J. Appendix

Master Plan Update

# Durango La Plata County Airport

Appendix One. Runway Length Documentation

### **MEMORANDUM**

TO:

Master Plan File

FROM:

Kevin LaWare, Mesa Airlines, Inc. 920-749-7503

DATE:

March 15, 2001

SUBJECT:

Aircraft Performance - CRJ-200

Scenario #1

T/O

6,600'

Ldg

6,503'

Scenario #2

T/O

6,600'

Ldg

5,655

Information transmitted over phone.



# DURANGO-LA PLATA COUNTY AIRPORT

1000 Airport Road, Box 1 DURANGO, COLORADO 81301 (970) 247-8143 FAX# (970) 247-8145

# Fax

Name:	May Mc Fakland
Organization:	Bararal Ban Kelley
Fax:	918 585.88\$ 57
From:	RON Dent
Date:	8-1-01
Subject:	Direct Performance Data
Pages:	(Including this page)
Comments:	ere is what I have So for Still missing
American	Cogle.
	0

#### **Ron Dent**

om:

Craig Nordstrom [Craig.Nordstrom@ual.com]

Sent:

Wednesday, June 20, 2001 3:37 PM

To:

rdent

Subject:

737-300 runway requirements

Mr. Dent -

Please pardon my late response to your query... I'm located in San Francisco, so your letter took a while to filter down to me. A simple analysis of your query for a 737-300 with CFM56-3-B1 engines and a full load of passengers and bags yielded the following:

Scenario one: Takeoff = 6950ft, Landing = 5900ft

There is no regulatory guidance for wet runway on takeoff, so the takeoff value is for a dry runway.

Scenario two: Takeoff = 8010ft, Landing = 5200ft

For both scenarios, United uses a balanced field length philosophy which makes the accelerate-go and accelerate-stop distances equivalent; these are based on the flap settings producing the shortest distances. Also, NO obstacles were taken into account in determining this data; the takeoff distances could increase should obstructions require a different flap setting or special procedure to meet the require takeoff weight.

Please feel free to contact me should you have any further questions.

Craig Nordstrom

nited Airlines Operational Engineering
50-634-5173

Craig.Nordstrom@ual.com

# American Airlines<sup>a</sup>

02 Aug 2001

To:

Ron Dent, Director of Aviation Durango-La Plata County Airport

Subject:

Operations Evaluation for MD82 and EMB135/145 at DRO

Earlier this year, the AA Operations Engineering group received a request for operational limitations related to runway length at the Durango airport. Specifically, data was requested for the MD88 and ERJ135/145 aircraft. American Airlines does not operate the MD88, which precludes us from providing operational data for this aircraft. However, American Airlines operates the MD82 to Durango, and American Eagle is planning to operate the ERJ135 to this station, so information can be provided for these aircraft.

It is my understanding that this information will be used to assist in the development of the Airport Master Plan, which could lead to a runway extension project. As such, takeoff performance data were analyzed for three different runway extension lengths: 500 ft, 1000 ft and 1500 ft. There are some differences in the amount of capability increase for each case depending on whether the extension is done on the north end or the south end of the runway. For runway 20 departures it is a fairly small difference. For runway 02, the difference is greater due to the obstacle clearance considerations. If the runway is extended to the north, the reference point for obstacle clearance calculations moves closer to the obstacles. The capability increase due to greater length is partially offset by the shorter distance to the obstacles. From this perspective, the maximum takeoff weight increase is obtained by extending the runway to the south. If the majority of departures can take place from runway 20, the benefit will be essentially the same for an extension on either end.

When evaluating operations from a particular airport, it is necessary to be aware of the variable factors that can affect the results of the study. In this case, there are two things to consider. The first one is the primary runway direction, and the percentage of the time that it will be used. Departures from runway 02 have to account for significant terrain obstacles, whereas departures from runway 20 do not. According to our records, it appears that runway 20 can be used for nearly all of the departures from Durango during the winter season. It is assumed that this will be the case in the summer months as well. In the event that runway 02 would be required for any percentage of departures during a given time period, the payload impacts would have to be reevaluated. The second item is seasonal effects. In the winter months, the limiting factors on departure weights are runway length and obstacles. In the summer months the aircraft climb capabilities are lower, and will most likely play a large part in determining the maximum takeoff weights. Reasonable capacity during the winter months does not guarantee the same capacity during the summer months, especially for an airport at a higher elevation such as Durango.

For winter operations with the MD82, a runway length increase of between 500 and 1000 ft will increase the takeoff weight limits from runway 20 to the point that they reach the climb-limited weight. This is the point at which the maximum departure weight will be reached for operations from DRO. Our current winter operations with the MD82 do not have a restriction

# American Airlines<sup>®</sup>

DRO study

for DRO-DFW, so our passenger levels would not be affected. However, on days when the weather is such that there are delays or diversions when arriving at DFW, this additional departure capability will ensure that required fuel reserves can be accommodated without affecting the passenger counts. For runway 02, current weight limits are approximately 10,000 lbs below the weight needed for a full load DRO-DFW. With a similar extension, the limit weight can increase by nearly two thousand pounds, but will still be approximately 8000 lbs less than needed for a full load to DFW.

Warm weather operations with the MD82 present a different story. At summer temperatures, the thrust available from the engines is less than at winter temperatures, so the takeoff weights are lower to start with. At 86° F, the current limit weights for runway 20 are approximately 15,000 lbs less than needed for full passenger loads DRO-DFW. A runway extension of nearly 1500 ft would be required to increase runway-limited weights to match the climb-limited weights, and even then weights would be nearly 8000 lbs below full-load levels. Runway 02 weights are so low that they are not worth considering at summer temperatures.

Winter operations with the ERJ 135 are fairly simple. Runway 20 will currently allow departure at weights up to the aircraft structural limit. A quick look at the ERJ 145 shows that current winter weights are dictated by climb limits on runway 20, and this weight is slightly less than needed for a full load to DFW.

Summer operations with the ERJ 135 are a little better than the MD82. Current limits on runway 20 show that a full load is possible from DRO-DFW, and the runway limit and the climb limit are very close to the same weight. The ERJ 145 is climb limited from runway 20 out of Durango at summer temperatures, with the maximum weight limit almost 4000 lbs less than needed for a full load DRO-DFW.

American Airlines currently does not operate DRO-ORD, so these weights were not discussed. However, the weights needed to operate on this route will be higher than needed for DRO-DRW, since it is a longer route. Chicago is known for weather that disrupts flight operations, so additional reserve fuel may be required as well. In light of the limitations that exist for the equipment that AA operates out of DRO, the benefits to our operations from extending the runway can be determined from the data provided for the DRO-DFW routing.

Jeffrey R. Parks

I hope this information will prove useful in your Master Plan preparation.

Jeffrey Parks Sr. Aircraft Performance Engineer American Airlines

4333 Amon Carter Blvd, MD 5423 Fort Worth, Texas 76155-2664 Master Plan Update

# Durango La Plata County Airport

Appendix Two.
Alternative Cost Estimates

	Construction Cost - Alternative 1				
tem No.	Description	Unit	Unit Price	Quantity	Cost
11	Extend Taxiway "A" (south end) with MITLs				
	Mobilization (5%)	LS		1	\$668,630
	Demo Existing Taxiway Edge Light	EA	\$100.00	9	\$900
	MSE Wall Structure over Arroyo	LS	\$12,675,000.00	1	\$12,675,000
	Subgrade Compaction	SF	\$1.00	13,200	\$13,200
	Bituminuous Pavement (17" Thick)	TON	\$45.00	13,100	\$589,500
	Bituminuous Tack Coat	GAL	\$5.00	5,280	\$26,400
	Pavement Marking	SF	\$1.50	5,000	\$7,500
	Hydromulching	AC	\$2,500.00	9	\$22,500
	Straw Mulching	AC	\$1,000.00	16	\$16,000
	Install New Taxiway Edge Light	EA	\$900.00	24	\$21,600
	Subtotal		4000,00		\$14,041,230
	15% Engineering and Construction Adminstation				\$2,106,200
	25% Contingency				\$4,036,900
	Total				\$20,184,330
	1700				Q20,104,000
2	Construct 599-Foot Runway Extension with HIRLs				
	Mobilization (5%)	LS		1	\$39,190
	Demo Existing Runway Light	EA	\$150.00	9	\$1,350
	Unclassified Excavation	CY	\$10.00	7,500	\$75,000
	Subgrade Compaction	SF	\$1.00	11,000	\$11,000
	Bituminuous Pavement (17" Thick)	TON	\$45.00	10,900	\$490,500
	Bituminuous Tack Coat	GAL	\$5.00	4,400	\$22,000
	Pavement Marking	SF	\$1.50	41,250	\$61,875
	Pavement Marking Removal	SF	\$1.50	41,250	\$61,875
	Hydromulching	AC	\$2,500.00	18	\$45,000
	Install New Runway Light	EA		16	\$15,200
		EA	\$950.00	16	
	Subtotal	_			\$822,990
	15% Engineering and Construction Administration	_			\$123,500
	25% Contingency				\$236,700
	Total				\$1,183,190
3	Remove Existing Taxiway Connector (A-4)	1000 200 000 2		896493281	
	Mobilization (5%)	LS		1	\$7,916
STATE OF LINE	Demo Existing Taxiway Light	EA	\$150.00	19	\$2,850
A SEASON OF STREET	Demo PCC Pavement	SY	\$35.00	4,100	\$143,500
AND RESIDENCE OF STREET	Install New Taxiway Edge Light	EA		3	
			\$900.00		\$2,700
	Install New Runway Light	EA	\$950.00	2	\$1,900
	Sawcut PCC Pavement	LF	\$10.00	550	\$5,500
	Pavement Marking	SF	\$1.50	1,250	\$1,875
<b>建</b> 化等的	Subtotal				\$166,241
Na Carlo	15% Engineering and Construction Administration		<b>自己的人们也是这种社会</b>		\$24,936
	25% Contingency			TOTAL STATE OF	\$47,794
STORY BE	Total				\$238,972
	Estand Tayloras HAII (nadband) and construct you to be				
4	Extend Taxiway "A" (north end) and construct new taxiway				
4	connector with MITLs to serve extended runway				000 ====
	Mobilization (5%)	LS		1	\$26,790
	Demo Existing Taxiway Edge Light	EA	\$100.00	3	\$300
	Unclassified Excavation	CY	\$10.00	6,100	\$61,000
	Subgrade Compaction	SF	\$1.00	9,200	\$9,200
	Bituminuous Pavement (17" Thick)	TON	\$45.00	9,100	\$409,500
	Bituminuous Tack Coat	GAL	\$5.00	3,700	\$18,500
	Pavement Marking	SF	\$1.50	5,000	\$7,500
	Hydromulching	AC	\$2,500.00	2.2	\$5,500
	Install New Taxiway Edge Light	EA	\$900.00	27	\$24,300
	Subtotal				\$562,590
	15% Engineering and Construction Administration				\$84,400
	11376 Engineening and Constitution Administration				
	25% Contingency				\$161,800

