



Introduction

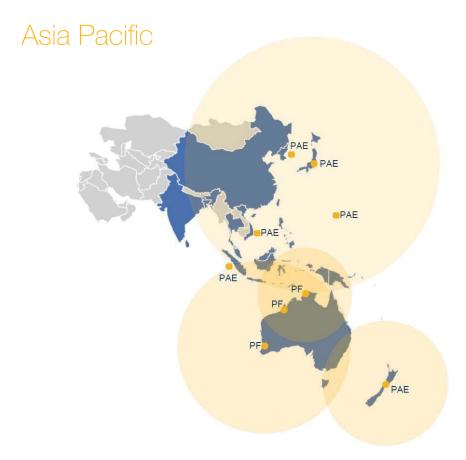
A new collaboration between PAE-Design and Facility Management and Pritchard Francis has merged a wealth of experience and capability across the United States, to Australia and throughout the Asia Pacific region to deliver future US/AUS defence projects in the Northern Territory of Australia.

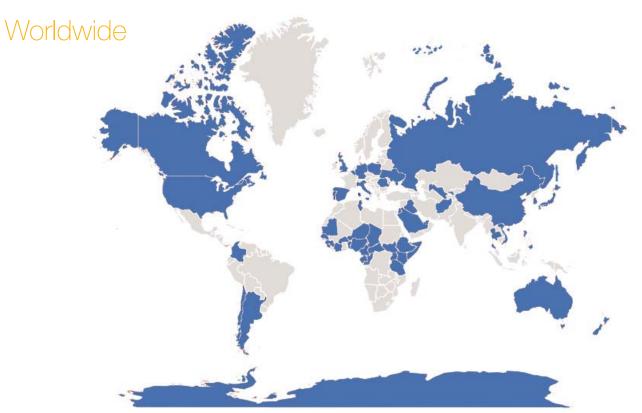
PAE, founded in 1955, understands the US Department of Defense (DoD) requirements and has more than 60 years' experience executing DoD design and construction projects at bases in the Asia Pacific region. Pritchard Francis, founded in 1977, is embedded in the Australian landscape and provides a local team of experienced professionals in Darwin that will deliver high quality technical, innovative solutions to US/AUS design standards.

The current US/AUS Defense cooperation in the Northern Territory of Australia, requires a fully integrated and cohesive engineering consultant team of professionals that understands both countries compliance requirements and specific climatic and market conditions. Our PAE/ Pritchard Francis team reduces a client's risk exponentially and is positioned to effectively respond to the expansion of future joint Defense initiatives.



PAE-Pritchard Francis Reach





Company Profile - PAE

PAE Design and Facility Management

is an American Architectural and Engineering firm which has evolved into one of the most progressive providers of both Architectural/Engineering Design and Facility Services in Japan by combining contemporary global best practices and methodologies with the deep understanding of Japan that we have gained over the last 63 years.

From these beginnings, the firm has maintained a constant presence in providing services to the U.S. Military, various embassies in Tokyo, including the US Embassy, and a host of multinational corporations throughout Japan.

PAE has put together a strong, experienced team of both Japan-based Architects and Engineering Consultants that will provide the highest quality of design and service for any kind of project it handles. PAE and its 20,000+ employees currently support the U.S. military and US Government agencies around the globe. The company's success is greatly attributed to the quality of work and the integrity and high ethical standards that define its business operations.

As PAE grows, the values that have set us apart over the past six decades continue to guide the company in leading with integrity and excellence. PAE is strongly committed to diversity, recognising our success depends on bringing together a wide range of perspectives, skills and experiences to find the most innovative, cost-efficient solutions for our customers.

PAE is uniquely qualified to successfully serve both Japanese and foreign companies operating in Japan. PAE's value adding approach to our work focuses on our ability to thoroughly understand our clients' needs and then tailor our wide variety of expertise and service in response.

PAE's services include site investigation, survey, technical studies, Military Construction designs (MILCON), preparation of plans and specifications, cost estimates, construction administration and preparation of basic criteria packages (CP and BCP). PAE Japan also provides Operations & Maintenance and Facility Management services.

Above all, PAE dedicates itself to the missions of our customers. The entire workforce maintains a focus and commitment on delivering the highest quality of support of the critical work of the U.S government, its allied partners and international organisations.



Company Profile - Pritchard Francis

Pritchard Francis is an award winning Engineering Consultancy Firm built around strong relationships with repeat clientele. With offices across Western and Northern Australia (Perth, Broome and Darwin), providing multidisciplinary design services, the Firm is an exceptionally experienced and highly regarded engineering consultancy throughout Australia.

The Firm upholds its strong reputation by consistently maintaining a focus on its Mission Statement of excellence in engineering through professionalism, innovation, integrity, and providing the highest level of service.

Pritchard Francis strives to provide the "right design solution" for each project, ensuring the Firm's contribution adds value to the outcome. This is achieved by working proactively with the design team, clients and other stakeholders to ensure project requirements are clearly understood and managed, and by providing quality design solutions that can be implemented safely and efficiently during construction on site.

