APPENDIX 6.2-4

EQUIVALENT ANNUAL DEPARTURE

- Equivalent Annual Departure -

(1) Aircraft Consideration

The aircraft types considered in the design are shows below.

Category	Design Aircraft	Seating Capacity	Gross Weight	Note
			ton	
LJ-1	B-747	350	395	Int'l
LJ-2	B-777	350	230	CIS
MJ-1	B-767	200	160	Int'l of CIS
MJ-2	TU-154	200	100	Domes
SJ-1	B-737	100	60	CIS
SJ-2	RJ-85	100	45	Domes
MP	IL-114	50	25	CIS of Domes
Freighter	IL-76	--	190	Int'l of CIS

(2) Traffic Forecast

a. Design Life : 20 years (2000-2020)

b. Forecasted Demand : cf Chapter 4

(3) Calculation of Equivalent Annual Departure (EAD)

EAD with regard to various aircraft were calculated with the following formula:

$$\text{Log}\, R_1 = \log R_2 \times (w_1 / w_2)^{1/2}$$

Where, R_1 : Equivalent Annual Departure by the design aircraft

R_2 : Annual Departure expressed in design aircraft landing gear

$= cf \times D$

cf : Convention Factor

D : Annual Departure

w_1 : Wheel Load of the design aircraft

w_2 : Wheel Load of the aircraft in question

Wheel Load of Aircaft

Category	Design Aircaft	Gear type	Wheel Nos (1)	Gross Weight (2)	Wheel Load 0.95×(1)÷(2)	Remark
				ton	ton	
LJ-1	B-747	Complex (dual tandem)	(8)	395 (136.1)	(16.16)	Int'l
LJ-2	B-777	dual tandem	12	230.0	18.21	CIS
MJ-1	B-767	dual tandem	8	160.0	19.00	Int'l and CIS
MJ-2	TU-154	dual tandem	12	100.0	7.92	Domes
SJ-1	B-737	dual	4	60.0	14.25	CIS
SJ-2	RJ-85	dual	4	45.0	10.69	Domes
MP	IL-114	dual	4	25.0	5.94	CIS and Domes
Freighter	IL-76	Complex (dual tandem)	(8)	190 (136.1)	(16.16)	Int'l and CIS

Conversion Factor (cf)

	LJ-1 D.D.T	LJ-2 D.T	MJ-1 D.T	MJ-2 D.T	SJ-1 D	SJ-2 D	MP D	Freighter D.D.T
LJ-1 D.D.T	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.0
LJ-2 OT	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.0
MJ-1 DT	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.0
MJ-2 DT	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.0
SJ-1 D	0.6	0.6	0.6	0.6	1.0	1.0	1.0	0.6
SJ-2 D	0.6	0.6	0.6	0.6	1.0	1.0	1.0	0.6
MP D	0.6	0.6	0.6	0.6	1.0	1.0	1.0	0.6
Freighter D.D.T	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.0

$(W1/W2)^{1/2}$ Calculation

W2 \ W1	LJ-1 16.16	LJ-2 18.21	MJ-1 19.00	MJ-2 7.92	SJ-1 14.25	SJ-2 10.69	MP 5.94	Freighter 16.16
LT-1 16.16	1.000	0.942	0.928	1.428	1.065	1.230	1.649	1.000
LT-2 18.21	1.062	1.000	0.985	1.516	1.130	1.305	1.751	1.062
MJ-1 19.00	1.160	1.015	1.000	1.539	1.147	1.324	1.777	1.160
MJ-2 7.92	0.700	0.659	0.650	1.000	0.746	0.861	1.155	0.700
SJ-1 14.25	0.939	0.885	0.872	1.341	1.000	1.155	1.549	0.939
SJ-2 10.69	0.813	0.766	0.755	1.162	0.866	1.000	1.342	0.813
MP 5.94	0.606	0.571	0.563	0.866	0.646	0.745	1.000	0.606
Freighter 16.16	1.000	0.942	0.928	1.428	1.065	1.230	1.649	1.000

Tashkent/New Tashkent
Equivalent Annual Departure

		EAD Column							
		LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
Converted Aircraft Column	LJ-1 B-747	163	121	113	1,442	399	1,010	10,657	163
	LJ-2 B-777	288	207	191	3,243	754	2,105	28,774	288
	MJ-1 B-767	22,598	6,454	5,669	597,925	37,118	188,252	12,007,834	22,598
	MJ-2 TU-154	119	90	85	925	243	565	4,923	119
	SJ-1 B-737	406	288	265	5,315	1,000	2,917	44,361	406
	SJ-2 RJ-85	566	393	360	8,608	1,333	4,057	69,536	566
	MP IL-114	121	92	86	944	231	531	4,544	121
	Freighter IL-76	782	531	484	13,536	2,121	6,949	141,479	782
E A D Total		25,043	8,176	7,253	631,938	43,199	206,386	12,312,108	25,043

Tashkent
Equivalent Annual Departure

		E AD Column							
		LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
Converted Aircraft Column	LJ-1 B-747								
	LJ-2 B-777								
	MJ-1 B-767	7,589		2,213					
	MJ-2 TU-154	119		85					
	SJ-1 B-737	169		117					
	SJ-2 RJ-85	566		360					
	MP IL-114	116		82					
	Freighter IL-76	307		203					
E A D Total		8,866		3,060					

New Tashkent
Equivalent Annual Departure

		EAD Column							
		LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
Convected Aircraft Column	LJ-1 B-747	163							
	LJ-2 B-777	288							
	MJ-1 B-767	12,732							
	MJ-2 TU-154								
	SJ-1 B-737	254							
	SJ-2 RJ-85								
	MP IL-114	24							
	Freighter IL-76	475							
E A D Total		13,936							

Namanpan
Equivalent Annual Departure

		EAD Column							
		LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
Converted Aircraft Column	LJ-1 B-747								
	LJ-2 B-777								
	MJ-1 B-767			245		1,012	2,945	45,288	
	MJ-2 TU-154								
	SJ-1 B-737			25		69	133	705	
	SJ-2 RJ-85			79		234	544	4,690	
	MP IL-114			80		212	481	3,988	
	Freighter IL-76								
E A D Total				429		1,527	4,103	54,671	

Termez
Equivalent Annual Departure

		EAD Column							
		LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
Convevted Aircraft Column	LJ-1 B-747								
	LJ-2 B-777								
	MJ-1 B-767			219	3,999	888	2,532	36,970	519
	MJ-2 TU-154			18	88	42	75	326	23
	SJ-1 B-737			17	79	44	79	351	21
	SJ-2 RJ-85			154	2,321	502	1,313	15,301	226
	MP IL-114			53	452	133	281	1,938	72
	Freighter IL-76			6	16	14	21	60	7
E A D Total				467	6,955	1,623	4,301	54,946	868

Nukus
Equivalent Annual Departure

		E A D Column							
		LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
Convevted Aircraft Column	LJ-1 B-747								
	LJ-2 B-777								
	MJ-1 B-767			319	7,134	1,367	4,167	72,163	
	MJ-2 TU-154			12	44	25	41	146	
	SJ-1 B-737			25	145	69	133	705	
	SJ-2 RJ-85			111	1,413	347	857	8,631	
	MP IL-114			54	464	136	288	2,000	
	Freighter IL-76								
E A D Total				521	9,200	1,944	5,486	83,645	

Tashkent/New Tashkent
R2 Calculation

	LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
LJ-1 B-747	163	163	163	163	277	277	277	163
LJ-2 B-777	207	207	207	207	352	352	352	207
MJ-1 B-767	5,669	5,669	5,669	5,669	9,637	9,637	9,637	5,669
MJ-2 TU-154	925	925	925	925	1,573	1,573	1,573	925
SJ-1 B-737	600	600	600	600	1,000	1,000	1,000	600
SJ-2 RJ-85	2,434	2,434	2,434	2,434	4,057	4,057	4,057	2,434
MP IL-114	2,726	2,726	2,726	2,726	4,544	4,544	4,544	2,726
Freighter IL-76	782	782	782	782	1,329	1,329	1,329	782

Tashkent
R2 Calculation

	LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
LJ-1 B-747								
LJ-2 B-777								
MJ-1 B-767	2,213		(2,213)					
MJ-2 TU-154	925		925	(925)				
SJ-1 B-737	236		236		(394)			
SJ-2 RJ-85	2,434		2,434			(4,057)		
MP IL-114	2,535		2,535				(4,225)	
Freighter IL-76	307		307					(307)

New Tashkent
R2 Calculation

	LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
LJ-1 B-747	(163)							
LJ-2 B-777	207	(207)						
MJ-1 B-767	3,457		(3,457)					
MJ-2 TU-154								
SJ-1 B-737	364				(607)			
SJ-2 RJ-85								
MP IL-114	191						(319)	
Freighter IL-76	475							(475)

Namangan
R2 Calculation

	LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
LJ-1 B-747								
LJ-2 B-777								
MJ-1 B-767			(245)		417	417	417	
MJ-2 TU-154								
SJ-1 B-737			41		(69)	69	69	
SJ-2 RJ-85			326		544	(544)	544	
MP IL-114			2,393		3,988	3,988	(3,988)	
Freighter IL-76								

Termez
R2 Calculation

	LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
LJ-1 B-747								
LJ-2 B-777								
MJ-1 B-767			(219)	219	372	372	372	219
MJ-2 TU-154			88	(88)	150	150	150	88
SJ-1 B-737			26	26	(44)	44	44	26
SJ-2 RJ-85			788	788	1,313	(1,313)	1,313	788
MP IL-114			1163	1,163	1,938	1,938	(1,938)	1,163
Freighter IL-76			7	7	12	12	12	(7)

Nukus
R2 Calculation

	LJ-1 B-747	LJ-2 B-777	MJ-1 B-767	MJ-2 TU-154	SJ-1 B-737	SJ-2 RJ-85	MP IL-114	Freighter IL-76
LJ-1 B-747								
LJ-2 B-777								
MJ-1 B-767			(319)	319	542	542	542	
MJ-2 TU-154			44	(44)	75	75	75	
SJ-1 B-737			41	41	(69)	69	69	
SJ-2 RJ-85			514	514	857	(857)	857	
MP IL-114			1200	1,200	2,000	2,000	(2,000)	
Freighter IL-76								

Tashkent and New Tashkent
Forecast of Aircraft Movement of Annual Departure

×1000

		LJ-1	LJ-2	MJ-1	MJ-2	SJ-1	SJ-2	MP	Freighter
2000	Int'l			3.4					0.8
	CIS			2.9		0.7		1.7	0.1
	Domes						5.8	11.1	
	Total			6.3		0.7	5.8	12.8	0.9
2005	Int'l			4.9					1.0
	CIS			4.3		1.6		1.5	0.2
	Domes				0.7		7.6	9.1	
	Total			9.2	0.7	1.6	7.6	10.6	1.2
2010	Int'l	0.6		5.8					1.3
	CIS		0.7	4.9		2.4		1.0	0.3
	Domes				0.8		11.0	5.9	
	Total	0.6	0.7	10.7	0.8	2.4	11.0	6.9	1.6
2015	Int'l	0.6		7.2					1.5
	CIS		0.8	6.7		2.3		1.3	0.4
	Domes				3.6		7.8	6.6	
	Total	0.6	0.8	13.9	3.6	2.3	7.8	7.9	1.9
2020	Int'l	0.8		8.6					1.7
	CIS		1.0	8.2		2.7		1.5	0.5
	Domes				5.3		6.3	7.6	
	Total	0.8	1.0	16.8	5.3	2.7	6.3	9.1	2.2
20 years Total		6,500	8,250	226,750	37,000	40,000	162,250	181,750	31,250
Mean Annual Movement		325	413	11,338	1,850	2,000	8,113	9,088	1,563
Mean Annual Departure		163	207	5,669	925	1,000	4,057	4,544	782

Tashkent
Forecast of Aircraft Movement of Annual Departure

		LJ-1	LJ-2	MJ-1	MJ-2	SJ-1	SJ-2	TP	Freighter
2000	Int'l			3.4					0.8
	CIS			2.9		0.7		1.7	0.1
	Domes						5.8	11.1	
	Total			6.3		0.7	5.8	12.8	0.9
2005	Int'l			4.9					1.0
	CIS			4.3		1.6		1.5	0.2
	Domes				0.7		7.6	9.1	
	Total			9.2	0.7	1.6	7.6	10.6	1.2
2010	Int'l			5.8					1.3
	CIS			4.9		2.4		1.0	0.3
	Domes				0.8		11.0	5.9	
	Total			10.7	0.8	2.4	11.0	6.9	1.6
2015	Int'l								
	CIS								
	Domes				3.6		7.8	6.6	
	Total				3.6		7.8	6.6	
2020	Int'l								
	CIS								
	Domes				5.3		6.3	7.6	
	Total				5.3		6.3	7.6	
20 years Total				88,500	37,000	15,750	162,250	169,000	12,250
Mean Annual Movement				4,425	1,850	788	8,113	8,450	613
Mean Annual Departure				2,213	925	394	4,057	4,225	307

New Tashkent
Forecast of Aircraft Movement of Annual Departure

		LJ-1	LJ-2	MJ-1	MJ-2	SJ-1	SJ-2	TP	Freighter
2000	Int'l								
	CIS								
	Domes								
	Total								
2005	Int'l								
	CIS								
	Domes								
	Total								
2010	Int'l	0.6		5.8					1.3
	CIS		0.7	4.9		2.4		1.0	0.3
	Domes								
	Total	0.6	0.7	10.7		2.4		1.0	1.6
2015	Int'l	0.6		7.2					1.5
	CIS		0.8	6.7		2.3		1.3	0.4
	Domes								
	Total	0.6	0.8	13.9		2.3		1.3	1.9
2020	Int'l	0.8		8.6					1.7
	CIS		1.0	8.2		2.7		1.5	0.5
	Domes								
	Total	0.8	1.0	16.8		2.7		1.5	2.2
20 years Total		6,500	8,250	138,250		24,250		12,750	19,000
Mean Annual Movement		325	413	6,913		1,213		638	950
Mean Annual Departure		163	207	3,457		607		319	475

Namangan
Forecast of Aircraft Movement of Annual Departure

×1000

		LJ-1	LJ-2	MJ-1	MJ-2	SJ-1	SJ-2	TP	Freighter
2000	Int'l								
	CIS			0.3		0.1		0.1	
	Domes							6.0	
	Total			0.3		0.1		6.1	
2005	Int'l			0.1					
	CIS			0.4		0.1		0.2	
	Domes							8.2	
	Total			0.5		0.1		8.4	
2010	Int'l			0.1					
	CIS			0.6		0.1		0.2	
	Domes						1.5	7.5	
	Total			0.7		0.1	1.5	7.7	
2015	Int'l			0.2					
	CIS			0.8		0.2		0.3	
	Domes						1.6	8.8	
	Total			1.0		0.2	1.6	9.1	
2020	Int'l			0.2					
	CIS			0.9		0.2		0.4	
	Domes						4.0	6.9	
	Total			1.1		0.2	4.0	7.3	
20 years Total				9,775		2,750	21,750	159,500	
Mean Annual Movement				489		138	1,088	7,975	
Mean Annual Departure				245		69	544	3,988	

Termez
Forecast of Aircraft Movement of Annual Departure

×1000

		LJ-1	LJ-2	MJ-1	MJ-2	SJ-1	SJ-2	TP	Freighter
2000	Int'l								
	CIS			0.2					
	Domes						0.8	4.7	
	Total			0.2			0.8	4.7	
2005	Int'l								
	CIS			0.3		0.1		0.1	
	Domes						2.2	3.6	
	Total			0.3		0.1	2.2	3.7	
2010	Int'l								
	CIS			0.4		0.1		0.1	
	Domes						3.1	3.6	
	Total			0.4		0.1	3.1	3.7	
2015	Int'l			0.1					
	CIS			0.5		0.1		0.2	
	Domes				0.7		2.5	4.5	
	Total			0.6	0.7	0.1	2.5	4.7	
2020	Int'l			0.1					
	CIS			0.6		0.2		0.2	
	Domes				0.7		4.6	1.9	
	Total			0.7	0.7	0.2	4.6	2.1	0.1
20 years Total				8,750	3,500	1,750	52,500	77,500	250
Mean Annual Movement				438	175	88	2,625	3,875	13
Mean Annual Departure				219	88	44	1,313	1,938	7

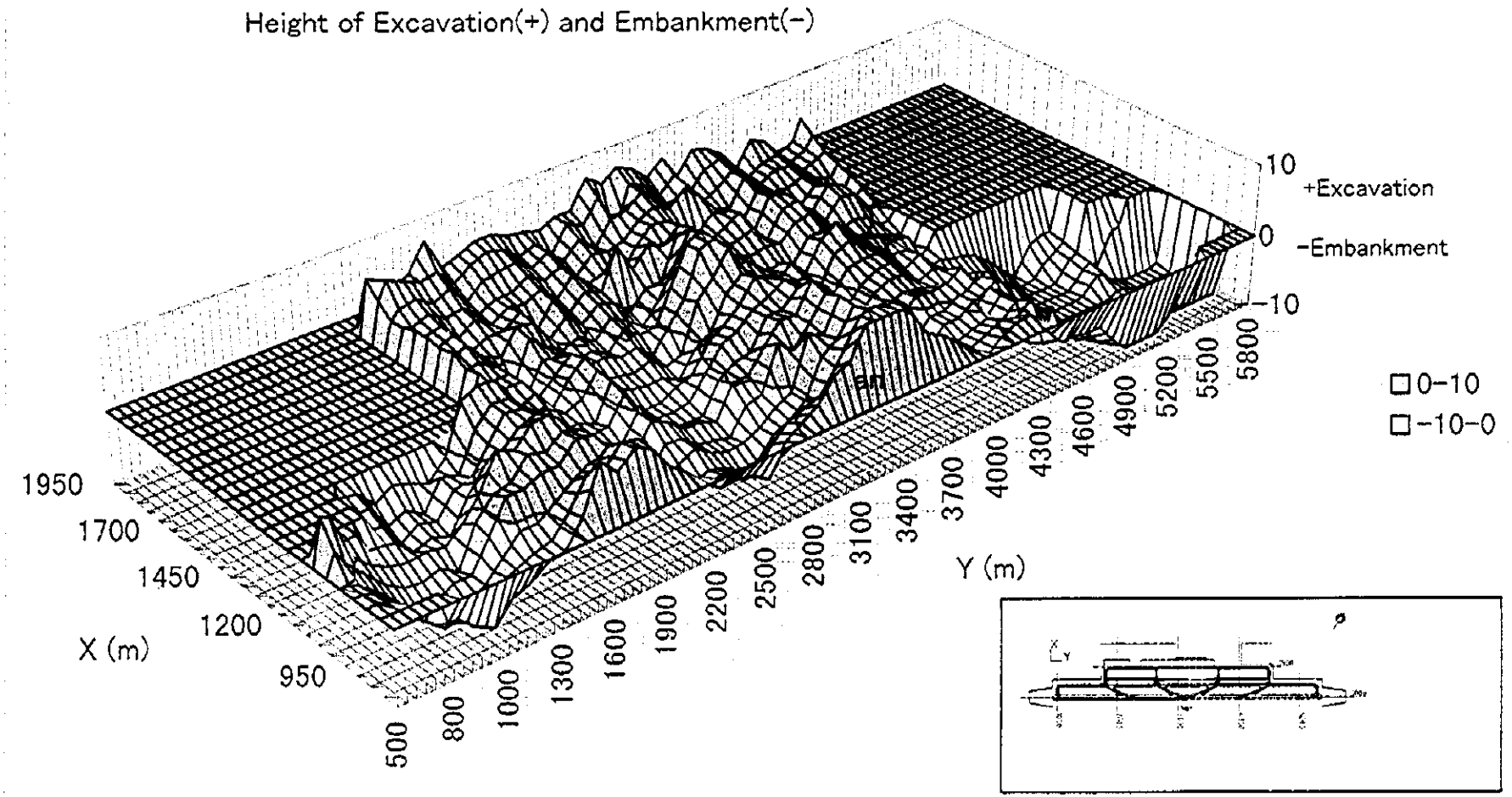
Nukus
Forecast of Aircraft Movement of Annual Departure

×1000

		LJ-1	LJ-2	MJ-1	MJ-2	SJ-1	SJ-2	TP	Freighter
2000	Int'l								
	CIS			0.3		0.1		0.1	
	Domes						0.7	3.6	
	Total			0.3		0.1	0.7	3.7	
2005	Int'l								
	CIS			0.4		0.1		0.2	
	Domes						0.8	4.4	
	Total			0.4		0.1	0.8	4.6	
2010	Int'l			0.1					
	CIS			0.6		0.1		0.2	
	Domes						1.5	4.3	
	Total			0.7		0.1	1.5	4.5	
2015	Int'l			0.1					
	CIS			0.7		0.2		0.3	
	Domes						3.1	2.7	
	Total			0.8		0.2	3.1	3.0	
2020	Int'l			0.1					
	CIS			0.9		0.2		0.4	
	Domes				0.7		2.2	3.7	
	Total			1.0	0.7	0.2	2.2	4.1	
20 years Total				12,750	1,750	2,750	34,250	80,000	
Mean Annual Movement				638	88	138	1,713	4,000	
Mean Annual Departure				319	44	69	857	2,000	