	Construction Cost - Alternative 1				
em No.	Description	Unit	Unit Price	Quantity	Cost
		-			
5	Polocata Existing Localizar Antonna Array	-		-	
3	Relocate Existing Localizer Antenna Array Relocate Localizer (FAA Facilities)	LS	\$100,000.00	1	\$100,000
	Subtotal	Lo	\$100,000.00		\$100,000
	15% Engineering and Construction Administration	+			\$15,000
	25% Contingency	-			\$28,800
	Total				\$143,800
	Total	1			<b>\$140,000</b>
6	Relocate TVOR				
	Relocate TVOR (FAA Facilities)	LS	\$100,000.00	1	\$100,000
	Subtotal				\$100,000
	15% Engineering and Construction Administration				\$15,000
	25% Contingency				\$28,800
	Total				\$143,800
7	Upgrade Runway 02 VASIs with PAPIs		201300000000000000000000000000000000000		
	Mobilization (5%)	LS		1	\$1,700
	Remove VASI System and Foundation	EA	\$3,000.00	1	\$3,000
	Install PAPI System and Foundation	EA	\$20,000.00	1	\$20,000
	PAPI Aiming Calibration Equipment PAPI Power Distribution Equipment	EA EA	\$3,000.00 \$8,000.00	1	\$3,000 \$8,000
	Subtotal	EA	\$6,000.00	1	\$8,000
	15% Engineering and Construction Administration	_			\$5,700
	25% Contingency	-			\$10,300
	Total	+			\$51,400
	Total				Q01,400
8	Upgrade Runway 20 VASIs with PAPIs				
	Mobilization (5%)	LS		1	\$1,700
	Remove VASI System and Foundation	EA	\$3,000.00	1	\$3,000
	Install PAPI System and Foundation	EA	\$20,000.00	1	\$20,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	\$3,000
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
	Subtotal				\$35,700
	15% Engineering and Construction Administration				\$5,400
	25% Contingency				\$10,300
	Total	-			\$51,400
9	Polosete Punusu 20 PEII e				
9	Relocate Runway 20 REILs Mobilization (5%)	LS		1	\$810
	Demo Exising REIL	EA	\$100.00	2	\$200
	Re-Install Existing REIL	EA	\$8,000.00	2	\$16,000
	Subtotal	LA	φο,οσο.σο	-	\$17,010
	15% Engineering and Construction Administration	1			\$2,600
	25% Contingency				\$5,000
	Total				\$24,610
	Construct East Side Partial Parallel Taxiway to ADG II Standards				
10	(no MITLs, only reflectors)		AND MODIFICATION OF THE PARTY OF THE PARTY.		
	Mobilization (5%)	LS		1	\$85,326
	Demo Existing Runway Light	EA	\$100.00	1 700	\$100
	Relocate Fence	LF	\$10.00	1,700	\$17,000
	Unclassified Excavation	CY	\$10.00	17,500	\$175,000
	Embankment Subgrade Compaction	CY SF	\$10.00 \$1.00	25,000 34,650	\$250,000 \$34,650
	Bituminuous Pavement (12" Thick)	TON	\$1.00	24,300	\$34,650
	Bituminuous Tack Coat	GAL	\$5.00	10,500	\$52,500
	Pavement Marking	SF	\$1.50	26,750	\$40,125
	Hydromulching	AC	\$2,500.00	9	\$22,500
	Install Retro-reflective Marker	EA	\$150.00	133	\$19,950
	Install Semi-Flush Runway Edge Light	EA	\$1,200.00	1	\$1,200
	Subtotal	1	\$1,E00.00	-	\$1,791,85
	15% Engineering and Construction Administration				\$268,800
	25% Contingency				\$515,200
	Total	-			\$2,575,85

	Construction Cost - Alternative 1				
em No.	Description	Unit	Unit Price	Quantity	Cost
	Associate Francisco Control Davidson (Friedland Davidson				
11	Acquire Easement to Control Portion of Existing Runway 02 RPZ that Extends Beyond Airport Property				
	Easement Acquisition	AC	\$1,500.00	9	\$13,500
12	Extend Segment of County Road 309A to Connect with S.H. 172	接牌框		<b>建筑建筑</b>	
	Mobilization (5%)	LS		1.88	\$119,753
	Clear and Grub	AC	\$8,500.00	17	\$145,350
	Rem Asphalt Material	SY	\$11.00	12,500	\$137,500
	Unclassified Excavation	CY	\$22.00	29,300	\$644,600
	Base Course (Class 6)	CY	\$25.00	8,100	\$202,500
	HBP (Gr S) (Asph)	TN	\$50.00	11,700	\$585,000
F-404 814	Bituminous Tack Coat	GAL	\$1.50	11,700	\$17,550
	18 In RCP (Culvert)	LF	\$68.00	350	\$23,800
TO VIEW	Curb and Gutter Type 2 (Section I-B)	LF	\$13.00	7,500	\$97,500
	Median Cover Material (Concrete)	SF	\$3.50	42,000	\$147,000
	Ground Sign	EA	\$250.00	21	\$5,250
	Pavement Marking	SF	\$12.00	22,000	\$264,000
142 1 4	Intersection Signal	LS	\$125,000.00	1	\$125,000
449	Subtotal		<b>经济的企业</b>	<b>多</b> 能能可能能	\$2,514,803
<b>在</b>	3% Traffic Control				\$75,444
	15% Engineering and Construction Administration	Ballion .		2012/2012	\$377,220
a setale	25% Contingency	144	a exelection	<b>英國等級國際</b>	\$741,867
	Total		<b>建</b> 构建 美国专		\$3,709,334
13	Relocate Existing Utilities		10.10000000000000000000000000000000000	ASSESSMENT OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON NAM	die ver per von
KS House	Abandon Existing Owest Phone Line	LF	\$0.00	2,330	\$0
(A. 2011) E	Install New Qwest Phone Line	LF	\$5.00	4,500	\$22,500
Oles H	Subtotal Committee of American American American Committee of the Committe	<b>海際組</b>	1. 排放性致血管检验		\$22,500
	25% Contingency	1466	<b>经</b> 。[集][中心的表现。	量性過程點	\$5,625
\$ ANG	Total		<b>经营营公司</b>		\$28,125
	TOTAL (ALTERNATIVE 1)	/////		///////	\$29,157,102
	December 2001- Alternative 1 Estimate	/////			\$25,232,071

	Construction Cost - Alternative 2				
em No.	Description	Unit	Unit Price	Quantity	Cost
1	Construct East Side Partial Parallel Taxiway (Install MITLs only on southern ADG IV segment and reflectors on the balance)				
	Mobilization (5%)	LS		Total Park	\$79,291
	Demo Existing Runway Light	EA	\$100.00	2	\$200
i Malau	Relocate Fence	LF	\$10.00	0	\$0
892.29	Adjust Existing Manhole	EA	\$5,000.00	1	\$5,000
	Unclassified Excavation	CY	\$10.00	17,700	\$177,000
	Embankment Subgrade Compaction	CY	\$10.00	8,800	\$88,000
<b>共和1965</b> 時	Subgrade Compaction	SF	\$1.00	26,500	\$26,500
	Bituminuous Pavement (17* Thick)	TON	\$45.00	25,100	\$1,129,500
经的基础		GAL	\$5.00	10,600	\$53,000
201700-5000	Pavement Marking	SF	\$1.50	10,150	\$15,225
	Hydromulching Least I New Torivou Edge Light	AC	\$2,500.00	11.2	\$28,000
	Install New Taxiway Edge Light Install Retro-reflective Marker	EA EA	\$900.00 \$150.00	68	\$61,200 \$0
	Install Semi-flush Runway Edge Light	EA	\$1,200.00	0 2	\$2,400
	Subtotal Subtotal	LA	\$1,200.00		\$1,665,316
11610-10	15% Engineering and Construction Administration		· · · · · · · · · · · · · · · · · · ·		\$249,800
any fredering	25% Contingency	10.51.00.00.2			\$478,800
MOUSE.			<b>化工业的现在分</b> 异	<b>网络遗址</b>	\$2,393,916
2	Relocate Existing Localizer Antenna Array				
-	Relocate Localizer (FAA Facilities)	LS	\$100,000.00	1	\$100,000
	Subtotal		\$100,000.00		\$100,000
	15% Engineering and Construction Administration				\$15,000
	25% Contingency				\$28,800
	Total				\$143,800
3	Install Runway 20 MALS	<b>提表型</b>			
<b>高端路</b>	Install Runway 20 MALS	LS	\$375,000.00	1	\$375,000.00
· · · · · · · · · · · · · · · · · · ·	Subtotal   Subtotal	提出版	HOLAN COLL		\$375,000.00
國際開門	15% Engineering and Construction Administration	STOVA 2		305 Table	\$56,250.00
Steller.	25% Contingency Total		SAPARATE ENERGY	13分型的	\$107,812.50
	Total	NEW YORKS	<b>科斯斯斯哥种斯</b>		\$539,062.50
4	Relocate TVOR				
	Relocate TVOR (FAA Facilities) Subtotal	LS	\$100,000.00	1	\$100,000
	15% Engineering and Construction Administration	-			\$100,000
	25% Contingency				\$15,000 \$28,800
	Total				\$143,800
	Total				\$143,000
5	Upgrade Runway 02 VASIs with PAPIs				
	Moblization (5%)  Remove VASI System and Foundation	LS EA	\$3,000.00	1	\$1,700
	Install PAPI System and Foundation	EA	\$3,000.00	1	\$3,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	\$3,000
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
	Subtotal	-/,	\$5,000.00		\$35,700
	15% Engineering and Construction Administration				\$5,400
	25% Contingency				\$10,300
	Total				\$51,400
6	Upgrade Runway 20 VASIs with PAPIs				
	Moblization (5%)	LS		1	\$1,700
	Remove VASI System and Foundation	EA	\$3,000.00	1	\$3,000
	Install PAPI System and Foundation	EA	\$20,000.00	1	\$20,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	\$3,000
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
	Subtotal				\$35,700
					\$5,400
	15% Engineering and Construction Administration				
	15% Engineering and Construction Administration 25% Contingency Total				\$10,300 \$51,400

M-	Construction Cost - Alternative 2	1	1 11 2 5 1	ا ا	4
em No.	Description	Unit	Unit Price	Quantity	Cost
	Agguire Ecoment to Control Portion of Eviating Busyay 2 BD7	-			
7	Acquire Easement to Control Portion of Existing Runway 2 RPZ	1	l		
7	that Extends Beyond Airport Property	100	04 500 00		040 500
	Easement Acquisition	AC	\$1,500.00	9	\$13,500
1 THE	Construct Balance of East Side Parallel Taxiway System (Northern	(Sevies	THE PROPERTY AND ADMINISTRATION OF THE PARTY	Section and the second	South Baryston
8	Segment) with Reflectors to ADG III Standards				
11200	Mobilization (5%)	LS		1	\$151,003
	Demo Existing Runway Light	EA	\$100.00	1301	\$100
CHARLES IN	Relocate Fence	LF	\$10.00	1,200	\$12,000
(1) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A	Adjust Existing Manhole	EA	\$5,000.00	14.0	\$5,000
ON SHEET	Unclassified Excavation	CY	\$10.00	33,300	\$333,000
A MARKET	Embankment	CY	\$10.00	16,200	\$162,000
U. William St.	Subgrade Compaction	SF	\$1,00	49,700	\$49,700
O'CONTRACT	Bituminuous Pavement (17" Thick)	TON	\$45.00	50,500	\$2,272,500
<b>对资格</b> 物	Bituminuous Tack Coat	GAL	\$5.00	19,900	\$99,500
IS COUNTY	Pavement Marking	SF	\$1.50	27,500	\$41,250
EN SALE	Hydromulching	AC	\$2,500.00	10.3	\$25,750
15.5 ES	Install New Taxiway Edge Light	EA	\$900.00	0	\$0
新華養地	Install Retro-reflective Marker	EA	\$150.00	121	\$18,150
10000	Install Semi-flush Runway Edge Light	EA	\$1,200.00	1/2	\$1,200
學是影響	Subtotal	SPENS	但原品品品品		\$3,171,15
	15% Engineering and Construction Administration		海山田東外居民	100 miles	\$475,700
I SEPTEMBER	25% Contingency	dial-			\$911,800
對於領岸	Total and the second of the se		2000年11年		\$4,558,653
NAME OF TAXABLE	Entered Comment of Courts Providence Comment of the City A70	Original States			
9	Extend Segment of County Road 309A to Connect with S.H. 172 Mobilization (5%)	LS		(2) 1 (1) (1) (1) (1) (1) (1) (1) (1) (1)	\$110.750
	Clear and Grub	AC	\$8,500.00	17	\$119,753 \$145,350
		SY	\$11.00	12,500	\$145,350
	Unclassified Excayation	CY	\$22.00	29,300	\$644,600
STATE OF THE STATE OF	Base Course (Class 6)	CY	\$25.00	8,100	\$202,500
	HBP (Gr S) (Asph)	TN	\$50.00	11,700	
	Bituminous Tack Coat	GAL	\$1.50	11,700	\$585,000 \$17,550
EXPENSES IN	18 In RCP (Culvert)	LF	\$68.00	350	\$17,550
	Curb and Gutter Type 2 (Section I-B)	LF	\$13.00	7,500	\$23,600
OCCUPATION OF THE PARTY OF THE	Median Cover Material (Concrete)	SF	\$3.50	42,000	\$147,000
	Ground Sign	EA	\$250.00	21	\$5,250
in the state of	Pavement Marking	SF	\$12.00	22,000	\$264,000
SATE OF STREET	Intersection Signal	LS	\$125,000.00	1	\$125,000
	Subtotal	LO	\$125,000.00		\$2,514,803
TE SIGNAL	3% Traffic Control	おおります。		CONTRACTOR OF THE	\$75,444
SECTION S	15% Engineering and Construction Administration				\$377,220
	25% Contingency	ESSENCE.			\$741,866.7
SEA SE	Total			ENERGY ENDINGER	\$3,709,334
10	Relocate Existing Utilities	THE STATE OF	· Sales · Sales		4 肾原生物
UE/ALS STO	Abandon Existing Qwest Phone Line	LF	\$0.00	2,330	\$0
	Install New Qwest Phone Line	LF	\$5.00	4,500	\$22,500
I I THE SI	Subtotal Communication of the	ACTION N			\$22,500
	25% Contingency		14年,最初40年1月	the Avedania	\$5,625
URSELLEN.	Total	Pullage	CHARLEST THE SELECTION		\$28,125
	TOTAL (ALTERNATIVE O	,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,	044 000 00
	ITOTAL (ALTERNATIVE 2)	<i>(/////</i>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111111111	511,632,99
	TOTAL (ALTERNATIVE 2)  December 2001- Alternative 2 Estimate			////////	\$11,632,99