The people Pritchard Francis employs are of the highest calibre at every level of responsibility. Common attributes include outstanding personal qualities and strong technical ability. Employing staff that are aligned with the Firm's Company Values is critical in maintaining its strong eputation. Committing unconditionally to these values shapes the culture of the company.

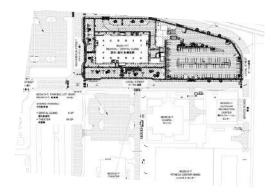
By continually developing the skills and knowledge of individuals within the Firm, Pritchard Francis maintains technical excellence. Creating rewarding opportunities within an enjoyable work environment ensures stability within the workplace and is reflected in the Firm's high rate of staff retention.

Clientele include Federal and State Government departments including Department of Defense, many top 100 ASX companies along with national and international private and public enterprises.

Through its regional offices in Darwin and Broome, supported by it's head office in Perth, the Firm services a broad range of clients in Northern Australia, including the Department of Defense through the JLL Augility Panel. The highly experienced team have a unique understanding of the local conditions and marketplace specific to the region, and have the depth of local resources to deliver large scale and complex projects across the Northern Territory of Australia.

As a result, Pritchard Francis is a market-leading consultancy, providing services across all regions of North and Western Australia and within all aspects of civil and structural design engineering, including site infrastructure and builtform projects.





Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Camp Schwab, Okinawa, Japan

Site Area: 7,440m²

Medical Dental Facility & Surface Parking – Preparation of Basic Criteria Package – Camp Schwab, Okinawa, Japan

This project provides primary facilities that consist of an approximately 7,440m² building with a new three-story reinforced concrete structure for a Medical Dental Clinic, the first and second floor of which are provided for the Medical Clinic and the third floor for the Dental Clinic.

The Medical Clinic functional areas include Medical Administration, Behavioral Health, Information Management, Urgent Care, Ophthalmology/ Optometry Clinic, Logistics, Public Medicine, Primary Care/Military Medicine, Radiology, Pharmacy, Pathology, Support Spaces and Common Areas. The Dental Clinic functional areas include Dental Imaging, Dental Laboratories, Dental Surgery, General Dentistry, Support Spaces and Common Areas. Offices for staff, lockers, showers, toilets, changing rooms, janitor closets are required in both medical and dental functional spaces.

The logistics areas include receiving/processing areas for medical and dental equipment and supplies, and bio-hazard waste holding for Pathology. Mechanical, electrical, and communication rooms are provided for this facility including elevator machine rooms and smoke exhaust mechanical room, which are located on the roof floor.



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: MCAS Iwakuni, Japan

Site Area: 1,490m²

Aircrew Trainer Facility, Iwakuni, MCAS, Japan

This project will construct a two storey and one bay area operational trainer facility to house the EACTS and associated training and support spaces for KC-130J Crew Master Training Program. The facility will provide an all-weather training environment for the KC-130J FuT, and Observer Training Aid (OTA), Exterior Covered area for storage of 8 pallets and construct Hardstand around the trainer facility for lay-down of equipment and pallets during training. Project provides an adequate facility to house the KC-130J EACTS training equipment to accommodate the new training program for the KC-130J Enlisted Air Crew. This complex will provide capability for consolidated mission operations training.

PAE's engineering and design services involved in project management of plans, specifications, cost estimates, design analysis and site investigations. This facility includes major function rooms such as KC-130J Fuselage Trainer (FuT), Cockpit Procedures Trainer (CPT), and Observer Training Aid (OTA), Electrical Room, Mechanical Room, Telecommunications Rooms, Training Rooms and Brief Rooms.



Lester Middle School

Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Okinawa, Japan

Various Projects – Kinser Elementary School, Lester Middle School & District Superintendent's Office, Okinawa, Japan

This project will provide RTA Design Documents for the renovation works of six separate projects as described below. The A-E shall provide separate Design-Bid Build design documents including drawings, specifications, bidding schedules, design analysis, and cost estimates in hard copies and electronic documents for each of the projects listed below.

Project No 1: FY17 Renovate Doors & Windows, Kinser Elementary School (KES) – Primary features of the work include, but are not limited to, replacing door hardware, replacing door locks with proximity locks, and repairing window frames and hardware.

Project No 3: FY17 Renovate Doors & Windows, Lester Middle School (LMS) – Primary features of the work include, but are not limited to, replacing door hardware, replacing door locks with proximity locks, and repairing window frames and hardware.

Project No 4: FY17 Upgrade HVAC Controls & VAV System, LMS – Kadena Air Base (KAB) – District Superintendent's Office (DSO) – Primary features of the work include, but are not limited to, replacement of all mechanical control equipment and VAV systems to ensure a fully functioning packaged chilled-water AHU/VAV system.

