379,000	8,548,000	8,717,000	8,886,300	9,055,500	9,224,300	9,393,200
35	8,492,100	8,689,200	8,886,300	9,083,500	9,280,800	9,478,100	9,675,200	9,872,600	10,070,000
40	8,942,500	9,168,000	9,393,200	9,618,700	9,844,600	10,070,000	10,295,200	10,520,500	10,745,900
45	9,393,200	9,646,900	9,900,600	10,154,400	10,408,000	10,661,500	10,914,800	11,168,500	11,423,100
50	9,844,600	10,126,400	10,408,000	10,689,600	10,971,700	11,253,400	11,535,400	11,816,900	12,098,700
55	10,295,200	10,605,300	10,914,800	11,224,500	11,535,400	11,845,300	12,154,800	12,464,200	12,774,900

Average Hangar Rate to Hangar Rentals/Day Sensitivity - IRR%									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
	0.80	0.91%	1.30%	1.66%	2.00%	2.32%	2.63%	2.92%	3.20%
0.90	1.83%	2.20%	2.55%	2.88%	3.20%	3.50%	3.78%	4.06%	4.32%
1.00	2.63%	2.99%	3.33%	3.66%	3.97%	4.26%	4.55%	4.83%	5.09%
1.10	3.33%	3.69%	4.03%	4.35%	4.66%	4.96%	5.25%	5.53%	5.80%
1.20	3.97%	4.32%	4.66%	4.99%	5.30%	5.60%	5.89%	6.18%	6.45%
1.30	4.55%	4.91%	5.25%	5.58%	5.89%	6.20%	6.49%	6.78%	7.06%
1.40	5.09%	5.45%	5.80%	6.13%	6.45%	6.76%	7.06%	7.35%	7.64%
1.50	5.60%	5.96%	6.31%	6.65%	6.98%	7.29%	7.60%	7.90%	8.19%

Average De-Icing Rate to De-Icing Event/Year Sensitivity - IRR%									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
	20	2.85%	2.89%	2.92%	2.96%	2.99%	3.03%	3.06%	3.10%
25	2.99%	3.03%	3.08%	3.12%	3.16%	3.21%	3.25%	3.29%	3.33%
30	3.13%	3.18%	3.23%	3.28%	3.33%	3.38%	3.43%	3.48%	3.53%
35	3.26%	3.32%	3.38%	3.44%	3.49%	3.55%	3.61%	3.66%	3.72%
40	3.40%	3.46%	3.53%	3.59%	3.65%	3.72%	3.78%	3.84%	3.90%
45	3.53%	3.60%	3.67%	3.74%	3.81%	3.88%	3.95%	4.01%	4.08%
50	3.65%	3.73%	3.81%	3.89%	3.96%	4.04%	4.11%	4.18%	4.26%
55	3.78%	3.86%	3.95%	4.03%	4.11%	4.19%	4.27%	4.35%	4.43%

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Payback Period									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
	27	36	34	33	31	30	29	28	27
0.80	36	34	33	31	30	29	28	27	27
0.90	32	31	29	28	27	26	26	25	24
1.00	29	28	27	26	25	24	23	23	22
1.10	27	26	25	24	23	22	22	21	20
1.20	25	24	23	22	21	21	20	20	19
1.30	23	22	22	21	20	19	19	18	18
1.40	22	21	20	20	19	18	18	17	17
1.50	21	20	19	19	18	17	17	16	16

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Payback Period									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
	27	28	28	28	28	28	28	28	28
20	28	28	28	28	28	28	28	28	28
25	28	28	28	28	27	27	27	27	27
30	28	27	27	27	27	27	27	26	26
35	27	27	27	27	26	26	26	26	26
40	27	27	26	26	26	26	26	25	25
45	26	26	26	26	25	25	25	25	25
50	26	26	25	25	25	25	25	24	24
55	26	25	25	25	25	24	24	24	24