	Construction Cost - Alternative 3			poges Unio	, AND 100
m No.	Description	Unit	Unit Price	Quantity	Cost
	Relocate Runway 02 Threshold 1,600 Feet and Construct 1,000-	-			
1	Foot Runway Extension with HIRLs				
	Moblization (5%)	LS		1	\$138,375
	Pavement Removal	SY	\$35.00	38,500	\$1,347,500
	Roadway Demolition	SY	\$5.00	550	\$2,750
	Demo Existing Runway Light	EA	\$100.00	46	\$4,600
	Demo Existing Taxiway Edge Light	EA	\$100.00	43	\$4,300
	Unclassified Excavation	CY	\$10.00	12,000	\$120,000
	Subgrade Compaction	SF	\$1.00	18,000	\$18,000
	Bituminuous Pavement (17\" Thick)	TON	\$45.00	17,800	\$801,000
	Bituminuous Tack Coat Pavement Marking	GAL	\$5.00	7,200	\$36,000
	Pavement Marking Removal	SF SF	\$1.50 \$1.50	79,100 43,800	\$118,650
	Hydromulching	AC	\$1.50	30	\$65,700 \$75,000
	Install New Taxiway Lights	EA	\$900.00	10	\$9,000
-	Install New Runway Lights	EA	\$950.00	42	\$39,900
	Install Semi-Flush Runway Edge Light	EA	\$1,200.00	1	\$1,200
	Roadway Paving	SY	\$27.00	4,000	\$108,000
	Roadway Shoulder	SY	\$6.00	1,650	\$9,900
	Roadway Signage	LS	\$6,000.00	1	\$6,000
	Subtotal				\$2,905,875
	15% Engineering and Construction Administration				\$435,900
	25% Contingency Total				\$835,500
	Total	-			\$4,177,275
	Extend Taxiway "A" (north end) and Construct New Taxiway				
2	Connector with MITLs to Serve Extended Runway				
	Moblization (5%)	LS		1	\$41,603
	Demo Existing Taxiway Edge Light	EA	\$100.00	4	\$400
	Unclassified Excavation	CY	\$10.00	10,000	\$100,000
	Subgrade Compaction	SF	\$1.00	14,500	\$14,500
	Bituminuous Pavement (17" Thick)	TON	\$45.00	14,200	\$639,000
	Bituminuous Tack Coat Pavement Marking	GAL	\$5.00	5,800	\$29,000
	Hydromulching	SF	\$1.50 \$2,500.00	5,000	\$7,500
	Install New Taxiway Edge Light	AC EA	\$900.00	3.5	\$8,750 \$33,300
	Subtotal	LA	φ900.00	37	\$874,053
	15% Engineering and Construction Administration				\$131,200
	25% Contingency			7	\$251,400
	Total				\$1,256,653
3	Relocate Existing Glide Slope Antenna				
	Moblization (5%)	LS		1	\$4,000
	Glide Slope Demolition	EA	\$30,000.00	1	\$30,000
	Re-install Existing Glide Slope	EA	\$50,000.00	1	\$50,000
	Subtotal 15% Engineering and Construction Administration	$\vdash$			\$84,000
	25% Contingency	$\vdash$			\$12,600
	Total	$\vdash$			\$24,200 \$120,800
					\$120,000
4	Relocate Existing Localizer Antenna Array				
	Relocate Localizer (FAA Facilities)	LS	\$100,000.00	1	\$100,000
	Subtotal				\$100,000
	15% Engineering and Construction Administration				\$15,000
	25% Contingency				\$28,800
	Total				\$143,800
Paralla	Polosite Fulcillar Days on 1871 CD	25.000			No. of the last of
5	Relocate Existing Runway 02 MALSR Relocate Existing Runway 02 MALSR	10	B005 000 05	STATISTICS	
Contract of the	Subtotal	LS	\$325,000.00		\$325,000
	15% Engineering and Construction Administration	STEEL STEEL			\$325,000
	25% Contingency				\$48,750
ATE STORE	Total	12/01/20			\$93,438 \$467,188
		STREET, SQUARE, SQUARE		The second secon	\$101,100

	Construction Cost - Alternative 3	1			
m No.	Description	Unit	Unit Price	Quantity	Cost
6	Relocate TVOR	1.0	2400 000 00		6400 000
	Relocate TVOR (FAA Facilities)	LS	\$100,000.00	1	\$100,000
	Subtotal	_			\$100,000
	15% Engineering and Construction Administration				\$15,000
	25% Contingency				\$28,800
	Total				\$143,800
7	Upgrade Runway 02 VASIs with PAPIs				
	Moblization (5%)	LS		1	\$1,700
	Remove VASI System and Foundation	EA	\$3,000.00	1	\$3,000
	Install PAPI System and Foundation	EA	\$20,000.00	1	\$20,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	\$3,000
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
	Subtotal		\$0,000.00		\$35,700
	15% Engineering and Construction Administration				\$5,400
	25% Contingency				\$10,300
	Total				\$51,400
8	Upgrade Runway 20 VASIs with PAPIs  Moblization (5%)	LS		1	\$1,700
		EA	\$3,000.00	<del>- i</del>	\$3,000
	Remove VASI System and Foundation	EA	\$20,000.00	<del>-</del>	\$20,000
	Install PAPI System and Foundation	25/12/5/1/5/1	10477 3010 00000000000000000000000000000000	1	\$3,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	0.4-02.40.000.000
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
	Subtotal	+			\$35,700
	15% Engineering and Construction Administration	-			\$5,400
	25% Contingency	_			\$10,300
	Total				\$51,400
9	Relocate Runway 20 REILs				
	Moblization (5%)	LS		1	\$810
	Demo Exising REIL	EA	\$100.00	2	\$200
	Re-Install Existing REIL	EA	\$8,000.00	2	\$16,000
	Subtotal				\$17,010
	15% Engineering and Construction Administration				\$2,600
	25% Contingency				\$5,000
	Total				\$24,610
	Construct East Side Parallel Taxiway System (no MITLs, only				
10	Reflectors) Mobilization (5%)	LS		1	\$81,423
	Demo Existing Runway Light	EA	\$100.00	1	\$100
	Adjust Existing Manhole	EA	\$5,000.00	1	\$5,000
	Relocate Fence	LF	\$10.00	2,200	\$22,000
	Unclassified Excavation	CY	\$10.00	22,500	\$225,000
	Embankment	CY	\$10.00	25,000	\$250,000
	Subgrade Compaction	SF	\$1.00	45,000	\$45,000
	Bituminuous Pavement (12" Thick)	TON	\$45.00	31,300	\$1,408,500
	Bituminuous Tack Coat	GAL	\$5.00	13,400	\$67,000
	Pavement Marking	SF	\$1.50	34,500	\$51,750
	Hydromulching	AC	\$2,500.00	11.5	\$28,750
	Install Retro-reflective Marker	EA	\$150.00	175	\$26,250
	Install Semi-Flush Runway Edge Light	EA	\$1,200.00	1	\$1,200
		LA	\$1,200.00		\$2,211,973
	ISubtotal .				
	Subtotal	-			
	Subtotal 15% Engineering and Construction Administration 25% Contingency				\$331,800 \$636,000

	Construction Cost - Alternative 3				
n No.	Description	Unit	Unit Price	Quantity	Cost
		I multiplicate			
11	Extend Segment of County Road 309A to Connect with S.H. 172	100		Strategic Valley	
A Marita	Mobilization (5%)	LS		3 (1) 1 (1) (1) (1)	\$84,849
TO SEE	Clear and Grub	AC	\$8,500.00	10	\$84,150
	Rem Asphalt Material	SY	\$11.00	9,000	\$99,000
	Unclassified Excavation	CY	\$22.00	19,300	\$424,600
可能提	Base Course (Class 6)	CY	\$25.00	5,200	\$130,000
DIES PE	HBP (Gr S) (Asph)	TN	\$50.00	7,650	\$382,500
開機能	Bituminous Tack Coat	GAL	\$1.50	7,650	\$11,475
NO.	18 In RCP (Culvert)	LF	\$68.00	250	\$17,000
10000000000000000000000000000000000000	Curb and Gutter Type 2 (Section I-B)	LF	\$13.00	7,500	\$97,500
MAKE THE	Median Cover Material (Concrete)	SF	\$3.50	42,000	\$147,000
10 14 16	Ground Sign	EA	\$250.00	19	\$4,750
	Pavement Marking	SF	\$12.00	14,500	\$174,000
SUMMAN.	Intersection Signal	LS	\$125,000.00	900 (ABI 1 ) ABI ABI	\$125,000
	Subtotal	THE SECOND	學是談特訊學	<b>建筑基础的</b>	\$1,781,824
	1% Construction Surveying		SERVICE SERVICE	<b>指定是各种的</b> 重要。	\$17,818
THE PARTY OF	1% Erosion Control	(S)(4) (I	<b>能证为证据</b>	<b>经市场经济市场</b>	\$17,818
Harris I	3% Traffic Control		<b>克克斯拉斯连维</b>	<b>可以所谓的</b> 更更是	\$53,455
<b>建筑</b>	15% Engineering and Construction Administration	1888	計學過程的經濟	A STATE OF THE PARTY OF THE PAR	\$267,274
	25% Contingency	<b>MARKET</b>	HAT WASHINGTON	<b>自然的现在分</b> 数	\$534,547
Medical.	Total	胡鹃鹃	<b>建物建筑即间缝</b>	2700年日出来1000年	\$2,672,736
12	Relocate Segment of County Road 309A			19年1年 新	
<b>在特别</b>	Mobilization (5%)	LS		位型情報 <b>1</b> 機學時能	\$79,668
的問題後	Clear and Grub	AC	\$8,500.00	17	\$141,100
SE CHE IS	Rem Asphalt Material	SY	\$11.00	11,800	\$129,800
磁制链额	Unclassified Excavation	CY	\$22.00	23,450	\$515,900
HE HE	Base Course (Class 6)	CY	\$25.00	6,650	\$166,250
A STATE OF	HBP (Gr S) (Asph)	TN	\$50.00	9,400	\$470,000
STEP STEP	Bituminous Tack Coat	GAL	\$1.50	9,400	\$14,100
to the part	18 In RCP (Culvert)	LF	\$68,00	150	\$10,200
STATE IN	Ground Sign	EA	\$250.00	8	\$2,000
	Pavement Marking	SF	\$12.00	12,000	\$144,000
NEW PROPERTY.	Subtotal		<b>我想到这个</b>	(1994) 1844 1844 1844 1844 1844 1844 1844 18	\$1,673,018
i entra	3% Traffic Control	<b>科技的</b>	<b>拉斯设料</b> 计图度	<b>建设制线的线型建设</b>	\$50,191
	15% Engineering and Construction Administration	45000	學的問題問題	<b>克克·福克斯特伊罗州</b> 亚州	\$250,953
US PECIE	25% Contingency	SALSE	<b>新马科 神影在</b> 形	<b>三角膜皮肤的原</b>	\$430,802.0
	Total		<b>随时的时间</b>	計劃發展醫療機	\$2,404,963
				Menorical and a second	
13	Relocate Existing Utilities	1000	1980年1月1日	<b>计算机性的显示技术</b>	在在海域的 (新型)
	Abandon Existing Qwest Phone Line	LF	\$0.00	2,330	\$0
100	Install New Qwest Phone Line	LF	\$5.00	4,500	\$22,500
0.011 202	Utility Crossing Reinforcement (PSCO High Pressure Gas Line)	EA	\$8,500.00	信點薄積 1 器轉位	\$8,500
	Utility Crossing Reinforcement (Amoco Methane Lines)	EA	\$8,500.00	- HATCH 1/50 - 5102	\$8,500
	Subtotal	2072		RPLANEAU PRESIDENT	\$39,500
	25% Contingency				\$9,875
	Total	4 規證			\$49,375
	TOTAL (ALTERNATIVE 3)	/////			\$14,743,771
	December 2001- Alternative 3 Estimate	-			\$9,149,510

