



Client:

Lend Lease

Attention:

Phil Kienhe
Project Manager

Project:

Sydney Gateway
Project - Qantas
Buildings

Date:

15 September 2017



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Executive Summary

SBA propose to be the Lead Consultant and Architect for the Enabling Works Component of the landmark SGP project proposed to be completed at Sydney Airport, before December 2021.

SBA provides a cost effective, experienced and expert Service, well suited to the proposed Building Types forming part of the SGP Project, and the Lend Lease Design and Procurement methodologies.

SBA have delivered many similar buildings, to a very high level of design and cost control, in nearly 15 years of practice. Greg Baird and Tony Salvarinas are Sector Leaders for Industrial Projects and are very well regarded as providers of Architectural Services in the Industrial Sector.

SBA's team consists of experienced, knowledgeable and approachable team members, employed at SBA for the long term, who are passionate

about industrial buildings and infrastructure projects, and who are each committed to producing high quality, on time and on budget business outcomes for the SGP project.

SBA is hopeful to establish a positive and long term working relationship with Lend Lease. SBA believes its work culture is well suited to the cultural paradigm of the Lend Lease business model.

SBA has a broad range of satisfied Clients, who provide repeat business and referrals that have driven SBA's growth for over a decade.

Changing the shape of Sydney's Infrastructure for the future is an exciting, interesting and enjoyable process. SBA hope to share in that excitement in forming many positive and long-term relationships that overall makes Sydney a more efficient, and enjoyable place to live.

15th September, 2017
SBA Architects Pty Ltd



Greg Baird
Director

1.0 Company Profile

SBA Architects has developed a reputation as one of Sydney's leading Architectural and Design practices. Since 2003 we have provided architectural services, master-planning, design development, and interior design services to our clients. Our dynamic hands-on team of 24 employees have passion for design and a desire to deliver exceptional results. Our reputation in the industry is based on trust. We place our clients at the centre of our design process and take pride in delivering forward thinking design solutions.

Our Values

At SBA Architects we nurture an inclusive culture and harmonious working environment. Our people are among the best in the industry and bring to life our culture each day by placing our clients at the center of everything they do. SBA considers each project as an opportunity to positively contribute to both the client's expectations and the built environment. Our commitment to continuous improvement is demonstrated by our adoption of a fully accredited Quality Management System incorporating WHS and the environment.

Leadership

SBA Architects is led by two Principal Directors – Greg Baird and Antony Salvarinas. With decades of experience, together they established SBA Architects in 2003 and jointly share all decision making for the practice. Greg is primarily responsible for planning, business development and concept design while Tony oversees quality management, documentation teams and project delivery. The Senior Management Team of five Project Architects and two Associates leads all projects and remain in contact with the client throughout the entire architectural process. Our clients also have access to the Director responsible for their project, from formulation of the brief to construction completion. This management structure ensures that all projects are delivered to a standard of excellence and enables us to develop long term relationships with our clients.

Directors

Antony Salvarinas – B.Arch

As Co-founder and Director of SBA Architects, Tony oversees the construction documentation and quality management functions of the business, taking projects from DA approval, through to detail design, contract documentation and project delivery. With extensive industry experience, Tony has delivered excellent outcomes for clients across commercial, industrial and retail sectors. His experience is highly valued, particularly in the area of complex construction detailing and documentation, consultant co-ordination, contract administration, and team management.

Tony's commitment to producing quality outcomes and rigorous documentation, together with his keen attention to detail have enabled SBA Architects to develop a strong reputation and track record in the delivery of large complex projects. Under Tony's leadership SBA Architects has thrived in the Industrial sector and continues to deliver projects with quality outcomes and high levels of customer satisfaction. Tony's leadership responsibilities also involve mentoring and nurturing future leaders across the organisation.

Greg Baird – B.Arch (Hons)

As Co-founder and Director of SBA Architects, Greg has extensive experience across commercial, industrial, retail, residential and hospitality sectors. Greg is regarded as a leader in the field of Industrial Architecture, with over 30 years experience delivering large



scale projects including manufacturing facilities, freight processing facilities, cold stores and warehouses for the major REIT's, design and construct contracts, owner occupier projects and private developments.

Greg has provided SBA Architects with strong leadership and direction since he co-founded the firm in 2003. He leads the design and business development functions of the organisation. Greg's personal integrity, commitment to customer service excellence and outstanding

project management skills, have enabled SBA Architects to deliver exceptional outcomes for clients since the inception of the company. Greg has been responsible for the design of major commissions of a variety of corporate clients over the years including Goodman, GPT Group, Mirvac, Toyota, PAG, Australia Post, NRMA, as well as various design and construct contractors and project managers.

1.1 Company Details

Company Legal Name:	SBA Architects Pty Ltd
Company Trading Name:	SBA Architects Pty Ltd
ABN:	85 103 593 077
ACN:	103 593 077
Principal Place of Business:	North Sydney
Postal Address:	Suite 702 / 83 Mount Street North Sydney NSW 2060
Business Entity Type:	Private Company
Ownership Details:	Partnership / Directors Antony Salvarinas & Gregory Baird
Annual Turnover:	\$5M
Number of Full Time Employees:	24
Number of Full Time Employees Servicing This Contract:	10-12

1.2 Contact Details

Contact Name	Greg Baird
Contact Person's Delegation	Director
Contact Person's Phone Number	02 9929 9988 / 0412 390 402
Contact Person's Email Address	greg@sbaarch.com.au

1.3 Critical Assumptions

In forming this Proposal, SBA Acknowledge and accept Lend Lease Contract Documents forming part of the Request for Proposal for Architecture Services, particularly:

- » LLSGP RFP Letter SBA 30/08/17
- » LLSGP Briefing Paper, June 2017
- » LLSGP Design and Deliverables Schedule – Architecture Services, 01/08/17
- » LLSGP Major Professional Services Agreement
- » LLSGP Schedule A, Architectural Services, Issue 2.3 23/02/17
- » LLSGP Design interface Responsibility Matrix, Issue 01, 10/05/17
- » EHS Global Minimum Requirements, Feb 2016
- » CIDD Alerts and Guidelines, March 2017
- » LLSGP Qantas BIM Requirements for Consultants, Rev 01 14/08/17

SBA Will provide at Project commencement, Pre-Design Requirements (Page 03)

- » QMS System Verification (PSA Clause 9)
- » EHS System Verification (PSA Clause 8)
- » Documentation Manual (Schedule A1.1.7)
- » Design Programme and Resourcing (Schedule A1.1.2)

This Proposal includes complete Architectural Services, in line with Stages 01 – 07, for Enabling Works for the Sydney Gateway Project (SGP), including the following Scopes of Work and QANTAS replacement Facilities:

- » Demolition Works adjacent and impacted existing buildings
- » Qantas Staff Car Park, 1980 Spaces
- » Sydney Distribution Centre (Aircraft Parts Storage)
- » 1st Classes and Business Class Catering Facility
- » Groundworks and pedestrian connections within the project area

The proposed Scope is complete in terms of architectural components as relate to the full Enabling Works design scope, and as will be more clearly articulated through Stage 1: Project Brief / PPR and Stage 02: Masterplanning.

Regarding Existing Property Demolition, SBA understand that the architectural scope is to include for the demolition of the existing buildings, and is inclusive of staging and sequencing development as part of the initial Masterplan and Concept Design phases.

Regarding Scope for Stage 01 – Brief Development / PPR, SBA note the requirement for general arrangement plans and elevations, to assist with presentations to NSW Government for UPS Stage 1B Approval. As per LL Document, 'Schedule A – Architectural Services', dated 23/02/17, particularly the Indicative Enabling Works Programme (Page 18), that the detailed UPS Stage 1B Proposal is due end February 2018, coinciding with completion of LL Stage 2 of Architecture Deliverables. As such, it is envisioned that drawings developed for LL Stage 2 can be utilised as part of the UPS Submission.

Regarding Qantas Replacement Facilities, SBA understand as follows:

Regarding the Catering Facility, SBA will provide preliminary layouts, based on experience with similar projects and identified benchmarks. SBA understand an experienced Kitchen Consultant be engaged to assist with detailed design and specification of kitchen facilities for this facility.

Regarding the Sydney Distribution Centre, particularly materials Handling Supply Chain systems as described by the RFP Documents, SBA can advise on preliminary racking & store layouts, however for customer specific requirements and developed design, SBA understand such design inputs will be provided by specialist consultants.

The Project will be delivered via a PPP Contract, with the Architect providing Architecture Services in line with Traditional procurement methods (no novation of Consultants).

The Architect will act as the Lead consultant with respect to Consultant Coordination, and the project will be fully documented as a BIM Project including all consultants. SBA are aware that during Stages 01 – 03, consultation with air-side services will likely occur, and that there will be a range of issues associated with strategic development of airside services in line with Airport operational and business development principles, that will need to integrate to the Masterplan vision and strategic direction. SBA are also aware that there may be a range of client-side consultants (engaged to QANTAS), who will supply design inputs, that are required to be coordinated into the final designs.

SBA propose that in stages 01 – 03, all buildings be designed together, then, during Design Stages 04 – 06, architecture teams are separated as follows:

- » Sydney Distribution Centre (Team 01 led by Richard Prince)
- » Car Park / Catering Facility (Team 2 led by David Chin)

The above arrangement allows for the Car Park and Catering Facility to be documented together, in the case these two facilities become one single building.

Construction Budgets used to establish proposed Fees in this proposal, are estimates only and may be subject to change as the project Scope becomes more developed.

SBA understand that the Works will be considered comprehensively in the Masterplan and Concept Design phases, but may be separated into different teams during later stages of design to suit key Project delivery milestones.

SBA understand that the proposed Replacement Car Park, Catering and Storage Facilities Buildings to be commissioned and operational before demolition of existing QANTAS Catering and Storage Facilities.

This Architectural Services Proposal is inclusive of base build elements only. If requested, SBA can provide Landscape and interiors Design Services for this Project.

