

Appendix A
Airport Layout Plan

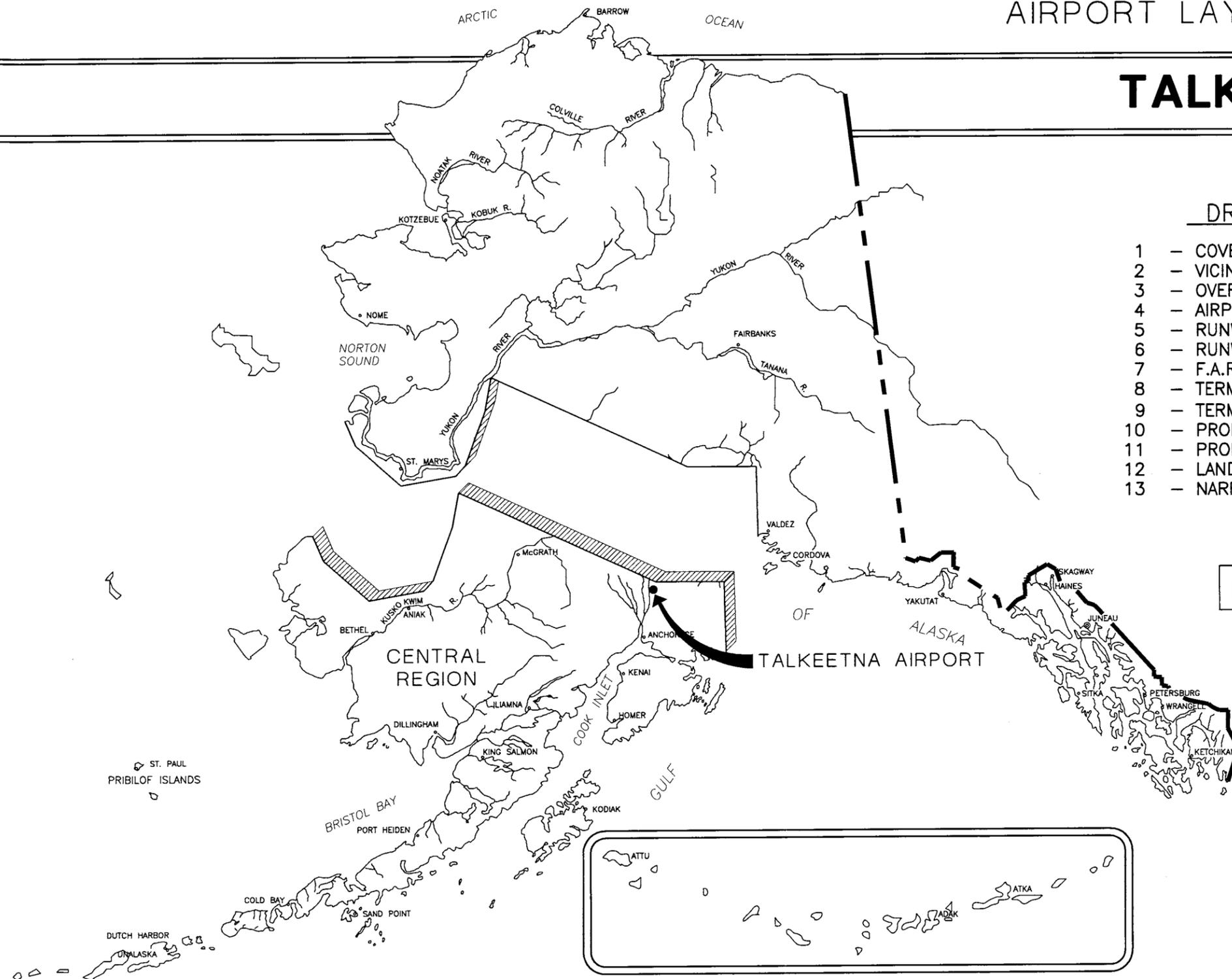
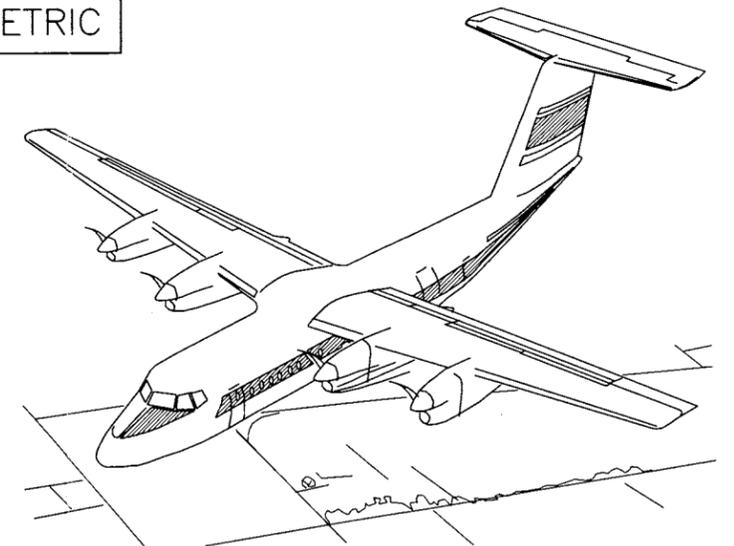
AIRPORT LAYOUT PLAN FOR

TALKEETNA

2001 DRAWING INDEX

- 1 - COVER SHEET AND INDEX
- 2 - VICINITY MAP AND DATA TABLES
- 3 - OVERVIEW PLAN
- 4 - AIRPORT PLAN
- 5 - RUNWAY PROFILE
- 6 - RUNWAY APPROACH SURFACES PLANS AND PROFILES
- 7 - F.A.R. PART 77 SURFACES
- 8 - TERMINAL AREA PLAN
- 9 - TERMINAL AREA PLAN
- 10 - PROPERTY PLAN
- 11 - PROPERTY PLAN
- 12 - LAND USE PLAN
- 13 - NARRATIVE REPORT

METRIC



SPONSORED BY
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION DESIGN AND CONSTRUCTION

CONCUR _____ DATE _____
REGIONAL DIRECTOR

APPROVED _____ DATE _____
REGIONAL PRECONSTRUCTION ENGINEER

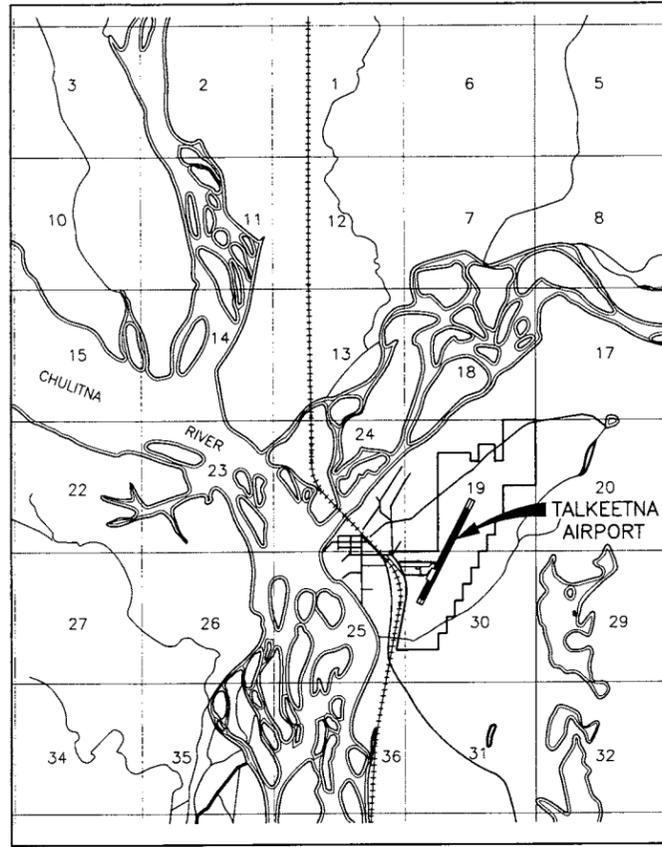
AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED _____

FAA AIRSPACE REVIEW NUMBER
00-AAL-180-NRA

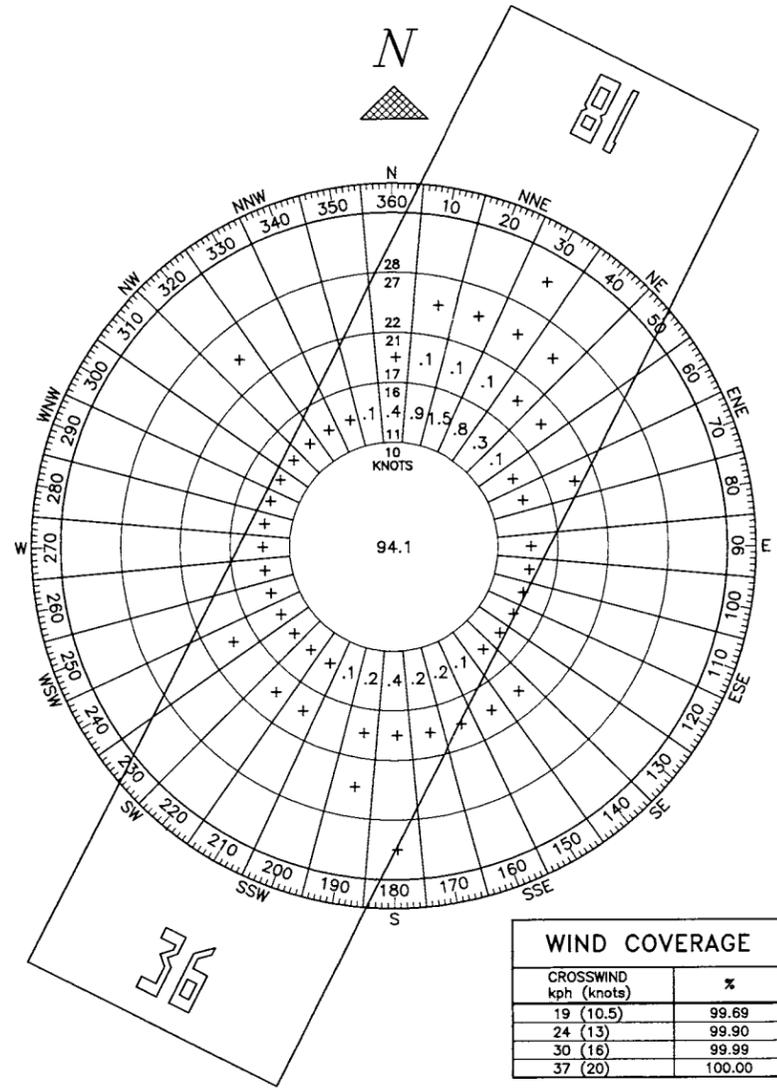
By: _____ Date: _____
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-600