	Construction Cost - Alternative 4				
m No.	Description	Unit	Unit Price	Quantity	Cost
	Relocate Runway 02 Threshold 1,600 Feet and Construct 1,600-	-			
1	Foot Runway Extension with HIRLs	1			
	Moblization (5%)	LS		1	\$176,038
	Pavement Removal	SY	\$35.00	38,500	\$1,347,50
	Roadway Demolition	SY	\$5.00	550	\$2,750
	Demo Existing Runway Light	EA	\$100.00	46	\$4,600
	Demo Existing Taxiway Edge Light	EA	\$100.00	43	\$4,300
	Unclassified Excavation	CY	\$10.00	20,000	\$200,000
	Subgrade Compaction	SF	\$1.00	30,000	\$30,000
	Bituminuous Pavement (17\" Thick)	TON	\$45.00	29,100	\$1,309,50
	Bituminuous Tack Coat	GAL	\$5.00	11,750	\$58,750
	Pavement Marking	SF	\$1.50	80,300	\$120,450
	Pavement Marking Removal	SF	\$1.50	43,800	\$65,700
	Hydromulching	AC	\$2,500.00	35	\$87,500
	Install New Taxiway Lights	EA	\$900.00	10	
			\$950.00	48	\$9,000
	Install New Runway Lights	EA			\$45,600
	Install Semi-Flush Runway Edge Light	EA	\$1,200.00	1	\$1,200
	Roadway Paving	SY	\$27.00	4,000	\$108,000
	Roadway Shoulder	SY	\$6.00	1,650	\$9,900
	Roadway Signage	LS	\$6,000.00	1 500	\$6,000
	Xcel Energy Utility Relocation	LF	\$100.00	500	\$50,000
	Amoco Pipeline Relocation	LF	\$100.00	500	\$50,000
	Gas Well Relocation	EA	\$10,000.00	1	\$10,000
	Subtotal				\$3,696,78
	15% Engineering and Construction Administration				\$554,600
	25% Contingency				\$1,062,90
	Total				\$5,314,28
2	Connector with MITLs to Serve Extended Runway				
	Moblization (5%)	LS		1	\$57,250
	Demo Existing Taxiway Edge Light	EA	\$100.00	4	\$400
	Unclassified Excavation	CY	\$10.00	13,500	\$135,000
	Subgrade Compaction	SF	\$1.00	20,000	\$20,000
	Bituminuous Pavement (17" Thick)	TON	\$45.00	19,700	\$886,500
	Bituminuous Tack Coat	GAL	\$5.00	8,000	\$40,000
	Pavement Marking	SF	\$1.50	7,000	\$10,500
	Hydromulching	AC	\$2,500.00	5	\$12,500
	Install New Taxiway Edge Light	EA	\$900.00	45	\$40,500
	Subtotal				\$1,202,65
	15% Engineering and Construction Administration				\$180,400
	25% Contingency				\$345,800
	Total				\$1,728,85
3	Relocate Existing Glide Slope Antenna				
	Moblization (5%)	LS		1	\$4,000
	Glide Slope Demolition	EA	\$30,000.00	1	\$30,000
	Re-install Existing Glide Slope	EA	\$50,000.00	1	\$50,000
	Subtotal				\$84,000
	15% Engineering and Construction Administration	$\top$			\$12,600
	25% Contingency				\$24,200
	Total				\$120,800
4	Relocate Existing Localizer Antenna Array				
	Relocate Localizer (FAA Facilities)	LS	\$100,000.00	1	\$100,000
	Subtotal				\$100,000
	15% Engineering and Construction Administration				\$15,000
	25% Contingency				\$28,800
	Total				\$143,800
					, ,
		8 25691	14年18月1日日本	(101101)	edito 2h rej
5	Relocate Runway 02 MALSR	THE RESERVE AND DESCRIPTION OF REAL PROPERTY.		Contract Contraction	cone one
5	Relocate Runway 02 MALSR Relocate Runway 02 MALSR	LS	\$325,000.00	1.55	\$325,000
5		LS	\$325,000.00	1	
5	Relocate Runway 02 MALSR Subtotal	LS	\$325,000.00		\$325,000 \$325,000 \$48,750
5	Relocate Runway 02 MALSR	LS	\$325,000.00		

	Construction Cost - Alternative 4	1			10200000
m No.	Description	Unit	Unit Price	Quantity	Cost
		-			
c	Poloceta TVOP	+			
6	Relocate TVOR Relocate TVOR (FAA Facilities)	LS	\$100,000.00	1	6100 000
_		LS	\$100,000.00	1	\$100,000
	Subtotal	-			\$100,000
	15% Engineering and Construction Administration	-			\$15,000
	25% Contingency	-			\$28,800
	Total	_			\$143,800
7	Upgrade Runway 02 VASIs with PAPIs	-			
	Mobilization (5%)	LS		1	\$1,700
	Remove VASI System and Foundation	EA	\$3,000.00	1	\$3,000
	Install PAPI System and Foundation	EA	\$20,000.00	1	\$20,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	\$3,000
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
		EA	\$8,000.00		
	Subtotal	-			\$35,700
	15% Engineering and Construction Administration	_			\$5,400
	25% Contingency	_			\$10,300
	Total	-			\$51,400
8	Upgrade Runway 20 VASIs with PAPIs	+			
U	Mobilization (5%)	LS		1	\$1,700
	Remove VASI System and Foundation	EA	\$3,000.00	1	\$3,000
	Install PAPI System and Foundation	EA	\$20,000.00	1	\$20,000
	PAPI Aiming Calibration Equipment	EA	\$3,000.00	1	\$3,000
			\$8,000.00	1	
	PAPI Power Distribution Equipment	EA	\$8,000.00	1	\$8,000
	Subtotal 450/ 5 - i	-			\$35,700
	15% Engineering and Construction Administration	-			\$5,400
	25% Contingency				\$10,300
	Total	-			\$51,400
9	Relocate Runway 20 REILs	+			
	Moblization (5%)	LS		1	\$810
	Demo Exising REIL	EA	\$100.00	2	\$200
	Re-Install Existing REIL	EA	\$8,000.00	2	\$16,000
	Subtotal		7-1		\$17,010
	15% Engineering and Construction Administration				\$2,600
	25% Contingency				\$5,000
	Total	1			\$24,610
	Total				Q2-1,010
	Construct East Side Parallel Taxiway System (no MITLs, only				
10	Reflectors)	1			
	Moblization (5%)	LS		1	\$86,788
	Demo Existing Runway Light	EA	\$100.00	1	\$100
	Adjust Existing Manhole	EA	\$5,000.00	1	\$5,000
				38,000	\$380,000
	Relocate Fence	LF	\$10.00		, ,
	Tall for all tall to a fine a		\$10.00 \$10.00		\$235,000
	Unclassified Excavation	CY	\$10.00	23,500	
	Unclassified Excavation Embankment	CY	\$10.00 \$10.00	23,500 25,000	\$250,000
	Unclassified Excavation Embankment Subgrade Compaction	CY CY SF	\$10.00 \$10.00 \$1.00	23,500 25,000 47,000	\$250,000 \$47,000
	Unclassified Excavation Embankment Subgrade Compaction Bituminuous Pavement (12" Thick)	CY CY SF TON	\$10.00 \$10.00 \$1.00 \$45.00	23,500 25,000 47,000 32,900	\$250,000 \$47,000 \$1,480,50
	Unclassified Excavation Embankment Subgrade Compaction Bituminuous Pavement (12" Thick) Bituminuous Tack Coat	CY CY SF TON GAL	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00	23,500 25,000 47,000 32,900 18,850	\$250,000 \$47,000 \$1,480,50 \$94,250
	Unclassified Excavation Embankment Subgrade Compaction Bituminuous Pavement (12" Thick) Bituminuous Tack Coat Pavement Marking	CY CY SF TON GAL SF	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50	23,500 25,000 47,000 32,900 18,850 36,500	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750
	Unclassified Excavation Embankment Subgrade Compaction Bituminuous Pavement (12" Thick) Bituminuous Tack Coat Pavement Marking Hydromulching	CY CY SF TON GAL SF AC	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00	23,500 25,000 47,000 32,900 18,850 36,500 12	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000
	Unclassified Excavation Embankment Subgrade Compaction Bituminuous Pavement (12" Thick) Bituminuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050
	Unclassified Excavation Embankment Subgrade Compaction Biturninuous Pavement (12* Thick) Biturninuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light	CY CY SF TON GAL SF AC	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00	23,500 25,000 47,000 32,900 18,850 36,500 12	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050 \$1,200
	Unclassified Excavation Embankment Subgrade Compaction Biturninuous Pavement (12" Thick) Biturninuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light Subtotal	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050 \$1,200 \$2,692,63
	Unclassified Excavation Embankment Subgrade Compaction Biturninuous Pavement (12" Thick) Biturninuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light Subtotal 15% Engineering and Construction Administration	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050 \$1,200 \$2,692,63 \$403,900
	Unclassified Excavation Embankment Subgrade Compaction Biturninuous Pavement (12" Thick) Biturninuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light Subtotal 15% Engineering and Construction Administration 25% Contingency	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050 \$1,200 \$2,692,63 \$403,900 \$774,200
	Unclassified Excavation Embankment Subgrade Compaction Biturninuous Pavement (12" Thick) Biturninuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light Subtotal 15% Engineering and Construction Administration	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050 \$1,200 \$2,692,63 \$403,900 \$774,200
	Unclassified Excavation Embankment Subgrade Compaction Biturninuous Pavement (12" Thick) Biturninuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light Subtotal 15% Engineering and Construction Administration 25% Contingency	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050 \$1,200 \$2,692,63 \$403,900 \$774,200
11	Unclassified Excavation Embankment Subgrade Compaction Bituminuous Pavement (12* Thick) Bituminuous Tack Coat Pavement Marking Hydromulching Install Retro-reflective Marker Install Semi-Flush Runway Edge Light Subtotal 15% Engineering and Construction Administration 25% Contingency Total	CY CY SF TON GAL SF AC EA	\$10.00 \$10.00 \$1.00 \$45.00 \$5.00 \$1.50 \$2,500.00 \$150.00	23,500 25,000 47,000 32,900 18,850 36,500 12 187	\$250,000 \$47,000 \$1,480,50 \$94,250 \$54,750 \$30,000 \$28,050