Average Hangar Rate to Hangar Rentals/Day Sensitivity - IRR% before Community Space Impact									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
	0.80	4.21%	4.59%	4.95%	5.30%	5.63%	5.95%	6.26%	6.56%
0.90	5.13%	5.51%	5.87%	6.23%	6.56%	6.89%	7.21%	7.52%	7.82%
1.00	5.95%	6.34%	6.71%	7.07%	7.41%	7.75%	8.08%	8.39%	8.71%
1.10	6.71%	7.10%	7.48%	7.85%	8.20%	8.55%	8.89%	9.22%	9.54%
1.20	7.41%	7.82%	8.20%	8.58%	8.95%	9.31%	9.66%	10.00%	10.33%
1.30	8.08%	8.49%	8.89%	9.28%	9.66%	10.03%	10.39%	10.74%	11.09%
1.40	8.71%	9.13%	9.54%	9.94%	10.33%	10.71%	11.09%	11.46%	11.82%
1.50	9.31%	9.74%	10.17%	10.58%	10.98%	11.38%	11.77%	12.15%	12.53%

Average De-Icing Rate to De-Icing Event/Year Sensitivity - IRR% before Community Space Impact									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
	20	6.19%	6.23%	6.27%	6.30%	6.34%	6.38%	6.42%	6.45%
25	6.34%	6.39%	6.43%	6.48%	6.53%	6.57%	6.62%	6.66%	6.71%
30	6.49%	6.55%	6.60%	6.66%	6.71%	6.76%	6.82%	6.87%	6.93%
35	6.64%	6.70%	6.76%	6.83%	6.89%	6.95%	7.01%	7.08%	7.14%
40	6.78%	6.85%	6.93%	7.00%	7.07%	7.14%	7.21%	7.27%	7.34%
45	6.93%	7.00%	7.08%	7.16%	7.24%	7.32%	7.39%	7.47%	7.55%
50	7.07%	7.15%	7.24%	7.33%	7.41%	7.50%	7.58%	7.66%	7.75%
55	7.21%	7.30%	7.39%	7.49%	7.58%	7.67%	7.76%	7.85%	7.94%

Escalation Impact									
	Escalation Rate (combination of Inflation and Utilization)								
	3.00%	3.50%	4.00%	4.50%	5.00%	5.50%	6.00%	6.50%	7.00%
Net Cash Flo	2,401,900	3,666,400	5,119,300	6,792,100	8,717,000	10,937,100	13,497,100	16,452,800	19,865,700
IRR%	1.25%	1.77%	2.29%	2.81%	3.33%	3.85%	4.37%	4.90%	5.42%
Payback	33	31	30	28	27	26	25		

Truckee Tahoe Airport District
 Hangar 3 Feasibility Analysis
 Sensitivity Tables - Scenario 3B
 4/15/2015

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Annual Hangar Revenue before Escalation									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	146,000	153,300	160,600	167,900	175,200	182,500	189,800	197,100	204,400
0.90	164,300	172,500	180,700	188,900	197,100	205,300	213,500	221,700	230,000
1.00	182,500	191,600	200,800	209,900	219,000	228,100	237,300	246,400	255,500
1.10	200,800	210,800	220,800	230,900	240,900	250,900	261,000	271,000	281,100
1.20	219,000	230,000	240,900	251,900	262,800	273,800	284,700	295,700	306,600
1.30	237,300	249,100	261,000	272,800	284,700	296,600	308,400	320,300	332,200
1.40	255,500	268,300	281,100	293,800	306,600	319,400	332,200	344,900	357,700
1.50	273,800	287,400	301,100	314,800	328,500	342,200	355,900	369,600	383,300

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Annual De-Icing Revenue before Escalation									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	16,000	17,000	18,000	19,000	20,000	21,000	22,000	23,000	24,000
25	20,000	21,300	22,500	23,800	25,000	26,300	27,500	28,800	30,000
30	24,000	25,500	27,000	28,500	30,000	31,500	33,000	34,500	36,000
35	28,000	29,800	31,500	33,300	35,000	36,800	38,500	40,300	42,000
40	32,000	34,000	36,000	38,000	40,000	42,000	44,000	46,000	48,000
45	36,000	38,300	40,500	42,800	45,000	47,300	49,500	51,800	54,000
50	40,000	42,500	45,000	47,500	50,000	52,500	55,000	57,500	60,000
55	44,000	46,800	49,500	52,300	55,000	57,800	60,500	63,300	66,000

