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KEY REFERENCES

AIRPORT FACILITIES

Runways and Parallel Taxiways

Aircraft Parking Aprons

Airfield Lighting Systems

Stand-By Electrical Power

A/C Jet Fuel Storage Facilities

A/C Hydrant Refueling Facilities

Base Headquarters Buildings

Lubricating Oil Storages

Motor Fuel Storage Facilities

Ammunition Storage Facilities

Meteorological Facilities

Flying Control Towers

Marshalling Areas

UHF/DF Facilities

Crash and Fire Stations

Vehicle Pool Hardstands

Hardened Aircraft Shelters

Warehouse/Storage Facilities

Reception Terminal Facilities

Aircraft Engine Workshops

Liquid Oxygen Storage Facilities

General Maintenance Workshops

Vehicle Maintenance Workshops

Communications Facilities

Aircraft Maintenance Hangars

Ground Control Approach Facilities

Airborne Early Warning Ground Facilities

Officers and Soldiers Buildings

Tactical Air Navigation Facilities

Hardened Refueling Truck Shelters

Hardened Wing Operation Facilities

Hardened Squadron Operations Facilities





Detailed Engineering
Cost Estimations
Tender Documentation
Construction Supervision
Construction Specifications
Commissioning
Start-up Inspections
Geophysical Studies
Geotechnical Studies
Topographical Surveys



Concrete Runway (3,000 m x 45 m LCN 59)
Concrete Parallel Taxiway (3,000 m x 22.5 m LCN 59)
Concrete Loading, Unloading Platform (2 x 2,000 sqm LCN 59)
Concrete Asphalt Overruns (150 x 45 m)
Connection Taxitracks (16,700 sqm)
Concrete Aircraft Parking Apron (95,000 sqm)
CAT 2 Airport Lighting System
Internal Roads (30,170 sqm)
Marshalling Area (12,000 sqm)
Officers and NCO Officers Building
Soldiers Dormitory and Messhall
Soldiers Bath and Laundry
Maintenance Workshop
Heating Center and Distribution System
Water, Sewerage, Drainage Systems
Jet Fuel Storage System
6 x Hydrant Refueling Pit
Avgas Fuel Storage
200 kVA Stand-By Diesel-Generator Set
Pipeline Connection System
MV Main Switchgear Building
7 x Transformer Building
POL Office Building
40 cum Motor Fuel Underground Storage
Terminal Building (712 sqm)
Flight Control Tower
Open Storage Area (10,375 sqm)
Warehouse (1,065 sqm)
Meteorology Building (123 sqm)
Parking, Marshalling Area (50,780 sqm)
GCA Facilities (200 sqm)
Perimeter Wire Fence (11,700 m)



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Runway Restoration

3400 m x 45 m Runway (LCN 65)

3400 m x 22.5 m Parallel Taxiway (LCN 65)

2 x Connecting Taxiway (LCN 65)

New Facilities

2 x Connecting Taxiway (LCN 65)

Parking & Maintenance Apron

(LCN 65, 30,000 sqm)

Jet Fuel Storage Facility

Lubricating Oil Storage

Squadron Operations Building

Aircraft Maintenance Workshops

Warehouse

Liquid Oxygen Storage

Crash and Fire Station

Communication Building

Guest House, Cafeteria and Infirmary

AWACS Parking Apron Lighting System

(30,000 sqm)

(22 x 1000 W Metal Halide Projector)





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**Taxitrack Loop (22,212 sqm)
Connection Taxitracks (9,087 sqm)
Aircraft Parking Platforms (8,960 sqm)
Strategic Cargo A/C Parking Platform (8,000 sqm)
Maintenance and Inspection Apron (9,500 sqm)
Aircraft Parking Apron (1,400 sqm)
Connection Taxitrack (2,100 sqm)
Internal Roads (1,260 sqm)
Taxitrack Lighting System
100 kVA Stand-By Diesel Generator Set
Jet Fuel Storage Facilities
Manifold Filter Water Separator Station
10 cum Drainage Tank
Truck Loading Pits
1,350 m, 6 inch Connection Pipeline
Liquid Oxygen Storage Building
120 kVA Transformer Substation
MV and LV Switchgear Systems**