Project No 6: FY17 Electrical Power Upgrade Evaluation, LMS – This project provides an evaluation study only and will not require the preparation of a contract package. Primary features of the work include, but are not limited to, analyzing/evaluating existing electrical capacities and recommending equipment replacement and replacement and upgrades to accommodate current/future technology learning requirements.



Kinser Elementary School



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Torii Station Okinawa, Japan



Various Building Renovation Works

This project will provide Design Build Documents for the renovation works of five separate projects. The A-E shall have prepared separate Design-Bid Build design documents including drawings, specifications, bidding schedules, design analysis, and cost estimate in hard copies and electronic documents for each of the projects.

OKH 00447 Repair Gymnasium, Bldg 266 (Base): The work includes replacement of lighting fixtures and hand railing of exterior slope, repair or replacement of exhaust ventilators, installation of acoustic ceiling tiles, repaint walls, and replacement of entrance doors at court area, etc. As a Customer required optional work, replacement of retractable bleacher is included. Abatement of ACM, LBP, and PCB must also be considered.

OKH 00441 Repair Gymnasium, Bldg 275 (Base): The customer requires three optional works to repair gymnasium. Base Option is for weight rooms to include replacement of wall panels, wainscot, ceiling system, lighting system, fire alarm/detection system, and PA system and repainting interior surfaces.

OKH 00039 Repair Arts/Craft Center, Bldg 240 (Option): The work includes renovation of building to include new interior walls, electrical lighting, floor tiles, computer and telephone network, air-conditioning, and ceiling, etc.

OKH 00187 Repair Sauna, Jacuzzi, & Steam Rooms, Bldg 275 (Option): The work includes repair and/or replacement all deteriorated and outdated Sauna, Jacuzzi, & Steam Room equipment. Specific works to be included are replacement of mechanical equipment, fixtures and support system, interior walls, floor coverings, and various appurtenances, etc.

PWH 00426 Repair Bathrooms, Bldg 214 (Option): The work includes remove and/or replace all, interior surfaces of bathrooms



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Yokota Airbase, Japan

Site Area: 1,116m²

Flight Simulator Facility Yokota Airbase, Japan

PAE provided design documents for a new C-130J flight simulator facility utilising conventional design and approximately 1,116 SM at Yokota Air Base, Japan. This task order includes but is not limited to validating project criteria requirements, site investigation, project coordination, charrette conference, design analysis, drawings, specifications, schedule analysis and cost estimate.

This project was required to provide a compliant C-130J Flight Simulator facility to support new mission bed down and operations of C-130Js at Yokota Air Base (YAB), Japan. C-130J Aircrafts are projected to arrive at Yokota Air Base (YAB), Japan, in 2017.

PAE's involvement included project management of plans, specifications, cost estimates, design analysis and site investigations.



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: MCAS Iwakuni, Japan

Site Area: 12,173.68m²

Medical Dental Clinic – Engineering Surveillance Review, Iwakuni, Japan

The project will provide a new multi-storey Family Health Center consisting of approximately 12,173.68m² at MCAS Iwakuni, Japan. The project shall be designed and constructed in conformance with the latest approved version of Unified Facilities Criteria (UFC), 4-510-01 Design: Medical Military Facilities, American with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines, 23 July 2004, National Fire Protection Agency (NFPA), current building and life safety codes of both the United States and Japan and must meet the approval of The Joint Commission (TJC) Guidelines.

The A-E performed "a technical review of the construction drawings" during the actual design stage. Since the GoJ design packages incorporated required GoJ/USG standards and laws, minimum requirements of USG standards for hygiene, fire protection, and life safety codes were more stringent than those of the GoJ requirements, the USG standards was adopted.

The A-E also prepared "a Statement of Conditions (SoC) document" because the Joint Commission requires, as part of their accreditation process. The Statement of Conditions (SoC) was a proactive document that helps an organization to do a critical self-assessment of its current level of compliance and describe how to resolve any LSC deficiencies. Each SoC assessment checklist item required a full explanation detailing how the requirement was met, or, if deficient, what mitigation measures were adopted to insure compliance.



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: MCAS Iwakuni, Japan

Site Area: 12,173.68m²

Medical Dental Clinic Project – Basic Criteria Package, Iwakuni MCAS, Japan

Dental Clinic Project - Basic Criteria Package, Iwakuni MCAS, JapanThis project provided a new, multi-story major Family Health Center consisting of approximately 12,175 SM at MCAS Iwakuni, Japan. The project was designed and constructed in conformance with the latest approved version of Unified Facilities Criteria (UFC), 4-510-01 Design Medical Military Facilities Code, American with Disabilities Act (ADA), Architectural Barriers Act (ABA) Accessibility Guidelines, National Fire Protection Agency (NFPA), current building and life safety codes of both the United States and Japan, and is approved by The Joint Commission (TJC) Medical Guidelines.