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Net Cash Flow thru 2055									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	(471,900)	440,300	1,352,500	2,264,700	3,176,900	4,089,000	5,001,300	5,913,800	6,825,700
0.90	1,808,600	2,834,800	3,860,900	4,887,200	5,913,800	6,939,600	7,965,600	8,991,900	10,018,200
1.00	4,089,000	5,229,200	6,369,300	7,509,900	8,649,900	9,790,400	10,930,800	12,070,900	13,211,200
1.10	6,369,300	7,623,500	8,878,000	10,132,400	11,386,800	12,641,400	13,895,200	15,149,200	16,403,900
1.20	8,649,900	10,018,200	11,386,800	12,754,900	14,123,300	15,491,500	16,860,000	18,228,600	19,596,600
1.30	10,930,800	12,413,100	13,895,200	15,377,200	16,860,000	18,342,200	19,824,500	21,306,900	22,789,000
1.40	13,211,200	14,807,500	16,403,900	18,000,100	19,596,600	21,192,900	22,789,000	24,385,100	25,981,900
1.50	15,491,500	17,201,900	18,912,100	20,622,800	22,332,600	24,043,300	25,754,000	27,464,100	29,174,500

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Net Cash Flow thru 2055									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	4,791,500	4,904,400	5,017,100	5,129,100	5,241,900	5,354,500	5,467,500	5,580,900	5,693,600
25	5,241,900	5,383,400	5,524,100	5,665,000	5,805,600	5,946,500	6,087,700	6,228,300	6,369,300
30	5,693,600	5,862,200	6,031,300	6,200,300	6,369,300	6,538,600	6,707,800	6,876,600	7,045,500
35	6,144,400	6,341,500	6,538,600	6,735,800	6,933,100	7,130,400	7,327,500	7,524,900	7,722,300
40	6,594,800	6,820,300	7,045,500	7,271,000	7,496,900	7,722,300	7,947,500	8,172,800	8,398,200
45	7,045,500	7,299,200	7,552,900	7,806,700	8,060,300	8,313,800	8,567,100	8,820,800	9,075,400
50	7,496,900	7,778,700	8,060,300	8,341,900	8,624,000	8,905,700	9,187,700	9,469,200	9,751,000
55	7,947,500	8,257,600	8,567,100	8,876,800	9,187,700	9,497,600	9,807,100	10,117,500	10,427,200

Average Hangar Rate to Hangar Rentals/Day Sensitivity - IRR%									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	-0.25%	0.22%	0.65%	1.05%	1.42%	1.77%	2.09%	2.40%	2.70%
0.90	0.86%	1.29%	1.68%	2.06%	2.40%	2.73%	3.05%	3.35%	3.63%
1.00	1.77%	2.17%	2.55%	2.91%	3.25%	3.57%	3.88%	4.17%	4.45%
1.10	2.55%	2.94%	3.31%	3.66%	4.00%	4.31%	4.62%	4.91%	5.19%
1.20	3.25%	3.63%	4.00%	4.34%	4.67%	4.99%	5.29%	5.59%	5.87%
1.30	3.88%	4.26%	4.62%	4.96%	5.29%	5.61%	5.92%	6.22%	6.50%
1.40	4.45%	4.83%	5.19%	5.54%	5.87%	6.19%	6.50%	6.81%	7.10%
1.50	4.99%	5.37%	5.73%	6.08%	6.42%	6.74%	7.06%	7.36%	7.66%

Average De-Icing Rate to De-Icing Event/Year Sensitivity - IRR%									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	2.02%	2.06%	2.10%	2.14%	2.18%	2.22%	2.25%	2.29%	2.33%
25	2.18%	2.23%	2.27%	2.32%	2.37%	2.41%	2.46%	2.51%	2.55%
30	2.33%	2.39%	2.44%	2.50%	2.55%	2.61%	2.66%	2.71%	2.77%
35	2.48%	2.54%	2.61%	2.67%	2.73%	2.79%	2.85%	2.92%	2.98%
40	2.63%	2.70%	2.77%	2.84%	2.91%	2.98%	3.04%	3.11%	3.18%
45	2.77%	2.85%	2.92%	3.00%	3.08%	3.15%	3.23%	3.30%	3.37%
50	2.91%	2.99%	3.08%	3.16%	3.24%	3.32%	3.40%	3.48%	3.56%
55	3.04%	3.13%	3.23%	3.31%	3.40%	3.49%	3.58%	3.66%	3.75%