1.4 Insurance Details

Please refer to the Appendix A for copies of Certificate of Currency.

Company	Company	Policy Number	Expiry Date
Public Liability Required Level \$20,000,000	Vero Insurance	SME009158751	17/02/2018
Professional Indemnity Level Required \$20,000,000	DUAL Australia Pty Ltd	P-PI/0/142634/17/I-8	17/02/2018
Workers Compensation	Employers Mutual	1SF0056493GWC154	31/01/2018

1.5 Conflict of Interest

Detail of any potential conflicts of interest in relation to this Contract	None
Procedures for resolving any Conflicts of Interest	Not Applicable

2.0 Management Systems

2.1 Quality Management System

Please refer to Appendix B for copy of our certificate of conformity with Quality Management System - AS/NZS ISO Standard 9001:2008

SBA Architects maintains Quality Management System Certification in accordance with ISO9001:2008 and 4 star certification in Occupational Health & Safety and Environmental Management in accordance with AS4801, ISO 14001 and the NSW & ACT Government requirements.

Our Quality Management System is an assurance to our clients that we:

- » Conduct our business with due regard to contractual, legal and regulatory requirements;
- » Provide architectural services which consistently meet the requirements, needs and expectations of our clients;
- » Produce a product which enhances the quality of the built environment.

Our commitment to Quality Assurance allows us to maximise our efficiency and productivity to meet the company's goals and objectives of client satisfaction

2.2 Environmental Management

Please refer to Appendix B for copy of our Environmental Management Certificate

At SBA Architects it is our policy to address environmental issues. We design and utilise products and services in such a way as to minimise environmental impacts in construction, occupation or use, and disposal.

We take an active interest in the prevention of pollution through the adoption of processes, practises, materials, and products that avoid, reduce, or control pollution.

2.3 WH&S System

Please refer to Appendix B for copy of our WH&S Certification - IAS/NZS-4801.

The health, safety and welfare of all people involved in our business and the products we design are of primary concern. This is reflected in the way we plan our work activities, equip our people, and perform and control our work processes.



3.0 Service Delivery

3.1 Understanding Requirements

3.1.1 Understanding the Scope of Service

The Sydney Gateway project is proposed to be undertaken by a Consortium of interested Parties including NSW Government, Lend Lease (LL) and QANTAS. The project is currently at USP Stage of Consultation with the NSW Government. The project Proponent for the Development Application will be QANTAS. Lend Lease is the project Principle and Project Manager. The project is proposed to be delivered as a PPP for the NSW Government.

The SGP will provide:

- » New Road connections to Sydney Airport and Port Botany, from the WestConnex Road project currently being undertaken by the NSW Government; and
- » Realign and duplicate the Port Botany Freight Rail Line.

As a consequence of these proposed new road and rail linkages, several buildings at the north-eastern edge of Sydney Airport need to be removed, and some of those, rebuilt. Overall, these new road and rail linkages, and changes to existing buildings, will result in an expanded air-side land area for the Sydney Airport.

Preparatory Works for the new and relocated rail and road positions, includes the full or partial demolition of 17 existing buildings, replacement of 3 existing, operational Qantas facilities, and provision of new services infrastructure.

Under the USP, Lend Lease intends to act as a Proponent and Project Manager for the SGP, utilising a PPP Works Contract to deliver the design and facilities. Lend Lease intends to progressively refine the development concept through masterplanning and concept design phases, involving key consultants as required, until such time as the proposed project scope gains approval from relevant stakeholders, and then moving into a detailed design and documentation phase, to produce fully coordinated IFC drawings and construction of the buildings by the selected Building Works Contractor/s. Under this Procurement Approach, the appointed Architect will act as the Head Consultant, assisting in preparation of project briefing documents, a masterplanning phase involving detailed analysis of staging and massing options, the production of architectural concepts and developed drawings, schedules and specifications, and assisting Lend Lease with coordination, cost and design control throughout the project duration.

The Head Consultant Scope of Service are expressed in the LL Document 'Design and Documentation Deliverables Schedule' 01/08/17, comprises the following phases:

Stage 01: Project Brief / PPR

Articulation of Client Requirements (Business, Development and Functional Briefs) for the project such as design objectives and spatial and functional requirements and objectives.

Stage 02: Masterplanning

The Masterplan Process involves interpretation of brief requirements through site analysis to establish the best use for the site. As part of this phase, constraints and opportunities, indicative conceptual layouts, block and stack diagrams and feasibility studies will be utilised to define the strategic direction for the project in subsequent stages of design. The project brief and cost plan will be updated progressively through this phase.

Stage 03: Concept Design and Development Application

The concept design process utilises the project brief to articulate by design, functional areas and relationships, floor plates, floor areas, circulation logic, and architectural intent for the building envelope. This phase involves preliminary coordination with building design consultants. Ultimately this phase articulates the form, character and design of the project as will be submitted for planning approval. The project brief and cost plan will be updated progressively through this phase.

Stage 04: Design Development

The design development process involves the refinement, resolution and verification of the concept design, to finalise the planning configuration, building structure, traffic management, and services allocation and design. building materials and systems are also articulated within this phase, to assist with coordination and cost analysis. In this phase, the project brief are finalised by client reviews and approvals.

Stage 05: Detailed Design and Documentation

Resolution, finalisation and coordination of all design documentation, including drawings, schedules and specifications, in order to provide an ADT (Approved for Tender) set of documents to the project Principal. This phase may include subcontractor design verification.

Stage 06: Complete Design and Construction Services.

Review and finalisation of shop drawings, and technical submissions approvals, samples and prototypes, provision of supplementary construction design details, site quality reports and finalisation of authority approvals.

Stage 07: Project Finalisation

This process occurs once construction is completed and an occupancy permit is granted, and includes validation of performance criteria, as built drawings, maintenance manuals, warranties and design services within the defects liability period, in order to grant a certificate of final completion.

For each of these stages, SBA provide a scope of work as is set out in **Section 3.2**. SBA understands the required scope of work for the architectural services component of the project to be in line with the LL document 'Design and Documentation Deliverables Schedule' 01/08/17, as well as defined by the design interface responsibility matrix, printed 30/08/17.

SBA is familiar with the Workflows as is defined by these process documents and can work quickly and efficiently through the required work and coordination activities.

SBA will comply with pre-design requirements as set out in Schedule A, 23/02/17, at Item 1.1.1 'Pre-Design Requirements'. The QMS System Verification is provided at Section 2.0 of this Proposal.

Additionally, as part of this architectural services proposal, SBA will:

- » Establish and monitor a coordinated design programme for design activities throughout the duration of the project
- » Provide a complete list of project documentation per stage to the Project Manager
- » Provide a personal resource chart that supports the programme (an outline of proposed allocated senior resourcing is provided at **Section 4.2** of this proposal)
- » Provide monitoring and reporting of design activities in relation to programme, brief and scope objectives, to the Project Manager
- » Review documentation issued by the project team for coordination and consistency

- » Review, understand and integrate relevant consultant and expert inputs
- » Understand and contribute to maintaining the PPR document through the life of the project,
- » Participate in design reviews as may be requested by the Project Manager
- » Attend meetings as required by the project and Project Manager
- » Obtain relevant client approvals at relevant milestones
- » Review, understand and integrate relevant Authorities Requirements, and assist in obtaining relevant Authorities Approvals at relevant milestones
- » Ensure scope is clearly defined and documented between consultants, such that there are no scope gaps or omissions in final tender documents, and that designs are fully coordinated between consultants, and update and maintain the 'Project Documentation Manual'
- » Establish and maintain BIM protocols and processes as part of documentation and coordination efforts
- » Utilise 3D CAD and BIM for Architectural Documentation, and ensure coordination with consultants in a BIM environment as part of the process of documentation production
- » Complete Architectural Specifications for each component of the project, in line with Lend Lease requirements
- » Work with the Project Manager to meet cost objectives for the project
- » Ensure designs, materials, assembly and performance specifications are Fit for Purpose and buildable
- » Understand and comply with LL CIDD Documentation
- » Utilise LL Procurement Relationship where possible in relation to the selection and supply of building products and materials
- » Contribute to the advancement of Sustainable design features as are integrated to buildings of similar type, to a standard of best practice as may be articulated by the Project Manager
- » Inspect and report on construction as is required by the LL Works Contract
- » Provide Completion Certificates as is required by Schedule A at relevant Milestones and project Gateways

3.1.2 Understanding the Project

The project is preparatory Works for the new and relocated rail and road positions, includes the full or partial demolition of 17 existing buildings, replacement of 3 existing, operational Qantas facilities, and provision of new services infrastructure. SBA has made appropriate allowances for a demolition package as part of this Architectural services proposal.

Initially the project will proceed through a Masterplanning and Concept Design phase, where site opportunities and constraints will be assessed against the various design requirements for the proposed future use of the land area. There will be ongoing coordination with traffic and infrastructure planners, understanding positions, widths and heights of proposed new rail and road corridors which bound the site; in parallel the project PPR will evolve, allowing for a more detailed appraisal of various block and stack configuration options for the proposed 3 new replacement facilities; staging of facilities will need to be considered in terms of ongoing operational requirements



of effected airside services, and in line with master procurement programmes and key milestone targets; integration of various building services elements and infrastructure routes, both new and existing; consideration of traffic flows both pedestrian and vehicular, to maximise service and logistical efficiency; provision of landscape and outdoor amenity; site lines, densities, setbacks and building separation; project bench levels and excavation requirements; impact of design proposition on air-side operations; and any other technical issues that might arise and need to be considered including flood design requirements, on site detention; and compliance issues as might relate to the relevant Statutory Authority.

Once an agreed strategy is adopted for the Masterplan, this will also determine the proposed staging method for the new facilities, and consequently scope for and timing of demolition of effected, existing buildings. It is likely there is a range of demolition requirements for the various impacted buildings, that will require to be documented. SBA has made allowance for a detailed demolition package to form part of the Architectural Services for enabling works. It is expected these demolition requirements will be assessed in consultation with relevant Project Stakeholders.