TALKEETNA
AIRPORT LAYOUT PLAN
COVER SHEET AND INDEX

SHEET 1 OF 13



VICINITY MAP
 NO SCALE
 T 26 N, R 5 W,
 SEWARD MERIDIAN, ALASKA
 U.S.G.S. TALLEKETA (B-1), ALASKA



SOURCE: ALASKA STATE CLIMATE CENTER, E.N.R.I. UNIVERSITY OF ALASKA ANCHORAGE
 STATION: TKA, AK #26528
 PERIOD: 12/91 - 11/99, 45,496 OBS

BASIC DATA TABLE
RUNWAY DATA

ITEM	RUNWAY 18/36	
	EXISTING	FUTURE
EFFECTIVE GRADE	0.23%	0.23%
% WIND COVERAGE	99.90%	99.90%
INSTRUMENT RUNWAY	N.P.I.	N.P.I.
RUNWAY SURFACE	ASPHALT	ASPHALT
PAVEMENT STRENGTH kg(LBS.)	13 608 (30,000)	13 608 (30,000)
APPROACH SURFACES / VISIBILITY MINIMUMS	34:1 / 1600m (1 MILE)	34:1 / 1600m (1 MILE)
RUNWAY LIGHTING	M.I.	M.I.
RUNWAY MARKING	NON.PREC	NON.PREC
VISUAL APPROACH AIDS	VASI	PAPI
RUNWAY SAFETY AREA-WIDTH	45m (150')	45m (150')
RUNWAY SAFETY AREA-LENGTH BEYOND RUNWAY END	90m (300')	90m (300')
RUNWAY DIMENSION	23m x 1067m (75'x3500')	23m x 1067m (75'x3500')
RUNWAY OBJECT FREE AREA - WIDTH	150m (500')	150m (500')
-LENGTH BEYOND RUNWAY END	90m (300')	90m (300')
RUNWAY OBSTACLE FREE ZONE - WIDTH	75m (250')	75m (250')
-LENGTH BEYOND RUNWAY END	60m (200')	60m (200')
RUNWAY 18 END COORDINATES	LAT. 62° 19' 32.28" N LONG. 150° 05' 16.92" W	
RUNWAY 36 END COORDINATES	LAT. 62° 19' 01.60" N LONG. 150° 05' 50.63" W	

AIRPORT DATA

ITEM	EXISTING	FUTURE
AIRPORT ELEVATION (M.S.L.)	109.4m (359')	109.4m (359')
AIRPORT REFERENCE POINT (A.R.P.) (NAD 1983) LAT.		62° 19' 20" N
LONG.		150° 05' 29" W
TAXIWAY LIGHTING, AIRPORT	N.P.I.	N.P.I.
RAMP LIGHTING, AIRPORT	NONE	NONE
MEAN MAX. TEMPERATURE, HOTTEST MONTH (°F)	67.5'	67.5'
MAGNETIC DECLINATION, YEAR		21°57.0'E, 2000
AIRPORT CATEGORY	B-II	B-II
AIRPORT AND TERMINAL NAVIGATION AIDS (ELECTRONIC)	VOR,NDB,GPS	VOR,NDB,GPS
AIRPORT NAVIGATIONAL AIDS (VISUAL)	VASI, BEACON	PAPI, BEACON

NON-STANDARD CONDITIONS

ITEM	EXISTING	STANDARD	PROPOSED
SEWAGE LAGOON SEPARATION	890m (2920')	1,524m (5,000')	300m (984')
TUNDRA TIRE/SKI STRIP SEPARATION	-	213m (700')	-

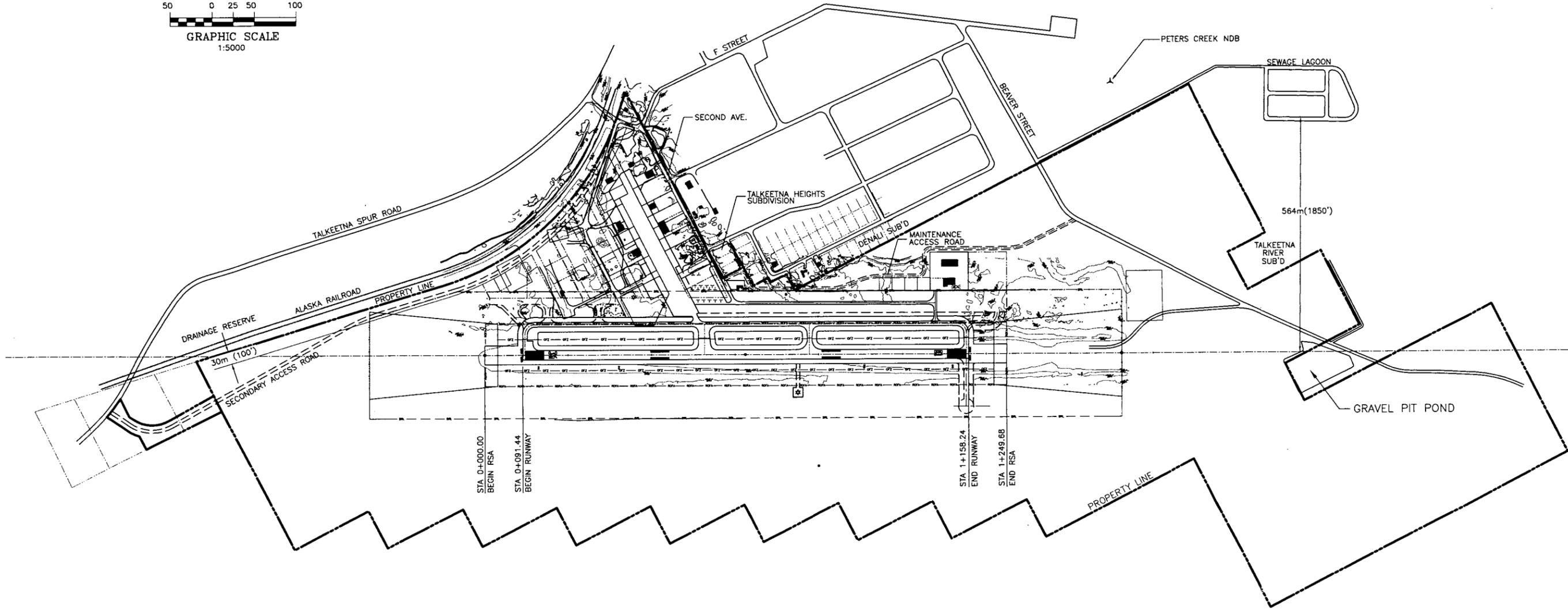
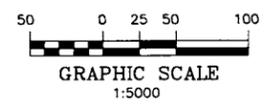
LEGEND

ITEM	EXIST.	FUTURE/PROP.
PROPERTY LINE	---	---
BUILDING RESTRICTION LINE (B.R.L.)	---BRL---	---BRL---
AVIATION & HAZARD EASEMENT	---/---/---	---/---/---
THRESHOLD	■	■
AIRPORT REFERENCE POINT(A.R.P.)/HELIPORT REFERENCE POINT (H.R.P.)	⊙	⊙
WIND CONE & SEGMENTED CIRCLE	⊙	⊙
CONTOURS	5 --- 5	5 --- 5
ROADWAYS	---	---
BUILDINGS	■	■
ROTATING BEACON	⊙	⊙
ANTENNA	⊙	⊙
MONUMENT	⊙	⊙
FENCE	x x x x	x x x x
VASI/PAPI	■ ■ ■ ■	■ ■ ■ ■
REIL	⊙	⊙
AWOS	⊙	⊙
DECIDUOUS TREES	⊙	⊙
BRUSH EDGE	⊙	⊙
SECURITY GATE	⊙	⊙
FSS CLEAR AREA (NO AIRCRAFT PARKING)	⊙	⊙
SHORELINE	---	---
LEASE LOTS	---	---
HOLDING POSITION MARKINGS/SIGNS	---	---

CONVERSION FROM THE SI INTERNATIONAL SYSTEM OF UNITS

TO CONVERT FROM	TO	MULTIPLY BY
STATION (1000 METERS)	FEET	3280.84
KILOMETER (km)	MILE	0.6214
METER (m)	MILE	0.00062137
METER (m)	FOOT	3.28084
MILLIMETER (mm)	FOOT	0.00328084
MILLIMETER (mm)	INCH	0.3937008
SQUARE METER (m ²)	SQUARE FOOT	10.76391042
SQUARE METER (m ²)	SQUARE YARD	1.19599
HECTARE	ACRE	2.4711
CUBIC METER (m ³)	CUBIC FOOT	35.3146667
CUBIC METER (m ³)	CUBIC YARD	1.3079506
CUBIC METER (m ³)	GALLON (US LIQUID)	264.17204
CUBIC METER (m ³)	M. GALLON	0.26417204
KILOGRAM (kg)	POUND-MASS (LBM)	2.2046225
MEGAGRAM (Mg)	TON (SHORT)	1.10231
NEWTON (n)	POUND-FORCE (LBF)	0.2248089
LUX (lx)	FOOTCANDLE	0.092903
DEGREE CELSIUS (°C)	DEGREE FAHRENHEIT (°F)	TF = (1.8 X TC)+32

FILE: I:\479100\DWGS\ALP_SEPT01\ALP02REV.DWG AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____ By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600 FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA	BY _____ DATE _____ REVISIONS _____	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION APPROVED: _____ DESIGN SECTION CHIEF STEPHEN M. RYAN, P.E. APPROVED: _____ PROJECT MANAGER	DATE SEPT 26, 2001 DESIGN SC DRAWN CP CHECKED DLN	TALKEETNA AIRPORT AIRPORT LAYOUT PLAN VICINITY MAP AND DATA TABLES	SHEET 2 OF 13
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AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
 SUBJECT TO ALP APPROVAL LETTER DATED _____

By: _____ DATE: _____
 FAA, AIRPORTS DIVISION
 ALASKAN REGION, AAL-600

FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA

BY	DATE	REVISIONS

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 CENTRAL REGION

APPROVED: _____ DESIGN SECTION CHIEF
 STEPHEN M. RYAN, P.E.

