Pangia Airstrip Development

KA PROJET REFERENCE: 15172
INDUSTRY: Civil Infrastructure - Aviation
DISCIPLINES: Civil Engineering, Aviation Consulting

PROJECT SUMMARY

CLIENT
Wildcat Development

LOCATION
Southern Highlands Province, Papua New Guinea

PROJECT TYPE
Airstrip

YEAR COMPLETED
2018

PROJECT DESCRIPTION

The Pangia Airstrip is located in the Ialibu-Pangia District, Southern Highlands Province of Papua New Guinea. The population is approximately 80,000.

The project consisted of upgrading the airstrip to DASH 8 Aircraft Standard, and was an initiative undertaken by the Pangia/Ialibu District Administration through the Southern Highlands Provincial Government. The pre-existing airstrip was a one-way operational strip classified as 'Z', 1000m long x 30m wide, having grass covered Red Silt Clay.

Based on the PNG Civil Aviation Authority Physical Standards, the proposed upgrading is to allow for the following minimum physical conditions; Classification 'Z', 1750m x 210m Strip, 1750mx30m Runway, 160mx90m Runway End Safety Area and proposed Apron 120m x 80m.

PROJECT ROLE

Kramer Ausenco was engaged to provide technical services for the Design and Documentation for the Upgrading of Pangia Airstrip to Dash 8 Aircraft to PNG Civil Aviation Authority Physical Standards, the proposed upgrading is to allow for the following minimum physical conditions; Classification 'Z', 1750m x 210m Strip, 1750mx30m Runway, 160mx90m Runway End Safety Area and proposed Apron 120m x 80m.
Project activities included:

- Liaise with NAC
- Proposed Concepts Layout of Dash 8 Aircraft (Runway, Turning Node, RESA & Taxiway)
- Full Design and Documentation Issue for Construction (Pavement, Drainage & Geometric) to Dash 8 Standard Airport Spec
- Full Technical Specifications
- Schedule of Bill of Quantities

Pangia Airstrip Development

PROJECT DATASHEET

Project Reference: 15172

Industry: Civil Infrastructure - Aviation

ASSIGNMENT NAME:	APPROX. VALUE OF THE CONTRACT:
Pangia Airstrip Development	PGK 50,000
LOCATION & COUNTRY:	**DURATION OF ASSIGNMENT (MONTHS):**
Southern Highlands Province, Papua New Guinea	5 months
NAME OF FUNDING AGENCY:	**TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:**
Wildcat Development	5.7 person months
ADDRESS OF AGENCY:	**APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:**
P.O. Box 850, Port Moresby, National Capital District, Papua New Guinea	PGK 50,000
START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):	**NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:**
State Date: April 2015 Completion Date: August 2015 (design)	N/A
NAME OF ASSOCIATED CONSULTANTS, IF ANY:	**NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:**
N/A	James Bell – Project Manager Eric Alom – Project Engineer Melison Kaian – Senior Project Civil Engineer (Aviation) Robert Aup – Senior Project Civil Engineer Ila Veropo – Project Civil Engineer Styron Paglipari – Project Civil Engineer Wilson Sapien – Project Civil Engineer Betty Kawapuro – Project Technician Darius Namaliu – Project Technician

NARRATIVE DESCRIPTION OF PROJECT:

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DESCRIPTION OF ACTUAL SERVICES PROVIDED BY YOUR STAFF WITHIN THE ASSIGNMENT:

Kramer Ausenco's detailed scope of services included:

1. Airport Benefit-Cost and economic Analysis

   Undertake high level concept plans for potential airport sites, determining cost-benefit analysis parameters (project set-up), Identifying potential benefits, Identifying potential costs, determining the commercial/financial feasibility of a regional airport.

   1.1. Air Transport Analysis
   - For the base case, forecast future air traffic activity and carry out an assignment of this traffic among the nearby existing airports, based on their current limitations;

   1.2. High Level Concept Plan
   - To facilitate the benefit-cost and economic analysis, concept plans for the airport will be developed. The concept plans will be based on the facilities required to meet forecast air traffic levels and to service the needs of the airport.
   - The concept plans will highlight the number/length of runways, the associated taxiways and aircraft parking aprons, the scale of terminal facilities and the other associated facility requirements.

   1.3. Benefit-Cost-Analysis (BCA) Setup
   - Determining a base case against which alternatives can be evaluated.
   - Specifying the alternate case to be evaluated.
   - Identifying the perspective from which the benefit-cost analysis is being undertaken.
   - Determining the extent to which non-financial/non-market factors will be taken into consideration.

   1.4. Identification and Quantification of Potential Benefits
   - Direct cost savings
   - Indirect cost savings
   - Safety considerations
   - Logistical considerations

   1.5. Identification & Quantification of Potential Costs
   - Development costs
   - Land acquisition costs
   - Closure/abandonment of other infrastructure

   1.6. Determining the Commercial/Financial Feasibility
   - Capital expenditure
   - Operating profitability/benefit

2. Potential Site Identification Analysis
   - Larger regional selection analysis/methodology
   - Shortlisted site selection analysis/methodology

3. Stakeholder Impact Analysis
   - Interviews with key stakeholders and the aviation industry
   - Assessment of sub-regional plans and strategies
   - Scenario analysis on a sub-regional basis