	Construction Cost - Alternative 4				
tem No.	Description	Unit	Unit Price	Quantity	Cost
12	Extend Segment of County Road 309A to Connect with S.H. 172	199		對抗影響為	THE MARKET HE
	Mobilization (5%)	LS		<b>基度1</b> 200	\$78,111
Maria Carlo	Clear and Grub	AC	\$8,500.00	- 8	\$71,400
VENEZE	Rem Asphalt Material	SY	\$11.00	9,000	\$99,000
	Unclassified Excavation	CY	\$22.00	17,000	\$374,000
	Base Course (Class 6)	CY	\$25.00	4,575	\$114,375
	HBP (Gr S) (Asph)	TN	\$50.00	6,800	\$340,000
的學學	Bituminous Tack Coat	GAL	\$1.50	6,800	\$10,200
	18 In RCP (Culvert)	LF	\$68.00	250	\$17,000
AVEL VAL	Curb and Gutter Type 2 (Section I-B)	LF	\$13.00	7,500	\$97,500
	Median Cover Material (Concrete)	SF	\$3.50	42,000	\$147,000
	Ground Sign	EA	\$250.00	19	\$4,750
KIN ASTO	Pavement Marking	SF	\$12.00	13,500	\$162,000
	Intersection Signal	LS	\$125,000.00	1881 Wa	\$125,000
	Subtotal	E BOUTEN	DESCRIPTION OF THE PERSON	all experience	\$1,640,336
113156215	1% Construction Surveying	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100 pt 100 / 100 pt	PERSONAL PROPERTY.	\$16,403
	1% Erosion Control	1 605/17/15			\$16,403
he wallen	3% Traffic Control	1 455161	MARKET STATES		\$49,210
Jan da d	15% Engineering and Construction Administration	Aller E		Of Sealing	\$246,050
A TANAS	25% Contingency		Strategy and the		\$492,101
	Total	100	自我是 二苯基甲		\$2,460,504
	The same of the sa	O NOTE AND	STATISTICAL PROPERTY.	SERVICE STORES	92,400,004
13	Relocate Segment of County Road 309A	100	<b>建筑等着直接</b>	5周号统约	1927 1915 19
	Mobilization (5%)	LS		E 11 1 1 1 1	\$92,030
	Clear and Grub	AC	\$8,500.00	19	\$164,050
of the Season	Rem Asphalt Material	SY	\$11.00	11,800	\$129,800
	Unclassified Excavation	CY	\$22.00	27,150	\$597,300
	Base Course (Class 6)	CY	\$25.00	7,700	\$192,500
the state of	HBP (Gr S) (Asph)	TN	\$50.00	10,900	\$545,000
	Biturninous Tack Coat	GAL	\$1,50	10,900	\$16,350
	18 In RCP (Culvert)	LF	\$68.00	200	\$13,600
	Ground Sign	EA	\$250.00	8	\$2,000
	Pavement Marking	SF	\$12.00	15,000	\$180,000
	Subtotal Substitution of the substitution of t	O <sub>1</sub>	A CONTRACT	10,000	\$1,932,630
SAN SAN SAN	3% Traffic Control			14 25 242	\$57,979
Kalendario	15% Engineering and Construction Administration	STATE OF	SHERS TO LEAD IN SE		\$289.895
101011400	25% Contingency	A STREET			\$570,125.8
2000 to 100	Total				\$2,850,629
E SHEET STREET		NAME OF TAXABLE PARTY.		NAME OF STREET	\$2,000,020
14	Relocate Existing Utilities	that is	<b>福州成份開始企</b> 奖	The state of	10'51 412 UT 12 11
	Abandon Existing Qwest Phone Line	LF	\$0.00	2,330	\$0
- NORTH	Install New Qwest Phone Line	LF	\$5.00	4,500	\$22,500
1510/910/1618	Utility Crossing Reinforcement (Amoco Methane Lines)	EA	\$8,500.00	1	\$8,500
	Subtotal		\$0,000.00		\$31,000
Statistics.	25% Contingency				\$7,750
	Total	CONTROL OF			\$38,750
With Spirit Street		and the same of		10 to	900,100
	TOTAL (ALTERNATIVE 4)	/////			\$17,269,306
	December 2001- Alternative 4 Estimate				\$11,437,13

Master Plan Update



Appendix Three. Environmental Review Documentation



The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

November 7, 2002

Cody D. Fussell Barnard Dunkelberg & Company 1616 East Fifteenth Street Tulsa, OK 74120-6027 RECEIVED

NOV 18 2002

Barnard Dunkelberg

Re: Durango-La Plata County Airport Master Plan

Dear Mr. Fussell:

This office has reviewed the information contained in your correspondence of October 31, 2002 concerning the project listed above.

A search of our files has indicated that no historic properties are located within the study boundary's area of potential effect and that the northeast portion of the airport was surveyed for cultural resources. Even though no cultural resources have been identified within the airport boundaries, they have been found in the surrounding area. Therefore, we recommend that those areas to be developed that are undisturbed, be surveyed to determine if historic properties will be affected by construction activities.

Should unidentified cultural resources be discovered during construction activities, work must be interrupted until the resources have been evaluated in terms of the National Register criteria, 36 CFR 60.4, in consultation with our office.

If we may be of further assistance please contact Jim Green at 303-866-4674.

Sincerely,

Georgianna Contiguglia

State Historic Preservation Officer

GC/WJG



# United States Department of the Interior

FISH AND WILDLIFE SERVICE Ecological Services 764 Horizon Drive, Building B Grand Junction, Colorado 81506-3946

IN REPLY REFER TO: ES/CO:FAA MS 65412 GJ

DEC 12 2002

Democrat Dunksibers

December 10, 2002

Cody D. Fussell
Barnard Dunkleberg & Company
Cherry Street Building, 1616 East Fifteenth Street
Tulsa, Oklahoma 74120-6027

Dear Mr. Fussell:

The U.S. Fish and Wildlife Service has received your October 31, 2002, correspondence requesting a list of federally threatened (FT), endangered (FE), and candidate (FC) species that may potentially be affected by the proposed Durango-La Plata County Airport project south of Durango, Colorado. While candidate species presently have no legal protection under the Endangered Species Act, it is within the spirit of the Act to consider project impacts to potentially sensitive species. Additionally, we would like to make you aware of the presence of Federal candidates should any be proposed or listed prior to the time that all Federal actions related to the project are completed. Please be aware that endangered and threatened species lists should be updated every 90 days by telephone or in writing. If water depletions are part of the proposed project, you will need to initiate formal consultation for federally endangered fishes. The following list of species has been disseminated from a countywide list to assist you in streamlining your analysis of the proposed project.

### Federally Listed Species of Consideration

Bald eagle (FT)

Gunnison sage-grouse (FC)

Southwestern willow flycatcher (FE) Empidonax traillii extimus
Yellow-billed cuckoo (FC)

Pediocactus knowltonii (FE)

Colorado pikeminnow¹ (FE)

Razorback sucker (FE)

Haliaeetus leucocephalus
Centrocercus minimus
Coccyzus americanus
Knowlton's cactus
Ptychocheilus lucius
Xyrauchen texanus

If the Service can be of further assistance please contact John Kleopfer at the letterhead address or (970) 245-3920, extension 39.

Sincerely,

Allan R. Pfister

Western Colorado Field Supervisor

pc: FWS/ES, Lakewood

BIA, Towaoc

JK leop fer: FAADurango-LaPlata Airport SpcLst. wpd: 121002

# United States Department of Agriculture



31 Suttle St Durango, CO 81303 Daniel.lynn@co.usda.gov

Phone (970) 259-3289 ext 3

http://www.co.nrcs.usda.gov

Fax (970) 247-9301

.Barnard Dunkelberg & Co. %Cody Fussell 1616 East Fifteenth St Tulsa, OK 74120

Sir:

I have reviewed the Master Plan for the La Plata County Airport and cannot find any Prime and Unique Farmlands that will be impacted by this project.

Dan Lynn

District Conservationist



DEPARTMENT OF THE ARMY

U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

December 3, 2002

Regulatory Branch (200275578)

DEC - 6 2002

Esmerd Dunicillors

Cody D. Fussell Barnard Dunkelberg & Company Cherry Street Building 1616 East Fifteenth Street Tulsa, Oklahoma 74120-6027

Dear Mr. Fussell:

This letter is in response to your October 31, 2002, letter requesting information on whether jurisdictional waters of the United States, including wetlands, would be affected by the proposed Durango-La Plata County Airport development. The airport is located within Sections 29, 30, 31 and 32, Township 34 North, Range 8 West, La Plata County, Colorado.

Based on our review of the USGS 7.5-minute quadrangle maps, jurisdictional waters of the U.S. occur within Sections 29, 30, 31 and 32, T34N, R8W. However, there do not appear to be any waters of the U.S. within the "future development areas" shown on the preliminary "Master Plan Update" map which you provided. To verify this preliminary determination, an on-site investigation should be conducted. We recommend that a wetlands consultant be hired in order to expedite the jurisdictional investigation. A list of consultants who conduct delineations is enclosed. Once the property is delineated, we will review and verify the consultant's data and mapping, and will be able to provide more substantive comments on the proposed project.

Under Section 404 of the Clean Water Act, a Department of the Army permit is required prior to the discharge of dredged or fill material into waters of the United States, including wetlands. If jurisdictional waters are present within the project area, then impacts to waters of the U.S. must be avoided and minimized to the maximum extent practicable, and a Department of the Army permit will be required for unavoidable impacts. Compensatory mitigation for unavoidable impacts may be required.

If you have any questions, please contact the Durango Regulatory Office, 278 Sawyer Drive, #1, Durango, Colorado 81303, telephone (970) 375-9452.

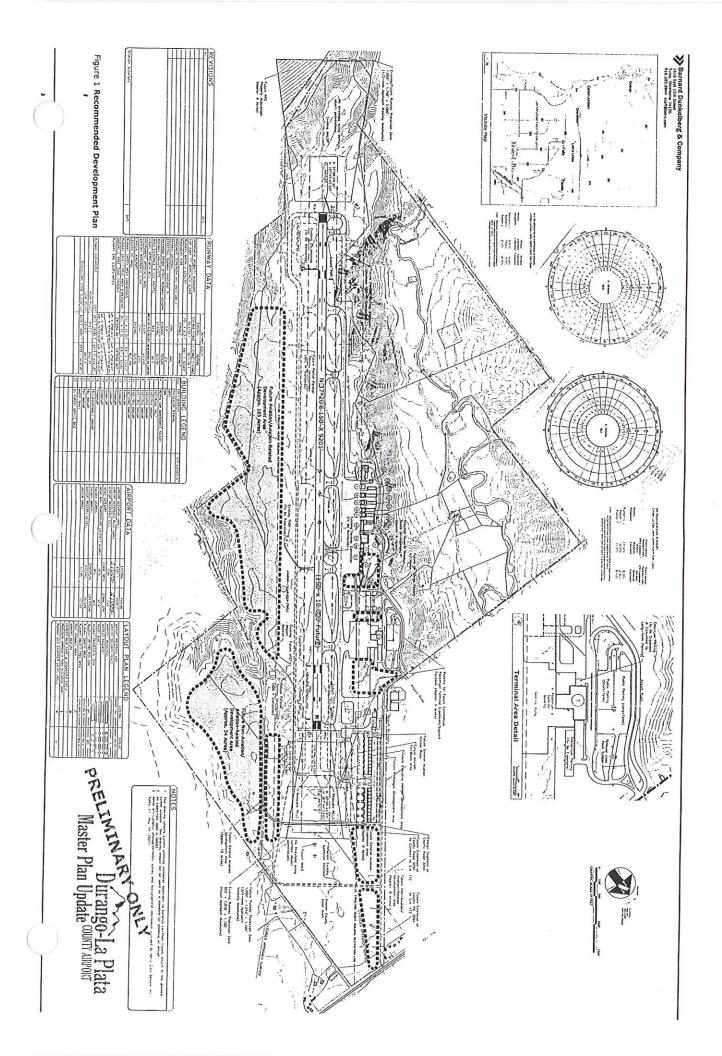
Sincerely, Justey Milhuter

Lesley McWhirter

Chief, Durango Regulatory Office

Sacramento District

Enclosure



# U.S. Army Corps of Engineers, Sacramento District

Durango Regulatory Office 278 Sawyer Drive, #1 Durango, Colorado 81303

Colorado/Gunnison Basin Regulatory Office 402 Rood Avenue, Room 142 Grand Junction, Colorado 81501-2563

September 16, 2002

# WETLANDS DELINEATION CONSULTANTS

Increasingly, potential applicants for Department of the Army permits are hiring environmental consultants to do wetlands determinations and delineations for them. In addition, because of Federal budgetary and work force constraints, we are requesting that many potential applicants have wetlands delineations done by consultants. Under existing constraints, the Corps of Engineers will field verify as many wetlands delineations as possible. We recommend that wetlands delineations performed by consultants be submitted for review and verification at least one month in advance of a submittal of a Department of the Army permit application.

All wetlands delineations will be reviewed to insure compliance with the methodology contained in the Corps of Engineers Wetlands Delineation Manual dated January 1987 and that sufficient information is provided to justify the wetlands/upland boundaries as shown on the delineation map(s). To obtain a jurisdictional determination letter from the Western Colorado Regulatory Office, all consultant-prepared wetlands delineations shall contain:

- 1. A wetlands delineation map depicting a point-to-point survey of the wetlands boundary as flagged by the consultant in the field. The consultant should review the survey for accuracy before submittal to this office. We prefer topographic maps with contour intervals of one or two feet and at a scale of 1 inch equals 100 feet. However, these specifications may vary depending upon the scope of the delineation and the nature of the project. In certain situations, a point-to-point survey of the wetlands boundary may not be required. However, the boundary must be reproducible in some manner. The consultant should contact this office for approval before submitting a delineation without a point-to-point survey. In all cases, the wetlands boundary must be marked with survey flagging or stakes in the field before this office will conduct a site inspection to verify the delineation. The flags or stakes must be sequentially numbered and those numbers shall appear on the survey for each point;
- 2. The type(s) of wetlands present, such as riparian willow, wet meadow, marsh, etc., should be shown on the delineation map. The respective sizes in acres of each type should be included either on the map or in a report;
- The location of all sample sites should be shown on the delineation map(s);
- 4. Wetlands delineation data forms, or similar data sheets, for each sample site, cross-referenced to the sites should be shown on the delineation map(s). The data for each sample site shall clearly list the indicators for the soils, vegetation and hydrology, and shall include the basis for determining whether the sample site is wetlands or upland. The number of sample sites will vary depending upon the size and shape of the wetlands, the degree of difficulty in differentiating wetlands and upland, width of transition zones, etc.;

- 5. A site location map, preferably a 7.5-minute USGS quadrangle, shall be included and any other pertinent maps of the site; and
- 6. A brief written report shall be included with the submittal. This report should list the property owner(s) and/or the developer(s) requesting the delineation. The report shall also describe the nature of the proposed development, and when a permit application will be submitted for the project. Your report should explain the basis for the wetlands boundary location and any problems or questionable areas. The dates of the actual fieldwork should also be included in this narrative.
- 7. For isolated waters, including isolated wetlands, note in your delineation report any observed and/or documented examples of an interstate or foreign commerce connection.