APPENDIX 6.2-5

PRELIMINARY DESIGN OF NEW TASHKENT AIRPORT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+Excavation
0
-Embankment
-10
0-10
-10-0
1950
1700
1450
1200
950
X (m)
500
800
1000
1300
1600
1900
2200
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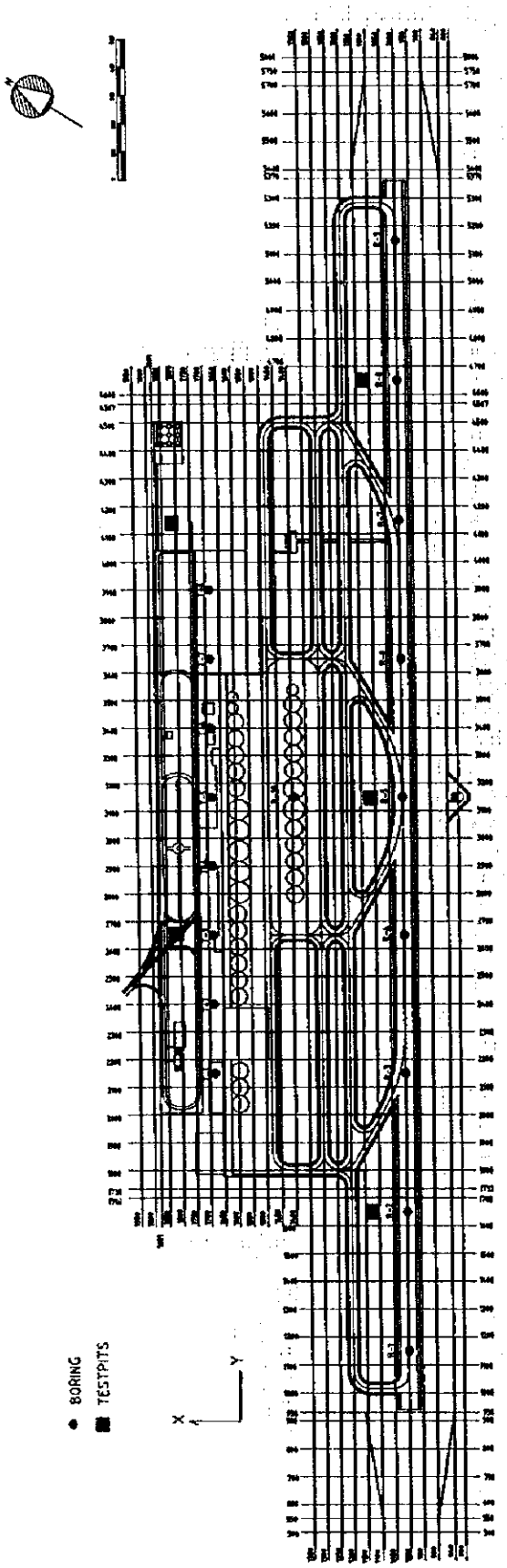
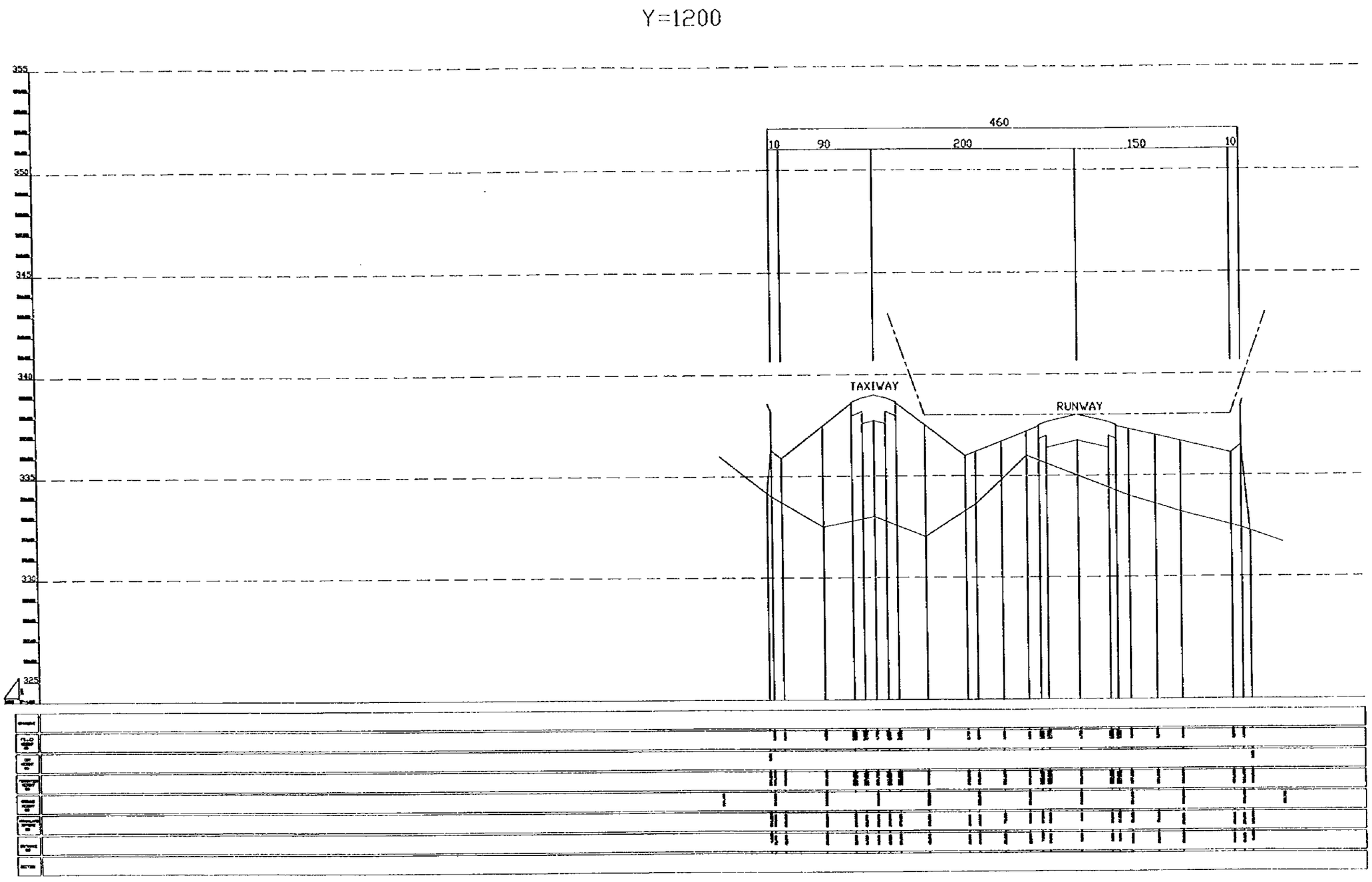
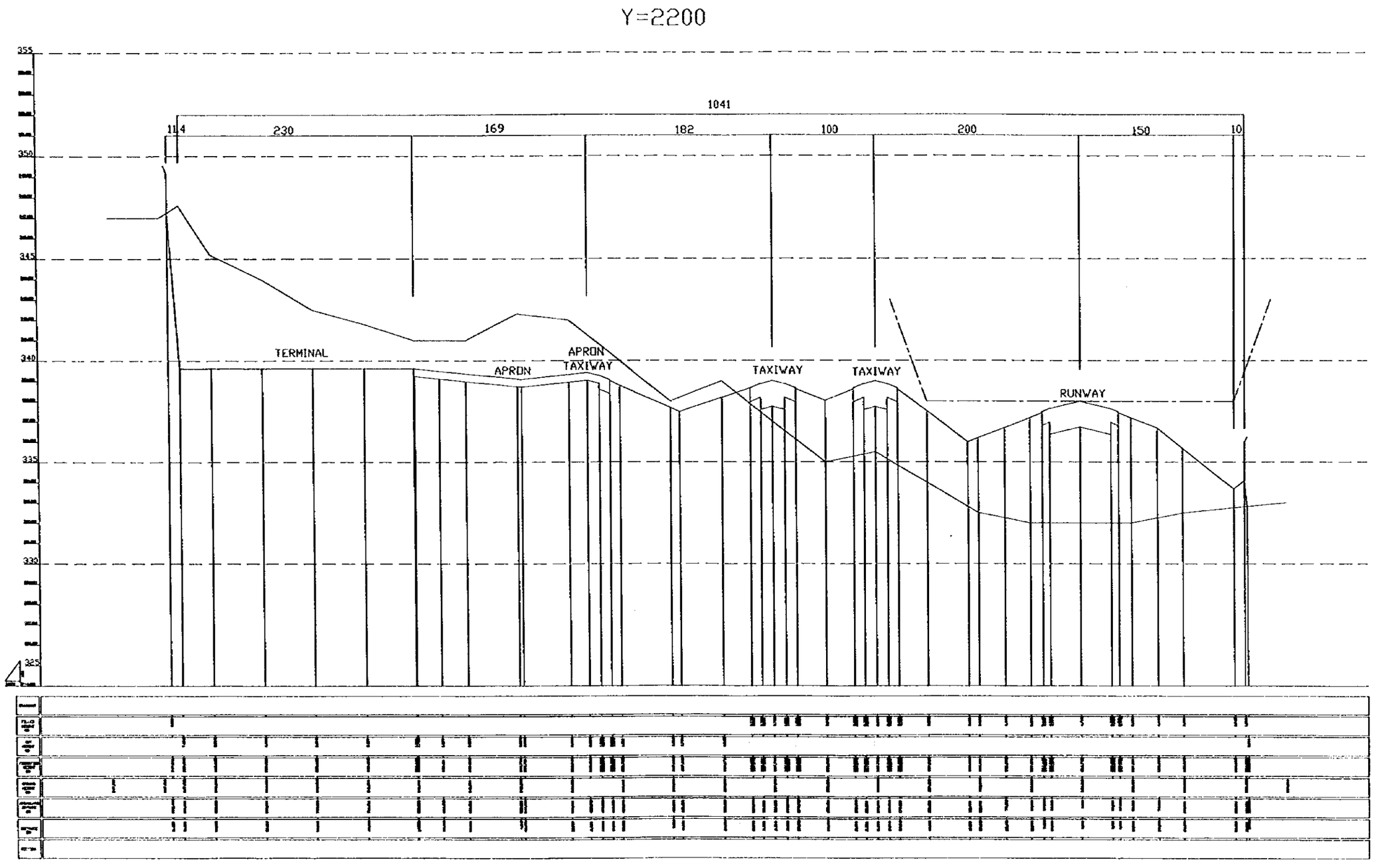