APPROVED: _____ PROJECT MANAGER

DATE SEPT 26, 2001

DESIGN SC

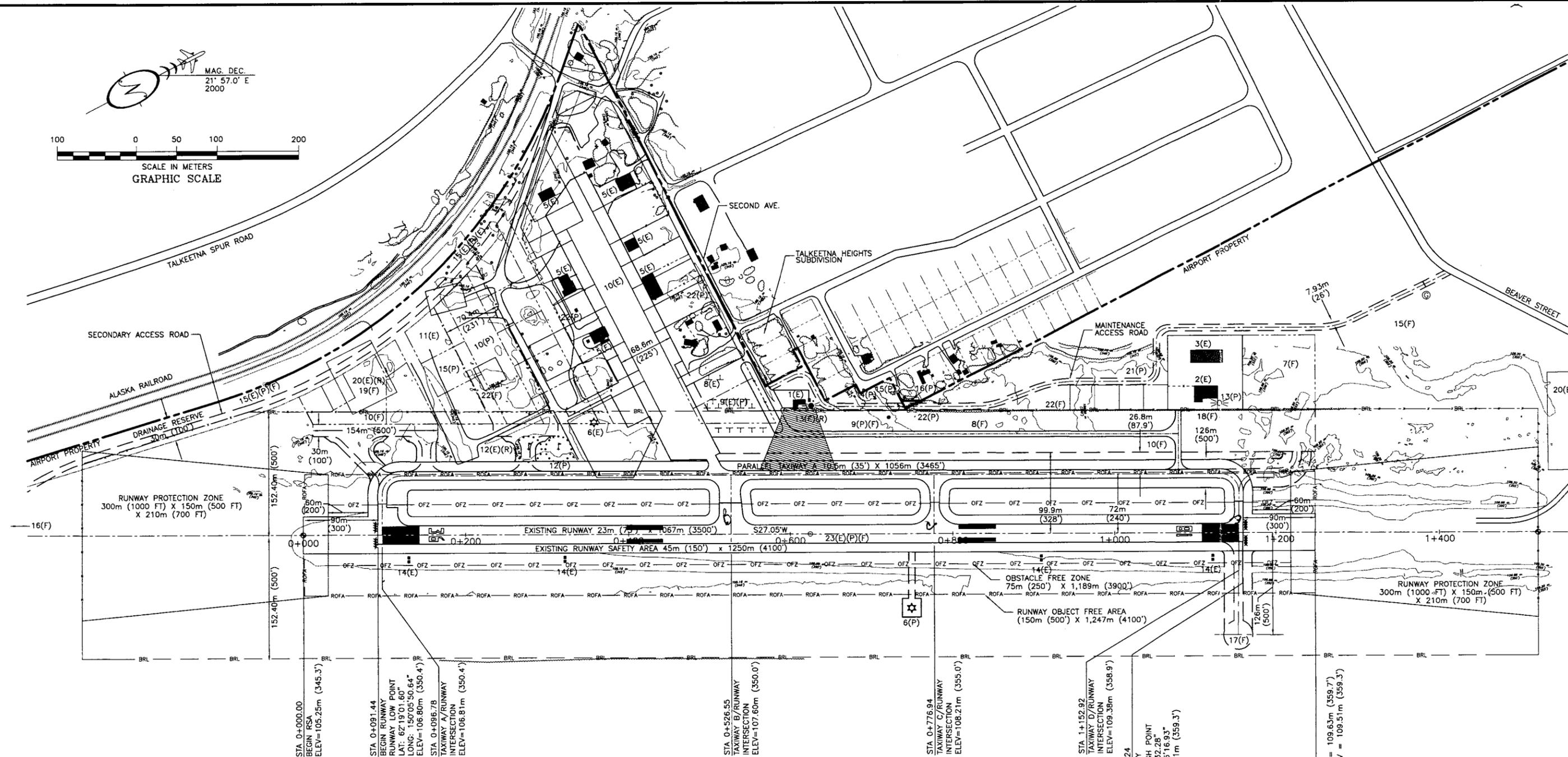
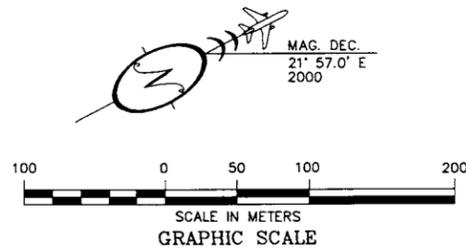
DRAWN CP

CHECKED DLM

TALKEETNA AIRPORT

AIRPORT LAYOUT PLAN
 OVERVIEW PLAN

SHEET
 3
 OF
 13



AIRPORT FACILITIES LIST

(E) EXISTING (P) PROPOSED (F) FUTURE
(R) TO BE REMOVED/RELOCATED

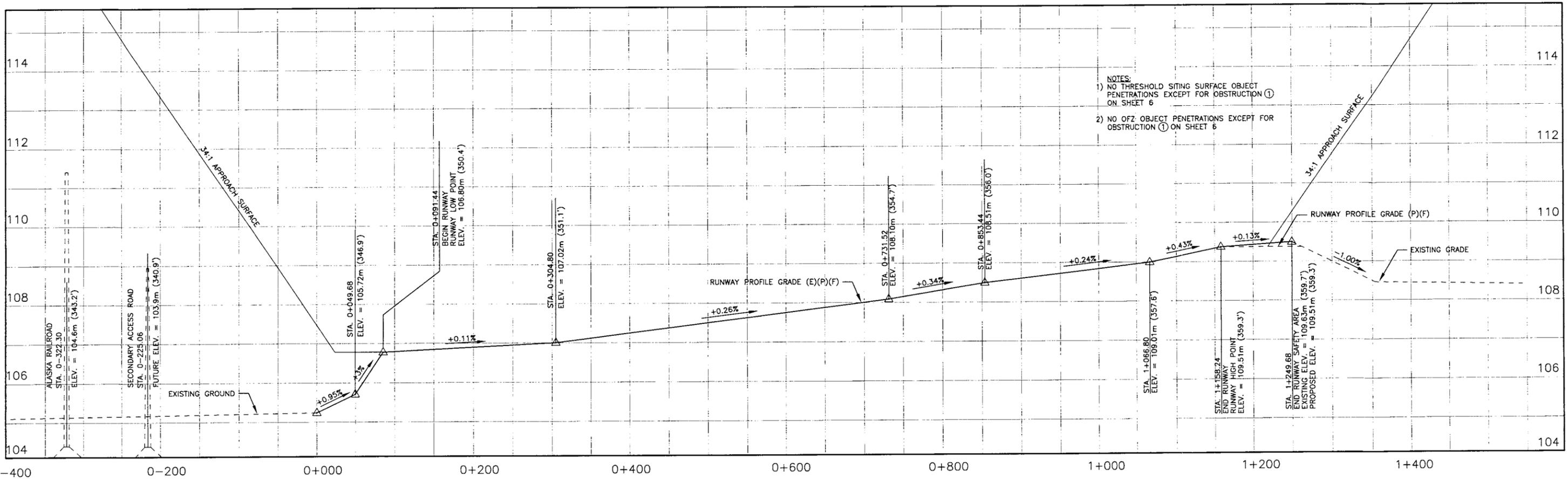
- 1. FLIGHT SERVICE STATION (E)
- 2. DOT&PF MAINTENANCE (E)
- 3. DOT&PF SAND STORAGE (E)
- 4. AUTO PARKING (P)
- 5. COMMERCIAL HANGARS (E)
- 6. AWOS (E)(P)
- 7. NPS RESERVE (F)
- 8. G.A. APRON (E)(P)(F)
- 9. TRANSIENT APRON (E)(P)(F)
- 10. COMMERCIAL APRON (E)(P)(F)
- 11. HELIPORT (E)
- 12. WIND CONE AND SEGMENTED CIRCLE (E)(P)(R)
- 13. ROTATING BEACON (E)(P)(R)
- 14. VASI (E)
- 15. SNOW STORAGE (P)(F)
- 16. PROPERTY ACQUISITION (F)
- 17. COMPASS CALIBRATION PAD (F)
- 18. SKIPLANE APRON (F)
- 19. LANDFILL REMEDIATION (F)
- 20. ABANDONED LANDFILL (E)(R)
- 21. ACCESS ROAD (P)(F)
- 22. SECURITY FENCE (P)(F)
- 23. AIRPORT REFERENCE POINT (E)(F)

- NOTES:**
- 1) NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS EXCEPT FOR OBSTRUCTION ① ON SHEET 6
 - 2) NO OFZ OBJECT PENETRATIONS EXCEPT FOR OBSTRUCTION ① ON SHEET 6

ITEM	WIDTH		TSA		OFA	
	EXISTING	STANDARD	EXISTING	STANDARD	EXISTING	STANDARD
T/W A	10.5m (35')	10.5m (35')	24m (79')	24m (79')	40m (131')	40m (131')
T/W B	27.7m (90.9')	10.5m (35')	51.8m (170')	24m (79')	40m (131')	40m (131')
T/W C	10.5m (35')	10.5m (35')	24m (79')	24m (79')	40m (131')	40m (131')
T/W D	-	6.4m (21')	-	30.5m (100')*	-	30.5m (100')*