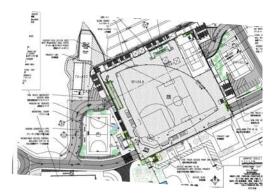


Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Camp Schwab, Japan

Road and Drainage Project, Camp Schwab, Alliance Transformation and Realignment (ATARA) Okinawa, Japan

This project will provide a well-connected and thoroughly thought-out transportation circulation system comprised of roads, sidewalks, bike lanes, and associated structures, all in support of the Marine Corps' future mission tasking and force levels at the Futenma Replacement Facility (FRF) on MCB Camp Schwab, Okinawa, Japan. Primary Facilities consist of an efficient system of roadways intended to maintain readiness, to provide optimum circulation of all forms of traffic, and to encourage pedestrian, bike and bus transit by making these modes convenient and easy to use. This facility directly supports the mission and ancillary functions essential to the daily lives and morale of United States Marine Corps (USMC) units stationed at MCB Camp Schwab.



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Yokohama, Japan

Hakkei Hills Family Housing Area, Yokohama Japan

The project provided a Criteria Package (CP) for support facilities that caters 385 family housing units and associated community and industrial facilities at Hakkei Hills such as Family Housing units and Townhouses, Associated support facilities such as community support facility, recreation complex, kindergarten/grade school, fire station, PWD shop, and support facilities parking spaces.

PAE's engineering and design services involved in project management of plans, Basis of Designs, design analysis and site investigations.



Client: U.S. Army Corps of Engineers (USACE) – Japan Engineer District (JED)

Location: Chapel Hill, Camp Zama, Japan

Alliance Transformation and Realignment (ATARA) Project, Chapel Hill, Camp Zama Japan

The project provided a Criteria Package (CP) for the boundary of Chapel Hills. The boundary is to replace and install facilities including the current perimeter fence displaced by base boundary realignment in the approximate 5.4 ha land return area at Chapel Hill, Camp Zama. This land return area will be used for Japan Ground Self-Defense Force Central Readiness Forces (CRF) family housing and community zone.

PAE's engineering and design services involved in project management of plans, Basis of Designs, design analysis and site investigations.



Client: Department of Defense / Doric

Location: Garden Island ROCKINGHAM WA 6168

Stages: 31 Work Elements, Pritchard Francis was involved in 12 Elements

HMAS Stirling 3A Redevelopment

The project includes the upgrading and refurbishment of existing infrastructure for the command, training, maintenance, operational support and administrative functions staffed by military personnel, defense civilians, and staff from government and commercial contract agencies to meet HMAS Stirling's operational and support capabilities.

The scope of work is prioritised into 31 work elements including water, sewerage, power, roads, car parking, management tracks, base entrance, central emergency power systems and new facilities.

Pritchard Francis undertook the Lead Consultant role for road reconstruction, preparation and resurfacing, car park rationalisation, management tracks and base entrance enhancements. In addition Pritchard Francis undertook a secondary role on an additional 10 source elements providing civil input for coordination of works, services, and facilities, cost estimating and sustainability.

In addition, the proposed construction period was shortened minimising potential disruption to the base and personnel.



Client: Department of Defense

Location: Garden Island ROCKINGHAM WA 6168

Site Area: 18km of roadwork 6km of road reconstruction 2.9km causeway shoulder rehabilitation and causeway safety barrier replacement

No. of Stages: 3

HMAS Stirling Infrastructure Repairs and Upgrades

The HMAS Stirling road network consists of approximately 18km of sealed roads located on Garden Island, roughly 50Km south of Perth. The current condition of the existing roads varies considerably showing signs of age, wear, deterioration and in many instances extensive cracking. Pritchard Francis was engaged to provide design and documentation for the upgrade of road infrastructure and amenity to meet the needs of HMAS Stirling Naval Base and personnel for the next 20 to 30 years. This included road network and intersection upgrades, stormwater design, street lighting, service relocation and development of cost estimates with a sub consultant team consisting of geotechnical, pavement design, electrical and traffic.

Pritchard Francis has successfully completed concept design, design development, and detailed design for the phase 1 priority road reconstruction areas, which included review by and presentation to key Department of Defense Stakeholders. Detailed cost estimates were completed as part of this process, which was a major factor in facilitating approval for these works. Construction of phase 1 works is anticipated to be completed prior to June 2016, with detailed design and documentation for phase 2 currently being completed.



Client: JLL / Augility

Location: Kimbolton Road KIMBOLTON WA 6728

Site Area: 70km

Yampi Sound Road Crossing

Pritchard Francis has been engaged by JLL as lead consultant to carry out a feasibility study of constructing 70km of sealed road along the Kimbolton Road track from Gibb River Road, approximately 40km from Derby, Western Australia, to the Department of Defense training grounds in West Kimberley.

For approximately 60km, Kimbolton Road crosses black soils, claypan and alluvial material transversing floodplains and river crossings, which become impassable in the wet season.

Pritchard Francis, following on with our close relationship with JLL and the Department of Defense, is undertaking a feasibility study for the road construction, including the preliminary design of road pavement, river crossing options, possible track realignment, coordination of the geotechnical scope and for the road construction, borrow pit location investigations and fill material requirements.