BORING
TESTPITS
X
Y



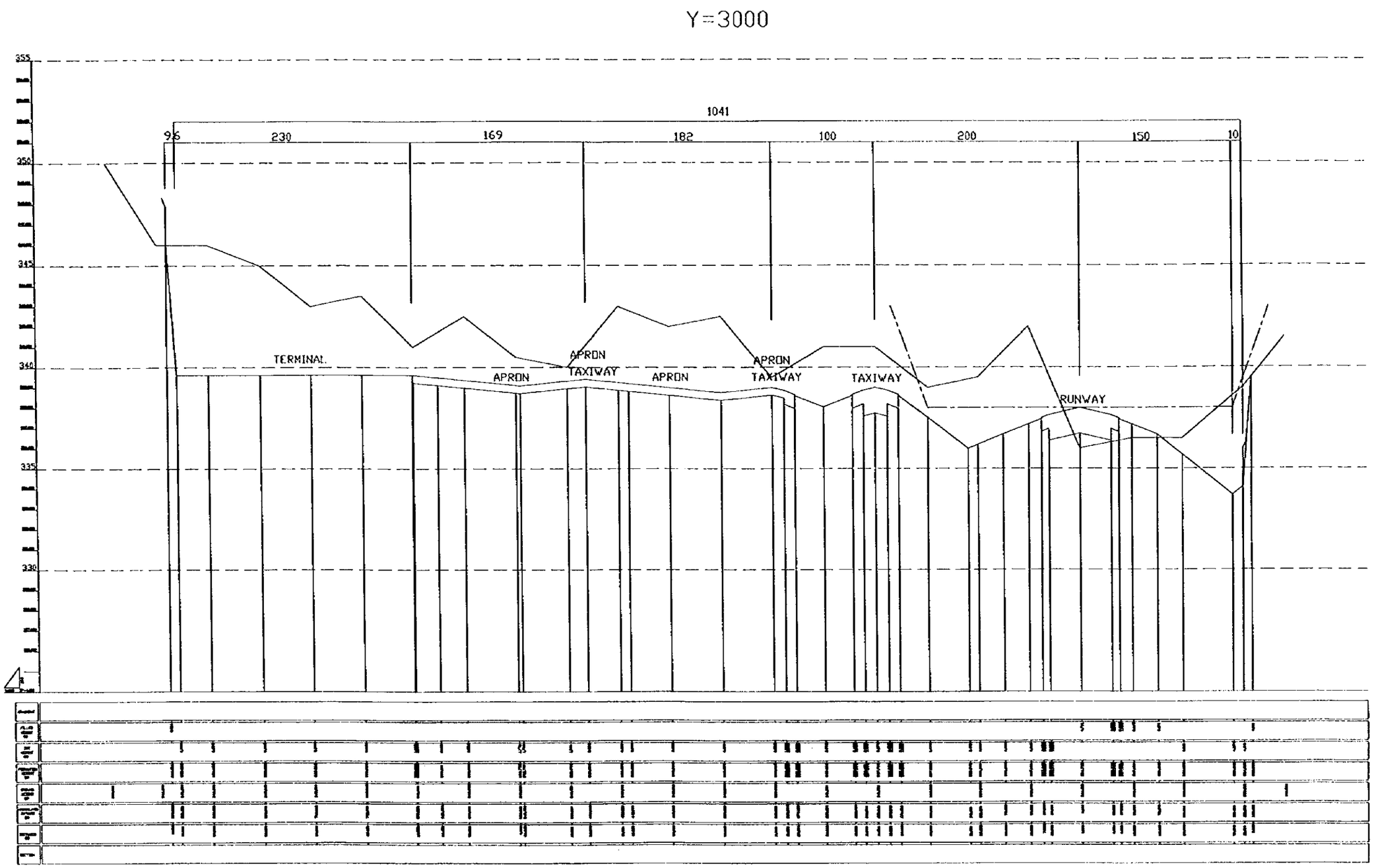
Cross Section (Y=1200) New Tashkent

A6.2-5-3



Cross Section (Y=2200) **New Tashkent**

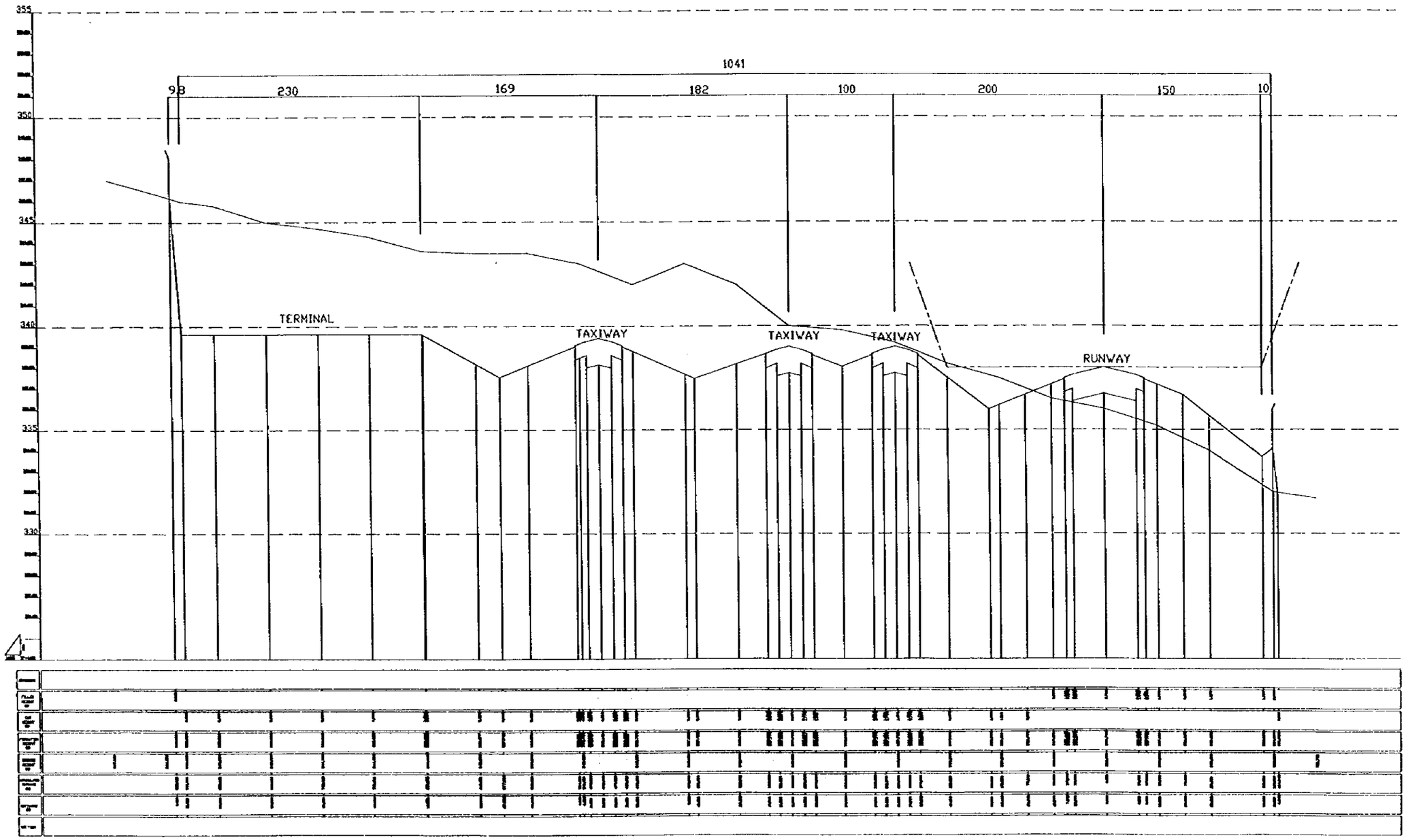
A6.2-5-4



Cross Section (Y=3000) **New Tashkent**

A6.2-5-5

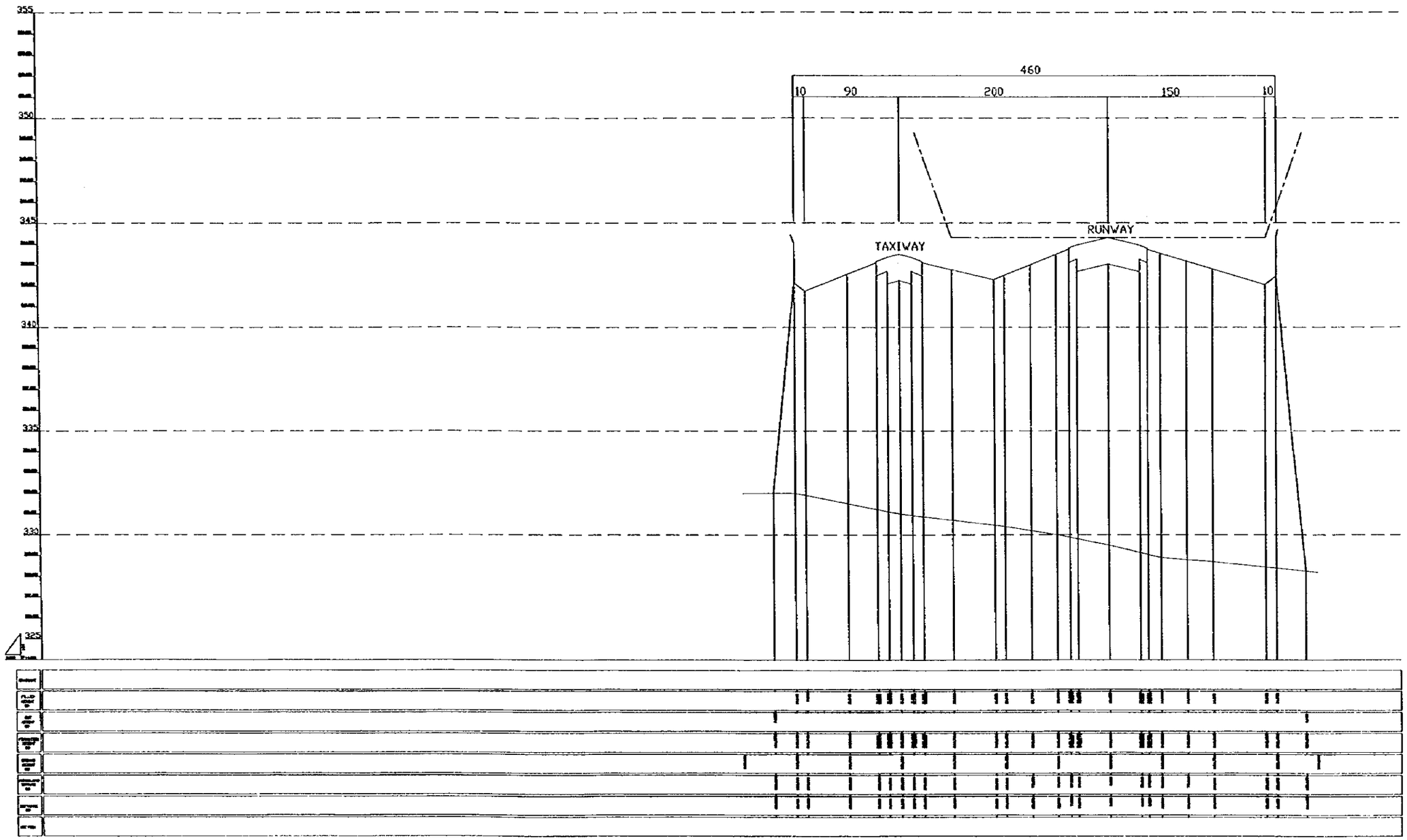
Y=4000



Cross Section (Y=4000) **New Tashkent**

A6.2-5-6

Y=5100



Cross Section (Y=5100) **New Tashkent**

A6.2-5-7

Volume of Earthwork

Planned Height 338m at center of Runway

Station No.	Y	Distance (m)	Embankment Area (m²)	Embankment Average (m²)	Embankment Volume (m³)	Excavation Area (m²)	Excavation Average (m²)	Excavation Volume (m³)
No.-4+50	550	50	2.58	25.04	1,252	328.92	287.79	14,390
No.-4	600	100	47.50	273.55	27,355	246.66	123.38	12,338
No.-3	700	100	499.59	855.76	85,576	0.09	0.05	5
No.-2	800	100	1,211.92	1,532.60	153,260	0.00	-	-
No.-1	900	30	1,853.27	1,874.34	56,230	-	-	-
No.0+70	930	0	1,895.40	2,031.52	0	-	-	-
No.0+70	930	70	2,167.63	2,399.03	167,932	0.00	-	-
No.0	1000	100	2,630.43	2,399.49	239,949	0.00	-	-
No.1	1100	100	2,168.55	1,869.87	186,987	0.00	-	-
No.2	1200	100	1,571.18	1,059.81	105,981	-	98.99	9,899
No.3	1300	100	548.43	449.70	44,970	197.97	354.60	35,460
No.4	1400	100	350.96	175.48	17,548	511.23	899.24	89,924
No.5	1500	100	0.00	-	-	1,287.25	1,794.05	179,405
No.6	1600	100	0.00	-	-	2,300.84	2,378.67	237,867
No.7	1700	33	0.00	-	-	2,456.49	2,397.68	79,125
No.7+33	1733	0	-	-	-	2,338.87	3,795.46	0
No.7+33	1733	67	0.00	-	-	5,252.04	4,757.87	318,777
No.8	1800	100	0.00	23.11	2,311	4,263.69	3,679.81	367,981
No.9	1900	100	46.22	256.46	25,646	3,095.92	2,420.86	242,086
No.10	2000	100	466.70	1,004.02	100,402	1,745.80	1,758.95	175,895
No.11	2100	100	1,541.34	1,583.86	158,386	1,772.10	1,631.33	163,133
No.12	2200	100	1,626.37	1,257.41	125,741	1,490.56	1,856.48	185,648
No.13	2300	100	848.44	1,104.28	110,428	2,222.40	1,807.16	180,716
No.14	2400	100	1,360.11	1,686.21	168,621	1,391.92	1,614.22	161,422
No.15	2500	100	2,012.31	2,265.69	226,569	1,836.52	1,493.26	149,326
No.16	2600	100	2,519.06	2,236.97	223,697	1,149.99	1,422.72	142,272
No.17	2700	100	1,954.88	1,565.28	156,528	1,695.44	1,382.20	138,220
No.18	2800	100	1,175.68	846.92	84,692	1,068.95	1,541.42	154,142
No.19	2900	100	518.15	279.35	27,935	2,013.89	2,520.42	252,042
No.20	3000	100	40.55	20.28	2,028	3,026.95	4,626.98	462,698
No.21	3100	100	0.00	-	-	6,227.01	6,933.91	693,391
No.22	3200	100	0.00	-	-	7,640.81	8,100.59	810,059
No.23	3300	100	-	-	-	8,560.37	7,651.86	765,186
No.24	3400	100	-	-	-	6,743.34	5,516.15	551,615
No.25	3500	100	0.00	-	-	4,288.95	3,763.27	376,327
No.26	3600	100	0.00	55.74	5,574	3,237.58	2,788.77	278,877
No.27	3700	100	111.47	349.61	34,961	2,339.96	2,036.97	203,697
No.28	3800	100	587.75	662.38	66,238	1,733.97	2,418.12	241,812
No.29	3900	100	737.01	512.85	51,285	3,102.27	3,082.61	308,261
No.30	4000	100	288.68	221.40	22,140	3,062.95	2,572.24	257,224
No.31	4100	100	154.12	163.57	16,357	1,681.53	1,570.93	157,093
No.32	4200	100	173.01	565.87	56,587	1,460.32	1,524.24	152,424
No.33	4300	100	958.72	861.85	86,185	1,588.16	1,317.70	131,770
No.34	4400	100	764.98	1,512.43	151,243	1,047.24	893.20	89,320
No.35	4500	67	2,259.88	2,171.43	145,486	739.16	982.03	65,796
No.35+67	4567	0	2,082.97	1,845.18	0	1,224.90	612.45	0
No.35+67	4567	33	1,603.38	1,799.30	59,377	-	-	-
No.36	4600	100	1,995.21	2,358.09	235,809	0.00	-	-
No.37	4700	100	2,720.96	3,023.95	302,395	-	-	-
No.38	4800	100	3,326.93	3,785.10	378,510	0.00	-	-
No.39	4900	100	4,243.27	4,663.16	466,316	0.00	-	-
No.40	5000	100	5,083.05	5,605.79	560,579	0.00	-	-
No.41	5100	100	6,128.52	5,539.55	553,955	0.00	-	-
No.42	5200	100	4,950.53	4,518.75	451,875	-	-	-
No.43	5300	70	4,086.97	3,903.65	273,396	-	-	-
No.43+70	5370	0	3,724.32	3,237.66	0	-	-	-
No.43+70	5370	30	2,751.00	2,888.69	86,661	-	-	-
No.44	5400	100	3,026.37	3,028.30	302,830	0.00	-	-
No.45	5500	100	3,030.23	2,949.58	294,958	-	-	-
No.46	5600	100	2,868.92	2,882.78	288,278	0.00	-	-
No.47	5700	50	2,896.63	2,772.62	138,631	0.00	-	-
No.47+50	5750		2,648.60			0.00		
Total					**7,527,647**			**8,815,621**

APPENDIX 6.5-1

PROJECT COST AT MASTER PLAN STAGE

Project Cost Estimate [Tashkent Airport-Case 2] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	33,000	12	396				396	
			Embankment	m^3	0	12					0	
			Subgrade								0	
			Subbase (1)	m^3	26,700	110	2,937				2,937	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	14,530	140	2,034				2,034	
			Marking								0	
			Drainage								0	
			Subtotal				5,367	0	0	0	5,367	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3							0	
			Surface Course	ton	123,000	140	17,220				17,220	
			Surface Course	ton	137,530	140			19,254		19,254	
			Subtotal				17,220	0	19,254	0	36,474	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal ((2+3)x 15%)				3,388	0	2,888	0	6,276	
		Total of Airfield Facility					25,975	0	22,142	0	48,118	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	5,480	2,500	13,700				13,700	
	5	Renewal of Passenger Terminal Building		m^2	13,420	1,500	20,130				20,130	
				m^2	27,300	1,500			40,950		40,950	
	6	New Cargo Terminal Building		m^2	2,390	2,300	5,497				5,497	
				m^2	1,310	2,300		3,013			3,013	
				m^2	1,380	2,300			3,174		3,174	
				m^2	2,640	2,300				6,072	6,072	
	7	Renewal of Cargo Terminal Building		m^2	4,300	1,500	6,450				6,450	
	8	Tower and Admin. Building		m^2		2,600					0	
	9	Fire Station		m^2		1,250					0	
	10	Main Power Station		m^2		1,200					0	
	11	Other Substations		m^2								
	12	Boiler Station & Cooling Station		m^2								
	13	Air Navigation Station Building		m^2								
	14	Radar Station		m^2								
	15	Other Building		m^2								
	16	Road & Car Park	(4 x 10%)				1,370		4,095		5,465	
		Total of Terminal Area Facility					47,147	3,013	48,219	6,072	104,451	
Air Navigation Facility	17	Radio Navaids		sum	1		1,667		7,750	1,667	11,084	
	18	ATC System		sum	1		5,667		23,417	5,667	34,751	
	19	Airfield Lighting System		sum	1				21,875		21,875	
	20	Meteorological Observation System		sum	1		7,917		4,600	7,917	20,434	
	21	FNAS System		sum	1					8,333	8,333	
		Total of Air Navigation Facility					15,251	0	57,642	23,584	96,477	
Airport Special Equipment	22	Boarding Bridge		piece	10	550,000			5,500		5,500	
	23	Baggage Handling System		m^2	18,900	20	378		378		756	
	24	Flight Information Display System		m^2	18,900	35	662		662		1,324	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					1,040	0	6,540	0	7,580	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	4,550	3,600	16,380				16,280	
				kVA	1,520	3,600			5,472		5,472	
	30	Water Supply System		ton	730	2,760	2,015				2,015	
				ton	280	2,760			773		773	
	31	Sewage Treatment Facility		ton	730	960	701				701	
				ton	280	960			269		269	
	32	Hot Water Supply System		m2	5,480	840	4,603				4,603	
	33	Fuel Supply System									0	
	34	Staff Housing										
		Total of Utilities					23,699	0	6,514	0	30,212	
	35	**Total of Work Items**					113,112	3,013	141,057	29,656	286,838	
Project Admin.	36	Compensation										
	37	Administration Expense (35 x 1%)					1,131	30	1,411	297	2,868	
	38	Survey & Engineering Design (35 x 15%)					16,967	452	21,159	4,448	43,026	
		Total of Administration Expenses					18,098	482	22,569	4,745	45,894	
	Grand Total						131,209	3,495	163,626	34,401	332,732	

Project Cost Estimate [New Tashkent Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	1,287,000	12		11,583	3,861		15,444	
			Embankment	m^3	5,850,000	12		52,650	17,550		70,200	
			Subgrade								0	
			Subbase (1)	m^3	956,000	110		84,128	21,032		105,160	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course (Concrete)	m^3	255,360	130		16,598	16,598		33,197	
			Surface Course	ton	174,000	140		12,180	12,180		24,360	
			Marking								0	
			Drainage								0	
			Subtotal				0	177,139	71,221	0	248,361	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3							0	
			Surface Course	ton							0	
			Marking								0	
			Subtotal				0	0	0	0	0	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal ((2+3) x 15%)				0	26,571	10,683	0	37,254	
		Total of Airfield Facility					0	203,710	81,905	0	285,615	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	23,100	2,500		57,750			57,750	
				m^2	12,600	2,500			31,500		31,500	
	5	Renewal of Passenger Terminal Building									0	
	6	New Cargo Terminal Building		m^2	7,360	2,300		16,928			16,928	
				m^2	3,280	2,300			7,544		7,544	
	7	Renewal of Cargo Terminal Building									0	
	8	Tower and Admin. Building			5,700	2,600		14,820			14,820	
	9	Fire Station			900	1,250		1,125			1,125	
	10	Main Power Station			1,600	1,200		1,920			1,920	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building		m^2	21,300	2,900		61,770			61,770	
				m^2	2,600	2,900			7,540		7,540	
				m^2	5,400	2,900				15,660	15,660	
	16	Roads & Car Park	((4 + ...+15) x 20%)					30,863	9,317	3,132	43,311	
		Total of Terminal Area Facility					0	185,176	55,901	18,792	259,868	
Air Navigation Facility	17	Radio Navaids		sum	1			6,833			6,833	
	18	ATC System		sum	1			15,583			15,583	
	19	Airfield Lighting System		sum	1			9,792			9,792	
	20	Meteorological Observation System		sum	1			9,450			9,450	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					0	41,658	0	833	42,491	
Airport Special Equipment	22	Boarding Bridge		piece	5	550,000		2,750			2,750	
				piece	1	550,000			550		550	
	23	Baggage Handling System		m^2	23,100	20		462			462	
				m^2	12,600	20			252		252	
	24	Flight Information Display System		m^2	23,100	35		809			809	
				m^2	12,600	35			441		441	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					0	4,021	1,243	0	5,264	
Utilities & Others	28	Access Road		m	2,000	1,500		3,000			3,000	
	29	Power Supply		kVA	6,700	3,600		24,120			24,120	
				kVA	510	3,600			1,836		1,836	
	30	Water Supply System		ton	1,170	2,760		3,229			3,229	
				ton	60	2,760			166		166	
	31	Sewage Treatment Facility		ton	1,170	960		1,123			1,123	
				ton	60	960			58		58	
	32	Hot Water Supply System		m^2	23,100	840		19,404			19,404	
				m^2	12,600	840			10,584		10,584	
	33	Fuel Supply System		kl	6,820	1,800		12,276			12,276	
				kl	1,450	1,800			2,610		2,610	
	34	Staff Housing										
		Total of Utilities					0	63,152	15,253	0	78,406	
	35	Total of Works					0	497,717	154,302	19,625	671,643	
Project Admin. Expenses	36	Land Acquisition		m^2	3,880,000	10		38,800			38,800	
	37	Administration Expense (35 x 2%)						9,951	3,086	393	13,433	
	38	Survey & Engineering Design (35 x 10%)						49,772	15,430	1,963	67,164	
		Total of Administration Expenses					0	98,526	18,516	2,355	119,397	
	Grand Total						0	596,243	172,818	21,980	791,041	

Project Cost Estimate [Namangan Airport] -Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway	Excavation	m^3	195,180	12	2,199		143		2,342	
		& Apron	Embankment	m^3	3,078,000	12	36,936				36,936	
		Extension	Subgrade								0	
			Subbase (1)	m^3	173,550	110	17,909		1,181		19,091	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	49,770	140	6,579		389		6,968	
			Marking								0	
			Drainage								0	
			Subtotal				63,623	0	1,714	0	65,336	
	2	Runway, Taxiway	Earthwork	m^3		12					0	
		Apron Overlay	Surface Course	ton	112,100	140	9,995		5,699		15,694	
			Marking								0	
			Subtotal				9,995	0	5,699	0	15,694	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal ((2+3)x15%)				11,043	0	1,112	0	12,155	
		Total of Airfield Facility					84,660	0	8,525	0	93,185	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	6,700	2,500	16,750				16,750	
				m^2	840	2,500			2,100		2,100	
	5	Renewal of Passenger Terminal Building		m^2	4,220	1,500	6,330				6,330	
	6	New Cargo Terminal Building		m^2	2,940	2,300	6,762				6,762	
				m^2	600	2,300			1,500		1,500	
	7	Renewal of Cargo Terminal Building		m^2		1,500					0	
	8	Tower and Admin. Building		m^2	2,800	2,600	7,280				7,280	
	9	Fire Station		m^2	150	1,250	188				188	
	10	Main Power Station		m^2	1,200	1,200	1,440				1,440	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)				1,675		2,100		3,775	
		Total of Terminal Area Facility					40,425	0	5,700	0	46,125	
Air Navigation Facility	17	Radio Navaids		sum	1		4,250			4,250	8,500	
	18	ATC System		sum	1		15,583			15,583	31,166	
	19	Airfield Lighting System		sum	1		8,792			8,792	17,584	
	20	Meteorological Observation System		sum	1		1,533			1,533	3,066	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					30,158	0	0	30,991	61,149	
Airport Special Equipment	22	Boarding Bridge		piece		550,000						
	23	Baggage Handling System		m^2	10,080	20	202				202	
				m^2	1,680	20			34		34	
	24	Flight Information Display System		m^2	10,080	35	353				353	
	25	Cold Storage		m^2	1,680	35			59		59	
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					554	0	92	0	647	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,490	3,600	5,364				5,364	
				kVA	120	3,600			432		432	
	30	Water Supply System		ton	290	2,760	800				800	
				ton	20	2,760			55		55	
	31	Sewage Treatment Facility		ton	290	960	278				278	
				ton	20	960			19		19	
	32	Hot Water Supply System		m^2	6,700	840	5,628				5,628	
				m^2	840	840			706		706	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					12,071	0	1,212	0	13,283	
	35	Total of Works					167,867	0	15,536	30,991	214,388	
Project Admini. Expenses	36	Compensation		m^2	680,000	5	3,400				3,400	
	37	Administration Expense (35 x 1%)					1,679		155	310	2,144	
	38	Survey & Engineering Design (35 x 15%)					25,180		2,329	4,649	32,158	
		Total of Administration Expenses					30,259	0	2,485	4,959	37,702	
	Grand Total						198,126	0	18,015	35,950	252,090	

Project Cost Estimate [Andizhan Airport (Extension)] - Master Plan Satge

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway	Excavation	m^3	16,150	12	194				194	
		& Apron	Embankment	m^3	0	12					0	
		Extension	Subgrade								0	
			Subbase (1)	m^3	13,500	110	1,485				1,485	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	6,070	140	850				850	
			Marking								0	
			Drainage								0	
			Subtotal				**2,529**	**0**	**0**	**0**	**2,529**	
	2	Runway, Taxiway	Earthwork	m^3		12					0	
		Apron Overlay	Surface Course	ton	136,970	140	14,417		4,759		19,176	
			Marking								0	
			Subtotal				**14,417**	**0**	**4,759**	**0**	**19,176**	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal [(2+3) x 15%]				**2,542**	**0**	**714**	**0**	**3,256**	
		Total of Airfield Facility					**19,488**	**0**	**5,472**	**0**	**24,960**	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	7,540	2,500	18,850				18,850	
				m^2	3,360	2,500			8,400		8,400	
	5	Renewal of Passenger Terminal Building		m^2	3,282	1,500	4,923				4,923	
	6	New Cargo Terminal Building		m^2	2,870	2,300			6,601		6,601	
				m^2	610	2,300					0	
	7	Renewal of Cargo Terminal Building		m^2		1,500					0	
	8	Tower and Admin. Building		m^2	1,400	2,600		3,640			3,640	
	9	Fire Station		m^2	600	1,250		750			750	
	10	Main Power Station		m^2	800	1,200		960			960	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)				1,885		840		2,725	
		Total of Terminal Area Facility					**25,658**	**5,350**	**15,841**	**0**	**46,849**	
Air Navigation Facility	17	Radio Navaids		sum	1		2,367			2,160	4,327	
	18	ATC System		sum	1		2,917			2,917	5,834	
	19	Airfield Lighting System		sum	1		6,958			6,958	13,916	
	20	Meteorological Observation System		sum	1		1,117			1,117	2,234	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					**13,159**	**0**	**0**	**13,985**	**27,144**	
Airport Special Equipment	22	Boarding Bridge		piece		550,000						
	23	Baggage Handling System		m^2	11,760	20	235				235	
				m^2	3,360	20			67		67	
	24	Flight Information Display System		m^2	11,760	35	412				412	
				m^2	3,360	35			118		118	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					**647**	**0**	**185**	**0**	**832**	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,590	3,600	5,724				5,724	
				kVA	350	3,600			1,260		1,260	
	30	Water Supply System		ton	310	2,760	856				856	
				ton	80	2,760			221		221	
	31	Sewage Treatment Facility		ton	310	960	298				298	
				ton	80	960			77		77	
	32	Hot Water Supply System		m^2	7,540	840	6,334				6,334	
				m^2	3,360	840			2,822		2,822	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					**13,211**	**0**	**4,380**	**0**	**17,591**	
	35	Total of Works					**72,163**	**5,350**	**25,878**	**13,985**	**117,376**	
Project Admini. Expenses	36	Compensation										
	37	Administration Expense (35 x 1%)					722	54	259	140	1,174	
	38	Survey & Engineering Design (35 x 15%)					10,824	803	3,882	2,098	17,606	
		Total of Administration Expenses					**11,546**	**856**	**4,141**	**2,238**	**18,780**	
	Grand Total						**83,709**	**6,206**	**30,019**	**16,223**	**136,156**	

