

Lae School of Nursing

KA PROJECT REFERENCE: 15047P

INDUSTRY: Health, Education

DISCIPLINES: Structural Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Hydraulic Services, Fire Services, CAD Services

PROJECT SUMMARY

CLIENT

Health and Education Procurement Facility (HEPF), Australian Government, Architectus

LOCATION

Lae, Morobe Province, Papua New Guinea

PROJECT TYPE

Health, Education

YEAR COMPLETED

2017



PROJECT DESCRIPTION

The Lae School of Nursing was originally established in the 1960s and has a longstanding relationship with nearby ANGAU Hospital, which continues as the school's teaching hospital. The major infrastructure upgrade support valued at approximately K25 million is part of the ANGAU Hospital redevelopment project, an initiative under the Joint Understanding between the Governments of Papua New Guinea and Australia. Developments include the renovation of the administration building and construction of a new academic building complex. The new building complex includes tutorial rooms, a computer lab, library, and student mess.

Students of the Lae School of Nursing will greatly benefit from the new infrastructure support provided by the Australian government. Secretary for Health, Pascoe Kase, and Australian High Commissioner, Bruce Davis opened the new Academic Building at the Lae School of Nursing on Tuesday, 8 May 2018. The new facilities, which have the capacity to cater for over 300 students, will deliver a conducive teaching and learning environment for both staff and students. Security lighting has also been installed to enable students to access school facilities and ANGAU hospital for clinical practicals in the evenings. The project which was completed late 2017 and provided job opportunities and skills development for an estimated 90 local construction workers, who were involved in the construction of the facilities. Through Australia's partnership with Papua New Guinea, this assistance to the Lae School of Nursing will help to ensure the ongoing provision of adequately trained staff for the expanded facilities at ANGAU hospital, as well as addressing potential shortages of skilled health workers throughout the country. (Please see Australian High Commission (PNG) website for more: <https://png.embassy.gov.au/pmsb/778.html>)

Kramer Ausenco (KA) was awarded the Lae School of Nursing contract to design new classrooms and staff accommodation and refurbish the existing classrooms. KA carried out an initial site investigation and presented the concept design report (including the concept design drawings) to the client. Each discipline ensured that service routes did not clash while upholding the set building standards. Following the feedback from the client, KA produced a functional description report and prepared the design drawings for client review, building board approval and, later, for the tender process.

PROJECT ROLE

- Structural Engineers
- Civil Engineers
- Electrical Engineers
- Mechanical Engineers
- Hydraulic Services
- Fire Services
- CAD Services

Lae School of Nursing

PROJECT DATASHEET

Project Reference: 15047P

Industry: Health, Education

ASSIGNMENT NAME:	APPROX. VALUE OF THE CONTRACT:
Lae School of Nursing	~ PGK 20 million
LOCATION & COUNTRY:	DURATION OF ASSIGNMENT (MONTHS):
Lae, Morobe Province, Papua New Guinea	31 months
NAME OF FUNDING AGENCY:	TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:
Health and Education Procurement Facility (HEPF), Australian Government	40 person-months
ADDRESS OF AGENCY:	APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:
Level 7, Pacific Place, Downtown, Port Moresby, Papua New Guinea	~PGK 3M (~AUD 1.4M)
START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):	NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:
Start date: 16 February 2015 Completion date: 11 October 2017	N/A
NAME OF ASSOCIATED CONSULTANTS, IF ANY:	NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:
Architectus (Principal Consultant Architect)	Shane Harris (Fiji Office Manager) Peni Gari (Senior Structural Engineer) John Gabriel (Senior Project Manager) Richard Sekiguchi (Design Manager (Services) and Team Leader) Adam Kramer (Senior Project Engineer)

NARRATIVE DESCRIPTION OF PROJECT:

The Lae School of Nursing was originally established in the 1960s and has a longstanding relationship with nearby ANGAU Hospital, which continues as the school's teaching hospital. The major infrastructure upgrade support valued at approximately K25 million is part of the ANGAU Hospital redevelopment project, an initiative under the Joint Understanding between the Governments of Papua New Guinea and Australia. Developments include the renovation of the administration building and construction of a new academic building complex. The new building complex includes tutorial rooms, a computer lab, library, and student mess.

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

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Kramer Ausenco provided support to the following design delivery phases:

CONCEPTUAL DESIGN (30% DOCUMENTATION)

- During the conceptual design process KA provided technical support to optimise the design and undertook value engineering prior to the schematic design phase.
- Design Team met with the Client to review preliminary project concepts and project documentation, confirm brief and review the Design Teams responsibilities and procedures.
- Developed building brief document including identification of all design deliverables, that was signed off by the Client.

- iv. Reviewed project Brief and compared the Scope Of Works and the Scope Of Services
- v. Conducted briefing sessions with the project Architect.
- vi. Provided engineering input and assist the Client and the Architect with reference to local factors, i.e. structural requirements for earthquake design to PNG standards.
- vii. Prepared the Concept design options to meet project requirements, including a high regard for energy efficiency and ongoing running costs.
- viii. Reviewed the site survey/contour drawings, geotechnical reports and made recommendations on foundation systems required and the extent of site cut/fill.
- ix. Advised on engineering constraints and opportunities with the preliminary architectural concepts (floor to floor heights, base building construction method)
- x. Coordination of concept design with architectural and all engineering disciplines.
- xi. Visited and inspected site, Site Meeting.
- xii. Reviewed existing conditions of services on Site.
- xiii. Reviewed onsite infrastructure required to support new buildings (storm water).
- xiv. Studied requirements on-site, including storm water collection, drainage water supply and distribution, pollution control etc. Confirm legal point of discharge from storm water.
- xv. Assisted in preparation of material for the consultation with authority's application for approval, re-zoning, attending appeals etc.

SCHEMATIC DESIGN (50% DOCUMENTATION)

During the Schematic design and documentation phase, KA fully engineered and provided basic drawings for approval. The following processes in particular, were provided:

- i. Consolidated and documented thoughts and ideas from the Concept Phase
- ii. Prepared CAD files of the approved concepts.
- iii. Assisted in identifying any procurement opportunities for items to be purchased directly by the client.
- iv. Attended regular Project Meetings
- v. Assisted in the full coordination of the design, in conjunction with the other design consultants.
- vi. Ensured the design complied with the requirements of the current BCA, and consulted with the building certification authorities as required.

DETAILED DESIGN (100% DOCUMENTATION)

During the Detailed design and documentation phase, KA fully engineered and provided drawings firstly for approval and then after acceptance by the Design Team, a set of drawings for tender. The following processes in particular, were provided:

- i. Designed sufficiently to assist final sign off of all elements of the building, coordinated with the Architect to assist in confirmation of all critical dimensions and spaces.
- ii. Final review of design against the approved brief document.
- iii. Prepared documents for building approval, including certification as required by the authority.
- iv. Attended regular Project Meetings.
- v. Prepared design documentation suitable for tender.
- vi. Assisted in the full coordination of the design, in conjunction with the other design consultants.
- vii. Ensured the design complied with the requirements of the current BCA, and consulted the building certification authorities as required.
- viii. Prepared material specifications.
- ix. Prepared relevant Tender Documentation