Pritchard Francis is also investigating alternative road alignments to reduce construction costs and duration by way of more favourable topography and ground conditions with improved probability in encountering a suitable source of road construction material.



Client: Department of Defense c/o Jones Lang La Salle

> Location: Campbell Barracks, SWANBOURNE WA 6010

> > Site Area: 10ha

Range Road Repair Classification, Swanbourne

This project involved the repair of the existing road infrastructure and rectification of all non-compliances to relevant codes. It also encompassed the construction of a new access road to the pistol ranges from the existing Campbell Barracks road network.

Pritchard Francis were engaged to undertake civil engineering consultancy services, including site visits (survey and hold point inspections), documentation, site survey, investigations, inspections and audit, construction administration and defects inspection.

The existing road pavement formation was a mixture of large rocks with sand infill to the voids. With an internal drainage runoff across the unsealed surface, scour and erosion combined with pavement failure was occurring. Pritchard Francis' improved this drainage run-off by changing the profile of the road, with additional earthworks undertaken to allow the run-off to flow away from the pavement edge, mitigating scour and tyre rutting.



Client: Defense Housing Australia

Location: SWANBOURNE WA 6010

No. of Stages: 3 phases with 4 stages within each phase

Seaward Village Upgrades

Pritchard Francis was engaged by Defence Housing Australia as the lead design consultant to undertake detailed condition, structural and compliance audit inspections, provide stakeholder management, and provide design and documentation services for upgrades and extensions to 153 existing individual domestic properties within the Seaward Village Estate that serves as homes to the SAS regiment and their families.

The project required the team to develop a tailored approach to the management and delivery of the project in order to satisfy the particular needs of the occupants and the inherent sensitivity and security around the site.

The project aimed to extend the 'life' of the ageing existing properties, modernizing every one of them to a current 'new build' market standard whilst meeting the latest Department of Defence and Local Authority Regulatory standards. The project has been split into 3 phases and Pritchard Francis were retained to also provide ongoing construction support services during the roll out of the \$40M construction works.



Client: Department of Defense

Location: Irwin Barracks, KARRAKATTA WA 6010

Irwin Barracks ACM Remediation Works

Pritchard Francis was engaged by Jones Lang LaSalle on behalf of the Department of Defense, to coordinate, document and provide budget estimates for the removal and remediation of asbestos containing materials (ACM) from existing buildings located at Irwin Barracks, Karrakatta, WA.

The Department of Defence tracks ACM present on their bases, sites and lease sites by maintaining Asbestos Registers, with the intent of removing and exposing of all ACM throughout Australia in accordance with the WHS Act 2011. Using this register as a guide, Pritchard Francs, in conjunction with our Environmental Hygienist sub consultant, 360 Environment, coordinated and conducted onsite inspections to assess the condition and quantity of the existing ACM, detect and test unidentified ACM, note potential obstructions that may hinder ACM remediation works, update the Asbestos Register and provide environmentally hygienic demolition / construction methodologies.



Client: Department of Defence

Location: Campbell Barracks, SWANBOURNE WA 6010

Campbell Barracks ACM Remediation Works

Pritchard Francis was engaged by Jones Lang LaSalle on behalf of the Department of Defence, to coordinate, document and provide budget estimates for the removal and remediation of asbestos containing materials (ACM) from the existing SASR Association House located at Campbell Barracks, WA.

Pritchard Francis coordinated and conducted onsite inspections to assess the condition and quantity of the existing ACM, note potential obstructions that may hinder ACM remediation works, update the Asbestos Register and provide demolition / construction methodologies.

Following the inspections, a comprehensive scope of works document, along with specifications, drawings and budget estimate report was prepared for the Department of Defence to assess the feasibility of the ACM removal and remediation works.

Upon confirmation of budget from the Department of Defence, the ACM documentation was finalised for Tender / Construction



Client: Department of Defense

Location: GARDEN ISLAND WA 6010

HMAS Stirling ACM Remediation Works

Pritchard Francis was engaged by Jones Lang LaSalle on behalf of the Department of Defense, to coordinate, document and provide budget estimates for the removal and remediation of asbestos containing materials (ACM) from soils at Garden Island (HMAS Stirling), WA from two bays on the eastern side of the island which are accessed by the public.

These bays previously contained a quantity of holiday shacks containing ACM which were subsequently demolished as part of the creation of HMAS Stirling and were the cause of the residual ACM in soil.

In conjunction with our Environmental Hygienist sub consultant, 360 Environment, onsite inspection of the existing ACM was coordinated and conducted to assess the condition and quantity of the existing ACM and to provide environmentally hygienic ACM removal methodologies.

Following the inspections and receipt of test results, a comprehensive scope of works document, along with specifications, drawings and budget estimate report was prepared for the Department of Defense to assess the feasibility of the ACM removal and remediation works.