Project Cost Estimate [Andizhan Airport (Option New R/W)] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway	Excavation	m^3	171,330	12	2,056				2,056	
		& Apron	Embankment	m^3	1,404,000	12	16,848				16,848	
		Extension	Subgrade								0	
			Subbase (1)	m^3	151,230	110	16,690				16,690	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	45,090	140	6,313				6,313	
			Marking								0	
			Drainage								0	
			Subtotal				41,907	0	0	0	41,907	
	2	Runway, Taxiway	Earthwork	m^3		12					0	
		Apron Overlay	Surface Course	ton	78,450	140	6,013		4,970		10,983	
			Marking								0	
			Subtotal				6,013	0	4,970	0	10,983	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal [(2+3) x 15%]				7,188	0	746	0	7,933	
		Total of Airfield Facility					55,108	0	5,716	0	60,823	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	7,540	2,500	18,850				18,850	
				m^2	3,360	2,500			8,400		8,400	
	5	Renewal of Passenger Terminal Building		m^2	3,282	1,500	4,923				4,923	
	6	New Cargo Terminal Building		m^2	2,870	2,300			6,601		6,601	
				m^2	610	2,300					0	
	7	Renewal of Cargo Terminal Building		m^2		1,500					0	
	8	Tower and Admin. Building		m^2	1,400	2,600		3,640			3,640	
	9	Fire Station		m^2	600	1,250		750			750	
	10	Main Power Station		m^2	800	1,200		960			960	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)				1,885		840		2,725	
		Total of Terminal Area Facility					25,658	5,350	15,841	0	46,849	
Air Navigation Facility	17	Radio Navaids		sum	1		2,167			2,160	4,327	
	18	ATC System		sum	1		2,917			2,917	5,834	
	19	Airfield Lighting System		sum	1		6,958			6,958	13,916	
	20	Meteorological Observation System		sum	1		1,117			1,117	2,234	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					13,159	0	0	13,985	27,144	
Airport Special Equipment	22	Boarding Bridge		piece		550,000						
	23	Baggage Handling System		m^2	11,760	20	235				235	
				m^2	3,360	20			67		67	
	24	Flight Information Display System		m^2	11,760	35	412				412	
				m^2	3,360	35			118		118	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					647	0	185	0	832	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,590	3,600	5,724				5,724	
				kVA	350	3,600			1,260		1,260	
	30	Water Supply System		ton	310	2,760	856				856	
				ton	80	2,760			221		221	
	31	Sewage Treatment Facility		ton	310	960	298				298	
				ton	80	960			77		77	
	32	Hot Water Supply System		m^2	7,540	840	6,334				6,334	
				m^2	3,360	840			2,822		2,822	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					13,211	0	4,380	0	17,591	
	35	Total of Works					107,783	5,350	26,121	13,985	153,239	
Project Admini. Expenses	36	Compensation										
	37	Administration Expense (35 x 1%)					1,078	54	261	140	1,532	
	38	Survey & Engineering Design (35 x 15%)					16,167	803	3,918	2,098	22,986	
		Total of Administration Expenses					17,245	856	4,179	2,238	24,518	
	Grand Total						125,028	6,206	30,301	16,223	177,757	

Project Cost Estimate [Fergana Airport] - Master Plan Satge

Facility			Work Item	Unit	Quantity 1	Unit Price 2	Amount (US$ '000) I 3	II 4	III 5	IV 6	Total 7	Remarks
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	156,160	12	1,832		78		1,910	
			Embankment	m^3	2,565,000	12	30,780				30,780	
			Subgrade								0	
			Subbase (1)	m^3	134,470	110	14,185		607		14,792	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	56,750	140	7,644		301		7,945	
			Marking								0	
			Drainage								0	
			Subtotal				54,441	0	986	0	55,427	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3							0	
			Surface Course	ton	81,230	140	6,329		5,043		11,372	
			Marking								0	
			Subtotal				6,329	0	5,043	0	11,372	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				9,116	0	904	0	10,020	
		Total of Airfield Facility					69,886	0	6,933	0	76,819	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	7,540	2,500	18,850				18,850	
				m^2	3,360	2,500			8,400		8,400	
	5	Renewal of Passenger Terminal Building		m^2	4,220	1,500	6,330				6,330	
	6	New Cargo Terminal Building		m^2	3,730	2,300	8,579				8,579	
				m^2	1,200	2,300			2,760		2,760	
	7	Renewal of Cargo Terminal Building		m^2								
	8	Tower and Admin. Building		m^2	2,800	2,600	7,280				7,280	
	9	Fire Station		m^2	600	1,250	750				750	
	10	Main Power Station		m^2	1,200	1,200	1,440				1,440	
	11	Other Substations		m^2								
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)				19		1		20	
		Total of Terminal Area Facility					43,248	0	11,161	0	54,409	
Air Navigation Facility	17	Radio Navaids		sum	1		4,250			4,250	8,500	
	18	ATC System		sum	1		15,583			15,583	31,166	
	19	Airfield Lighting System		sum	1		8,792			8,792	17,584	
	20	Meteorological Observation System		sum	1		1,533			1,533	3,066	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					30,158	0	0	30,991	61,149	
Airport Special Equipment	22	Boarding Bridge		piece		550,000						
	23	Baggage Handling System		m^2	11,760	20	235				235	
				m^2	3,360	20			67		67	
	24	Flight Information Display System		m^2	11,760	35	412				412	
				m^2	3,360	35			118		118	
	25	Cold Storage									0	
	26	Fire Fighting Vehicle									0	
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					647	0	185	0	832	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,800	3,600	6,480				6,480	
				kVA	380	3,600			1,368		1,368	
	30	Water Supply System		ton	330	2,760	911				911	
				ton	80	2,760			221		221	
	31	Sewage Treatment Facility		ton	330	960	317				317	
				ton	80	960			77		77	
	32	Hot Water Supply System		ton	7,540	840	6,334				6,334	
					3,360	840			2,822		2,822	
	33	Fuel Supply System		m^2								
	34	Staff Housing										
		Total of Utilities					14,041	0	4,488	0	18,529	
	35	Total of Work					157,980	0	22,766	30,991	211,737	
Project Adminl. Expenses	35	Compensation										
	36	Administration Expense (35 x 1%)					1,580	0	228	310	2,117	
	37	Survey & Engineering Design (35 x 15%)					23,697	0	3,415	4,649	31,761	
											0	
											0	
		Total of Administration Expenses					25,277	0	3,643	4,959	33,878	
	Grand Total						183,256	0	26,409	35,950	245,615	

Project Cost Estimate [Kokand Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US $ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	7,300	12	16	72			88	
			Embankment	m^3	90,000	12		1,080			1,080	
			Subgrade								0	
			Subbase (1)	m^3	4,170	110	96	363			459	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	7,170	140	134	869			1,004	
			Marking								0	
			Drainage								0	
			Subtotal				246	2,384		0	2,630	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	18,960	140	1,312	1,343			2,654	
			Marking								0	
			Subtotal				1,312	1,343		0	2,654	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3)x 15%				234	559	0	0	793	
		Total of Airfield Facility					1,791	4,286	0	0	6,077	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	520	2,500		1,300			1,300	
	5	Renewal of Passenger Terminal Building			320	1,500		480			480	
	6	New Cargo Terminal Building			150	2,300		345			345	
	7	Renewal of Cargo Terminal Building			0	1,500		0				
	8	Tower and Admin. Building			1,400	2,600		3,640			3,640	
	9	Fire Station			0	1,250		0				
	10	Main Power Station			800	1,200		960			960	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10^6 s)					130			130	
		Total of Terminal Area Facility					0	6,855	0	0	6,855	
Air Navigation Facility	17	Radio Navaids		sum	1			2,167			2,167	
	18	ATC System		sum	1			2,083			2,083	
	19	Airfield Lighting System		sum	1			6,250			6,250	
	20	Meteorological Observation System		sum	1			1,117			1,117	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					0	11,617	0	833	12,450	
Airport Special Equipment	22	Boarding Bridge		piece								
	23	Baggage Handling System		m^2	840	20		17			17	
	24	Flight Information Display System			840	35		29			29	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					0	46	0	0	46	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	310	3,600		1,116			1,116	
	30	Water Supply System		ton	60	2,760		166			166	
	31	Sewage Treatment Facility		ton	60	960		58			58	
	32	Hot Water Supply System		m^2	520	840		437			437	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					0	1,776	0	0	1,776	
	35	Total of Works					1,791	24,580	0	833	27,204	
Project Admini. Expenses	36	Land Acquisition		m^2	210,000	5	1,050				1,050	
	37	Administration Expense (35 x 1%)					18	246	0	8	272	
	38	Survey & Engineering Design (35 x 15%)					269	3,687	0	125	4,081	
		Total of Administration Expenses					1,337	3,933	0	133	5,403	
	Grand Total						3,128	28,513	0	966	32,607	

Project Cost Estimate [Samarkand Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	14,240	12		171			171	
			Embankment	m^3		12					0	
			Subgrade								0	
			Subbase (1)	m^3	11,620	110		1,278			1,278	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	6,030	140		844			844	
			Marking								0	
			Drainage								0	
			Subtotal				0	2,293	0	0	2,293	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	57,443	140		8,042			8,042	
			Marking								0	
			Subtotal				0	8,042	0	0	8,042	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				0	1,550	0	0	1,550	
		Total of Airfield Facility					0	11,886	0	0	11,886	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	4,030	2,500		10,075			10,075	
	5	Renewal of Passenger Terminal Building			6,890	1,500		10,335			10,335	
	6	New Cargo Terminal Building			2,740	2,300		6,302			6,302	
	7	Renewal of Cargo Terminal Building			1,430	1,500		2,145			2,145	
	8	Tower and Admin. Building										
	9	Fire Station										
	10	Main Power Station										
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)					1,008			1,008	
		Total of Terminal Area Facility					0	29,865	0	0	29,865	
Air Navigation Facility	17	Radio Navaids		sum	1		1,667		2,583	1,667	5,917	
	18	ATC System		sum	1				15,583		15,583	
	19	Airfield Lighting System		sum	1				8,792		8,792	
	20	Meteorological Observation System		sum	1				1,533		1,533	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					1,667	0	28,491	2,500	32,658	
Airport Special Equipment	22	Boarding Bridge										
	23	Baggage Handling System		m^2	10,920	20		218			218	
	24	Flight Information Display System			10,920	35		382			382	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					0	601	0	0	601	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,710	3,600		6,156			6,156	
	30	Water Supply System		ton	310	2,760		856			856	
	31	Sewage Treatment Facility		ton	310	960		298			298	
	32	Hot Water Supply System		m^2	4,030	840		3,385			3,385	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					0	10,694	0	0	10,694	
	35	Total of Works					1,667	53,045	28,491	2,500	85,703	
Project Admini. Expenses	36	Land Acquisition										
	37	Administration Expense (35 x 1%)					17	530	285	25	857	
	38	Survey & Engineering Design (35 x 15%)					250	7,957	4,274	375	12,855	
		Total of Administration Expenses					267	8,487	4,559	400	13,712	
	Grand Total						1,934	61,532	33,050	2,900	99,416	

Project Cost Estimate [Termez Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity 1	Unit Price 2	Amount (US$ '000) I 3	II 4	III 5	IV 6	Total 7	Remarks
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	48,000	12		576			576	
			Embankment	m^3		12					0	
			Subgrade								0	
			Subbase (1)	m^3	43,110	110		4,742			4,742	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	11,240	140		1,574			1,574	
			Marking								0	
			Drainage								0	
			Subtotal				0	6,892	0	0	6,892	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	35,540	140		4,976			4,976	
			Marking								0	
			Subtotal				0	4,976	0	0	4,976	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				0	1,780	0	0	1,780	
		Total of Airfield Facility					0	13,647	0	0	13,647	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	4,520	2,500	11,300				11,300	
				m^2	6,720	2,500			16,800		16,800	
	5	Renewal of Passenger Terminal Building		m^2	2,200	1,500	3,300				3,300	
	6	New Cargo Terminal Building		m^2	1,440	2,300	3,312				3,312	
					1,440	2,300			3,312		3,312	
	7	Renewal of Cargo Terminal Building		m^2			0				0	
	8	Tower and Admin. Building		m^2	2,800	2,600	7,280				7,280	
	9	Fire Station		m^2	24	1,250	30				30	
	10	Main Power Station		m^2	1,200	1,200	1,440				1,440	
	11	Other Substations									0	
	12	Boiler Station & Cooling Station									0	
	13	Air Navigation Station Building									0	
	14	Radar Station									0	
	15	Other Building									0	
	16	Road & Car Park	(4 x 10%)				11,300		1,680		12,980	
		Total of Terminal Area Facility					37,962	0	21,792	0	59,754	
Air Navigation Facility	17	Radio Navaids		sum	1		4,250			4,250	8,500	
	18	ATC System		sum	1		15,583			15,583	31,166	
	19	Airfield Lighting System		sum	1		8,708			8,708	17,416	
	20	Meteorological Observation System		sum	1		1,533			1,533	3,066	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					30,074	0	0	30,907	60,981	
Airport Special Equipment	22	Boarding Bridge										
	23	Baggage Handling System		m^2	13,440	20	134		134		269	
	24	Flight Information Display System		m^2	13,440	35	235		235		470	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					370	0	370	0	739	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,140	3,600	4,104				4,104	
				kVA	740	3,600			2,664		2,664	
	30	Water Supply System		ton	210	2,760	580				580	
				ton	160	2,760			442		442	
	31	Sewage Treatment Facility		ton	210	960	202				202	
				ton	160	960			154		154	
	32	Hotwater Supply System		m^2	4,520	840	3,797				3,797	
				m^2	6,720	840			5,645		5,645	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					8,682	0	8,904	0	17,586	
	35	Total of Works					77,088	13,647	31,066	30,907	152,708	
Project Admini. Expenses	36	Land Acquisition			40,000	5	200				200	
	37	Administration Expense (35 x 1%)					771	136	311	309	1,527	
	38	Survey & Engineering Design (35 x 15%)					11,563	2,047	4,669	4,636	22,906	
		Total of Administration Expenses					12,534	2,184	4,970	4,945	24,633	
		Grand Total					89,622	15,831	36,036	35,852	177,341	

Project Cost Estimate [Urgench Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	80,520	12			966		966	
			Embankment	m^3		12					0	
			Subgrade								0	
			Subbase (1)	m^3	68,200	110			7,502		7,502	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	28,320	140			3,965		3,965	
			Marking								0	
			Drainage								0	
			Subtotal				0		12,433	0	12,433	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	21,220	140			2,971		2,971	
			Marking								0	
			Subtotal				0		2,971	0	2,971	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				0		2,311	0	2,311	
		Total of Airfield Facility					0		17,714	0	17,714	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	6,550	2,500		16,375			16,375	
					840	2,500				2,100	2,100	
	5	Renewal of Passenger Terminal Building			6,890	1,500		10,335			10,335	
	6	New Cargo Terminal Building			2,340	2,300		5,382			5,382	
					990	2,300				2,277	2,277	
	7	Renewal of Cargo Terminal Building			400	1,500		600			600	
	8	Tower and Admin. Building										
	9	Fire Station										
	10	Main Power Station										
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)					1,638		210	1,848	
		Total of Terminal Area Facility					0	34,330	0	4,587	38,917	
Air Navigation Facility	17	Radio Navaids		sum	1			1,667	2,583		4,250	
	18	ATC System		sum	1				15,583		15,583	
	19	Airfield Lighting System		sum	1				8,792		8,792	
	20	Meteorological Observation System		sum	1				1,533		1,533	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					0	1,667	28,491	833	30,991	
Airport Special Equipment	22	Boarding Bridge		piece								
	23	Baggage Handling System		m^2	13,440	20		269			269	
					840	20				17	17	
	24	Flight Information Display System		m^2	13,440	35		470			470	
					840	35				29	29	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					0	739	0	46	785	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,930	3,600		6,948			6,948	
				kVA	90	3,600				324	324	
	30	Water Supply System		ton	370	2,760		1,021			1,021	
				ton	20	2,760				55	55	
	31	Sewage Treatment Facility		ton	370	960		355			355	
				ton	20	960				19	19	
	32	Hot Water Supply System		m^2	6,550	840		5,502			5,502	
				m^2	840	840				706	706	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					0	13,826	0	1,104	14,930	
	35	Total of Works					0	50,562	46,205	6,570	103,338	
Project Admini. Expenses	36	Land Acquisition										
	37	Administration Expense (35 x 1%)						506	462	66	1,033	
	38	Survey & Engineering Design (35 x 15%)						7,584	6,931	986	15,501	
		Total of Administration Expenses					0	8,090	7,393	1,051	16,534	
	Grand Total						0	58,652	53,598	7,621	119,872	

Project Cost Estimate [Bukhara Airport] - Master Plan Satge

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	51,280	12			615		615	
			Embankment	m^3		12					0	
			Subgrade								0	
			Subbase (1)	m^3	44,470	110			4,892		4,892	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	15,640	140			2,190		2,190	
			Marking								0	
			Drainage								0	
			Subtotal				0	0	7,697	0	7,697	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	78,900	140			11,046		11,046	
			Marking								0	
			Subtotal				0	0	11,046	0	11,046	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				0	0	2,811	0	2,811	
		Total of Airfield Facility					0	0	21,554	0	21,554	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	4,870	2,500		12,175			12,175	
				m^2	2,520	2,500				6,300	6,300	
	5	Renewal of Passenger Terminal Building		m^2	6,050	1,500		9,075			9,075	
	6	New Cargo Terminal Building		m^2	3,020	2,300		6,946			6,946	
				m^2	460	2,300				1,058	1,058	
	7	Renewal of Cargo Terminal Building			650	1,500		975			975	
	8	Tower and Admin. Building										
	9	Fire Station										
	10	Main Power Station										
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)					12,175		630	12,805	
		Total of Terminal Area Facility					0	41,346	0	7,988	49,334	
Air Navigation Facility	17	Radio Navaids		sum	1		1,667		2,583	1,667	5,917	
	18	ATC System		sum	1				15,583		15,583	
	19	Airfield Lighting System		sum	1				8,792		8,792	
	20	Meteorological Observation System		sum	1				1,533		1,533	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					1,667	0	28,491	2,500	32,658	
Airport Special Equipment	22	Boarding Bridge		piece								
	23	Baggage Handling System		m^2	10,920	20		218			218	
				m^2	2,520	20				50	50	
	24	Flight Information Display System		m^2	10,920	35		382			382	
				m^2	2,520	35				88	88	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					0	601	0	139	739	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,690	3,600		6,084			6,084	
				kVA	270	3,600				972	972	
	30	Water Supply System		ton	310	2,760		856			856	
				ton	60	2,760				166	166	
	31	Sewage Treatment Facility		ton	310	960		298			298	
				ton	60	960				58	58	
	32	Hot water Supply System		m^2	4,870	840		4,091			4,091	
				m^2	2,520	840				2,117	2,117	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					0	11,328	0	3,312	14,640	
	35	Total of Work					1,667	53,275	50,045	13,939	118,925	
Project Admini. Expenses	36	Land Acquisition										
	37	Administration Expense (35 x 1%)					17	533	500	139	1,189	
	38	Survey & Engineering Design (35 x 15%)					250	7,991	7,507	2,091	17,839	
		Total of Administration Expenses					267	8,524	8,007	2,230	19,028	
	Grand Total						1,934	61,799	58,052	16,169	137,953	

Project Cost Estimate [Karshi Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway	Excavation	m^3	33,440	12	360	42			401	
		& Apron	Embankment	m^3		12					0	
		Extension	Subgrade								0	
			Subbase (1)	m^3	27,510	110	2,701	326			3,026	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	13,640	140	1,740	169			1,910	
			Marking								0	
			Drainage								0	
			Subtotal				4,800	537		0	5,337	
	2	Runway, Taxiway	Earthwork	m^3		12					0	
		Apron Overlay	Surface Course	ton	57,240	140	4,248	3,766			8,014	
			Marking								0	
			Subtotal				4,248	3,766		0	8,014	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				1,357	645		0	2,003	
		Total of Airfield Facility					10,405	4,948		0	15,353	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	8,520	2,500		21,300			21,300	
	5	Renewal of Passenger Terminal Building		m^2	2,400	1,500		3,600			3,600	
	6	New Cargo Terminal Building		m^2	3,540	2,300		8,142			8,142	
	7	Renewal of Cargo Terminal Building		m^2	0	1,500		0			0	
	8	Tower and Admin. Building		m^2	1,400	2,600		3,640			3,640	
	9	Fire Station		m^2	600	1,250		750			750	
	10	Main Power Station		m^2	800	1,200		960			960	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)					2,130			2,130	
		Total of Terminal Area Facility					0	40,522	0	0	40,522	
Air Navigation Facility	17	Radio Navaids		sum	1			2,167			2,167	
	18	ATC System		sum	1			2,917			2,917	
	19	Airfield Lighting System		sum	1			6,417			6,417	
	20	Meteorological Observation System		sum	1			1,117			1,117	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					0	12,618	0	833	13,451	
Airport Special Equipment	22	Boarding Bridge		piece								
	23	Baggage Handling System		m^2	9,100	20		182			182	
	24	Flight Information Display System			10,400	35		364			364	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					0	546	0	0	546	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,520	3,600		5,472			5,472	
	30	Water Supply System		ton	290	2,760		800			800	
	31	Sewage Treatment Facility		ton	290	960		278			278	
	32	Hot Water Supply System		m^2	8,520	840		7,157			7,157	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					0	13,708	0	0	13,708	
	35	Total of Work					10,405	72,342	0	833	83,580	
Project Admini Expenses	36	Land Acquisition										
	37	Administration Expense (35 x 1%)					104	723		8	836	
	38	Survey & Engineering Design (35 x 15%)					1,561	10,851		125	12,537	
		Total of Administration Expenses					1,665	11,575	0	133	13,373	
	Grand Total						12,070	83,916	0	966	96,953	