Some of the buildings nominated to be demolished currently service airside operation requirements, particularly car parking for QANTAS staff, food catering facilities for 1st Class and Business class passengers, and storage for aircraft parts. As such, as part of the SGP Enabling Works project, it will be necessary for Lend Lease to sponsor fully coordinated design documents for use in constructing the new facilities. Lend Lease has requested that these documentation packages be priced and developed as separate packages.

The PPR process, undertaken as part of the Masterplan process, will formulate an operational brief for these facilities, that can be referred to and updated in later stages of design. These PPR requirements will be developed in close consultation with QANTAS operational requirements.



Car Park Structure

The new Car Park facility is a major new structure at the Airport and consolidates a range of existing staff car parking facilities to a single structure. Comprising 1,940 cars, this major new structure will likely situate adjacent the proposed new road corridor, and as such represents an opportunity for QANTAS brand presentation to passing vehicular traffic. Additionally, the car park will need to work very efficiently to ensure the easy passage of user vehicles at various peak times. As such, the Architects will need to work closely with the Traffic Engineers and relevant car park stakeholders, to understand usage patterns and peak loading. Ingress and egress capacity will need to be properly understood, both in terms of entrance and exit to the proposed new structure, but also how surrounding connecting roads may service the new facility.

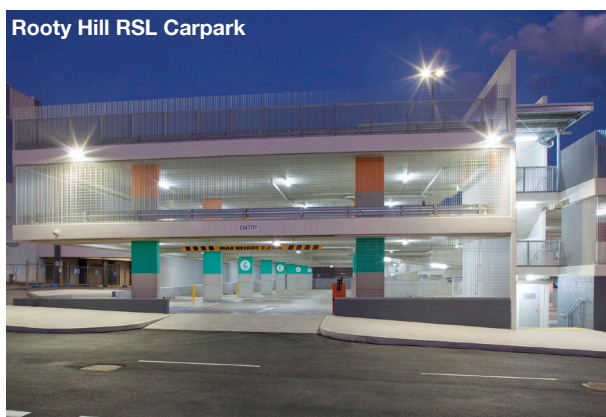
It will also be important for the Architects to work closely with the Structural Engineers to determine the most efficient structural grid and structural design system. A range of structural approaches may be considered in terms of material efficiency, speed of construction, and projected cost.

Vehicular and pedestrian orientation is also important to consider, which will result in a detailed wayfinding and signage overlay. Such an overlay can add to the attractiveness and design presence of the building.

In assessing various Masterplan options, opportunities for new connections will likely be considered, that will then, once agreed, be included to the scope of the car park project. Ventilation of the structure will need to be considered, in terms of providing a healthy and safe facility. It is likely that the building design will need to provide acceptable quality atmospheric conditions based on natural ventilation strategies, and the Architects will need to work closely with the Mechanical Engineers to ensure that the proposed building design provides adequate ventilation.

The building will also carry design requirements in terms of Vertical Transportation, Electrical, Hydraulic and Fire Services, and possibly given the height and mass of the structure, and proximity to aircraft landing and takeoff locations within the Airport, assessment against relevant Object Limitation Surfaces and Wind Design criteria.

The proposed new Car Park Facility will be operational before the decommissioning and demolition of existing Catering, Car Parking and Aircraft Storage facilities as noted below.



Catering Facility

The existing Catering Facility is of size approximately 10,000sqm, over two levels, located above three levels of undercroft parking, comprising 1560 cars. This facility provides a plating & racking service for food cooked off site. The facility is connected to Air Side services, for purpose of loading and unloading stacked food trolleys for service on flights.

The Architects will need to work closely with the Project Stakeholders and the selected kitchen services consultant, to understand the preferred operation design requirement for the Facility (to form part of the PPR document), and interpret the preferred functional configuration and area allocation to an agreed plan the master composition, in order to produce a meaningful block and stack analysis as part of the Masterplanning process.

During later phases of the design, the Architects will need to work closely with the selected Kitchen services consultant, in order to properly interpret the Operational requirements to a properly dimensioned functional plan, and then ongoing integration of nominated and selected kitchen services equipment and fittings. There will be a process of detailed coordination with Electrical, Hydraulic and Mechanical consultants, to ensure that the nominated equipment is properly supplied for service, in coordinated positions.

The Architects will need to work closely with the Fire Services consultant, and possibly Fire Engineer, to ensure that technical requirements for safe Fire Design are properly understood and dealt with by the design of the project. Security of the facility will also be a key consideration and the design will need to ensure that security requirements are properly considered and integrated to the design.

A trigeneration plant is currently located adjacent to the existing Catering Facility. During the Masterplanning phase, it will be necessary to understand the capacity of this existing plant, its ability to suit the likely service demand of the Catering Facility (as will be defined by the PPR), as well as the way in which the existing plant facility is connected to the proposed new catering facility.

It is understood that an eventuality of the Masterplan process could be that the Catering Facility provides for future expansion on the upper level and possibly beyond; as such the Architects will need to determine in conjunction with the Structure Engineers appropriate structural systems and design to suit both the proposed, immediate use of the building, and any future use scenarios.

It may be of interest to consider the internal amenity of the work areas; in line with SBA's design approach of 'warehouses are workplaces'; providing safe, healthy and habitable internal workspaces is a key part of worker retention and staff satisfaction. Improved worker amenity improves both performance and worker safety.

SBA understand the intention for the facades to be for robust, attractive and durable materials, and for the building structure to be robust enough to accommodate the current and possibly future uses. These Façade strategies should also consider and be mindful of environmental design strategies as may be determined as relevant to this new facility, and potential for corporate branding overlay.

Integrating logistical requirements for the operation of the building to the surrounding site configuration, in terms of loading docks, entry and access for service vehicles, waste separation, storage and collection, clearances for nominated service vehicles, connectivity for worker staff using the facility to air side operations, staff carparking and staff change and amenity areas, will be a key part of the easy operation of the facility.

It is understood that bulk storage supporting the facility will locate to level 01, meaning goods lifts, bump in / out spaces, and easy connection to loading docks, will be required. These lifts may service future upper floors to be considered in the design of the new facility.

It is understood that functional areas for the proposed new facility will be broken up roughly as follows, with a refinement of these assumptions to occur during the PPR and later, detailed design phases:

- » 40% coolrooms
- » 35% bulk store / offices / amenities
- » 15% food prep / kitchen
- » 10% quarantine / autoclave

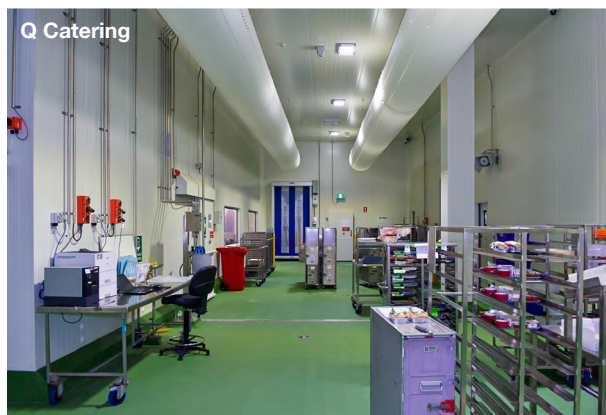
Functional Areas are anticipated to total approximately 10,000sqm, over two levels, and will likely comprise:

- » Administration offices: Offices, Meeting Rooms, Workstation Areas, Kitchenette and Print Areas, Toilets, Lunch Areas, ETC
- » Entrance and Exit lobbies integrating relevant security arrangements
- » Hygiene control, of staff and of food & waste
- » Kitchen Staff Change, Toilets and Lockers
- » Equipment Storage
- » Functional Connections to Air Side services and operations
- » Staff Lunch Areas and Outdoor Respite
- » Dock Management
- » Vehicular Control, at points of access from proposed Roadways
- » Service Vehicle queuing, temporary standing, loading and parking.

A graphical overlay for wayfinding and signage for the new facility will also improve the ease of use of the new facility. Architectural lighting will also need to be considered against functional operational requirements.

The building will likely be subject to wind modelling analysis, and this should form part of the design verification process.

The proposed new Catering Facility is proposed to come on line as operational before the demolition of the existing Catering Facility.



Storage Facility

The existing storage facility Sydney Distribution Centre – SDC), is described as being built in 2008 and having a gross area of 17,500sqm, used for the storage of aircraft parts utilising a controlled bar coding system in line with CASA requirements. This existing facility utilises steel framed portal construction, to provide large, unimpeded clear zones within the warehouse, for easy operation of a 4-line high rise 'mini-load' automated storage and retrieval system.

Base build for the new SDC is expected to comprise the following:

- » Portal Framed construction, metal clad warehouse of internal floor area 10,000sqm, suitable for installation and operation of an automated retrieval system
- » Mezzanine level, within warehouse & incorporating administrative areas associated with operations of the SDC, comprising 1,900sqm, and Reception area at ground floor
- » 250sqm allocated to dangerous goods storage

It is expected that clear heights of the proposed portal framed structure will be in order of 17mtrs. It is likely that this structure will be passively ventilated to maintain acceptable internal ambient conditions (as relate to both human occupants and the automated retrieval system machinery), will be provided with translucent or transparent panels suitable for ingress of daylight during daytime operations, and adequate artificial lighting suitable to operations in the evenings. The ground slab will be designed for maximum cost efficiency, as well as being suited to proposed mechanical loadings. Circulation routes and movement of automated and manual machinery within the structure will be considered. Materials, claddings and roof coverings, will be determined by maximum cost effectiveness, longevity, durability and robustness. Proximity to saline conditions is noted for this project and will be assessed as to how this may impact and inform materials and assembly selections and specifications.

Functional planning of the administrative areas will be based on PPR requirements defined as part of the Masterplanning process. Once functional planning arrangements are agreed, SBA can provide full fit-out integration as part of the main building documentation package, to facilitate integrated procurement of the facility.