Client: Department of Defence

Location: Campbell Barracks, SWANBOURNE WA 6010

Campbell Barracks Community & Functions Centre

Pritchard Francis was engaged by Jones Lang LaSalle on behalf of the Department of Defense, to review the existing SASR Association House located at Campbell Barracks and produce a feasibility report determining the required works and associated costs to upgrade the property to comply with the disabled discrimination act (DDA), Building Code of Australia (BCA) and incorporate the Stakeholder's desired modifications.

As part of the feasibility study, Pritchard Francis arranged a series of inspections, provided sketch drawings outlining the required works, engaged AECOM to produce a heritage impact assessment and quantity surveyor (Owen Consulting) to produce a cost estimate report, all of which were included in a report issued to the Department of Defense. Upon review of the report, the Stakeholder's concluded that the proposed works would be explored in further detail.



Client: Department of Defense

Location: Campbell Barracks, SWANBOURNE WA 6010

Campbell Barracks Wellbeing Centre

Pritchard Francis was engaged by Jones Lang LaSalle on behalf of the Department of Defense, to review the existing SASR Auxiliary House located at Campbell Barracks, to determine the feasibility of making the property compliant with the disabled discrimination act (DDA) and the Stakeholder's desired functionality.

As part of the feasibility study, Pritchard Francis arranged a series of inspections, provided sketch drawings outlining the required works, engaged AECOM to produce a heritage impact assessment and quantity surveyor to produce a cost estimate report, all of which were included in a report issued to the Department of Defense. In review of this report, the Stakeholder's concluded that modification to the existing property was not feasible to achieve the project scope, opting instead for the proposed demolition of the existing property and design of a new, purpose built community/wellbeing centre for use by the families of SAS personnel.

Working to the Stakeholder's requirements and budgetary constraints, Pritchard Francis designed and documented a new centre that is fully DDA compliant, simplistic in appearance, function and maintenance while providing additional amenities and storage, a large undercover deck area and increased parental visibility of play areas.

Pritchard Francis also provided structural engineering services for this project.



Client: JLL/Augility

Location: RAAF Base Darwin,
DARWIN NT 0820

Site Area: 1,600m²

RAAF Base Darwin - Civil & Scour Protection

Pritchard Francis is currently undertaking lead design consultancy services for the upgrade of drainage and other civil infrastructure at the RAAF Darwin base.

The RAAF base is subject to significant monsoonal weather conditions, and combined with ageing infrastructure, this has led to significant decay and degradation of some components of the site stormwater drainage system.

Pritchard Francis has led the design of new drainage and scour protection for these elements of the RAAF bases stormwater network.

High volume and significant velocities entering the system from upstream catchments meant that the design needed to be tailored to suit these conditions, as well as satisfying RAAF Darwin base management conditions and asset life.

Further to the drainage works, a new grade level asphalt surfaced car parking facility has been designed to upgrade an existing facility which is in poor condition.

To enhance the Clients' budget expenditure on this project, Pritchard Francis designed the new car park pavement with a view to making use of much of the existing pavement material for subgrade/sub base pavement layers. This enabled the Client to significantly lower costs associated with the importation of material across the 1,600m² site.



Client: JLL/Augility

Location: RAAF Base Darwin,
DARWIN NT 0820

RAAF Base Darwin Refurbishment

Pritchard Francis is currently working on refurbishment and internal modifications to four of the Central Precinct buildings on RAAF Base Darwin acting as the Lead Consultant.

As part of the works, structural condition assessments have been undertaken on parts of the existing heritage buildings including assessment of existing timber framing, concrete, roof plumbing and internal and external fixtures and fittings.

Following these assessments, remedial works have been designed, documented and priced, and further incorporated into the project documentation for the refurbishment works.



Client: Department of Defense

Location: RAAF Base Learmonth, EXMOUTH WA 6707



Client: RAAFA (WA Division) Inc

Location: BULL CREEK WA 6149

Site Area: 11ha

RAAF Base Learmonth – Service Reconstruction & Repairs

Project Description

The RAAF Base Learmonth is a Defense Airforce base located within the Shire of Exmouth. The project comprised of a new wastewater treatment plant for 20 to 250 on-base service personnel. Due to the large range of normal to peak loading, the plant had to demonstrate a constant circulating flow throughout. This kept the system on a 'low flow operation' ensuring that all components would not seize on peak flows.

Flooding had previously occurred in the area so the stormwater catchments were modelled and analysed for the 10% and 1% AEP events. Mitigation methods of major diversion channel regrading, new culverts, channels and headwalls were documented.

Scope of works undertaken included earthworks, roadworks, stormwater drainage, wastewater reticulation, infrastructure and demolition.

RAAFA Bull Creek Club House & Apartment Building

Project Description

As part of the ongoing development of RAAFA's Memorial Estate in Bull Creek, RAAFA will replace its aging AFA Club with a new building, which will comprise new club/function centre at ground level with apartments over.

To accommodate demolition of the existing AFA Club House, a temporary club facility will be provided on the eastern side of Lake Howard for approximately 2 years. This facility will include marque, ablution facilities, bar and servery, refrigeration and storage, mechanical, electrical and hydraulic services as required.