Project Cost Estimate [Navoi Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	65,265	12	338		445		783	
			Embankment	m^3	75,000	12			900		900	
			Subgrade								0	
			Subbase (1)	m^3	54,630	110	2,530		3,479		6,009	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	55,230	140	5,967		1,765		7,732	
			Marking								0	
			Drainage								0	
			Subtotal				**8,835**	**0**	**6,590**	**0**	**15,425**	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	97,210	140	10,451		3,158		13,609	
			Marking								0	
			Subtotal				**10,451**	**0**	**3,158**	**0**	**13,609**	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				**2,893**	**0**	**1,462**	**0**	**4,355**	
		Total of Airfield Facility					**22,179**	**0**	**11,211**	**0**	**33,389**	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	5,240	2,500			13,100		13,100	
	5	Renewal of Passenger Terminal Building		m^2	4,000	1,500			6,000		6,000	
	6	New Cargo Terminal Building		m^2	3,420	2,300			7,866		7,866	
	7	Renewal of Cargo Terminal Building		m^2	0	1,500			0		0	
	8	Tower and Admin. Building		m^2	1,400	2,600			3,640		3,640	
	9	Fire Station		m^2	600	1,250			750		750	
	10	Main Power Station		m^2	800	1,200			960		960	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)						1,310		1,310	
		Total of Terminal Area Facility					**0**	**0**	**33,626**	**0**	**33,626**	
Air Navigation Facility	17	Radio Navaids		sum	1		2,167			2,167	4,334	
	18	ATC System		sum	1		2,917			2,083	5,000	
	19	Airfield Lighting System		sum	1		6,417			6,333	12,750	
	20	Meteorological Observation System		sum	1		1,117			1,117	2,234	
	21	FNAS System		sum	1					833	833	
		Total of Air Navigation Facility					**12,618**		**0**	**12,533**	**25,151**	
Airport Special Equipment	22	Boarding Bridge		piece								
	23	Baggage Handling System		m^2	9,240	20			185		185	
	24	Flight Information Display System		m^2	9,240	35			323		323	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					**0**	**0**	**508**	**0**	**508**	
Utilities & Others	28	Access Road										
	29	Power Supply		KVA	1,340	3,600			4,824		4,824	
	30	Water Supply System		ton	250	2,760			690		690	
	31	Sewage Treatment Facility		ton	250	960			240		240	
	32	Hot Water Supply System		m^2	5,240	840			4,402		4,402	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					**0**	**0**	**10,156**	**0**	**10,156**	
	35	**Total of Work**					**34,797**	**0**	**55,500**	**12,533**	**102,830**	
Project Admini. Expenses	36	Land Acquisition										
	37	Administration Expenses (35 x 1%)					348	0	555	125	1,028	
	38	Survey & Engineering Design (35 x 15%)					5,219	0	8,325	1,880	15,424	
		Total of Administration Expenses					**5,567**	**0**	**8,880**	**2,005**	**16,453**	
	Grand Total						**40,364**	**0**	**64,381**	**14,538**	**119,283**	

Project Cost Estimate [Nukus Airport] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$ '000) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation	m^3	30,970	12	186		186		372	
			Embankment	m^3		12					0	
			Subgrade								0	
			Subbase (1)	m^3	25,770	110	1,378		1,456		2,835	
			Subbase (2)								0	
			Subbase (3)								0	
			Surface Course	ton	11,930	140	948		722		1,670	
			Marking								0	
			Drainage								0	
			Subtotal				2,512	0	2,365	0	4,877	
	2	Runway, Taxiway Apron Overlay	Earthwork	m^3		12					0	
			Surface Course	ton	126,100	140	13,114		4,540		17,654	
			Marking								0	
			Subtotal				13,114	0	4,540	0	17,654	
	3	Miscellaneous	Drainage								0	
			Cable Duct & Manhole								0	
			Fence								0	
			Subtotal (2+3) x 15%				2,344	0	1,036	0	3,380	
		Total of Airfield Facility					17,969	0	7,941	0	25,910	
Terminal Area Facility	4	New Passenger Terminal Building		m^2	4,520	2,500	11,300				11,300	
				m^2	4,200	2,500		10,500			10,500	
				m^2	2,520	2,500				6,300	6,300	
	5	Renewal of Passenger Terminal Building		m^2	2,200	1,500	3,300				3,300	
	6	New Cargo Terminal Building		m^2	710	2,300	1,633				1,633	
				m^2	860	2,300		1,978			1,978	
				m^2	660	2,300				1,518	1,518	
	7	Renewal of Cargo Terminal Building		m^2	550	1,500	825				825	
	8	Tower and Admin. Building		m^2	2,800	2,600	7,280				7,280	
	9	Fire Station		m^2	15	1,250	19				19	
	10	Main Power Station		m^2	1,200	1,200	1,440				1,440	
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	(4 x 10%)				1,130	1,050		630	2,810	
		Total of Terminal Area Facility					26,927	13,528	0	8,448	48,903	
Air Navigation Facility	17	Radio Navaids		sum	1		4,250			4,250	8,500	
	18	ATC System		sum	1		15,583			15,583	31,166	
	19	Airfield Lighting System		sum	1		8,708			8,708	17,416	
	20	Meteorological Observation System		sum	1		1,533			1,533	3,066	
	21	FNAS System		sum	1		833			833	833	
		Total of Air Navigation Facility					30,974	0	0	30,907	60,981	
Airport Special Equipment	22	Boarding Bridge		piece								
	23	Baggage Handling System		m^2	13,440	20	134	84		50	269	
	24	Flight Information Display System		m^2	13,440	35	235	147		88	470	
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment					370	231	0	139	739	
Utilities & Others	28	Access Road										
	29	Power Supply		kVA	1,730	3,600	3,488	1,744		996	6,228	
	30	Water Supply System		ton	350	2,760	541	270		155	966	
	31	Sewage Treatment Facility		ton	350	960	188	94		54	336	
	32	Hot Water Supply System		m^2	11,240	840	3,777	3,493		2,077	9,347	
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities					7,993	5,602	0	3,282	16,877	
	35	**Total of Work**					83,333	19,361	7,941	42,776	153,410	
Project Admini. Expenses	36	Land Acquisition										
	37	Administration Expense (35 x 1%)					833	194	79	428	1,534	
	38	Survey & Engineering Design (35 x 15%)					12,500	2,904	1,191	6,416	23,012	
		Total of Administration Expenses					13,333	3,098	1,271	6,844	24,546	
		Grand Total					96,666	22,459	9,211	49,620	177,956	

Project Cost Estimate [Nationwide Air Navigation Faicility Development] - Master Plan Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) I	II	III	IV	Total	Remarks
					1	2	3	4	5	6	7	
Airfield Facility	1	Runway, Taxiway & Apron Extension	Excavation									
			Embankment									
			Subgrade									
			Subbase (1)									
			Subbase (2)									
			Subbase (3)									
			Surface Course									
			Marking									
			Drainage									
			Subtotal									
	2	Runway, Taxiway Apron Overlay	Earthwork									
			Surface Course									
			Marking									
			Subtotal									
	3	Miscellaneous	Drainage									
			Cable Duct & Manhole									
			Fence									
			Subtotal									
		Total of Airfield Facility										
Terminal Area Facility	4	New Passenger Terminal Building										
	5	Renewal of Passenger Terminal Building										
	6	New Cargo Terminal Building										
	7	Renewal of Cargo Terminal Building										
	8	Tower and Admin.. Building										
	9	Fire Station										
	10	Main Power Station										
	11	Other Substations										
	12	Boiler Station & Cooling Station										
	13	Air Navigation Station Building										
	14	Radar Station										
	15	Other Building										
	16	Road & Car Park	Earthwork									
			Pavement Work									
			Fence									
			Drainage									
			Lighting									
			Marking & Traffic Sign									
		Total of Terminal Area Facility										
Air Navigation Facility	17	Radio Navaids	VOR/DME	set	20	2,083	16,664	6,249	2,083	16,664	41,660	
	18	ATC System					8	3	1	8		
	19	Airfield Lighting System										
	20	Meteorological Observation System										
	21	FNAS System										
		Total of Air Navigation Facility										
Airport Special Equipment	22	Boarding Bridge										
	23	Baggage Handling System										
	24	Flight Information Display System										
	25	Cold Storage										
	26	Fire Fighting Vehicle										
	27	Airport Maintenance Equipment										
		Total of Airport Special Equipment										
Utilities & Others	28	Access Road										
	29	Power Supply										
	30	Water Supply System										
	31	Sewage Treatment Facility										
	32	Hot Water Supply System										
	33	Fuel Supply System										
	34	Staff Housing										
		Total of Utilities										
	Total of Works						16,664	6,249	2,083	16,664	41,660	
Project Admini. Expenses	35	Land Acquisition										
	36	Administration Expense										
	37	Administration Equipment										
	38	Survey & Engineering Design					2,500	937	312	2,500	6,249	
	39	Miscellaneous										
		Total of Administration Expenses					2,500	937	312	2,500	6,249	
	Grand Total						19,164	7,186	2,395	19,164	47,909	

APPENDIX 6.5-2

PROJECT COST AT PRE-FEASIBILITY STUDY STAGE

Project Cost Estimate (Tashkent Airport) - Pre F/S Stage

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Airfield Facility	1	New or Extension	Excavation	m^3						
			Embankment	m^3						
			Subgrade	m^2						
			Subbase (1)	m^2						
			Subbase (2)	m^2						
			Subbase (3)	m^2						
			Surface Course	m^2						
			Subtotal							
	2	Pavement	Earthwork	m^3						
			Apron (Cement Concrete, t=35 cm)	m^2	80,400	160	12,864,000	11,577,600	1,286,400	
			Marking (Apron overlay x 5%)	m^2	4,020	12	48,240	43,416	4,824	
			Subtotal				**12,912,240**	**11,621,016**	**1,291,224**	
	3	Miscellaneous	Drainage	m						
			Cable Duct & Manhole	m						
			Fence	m						
			Subtotal				**12,912,240**	**11,621,016**	**1,291,224**	
	4	**Total of Airfield Facility**					**12,912,240**	**11,621,016**	**1,291,224**	
Terminal Area Facility	5	New Passenger Terminal Building (Domestic)		m^2	5,480	2,200	12,056,000	10,006,480	2,049,520	
	6	Renewal of Passenger Terminal Building		m^2	2,920	1,320	3,854,400	3,199,152	655,248	
	7	New Cargo Terminal Building		m^2	3,700	1,500	5,550,000	4,606,500	943,500	
	8	Renewal of Cargo Terminal Building		m^2	4,300	900	3,870,000	3,212,100	657,900	
	9	Tower and Admin. Building		m^2						
	10	Fire Station		m^2						
	11	Main Power Station		m^2						
	12	Other Substations		m^2						
	13	Boiler Station & Cooling Station		m^2						
	14	Air Navigation Station Building		m^2						
	15	Radar Station		m^2						
	16	Other Building		m^2						
	17	Road & Car Park	(5 x 10%)	m^2			1,205,600	1,000,648	204,952	
	18	**Total of Terminal Area Facility**					**26,536,000**	**22,024,880**	**4,511,120**	
Air Navigation Facility	19	Radio Navaids	(VOR/DME)	Sum	1	1	1,300,000	1,196,000	104,000	
	20	ATC System	(ASDE)	Sum	1	1	5,667,000	5,213,640	453,360	
	21	Airfield Lighting System		Sum						
	22	Meteorological Observation System (Weather radar)		Sum	1	1	7,917,000	7,283,640	633,360	
	23	FNAS System		Sum						
	23	**Total of Air Navigation Facility**					**14,884,000**	**13,693,280**	**1,190,720**	
Airport Special Equipment	24	Boarding Bridge		Set						
	25	Baggage Handling System		m^2	8,400	20	168,000	168,000		
	26	Flight Information Display System		m^2	8,400	35	294,000	294,000		
	27	Cold Storage		Set						
	28	Fire Fighting Vehicle		Set						
	29	Airport Maintenance Equipment		Set						
	30	**Total of Airport Special Equipment**					**462,000**	**462,000**		
Utilities & Others	31	Access Road		Sum						
	32	Power Supply		kVA	5,950	3,600	21,564,000	19,191,960	2,372,040	
	33	Water Supply System		ton	1,040	2,760	2,870,400	2,554,656	315,744	
	34	Sewage Treatment Facility		ton	1,040	960	998,400	888,576	109,824	
	35	Hot Water Supply System		m^3	5,480	840	4,603,200	4,096,848	506,352	
	36	Fuel Supply System		Sum						
	37	Staff Housing		Sum						
	38	**Total of Utilities**					**30,036,000**	**26,732,040**	**3,303,960**	
	39	**Total of Works**					**84,830,240**	**74,533,216**	**10,297,024**	
Project Admin. Expenses	40	Land Acquisition		Sum						
	41	Administration Expense (39 x 1%)		Sum			848,302		848,302	
	42	Survey & Engineering Design (39 x 15%)		Sum			12,724,536	11,179,982	1,544,554	
	43	Physical Contingency [(39+42) x 10%]		Sum			9,755,478	8,571,320	1,184,158	
				Sum						
	44	**Total of Administration Expenses**					**23,328,316**	**19,751,302**	**3,577,014**	
	45	**Grand Total**					**108,158,556**	**94,284,518**	**13,874,038**	

Project Cost Estimate (Tashkent Airport) - Pre F/S Stage (Passenger Bldg. Only)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$)			Remarks
							Total	Foreign	Local	
					1	2	3	4	5	
Airfield Facility	1	New or Extension	Excavation	m^3						
			Embankment	m^3						
			Subgrade	m^3						
			Subbase (1)	m^3						
			Subbase (2)	m^3						
			Subbase (3)	m^3						
			Surface Course	m^3						
			Subtotal							
	2	Pavement	Earthwork	m^3						
			Apron (Cement Concrete, t=35 cm)	m^2	80,400	160	12,864,000	11,577,600	1,286,400	
			Marking (Apron overlay x 5%)	m^2	4,020	12	48,240	43,416	4,824	
			Subtotal				**12,912,240**	**11,621,016**	**1,291,224**	
	3	Miscellaneous	Drainage	m						
			Cable Duct & Manhole	m						
			Fence	m						
			Subtotal				**12,912,240**	**11,621,016**	**1,291,224**	
	4	**Total of Airfield Facility**					**12,912,240**	**11,621,016**	**1,291,224**	
Terminal Area Facility	5	New Passenger Terminal Building (Domestic)		m^2	5,480	2,200	12,056,000	10,606,480	2,049,520	
	6	Renewal of Passenger Terminal Building		m^2	2,920	1,320	3,854,400	3,199,152	655,248	
	7	New Cargo Terminal Building		m^2	3,700	1,500	0	0	0	
	8	Renewal of Cargo Terminal Building		m^2	4,300	900	0	0	0	
	9	Tower and Admin. Building		m^2						
	10	Fire Station		m^2						
	11	Main Power Station		m^2						
	12	Other Substations		m^2						
	13	Boiler Station & Cooling Station		m^2						
	14	Air Navigation Station Building		m^2						
	15	Radar Station		m^2						
	16	Other Building		m^2						
	17	Road & Car Park	(5 x 10%)	m^2			1,205,600	1,000,648	204,952	
	18	**Total of Terminal Area Facility**					**17,116,000**	**14,206,280**	**2,909,720**	
Air Navigation Facility	19	Radio Navaids	(VOR/DME)	Sum	1	1	1,300,000	1,196,000	104,000	
	20	ATC System	(ASDE)	Sum	1	1	5,667,000	5,213,640	453,360	
	21	Airfield Lighting System		Sum						
	22	Meteorological Observation System (Weather radar)		Sum	1	1	7,917,000	7,283,640	633,360	
	23	FNAS System		Sum						
	23	**Total of Air Navigation Facility**					**14,884,000**	**13,693,280**	**1,190,720**	
Airport Special Equipment	24	Boarding Bridge		Set						
	25	Baggage Handling System		m^2	8,400	20	168,000	168,000		
	26	Flight Information Display System		m^2	8,400	35	294,000	294,000		
	27	Cold Storage		Set						
	28	Fire Fighting Vehicle		Set						
	29	Airport Maintenance Equipment		Set						
	30	**Total of Airport Special Equipment**					**462,000**	**462,000**		
Utilities & Others	31	Access Road		Sum						
	32	Power Supply		kVA	500	3,600	1,800,000	1,602,000	198,000	
	33	Water Supply System		ton	130	2,760	358,800	319,332	39,468	
	34	Sewage Treatment Facility		ton	130	960	124,800	111,072	13,728	
	35	Hot Water Supply System		m^2	5,480	840	4,603,200	4,096,848	506,352	
	36	Fuel Supply System		Sum						
	37	Staff Housing		Sum						
	38	**Total of Utilities**					**6,886,800**	**6,129,252**	**757,548**	
	39	**Total of Works**					**52,261,040**	**46,111,828**	**6,149,212**	
Project Admist. Expenses	40	Land Acquisition		Sum						
	41	Administration Expense (39 x 1%)		Sum			522,610		522,610	
	42	Survey & Engineering Design (39 x 15%)		Sum			7,839,156	6,916,774	922,382	
	43	Physical Contingency ((39+42) x 10%)		Sum			6,010,020	5,302,860	707,159	
				Sum						
	44	**Total of Administration Expenses**					**14,371,786**	**12,219,634**	**2,152,152**	
	45	**Grand Total**					**66,632,826**	**58,331,462**	**8,301,364**	

Project Cost Estimate (New Tashkent Airport) - Pre F/S Stage (International Only)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Work	1	Compensation Work	Detouring of electric power cable							
			· Overhead	m	6,860	203	1,392,580	1,253,322	139,258	
			· Underground	m	1,199	280	333,200	299,880	33,320	
			Detouring of irrigation channel							
			· Open channel	m	4,910	500	2,455,000	2,209,500	245,500	
			· Box culvert	m	540	1,500	810,000	729,000	81,000	
			Detouring of roads	m						
			Subtotal				4,990,780	4,491,702	499,078	
Airfield Facility	2	Earthwork	Stripping	m^3	3,900,000	2	7,800,000	7,020,000	780,000	
			Excavation	m^3	8,800,000	10	88,000,000	79,200,000	8,800,000	
			Embankment	m^3	7,500,000	5	37,500,000	33,750,000	3,750,000	
			Sodding	m^2	1,910,000	3	5,820,000	5,238,000	582,000	
			Subtotal				139,120,000	125,208,000	13,911,000	
	3	Pavement	Runway construction	m^2	258,000	163	42,054,000	37,848,600	4,205,400	
			Runway shoulder, overrun	m^2	83,600	64	5,350,400	4,815,360	535,040	
			Taxiway construction	m^2	273,600	163	44,596,800	40,137,120	4,459,680	
			Taxiway shoulder	m^2	139,580	64	8,933,120	8,039,808	893,312	
			Apron construction	m^2	347,760	116	65,364,200	58,827,780	6,536,420	
			GSE roads	m^2	42,800	70	2,996,000	2,696,400	299,600	
			Marking	m^2	45,000	12	540,000	486,000	54,000	
			Subtotal				169,834,520	152,851,068	16,983,452	
	4	Drainage	Open channel	m	16,000	300	4,800,000	4,320,000	480,000	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	7,500	200	1,500,000	1,350,000	150,000	
			Open ditch	m	0	50	0	0	0	
			Subtotal				6,300,000	5,670,000	630,000	
	5	Miscellaneous	Perimeter roads	m	9,830	193	1,899,120	1,709,208	189,912	
			Maintenance roads	m	5,690	140	796,600	716,940	79,660	
			Fence	m	13,340	100	1,334,000	1,200,600	133,400	
			Gates	set	10	3,000	30,000	27,000	3,000	
			Subtotal				4,059,720	3,653,748	405,972	
	6	Total of Airfield Facility					319,314,240	287,382,816	31,931,424	
Terminal Area Facility	7	New Passenger Terminal Building		m^2	27,300	2,200	60,060,000	49,849,800	10,210,200	
	8	Renewal of Passenger Terminal Building		m^2				0	0	
	9	New Cargo Terminal Building		m^2	8,600	1,500	13,035,000	10,819,050	2,215,950	
	10	Renewal of Cargo Terminal Building		m^2				0	0	
	11	Tower and Admin. Building		m^2	5,700	3,200	18,240,000	15,139,200	3,100,800	
	12	Fire Station		m^2	900	1,400	1,260,000	1,045,800	214,200	
	13	Main Power Station		m^2	1,600	1,400	2,240,000	1,859,200	380,800	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2	23,900	1,000	23,900,000	19,837,000	4,063,000	
	19	Road & Car Park	(7 x 30%)	m^2			18,018,000	14,954,940	3,063,060	
				m^2				0	0	
	20	Total of Terminal Area Facility					136,753,000	113,504,990	23,248,010	
Air Navigation Facility	21	Radio Navaids		Sum	1		6,817,000	5,903,640	913,360	
	22	ATC System		Sum	1		15,583,000	14,336,360	1,246,640	
	23	Airfield Lighting System		Sum	1		9,792,000	9,008,640	783,360	
	24	Meteorological Observation System		Sum	1		9,450,000	8,693,000	756,000	
	25	FNAS System		Sum	1					
	26	Total of Air Navigation Facility					41,242,000	37,942,640	3,299,360	
Airport Special Equipment	27	Boarding Bridge		Set	5	550,000	2,750,000	2,750,000	0	
	28	Baggage Handling System		m^2	27,300	20	546,000	546,000	0	
	29	Flight Information Display System		m^2	27,300	35	955,500	955,500	0	
	30	Cold Storage		m^3	25	1,500	37,500	37,500	0	
	31	Fire Fighting Vehicle		Set			2,760,000	2,760,000	0	
	32	Airport Maintenance Equipment		Set			6,420,000	6,420,000	0	
	33	Total of Airport Special Equipment					13,469,000	13,469,000	0	
Utilities & Others	34	Access Road & Interchange		m			10,656,000	9,590,400	1,065,600	
	35	Power Supply		kVA	6,700	3,600	24,120,000	21,466,800	2,653,200	
	36	Water Supply System		ton	3,170	2,760	3,229,200	2,873,988	355,212	
	37	Sewage Treatment Facility		ton	3,170	960	1,123,200	999,648	123,552	
	38	Hot Water Supply System		m^2	27,300	840	22,932,000	20,409,480	2,522,520	
	39	Fuel Supply System		kl	6,830	1,800	12,276,000	10,925,640	1,350,360	
	40	Staff Housing		m^2	5,000	1,500	7,500,000	6,675,000	825,000	
	41	Total of Utilities					91,836,400	81,940,956	8,895,444	
	42	Total of Works					597,605,420	529,732,104	67,873,316	
Project Admini. Expenses	43	Land Acquisition		m^2	3,900,000	10	39,000,000		39,000,000	
	44	Administration Expense (42 x 1%)		Sum			5,976,054		5,976,054	
	45	Survey & Engineering Design (42 x 12%)		Sum			59,760,542	52,973,210	6,787,332	
	46	Physical Contingency ((42+45) x 10%)		Sum			65,736,596	58,278,331	7,458,265	
	47	Miscellaneous		Sum						
	48	Total of Administration Expenses					170,473,192	111,243,742	59,229,451	
	49	Grand Total					768,078,613	640,975,846	127,102,767	