*TAXIROUTE

<p>AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____</p> <p>By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600</p> <p>FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA</p>	<p style="text-align: center;">STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION</p> <p>APPROVED: _____ STEPHEN M. RYAN DESIGN SECTION CHIEF</p> <p>APPROVED: _____ P.M.</p>	<p>DATE SEPT 26, 2001</p> <p>DESIGN SC</p> <p>DRAWN CP</p> <p>CHECKED DLM</p>	<p style="text-align: center;">TALKEETNA AIRPORT</p> <p style="text-align: center;">AIRPORT LAYOUT PLAN AIRPORT PLAN</p>	<p>SHEET 4 OF 13</p>
<p>FILE: \\1479100\DWGS\ALP_SEPT01\ALP04REV.DWG</p>	<p>BY _____ DATE _____ REVISIONS _____</p>			

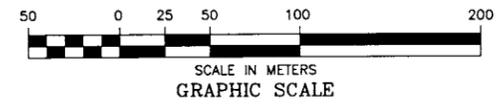
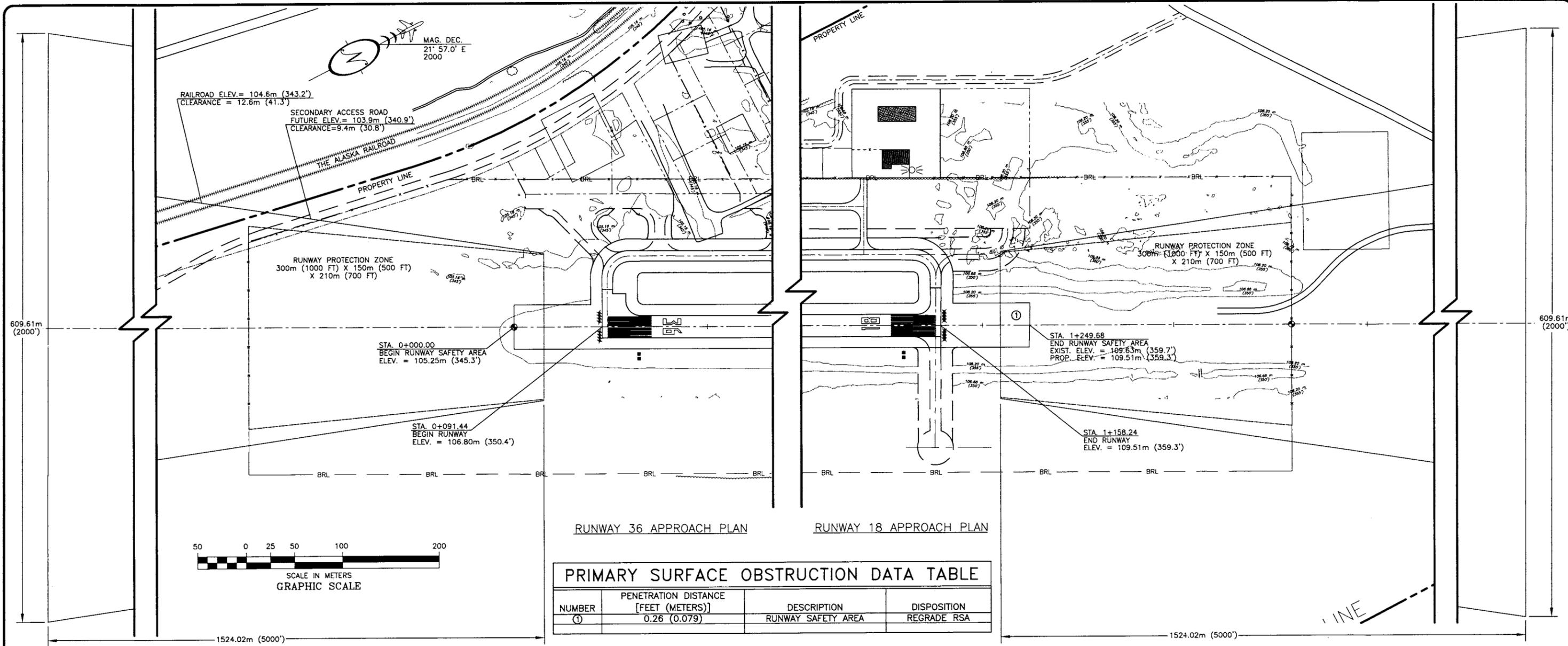


- NOTES:
 1) NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS EXCEPT FOR OBSTRUCTION ① ON SHEET 6
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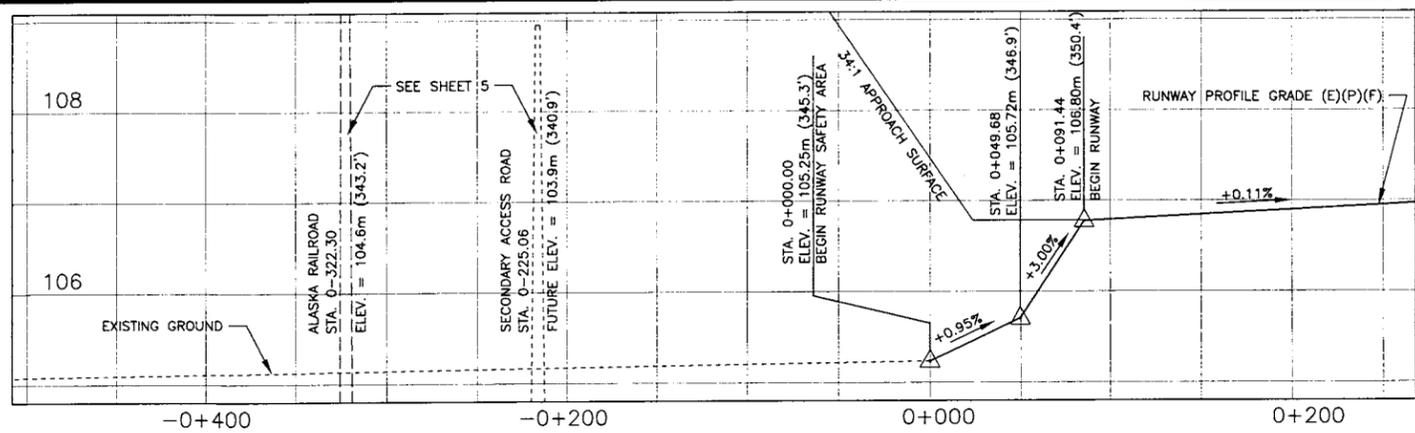
RUNWAY 18/36 PROFILE

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____ By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600 FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>BY</th> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	BY	DATE	REVISIONS										STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION APPROVED: _____ STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF APPROVED: _____ P.M. P.M.T.	DATE SEPT. 26, 2001 DESIGN SC DRAWN CP CHECKED DLM	TALKEETNA AIRPORT AIRPORT LAYOUT PLAN RUNWAY PROFILE SHEET 5 OF 13
BY	DATE	REVISIONS														

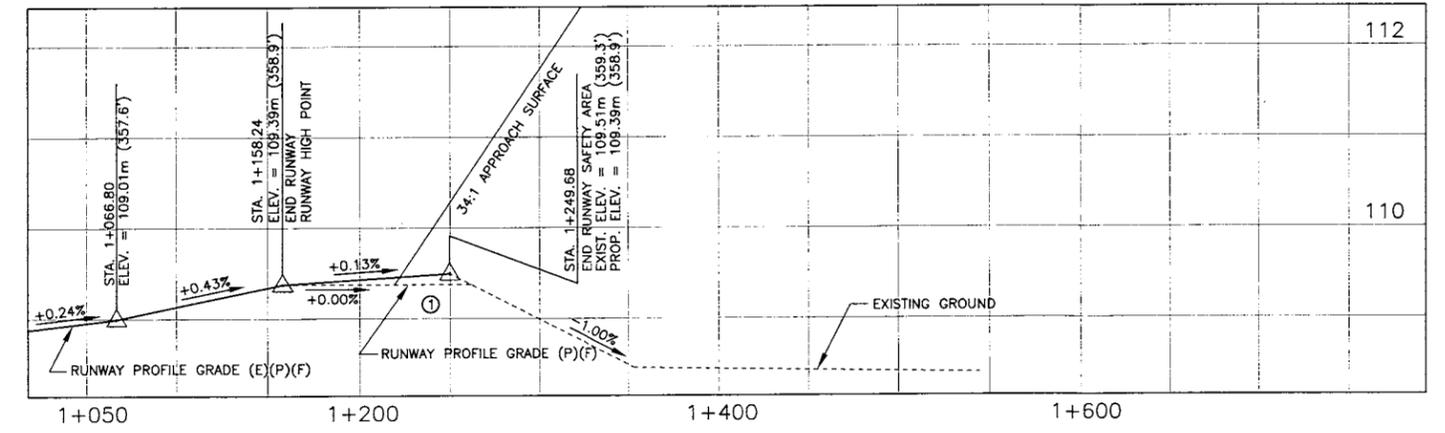
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PRIMARY SURFACE OBSTRUCTION DATA TABLE			
NUMBER	PENETRATION DISTANCE [FEET (METERS)]	DESCRIPTION	DISPOSITION
①	0.26 (0.079)	RUNWAY SAFETY AREA	REGRADE RSA