The Architects understand that it will be necessary to carefully consider the operational requirements of the designated automated retrieval system, and that it will likely be necessary to provide a range of configuration options of external envelope configurations, and internal racking and circulation areas, in order to properly coordinate the warehouse design and composition with internal machinery. SBA assume technical experts will be available to provide advice on the selection and nomination of the preferred system, as part of early design phases for this project.

Security will be a key consideration for this building, both in terms of controlled access to and egress from the building, and associated connections to other relevant airport functions for both staff and parts, and any potential uncontrolled access to the building, through the building envelope.

Internal ambient conditions, as required for storage of parts, will need to be articulated and understood, in order to be interpreted to the design. Coordination of structural positions with proposed automated system configurations will need to be considered, in terms of maximal structural efficiency for the portal grid.

The relationship of the Office Area to the main storage warehouse, will need to be considered. At 17mtrs roof height, there will be substantial extra over clear space above any mezzanine level, or, there is the potential for extra over height as part of the warehouse area located underneath the proposed mezzanine. The nature of construction of the mezzanine, and overall treatment of the facility for fire services and fire robustness, will also need to be carefully considered. Given the relatively high height of the proposed warehouse, it might be advantageous to utilise services of a fire engineer to ensure the most efficient design against statutory NCC requirements.

These administrative areas will likely include facilities as follows for workers working at the Facility:

- » Administration offices: Offices, Meeting Rooms, Workstation Areas, Kitchenette and Print Areas, Toilets and Lunch Areas
- » Entrance and Exit lobbies integrating relevant security arrangements
- » Staff Change, Toilets and Lockers
- » Equipment Storage
- » Functional Connections to Air Side services and operations
- » Staff Lunch Areas and Outdoor Respite
- » Dock Management
- » Vehicular Control, at points of access from proposed Roadways
- » Service Vehicle queuing, temporary standing, loading and parking.

Understanding that there will be a mix of Staff and Automated Equipment in general warehouse areas, SBA propose that the warehouse be considered in terms of occupant comfort to improve worker satisfaction and retention.

The building design will require detailed appraisal of logistical requirements, and the Architects understand it will be necessary to work closely with Airport Technical staff, and the selected Traffic Engineer, to understand design vehicles that will utilise the site, the manner in which they are loaded and unloaded, and the way in which vehicle entry and egress is controlled and monitored.

The building, because of its proposed size and height, will likely be subject to wind modelling analysis, and this should form part of the design verification process. It is expected that there will be intensive review of the building design and specification, from the point of view of stringent security requirements.

The proposed new storage facility is proposed to come on line before the demolition of the existing facility.



3.2 Understanding the Scope of Works

3.2.1 Project Phases

PPR & Masterplanning

As discussed, at commencement of the project, there will be a Masterplanning Phase, during which time careful consideration of planning and arrangement of buildings will evolve in order to identify the best overall option for implementing the intentions of the Enabling Works phase of the SGP. This Masterplanning phase will proceed in parallel with development of the project PPR, for site wide requirements, and also detailed requirements for the 3 new buildings as detailed above. This Masterplan will also need to articulate and make clear the proposed Staging arrangements for the new facilities, surrounding groundworks, and infrastructure changes.

The Masterplanning process will need to be mindful of the complex range of operational requirements that may be impacted by the proposed works, in terms of Air Side operations, and Airport Back of House operations. The Architects will need to understand these operational requirements, and interpret those requirements to the new design, both in the interim arrangements whilst construction of the new facilities proceeds, considering the relationship with the proposed new and relocated rail and relocated rail and road infrastructure, and in the permanent and final arrangements proposed by the Masterplan. It is anticipated that this process of Masterplanning and PPR Development, will need to occur in close consultation with project stakeholders, such that agreement between all parties is attained in line with master project timeline and key deliverable requirements. The Architects will need to be proactive in terms of understanding and interpreting these stakeholder requirements in order to ensure that appropriate sign-offs are obtained throughout the duration of the masterplanning process.

As part of this Masterplanning phase, it is anticipated that consideration will need be given to:

- » Sydney Airport Masterplan Requirements
- » Air-side Facilities and ongoing Management
- » Traffic & Pedestrian Connectivity
- » Airport infrastructure
- » Security
- » Contamination
- » Topography
- » Wind design (based on likely building mass)
- » On site detention
- » Overland Flow
- » Mains infrastructure coord – existing and new
- » Site Lighting Strategy
- » Building Reflectivity
- » Aviation Sight lines
- » Roadways
- » ESD Options

Building design at this phase of works will need to consider:

- » Site levels and defined Project Bench Levels
- » Road configuration
- » Building Flexibility & Modularity
- » Block and Stack
- » Building Connections and site-wide relationships
- » Design Value for Money & Buildability
- » Building Aerodynamics & Turbulence
- » Height

- » Project Staging
- » Vegetation & landscaping
- » Precinct Identity
- » Yields

Once the Masterplanning and PPR Process has distilled the more detailed programmatic and operational requirements of the Enabling works of the SGP project, and these have been agreed with associated project Stakeholders, the project will move into a detailed design phase for the three new buildings.

Key dates for the Masterplanning and PPR Process are defined by the invitation as follows:

- » Issue of project Brief / Qantas PPR – October 2017
- » Scheme Design Masterplanning and Submission Lodgement – Feb 2018

Concept, Scheme Design and Development Application

It is understood that work within each of these Phases will be iterative, and involve close consultation with Lend Lease, and Project Stakeholders to determine the most best overall outcome. It is anticipated that during concept design for the three proposed replacement facilities will proceed concurrently to improve coordination and integration of site operations between the new facilities. SBA understand that the drawing packages will, at a point to be determined, be separated out and documented separately. During this phase, it will be important to work carefully with Cost Planners, to ensure that requirements and assumptions contained in the PPR, are achievable in terms of project budgets. It is anticipated on this basis that there may be some flex between PPR requirements and concept drawings in early stages of concept design.

Scope of work in these phases will be flexible to ensure the project concept is properly articulated and understood, and will likely include:

- » Analysis diagrams, initiated in the masterplanning phase, and further refined and developed through the concepts design phase
- » Accurate and reliable as existing drawings of the site
- » Demolition works drawings, in preliminary form as required to understand and price the scope for demolition, and negotiate with stakeholders
- » General arrangement plans, section, elevations
- » Accurate and reliable areas, volumes and counts of all quantity critical information (eg. car spaces, staff lockers)
- » 2D and 3D hand sketches to explain conceptual ideas and facilitate review
- » 3D fixed view images, as preliminary for internal discussion and review, and of a high quality to suit external communications
- » Preliminary coordination zones & clearances
- » Outline building systems and materials
- » Environmental analysis – daylight thermal, shadow, overlooking
- » Key construction and assembly details, in hand sketch form
- » Photo-realistic fixed view renders from key viewpoints, in order to fully explain the design concept to the project stakeholders

It may be possible to include real time digital walk around environments, later in the concept design phase, to better assist with the broad range of consultations that will occur in liaising with project stakeholders. These real-time walk around digital environments can be quite realistic in terms of materials and finishes, landscaping, and daylight/shadow effects.

Development Application documentation will be complete in terms of the relevant Authorities documentation requirements.

IFT & IFC Scopes

Final Scope for Architectural Documentation for these three buildings is defined in following sections. The Architects will understand that the process of development of the Architectural Documentation is defined by the Document 'Design & Documentation Deliverables Schedule Architectural Services', dated 01/08/17 and included to the Invitation documents.

SBA propose to provide separate teams for each building, to allow each building to progress through documentation more quickly, with any coordination requirements between buildings managed between teams by senior staff allocated to the Projects. The Below Scopes also include for Interiors, Specialist Fit out and Landscape Documentation and Specification, and work back from key Project Milestone Dates.

CAR PARK BUILDING

Key Dates:

Stage 3	Concept Design to Development Application Status – Commencing Feb 2018 and due May 2018
Stage 4	Design Development to IFT & Tender Selection – May 2018 to March 2019
Stage 5	Detailed Design and Documentation to IFC – March 2019 to August 2019

ARCHITECTURAL IFT DOCUMENTATION

- » Locality Plan
- » Site Plan
- » Overall Roof Plan
- » General Arrangement Floor Plans
- » Floor Finish Plans
- » Reflected Ceiling Plans
- » Roof Plan
- » Concrete Outline Plans
- » Elevations
- » Sections
- » Wall Sections
- » Plan Details
- » Construction Details
- » Stair Details
- » Metalwork Details
- » Core Details – Plan, Section, Elevation
- » Door Schedules
- » Window & Louvre Schedules
- » Metalwork Schedules
- » Finishes Schedules
- » Statutory and Wayfinding Signage Schedule
- » Performance Specification

At the time of issue of IFC Documents, documentation will be further developed broken up into Trade Sections as per the Principal's requirements and as follows:

- » Demolition
- » Early Works, Infrastructure and Authorities
- » Sub-Structure
- » Structure
- » Façade and Roof
- » Services
- » Fitout (Lift Cars and Lobbies)

CATERING FACILITY

Key Dates:

Stage 3	Concept Design to Development Application Status – Commencing Feb 2018 and due May 2018
Stage 4	Design Development to IFT & Tender Selection – May 2018 to March 2019
Stage 5	Detailed Design and Documentation to IFC – March 2019 to August 2019

- » Construction Details
- » Metalwork Details
- » Core Details – Plan, Section, Elevation
- » Stair Details
- » Door Schedules
- » Window & Louvre Schedules
- » Metalwork Schedules
- » Finishes Schedules
- » Statutory and Wayfinding Signage Schedule
- » Performance Specification

ARCHITECTURAL IFT DOCUMENTATION

- » Locality Plan
- » Site Plan
- » Overall Roof Plan
- » General Arrangement Floor Plans
- » Floor Finish Plans
- » Reflected Ceiling Plans
- » Roof Plan
- » Concrete Outline Plans
- » Elevations
- » Sections
- » Wall Sections
- » Plan Details