Project Cost Estimate (New Tashkent Airport) - Pre F/S Stage (International + Domestic)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Work	1	Compensation Work	Detouring of electric power cable							
			· Overhead	m	6,980	200	1,392,580	1,253,322	139,258	
			· Underground	m	1,190	280	333,200	299,880	33,320	
			Detouring of irrigation channel							
			· Open channel	m	4,910	500	2,455,000	2,209,500	245,500	
			· Box culvert	m	540	1,500	810,000	729,000	81,000	
			Detouring of roads	m						
			Subtotal				4,990,780	4,491,702	499,078	
Airfield Facility	2	Earthwork	Stripping	m^3	3,900,000	2	7,800,000	7,020,000	780,000	
			Excavation	m^3	9,900,000	10	88,000,000	79,200,000	8,800,000	
			Embankment	m^3	7,500,000	5	37,500,000	33,750,000	3,750,000	
			Sodding	m^2	1,940,000	3	5,820,000	5,238,000	582,000	
			Subtotal				139,120,000	125,208,000	13,912,000	
	3	Pavement	Runway construction	m^2	258,000	163	42,054,000	37,848,600	4,205,400	
			Runway shoulder, overrun	m^2	83,600	64	5,350,400	4,815,360	535,040	
			Taxiway construction	m^2	272,560	163	44,432,480	40,043,232	4,419,248	
			Taxiway shoulder	m^2	138,190	64	8,850,560	7,965,504	885,056	
			Apron construction	m^2	566,800	146	82,752,800	74,477,520	8,275,280	
			OSE roads	m^2	54,000	70	3,780,000	3,402,000	378,000	
			Marking	m^2	45,000	12	540,000	486,000	54,000	
			Subtotal				187,820,240	169,038,216	18,782,024	
	4	Drainage	Open channel	m	16,000	300	4,800,000	4,320,000	480,000	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	7,500	200	1,500,000	1,350,000	150,000	
			Open ditch	m	0	50	0	0	0	
			Subtotal				6,300,000	5,670,000	630,000	
	5	Miscellaneous	Perimeter roads	m	9,840	193	1,899,120	1,709,208	189,912	
			Maintenance roads	m	5,690	140	796,600	716,940	79,660	
			Fence	m	13,340	300	4,334,000	1,200,600	133,400	
			Gates	set	10	3,000	30,000	27,000	3,000	
			Subtotal				4,059,720	3,653,748	405,972	
	6	Total of Airfield Facility					337,299,960	303,569,964	33,729,996	
Terminal Area Facility	7	New Passenger Terminal Building (International)		m^2	27,300	2,200	60,060,000	49,849,800	10,210,200	
	8	New Passenger Terminal Building (Domestic)		m^2	8,400	2,200	18,480,000	15,338,400	3,141,600	
	9	New Cargo Terminal Building (International)		m^2	8,690	1,500	13,035,000	10,819,050	2,215,950	
	10	New Cargo Terminal Building (Domestic))		m^2	8,000	1,500	12,000,000	9,960,000	2,040,000	
	11	Tower and Admin Building		m^2	5,700	3,200	18,240,000	15,139,200	3,100,800	
	12	Fire Station		m^2	900	1,400	1,260,000	1,045,800	214,200	
	13	Main Power Station		m^2	1,600	1,400	2,240,000	1,859,200	380,800	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2	23,900	1,000	23,900,000	19,837,000	4,063,000	
	19	Road & Car Park	(Fx 30%)	m^2			23,562,000	19,556,460	4,005,540	
				m^2				0	0	
	20	Total of Terminal Area Facility					172,777,000	143,404,910	29,372,090	
Air Navigation Facility	21	Radio Navaids		Sum	1		6,417,000	5,903,640	513,360	
	22	ATC System		Sum	1		15,583,000	14,338,360	1,244,640	
	23	Airfield Lighting System		Sum	1		9,792,000	9,008,640	783,360	
	24	Meteorological Observation System		Sum	1		9,450,000	8,694,000	756,000	
	25	FNAS System		Sum	1					
	26	Total of Air Navigation Facility					41,242,000	37,942,640	3,299,360	
Airport Special Equipment	27	Boarding Bridge		Set	5	550,000	2,750,000	2,750,000	0	
	28	Baggage Handling System		m^2	35,700	20	714,000	714,000	0	
	29	Flight Information Display System		m^2	35,700	35	1,249,500	1,249,500	0	
	30	Cold Storage		m^3	25	1,500	37,500	37,500	0	
	31	Fire Fighting Vehicle		Set			2,760,000	2,760,000	0	
	32	Airport Maintenance Equipment		Set			6,020,000	6,020,000	0	
	33	Total of Airport Special Equipment					13,931,000	13,931,000	0	
Utilities & Others	34	Access Road & Interchange		m			10,656,000	9,590,400	1,065,600	
	35	Power Supply		kVA	8,700	3,600	24,120,000	21,466,800	2,653,200	
	36	Water Supply System		ton	1,170	2,760	3,229,200	2,873,988	355,212	
	37	Sewage Treatment Facility		ton	1,170	900	1,123,200	999,648	123,552	
	38	Hot Water Supply System		m^2	27,300	840	22,932,000	20,409,480	2,522,520	
	39	Fuel Supply System		kl	6,800	1,800	12,276,000	10,925,640	1,350,360	
	40	Staff Housing		m^2	5,000	1,500	7,500,000	6,675,000	825,000	
	41	Total of Utilities					81,836,400	72,940,956	8,895,444	
	42	Total of Works					652,677,140	576,281,172	75,795,968	
Project Admin. Expenses	43	Land Acquisition		m^2	3,900,000	10	39,000,000		39,000,000	
	44	Administration Expense (42 x 1%)		Sum			6,520,771		6,520,771	
	45	Survey & Engineering Design (42 x 12%)		Sum			65,207,714	57,628,317	7,579,397	
	46	Physical Contingency [(42+45) x 10%]		Sum			71,728,485	63,390,929	8,337,556	
	47	Miscellaneous		Sum						
	48	Total of Administrative Expenses					182,456,970	121,019,046	61,437,925	
	49	Grand Total					834,534,111	697,300,218	137,233,893	

Project Cost Estimate (New Tashkent Airport) - Pre F/S Stage (BOT: Buildings)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Work	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m						
			- Underground	m						
			Detouring of irrigation channel							
			- Open channel	m						
			- Box culvert	m						
			Detouring of roads	m						
			Subtotal							
Airfield Facility	2	Earthwork	Stripping	m^3						
			Excavation	m^3						
			Embankment	m^3						
			Sodding	m^2						
			Subtotal							
	3	Pavement	Runway construction	m^2						
			Runway shoulder, overrun	m^2						
			Taxiway construction	m^2						
			Taxiway shoulder	m^2						
			Apron construction	m^2						
			OSE roads	m^2						
			Marking	m^2						
			Subtotal							
	4	Drainage	Open channel	m						
			Box culvert	m						
			Pipe culvert	m						
			Open ditch	m						
			Subtotal							
	5	Miscellaneous	Perimeter roads	m						
			Maintenance roads	m						
			Fence	m						
			Gates	set						
			Subtotal							
	6	Total of Airfield Facility								
Terminal Area Facility	7	New Passenger Terminal Building (International)		m^2	27,300	2,200	60,060,000	49,849,800	10,210,200	
	8	New Passenger Terminal Building (Domestic)		m^2	8,400	2,200	18,480,000	15,338,400	3,141,600	
	9	New Cargo Terminal Building (International)		m^2	8,690	1,500	13,035,000	10,819,650	2,215,350	
	10	New Cargo Terminal Building (Domestic)		m^2	8,000	1,500	12,000,000	9,960,000	2,040,000	
	11	Tower and Admin. Building		m^2						
	12	Fire Station		m^2						
	13	Main Power Station		m^2						
	14	Other Substations		m^2						
	15	Boiler Station & Cooling Station		m^2						
	16	Air Navigation Station Building		m^2						
	17	Radar Station		m^2						
	18	Other Building		m^2						0
	19	Road & Car Park	(7 x 30%)	m^2			23,562,000	19,556,460	4,005,540	
				m^2				0	0	
	20	Total of Terminal Area Facility					127,137,000	105,523,710	21,613,290	
Air Navigation Facility	21	Radio Navaids		Sum						
	22	ATC System		Sum						
	23	Airfield Lighting System		Sum						
	24	Meteorological Observation System		Sum						
	25	FNAS System		Sum						
	26	Total of Air Navigation Facility								
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2						
	29	Flight Information Display System		m^2						
	30	Cold Storage		m^3						
	31	Fire Fighting Vehicle		Set						
	32	Airport Maintenance Equipment		Set						
	33	Total of Airport Special Equipment								
Utilities & Others	34	Access Road & Interchange		m						
	35	Power Supply		KVA						
	36	Water Supply System		ton						
	37	Sewage Treatment Facility		ton						
	38	Hot Water Supply System		m^2						
	39	Fuel Supply System		kl						
	40	Staff Housing		m^2						
	41	Total of Utilities								
	42	Total of Works					127,137,000	105,523,710	21,613,290	
Project Admin. Expenses	43	Land Acquisition		m^2						
	44	Administrative Expense (42 x 1%)		Sum			1,271,370		1,271,370	
	45	Survey & Engineering Design (42 x 12%)		Sum			12,712,700	10,552,371	2,161,329	
	46	Physical Contingency ((42+45) x 10%)		Sum			13,985,070	11,607,608	2,377,462	
	47	Miscellaneous		Sum						
	48	Total of Administration Expenses					27,970,140	22,159,979	5,810,161	
	49	Grand Total					155,107,140	127,683,689	27,423,451	

Project Cost Estimate (New Tashkent Airport) - Pre F/S Stage (Aerodrome Facilities + BOT)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Work	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m	6,800	203	1,392,550	1,253,322	139,258	
			- Underground	m	1,190	280	333,200	299,886	33,320	
			Detouring of irrigation channel							
			- Open channel	m	4,910	500	2,455,000	2,209,500	245,500	
			- Box culvert	m	540	1,500	810,000	729,000	81,000	
			Detouring of roads	m						
			Subtotal				4,990,780	4,491,702	499,078	
Airfield Facility	2	Earthwork	Stripping	m^2	3,900,000	2	7,800,000	7,020,000	780,000	
			Excavation	m^3	8,800,000	10	88,000,000	79,200,000	8,800,000	
			Embankment	m^3	7,500,000	5	37,500,000	33,750,000	3,750,000	
			Sodding	m^2	1,940,000	3	5,820,000	5,238,000	582,000	
			Subtotal				139,120,000	125,208,000	13,912,000	
	3	Pavement	Runway construction	m^2	258,000	163	42,054,000	37,845,600	4,205,400	
			Runway shoulder, overrun	m^3	83,600	64	5,350,400	4,815,360	535,040	
			Taxiway construction	m^2	272,960	163	44,492,480	40,043,232	4,449,248	
			Taxiway shoulder	m^3	138,290	64	8,850,560	7,965,504	885,056	
			Apron construction	m^2	560,800	116	82,752,800	74,477,520	8,275,280	
			GSE roads	m^2	54,000	70	3,780,000	3,402,000	378,000	
			Marking	m^2	45,000	12	540,000	486,000	54,000	
			Subtotal				187,820,240	169,038,216	18,782,024	
	4	Drainage	Open channel	m	16,000	300	4,800,000	4,320,000	480,000	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	7,500	200	1,500,000	1,350,000	150,000	
			Open deck	m	0	50	0	0	0	
			Subtotal				6,300,000	5,670,000	630,000	
	5	Miscellaneous	Perimeter roads	m	9,810	193	1,892,130	1,702,908	189,912	
			Maintenance roads	m	5,690	140	796,600	716,940	79,660	
			Fence	m	11,340	130	1,334,000	1,200,600	133,400	
			Gates	set	10	3,000	30,000	27,000	3,000	
			Subtotal				4,052,730	3,647,448	405,972	
	6	Total of Airfield Facility					337,299,960	303,569,964	33,729,996	
Terminal Area Facility	7	New Passenger Terminal Building (International)		m^2					0	
	8	New Passenger Terminal Building (Domestic)		m^2					0	
	9	New Cargo Terminal Building (International)		m^2					0	
	10	New Cargo Terminal Building (Domestic))		m^2					0	
	11	Tower and Admin. Building		m^2	5,700	3,200	18,240,000	15,839,200	3,100,800	
	12	Fire Station		m^2	900	1,400	1,260,000	1,045,800	214,200	
	13	Main Power Station		m^2	1,600	1,400	2,240,000	1,859,200	380,800	
	14	Other Substation		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2	23,900	1,000	23,900,000	19,837,000	4,063,000	
	19	Road & Car Park	(C x 30%)	m^2			0	0	0	
				m^2				0	0	
	20	Total of Terminal Area Facility					45,640,000	37,881,200	7,758,800	
Air Navigation Facility	21	Radio Navaids		Sum	1		6,417,000	5,903,640	513,360	
	22	ATC System		Sum	1		15,583,000	14,336,360	1,246,640	
	23	Airfield Lighting System		Sum	1		9,792,000	9,008,640	783,360	
	24	Meteorological Observation System		Sum	1		9,450,000	8,694,000	756,000	
	25	TNAS System		Sum	1					
	26	Total of Air Navigation Facility					41,242,000	37,942,640	3,299,360	
Airport Special Equipment	27	Boarding Bridge		Set	5	550,000	2,750,000	2,750,000	0	
	28	Baggage Handling System		m^2	35,700	20	714,000	714,000	0	
	29	Flight Information Display System		m^2	35,700	35	1,249,500	1,249,500	0	
	30	Cold Storage		m^3	25	1,500	37,500	37,500	0	
	31	Fire Fighting Vehicle		Set			2,760,000	2,760,000	0	
	32	Airport Maintenance Equipment		Set			6,420,000	6,420,000	0	
	33	Total of Airport Special Equipment					13,931,000	13,931,000	0	
Utilities & Others	34	Access Road & Interchange		m			10,656,000	9,590,400	1,065,600	
	35	Power Supply		KVA	6,700	3,600	24,120,000	21,466,800	2,653,200	
	36	Water Supply System		ton	1,170	2,760	3,229,200	2,873,988	355,212	
	37	Sewage Treatment Facility		ton	1,170	960	1,123,200	999,648	123,552	
	38	H.A Water Supply System		m^2	27,300	840	22,932,000	20,409,480	2,522,520	
	39	Fuel Supply System		kl	6,820	1,800	12,276,000	10,925,640	1,350,360	
	40	Staff Housing		m^2	5,000	1,500	7,500,000	6,675,000	825,000	
	41	Total of Utilities					81,836,400	72,940,956	9,895,444	
	42	Total of Works					524,940,140	470,757,462	54,182,678	
Project Admin. Expenses	43	Land Acquisition		m^2	3,900,000	10	39,000,000		39,000,000	
	44	Administration Expense (42 x 1%)		Sum			5,249,401		5,249,401	
	45	Survey & Engineering Design (42 x 12%)		Sum			52,494,014	47,075,746	5,418,269	
	46	Physical Contingency ((42+45) x 10%)		Sum			57,743,415	51,783,321	5,960,095	
	47	Miscellaneous		Sum						
	48	Total of Administration Expenses					154,486,831	98,859,067	55,627,764	
	49	Grand Total					679,426,971	569,616,529	109,810,442	

Project Cost Estimate (Namangan Airport) - Pre F/S Stage (Including Air Navigation Facility)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m			0			
			- Underground	m			0			
			Detouring of irrigation channel							
			- Open channel	m			0			
			- Box culvert	m			0			
			Detouring of roads	m						
			Subtotal				0			
Airfield Facility	2	Earthwork	Stripping	m^3	195,000	5	983,000	884,700	98,300	
			Excavation	m^3	200,000	10	2,000,000	1,800,000	200,000	
			Embankment	m^3	1,000,000	5	1,000,000	900,000	100,000	
			Sodding	m^2	177,300	5	886,500	797,850	88,650	
			Subtotal				4,869,500	4,382,550	486,950	
	3	Pavement	Runway extension	m^2	12,000	95	1,140,000	1,026,000	114,000	
			Runway overlay	m^2	150,750	70	10,552,500	9,497,250	1,055,250	
			Runway shoulder, overrun	m^2	55,650	48	2,671,200	2,404,080	267,120	
			Taxiway Expansion	m^2	3,510	95	333,450	300,105	33,345	
			Taxiway overlay	m^2	21,400	30	702,000	631,800	70,200	
			Taxiway shoulder	m^2	21,900	48	1,052,200	946,980	105,220	
			Apron expansion	m^2	13,800	95	1,311,000	1,179,900	131,100	
			Apron overlay	m^2	56,500	32	1,808,000	1,627,200	180,800	
			GSE Road	m^2	11,800	54	637,200	573,480	63,720	
			Marking (pavement area x 5%)	m^2	15,998	12	143,976	129,578	14,398	
			Subtotal				20,440,516	18,396,473	2,044,053	
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	5,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	3,120	193	602,160	541,944	60,216	
			Maintenance roads	m	250	140	35,000	31,500	3,500	
			Fence	m	3,110	100	311,000	279,900	31,100	
			Gates	set				0	0	
			Subtotal				948,160	853,344	94,816	
	6	Total of Airfield Facility					26,258,186	23,632,367	2,625,819	
Terminal Area Facility	7	New Passenger Terminal Building		m^2	6,700	2,200	14,740,000	12,234,200	2,505,800	
	8	Renewal of Passenger Terminal Building		m^2	4,230	1,300	5,570,400	4,623,432	946,968	
	9	New Cargo Terminal Building		m^2	3,050	1,500	4,575,000	3,797,250	777,750	
	10	Renewal of Cargo Terminal Building		m^2			0	0	0	
	11	Tower and Admin. Building		m^2	2,800	3,200	8,960,000	7,436,800	1,523,200	
	12	Fire Station		m^2	150	1,400	210,000	174,300	35,700	
	13	Main Power Station		m^2	1,200	1,400	1,680,000	1,394,400	285,600	
	14	Other Substations		m^2			0	0	0	
	15	Boiler Station & Cooling Station		m^2			0	0	0	
	16	Air Navigation Station Building		m^2			0	0	0	
	17	Radar Station		m^2			0	0	0	
	18	Other Building		m^2			0	0	0	
	19	Road & Car Park	(7 x 10%)	m^2			1,174,000	1,223,820	250,580	
				m^2				0	0	
	20	Total of Terminal Area Facility					37,209,400	30,883,802	6,325,598	
Air Navigation Facility	21	Radio Navaids		Sum	1		3,834,000	3,527,280	306,720	
	22	ATC System		Sum	1		15,583,000	14,366,360	1,216,640	
	23	Airfield Lighting System		Sum	1		8,392,000	8,085,640	703,360	
	24	Meteorological Observation System		Sum	1		1,933,000	1,410,360	522,640	
	25	FNAS System		Sum						
	26	Total of Air Navigation Facility					29,742,000	27,362,640	2,379,360	
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2	10,920	20	218,400	218,400	0	
	29	Flight Information Display System		m^2	10,920	35	382,200	382,200	0	
	27	Cold Storage		Set						
	28	Fire Fighting Vehicle		Set						
	29	Airport Maintenance Equipment		Set			3,940,000	3,940,000		
	30	Total of Airport Special Equipment					4,540,600	4,540,600	0	
Utilities & Others	31	Access Road		Sum				0	0	
	32	Power Supply		kVA	1,490	3,600	5,364,000	4,773,960	590,040	
	33	Water Supply System		km	290	2,760	800,400	712,356	88,044	
	34	Sewage Treatment Facility		km	290	960	278,400	247,776	30,624	
	35	Hot Water Supply System		m^2	6,700	840	5,628,000	5,008,920	619,080	
	36	Fuel Supply System		Sum						
	37	Staff Housing		Sum						
	38	Total of Utilities					12,070,800	10,743,012	1,327,788	
	39	Total of Works					109,820,986	97,162,421	12,658,565	[illegible]
Project Admin. Expenses	40	Land Acquisition		m^2	196,500	10	1,966,000		1,966,000	
	41	Administration Expense (39 x 1%)		Sum			1,098,210		1,098,210	
	42	Survey & Engineering Design (39 x 15%)		Sum			16,473,148	14,574,363	1,898,785	
	43	Physical Contingency ((39+42) x 10%)		Sum			12,629,413	11,173,678	1,455,735	
				Sum						
	44	Total of Administration Expenses					32,166,771	25,748,042	6,418,729	
	45	Grand Total					141,987,757	122,910,463	19,077,294	[illegible]