The new AFA Club House will include 60 apartments over six levels, a restaurant, café, bar/lounge, multi-function area, kitchen, delivery/loading bay, secured basement car park and additional unsecured general parking.

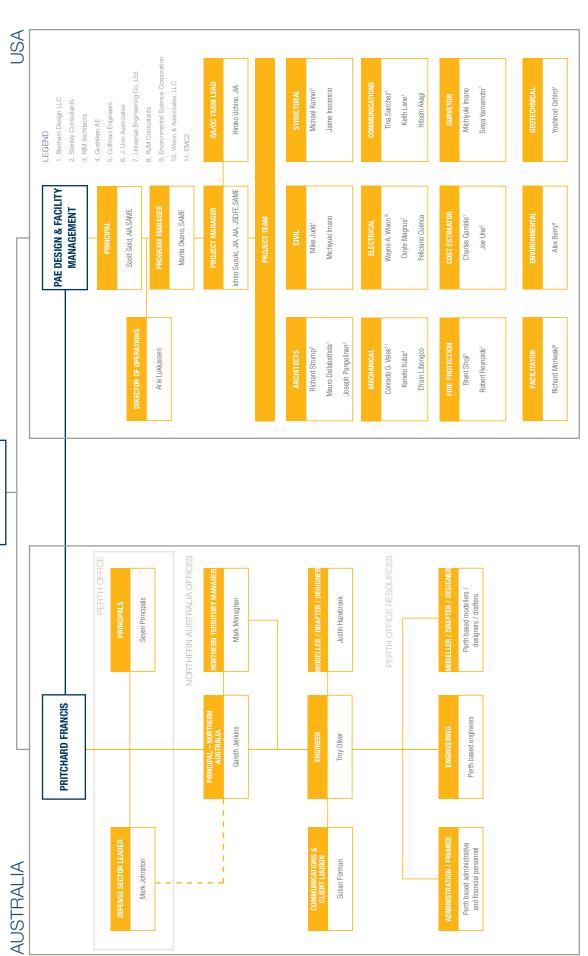
Pritchard Francis has been commissioned to undertake civil and structural engineering consultancy services for the project, including all building and site services, roads, paving, stormwater control, sewerage and drainage as well as landscaping.

The scope involves civil and structural design, documentation and assistance during construction.

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Organization Chart

PAE-PRITCHARD FRANCIS BOARD



Capability Statement

Key Personnel – PAE



Scott Gold PRINCIPAL

Scott joined PAE Japan in 2009 and has been PDFM's President since 2011.

In 2006, Scott and others established Solutions Group Intl. As Director of Operations of SGI LLC and Managing Dir. of SGI Japan KK, Scott was responsible for the operations of the company's worldwide activities including the Philippines, Japan, China, Guam, Palau, Southern Sudan, Kenya, Egypt, and other countries. He was responsible for setting up the entities for SGI Japan KK and SGI Southern Sudan. Scott was in charge of all design projects for the organization.

Scott has also been an Instructor of Architectural Design at Tokyo Technical College, lectured at a number of Tokyo Universities, served as an Adjunct Faculty for Virginia Tech in Japan, and has written articles on Japanese architecture. Scott has lived and worked in the Pacific for more than 3 decades and is a licensed architect on Guam and in California. Scott served as President of the American Institute of Architects' (AIA) Japan Chapter (2017). He serves on the AIA International Region Board and is its 2020-21 Vice President/President-Elect. Scott is also a member of the Society of American Military Engineers (SAME).



Arie Lukkassen director of operations

Arie is responsible for the operations across PAE's Japan / Australian businesses.

Born and educated in the Netherlands, Arie spent 20 years at Honeywell at various positions from engineering to general management. After working in Europe, Arie moved to the Asia-Pacific region in 1992, worked in Australia initially, then served as regional management executive in Hong Kong before moving to Japan.

Having deep electrical engineering and large fire protection and fuels infrastructure experience at DoD bases, Arie brings a unique set of skills for demanding DoD mission critical applications.

Arie has 30 years of global design, construction / operations management, and business development experience. He is absolutely focused on client project delivery exellence.



Marita Okano program manager

Marita directs PDFM's Architect Engineer Division.

Marita moved to Japan in 1986 after working in the Philippines. Having worked with several Architect Engineer companies in Japan before joining PAE, she has more than 30 years of experience with US Military contracts. She has deep knowledge in engineering design and project processes and is currently leading the Team of PAE's capable and experienced architects and engineers.

She is currently managing several IDIQ and IDC contract vehicles with the US Navy and US Army Corps of Engineers.

Marita has a degree in Management and Industrial Engineering with a focus on Civil and Environmental Engineering.

Key Personnel – Pritchard Francis



Mark Johnston PRINCIPAL

Mark is one of the the firms Principals and Market Sector Leader for Defense, responsible for all aspects of project delivery across multiple projects in the business.