Average Hangar Rate to Hangar Rentals/Day Sensitivity - Payback Period									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	40+	39	37	35	34	32	31	30	29
0.90	36	34	33	31	30	29	28	27	26
1.00	32	31	29	28	27	26	25	24	24
1.10	29	28	27	26	25	24	23	22	22
1.20	27	26	25	24	23	22	22	21	20
1.30	25	24	23	22	22	21	20	19	19
1.40	24	23	22	21	20	19	19	18	18
1.50	22	21	20	20	19	18	18	17	17

Average De-Icing Rate to De-Icing Event/Year Sensitivity - Payback Period									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	31	31	31	31	31	31	30	30	30
25	31	31	30	30	30	30	30	30	29
30	30	30	30	30	29	29	29	29	29
35	30	29	29	29	29	29	28	28	28
40	29	29	29	29	28	28	28	28	27
45	29	28	28	28	28	27	27	27	27
50	28	28	28	27	27	27	27	26	26
55	28	28	27	27	27	26	26	26	26

Average Hangar Rate to Hangar Rentals/Day Sensitivity - IRR% before Community Space Impact									
Hangar Rentals / Day	Average Hangar Rate								
	\$500	\$525	\$550	\$575	\$600	\$625	\$650	\$675	\$700
0.80	4.21%	4.59%	4.95%	5.30%	5.63%	5.95%	6.26%	6.56%	6.85%
0.90	5.13%	5.51%	5.87%	6.23%	6.56%	6.89%	7.21%	7.52%	7.82%
1.00	5.95%	6.34%	6.71%	7.07%	7.41%	7.75%	8.08%	8.39%	8.71%
1.10	6.71%	7.10%	7.48%	7.85%	8.20%	8.55%	8.89%	9.22%	9.54%
1.20	7.41%	7.82%	8.20%	8.58%	8.95%	9.31%	9.66%	10.00%	10.33%
1.30	8.08%	8.49%	8.89%	9.28%	9.66%	10.03%	10.39%	10.74%	11.09%
1.40	8.71%	9.13%	9.54%	9.94%	10.33%	10.71%	11.09%	11.46%	11.82%
1.50	9.31%	9.74%	10.17%	10.58%	10.98%	11.38%	11.77%	12.15%	12.53%

Average De-Icing Rate to De-Icing Event/Year Sensitivity - IRR% before Community Space Impact									
De-Icing Events / Year	Average De-Icing Rate								
	\$800	\$850	\$900	\$950	\$1,000	\$1,050	\$1,100	\$1,150	\$1,200
20	6.19%	6.23%	6.27%	6.30%	6.34%	6.38%	6.42%	6.45%	6.49%
25	6.34%	6.39%	6.43%	6.48%	6.53%	6.57%	6.62%	6.66%	6.71%
30	6.49%	6.55%	6.60%	6.66%	6.71%	6.76%	6.82%	6.87%	6.93%
35	6.64%	6.70%	6.76%	6.83%	6.89%	6.95%	7.01%	7.08%	7.14%
40	6.78%	6.85%	6.93%	7.00%	7.07%	7.14%	7.21%	7.27%	7.34%
45	6.93%	7.00%	7.08%	7.16%	7.24%	7.32%	7.39%	7.47%	7.55%
50	7.07%	7.15%	7.24%	7.33%	7.41%	7.50%	7.58%	7.66%	7.75%
55	7.21%	7.30%	7.39%	7.49%	7.58%	7.67%	7.76%	7.85%	7.94%

Escalation Impact									
	Escalation Rate (combination of Inflation and Utilization)								
	3.00%	3.50%	4.00%	4.50%	5.00%	5.50%	6.00%	6.50%	7.00%
Net Cash Flo	903,800	1,998,700	3,255,800	4,703,700	6,369,300	8,290,500	10,506,100	13,063,900	16,017,800
IRR%	0.49%	1.00%	1.52%	2.04%	2.55%	3.07%	3.59%	4.10%	4.62%
Payback	37	35	33	31	29	28	27	26	25
IRR%	4.53%	5.08%	5.62%	6.17%	6.71%	7.26%	7.80%	8.35%	8.89%