RUNWAY 36 APPROACH PROFILE



RUNWAY 18 APPROACH PROFILE

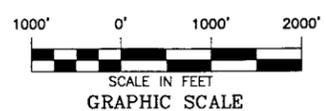
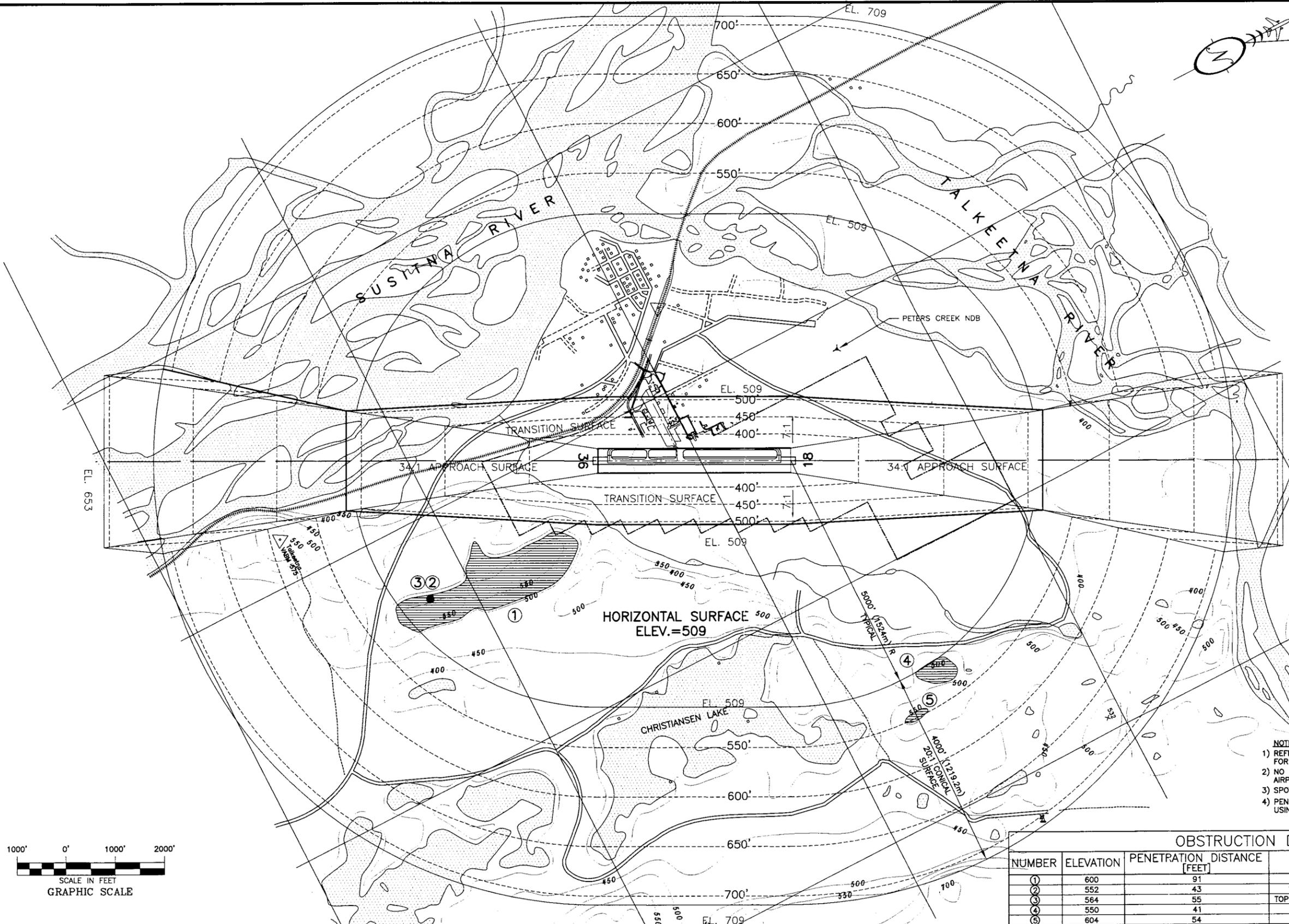
NOTE: NO PENETRATIONS TO RUNWAYS 18 AND 36 APPROACH SLOPES.

FILE: I:\479100\DWGS\ALP_SEPT01\ALP06REV.DWG	AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____ By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600 FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION APPROVED: _____ STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF APPROVED: _____ PROJECT MANAGER	DATE SEPT 26, 2001 DESIGN SC DRAWN CP CHECKED DLM	TALKEETNA AIRPORT AIRPORT LAYOUT PLAN INNER PORTION OF THE APPROACH SURFACE PLANS AND PROFILES	SHEET 6 OF 13
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MAG. DEC.
21° 57.0' E
2000

LEGEND

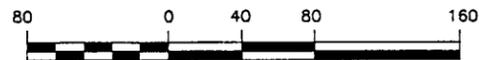
-  WATER SURFACE
-  GROUND OBSTRUCTION
-  SINGLE OBSTRUCTION



- NOTES:**
- 1) REFER TO THE RUNWAY APPROACH SURFACES PLANS AND PROFILES FOR CLOSE-IN OBSTRUCTIONS
 - 2) NO MSB HEIGHT RESTRICTION ZONING ORDINANCE/STATUTE IN THE AIRPORT ENVIRON
 - 3) SPOT ELEVATIONS NOT AVAILABLE
 - 4) PENETRATION DISTANCES ESTIMATED FROM USGS MAPS USING TREE HT. = 50'

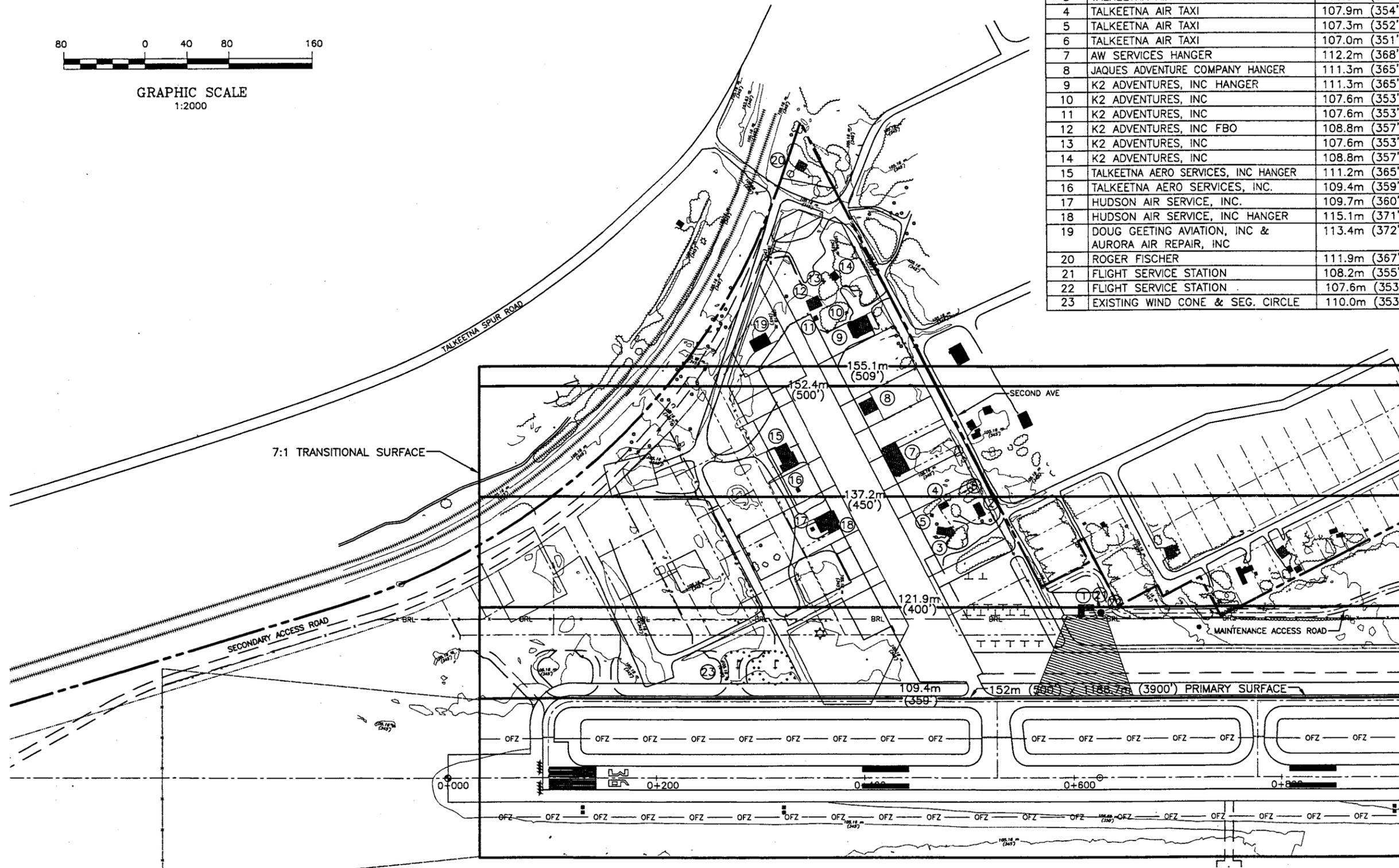
OBSTRUCTION DATA TABLE				
NUMBER	ELEVATION	PENETRATION DISTANCE [FEET]	DESCRIPTION	DISPOSITION
①	600	91	TERRAIN, TREES	NONE
②	552	43	TALKEETNA ALASKAN LODGE	NONE
③	564	55	TOP OF WEATHER VANE ON LODGE	NONE
④	550	41	TERRAIN, TREES	NONE
⑤	604	54	TERRAIN, TREES	NONE

<p>AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____</p> <p>By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600</p> <p>FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION</p> <p>APPROVED: _____ STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF</p> <p>APPROVED: _____ P.M. PROJECT MANAGER</p>	<p>DATE SEPT 26, 2001</p> <p>DESIGN SC _____</p> <p>DRAWN CP _____</p> <p>CHECKED DLM _____</p>	<p>TALKEETNA AIRPORT</p> <p>AIRPORT LAYOUT PLAN F.A.R. PART 77 SURFACES</p>	<p>SHEET 7 OF 13</p>
<p>FILE: I:\479100\DWGS\ALP_SEPT01\ALP07REV.DWG</p>		<p>BY _____ DATE _____ REVISIONS _____</p>		