The Corps of Engineers will acknowledge wetlands delineations that are complete and accurate. In the event that work force constraints preclude timely field verifications, this office may issue a qualified approval. However, prior to definitive regulatory approvals, such as a letter of no Federal jurisdiction, nationwide general permit verification, individual permit issuance, etc., wetlands maps will usually be field verified by the Corps of Engineers.

We have attached a field data sheet for photocopying and field use. This form should be used for wetlands delineations subject to Corps of Engineers verification. If you and/or your consultants have questions regarding wetlands delineation procedures, please contact the U. S. Army, Corps of Engineers, Sacramento District in Grand Junction, Colorado at telephone number (970) 243-1199.

The following list of wetlands delineation consultants is arranged alphabetically and should not be interpreted as preferential. This list shall be accepted and used by the recipient with the explicit understanding that the U.S. Government shall not be under any liability at all to any person because of any use made of this list.

Alpine Environmental Services 8181 County Road 203 Durango, Colorado 81301 (970) 385-4138 Attn: Dr. William Simon

Andrew Antipas Ecological & Environmental Consulting, LLC 0285 Crystal Circle Carbondale, Colorado 81623 (970) 963-8297 Attn: Mr. Andrew Antipas

Aqua Hab 10 Town Plaza, #239 Durango, Colorado 81301 (970) 259-2623 Attn: Ms. Corey Sue Derfus

Aquatic and Wetland Company 1830 17th Street, Suite 100 Boulder, Colorado 80302 (303) 442-5770 Attn: Dr. Jay Windell

Bamberg Associates 8344 South Everett Way, Unit A Littleton, Colorado 80128 (303) 933-7291 Attn: Dr. Samuel A. Bamberg Basin Hydrology, Inc PO Box 1076 Steamboat Springs, CO 80477 (970) 879-2922 Attn: Mark Oliver

Beach Environmental, LLC. 715 West Main Street Aspen, Colorado 81611 (970) 925-3475 Attn: Mr. Gary Beach

BIO-ENVIRONS 1388 County Road 8 Gunnison, Colorado 81230 (970) 641-8749 Attn: Ms. Lynn Cudlip

BIO-Logic Environmental 635 East Main Street, Suite 100 Montrose, Colorado 81401 (970) 240-4374 Attn: Ms. Lynn Connaughton

BIO/WEST, Incorporated 1063 West 1400 North Logan, Utah 84321 (801) 752-4202 Attn: Mr. Dennis Wenger BKS Environmental Assoc., Inc. Post Office Box 3467 Gillette, Wyoming 82717-3467 (307) 686-0800 Attn: Ms. Brenda K. Schladweiler

Bluecorn Consulting Post Office Box 247 Delta, Colorado 81416 (970) 874-0824 Attn: Dr. David A. Koehler

Brown and Caldwell 7535 East Hampden Avenue, Suite 403 Denver, Colorado 80231-4838 (303) 750-3983

Cedar Creek Associates, Inc. 916 Willshire Avenue Fort Collins, Colorado 80521 (970) 493-4394 Attn: Mr. Stephen G. Long

Cirrus Ecological Solutions 570 Research Park Way, Suite 108 North Logan, Utah 84341 Attn: Dr. Neal Artz (435) 787-1490

Claffey Ecological Consulting, Inc. 1371 17 Road Fruita, Colorado 81521-9215 (970) 858-1670 Attn: Mr. Michael Claffey

Dr. David Cooper 3803 Silver Plume Boulder, Colorado 80303 (303) 499-6441

Dr. Allen B. Crockett 1060 Cottonwood Circle Golden, Colorado 80401 (303) 443-3282

Dames & Moore 633 17th Street, Suite 2500 Denver, Colorado 80202 (303) 294-9100 Attn: Dr. Loren R. Hettinger

Earth Resource Investigations, Inc. 1700 County Road 103 Carbondale, Colorado 81623 (970) 963-1356 Attn: Mr. William N. Johnson

Ecological Resource Consultants, LLC 4134 Autumn Court Boulder, Colorado 80304 (720) 564-0788 Attn: Mr. David Blauch

Ecosphere Environmental Services 2257 Main Avenue Durango, Colorado 81302 (970) 382-7256 Attn: Mr. Mike Fitzgerald

Ecotone Environmental Consultants Post Office Box 3516 Logan, Utah 84321 (801) 752-2204 Attn: Mr. Oliver J. Grah

ENARTECH, Incorporated
Post Office Drawer 160
Glenwood Springs, Colorado 81602
(970) 945-2236
Attn: Mr. Kerry Sundeen

ERO Resources Corporation 1842 Clarkson Street Denver, Colorado 80218 (303) 830-1188 Attn: Mr. Steve Dougherty

ESCO Associates, Incorporated Post Office Box 18775
Boulder, Colorado 80308
(303) 447-2999
Attn: Dr. David L. Buckner

Grand Environmental Services 935 Mountain Avenue, Box 857 Grand Lake, Colorado 80447 (970) 627-5464 Attn: Mr. Geoffrey S. Elliott

Greystone Environmental Consultants 5231 South Quebec Englewood, Colorado 80111 (303) 850-0930 Attn: Mr. Ed Fleming

Habitat Management, Incorporated 3571 East Phillips Circle Littleton, Colorado 80122 (303) 770-9788 Attn: Mr. Wayne R. Erickson

Hersey Environmental Services Post Office Box 1517 Gunnison, Colorado 81230 (970) 641-2211 Attn: Mr. Joe Hersey

Huffman & Carpenter, Incorporated 700 Smithridge Drive, Suite 102-A Reno, Nevada 89502-5702 (775) 828-1991 Attn: Ms. Lori Carpenter

IHI Environmental 640 East Wilmington Avenue Salt Lake City, Utah 84106 (801) 466-2223 Attn: Ms. Becky Paulson IME
Post Office Box 270
Yampa, Colorado 80483
(970) 638-4462
Attn: Mr. Kent A. Crofts

Intermountain Ecosystems 270 East 1230 North Springville, Utah 84663 (801) 489-4590 Attn: Mr. Ron Koss

LANDesign 259 Grand Avenue Grand Junction, Colorado 81501 (970) 245-4099 Attn: Mr. Robert G. Katzenson

Littlehorn Engineering & Design, LLC Post Office Box 1739 Fairplay, Colorado 80440 (719) 836-7120 Attn: Ms. Andria Boschee

Mr. Rollin M. Lunders 44190 County Road M.3 Mancos, Colorado 81328 (970) 533-7674

Montane Environmental Solutions Limited Post Office Box 3611 Vail, Colorado 81658 (970) 328-6158 or (970) 468-0450 Attn: Ms. Nicola Ripley

Mountain Planning and Engineering PO Box120 Fairplay, Colorado 80440 (719) 836-2480 Attn: Ms. Andrea Boschee

Nature Tech Consultant Services Corp. 532 East Avenue Rifle, Colorado 81650 (970) 625-8553 Attn: Mr. Michael J. Villa

Natural Resource Services, Inc. Post Office Box 19332 Boulder, Colorado 80308-2332 (303) 915-3211 Attn: Mr. Steve C. Johnson

Oasis Environmental 844 Grand Avenue Grand Junction, Colorado 81501 (970) 241-1762 Attn: Mr. Patrick Athey

Dr. Erik Olgeirson 4440 Tule Lake Drive Littleton, Colorado 80123 (303) 347-8212 Mr. Jeffrey W. Parker Post Office Box 221 1342 Barber Drive Carbondale, Colorado 81623 (970) 947-5184

Parsons Engineering Science 1700 Broadway, Suite 900 Denver, Colorado 80290 (303) 831-8100 Attn: Dr. Bruce Snyder

Pentacore EPG 76 East 6790 South Midvale, Utah 84047 (801) 562-2521 Attn: Mr. Derrick Smith

PIONEER Environmental Services 980 West 1800 South Logan, Utah 84321 (801) 753-0033 Attn: Dr. Roy D. Hugie

Plateau Environmental Services 3238 East 5th Avenue Durango, Colorado 81301 (970) 247-9200 Attn: Mr. Mike Matheson

Professional Wetland Consultants 20 Rim Road Boulder, Colorado 80302 (303) 444-1715 Attn: Mr. David Steinmann

Queen of the River Fisheries/Aquatic Services 13810 North 115 Street Longmont, Colorado 80501 (303) 651-2514 Attn: Mr. Michael J. Mitchell

Rangeland Resources 0049 Pinon Drive Glenwood Springs, Colorado 81601 (970) 9471855 Attn: Mr. Larry Robinson

Resource Management Post Office Box 3296 Telluride, Colorado 81435 (970) 728-6848 Attn: Dr. David P. Groeneveld

RG Plans, Incorporated Post Office Box 2575 Telluride, Colorado 81435 (970) 728-0646 Attn: Mr. Richard H. Grice

San Miguel Forestry Consultants Box 883 Telluride, Colorado 81435 (970) 728-5603 Attn: Mr. Philip S. Miller Savage and Savage 464 West Sumac Court Louisville, Colorado 80027-2227 (303) 666-7372 Attn: Mr. Michael Savage

Science Applications International Corp. 8100 Shaffer Parkway, Suite 100 Littleton, Colorado 80127 (720) 981-2414 Attn: Mr. Robert Henke

Science Applications International Corp. 2109 Air Park Road SE Albuquerque, New Mexico 87106 (505) 247-8787 Attn: Mr. Charles J. Burt

Smith Environmental, Incorporated 2625 West 133<sup>rd</sup> Circle Broomfield, Colorado 80020 Attn: Mr. Peter L. Smith (720) 887-4928

Southwestern Riparian Specialists Box 265 Mancos, Colorado 81328 Attn: Mr. Jim Siscoe (970) 533-7584

Steigers Corporation 6551 South Revere Parkway, Suite 250 Centennial, Colorado 80111-6411 (303) 799-3633 Attn: Dr. William D. Steigers

Stony Ridge Environmental Consulting Post Office Box 188 Lake City, Colorado 81235 (970) 944-4117 Attn: Ms. Camille Richard

ECORP-Sugnet, Colorado Field Office 1060 Main Avenue, Suite 020 Durango, Colorado 81301 (970) 259-9595 Attn: Mr. Paul Sugnet

Thomas & Thomas 614 North Tejon Street Colorado Springs, Colorado 80903 (719) 578-8777 Attn: Mr. Parry Thomas

TRC Mariah Associates, Incorporated 605 Skyline Drive Laramie, Wyoming 82070-8909 (307) 742-3843 Attn: Ms. Karen D. Coppinger

Walsh Aquatic Consultants, Inc. 9560 Carr Street Westminster, Colorado 80021 (303) 456-9247 Attn: Dr. William A. Walsh Walsh & Associates 255 Main Street Grand Junction, Colorado 81501 (970) 241-4636 Attn: Mr. Edward M. Baltzer

Walsh Environmental Scientists & Engineers, Incorporated 4888 Pearl East Circle, Suite 108 Boulder, Colorado 80301-2475 (303) 443-3282 Attn: Mr. Grant Gurnee'

The Walter Group Post Office Box 3967 Grand Junction, Colorado 81502 (970) 225-8017 Attn: Mr. Kenneth L. Walter

Watershed Environmental Consultants, Inc. Post Office Box 3722 Eagle, Colorado 81631 (970) 328-4364 Attn: Ms. Daiva Katieb

Western Bionomics, LLC 1360 Indian Trails #46 Steamboat Springs, Colorado 80487 (970) 879-8545 Attn: Mr. Bob Magnuson (970) 870-9031 Attn: Mr. Kelly Colfer

Western Ecological Resource, Incorporated 711 Walnut Street Boulder, Colorado 80302 (303) 449-9009 Attn: Mr. David Johnson

Western Environment and Ecology, Inc. 1229 North 23<sup>rd</sup> Street, Suite 205 Grand Junction, Colorado 81501 (970) 243-4919 Attn: Mr. Brian E. Crandall

Weston Designers and Consultants 5301 Central Avenue, N.E., Suite 1516 Albuquerque, New Mexico 87108 (505) 846-1329 Attn: Mr. Charles Burt

West Water Engineering 2516 Foresight Circle, #1 Grand Junction, Colorado 81505 (970) 241-7076 Attn: Mr. Michael Klish

Wetlands Studies Incorporated 1047 Cara Court Carbondale, Colorado 81623 (970) 379-9955 Attn: Ms. Allison Cowie Wright Water Engineers 2490 West 26th Avenue, Suite 100A Denver, Colorado 80211 (303) 480-1700 Attn: Mr. David B. Mehan

Wright Water Engineers
Post Office Box 219
Glenwood Springs, Colorado 81602
(970) 945-7755
Attn: Mr. Bill Lorah

Wright Water Engineers 1666 North Main Avenue, Suite C Durango, Colorado 81301 (970) 259-7411 Attn: Mr. Eric Bikis

# United States Department of Agriculture



31 Suttle St Durango, CO 81303 Daniel.lynn@co.usda.gov

Phone (970) 259-3289 ext 3

http://www.co.nrcs.usda.gov

Fax (970) 247-9301

.Barnard Dunkelberg & Co. %Cody Fussell 1616 East Fifteenth St Tulsa, OK 74120

Sir:

I have reviewed the Master Plan for the La Plata County Airport and cannot find any Prime and Unique Farmlands that will be impacted by this project.

