

# NAURU LEARNING CENTRE (TVET & USP)

KA PROJ REFERENCE: 11285B

INDUSTRY: Education

DISCIPLINES: Structural Engineering

## PROJECT SUMMARY

### CLIENT

Republic of Nauru | DFAT funded

Alexander & Lloyd Architects

### LOCATION

Nauru

### PROJECT TYPE

Education & Training

### YEAR COMPLETED

TVET Training Centre: 2014

USP Centre Library & Community Centre: 2018



## PROJECT DESCRIPTION

A two-phase project involving the construction of a Technical Vocational Education Training (TVET) facility for Automotive and Marine Technical Training and the construction of a Higher Learning Centre building housing the University of South Pacific (USP) Centre, a Library and Community Centre. The project was funded by DFAT.

The project is one of the long-term objectives under Education sector stated in the National Sustainable Development Strategy when it was first published in 2005 - to 'build a Learning Village where high school and tertiary education providing institutes share the same land area for sharing of resources and networking'. In 2006, the government developed the concept of a Learning Village that integrates the facilities of the Nauru Secondary School, a Technical and Vocational Education Training (TVET) facility, the University of the South Pacific (USP) Nauru campus and a Public/National library on the same site, within the same "Village" area. We hope to achieve efficiency in cost effective allocation and sharing of its capital resources by integrating these facilities in the Learning Village to become the learning "hub" for all of Nauru. In 2007, government identified a site for the Learning Village and developed a Master Plan for Phase 1 of the Learning Village, which was partially completed in 2010 with the completion of the NSS building. The final component of Phase 1 was completed in 2015 with the completion of the TVET Centre. Phase 2 of the project is the construction of the new building for USP Nauru campus inclusive of a Public/Community Library and was scheduled for completion by the end of 2017, early 2018.

The two buildings were constructed on an old, abandoned Department of Works warehouse site located between the Nauru Police Federation Headquarters building and Nauru Secondary School. The TVET facility was constructed on the seaside and the USP Centre, Library and Community Centre building was constructed on the airport side. The Architect and Project Manager was Alexander & Lloyd Group.

## PROJECT ROLE

Kramer Ausenco were engaged for structural engineering services, responsible for the following:

- 1) Inspections of existing steel portal frames, masonry walls and concrete slabs of the old warehouse and reporting on their condition and useability.
- 2) Structural engineering design and documentation of the new two storey steel portal frame buildings with masonry walls, concrete topping slab on steel floor framing, concrete ground floor slabs and footings. A covered ramp access to the first floor of the USP Centre was also designed.
- 3) Approval of structural steel fabrication shop drawings and responses to Building Contractor's RFI's.

## NAURU LEARNING CENTRE (TVET &amp; USP)

Project Reference: 11285B

Industry: Education

<b>ASSIGNMENT NAME:</b>	<b>APPROX. VALUE OF THE CONTRACT:</b>
Nauru Learning Centre	Approximately AUD 150,000.00
<b>LOCATION &amp; COUNTRY:</b>	<b>DURATION OF ASSIGNMENT (MONTHS):</b>
Nauru	84
<b>NAME OF FUNDING AGENCY:</b>	<b>TOTAL NO. OF STAFF-MONTHS OF THE ASSIGNMENT:</b>
Republic of Nauru Australian Department of Foreign Affairs & Trade (DFAT)	6 person months
<b>ADDRESS OF AGENCY:</b>	<b>APPROX. VALUE OF THE SERVICES PROVIDED BY YOUR FIRM UNDER THE CONTRACT:</b>
Parliament House. Yaren District. Republic of Nauru (Central Pacific)	Estimated AUD 5,000,000.00
<b>START DATE (MONTH/YEAR): COMPLETION DATE (MONTH/YEAR):</b>	<b>NUMBER OF PROFESSIONAL STAFF-MONTHS PROVIDED BY ASSOCIATED CONSULTANTS:</b>
Start date: September 2011 Completion date: September 2018	Unavailable
<b>NAME OF ASSOCIATED CONSULTANTS, IF ANY:</b>	<b>NAME OF SENIOR PROFESSIONAL STAFF OF YOUR FIRM INVOLVED AND FUNCTIONS PERFORMED:</b>
Alexander & Lloyd Architects & Project Managers (client)	Peni Gari (Structural Engineer) Chris Barnes (Structural Design Manager) Jason Goddard (Australia Country Manager) Shane Harris (Fiji Country Manager)

**NARRATIVE DESCRIPTION OF PROJECT:**

A two-phase project involving the construction of a Technical Vocational Education Training (TVET) facility for Automotive and Marine Technical Training and the construction of a Higher Learning Centre building housing the University of South Pacific (USP) Centre, a Library and Community Centre. The project was funded by DFAT.

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

Kramer Ausenco were engaged for structural engineering services, responsible for the following:

- 4) Inspections of existing steel portal frames, masonry walls and concrete slabs of the old warehouse and reporting on their condition and useability.
- 5) Structural engineering design and documentation of the new two storey steel portal frame buildings with masonry walls, concrete topping slab on steel floor framing, concrete ground floor slabs and footings. A covered ramp access to the first floor of the USP Centre was also designed.
- 6) Approval of structural steel fabrication shop drawings and responses to Building Contractor's RFI's.

Specific professional services provided throughout structural engineering design and construction support phase include:

#### **Phase 1- Concept Design (Briefing/Concept)**

- Design Team met with the Project Manager and Architect to review preliminary project concepts and documentation, confirmed brief and confirmed responsibilities and procedures. The building Design Brief developed and documented, and all design deliverables articulated in the document.
- Conducted briefing sessions with the Client engaged sub-consultants for survey and investigations.
- Provided engineering input with reference to local factors, i.e. structural requirements for earthquake design to Code and applicable NZ/AS standards.
- Prepared of the schematic design options to meet project requirements, including high regard for sustainability and ongoing operational costs.
- Reviewed site survey/contour drawings, geotechnical reports and made recommendations on foundation systems required and the extent of site cut/fill.
- Advised of any engineering constraints and opportunities with the preliminary architectural concepts (floor to floor heights, base building construction method)
- Coordinated of concept design with architectural and other engineering disciplines.
- Assisted in preparation of material for the consultation with authority's application for approval, re-zoning, development and building permitting.

#### **Phase 2 – Detailed design (Design and Documentation)**

- Designed sufficiently to assist final sign-off of all elements of the building to be procured, co-ordination with all engineering disciplines & architecture to assist in confirmation of all critical dimensions & spaces.
- Identified any procurement opportunities for items to be purchased directly by the client.
- Reviewed design against the approved brief document.
- Assisted in preparing documents for building approval, including certification as required by the authority.
- Prepared design documentation suitable for tender.
- Assisted in the full coordination of the design, in conjunction with the other design consultants.
- Ensured the design complies with the requirements of the current draft Building Code, BCA, and consulted with the building certification authorities as required.
- Prepared material specifications, and assisted in preparing Contract and Construction Documentation

#### **Phase 3 – Construction Verification & Contract Administration**

- Provided information/clarification and answers to contractor's Request For Information (RFI) in an appropriate time, including the issue of instructions and directions to various parties responsible.
- Reviewed Contractor's shop drawings, product data samples and other submissions as required.
- Issued documentation as required for the provision of as-built documentation by the contractor.
- Reviewed and approved as-built documentation and maintenance manuals provided by the contractor.
- Aided and support during the post construction phase, including the following:
  - Support for completion of defect list items and signing off.
  - Investigated and participated in any ongoing construction problem resolution as required.