GRAPHIC SCALE
1:2000

BLDG. NO.	STRUCTURE NAME	TOP ELEV.	OBSTRUCTION MARKING Y/N		REMARKS
			EXISTING	ULTIMATE	
1	FLIGHT SERVICE STATION	110.3m (362')	N	N	
2	TALKEETNA AIR TAXI	109.1m (358')	N	N	
3	TALKEETNA AIR TAXI	110.8m (370')	N	N	
4	TALKEETNA AIR TAXI	107.9m (354')	N	N	
5	TALKEETNA AIR TAXI	107.3m (352')	N	N	
6	TALKEETNA AIR TAXI	107.0m (351')	N	N	
7	AW SERVICES HANGER	112.2m (368')	N	N	
8	JQUES ADVENTURE COMPANY HANGER	111.3m (365')	N	N	
9	K2 ADVENTURES, INC HANGER	111.3m (365')	N	N	
10	K2 ADVENTURES, INC	107.6m (353')	N	N	
11	K2 ADVENTURES, INC	107.6m (353')	N	N	
12	K2 ADVENTURES, INC FBO	108.8m (357')	N	N	
13	K2 ADVENTURES, INC	107.6m (353')	N	N	
14	K2 ADVENTURES, INC	108.8m (357')	N	N	
15	TALKEETNA AERO SERVICES, INC HANGER	111.2m (365')	N	N	
16	TALKEETNA AERO SERVICES, INC.	109.4m (359')	N	N	
17	HUDSON AIR SERVICE, INC.	109.7m (360')	N	N	
18	HUDSON AIR SERVICE, INC HANGER	115.1m (371')	N	N	
19	DOUG GEETING AVIATION, INC & AURORA AIR REPAIR, INC	113.4m (372')	N	N	
20	ROGER FISCHER	111.9m (367')	N	N	
21	FLIGHT SERVICE STATION	108.2m (355')	N	N	
22	FLIGHT SERVICE STATION	107.6m (353)	N	N	
23	EXISTING WIND CONE & SEG. CIRCLE	110.0m (353)	N	N	



AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED _____

By: _____ DATE: _____
FAA AIRPORTS DIVISION
ALASKAN REGION, AAL-600

FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: _____
STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF
APPROVED: _____
P.M.T.

DATE SEPT 26, 2001
DESIGN SC
DRAWN CP
CHECKED DLM

TALKEETNA AIRPORT

AIRPORT LAYOUT PLAN
TERMINAL AREA PLAN

SHEET
8
OF
13

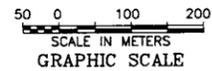
LINE	DIRECTION	DISTANCE
L1	S 43°49'12" E	60.844m [199.62']
L2	S 42°27'12" E	31.981m [104.92']
L3	S 39°37'12" E	31.981m [104.92']
L4	S 36°47'12" E	31.981m [104.92']
L5	S 33°57'12" E	31.981m [104.92']
L6	S 31°07'12" E	31.981m [104.92']
L7	S 28°17'12" E	31.981m [104.92']
L8	S 25°27'12" E	31.981m [104.92']
L9	S 22°37'12" E	31.981m [104.92']
L10	S 19°47'12" E	31.981m [104.92']
L11	S 16°57'12" E	31.981m [104.92']
L12	S 14°07'12" E	31.981m [104.92']
L13	S 11°18'12" E	31.981m [104.92']
L14	S 08°28'12" E	31.981m [104.92']
L15	S 05°38'12" E	31.981m [104.92']
L16	S 02°48'12" E	31.981m [104.92']
L17	S 00°00'12" E	31.981m [104.92']
L18	S 02°51'48" W	31.981m [104.92']
L19	S 05°41'48" W	31.981m [104.92']
L20	S 08°31'48" W	31.981m [104.92']
L21	S 08°43'48" W	3.761m [12.34']

STANDARD NOTES

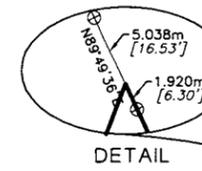
- The minimum closure of all traverses, meets or exceeds 1:10,000.
- The Basis of Bearings for this survey is the (forward or mean) NAD83 geodetic bearing between _____ and _____ according to _____
- The bearings shown are local plane bearings as oriented to the basis of bearings, and distances shown are reduced to horizontal ground distances. Meter to Foot conversion factor is 3937/1200.
- Basis of Control Ties and coordinates for these points.

The information shown is based on filed surveys performed by USKH Inc. during October 1997 - September 1998. The survey was performed in order.

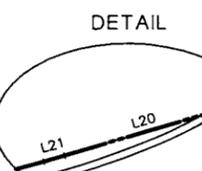
Sections 25, T26N, R5W, & Sections 19 & 30, T26N, R4W, S.M. Alaska



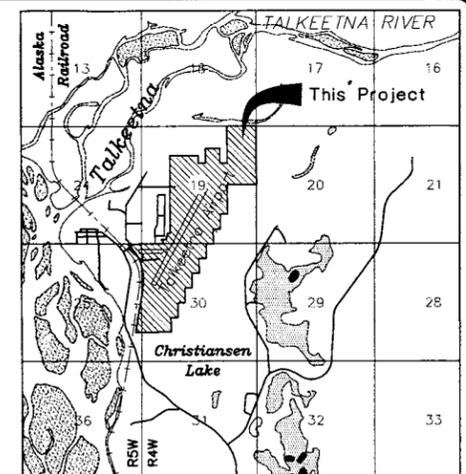
SCALE IN METERS
GRAPHIC SCALE



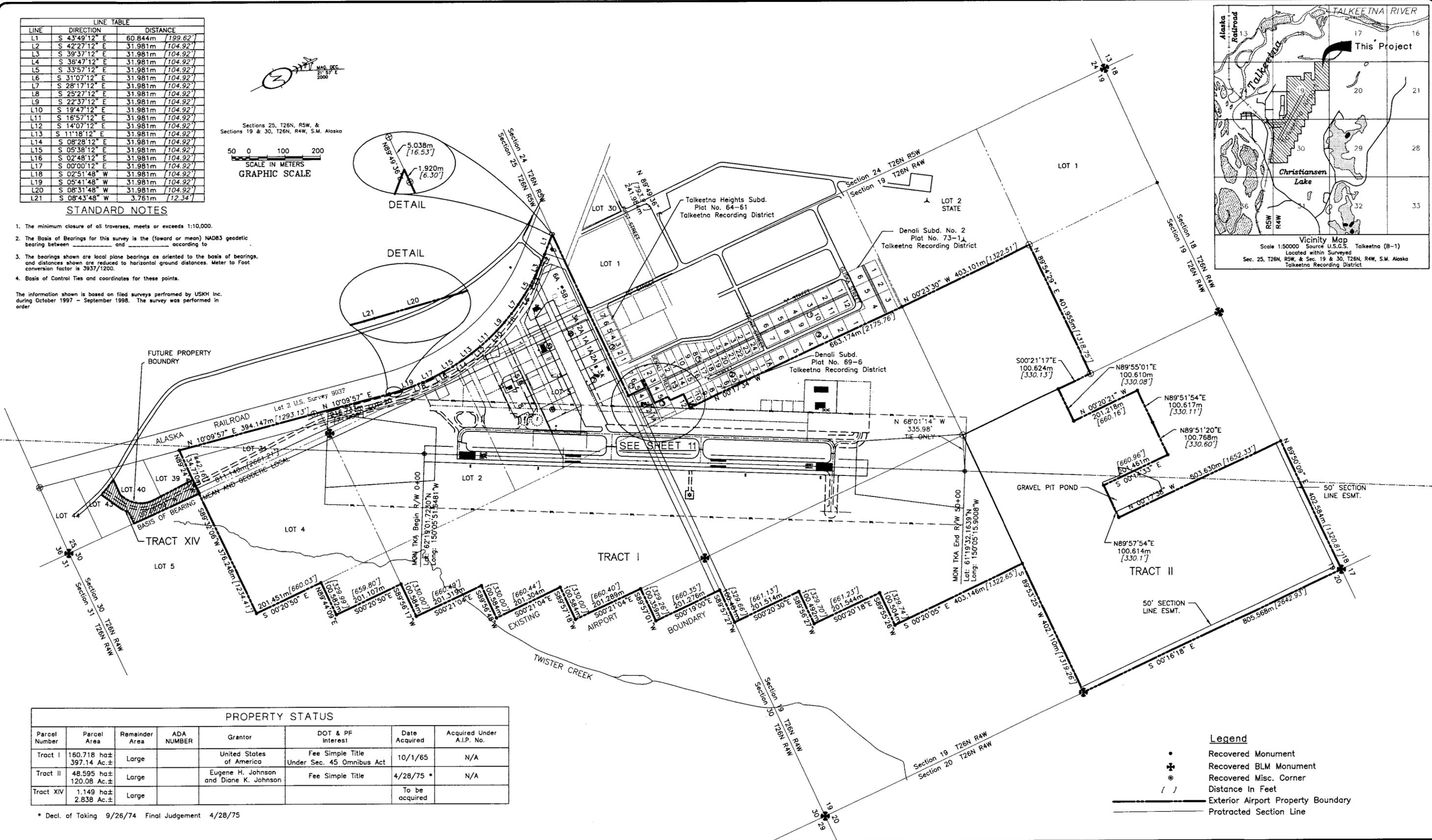
DETAIL



DETAIL



Vicinity Map
Scale 1:50000 Source U.S.G.S. Talkeetna (B-1)
Located within Surveyed
Sec. 25, T26N, R5W, & Sec. 19 & 30, T26N, R4W, S.M. Alaska
Talkeetna Recording District



PROPERTY STATUS

Parcel Number	Parcel Area	Remainder Area	ADA NUMBER	Grantor	DOT & PF Interest	Date Acquired	Acquired Under A.I.P. No.
Tract I	160.718 ha± 397.14 Ac.±	Large		United States of America	Fee Simple Title Under Sec. 45 Omnibus Act	10/1/65	N/A
Tract II	48.595 ha± 120.08 Ac.±	Large		Eugene H. Johnson and Diane K. Johnson	Fee Simple Title	4/28/75 *	N/A
Tract XIV	1.149 ha± 2.838 Ac.±	Large				To be acquired	

* Decl. of Taking 9/26/74 Final Judgement 4/28/75

- Legend**
- Recovered Monument
 - ⊕ Recovered BLM Monument
 - ⊙ Recovered Misc. Corner
 - [] Distance In Feet
 - Exterior Airport Property Boundary
 - - - Protracted Section Line

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AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED _____

By: _____ DATE: _____
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-600

FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: _____ DESIGN SECTION CHIEF
STEPHEN M. RYAN, P.E.