At the time of issue of IFC Documents, documentation will be further developed broken up into Trade Sections as per the Principal's requirements and as follows:

- » Demolition
- » Early Works, Infrastructure and Authorities
- » Sub-Structure
- » Structure
- » Façade and Roof
- » Services
- » Fitout (General)
- » Specialist Kitchen Equipment



STORAGE FACILITY

Key Dates:	
Stage 3	Concept Design to Development Application Status – Commencing Feb 2018 and due May 2018
Stage 4	Design Development to IFT & Tender Selection – May 2018 to March 2019
Stage 5	Detailed Design and Documentation to IFC – March 2019 to August 2019

ARCHITECTURAL IFT DOCUMENTATION

- » Locality Plan
- » Site Plan
- » Overall Roof Plan
- » Part Warehouse Floor Plans
- » Office Floor Plans
- » Office Reflected Ceiling Plans
- » Office Roof Plan
- » Office Concrete Outline Plans
- » Dock Office & Battery Charge Area Floor Plan & Reflected Ceiling Plan
- » Elevations Warehouse
- » Sections Warehouse
- » Office Elevations
- » Office Sections
- » Wall Sections Warehouse
- » Wall Sections Office & Dock Office
- » Plan Details & Construction Details
- » Stair Details
- » Metalwork Details
- » Amenities Details
- » Joinery Details
- » Door Schedules
- » Window Schedules
- » Metalwork Schedules
- » Finishes Schedules
- » Statutory and Wayfinding Signage Schedule
- » Performance Specification

At the time of issue of IFC Documents, documentation will be further developed broken up into Trade Sections as per the Principal's requirements and as follows:

- » Demolition
- » Early Works, Infrastructure and Authorities
- » Sub-Structure
- » Structure
- » Façade and Roof
- » Services
- » Fitout
- » Automated Equipment
- » Paletting

Demonstrated Ability to Service Project Requirements based on Expertise

SBA Architects was established in 2003 and has grown into a well-respected medium sized practice. We are highly regarded within the industrial sector evident in the referral and repeat business undertaken by our company in recent years. We have been involved in many large scale industrial projects across the eastern seaboard of Australia including manufacturing facilities, freight processing facilities, Cold Stores and Warehouses for the major REIT's, owner occupiers, private developers and Design and Construct Contractors. SBA offers master planning, architecture, interior design and project management services from concept through to completion.

SBA have recently completed several significant new buildings that are directly relevant to the knowledge and performance requirements of the SGP. These projects are detailed at **Section 4.1 Relevant Experience** of this document, and outline detail is provided below:

Toll IPEC Tullamarine Victoria

71,000sqm Freight Transport Facility at Tullamarine Airport Victoria housing a state of the art parcel sortation system processing in excess of 400,000 parcels per day. \$80m

Toll IPEC Huntingwood NSW

48,000sqm Freight Transport Facility at Tullamarine Airport Victoria housing a state of the art parcel sortation system processing in excess of 300,000 parcels per day. \$65m

Melbourne Markets Fresh Produce Warehouses

75,000sqm of warehousing spread across 5 buildings for the wholesale storage of fresh food to service Melbourne Markets. \$105m

Calibre Industrial Estate Eastern Creek

Masterplanning, Full design and SSD Application to NSW Planning for Mirvac for 5 new warehouses totalling 120,000sqm GFA. Building 1 is currently under construction \$100m

Newcold Chilled Milk Storage Facility Victoria

40,500sqm Highbay storage facility for milk storage for Newcold and Hansen Yuncken. \$60m

Oakdale South Industrial Estate

Masterplanning, Full design and SSD Application to NSW Dept. of Planning for Goodman for 16 new warehouses totalling 420,000sqm GFA.

Oakdale Central Industrial Estate Lot 3

90,000sqm of warehousing spread across 4 buildings for Goodman at Oakdale Industrial Estate Horsley Park. Currently under construction and due for completion mid-2017. \$95m

Toll Prestons

60,000sqm freight forwarding facility for Logos and Toll at Prestons NSW split across 2 buildings. Building 1 includes state of the art multi-level sortation system for high speed parcel processing. \$40m

Toyota Parts Facility Horsley Park NSW

36,000sqm Parts and Accessories warehouse and distribution facility for Goodman and Toll. Project is currently under assessment with Dept. of Planning and due for completion late 2017. \$30m

DHL 1 (Canon)

20,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park. \$15m

DHL 2

32,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park. \$20m

DHL 3

30,000sqm temperature controlled warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park. \$30m

DHL 4

28,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Horsley Park. \$20m

Sigma Pharmaceuticals

40,000sqm temperature controlled warehouse and distribution facility with state of the art multi-level sortation and picking system. \$40m

Marsden Park Industrial Estate

70,000sqm of warehousing spread across 3 buildings for Taylor Construction Group. Currently under construction and due for completion mid 2017. \$65m

Demonstrated Ability to provide Design Concepts in line with Client Expectations

SBA provide a specialisation in cost effective, highly rational built outcomes, that is particularly suited to structures and buildings that have substantial logistical design requirements. SBA are very aware of project cost, based on allocated assembly systems and materials specifications, and of assembly details that are easy to construct. At the same time, SBA works from within this highly rational framework to provide buildings that are at once elegant and timeless, and meaningful and relevant to their final occupants and users.

SBA understand how to ensure that the least complex, most useable planning configuration can and ideally should represent the most cost effective and least complex design result. SBA are accustomed to working to tight time frames and carefully allocate resources around agreed project directives. SBA are also capable in terms of design management with consultants, executing around project objectives on a cost-effective basis, both in terms of the final design solution, but also in terms of use of the consultant resource through the design project life cycle.

As such, SBA enjoys the benefit of cross market referrals in appraising new business, and many existing, long term and repeat client relationships. SBA's approach is closely aligned to the project business case, and SBA works hard to ensure that the business drivers underpinning the project are understood and effected by the project design.



3.3 Understanding the Project Process and Timeframes

3.3.1 Project Process

SBA understand that the process for delivering the SGP projects will be one that involves:

- » Close involvement with project stakeholders to achieve relevant design signoffs at major Milestones
- » Clear strategy regarding design in line with project cost objectives, and compliance with target cost reviews at each project milestone
- » Close coordination with Project Consultants, in line with the LL 'Design Interface Responsibility Matrix SGP – Qantas' (generated 30/

Stage 1 – Project Brief and PPR

- » Compliance with LL documents Schedule A – Architectural Services', 23/02/17, 'SGP Design and Deliverables Schedule – Architecture', Issue 01 01/11/2014, and 'Design Interface Responsibility Matrix SGP – Qantas', generated 30/08/17.
- » Undertake Site Visits to understand and confirm existing conditions and existing site linkages and access
- » Photograph and catalogue existing operations to understand and articulate existing functional requirements
- » Contribute to dialogue regarding Project Performance requirements, as expressed in the PPR
- » Attend meetings with Lend Lease and Project Stakeholders as required to develop the PPR
- » Inspect and understand key benchmark projects as may be nominated as being relevant to PPR development for the SGP project
- » Articulate functional block planning (As part of Masterplanning workflows) of various PPR options, and amend in line with Masterplanning objectives
- » Engage with Lend Lease and Project Stakeholders around various Staging & Demolition scenarios
- » Create and maintain an SGP Project Reverse Brief

Stage 2A – Masterplanning

- » Compliance with LL documents Schedule A – Architectural Services', 23/02/17, 'SGP Design and Deliverables Schedule – Architecture', Issue 01 01/11/2014, and 'Design Interface Responsibility Matrix SGP – Qantas', generated 30/08/17.
- » Undertake Site Visits to understand and confirm existing conditions and existing site linkages and access
- » Desktop review of current planning controls, including all relevant planning instruments and policies, current, pending or forecast.
- » Assessment of various functional planning configurations considered by the PPR Development process, test fit of functional planning requirements against masterplanning configurations on site, including take up of available land and required functional linkages
- » Close consultation with Lend Lease regarding project cost estimations, provision of all information necessary to execute this process of cost control and review
- » Review and response to PPR Assumptions based on ongoing planning activities and options
- » Consider and advise on any and all site testing and information requirements as relate to ground conditions, topography, as built drawings, fire engineering briefs, escape plans and otherwise as may be determined as relevant to the Masterplanning process

- » Provide key analysis diagrams of existing site conditions and linkages, including and not limited to : topography, geotechnical, water storage, flooding, vehicular (by type – passenger, waste, delivery, emergency fire and medical), pedestrian (public, staff), security configurations, egress and escape, fire, bulk and height,
- » Create in three dimensions, all relevant height plane surfaces as an output of Airport Planning controls including control tower viewlines, wind plane limitations, object limitation surfaces and any other surfaces as may be deemed necessary by a review of relevant airport planning controls
- » Investigation of possible development scenarios, based on various configurations considered by the PPR
- » Provision of accurate and live linked area measures for each development scenario contemplated by the Masterplan
- » Preparation of final Masterplan and Areas Schedule for Client approval.
- » Interact with project Stakeholders regarding proposed Air-side changes
- » Create a three dimensional physical model of the preferred Masterplan Option for Stakeholder Engagement
- » Create a three dimensional digital model of the preferred Masterplan Option for Stakeholder Engagement, for walkaround review
- » If determined as necessary by the proposed design, create models as required by the Wind Engineer for initial wind flow tests & design verification
- » Participate in any pre-lodgement meetings or authority reviews that may occur as part of the initial Masterplanning Process
- » Management of key masterplan design decision making in line with Master Project Programme
- » Participation in buildability and Safety in Design Forums, Creation and update of Safety in Design & Buildability Register, in consultation with project Consultants and Stakeholders
- » Interact with Lend Lease regarding appropriate Consultant appointments. Provide referrals if required