Project Cost Estimate (Namangan Airport) - Pre F/S Stage (Without Air Navigation Facility)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation	1	Compensation Work	Detouring of electric power cable							
			Overhead	m			0			
			Underground	m			0			
			Detouring of irrigation channel							
			Open channel	m			0			
			Box culvert	m			0			
			Detouring of roads	m						
			Subtotal				0			
Airfield Facility	2	Earthwork	Stripping	m^3	196,600	5	983,000	884,700	98,300	
			Excavation	m^3	200,000	10	2,000,000	1,800,000	200,000	
			Embankment	m^3	200,000	5	1,000,000	900,000	100,000	
			Sodding	m^2	177,300	5	886,500	797,850	88,650	
			Subtotal				4,869,500	4,382,550	486,950	
	3	Pavement	Runway extension	m^2	12,000	95	1,140,000	1,026,000	114,000	
			Runway overlay	m^2	150,750	70	10,552,500	9,497,250	1,055,250	
			Runway shoulder, overrun	m^2	55,650	48	2,671,200	2,404,080	267,120	
			Taxiway Expansion	m^2	3,510	95	333,450	300,105	33,345	
			Taxiway overlay	m^2	23,400	30	702,000	631,800	70,200	
			Taxiway shoulder	m^2	21,900	48	1,051,200	946,080	105,120	
			Apron expansion	m^2	13,800	95	1,311,000	1,179,900	131,100	
			Apron overlay	m^2	36,500	52	1,898,000	1,708,200	189,800	
			OSE Road	m^2	11,800	54	637,200	573,480	63,720	
			Marking (pavement area x 5%)	m^2	11,998	12	143,976	129,578	14,398	
			Subtotal				20,440,526	18,396,473	2,044,053	
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	3,120	193	602,160	541,944	60,216	
			Maintenance roads	m	250	140	35,000	31,500	3,500	
			Fence	m	3,110	100	311,000	279,900	31,100	
			Curve	set				0	0	
			Subtotal				948,160	853,344	94,816	
	6	Total of Airfield Facility					26,258,186	23,632,367	2,625,819	
Terminal Area Facility	7	New Passenger Terminal Building		m^2	6,700	2,200	14,740,000	12,234,200	2,505,800	
	8	Renewal of Passenger Terminal Building		m^2	4,220	1,320	5,570,400	4,623,432	946,968	
	9	New Cargo Terminal Building		m^2	3,050	1,500	4,575,000	3,797,250	777,750	
	10	Renewal of Cargo Terminal Building		m^2			0	0	0	
	11	Tower and Admin. Building		m^2	0	3,200	0	0	0	
	12	Fire Station		m^2	150	1,400	210,000	174,300	35,700	
	13	Main Power Station		m^2	0	1,400	0	0	0	
	14	Other Substations		m^2			0	0	0	
	15	Boiler Station & Cooling Station		m^2			0	0	0	
	16	Air Navigation Station Building		m^2			0	0	0	
	17	Radar Station		m^2			0	0	0	
	18	Other Building		m^2			0	0	0	
	19	Road & Car Park	(7 x 15%)	m^2			1,474,000	1,223,420	250,580	
				m^2				0	0	
	20	Total of Terminal Area Facility					26,569,400	22,052,602	4,516,798	
Air Navigation Facility	21	VOR/DME Navaids		Sum	1		0	0	0	
	22	ATC System		Sum	1		0	0	0	
	23	Airfield Lighting System		Sum	1		0	0	0	
	24	Meteorological Observation System		Sum	1		0	0	0	
	25	FMAS System		Sum						
	26	Total of Air Navigation Facility					0	0	0	
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2	10,920	20	218,400	218,400	0	
	29	Flight Information Display System		m^2	10,920	35	382,200	382,200	0	
	27	Cold Storage		Set						
	28	Fire Fighting Vehicle		Set						
	29	Airport Maintenance Equipment		Set			3,940,000	3,940,000		
	30	Total of Airport Special Equipment					4,540,600	4,540,600	0	
Utilities & Others	32	Access Road		Sum					0	
	32	Power Supply		KVA	1,490	3,600	5,364,000	4,773,960	590,040	
	33	Water Supply System		m^3	290	2,760	800,400	712,356	88,044	
	34	Sewage Treatment Facility		m^3	290	960	278,400	247,776	30,624	
	35	Hot Water Supply System		m^2	6,700	840	5,628,000	5,008,920	619,080	
	36	Fuel Supply System		Sum						
	37	Staff Housing		Sum						
	38	Total of Utilities					11,070,800	10,743,012	1,327,788	
	39	Total of Works					69,438,906	60,968,581	8,470,405	69,438,906
Project Admin. Expenses	40	Land Acquisition		m^2	196,600	10	1,966,000		1,966,000	
	41	Administration Expense (39 x 1%)		Sum			694,390		694,390	
	42	Survey & Engineering Design (39 x 13%)		Sum			10,015,848	9,145,287	1,270,561	
	43	Physical Contingency ((39+42) x 10%)		Sum			7,965,483	7,013,387	974,097	
				Sum						
	44	Total of Administration Expenses					21,061,721	16,156,674	4,905,047	
	45	Grand Total					90,500,707	77,125,255	13,375,452	90,500,707

Project Cost Estimate (Namangan Airport) - Pre F/S Stage (Case 3)

Passenger Building Project

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation	1	Compensation Work	Detouring of electric power cable							
			· Overhead	m			0			
			· Underground	m			0			
			Detouring of irrigation channel							
			· Open channel	m			0			
			· Box culvert	m			0			
			Detouring of roads	m						
			Subtotal				0			
Airfield Facility	2	Earthwork	Stripping	m^3	196,600	5	0	0	0	
			Excavation	m^3	200,000	10	0	0	0	
			Embankment	m^3	200,000	5	0	0	0	
			Sodding	m^2	177,300	5	0	0	0	
			Subtotal				0	0	0	
	3	Pavement	Runway extension	m^2	12,000	95	0	0	0	
			Runway overlay	m^2	140,750	70	0	0	0	
			Runway shoulder, overrun	m^2	55,650	45	0	0	0	
			Taxiway Expansion	m^2	3,910	95	0	0	0	
			Taxiway overlay	m^2	23,400	30	0	0	0	
			Taxiway shoulder	m^2	21,900	45	0	0	0	
			Apron expansion	m^2	13,800	95	1,311,000	1,179,900	131,100	
			Apron overlay	m^2	36,500	52	1,898,000	1,708,200	189,800	
			GSE Road	m^2	11,800	54	637,200	573,480	63,720	
			Marking (pavement area x 5%)	m^2	2,515	12	30,180	27,162	3,018	
			Subtotal				3,876,380	3,488,742	387,638	
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	3,120	193	0	0	0	
			Maintenance roads	m	250	140	0	0	0	
			Fence	m	3,110	100	311,000	279,900	31,100	
			Gates	set				0	0	
			Subtotal				311,000	279,900	31,100	
	6	Total of Airfield Facility					4,187,380	3,768,642	418,738	
Terminal Area Facility	7	New Passenger Terminal Building		m^2	6,700	2,200	14,740,000	12,234,200	2,505,800	
	8	Renewal of Passenger Terminal Building		m^2	4,220	1,320	5,570,400	4,623,432	946,968	
	9	New Cargo Terminal Building		m^2	3,050	1,500	0	0	0	
	10	Renewal of Cargo Terminal Building		m^2			0	0	0	
	11	Tower and Admin. Building		m^2	0	3,200	0	0	0	
	12	Fire Station		m^2	150	1,400	210,000	174,300	35,700	
	13	Main Power Station		m^2	0	1,400	0	0	0	
	14	Other Substations		m^2			0	0	0	
	15	Boiler Station & Cooling Station		m^2			0	0	0	
	16	Air Navigation Station Building		m^2			0	0	0	
	17	Radar Station		m^2			0	0	0	
	18	Other Building		m^2			0	0	0	
	19	Road & Car Park	(7 x 10%)	m^2			1,474,000	1,223,420	250,580	
				m^2				0	0	
	20	Total of Terminal Area Facility					21,994,400	18,255,352	3,739,048	
Air Navigation Facility	21	Radio Navaids		Sum	1		0	0	0	
	22	ATC System		Sum	1		0	0	0	
	23	Airfield Lighting System		Sum	1		0	0	0	
	24	Meteorological Observation System		Sum	1		0	0	0	
	25	FMAS System		Sum						
	26	Total of Air Navigation Facility					0	0	0	
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2	10,920	20	218,400	218,400	0	
	29	Flight Information Display System		m^2	10,920	35	382,200	382,200	0	
	27	Cold Storage		Set						
	28	Fire Fighting Vehicle		Set						
	29	Airport Maintenance Equipment		Set			0	0		
	30	Total of Airport Special Equipment					600,600	600,600	0	
Utilities & Others	31	Access Road		Sum				0	0	
	32	Power Supply		kVA	900	3,600	3,240,000	2,883,600	356,400	
	33	Water Supply System		km	240	2,760	800,400	712,356	88,044	
	34	Sewage Treatment Facility		km	240	960	278,400	247,776	30,624	
	35	Hot Water Supply System		m^2	6,700	840	5,628,000	5,008,920	619,080	
	36	Fuel Supply System		Sum						
	37	Staff Housing		Sum						
	38	Total of Utilities					9,946,800	8,852,652	1,094,148	
	39	Total of Works					36,729,180	31,477,246	5,251,934	36,729,19
Project Admin. Expenses	40	Land Acquisition		m^2	196,600	10	0		0	
	41	Administration Expense (39 x 1%)		Sum			367,292		367,292	
	42	Survey & Engineering Design (39 x 15%)		Sum			5,509,377	4,724,587	784,790	
	43	Physical Contingency ((39+42) x 10%)		Sum			4,233,854	3,613,882	619,972	
				Sum						
	44	Total of Administration Expenses					10,100,515	8,341,470	1,759,054	
	45	Grand Total					46,829,705	39,818,716	7,010,988	46,829,70

Project Cost Estimate (Termez Airport) - Pre F/S Stage (Including Air Navigation Facility)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Airfield Facility	1	Compensation	Detouring of electric power cable							
		Work	Overhead	m			0			
			Underground	m			0			
			Detouring of irrigation channel							
			Open channel	m			0			
			Box culvert	m			0			
			Detouring of roads	m						
			Subtotal				0			
	2	Earthwork	Stripping	m^3	0	5	0			
			Excavation	m^3	0	10	0			
			Embankment	m^3	0	5	0			
			Sodding	m^2	0	5	0			
			Subtotal				0			
	3	Pavement	Runway extension	m^2	9,000	95	855,000	769,500	85,500	
			Runway overlay	m^2	126,000	74	9,324,000	8,391,600	932,400	
			Runway shoulder, overrun	m^2	51,750	48	2,484,000	2,235,600	248,400	
			Taxiway Expansion	m^2	3,840	95	364,800	328,320	36,480	
			Taxiway overlay	m^2	64,930	37	2,402,410	2,162,169	240,241	
			Taxiway shoulder	m^2	23,630	48	1,134,240	1,020,816	113,424	
			Apron expansion	m^2	18,700	95	1,776,500	1,598,850	177,650	
			Apron overlay	m^2	13,700	30	411,000	369,900	41,100	
			GSE Road	m^2	7,100	54	383,400	345,060	38,340	
			Marking (pavement area x 5%)	m^2	11,809	12	141,702	127,532	14,170	
			Subtotal				19,277,052	17,349,347	1,927,705	
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	0	193	0	0	0	
			Maintenance roads	m	0	140	0	0	0	
			Fence	m	0	100	0	0	0	
			Other	set				0	0	
			Subtotal				0	0	0	
	6	Total of Airfield Facility					19,277,052	17,349,347	1,927,705	19,277,052
Terminal Area Facility	7	New Passenger Terminal Building		m^2	4,920	2,200	9,944,000	8,253,520	1,690,480	
	8	Renewal of Passenger Terminal Building		m^2	2,200	1,320	2,904,000	2,410,320	493,680	
	9	New Cargo Terminal Building		m^2	1,670	1,500	2,505,000	2,079,150	425,850	
	10	Renewal of Cargo Terminal Building		m^2			0		0	
	11	Tower and Admin. Building		m^2	2,800	3,200	8,960,000	7,436,800	1,523,200	
	12	Fire Station		m^2	24	1,400	33,600	27,888	5,712	
	13	Main Power Station		m^2	1,200	1,400	1,680,000	1,394,400	285,600	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2				0	0	
	19	Road & Car Park	(7 x 10%)	m^2			994,400	825,352	169,048	
								0	0	
	20	Total of Terminal Area Facility					27,021,000	22,427,430	4,593,570	27,021,000
Air Navigation Facility	21	Radio Navaids		Sum	1		3,834,000	3,527,280	306,720	
	22	ATC System		Sum	1		15,583,000	14,336,360	1,246,640	
	23	Airfield Lighting System		Sum	1		8,708,000	8,011,360	696,640	
	24	Meteorological Observation System		Sum	1		1,533,000	1,410,360	122,640	
	25	FNAS System		Sum				0	0	
	26	Total of Air Navigation Facility					29,658,000	27,285,360	2,372,640	29,658,000
Airport Special Equipment	27	Boarding Bridge		Set				0	0	
	28	Baggage Handling System		m^2	6,720	20	134,400	134,400	0	
	29	Flight Information Display System		m^2	6,720	35	235,200	235,200	0	
	30	Cold Storage		Set				0	0	
	31	Fire Fighting Vehicle		Set				0	0	
	32	Airport Maintenance Equipment		Set			3,940,000	3,940,000	0	
	33	Total of Airport Special Equipment					4,309,600	4,309,600	0	4,309,600
Utilities & Others	34	Access Road		Sum				0	0	
	35	Power Supply		kVA	1,140	3,600	4,104,000	3,652,560	451,440	
	36	Water Supply System		lon	210	2,700	567,000	503,844	63,156	
	37	Sewage Treatment Facility		lon	210	954	200,600	178,424	22,176	
	38	Hot Water Supply System		m^2	4,520	840	3,796,800	3,379,152	417,648	
	39	Fuel Supply System		Sum				0	0	
	40	Staff Housing		Sum				0	0	
	41	Total of Utilities					8,682,000	7,714,980	955,020	8,682,000
	42	Total of Works					88,947,652	79,098,717	9,848,935	88,947,652
Project Admin. Expenses	43	Land Acquisition		m^2	35,500	10	355,000	0	355,000	
	44	Administration Expense (42 x 1%)		Sum			889,477	0	889,477	
	45	Survey & Engineering Design (42 x 15%)		Sum			13,342,148	11,864,808	1,477,340	
	46	Physical Contingency ((42+45) x 10%)		Sum			10,228,980	9,096,352	1,132,628	
				Sum					0	
									0	
	47	Total of Administration Expenses					24,815,604	20,961,160	3,854,444	
	48	Grand Total					113,763,256	100,059,877	13,703,380	113,763,256

Project Cost Estimate (Termez Airport) - Pre F/S Stage (Without Air Navigation Facility)

Facility			Work Item	Unit	Quantity	Unit Price	Amount ($US) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Airfield Facility	1	Compensation Work	Delivering of electric power cable							
			- Overhead	m			0			
			- Underground	m			0			
			Delivering of irrigation channel							
			- Open channel	m			0			
			- Box culvert	m			0			
			Delivering of roads	m						
			Subtotal				0			
	2	Earthwork	Stripping	m^2	0	5	0			
			Excavation	m^3	0	10	0			
			Embankment	m^3	0	5	0			
			Sodding	m^2	0	5	0			
			Subtotal				0			
	3	Pavement	Runway extension	m^2	9,000	95	855,000	759,500	95,500	
			Runway overlay	m^2	126,000	74	9,324,000	8,391,600	932,400	
			Runway shoulder, overrun	m^2	51,750	48	2,484,000	2,235,600	248,400	
			Taxiway Expansion	m^2	3,840	95	364,800	328,320	36,480	
			Taxiway overlay	m^2	64,930	37	2,402,410	2,162,169	240,241	
			Taxiway shoulder	m^2	23,630	48	1,134,240	1,020,816	113,424	
			Apron expansion	m^2	18,700	95	1,776,500	1,598,850	177,650	
			Apron overlay	m^2	13,700	30	411,000	369,900	41,100	
			GSE Road	m^2	7,100	54	383,400	345,060	38,340	
			Marking (pavement area x 5%)	m^2	11,809	12	141,702	127,532	14,170	
			Subtotal				19,277,052	17,349,347	1,927,705	
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	0	193	0	0	0	
			Maintenance roads	m	0	149	0	0	0	
			Fence	m	0	100	0	0	0	
			Gates	set				0	0	
			Subtotal				0	0	0	
	6	Total of Airfield Facility					19,277,052	17,349,347	1,927,705	19,277,052
Terminal Area Facility	7	New Passenger Terminal Building		m^2	4,520	2,200	9,944,000	8,253,520	1,690,480	
	8	Renewal of Passenger Terminal Building		m^2	2,200	1,320	2,904,000	2,410,320	493,680	
	9	New Cargo Terminal Building		m^2	1,670	1,500	2,505,000	2,079,150	425,850	
	10	Renewal of Cargo Terminal Building		m^2				0	0	
	11	Tower and Admin. Building		m^2	0	3,200	0	0	0	
	12	Fire Station		m^2	24	1,400	33,600	27,888	5,712	
	13	Main Power Station		m^2	0	1,400	0	0	0	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2				0	0	
	19	Road & Car Park	(7 x 10%)	m^2			994,400	825,352	169,048	
								0	0	
	20	Total of Terminal Area Facility					16,381,000	13,596,230	2,784,770	16,381,000
Air Navigation Facility	21	Radio Navaids		Sum	1		0	0	0	
	22	ATC System		Sum	1		0	0	0	
	23	Airfield Lighting System		Sum	1		0	0	0	
	24	Meteorological Observation System		Sum	1		0	0	0	
	25	FNAS System		Sum				0	0	
	26	Total of Air Navigation Facility					0	0	0	
Airport Special Equipment	27	Boarding Bridge		Set				0	0	
	28	Baggage Handling System		m^2	6,720	20	134,400	134,400	0	
	29	Flight Information Display System		m^2	6,720	35	235,200	235,200	0	
	30	Cold Storage		Set				0	0	
	31	Fire Fighting Vehicle		Set				0	0	
	32	Airport Maintenance Equipment		Set			3,910,000	3,910,000	0	
	33	Total of Airport Special Equipment					4,309,600	4,309,600	0	4,309,600
Utilities & Others	34	Access Road		Sum				0	0	
	35	Power Supply		kVA	1,140	3,600	4,104,000	3,652,860	451,140	
	36	Water Supply System		l/s	210	2,760	579,600	515,844	63,756	
	37	Sewage Treatment Facility		l/s	210	950	199,500	177,324	22,176	
	38	Hot Water Supply System		m^2	4,520	840	3,796,800	3,379,152	417,648	
	39	Fuel Supply System		Sum				0	0	
	40	Staff Housing		Sum				0	0	
	41	Total of Utilities					8,682,000	7,726,980	955,020	8,682,000
	42	Total of Works					48,649,652	42,982,157	5,667,495	48,649,652
Project Admini. Expenses	43	Land Acquisition		m^2	35,500	10	355,000	0	355,000	
	44	Administration Expense (42 x 1%)		Sum			486,497	0	486,497	
	45	Survey & Engineering Design (42 x 15%)		Sum			7,297,448	6,447,324	850,124	
	46	Physical Contingency ((42+45) x 10%)		Sum			5,594,710	4,943,548	651,162	
				Sum					0	
									0	
	47	Total of Administration Expenses					13,733,654	11,390,272	2,343,383	
	48	Grand Total					62,383,306	54,372,428	8,010,878	62,383,306

Project Cost Estimate (Termez Airport) - Pre F/S Stage (Case 3)