Having both architectural and engineering qualifications, having led his own practice, and worked on major projects locally and internationally, his unique skills and experience are perfectly aligned to understanding, responding and managing the Department of Defense high expectations and demanding project requirements. He is currently Project Director (Structural & Civil) for the HMAS Stirling 3A Base Upgrades, as well as ongoing works at Irwin and Campbell Barracks.

Mark will oversee all aspects of our defense projects. He will ensure commitments are met, quality and approach to problem solving is consistent within our team and service is maintained at the highest level. Most critically, Mark has

the ability to understand client's requirements and expectations within a project environment that is very engineering focused and highly dependable upon operation. He has the ability to understand the functional and operational requirements of the client and will implement a pragmatic and commercially focused design approach that authentically responds to these requirements and suits the business operation.



Mark Monaghan Northern Territory Manager

Being located in Darwin and responsible for all work within the Northern Territory, Mark brings significant local knowledge and understanding to the defense sector. As a long-term Territorian, Mark has significant market knowledge and connections in his local community through his education and engineering operations background. He has a high level of commercial engineering leadership skills, and has been consistently recognised for his strategic development and outstanding services delivery to the local Northern Territory region. He has excellent local standing with the Darwin business community, and a close and respectful relationship with the local traditional owners.

Mark Monaghan works intimately with Mark Johnston, taking responsibility for the Darwin office including growing the team locally and providing a secondary supporting role.

Clientele - PAE

- Aflac Japan
- Akasaka Group Jimusho K.K.
- American Bureau of Shipping
- American Express International, Inc.
- Amway Japan Limited
- Aozora Bank, Ltd.
- Apple Japan, Inc
- Avon Products Co., Ltd.
- Boeing Japan
- British Airways
- Cathay Pacific Airways
- Chanel K.K.
- Chase Manhattan Bank N.A.
- Chevron Texaco International Gas Inc.
- Citigroup Services Japan, Ltd.
- Dell Japan
- Delta Air Lines, Inc.
- Dynabot Radioisotope Labs.
- Embassy of Australia
- Embassy of Belgium
- Embassy of Canada
- Embassy of France
- Embassy of France
- Embassy of Germany
- Embassy of Mexico
- Embassy of New Zealand
- Embassy of Spain
- Embassy of Switzerland
- Embassy of the Kingdom of the Netherlands
- Embassy of the Republic of Singapore
- Embassy of United States
- General Atomic International

- General Motors Japan
- Godiva Japan, Inc.
- Gucci Group Japan Ltd.
- Jardine, Matheson & Co. Japan
- Lehman Brothers Japan Inc.
- L'Oreal Japan K.K.
- Max Factor International
- Microsoft Co., Ltd.
- Miu Miu Japan
- Morgan Stanley Japan Securities Co., Ltd.
- Nihon Motorola K.K.
- Nike Japan Corporation
- Nissan Sunny Tokyo Sales K.K.
- Nokia Solutions and Networks Japan Corp
- Northwest Airlines, Inc.
- Orrick Herrington & Sutcliffe Japan
- Prada Japan Co., Ltd.
- Qantas Airways
- Reebok International, Ltd.
- The Hongkong and Shanghai Banking Co., Ltd. (HSBC)
- The Walt Disney Company Ltd
- Tokyo American Club
- United Airlines
- United States Air Force
- United States Army
- United States Marine Corps
- United States Navy
- US Department of Commerce
- Vodafone Group Plc
- Warner Brothers Japan Inc
- Warner-Lambert K.K
- Yokohama International Port Terminal

Clientele - Pritchard Francis

- ABN Group
- AFG Property
- Amec Australia
- AMP Developments
- Anglican Schools Commission
- Australand
- Bechtel
- BGC Development
- BHP
- BOC Gases
- Broad Construction Services
- Brookfield Multiplex
- Broome Port Authority
- Building Management and Works
- Catholic Education Office
- Chevron
- Coles
- Coogee Chemicals
- Curtin University of Technology
- Decmil
- Defense Housing Australia
- Department of Corrective Services
- Department of Defense
- Department of Education
- Department of Finance
- Department of Health
- Department of Housing
- Doric Group
- Edith Cowan University
- Georgiou Group
- Handle Property Group
- Hawaiian

- Horizon Power
- ISPT
- John Holland
- LandCorp
- Leighton Contractors
- Lendlease
- McConnell Dowell Constructors
- Mermaid Marine
- Murdoch University
- Notre Dame University
- NBC Aboriginal Corporation
- Nyamba Buru Yawuru
- Perkins TPD
- Perth Airport Pty Ltd
- Perth Zoo
- Primewest Management Ltd
- ProBuild
- Public Transport Authority
- Rio Tinto
- Rottnest Island Authority
- Stockland
- The Metal Group
- The Perron Group
- Thiess Pty Ltd
- Transpacific
- University of Western Australia
- Uniting Church
- Water Corporation
- Westbury Investments Pty Ltd
- West Australian Newspapers Limited
- Westralia Airports Corporation
- Woolworths



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