Stage 2b – Concept

- » Compliance with LL documents Schedule A – Architectural Services', 23/02/17, 'SGP Design and Deliverables Schedule – Architecture', Issue 01 01/11/2014, and 'Design Interface Responsibility Matrix SGP – Qantas', generated 30/08/17.
- » Attendance at all meetings as required by Lend Lease and Project Stakeholders, and presentation and explanation of proposed design concepts
- » Interaction with Consultants as required to articulate and verify building concepts
- » Participation in buildability and Safety in Design Forums as may be initiated in these phases, creation and maintenance of relevant Safety in Design schedules for the SGP Project
- » Functional Planning Arrangement to satisfy preferred Masterplan and PPR requirements.
- » Review of critical benchmark projects
- » Look and Feel image boards for discussion
- » Architectural Façade concepts for discussion and review
- » Architectural devices as may be deemed required by Wind Flow Modelling and testing
- » Outline Materials and Finishes images for discussion and review
- » Outline general arrangement Plans, Sections, Elevations
- » Preliminary services equipment clearances in plan and section
- » Preliminary vehicle swept paths in plan & clearance heights in section
- » 3D Sketches and visualisations of design critical elements
- » Photomontage renders of the Proposed Buildings in situ

- » Update of Site Analysis Diagrams established in the Masterplanning Phase, to demonstrate proposed relationship of new components to existing at the SGP site
- » Interact with project Stakeholders regarding proposed Air-side changes
- » Review and update of PPR and Masterplan Documentation based on strategies agreed this Stage
- » Participation in buildability and Safety in Design Forums, Update of Safety in Design & Buildability Register, in consultation with project Consultants and Stakeholders
- » Interact with Lend Lease regarding appropriate Consultant appointments. Provide referrals if required
- » Manage preparation of Colour reproductions, perspectives or montages.
- » Prepare final Architectural Development Application drawings only in accordance with relevant Approving Body, Deliverables Requirements for the Planning Submission. SBA assume the Statement of Environmental Effects will be prepared by an external town planner;
- » Obtain Lend Lease approval of proposed Documents for Submission to relevant Authorities and preparation of Architectural Packages associated with the Application
- » Interact with project Stakeholders regarding proposed Air-side changes
- » Review and update of PPR and Masterplan Documentation based on strategies agreed this Stage
- » Participation in buildability and Safety in Design Forums, Update of Safety in Design & Buildability Register, in consultation with project Consultants and Stakeholders
- » Interact with Lend Lease regarding appropriate Consultant appointments. Provide referrals if required.

Stage 3 – Concept Design/Design to DA

- » Compliance with LL documents Schedule A – Architectural Services’, 23/02/17, ‘SGP Design and Deliverables Schedule – Architecture’, Issue 01 01/11/2014, and ‘Design Interface Responsibility Matrix SGP – Qantas’, generated 30/08/17.
- » Attend meetings with client as required;
- » In consultation with the nominated Planner, review and confirm design compliance strategy with all authority requirements;
- » Identify and confirm scope of all application documentation required by relevant SGP Authorities;
- » Act as Lead Consultant and attend routine design meetings as required;
- » Liaise with relevant Authorities and Stakeholders and attend Pre DA Meeting/s;
- » Prepare design drawings at appropriate intervals for client review;
- » Monitor compliance with PPR and Cost Plan objectives
- » Liaise with and co-ordinate all required consultants.

Stage 4 - Design Development

- » Compliance with LL documents Schedule A – Architectural Services’, 23/02/17, ‘SGP Design and Deliverables Schedule – Architecture’, Issue 01 01/11/2014, and ‘Design Interface Responsibility Matrix SGP – Qantas’, generated 30/08/17.
- » Attendance at all meetings as required by Lend Lease and Project Stakeholders, and presentation and explanation of proposed design concepts
- » Interaction with Consultants as required to articulate and verify building concepts
- » Prepare General Assembly Drawings in line with PPR and Functional Planning Requirements



- » Provide area schedules per room
- » Provide indicative, coordinated layouts of critical rooms and spaces, including loading docks and service areas
- » Act as Lead Consultant and attend routine design meetings as required;
- » Detailed demolition works package, based on outcomes of Stages 01 – 03 and preferred development outcome
- » Provide detailed and complete external and internal base build finishes schedules
- » Markup of require security requirements and liaison with Consultants for coordination around security arrangements
- » Markup of window types and operation
- » Markup / detail of proposed façade systems, framing and preliminary glazing selections
- » Markup of proposed thermal performance requirements
- » Markup of internal partitions for sound, thermal and fire performance
- » Markup of fire compartmentation
- » Materials codes all general arrangement drawings
- » Room, door, window, louvre, stair numbers
- » Roof safety systems & maintenance access
- » Coordination of external envelope penetrations required buy building services
- » Coordination and description of all building service fixtures and equipment, including relevant sizes and clearances. Coordinate to final design.
- » Coordination of all building services requirements as defined by Services Engineering consultants
- » Detailed coordination with Racking, Automation, Kitchen, Interior Design and Landscape inputs
- » Finalisation of all traffic & waste management design inputs & integration to the design solution
- » Finalisation and integration of any selected ESD strategies as may have been proposed in preceding stages by Lend Lease, SBA or appointed Consultants
- » Resolution of any Consent Authority design requirements
- » Detailed site works package
- » Assist LL with input to construction logistics
- » Confirm cost objectives for the Project are met and appropriate contingencies have been reserved
- » Confirm NCC and CIDD compliance
- » Consolidation and finalisation of design intent to any Fire Engineering studies or Briefs
- » Participate in nominated Section J reviews, amendment and update of specifications as necessary, finalisation of Section J requirements in the building design and specification
- » Participation in buildability and Safety in Design Forums, Update of Safety in Design & Buildability Register, in consultation with project Consultants and Stakeholders
- » Achieve general arrangement design and coordination freeze to facilitate preparation of IFT and IFC documentation

Stage 5 – Detailed Design & Documentation

- » Compliance with LL documents Schedule A – Architectural Services’, 23/02/17, ‘SGP Design and Deliverables Schedule – Architecture’, Issue 01 01/11/2014, and ‘Design Interface Responsibility Matrix SGP – Qantas’, generated 30/08/17.
- » Provide Architectural Documentation in line with Scope outlined in Section 3.2.1 Project Phases, Architectural IFT Documentation.
- » Act as Lead Consultant and attend routine design meetings as required;
- » Review and finalise design against relevant Australian Standards, Building Codes and Council consent conditions.

- » Liaise with all Consultants as necessary for the purpose of finalising design coordination.
- » Prepare construction details necessary to fully articulate Building Scope.
- » Prepare all schedules necessary to fully articulate Building Scope
- » Provide performance based Building Specification
- » Assist LL with input to construction logistics
- » Interact with Lend Lease regarding preferred Building Contractor status and conditions
- » Finalise Safety in Design, Buildability and CIDD registers
- » Provide Trade Packages
- » Provide IFC Documentation
- » Review Project Programme (prepared by PM)
- » Review Cost Plan / Budget (prepared by QS) and adopt changes as necessary to achieve cost planning objectives

Stage 6 – Complete Design and Construction Services

- » Compliance with LL documents Schedule A – Architectural Services’, 23/02/17, ‘SGP Design and Deliverables Schedule – Architecture’, Issue 01 01/11/2014, and ‘Design Interface Responsibility Matrix SGP – Qantas’, generated 30/08/17.
- » Provide dedicated Site Architect/s and support staff available until completion
- » Update and finalise all items described in preceding phases
- » Assist LL in review of Tenders and ensure submissions comply with design intent
- » Assist LL in respect to review of proposed Contractors variations
- » Provide prompt and complete response to LL information requests regarding the Architectural documentation
- » Progressively assist LL in defects identification and resolution, carry out inspections and provide defects list
- » Review shop drawings for compliance with design requirements
- » Progressively update IFC Documents to provide an As-Constructed or Record Set, at completion of the Works and based on RFI’s, file drawings and markups
- » Provide information as requested for creation of Operation and Maintenance Manuals
- » Provide information requested by LL to satisfy any nominated Green ratings for the Projects
- » Assist LL with input to construction logistics
- » Assist LL with commissioning and startup
- » Co-ordinate with nominated Stakeholder’s consultants with respect to fitout documentation, and provide design drawings for fitout purposes

3.3.2 Project Timelines

SBA has reviewed the nominated schedule of key dates as is set out in the document Schedule A ‘Architecture Services’ 23/02/17. And confirms it has adequate resource available for the expected duration and work requirement of the SGP. These key milestone dates are set out below for clarity.

Key Activity	Indicative Date
Project Approvals	
Proceed to UPS Stage 1B	AUG 2017
Lodge Detailed Proposal	FEB 2018
Lodge Binding Offer	AUG 2018

Contract Close	NOV 2018
Design Development	
Stage 1 – Issue of project brief / Qantas PPR	OCT 2017
Stage 2 – Concept Design Masterplanning and Submission Lodgement	OCT 2017 FEB 2018
Stage 3 – Schematic Design/ Design to DA	FEB 2018 MAY 2018
Stage 4 – Design Development (IFT)	MAY 2018 MAR 2019
Stage 5 – Detailed Design and Documentation (IFC)	MAR 2019 AUG 2019
Stage 6 – Construction Services	MAR 2019 SEP 2021
Decanting and Building Demolition	MAR 2019 AUG 2019
Carpark Construction	MAY 2019 FEB 2021
SDC Centre Construction	JUL 2019 FEB 2021
Catering Building Construction	FEB 2020 AUG 2021
Project Finalisation	SEP 2021 DEC 2021

3.4 Project Risks and Mitigation Strategies

The Architects for this project can contribute to risk mitigation by carefully considering design issues and process as relate to quality objectives, project programmes, and construction budgets, particularly:

- » Carefully reviewing and integrating site information as relate to land survey, geotechnical, and as built documentation, and cross checking to existing built conditions;
- » Electronic inground testing to identify any existing in ground services located within areas proposed to be excavated;
- » Carefully considering and appraising design options in order to agree a design that is consistent with the project brief and budget, and buildability considerations
- » Providing contract documentation that is unambiguous, coordinated, and properly detailed;
- » Participating in an effective tender process where scope is clearly identified and understood, or documents are updated by way of addenda to ensure clarity of contractual arrangements
- » Establishing reasonable contingencies for latent conditions
- » Acting effectively and promptly whilst participating in administration of the contract, Accurately monitoring and reporting on cost compliance and cost related changes
- » Accurately monitoring and reporting on project programme compliance
- » Acting efficiently and effectively in reviewing samples, prototypes, shop drawings and consultant drawings and specifications
- » Inspecting the works in a timely manner; and
- » maintaining records for effective and meaningful certification

Additionally, Architects for the project can contribute to Safety in Design and WHS during construction phases, by establishing and maintaining a safety in design and buildability register at the inception of Concept Design phases for the project, and updating and maintaining these registers through subsequent phases.