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Concrete Taxitrack Loop (22,075 sqm)
13 x Concrete Aircraft Parking Apron (10,455 sqm)
Concrete Alarm Apron (3,188 sqm)
Concrete Connection Taxitracks (12,837 sqm)
Aircraft Maintenance Apron (1,740 sqm)
CAT 2 Taxitrack, Apron Lighting Systems
13 x Third Generation Aircraft Shelter
Aircraft Maintenance Hangar (1,300 sqm)
Tacan and Generator Building
Internal Roads (33,800 sqm)
Parking Areas (6,800 sqm)
Security Guards Building
Soldiers Dormitory
Jet Fuel Storage Facilities
100 kVA Automatic Diesel-Generator Set
Officers Dining Hall, Dormitory (1,273 sqm)
Soldiers Dining Hall (877 sqm)
Soldiers Bath and Laundry
Vehicle Pool Hardstand
Ammunition Storage Igloo (10 x 185 sqm)
Hardened SQ OPS Building (593 sqm)
Hardened Liquid Oxygen Storage (60 sqm)
Hardened Refueling Truck Shelter
Runway Inspection Cabins
Guard Tower and Shack
Heating Center and Dispersing Channels
Water and Sewerage Networks
Communication System
2 x 1600 KVA Main Switchgear Building
6.3 kV Ring Cable
6 x Transformer Substation



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Restoration and Renewal of Main Runway (3,550 m x 45 m)

Main Runway Concrete Pavement Renewal (3,250 m x 45 m)

2 x Concrete Runway End Pavement Renewal (150 m x 45 m)

2 x Overrun Asphalt Pavement Renewal (150 m x 51 m)

2 x Concrete Taxitrack Pavement Renewal (1,380 sqm)

Connection Taxitrack Asphalt Pavement Renewal (810 sqm)

Connection Taxitrack Asphalt Pavement Renewal (600 sqm)

Storm Water Drainage System Renewal

Main Runway Painting and Marking (15,975 sqm)

Runway Lighting System Restoration and Renewal

Restoration of Internal Roads

Internal Roads Asphalt Pavement Renewal (6,000 m x 6 m)

Internal Roads Asphalt Pavement Renewal (3,000 m x 3.5 m)

Storm Water Drainage System Renewal

Marking of Internal Roads with Paint





**Cost Estimations
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Facilities for Deployment of F-16 Aircrafts

- Taxitrack Loop (10,000 sqm)**
- Aircraft Parking Platforms (3,400 sqm)**
- Connection Taxitracks (1,488 sqm)**
- Internal Roads (9,000 sqm)**
- Taxitrack and A/C Parking Platforms Lighting Systems**
- Hydrazine Building (65 sqm)**
- Ammunition Storage Igloos**
- Extension of Existing Missile Inspection Facility**
- Extension of Existing 2 x Aircraft Maintenance Hangar**
- General Maintenance Workshop (1,400 sqm)**
- Semi Hardened Refuelling Truck Shelter (78 sqm)**
- Stand-By Diesel Generator Sets**
- Communication System**
- Jet Fuel Storage Facility**
- 6.3 kV Distribution Transformer Substations**
- 2 each, 6.3 kV, 500 kVA, Main Diesel-Generator Set**



**Basic Engineering
Cost Estimations
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**Facilities for Deployment of
Skorksy, Black Hawk and UH-1 Type Helicopters**

Helicopter Parking Platforms (1,000 sqm)

Maintenance and Inspection Apron

COC Building

Squadron Operations Building

Airfield Headquarters Building

Engine Workshop

General Maintenance Workshop

Power Supply and Distribution Network

Water Supply and Distribution Network

Heating and Ventilating Facilities

Stand-By Power Supply



**Detailed Engineering
Cost Estimations
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Restoration of Existing Facilities and