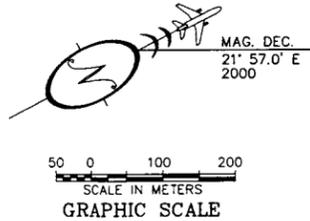
APPROVED: _____ PROJECT MANAGER

DATE SEPT 26, 2001
DESIGN SC
DRAWN CP
CHECKED DLM

TALKEETNA AIRPORT

AIRPORT LAYOUT PLAN
AIRPORT PROPERTY PLAN

SHEET
10
OF
13



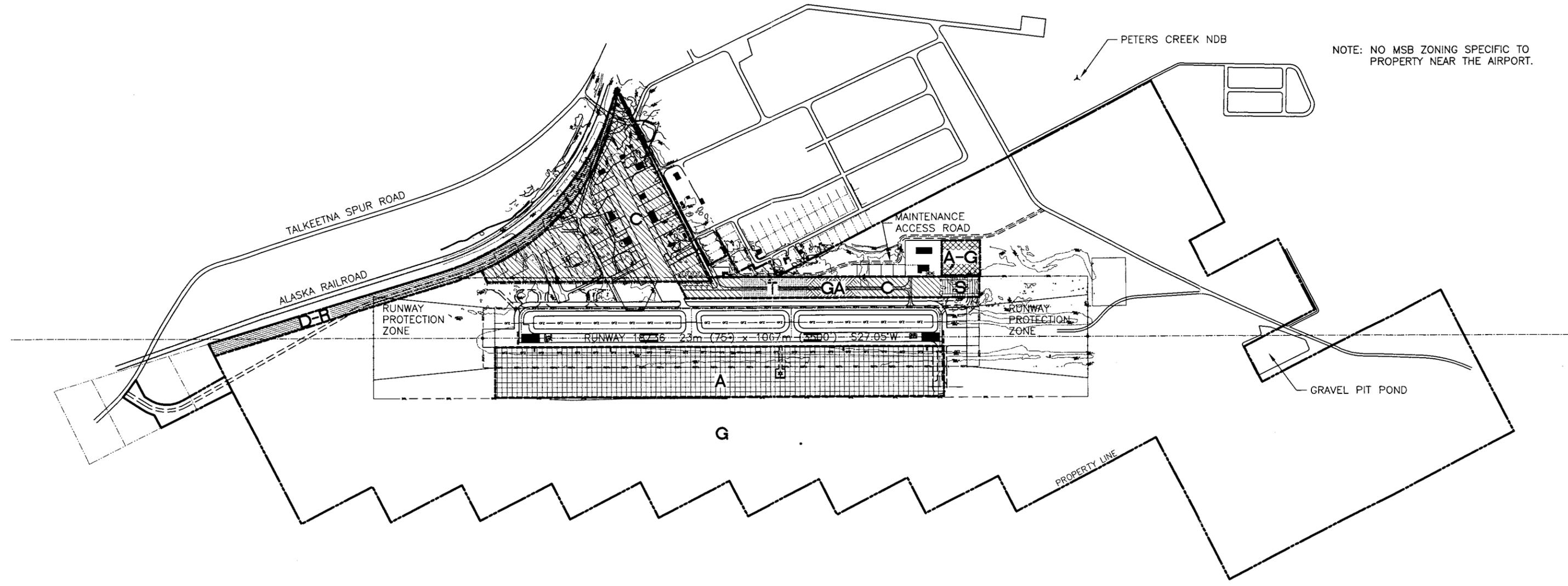
LEGEND

- EXISTING PAVEMENT
- - - FUTURE DEVELOPMENT
- · - · - EXISTING PROPERTY LINE
- ▭ LAND USE BOUNDRY
- EXISTING BUILDING
- BRL- BUILDING RESTRICTION LINE

AIRPORT LAND USE LEGEND

- A** AVIATION
- C** COMMERCIAL (AVIATION)
- GA** GENERAL AVIATION
- D-R** DRAINAGE RESERVE
- G** GENERAL
- A-G** AVIATION (GOVERNMENT)
- T** TRANSIENT
- S** SKI-PLANE

NOTE: NO MSB ZONING SPECIFIC TO PROPERTY NEAR THE AIRPORT.



FILE: I:\479100\DWGS\ALP_SEPT01\ALP12REV.DWG	AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____ By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600 FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>BY</th> <th>DATE</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	BY	DATE	REVISIONS										STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION APPROVED: _____ STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF APPROVED: _____ PROJECT MANAGER	DATE SEPT 26, 2001 DESIGN SC DRAWN CP CHECKED DLM	TALKEETNA AIRPORT AIRPORT LAYOUT PLAN AIRPORT LAND USE PLAN	SHEET 12 OF 13
BY	DATE	REVISIONS																

A. Purpose

This narrative report is included with the Airport Layout Plan (ALP) for Talkeetna, Alaska, in accordance with Federal Aviation Administration (FAA) Airport Design Advisory Circular (AC) 150/5300-13, Change 6, Appendix 7. The rationale for improvements at Talkeetna Airport is outlined in this narrative report.

B. Introduction

Talkeetna is a rural, unincorporated community located 113 air km (70 air mi) north of Anchorage. The town is located at the end of the Talkeetna Spur Road, about 24 km (15 mi) off the George Parks Highway. The community has approximately 772 year-round residents.

C. Airport Usage and Forecasts

Current Usage

The FAA National Plan of Integrated Airport Systems (NPIAS) lists Talkeetna as a general aviation (GA) airport. The Alaska Aviation System Plan (AASP) classifies Talkeetna Airport as a local airport. A local airport is defined as an airport that serves as secondary access to a community served by another mode as primary access. The George Parks Highway is the primary means of access to Talkeetna. Talkeetna Airport has no scheduled commercial flights. Several air taxi services are based in Talkeetna year-round, and several more are based during the summer months.

Talkeetna Airport is primarily served by single-engine airplanes, such as the Cessna 206 and Piper Cherokee. Some small twin-engine aircraft, such as the DeHavilland Twin Otter and the Piper Navajo, occasionally serve Talkeetna. The National Park Service (NPS) operates both fixed-wing aircraft and helicopters at Talkeetna Airport during the summer mountain climbing season. The Army National Guard supports the NPS with search and rescue and other functions related to Denali National Park and Preserve (DNPP). The Army National Guard uses CH-47 Chinook/Boeing Vertol 234 helicopters for high altitude rescue of mountain climbers.

Forecasted Usage

Tourism is the most significant factor in forecasting passenger enplanements and aircraft operations at Talkeetna. Tourism is growing in the Talkeetna area and Alaska in general. Recent developments to accommodate this growth include the Talkeetna Alaskan Lodge and the new Alaska Railroad Corporation (ARRC) depot.

A time-series forecast based on 5% annual growth was used to predict passenger enplanements at Talkeetna Airport for the planning period. This is slightly less than has occurred historically, but is comparable to Matanuska-Susitna Borough expectations for growth in the Talkeetna area. Tables 1, 2, and 3, summarize aviation forecast data.

Table 1

FORECAST DATA								
PASSENGER ENPLANEMENTS		AIRCRAFT OPERATIONS						AIR CARGO
Year	TOTAL	Air Taxi	GA	Military	Helicopter	TOTAL	Critical Aircraft	kg (lbs)
1995	18,000	12,500	6,500	500	900	20,400	62.8 %	2495 (5,500)
2000	22,900	15,900	7,200	500	950	24,550	62.0 %	2948 (6,500)
2005	29,300	20,300	8,000	500	1,000	29,800	64.0 %	3692 (8,000)
2010	37,400	26,000	8,900	500	1,050	36,450	64.0 %	4309 (9,500)
2015	47,700	33,100	9,900	500	1,100	44,600	64.0 %	5443 (12,000)
Annual Growth Rate (1995-2015)	5%						0.1 %	

Table 2

GA ITENERANT AND LOCAL OPERATIONS SPLIT			
YEAR	ITENERANT	LOCAL	TOTAL
1995	2,925	3,575	6,500
2000	3,240	3,960	7,200
2005	3,600	4,400	8,000
2010	4,005	4,895	8,900
2015	4,455	5,445	9,900

As the existing aircraft fleet ages, it will become increasingly difficult to replace small single-engine aircraft, as they are no longer being manufactured. The future aircraft fleet will include more light, twin-engine aircraft such as the Piper Navajo and the Cessna 441, the forecasted critical aircraft. Table 4 summarizes information about this aircraft.

Table 4

CRITICAL AIRCRAFT - CESSNA 441	
Approach Speed	91 but less than 121 knots
Wingspan	15.0 m (49.3')
Weight	4502 kg (9925 lbs)
Airport Reference Code	B-II

D. Design Rationale

1. Airport Reference Code

Talkeetna Airport meets ARC B-II design standards and supports non-precision instrument approaches. This configuration will accommodate both the existing and forecasted aircraft fleet. Table 5 summarizes the design standards for the Talkeetna Airport.