Dan Lynn

**District Conservationist** 

RECEIVED

NOV 12 2002 Barnard Dunkelberg

Master Plan Update

# Durango La Plata County Airport

Appendix Four.
Model Height Hazard Zoning Ordinance

#### MODEL ORDINANCE

# ORDINANCE NO. \_\_\_\_ ZONING ORDINANCE TO LIMIT HEIGHT OF OBJECTS AROUND DURANGO-LA PLATA COUNTY AIRPORT

AN ORDINANCE REGULATING AND RESTRICTING THE HEIGHT OF STRUCTURES AND OBJECTS OF NATURAL GROWTH, AND OTHERWISE REGULATING THE USE OF PROPERTY, IN THE VICINITY OF THE DURANGO-LA PLATA COUNTY AIRPORT BY CREATING THE APPROPRIATE ZONES AND ESTABLISHING THE BOUNDARIES THEREOF; PROVIDING FOR CHANGES IN THE RESTRICTIONS AND BOUNDARIES OF SUCH ZONES; DEFINING CERTAIN TERMS USED HEREIN; REFERRING TO THE DURANGO-LA PLATA COUNTY AIRPORT HEIGHT ZONING MAP WHICH IS INCORPORATED IN AND MADE A PART OF THIS ORDINANCE; PROVIDING FOR ENFORCEMENT; ESTABLISHING A BOARD OF ADJUSTMENT; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH; AND IMPOSING PENALTIES.

This Ordinance is adopted pursuant to the authority conferred by Colorado State Statute, §§24-65.1-101. It is hereby found that an obstruction has the potential for endangering the lives and property of users of Durango-La Plata County Airport, and property or occupants of land in its vicinity; that an obstruction may affect existing and future instrument approach minimums of Durango-La Plata County Airport; and that an obstruction may reduce the size of areas available for the landing, takeoff, and maneuvering of aircraft, thus tending to destroy or impair the utility of Durango-La Plata County Airport and the public investment therein. Accordingly, it is declared:

- that the creation or establishment of an obstruction has the potential of being a public nuisance and may injure the region served by Durango-La Plata County Airport;
- (2) that it is necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of obstructions that are a hazard to air navigation be prevented; and,
- (3) that the prevention of these obstructions should be accomplished, to the extent legally possible, by the exercise of the police power without compensation.

It is further declared that the prevention of the creation or establishment of hazards to air navigation, the elimination, navigation, or marking and lighting of obstructions are

public purposes for which a political subdivision may raise and expend public funds and acquire land or interest in land.

IT IS HEREBY ORDAINED BY THE PLANNING COMMISISION OF LA PLATA COUNTY COLORADO:

#### SECTION I: SHORT TITLE

This ordinance shall be known and may be cited as the Durango-La Plata County Airport Zoning Ordinance.

#### SECTION II: DEFINITIONS

As used in this Ordinance, unless the context otherwise requires:

- 1. AIRPORT Durango-La Plata County Airport.
- 2. AIRPORT ELEVATION 6689.5 feet above mean sea level.
- 3. APPROACH SURFACE A surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Section IV of this ordinance. In plan, the perimeter of the approach surface coincides with the perimeter of the approach zone.
- APPROACH, TRANSITIONAL, HORIZONTAL, AND CONICAL ZONES These
  zones are set forth in Section III of this Ordinance.
- 5. BOARD OF ADJUSTMENT The existing Board of Adjustment for La Plata County will serve as the Airport Zoning Board of Adjustment.
- 6. CONICAL SURFACE A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.
- HAZARD TO AIR NAVIGATION An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.
- 8. HEIGHT For the purpose of determining the height limits in all zones set forth in this Ordinance and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.

- 9. HORIZONTAL SURFACE A horizontal plane 150 feet above the established airport elevation, the perimeter of which in plan coincides with the perimeter of the horizontal zones.
- AIRPORT ZONING BOARD The existing Planning Commission of the County of La Plata shall act as the Airport Zoning Board, authorized by Colorado Statutes.
- 11. LARGER THAN UTILITY RUNWAY A runway that is constructed for and intended to be used by aircraft of greater than 12,500 pounds maximum gross weight, including jet powered aircraft.
- NONCONFORMING USE Any pre-existing structure, object of natural growth, or use of land, which is inconsistent with the provisions of this Ordinance or an amendment thereto.
- 13. NON-PRECISION INSTRUMENT RUNWAY A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved or planned.
- OBSTRUCTION Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth in Section IV of this Ordinance.
- 15. PERSON An individual, firm, partnership, corporation, company, association, joint stock association or government entity; includes a trustee, a receiver, an assignee, or a similar representative of any of them.
- 16. PRECISION INSTRUMENT RUNWAY A runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), a Transponder Landing System (TLS), a Global Positioning Satellite (GPS), or Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated on an approved airport layout plan or any other planning document.
- 17. PRIMARY SURFACE A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway. The width of the primary surface is set forth in Section III of this ordinance. The elevation of any point on the

- primary surface is the same as the elevation of the nearest point on the runway centerline.
- 18. RUNWAY A defined area on an airport prepared for landing and take-off of aircraft along its length.
- 19. STRUCTURE An object, including a mobile object, constructed or installed by man, including but without limitation, buildings, towers, cranes, smokestacks, earth formation, and overhead transmission lines.
- 20. TRANSITIONAL SURFACES These surfaces extend outward at ninety degree (90°) angles to the runway centerline and the runway centerline extended at a slope of seven (7') feet horizontally for each one (1) foot vertically from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces. Transitional surfaces for those portions of the precision approach surfaces, which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at 90° degree angles to the extended runway centerline.
- 21. TREE Any object of natural growth.

## SECTION III: AIRPORT ZONES

In order to carry out the provision of this Ordinance, there are hereby created and established certain zones which include all of the land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces as they apply to Durango-La Plata County Airport. Such zones are shown on the Durango-La Plata County Airport Height Zoning Map consisting of one sheet, prepared by BARNARD DUNKELBERG & COMPANY, Inc. dated August 2003, which is attached to this Ordinance and made a part hereof. An area located in more than one of the following zones is considered to be only in the zone with the more restrictive height limitation. The various zones are hereby established and defined as follows:

(1) Precision Instrument Runway Approach Zone. The inner edge of this approach zone coincides with the width of the primary surface and is 1,000 feet wide. The approach zone expands outward uniformly to a width of 16,000 feet at a horizontal distance of 50,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

- (2) Runway Larger than Utility with a Visibility Minimum Greater than 3/4 Mile Non-precision Instrument Approach Zone. The inner edge of this approach zone coincides with the width of the primary surface and is either 500 or 1,000 feet wide, depending on the type of approach zone on the opposite end of the runway. The approach zone expands outward uniformly to a width of 3,500 feet at a horizontal distance of 10,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.
- (3) *Transition Zones* are hereby established adjacent to each instrument runway and approach zone as indicated on the zoning map.
- (4) *Horizontal Zones* are hereby established by swinging arcs of 10,000 feet for all instrument runways from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal zone does not include the approach and transitional zones.
- (5) *Conical Zones* are hereby established as the area that commences at the periphery of the horizontal zone and extends outward therefrom a horizontal distance of 4,000 feet. The conical zone does not include the instrument approach zones, transition zones, and horizontal zone.

#### SECTION IV: AIRPORT ZONE HEIGHT LIMITATIONS

Except as otherwise provided in this Ordinance, no structure shall be erected, altered, or maintained, and no tree shall be allowed to grow in any zone created by this Ordinance to a height in excess of the applicable height herein established for such zone. Such applicable height limitations are hereby established for each of the zones in question as follows:

- (1) Precision Instrument Runway Approach Zone. Slopes fifty (50) feet outward for each foot upward beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of 10,000 feet along the extended runway centerline; thence slopes upward forty (40) feet horizontally for each foot vertically to an additional horizontal distance of 40,000 feet along the extended runway centerline.
- (2) Runway Larger than Utility with a Visibility Minimum Greater than 3/4 Mile Non-Precision Instrument Approach Zone. Slopes thirty-four (34) feet outward for each foot upward beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of 10,000 feet along the extended runway centerline.

- (3) Transition Zone. Slopes seven (7') feet outward for each foot upward beginning at the sides of and at the same elevation as the primary surface, and extending to a height of one hundred fifty (150') feet above the airport elevation. In addition to the foregoing, there are established height limits sloping seven (7') feet outward for each foot upward beginning at the sides of and at the same elevation as the approach surface, and extending to where they intersect the conical surface. Further, where the precision instrument runway approach zone projects through and beyond the conical zone, there are established height limits sloping seven (7') feet outward for each foot upward beginning at the sides of and at the same elevation as the approach surface, and extending a horizontal distance of five thousand (5,000') feet from the edge of the instrument approach zone measured at right angles to the extended runway centerline.
- (5) *Horizontal Zone*. Established at one hundred fifty (150') feet above the established airport elevation.
- (6) Conical Zone. Slopes twenty (20') feet outward for each foot upward beginning at the periphery of the horizontal and at one hundred fifty (150') feet above the airport elevation and extending to a height of three hundred fifty (350') feet above the airport elevation.
- (7) Excepted Height Limitation. Nothing in this Order shall be construed as prohibiting the construction or maintenance of any structure, or growth of any tree to a height up to fifty (50') feet above the surface of the land.

#### SECTION V: USE RESTRICTION

Notwithstanding any other provisions of this Ordinance, no use may be made of land or water within any zone established by this Ordinance in such a manner as to create electrical interference with navigational signals or radio communications between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, create bird strike hazards, or otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft intending to use the airport.

#### SECTION VI: NONCONFORMING USES

1. Regulations Not Retroactive. The regulations prescribed in this Ordinance shall not be construed to require the removal, lowering, or other change or alteration of

any structure or tree not conforming to the regulations as of the effective date of this Ordinance, or otherwise interfere with the continuance of a nonconforming use.

Nothing contained herein shall require any change in the construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of this Ordinance, and is diligently prosecuted.

2. Marking and Lighting. Notwithstanding the preceding provision of this Section, the owner of any existing nonconforming structure or tree is hereby required to permit the installation, operation, and maintenance thereon of such markers and lights as shall be deemed necessary by the Airport Zoning Board to indicate to the operators of aircraft in the vicinity of the airport the presence of such airport obstruction. Such markers and lights shall be installed, operated, and maintained at the expense of the City of Arlington or La Plata County, depending upon jurisdiction.

#### SECTION VII: PERMITS

- 1. Future Uses. Except as specifically provided in a, b, and c hereunder, no material change shall be made in the use of land, no structure shall be erected or otherwise established and no tree shall be planted in any zone hereby created unless a permit therefore shall have been applied for and granted. Each permit application shall include a site plan and a completed FAA Form 7460-1 Notice of Proposed Construction or Alteration, which are to be submitted to the City of Arlington, the City of Marysville, and La Plata County Planning Departments for review and analysis. Additional copies shall be forwarded to the Federal Aviation Administration (FAA). The documentation shall indicate the purpose for which the permit is desired, with sufficient particularity to permit it to be determined whether the resulting use, structure, or tree would conform to the regulations herein prescribed. If such determination is in the affirmative, the permit shall be granted. No permit for a use inconsistent with the provisions of this ordinance shall be granted unless a variance has been approved in accordance with Section VII, 4.
  - a. In the area lying within the limits of the horizontal zone and conical zone, no permit shall be required for any tree or structure less than seventy-five feet of vertical height above the ground, except when, because of terrain, land contour, or topographic features, such tree or structure would extend above the height limits prescribed for such zones.