4.0 Key Team Members

4.1 Key Team Members

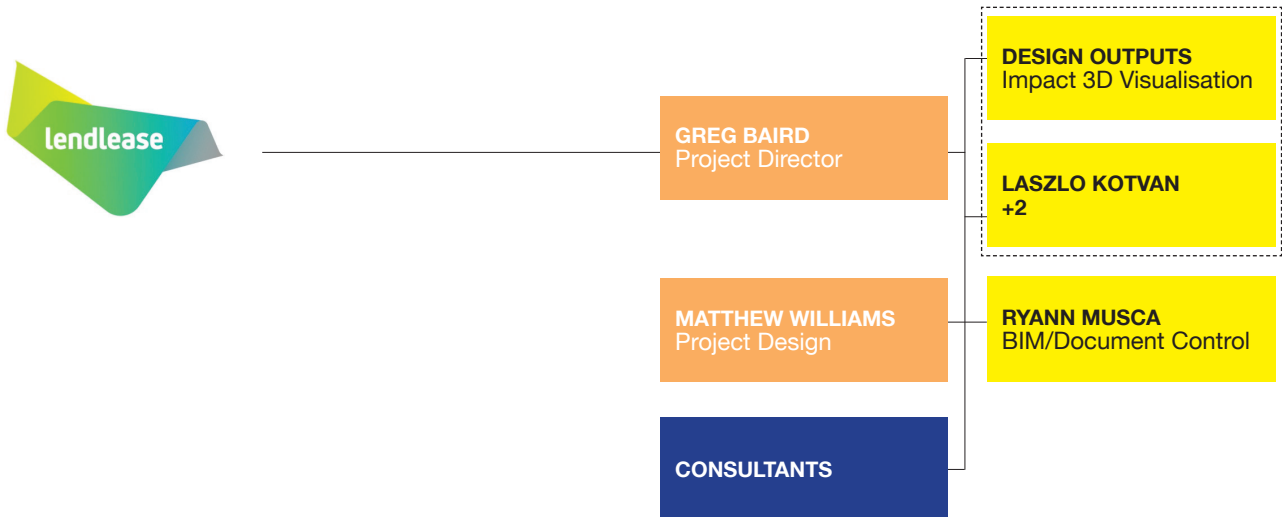
Staff allocation and resourcing for these projects has been determined based on suitability of project experience, BIM capability, and availability to service the Project requirements.

On the opposite page we present our proposed team structure diagram.

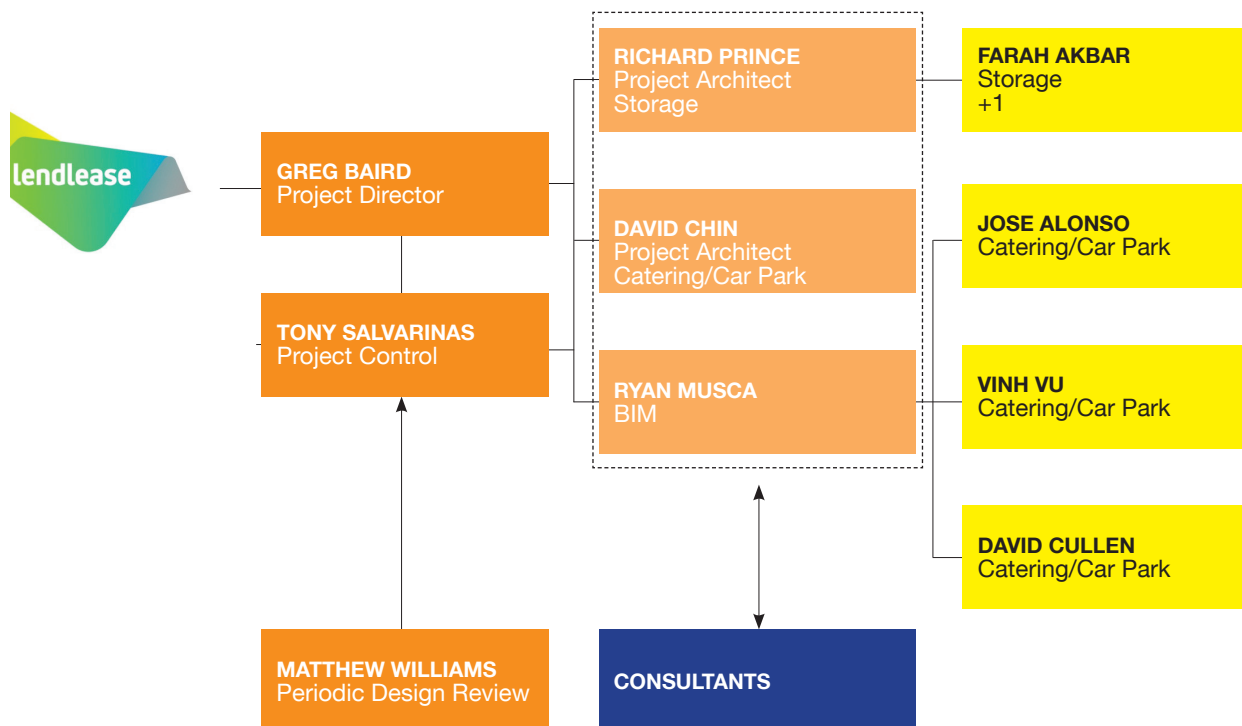
Resourcing and Allocation is scheduled per work phase as per the below Table.

Resource	St. 01	St. 02	St. 03	St. 04	St. 05	St.06	St.07
DESIGN							
Greg Baird	20%	20%	20%	10%	10%	10%	
Tony Salvarinas		10%	10%	40%	40%	40%	
Matt Williams	20%	50%	100%	5%	5%	5%	
David Chin*		10%	10%				
Ryann Musca		100%	100%	50%	50%	10%	5%
Laszlo Kotvan		100%	100%				
+2							
STORAGE							
Richard Prince				100%	100%	100%	
Farah Akbar				100%	100%	100%	50%
+1							
CATERING / CAR PARK							
David Chin				50%	50%	50%	
David Cullen				100%	100%	100%	
Jose Alonso				100%	100%	100%	
Vinh Vu				100%	100%	100%	50%
+2							

**MASTERPLAN CONCEPT AND DA
STAGES 01 - 03**



**DOCUMENTATION
STAGES 04-06**



4.2 BIM Experience

PROPOSED TEAM EXPERIENCE IN BIM CAPABILITY

SBA have subscribed to REVIT since XX and maintain XX REVIT licenses. A summary of REVIT and BIM capabilities per proposed SGP team member is provided below. SBA maintain 2 active NAVISWORKS licenses, and 1 active Enscape License.

SBA have a complete BIM Manual, that governs the SBA process for BIM Management and coordination. Additionally, SBA have reviewed and confirm acceptance of the LL BIM Guidelines as per the document 'QANTAS BIM Requirements for Consultants' Revision 01, 14/08/17.

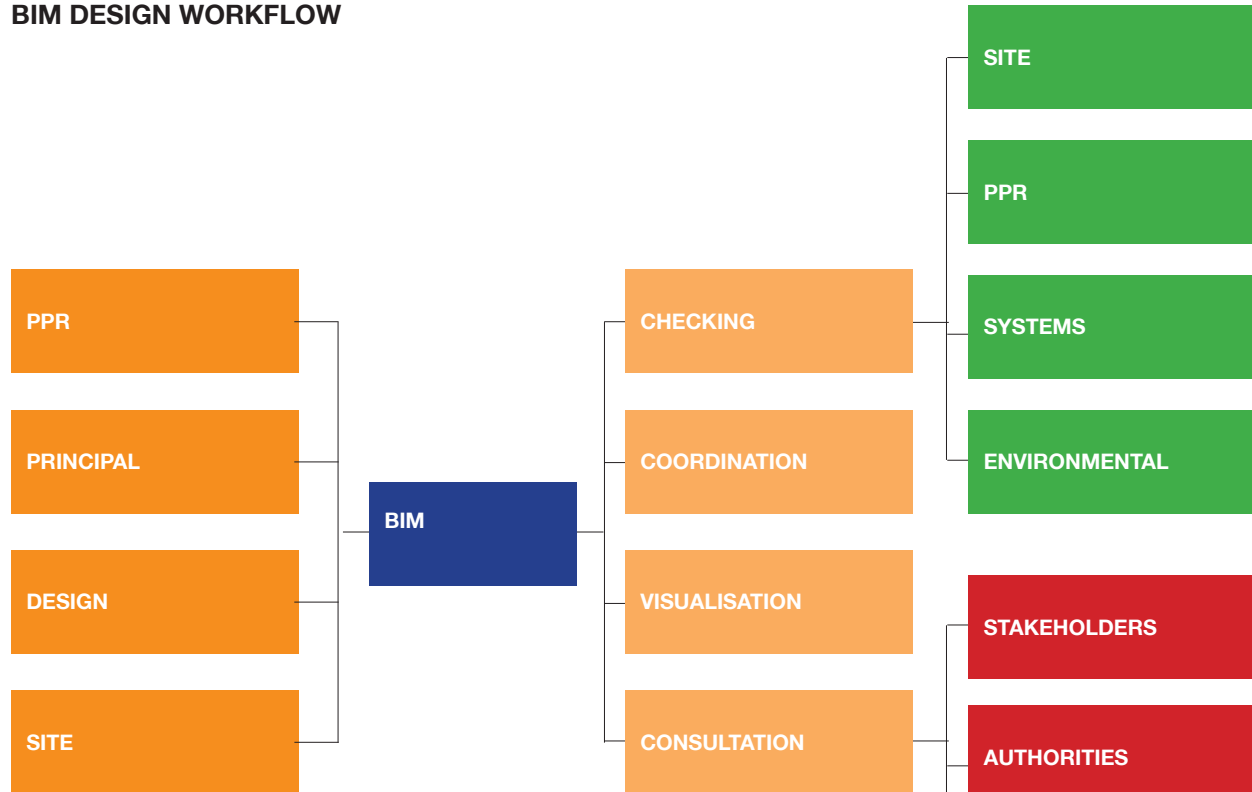
Schedule of BIM Capability per Proposed SGP Team Member