Table 5

TALKEETNA AIRPORT DESIGN STANDARDS (B-II)			
	EXISTING	STANDARD	FUTURE
Runway Length	1067 m (3500')	1057 m (3470')	1067 m (3500')
Runway Width	23 m (75')	23 m (75')	23 m (75')
Runway Shoulder Width	3 m (10')	3 m (10')	3 m (10')
Runway Safety Area Width	45 m (150')	45 m (150')	45 m (150')
Runway Safety Area Length beyond runway ends	90 m (300')	90 m (300')	90 m (300')
Runway Object Free Area Width	150 m (500')	150 m (500')	150 m (500')
Runway Obstacle Free Zone Width	75 m (250')	75 m (250')	75 m (250')
Runway Obstacle Free Zone Length beyond runway ends	60 m (200')	60 m (200')	60 m (200')
Taxiway Width	10.5 m (35')	10.5 m (35')	10.5 m (35')
Taxiway Shoulder Width	3 m (10')	3 m (10')	3 m (10')
Taxiway Safety Area Width	24 m (79')	24 m (79')	24 m (79')
Taxiway Object Free Area Width	40 m (131')	40 m (131')	40 m (131')
Parallel Taxiway Width	10.5 m (35')	10.5 m (35')	10.5 m (35')
Parallel Taxiway Shoulder Width	3 m (10')	3 m (10')	3 m (10')
Parallel Taxiway Safety Area Width	24 m (79')	24 m (79')	24 m (79')
Parallel Taxiway Object Free Area Width	40 m (131')	40 m (131')	40 m (131')
Runway Centerline to Taxiway Centerline	72 m (240')	72 m (240')	72 m (240')
Aircraft Parking Area Setback	75 m (250')	75 m (250')	75 m (250')
Runway Protection Zone Length (Typ.)	300 m (1000')	300 m (1000')	300 m (1000')
Runway Protection Zone Inner Width (Typ.)	150 m (500')	150 m (500')	150 m (500')
Runway Protection Zone Outer Width (Typ.)	210 m (700')	210 m (700')	210 m (700')
Approach Slope Angle			
Runway 36	34:1	34:1	34:1
Runway 18	34:1	34:1	34:1

2. Airport and Terminal NAVADS

The runway has medium intensity runway lights (MIRL) and four visual approach slope indicators (VASI) as visual approach aids. There are existing non-precision instrument approaches, which use the Talkeetna very high frequency omni-direction range/distance measuring equipment (VOR/DME), the Peters Creek non directional beacon (NDB), and global positioning system (GPS).

3. Wind Coverage

Extensive wind data have been collected at Talkeetna Airport. The existing runway has a true azimuth of 27 degrees. Winds are predominantly from the north to north-northeast and the south, and are generally light. Wind coverage is 99.90 percent using a 24 km/h (13 knot) crosswind component.

4. Apron

The current commercial apron area measures approximately 21 600 m² (26,670 sy). An additional 7700 m² (8,880 sy) apron was constructed in 1997 for GA aircraft. These aprons include taxilane and lease lot setbacks, leaving approximately 21 000 m² (25,200 sy) of apron available for aircraft parking. The ultimate requirement for aircraft parking is 43 600 m² (52,320 sy), requiring 22 600 m² (27,120 sy) of new apron development by the year 2015. Table 6 summarizes apron requirements for Talkeetna Airport.

Table 6

TALKEETNA AIRPORT FACILITY REQUIREMENT SUMMARY TABLE					
YEAR	1995	2000	2005	2010	2015
Air Taxi Apron	3750 m ² (4,500 sy)	4750 m ² (5,700 sy)	6000 m ² (7,200 sy)	7500 m ² (9000 sy)	9250 m ² (11,100 sy)
Local Aircraft Apron	11 750 m ² (14,100 sy)	14 750 m ² (17,700 sy)	18 000 m ² (21,600 sy)	22 000 m ² (26,400 sy)	26 250 m ² (31,500 sy)
Transient Aircraft Apron	3600 m ² (4,320 sy)	4200 m ² (5,040 sy)	5100 m ² (6,120 sy)	6000 m ² (7,200 sy)	7200 m ² (8,640 sy)

5. Secondary Access Road

The primary access to the airport is from Second Avenue, which crosses the ARRC tracks adjacent to airport property. This road may be blocked by a parked train, making access to the airport impossible. A secondary access road will be constructed east of the ARRC tracks from the existing interior airport access road, to the Talkeetna Spur Road, terminating east of the railroad/Spur Road intersection. This alignment permits access to the airport in the event that Second Avenue is blocked by a train.

6. Heliport

Helicopter operations currently occur on a gravel pad just south of the existing commercial apron.

7. Compass Calibration Pad

A new compass calibration pad (CCP) will be located east of Runway 18. The CCP will have an 18 m (60') radius. It will be connected to the runway by an 11 m (35') wide and 100 m (320') long perpendicular taxiway.

E. Staged Development

Development at Talkeetna Airport will occur in three phases. Phased development is intended to ensure that each project being undertaken integrates well with the intent of the entire master plan and will lead to the eventual development of the airport as outlined in this ALP. Table 7 outlines the Transportation Improvement Program (TIP) development costs for each phase and estimated funding sources.

Table 7

DEVELOPMENT PHASE	FUNDING SOURCE	
	PROJECT COST	FEDERAL STATE
PHASE 1 - SHORT-TERM		
Hydrologic Study	\$70,000.00	\$65,625.00 \$4,375.00
Commercial Apron Phase 1 (south, 13 300m ²)	\$464,000.00	\$435,000.00 \$29,000.00
Large Lease Lots (south apron, 5 ea.)	\$172,000.00	\$161,250.00 \$10,750.00
Property Acquisition (Portion of L11, b2, Denali Subd Tract XIII)	\$13,000.00	\$12,187.50 \$812.50
Access Road (Second Ave. to M&O site)	\$151,000.00	\$141,562.00 \$9,437.50
Transient Apron Phase 1 (4200m ²)	\$523,000.00	\$490,312.50 \$32,687.50
Install AWOS	\$150,000.00	\$140,625.00 \$9,375.00
Relocate segmented circle/ARB and new windsock	\$23,000.00	\$21,562.50 \$1,437.50
Floodplain Mitigation	\$3,700,000.00	\$3,468,750.00 \$231,250.00
GA Auto Parking	\$61,000.00	\$0.00 \$61,000.00
TOTAL PHASE 1 COSTS	\$5,327,000.00	\$4,936,875.00 \$390,125.00
PHASE 2 - MID-TERM		
Remediate Abandoned Landfill	\$2,200,000.00	\$2,062,500.00 \$137,500.00
Large Lease Lots (south apron, 3 ea.)	\$160,000.00	\$150,000.00 \$10,000.00
Transient Apron Phase 2	\$250,000.00	\$234,375.00 \$15,625.00
TOTAL PHASE 2 COSTS	\$2,610,000.00	\$2,446,875.00 \$163,125.00
PHASE 3 - LONG-TERM		
Commercial Apron Phase 2 (south, 4500m ²)	\$120,000.00	\$112,500.00 \$7,500.00
Large Lease Lots (south apron, 2 ea.)	\$30,000.00	\$28,125.00 \$1,875.00
Small Lease Lots (south apron, 3 ea.)	\$15,000.00	\$14,062.50 \$937.50
CCP w/Taxiway	\$130,000.00	\$121,875.00 \$8,125.00
GA/Commercial/Ski Plane Apron (north)	\$720,000.00	\$675,000.00 \$45,000.00
Small Lease Lots (north, 4 ea.)	\$90,000.00	\$84,375.00 \$5,625.00
Government Lease Reserve	\$190,000.00	\$178,125.00 \$11,875.00
Secondary Access Road	\$1,400,000.00	\$1,312,500.00 \$87,500.00
Land Acquisition (Tract XIV)	\$36,000.00	\$33,750.00 \$2,250.00
TOTAL PHASE 3 COSTS	\$2,731,000.00	\$2,560,312.50 \$170,687.50
TOTAL	\$10,668,000.00	\$9,944,062.50 \$723,937.50

F. Property Status

The airport property comprises 270 ha (667 acres). The land currently occupied by the airport is owned by the State of Alaska, which is the major landowner in the Talkeetna area. Land at the airport is used for the location of government facilities; aircraft runways, taxiways, and aprons; and lease holder facilities including hangars and commercial services. Airport development requires acquiring approximately 0.012 ha (0.03 acres) of privately held land to construct Second Avenue to the M&O site access road.

G. Non-Standard Conditions

The Talkeetna sewage lagoon is located approximately 564m (1850') to the center of the runway.

Careful attention should be given to drainage, refuse disposal, and vegetation management factors which could individually and cumulatively increase wildlife numbers at the airport. If permission to conduct wildlife deterrent efforts around the sewage lagoon can be obtained, efforts to exclude wildlife from these areas should be implemented.

Tundra tire and ski-equipped aircraft separate from the graded area on the extended Runway 18 Centerline. Adequate separation distance is not available without impact to wetlands and/or adjacent property owners. Pilots should be warned of this condition.

H. Community Involvement

The State of Alaska Department of Transportation and Public Facilities (DOT&PF) Planning Section has informed and updated the residents of Talkeetna of the proposed airport development through written correspondence, newsletters, and community meetings held in Talkeetna. Community meetings were held in Talkeetna in March 1996, June 1997, and April 1998. Agency scoping meetings were held in March 1996 and November 1998. A fourth public meeting held on August 23, 2000, presented Alternative 5 which was revised in response to public and agency comments. A fifth public meeting was held on March 14, 2001, to present Alternative 6. Based on significant opposition to any of the proposed heliport locations, Alternative 7 was chosen as the Preferred Alternative. In addition, agency personnel were contacted directly to determine any concerns. The project included preparation of an environmental assessment (EA) and issuance of a finding of no significant impact (FONSI) from FAA. The EA and permitting process provided additional opportunity for community involvement and comment. Correspondence from residents and agencies is on file with the DOT&PF at their Central Region office in Anchorage.

I. Future Land Development

The local government is encouraged to limit land uses in the vicinity of the airport to protect from operational impacts and to protect the health, safety, and welfare of its citizens. Land in the vicinity of the airport should not be used in any way that might create electrical interference with navigational signals or radio communication between the airport and aircraft. Such interferences could make it difficult for pilots to distinguish between airport lights and others, resulting as glare in the eyes of the pilot using the airport; impair visibility in the vicinity of the airport; create bird strike hazards; create obstructions to air navigation; or otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft intending to use the airport.

J. Noise

Helicopter noise at Talkeetna is a concern to residents. DOT&PF will post signs restricting night-time helicopter operations to mitigate noise impacts to the nearby residential community. Compliance with the restricted hours will be voluntary and will not apply to emergency operations.

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED _____ By: _____ DATE: _____ FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-600 FAA AIRSPACE REVIEW NUMBER: 00-AAL-180-NRA	BY _____ DATE _____ REVISIONS _____	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION APPROVED: _____ STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF APPROVED: _____ P.M.	DATE SEPT 26, 2001 DESIGN SC _____ DRAWN CP _____ CHECKED DLN _____	TALKEETNA AIRPORT AIRPORT LAYOUT PLAN NARRATIVE REPORT	SHEET 13 OF 13
	APPROVAL SIGNATURES AND DATES				