Passenger Building Only

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Airfield Facility	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m			0			
			- Underground	m			0			
			Detouring of irrigation channel							
			- Open channel	m			0			
			- Box culvert	m			0			
			Detouring of roads	m						
			Subtotal				0			
	2	Earthwork	Stripping	m^2	0	5	0			
			Excavation	m^3	0	10	0			
			Embankment	m^3	0	5	0			
			Sodding	m^2	0	5	0			
			Subtotal				0			
	3	Pavement	Runway extension	m^2	9,000	95	0	0	0	
			Runway overlay	m^2	126,000	74	0	0	0	
			Runway shoulder, overlay	m^2	51,750	48	0	0	0	
			Taxiway Expansion	m^2	3,810	95	0	0	0	
			Taxiway overlay	m^2	64,930	37	0	0	0	
			Taxiway shoulder	m^2	23,030	48	0	0	0	
			Apron expansion	m^2	18,700	95	1,776,500	1,598,850	177,650	
			Apron overlay	m^2	13,700	30	411,000	369,900	41,100	
			GSE Road	m^2	7,100	54	383,100	345,060	38,340	
			Marking (pavement area x 5%)	m^2	1,620	12	19,440	17,496	1,944	
			Subtotal				2,590,340	2,331,306	259,034	
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	0	195	0	0	0	
			Maintenance roads	m	0	140	0	0	0	
			Fence	m	0	300	0	0	0	
			Gates	set				0	0	
			Subtotal				0	0	0	
	6	Total of Airfield Facility					2,590,340	2,331,306	259,034	2,590,340
Terminal Area Facility	7	New Passenger Terminal Building		m^2	4,520	2,200	9,944,000	8,253,520	1,690,480	
	8	Renewal of Passenger Terminal Building		m^2	2,200	1,320	2,904,000	2,410,320	493,680	
	9	New Cargo Terminal Building		m^2	1,670	1,500	0	0	0	
	10	Renewal of Cargo Terminal Building		m^2				0	0	
	11	Tower and Admin. Building		m^2	0	3,200	0	0	0	
	12	Fire Station		m^2	24	1,400	33,600	27,888	5,712	
	13	Main Power Station		m^2	0	1,400	0	0	0	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2				0	0	
	19	Road & Car Park	(7 x 10%)	m^2			994,400	825,352	169,048	
								0	0	
	20	Total of Terminal Area Facility					13,876,000	11,517,080	2,358,920	13,876,000
Air Navigation Facility	21	Radio Navaids		Sum	1		0	0	0	
	22	ATC System		Sum	1		0	0	0	
	23	Airfield Lighting System		Sum	1		0	0	0	
	24	Meteorological Observation System		Sum	1		0	0	0	
	25	FNAS System		Sum				0	0	
	26	Total of Air Navigation Facility					0	0	0	0
Airport Special Equipment	27	Boarding Bridge		Set				0	0	
	28	Baggage Handling System		m^2	6,720	20	134,400	134,400	0	
	29	Flight Information Display System		m^2	6,720	35	235,200	235,200	0	
	30	Cold Storage		Set				0	0	
	31	Fire Fighting Vehicle		Set				0	0	
	32	Airport Maintenance Equipment		Set			0	0	0	
	33	Total of Airport Special Equipment					369,600	369,600	0	369,600
Utilities & Others	34	Access Road		Sum				0	0	
	35	Power Supply		kVA	700	3,600	2,520,000	2,242,800	277,200	
	36	Water Supply System		km	210	2,700	567,000	503,244	63,756	
	37	Sewage Treatment Facility		km	210	960	201,600	179,424	22,176	
	38	Hot Water Supply System		m^2	4,510	840	3,788,400	3,370,752	417,648	
	39	Fuel Supply System		Sum				0	0	
	40	Staff Housing		Sum				0	0	
	41	Total of Utilities					7,098,000	6,317,220	780,780	7,098,000
	42	Total of Works					23,933,940	20,535,206	3,398,734	23,933,940
Project Admini. Expenses	43	Land Acquisition		m^2	35,500	10	0	0	0	
	44	Administration Expense (42 x 1%)		Sum			239,339	0	239,339	
	45	Survey & Engineering Design (42 x 13%)		Sum			3,590,091	3,080,281	509,810	
	46	Physical Contingency ((42+45) x 10%)		Sum			2,752,493	2,361,639	390,854	
				Sum					0	
									0	
	47	Total of Administration Expenses					6,581,834	5,441,830	1,140,004	
	48	Grand Total					30,515,774	25,977,036	4,538,738	30,515,774

Project Cost Estimate (Nukus Airport) - Pre F/S Stage (Incuding Air Navigation Facility)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Works	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m			0			
			- Underground	m			0			
			Detouring of irrigation channel							
			- Open channel	m		500	0			
			- Box culvert	m		1,500	0			
			Detouring of roads	m						
			Subtotal				0			
Airfield Facility	2	Earthwork	Stripping	m^3	0	5	0			
			Excavation	m^3	0	10	0			
			Embankment	m^3	0	5	0			
			Sodding	m^2	0	5	0			
			Subtotal				0			
	3	Pavement	Runway extension	m^2	0	95	0	0	0	
			Runway overlay	m^2	135,000	74	9,990,000	8,991,000	999,000	
			Runway shoulder, overrun	m^2	42,480	41	1,741,680	1,567,512	174,168	
			Taxiway Expansion	m^2	5,450	73	403,300	362,970	40,330	
			Taxiway overlay	m^2	69,990	32	2,239,680	2,015,712	223,968	
			Taxiway shoulder	m^2	16,650	41	682,650	614,385	68,265	
			Apron expansion	m^2	8,400	74	621,600	559,440	62,160	
			Apron overlay	m^2	33,400	19	634,600	571,140	63,460	
			GSE Road	m^2	8,400	50	420,000	378,000	42,000	
			Marking (pavement area x 5%)	m^2	12,612	12	151,344	136,210	15,134	
			Subtotal				16,884,854	15,196,369	1,688,485	16,884,854
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	0	195	0	0	0	
			Maintenance roads	m	0	140	0	0	0	
			Fence	m	0	100	0	0	0	
			Gates	set				0	0	
			Subtotal				0	0	0	
	6	Total of Airfield Facility					16,884,854	15,196,369	1,688,485	16,884,854
Terminal Area Facility	7	New Passenger Terminal Building		m^2	8,720	2,200	19,184,000	15,922,720	3,261,280	
	8	Renewal of Passenger Terminal Building		m^2	2,200	1,320	2,904,000	2,410,320	493,680	
	9	New Cargo Terminal Building		m^2	1,570	1,500	2,355,000	1,954,650	400,350	
	10	Renewal of Cargo Terminal Building		m^2	550	900	495,000	410,850	84,150	
	11	Tower and Admin. Building		m^2	2,800	3,200	8,960,000	7,436,800	1,523,200	
	12	Fire Station		m^2	355	1,400	217,000	180,110	36,890	
	13	Main Power Station		m^2	1,200	1,400	1,680,000	1,394,400	285,600	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2				0	0	
	19	Road & Car Park	(7 x 10 %)	sum	1		1,918,400	1,592,272	326,128	
								0	0	
	20	Total of Terminal Area Facility					37,713,400	31,302,122	6,411,278	37,713,400
Air Navigation Facility	21	Radio Navaids		Sum	1		3,854,000	3,527,280	326,720	
	22	ATC System		Sum	1		15,583,000	14,336,360	1,246,640	
	23	Airfield Lighting System		Sum	1		8,708,000	8,011,360	696,640	
	24	Meteorological Observation System		Sum	1		1,533,000	1,410,360	122,640	
	25	FNAS System		Sum				0	0	
	26	Total of Air Navigation Facility					29,658,000	27,285,360	2,372,640	29,658,000
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2	10,920	20	218,400	218,400	0	
	29	Flight Information Display System		Set	10,920	35	382,200	382,200	0	
	30	Cold Storage		Set						
	31	Fire Fighting Vehicle		Set						
	32	Airport Maintenance Equipment		Set			3,910,000	3,910,000		
	33	Total of Airport Special Equipment					4,540,600	4,540,600	0	4,540,600
Utilities & Others	34	Access Road		Sum						
	35	Power Supply		kVA	1,430	3,600	5,184,000	4,613,760	570,240	
	36	Water Supply System		ton	290	2,760	800,400	712,356	88,044	
	37	Sewage Treatment Facility		ton	290	960	278,400	247,776	30,624	
	38	H.A Water Supply System		m^3	8,720	840	7,324,800	6,519,072	805,728	
	39	Fuel Supply System		Sum						
	40	Staff Housing		Sum						
	41	Total of Utilities					13,587,600	12,092,964	1,494,636	13,587,600
	42	Total of Works					102,384,454	90,417,415	11,967,039	102,384,454
Project Admist. Expenses	43	Land Acquisition		Sum						
	44	Administration Expense (42 x 1%)		Sum			1,023,845	0	1,023,845	
	45	Survey & Engineering Design (42 x 15%)		Sum			15,357,668	13,562,612	1,795,056	
	46	Physical Contingency ((42+45) x 10%))		Sum			11,374,212	10,398,003	976,210	
				Sum					0	
	47	Total of Administration Expenses					28,155,725	23,960,615	4,195,110	28,155,725
	48	Grand Total					130,540,179	114,378,029	16,162,149	130,540,179

Project Cost Estimate [Nukus Airport] - Pre F/S Stage (Without Air Navigation Facility)

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Works	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m			0			
			- Underground	m			0			
			Detouring of irrigation channel							
			- Open channel	m		500	0			
			- Box culvert	m		1,500	0			
			Detouring of roads	m						
			Subtotal				0			
Airfield Facility	2	Earthwork	Stripping	m^3	0	5	0			
			Excavation	m^3	0	10	0			
			Embankment	m^3	0	5	0			
			Sodding	m^2	0	5	0			
			Subtotal				0			
	3	Pavement	Runway extension	m^2	0	95	0	0	0	
			Runway overlay	m^2	135,000	74	9,990,000	8,991,000	999,000	
			Runway shoulder, overlay	m^2	42,480	41	1,741,680	1,567,512	174,168	
			Taxiway Extension	m^2	5,450	74	403,300	362,970	40,330	
			Taxiway overlay	m^2	69,990	32	2,239,680	2,015,712	223,968	
			Taxiway shoulder	m^2	16,650	41	682,650	614,385	68,265	
			Apron extension	m^2	8,400	74	621,600	559,440	62,160	
			Apron overlay	m^2	33,400	19	634,600	571,140	63,460	
			CSE Road	m^2	8,400	50	420,000	378,000	42,000	
			Marking (pavement area x 5%)	m^2	12,612	12	151,344	136,210	15,134	
			Subtotal				16,884,854	15,196,369	1,688,485	16,884,854
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	0	193	0	0	0	
			Maintenance roads	m	0	340	0	0	0	
			Fence	m	0	100	0	0	0	
			Gates	set				0	0	
			Subtotal				0	0	0	
	6	Total of Airfield Facility					16,884,854	15,196,369	1,688,485	16,884,854
Terminal Area Facility	7	New Passenger Terminal Building		m^2	8,720	2,200	19,184,000	15,922,720	3,261,280	
	8	Renewal of Passenger Terminal Building		m^2	2,200	1,320	2,904,000	2,410,320	493,680	
	9	New Cargo Terminal Building		m^2	1,570	1,500	2,355,000	1,954,650	400,350	
	10	Renewal of Cargo Terminal Building		m^2	550	900	495,000	410,850	84,150	
	11	Tower and Admin. Building		m^2	0	3,200	0	0	0	
	12	Fire Station		m^2	155	1,400	217,000	180,110	36,890	
	13	Main Power Station		m^2	0	1,400	0	0	0	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2				0	0	
	19	Road & Car Park (7 x 10 %)		sum	5		1,918,400	1,592,272	326,128	
								0	0	
	20	Total of Terminal Area Facility					27,073,400	22,470,922	4,602,478	27,073,400
Air Navigation Facility	21	Radio Navaids		Sum	1		0	0	0	
	22	ATC System		Sum	1		0	0	0	
	23	Airfield Lighting System		Sum	1		0	0	0	
	24	Meteorological Observation System		Sum	1		0	0	0	
	25	FNAS System		Sum				0	0	
	26	Total of Air Navigation Facility					0	0	0	0
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2	10,920	20	218,400	218,400	0	
	29	Flight Information Display System		Set	10,920	35	382,200	382,200	0	
	30	Cold Storage		Set						
	31	Fire Fighting Vehicle		Set						
	32	Airport Maintenance Equipment		Set			3,940,000	3,940,000		
	33	Total of Airport Special Equipment					4,540,600	4,540,600	0	4,540,600
Utilities & Others	34	Access Road		Sum						
	35	Power Supply		kVA	1,440	3,600	5,184,000	4,613,760	570,240	
	36	Water Supply System		l/s	290	2,760	800,400	712,356	88,044	
	37	Sewage Treatment Facility		l/s	290	960	278,400	247,776	30,624	
	38	Hot Water Supply System		m^2	8,720	840	7,324,800	6,519,072	805,728	
	39	Fuel Supply System		Sum						
	40	Staff Housing		Sum						
	41	Total of Utilities					13,587,600	12,092,964	1,494,636	13,587,600
	42	Total of Works					62,086,454	54,300,855	7,785,599	62,086,454
Project Admini. Expenses	43	Land Acquisition		Sum						
	44	Administration Expense (42 x 1%)		Sum			620,865	0	620,865	
	45	Survey & Engineering Design (42 x 15%)		Sum			9,312,968	8,145,328	1,167,640	
	46	Physical Contingency ((42+45) x 10%)		Sum			7,339,542	6,244,598	895,344	
				Sum					0	
	47	Total of Administration Expenses					17,073,775	14,389,926	2,683,849	17,073,775
	48	Grand Total					79,160,129	68,690,581	10,469,548	79,160,129

Project Cost Estimate (Nukus Airport) - Pre F/S Stage (Case 3)

Passenger Building Only

Facility			Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
					1	2	3	4	5	
Compensation Works	1	Compensation Work	Detouring of electric power cable							
			- Overhead	m			0			
			- Underground	m			0			
			Detouring of irrigation channel							
			- Open channel	m		500	0			
			- Box culvert	m		1,500	0			
			Detouring of roads	m						
			Subtotal				0			
Airfield Facility	2	Earthwork	Stripping	m^3	0	5	0			
			Excavation	m^3	0	10	0			
			Embankment	m^3	0	5	0			
			Sodding	m^2	0	5	0			
			Subtotal				0			
	3	Pavement	Runway extension	m^2	0	95	0	0	0	
			Runway overlay	m^2	135,000	74	0	0	0	
			Runway shoulder, overrun	m^2	42,450	41	0	0	0	
			Taxiway Expansion	m^2	5,450	74	0	0	0	
			Taxiway overlay	m^2	69,990	32	0	0	0	
			Taxiway shoulder	m^2	16,650	41	0	0	0	
			Apron expansion	m^2	8,400	74	621,600	559,440	62,160	
			Apron overlay	m^2	33,400	19	634,600	571,140	63,460	
			GNE Road	m^2	8,400	50	420,000	378,000	42,000	
			Marking (pavement area x 5%)	m^2	2,090	12	25,080	22,572	2,508	
			Subtotal				1,701,280	1,531,152	170,128	1,701,28
	4	Drainage	Open channel	m	0	300	0	0	0	
			Box culvert	m	0	1,000	0	0	0	
			Pipe culvert	m	0	200	0	0	0	
			Open ditch	m	0	50	0	0	0	
			Subtotal				0	0	0	
	5	Miscellaneous	Perimeter roads	m	0	145	0	0	0	
			Maintenance roads	m	0	140	0	0	0	
			Fence	m	0	100	0	0	0	
			Gates	set				0	0	
			Subtotal				0	0	0	
	6	Total of Airfield Facility					1,701,280	1,531,152	170,128	1,701,28
Terminal Area Facility	7	New Passenger Terminal Building		m^2	8,720	2,200	19,354,000	14,922,720	3,261,280	
	8	Renewal of Passenger Terminal Building		m^2	2,200	1,320	2,904,000	2,410,320	493,680	
	9	New Cargo Terminal Building		m^2	1,570	1,500	0	0	0	
	10	Renewal of Cargo Terminal Building		m^2	550	900	0	0	0	
	11	Tower and Admin. Building		m^2	0	3,200	0	0	0	
	12	Fire Station		m^2	155	1,400	217,000	180,110	36,890	
	13	Main Power Station		m^2	0	2,400	0	0	0	
	14	Other Substations		m^2				0	0	
	15	Boiler Station & Cooling Station		m^2				0	0	
	16	Air Navigation Station Building		m^2				0	0	
	17	Radar Station		m^2				0	0	
	18	Other Building		m^2				0	0	
	19	Road & Car Park (7 x 10 %)		sum	1		1,919,400	1,592,272	326,128	
								0	0	
	20	Total of Terminal Area Facility					24,223,400	20,105,422	4,117,978	24,223,40
Air Navigation Facility	21	Radio Navaids		Sum	1		0	0	0	
	22	ATC System		Sum	1		0	0	0	
	23	Airfield Lighting System		Sum	1		0	0	0	
	24	Meteorological Observation System		Sum	1		0	0	0	
	25	FNAS System		Sum				0	0	
	26	Total of Air Navigation Facility					0	0	0	0
Airport Special Equipment	27	Boarding Bridge		Set						
	28	Baggage Handling System		m^2	10,920	20	218,400	218,400	0	
	29	Flight Information Display System		Set	10,920	35	382,200	382,200	0	
	30	Cold Storage		Set						
	31	Fire Fighting Vehicle		Set						
	32	Airport Maintenance Equipment		Set			0	0		
	33	Total of Airport Special Equipment					600,600	600,600	0	600,60
Utilities & Others	34	Access Road		Sum						
	35	Power Supply		kVA	900	3,600	3,240,000	2,883,600	356,400	
	36	Water Supply System		km	290	2,760	800,400	712,356	88,044	
	37	Sewage Treatment Facility		km	290	960	278,400	247,776	30,624	
	38	Hot Water Supply System		m^2	8,720	840	7,324,800	6,519,072	805,728	
	39	Fuel Supply System		Sum						
	40	Staff Housing		Sum						
	41	Total of Utilities					11,643,600	10,362,804	1,280,796	11,643,6
	42	Total of Works					38,168,880	32,599,978	5,568,902	38,168,88
Project Admini. Expenses	43	Land Acquisition		Sum						
	44	Administration Expense (42 x 1%)		Sum			381,689	0	381,689	
	45	Survey & Engineering Design (42 x 15%)		Sum			5,725,332	4,889,997	835,335	
	46	Physical Contingency ((42+45) x 10%)		Sum			4,389,421	3,748,997	640,424	
				Sum					0	
	47	Total of Administration Expenses					10,496,442	8,638,994	1,857,448	10,496,44
	48	Grand Total					48,665,322	41,238,972	7,426,350	48,665,32

Project Cost Estimate (Nationwide Airnavigation System) - Pre F/S Stage (Air Route Navaids Only)

Facility		Work Item	Unit	Quantity	Unit Price	Amount (US$)			Remarks
						Total	Foreign	Local	
				1	2	3	4	5	
VOR/DME	1	Karakiday	Set	1		1,300,000	1,196,000	104,000	
	2	Dzhambl	Set	1		1,300,000	1,196,000	104,000	
	3	Dzhezdin	Set	1		1,300,000	1,196,000	104,000	
	4	Syrdarya	Set	1		1,300,000	1,196,000	104,000	
	5	Nurata	Set	1		1,300,000	1,196,000	104,000	
	6	Bukhara	Set	1		1,300,000	1,196,000	104,000	
	7	Nagornaya	Set	1		1,300,000	1,196,000	104,000	
	8	Ulgut	Set	1		1,300,000	1,196,000	104,000	
							0	0	
	9	**Total of Works**				**10,400,000**	**9,568,000**	**832,000**	
Project Admin. Expenses	10	Land Acquisition	Sum				0	0	
	11	Administration Expense (37 x 1%)	Sum			104,000	0	104,000	
	12	Survey & Engineering Design (35 x 15%)	Sum			1,560,000	1,435,200	124,800	
	13	Physical Contingency (137+40) x 10%	Sum			1,196,000	1,100,320	95,680	
			Sum				0	0	
	14	**Total of Administration Expenses**				**2,860,000**	**2,535,520**	**324,480**	
	15	**Grand Total**				**13,260,000**	**12,103,520**	**1,156,480**	13,260,000

Project Cost Estimate (Nationwide Airnavigation System) - Pre F/S Stage
(Including Air Navigation Facilities of Namangan, Termez and Nukus Airports)

Facility		Work Item	Unit	Quantity	Unit Price	Amount (US$) Total	Foreign	Local	Remarks
				1	2	3	4	5	
Tower	1	Namangan	m2	2,800	3,200	8,960,000	7,436,800	1,523,200	
	2	Termez	m2	2,800	3,200	8,960,000	7,436,800	1,523,200	
	3	Nukus	m2	2,800	3,200	8,960,000	7,436,800	1,523,200	
	4	**Subtotal**				**26,880,000**	**22,310,400**	**4,569,600**	
Substation	5	Namangan	m2	1,200	1,400	1,680,000	1,394,400	285,600	
	6	Termez	m2	1,200	1,400	1,680,000	1,394,400	285,600	
	7	Nukus	m2	1,200	1,400	1,680,000	1,545,600	134,400	
	8	**Subtotal**				**5,040,000**	**4,334,400**	**705,600**	
Navaids	9	Namangan	SG	1		29,742,000	27,362,640	2,379,360	
	10	Termez	SG	1		29,658,000	27,285,360	2,372,640	
	11	Nukus	SG	1		29,658,000	27,285,360	2,372,640	
	12	**Subtotal**				**89,058,000**	**81,933,360**	**7,124,640**	
VOR/DME	13	Equipment and Installation	Set	8	1,300,000	10,400,000	9,568,000	832,000	
Electric Power Supply	14	Equipment	Sum	3	2,500,000	**7,500,000**	**6,900,000**	**600,000**	
	15								
	16	**Total of Works**				**138,878,003**	**125,846,164**	**13,031,839**	
Project Admin. Expenses	17	Land Acquisition	Sum				0	0	
	18	Administration Expense (37 x 1%)	Sum			1,388,780	0	1,388,780	
	19	Survey & Engineering Design (135 x 15%)	Sum			20,831,700	18,756,925	2,074,775	
	20	Physical Contingency ((37+20) x 10%)	Sum			15,970,970	14,380,309	1,590,662	
			Sum				0	0	
	21	**Total of Administration Expenses**				**38,191,451**	**33,137,233**	**5,054,218**	
	22	**Grand Total**				**177,069,454**	**158,983,397**	**18,086,057**	177,069,454

Navaids 1/1