- b. In areas lying within the limits of the approach zones but at a horizontal distance of not less than 4,200 feet from each end of the runway, no permit shall be required for any tree or structure less than seventy-five feet of vertical height above the ground, except when such tree or structure would extend above the height limit prescribed for such approach zones.
- c. In the areas lying within the limits of the transition zones beyond the perimeter of the horizontal surface, no permit shall be required for any tree or structure less than seventy-five feet of vertical height above the ground, except when such tree or structure, because of terrain, land contour, or topographic features, would extend above the height limit prescribed for such transition zones.

Nothing contained in any of the foregoing exceptions shall be construed as permitting or intending to permit any construction, or alteration of any structure, or growth of any tree in excess of any of the height limits established by this Ordinance except as set forth in Section IV, 7.

- 2. Existing Uses. No permit shall be granted that would allow the establishment or creation of an obstruction or permit a nonconforming use, structure, or tree to become a greater hazard to air navigation, than it was on the effective date of this Ordinance or any amendments thereto or than it is when the application for a permit is made. Except as indicated, all applications for such a permit shall be granted.
- 3. Nonconforming Uses Abandoned or Destroyed. Whenever the Airport Zoning Board determines that a nonconforming tree or structure has been abandoned or more than eighty (80%) percent torn down, physically deteriorated, or decayed, no permit shall be granted that would allow such structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations.
- 4. Variances. Any person desiring to erect or increase the height of any structure, or permit the growth of any tree, or use property, not in accordance with the regulations prescribed in this Ordinance, may apply to the Board of Adjustment for a variance. The application for a variance from such regulations shall be accompanied by a determination from the Federal Aviation Administration as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable airspace. Such variances shall be allowed where it is duly found that literal application or enforcement of the regulations will result in unnecessary hardship and relief granted, will not be contrary to the public interest, will not create a hazard to air navigation, will do substantial justice, and will be in accordance with the spirit of this Ordinance.

Additionally, no application for variance to the requirements of this Ordinance may be considered by the Board of Adjustment unless a copy of the application has been furnished to the Airport Zoning Board for advice as to the aeronautical effects of the variance. If the Airport Zoning Board does not respond to the application within thirty (30) days after receipt, the Board of Adjustment may act on its own to grant or deny said application.

5. Obstruction Marking and Lighting. Any permit or variance granted may, if such action is deemed advisable to effectuate the purpose of this Ordinance and be reasonable in the circumstances, be so conditioned as to require the owner of the structure or tree in question to install, operate, and maintain, at the owner's expense, such markings and lights as may be necessary. If deemed proper by the Board of Adjustment, this condition may be modified to require the owner to permit the City of Arlington or La Plata County, at its own expense, to install, operate, and maintain the necessary markings and lights.

#### SECTION VIII: ENFORCEMENT

It shall be the duty of the Airport Zoning Board to administer and enforce the regulations prescribed herein. Applications for permits and variances shall be made to the Board upon a form published for that purpose. Applications required by this Ordinance to be submitted to the Board shall be promptly considered and granted or denied. Application for action by the Board of Adjustment shall be forthwith transmitted by the Board.

#### SECTION IX: BOARD OF ADJUSTMENT

- 1. There is hereby created a Board of Adjustment to have and exercise the following powers: (1) to hear and decide appeals from any order, requirement, decision, or determination made by the Airport Zoning Board in the enforcement of this Ordinance; (2) to hear and decide special exceptions to the terms of this Ordinance upon which such Board of Adjustment under such regulations may be required to pass; and (3) to hear and decide specific variances.
- 2. The existing Board of Adjustment for La Plata County will serve as the Airport Zoning Board of Adjustment. Members shall be removable by the appointing authority for cause, upon written charges and after a public hearing.
- 3. The Board of Adjustment shall adopt rules for its governance and in harmony with the provisions of this ordinance. Meetings of the Board of Adjustment shall be

held at the call of the Chairperson and at such other times as the Board of Adjustment may determine. The Chairperson or, in the absence of the Chairperson, the Acting Chairperson may administer oaths and compel the attendance of witnesses. All hearings of the Board of Adjustment shall be public. The Board of Adjustment shall keep minutes of its proceedings showing the vote of each member upon each question; or if absent or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall immediately be filed in the office of the County Clerk and on due cause shown.

- 4. The Board of Adjustment shall make written findings of facts and conclusions of law giving the facts upon which it acted and its legal conclusions from such facts in reversing, affirming, or modifying any order, requirement, decision, or determination which comes before it under the provisions of this Ordinance.
- 5. The concurring vote of a majority of the members of the Board of Adjustment shall be sufficient to reverse any order, requirement, decision, or determination of La Plata County Planners or decide in favor of the applicant on any matter upon which it is required to pass under this Ordinance, or to effect variation to this Ordinance.

#### SECTION X: APPEALS

- Any person aggrieved, or any taxpayer affected, by any decision of the Airport Zoning Board made in the administration of the Ordinance, may appeal to the Board of Adjustment.
- 2. All appeals hereunder must be taken within a reasonable time as provided by the rules of the Board of Adjustment, by filing with the Airport Zoning Board a notice of appeal specifying the grounds thereof. The Airport Zoning Board shall forthwith transmit to the Board of Adjustment all the papers constituting the record upon which the action appealed from was taken.
- 3. An appeal shall stay all proceedings in furtherance of the action appealed from unless the Airport Zoning Board certifies to the Board of Adjustment, after the notice of appeal has been filed with it, that by reason of the facts stated in the certificate a stay would in the opinion of the Airport Zoning Board cause imminent peril to life or property. In such case, proceedings shall not be stayed except by order of the Board of Adjustment on notice to the Airport Zoning Board and on due cause shown.

- 4. The Board of Adjustment shall fix a reasonable time for hearing appeals, give public notice and due notice to the parties in interest, and decide the same within a reasonable time. Upon the hearing, any party may appear in person or by agent or by attorney.
- 5. The Board of Adjustment may, in conforming with the provisions of the Ordinance, reverse or affirm in whole or in part, or modify the order, requirement, decision, or determination appealed from and may make such order, requirement, decision, or determination as may be appropriate under the circumstances.

#### SECTION XI: JUDICIAL REVIEW

Any person aggrieved, or any taxpayer affected, by any decision of the Board of Adjustment, may appeal to the District Court as provided in Washington Statutes.

#### SECTION XII: PENALTIES

Each violation of this Ordinance or of any regulation, order, or ruling promulgated hereunder shall constitute a misdemeanor and be punishable by a fine of not more than 500 dollars or imprisonment for not more than 1 year or both, or other remedies as allowed by law; and each day a violation continues to exist shall constitute a separate offense.

#### SECTION XIII: CONFLICTING REGULATIONS

Where there exists a conflict between any of the regulations or limitations prescribed in this Ordinance and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, and the use of land, or any other matter, the more stringent limitation or requirement shall govern and prevail.

#### SECTION XIV: REPEAL

All prior Airport Zoning Ordinances relating to Durango-La Plata County Airport are hereby repealed.

#### SECTION XV: SEVERABILITY

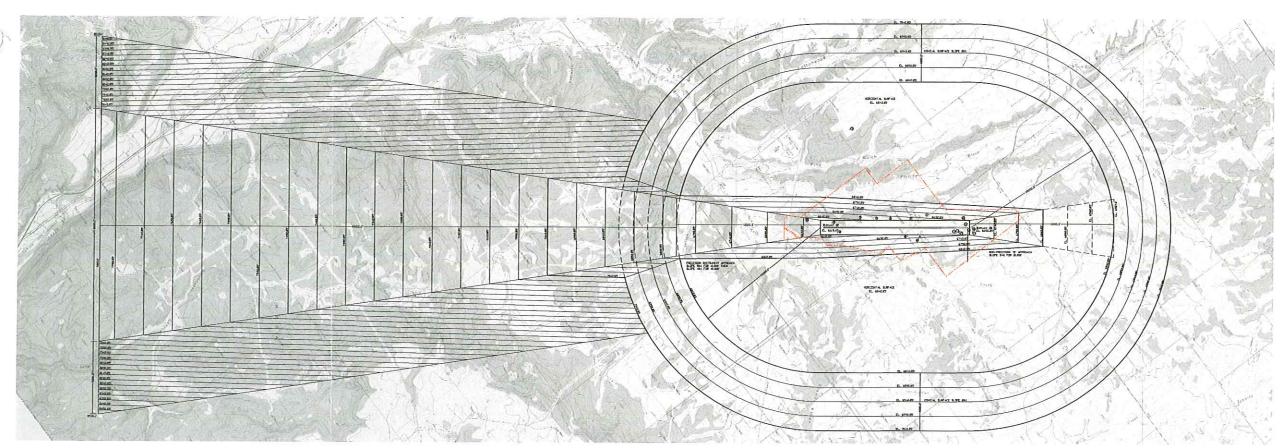
If any of the provisions of this Ordinance or the application thereof to any person or circumstance are held invalid, such invalidity shall not affect other provisions or

applications of the Ordinance which can be given effect without the invalid provision or application, and to this end, the provisions of this Ordinance are declared to be severable.

#### SECTION XV: EFFECTIVE DATE

WHEREAS, the immediate operation of the provisions of this Ordinance is necessary for the preservation of the public health, public safety, and the general welfare, an EMERGENCY is hereby declared to exist, and this Ordinance shall be in full force and effect from and after its passage by the Airport Zoning Board and publication and posting as required by law.

Secretary	Chairn	nan	
ATTEST:	For the	e Airport Zoni	ng Board:
Adopted by the Airport Zo	ning Board this	day of	, 200



EXISTING	FUTURE
6689.48	6692.85"
LN. N 37'05 18.56"	Se 1 15 3 2 16
D-N	D-N
COMM. SERV.	COMM SERV.
96.9"	95.9"
M/TL	MITL
CENTERLINE	CENTERLINE
EXISTING	FUTURE
122.95	122.95
	6689.43' D-N COMM. SERV. 96.9' MITL CENTERLINE EXISTING

NO.	DESCRIPTION	ELEVATION	PENETRATION	PART 77 SURFACE	DISPOSITION
1	OL ON APBN	6720	31'	TRANSITIONAL	NONE
2	ANT ON BLDG	6698"	35'	TRANSITIONAL	NONE
3	TREE	6654	11'	TRANSITIONAL	TO BE PENOVED
4	OL ON VOR/DME	6682"	14	TRANSITIONAL	NONE
5	TREE	6644	1"	TRANSITIONAL	TO BE TRIMMED
6	LTD WSK	6681	2'	TRANSITIONAL	NONE
7	ROD ON LIGHT	6727	7'	TRANSITIONAL	NONE
8	OL ON GS	6658	38'	PRIMARY	NONE
9	WSK	6627	9'	PRIMARY	NONE
10	TREE	6621	10' CLEAR	R/W 02 APP.	NONE
11	ANT ON BLDG	6702	13'	PRIMARY	RELOCATED
12	OL ON LOC	6697	8'	PRIMARY	RELOCATED
13	ROAD	6695'(n)	9,	PRIMARY	UNITED ACCESS
14	ROAD	6696'(n)	10"	PRIMARY	LIMITED ACCESS
15	FENCE	6689	9,	PRIMARY	RELOCATED
16	RCAD	6705'(n)	2' CLEAR	TRANSITIONAL	NONE
17	TREE	6707"	15"	R/W 20 APP.	TO BE REMOVED
18	POAD	6707'(n)	10"	R/W 20 APP.	LIMITED ACCESS
19	TOWER (100'± ABV GPD.)	6818	21' CLEAR	HORIZONTAL	NONE

TEN (10) FEET ADDED TO DETERMINE POSOC ROUD CLEARANCE
TEN (10) FEET ADDED TO DETERMINE APPORT ACCESS ROAD CLEARANCE
NOTE: 1, OBSTRUCTIONS TAKEN FROM NOS OCABO, DURANÇO-LA PLATA COUN
ARPORT, DURANÇO, COLORADO, PUB. NOV. 1993. NADB3, NAVD29

3. PENETRATION ADJUSTED +4.15' FOR NAVDBB ELEVA