Construction of New Facilities for

Skorksy, Black Hawk and UH-1 Type Helicopters



Existing Facilities to be Restored

Northwest Maintenance Hangar Apron (60 m x 80 m)

Taxitrack Between New Runway and Old Runway (355 m x 10 m)

Existing Runway (1800 m x 47 m)

Connection Roads (220 m)

New Facilities

Taxitrack Between New Runway and Old Runway (153 m x 10 m)

Connection Taxitrack to Maintenance Hangar Apron (150 m x 10 m)

Connection Taxitrack to Maintenance Hangar Apron (310 m x 10 m)

Helicopter Maintenance Hangar Apron (95 m x 105 m)

Vehicle Parking Platform

Ammunition Loading and Unloading Apron

Connection Road (1200 m x 6 m)





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Aircraft Parking Aprons

4 x Concrete Aircraft Parking Apron (116,750 sqm)

2 x Prefabricated Building (3,000 sqm)

Connection Roads (10,000 sqm)

Lighting, Marking, Grounding, Drainage Systems

Tactical Airlift Parking Ramp

Concrete Parking Apron (92,000 sqm)

Lighting, Marking, Grounding Systems

Drainage Systems

Helicopter Parking Aprons

Concrete Parking Aprons (264,000 sqm)

Lighting, Marking, Grounding Systems

Water and Fire Hydrant Systems

Airfield Lighting Systems

(For 2 Separate Runway)

Approach, Runway Edge / End Lights

Threshold, PAPI Lights

Distance Markers

Obstruction Lights

Taxiway and Taxitrack Lights





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Agri Airport Terminal Facilities

Terminal Building
Technical Building
Flight Control Tower (H : 27 m)
Heating Center
Main Power / Generator Building
Crash and Fire Building
Main Entry, Garage
Interior Roads and Parking Areas





Environmental Impact Study
Economic and Financial Analysis
Cost Estimations
Geophysical Studies
Geotechnical Studies
Conceptual Engineering
Basic Engineering
Topographical Surveys
Transportation Study

Ankara Esenboga Airport
Master Plan Study

Runway, Taxiway and Taxitracks
Terminal and Cargo Facilities
Flight Control Tower
Technical Complex



Power Supply and Distribution Systems
Control and Communication Systems
Meteorological Facilities
Jet Fuel Storage and Loading Facilities
Crash and Fire Facilities
Aircraft Maintenance Hangars
Medical Facilities
Security Building and Facilities
Auxiliary Service Facilities
Water Storage and Distribution System
Wastewater and Sewage System
Stormwater Drainage System
Access Road Between City and Airport
Meteorological Studies
Traffic and Transportation Studies
Environmental Study, Noise Analysis





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10,840 sqm



Aircraft Hangar (5,641 sqm)
Reinforced Concrete, Steel Roof
24 m Height
Ground Floor
Administrative Sections
Rest Rooms, WC & Showers
Warehouse and Workshops
Electrical and UPS Room
Filter Washing Room
Security, Heating Room
First Floor
Mechanical Room

Cooling Capacity (89 KW)
Heating Capacity (3,000 KW)
Access Control Systems
1,250 KVA Transformer
1,250 KVA Generator
20 KVA Static UPS
Fire Water Tank (1,000 cum)
Foam Tanks

Administration Building (1,300 sqm)
Transformer Gen. Building (160 sqm)



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8,220 sqm



Aircraft Hangar (8,220 sqm)

Steel Structure

25 m Height

Ground Floor

Acceptance Test Ground Station

Test Equipment Room

Assembly-Rework Area

Tool Room

Recreation Area

Chg. Room, WC & Shower

Warehouse, Utility Room

First Floor

Offices, Archives, Meeting Room

Cooling Capacity (167,500 kcal/h)

Heating Capacity (873,000 kcal/h)

1000 KVA Transformer

400 Hz, 160 kVA Frequency Converter

60 Hz, 60 kVA Frequency Converter

60 kVA Static UPS

Rigid Pavement Areas (9,000 sqm)

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