Resource	REVIT	NAVISWORKS	ENSCAPE
Matt Williams	Intermediate	Intermediate	
David Chin*	Advanced	Intermediate	
Ryann Musca	Expert	Advanced	Intermediate
Lasz Kotvan	Expert	Intermediate	Advanced
Richard Prince	Intermediate		
Farah Akbar	Advanced	Intermediate	
David Cullen	Advanced		
Jose Alonso	Advanced	Intermediate	
Vinh Vu	Advanced	Intermediate	

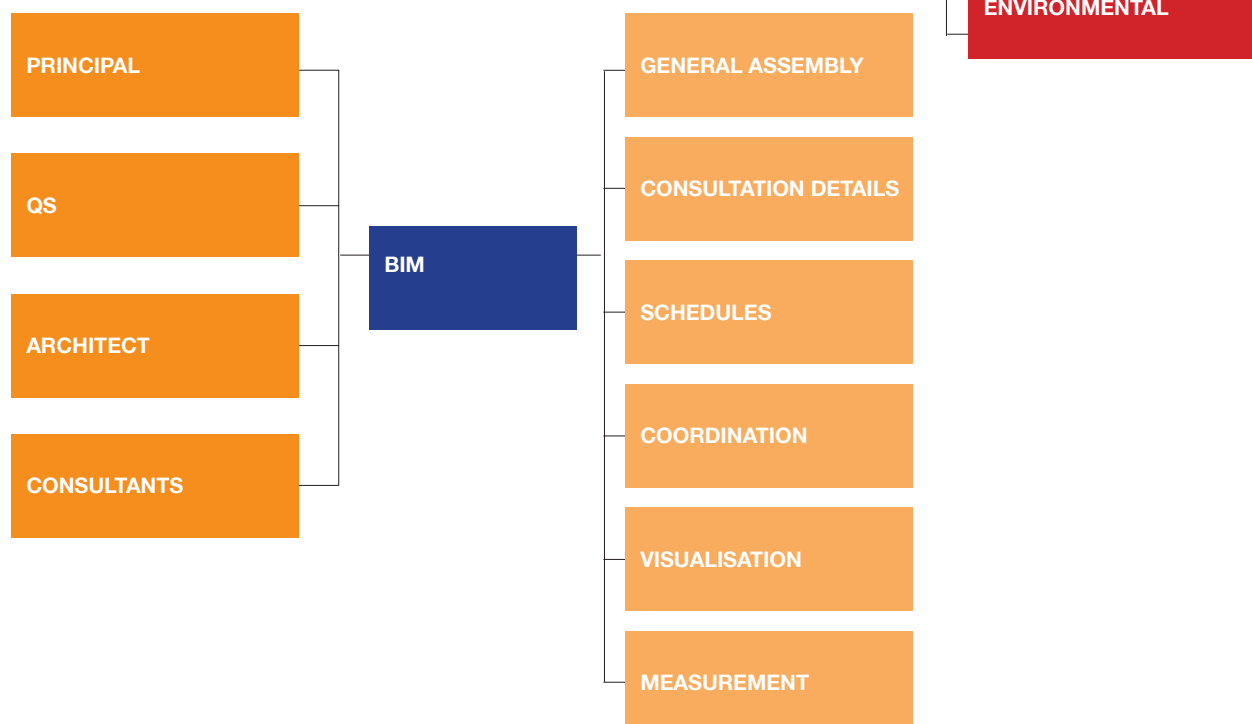
Schedule of Recent Projects Completed in BIM

Project	Type	Value	REVIT	NAVISWORKS	ENSCAPE
Enfield	Industrial	\$110m	■	■	■
Bankstown	Air-side Industriail	\$95m	■	■	
Calibre	Industrial	\$100m	■		■
Newcold	Cold Store	\$60m	■		
Toll Prestons	Freight	\$40m	■		
Toyota Horsley Park	Parts	\$30m	■		
DHL3	Freight	\$30m	■		
Matrville	Storage	\$12m	■	■	■
Autonexus	Auto	\$28m	■		
Marrickville	Store / Commercial	\$23m	■	■	■
Marsden Park	Industrial	\$65m	■		

BIM DESIGN WORKFLOW



BIM DOCUMENTATION WORKFLOW



SBA BIM Workflow

SBA have an advanced, Level 02 workflow that integrates BIM production with Design, Stakeholder Review, Project Status and Cost Tracking, Project Coordination and Project Visualisation.

The SBA BIM Process, during early design phases, allows the Project Principle to:

- » Track Design, Design Status, Phases, Stages, Areas, & Rooms as relate to PPR functional planning requirements;
- » See and understand in three dimensions, the Design Concept, Functional Plans, Building Mass and Bulk;
- » Using NAVISWORKS, See and understand key assembly concepts, key construction details and intersections, and materials selection and allocation;
- » Using ENSCAPE, walk-around inside the model in real time in external and internal environments, with realistic architecture and landscape elements and materials, investigate daylight and shadow effects; and
- » Using ENSCAPE & post-production software, obtain realistic 3D photorealistic renders, and walk- or fly-through visualisations of the Project Concept.
- » Accelerated design programmes as may be required, achieved by closer integration of design activities and improved integration of design team effort

These BIM capabilities in Concept phases for the Project assist with:

- » Review and confirmation of functional planning arrangements, as described the PPR;
- » Review and control of project Areas, Site Cover, Setback, Height, Density;
- » Clearly understand and define Project Stages;
- » Consultation and clear communication of design intent with Project Stakeholders;
- » Consultation and clear communication of design intent with Project Authorities;
- » Detailed and Elemental Cost Control;
- » Consultant Coordination – Structure, Civil, Traffic, Building Services, Landscape; and
- » Timely and accurate assessment of Project Status.

In later phases of detailed design and documentation, the SBA BIM Process allows the Project Principle to:

- » Accurately track and manage design changes;
- » Understand, integrate and resolve all coordination issues in a real time, 3D environment;
- » Accurate and complete scope of all building works associated with the Project;
- » See individual Rooms as required by the Project Design Scope and PPR,
- » Accurate and complete Schedules for the Project – Facades, Doors, Windows, Louvres, Screens, Metalwork, Structure elements, Thermal systems, Membranes, Retention, Drainage
- » Using NAVISWORKS, Achieve 100% coordination status through accurate clash detection and integrated resolution;
- » Using NAVISWORKS, display and encapsulate more complex inter-relationships in three dimensions to ensure clarity on scope and assembly;
- » Obtain accurate, element-based Cost Estimates; and
- » Ensure Construction Detail is properly coordinated with Building Configurations and Setouts as defined by general assembly drawings.

» SBA note that BIM requirements as specific to the SGP Project are as follows:

- » The complete scope of the document 'QANTAS BIM Requirements for Consultants' Revision 01, 14/08/17 is included to the proposed SBA Fee;
- » The BIM Model will be established at the inception of the Project and maintained throughout all Project Stages;
- » All 2D drawings will be produced from the BIM Model and will remain dynamically linked;
- » All schedules will be produced from the BIM Model and will remain dynamically linked;
- » Sheet files will be produced from the BIM Model and will remain dynamically linked;
- » Area Schedules and Areas Drawings will be produced from the BIM Model and will remain dynamically linked;
- » A Revision Tracking Schedule will be produced and maintain throughout the life of the project BIM Model;
- » The REVIT BIM Model will integrate with NAVISWORKS software and facilitate appropriate display;
- » All Drawings issued from the BIM Model will include an appropriate status and revisions that will be updated and maintained through the life of the Project;
- » Appropriate coordination will be allowed for all penetrations forming part of the Project Scope;
- » All BIM Models for this Project will be based on an agreed coordinate system, and SBA will provide a CSV file that contains X, Y & Z coordinates for the proposed Construction works, by level and staging or zone breakup;
- » Modelling processes will follow actual construction methodology;
- » Collaborate with the Lead Services Consultants from respective disciplines, to ensure BIM models from various disciplines are adequately coordinated and are clash free, and provide to Lend Lease detailed clash detection reports generated through NAVISWORKS, throughout all detailed design and documentation phases;
- » SBA will own and control structure elements until end of Stage 3 or as agreed with the Project Manager and retain dimensional control of the Concrete Outline plans;
- » Through Stage 6a, SBA will regularly update the BIM Model in line with actual construction works, in order to supply a complete As-Built model at completion of Stage 6;
- » Identify fire walls on general assembly plans; and
- » Include volumetric modelling information for coordination zones, and update and maintain these zones through the duration of the Project.

SBA will participate in any and all BIM Integration and Design Review meetings as may be required by Lend Lease. SBA do not anticipate a Façade Consultant, if appointed, will be required to take ownership of Façade Elements in the BIM model.





Greg Baird Director

Qualifications and Affiliations

- » Bachelor of Architecture (Hons), University of Technology Sydney
- » Chartered Architect NSW
- » NSW Architects Registration Board

Experience

As Co-founder and Director of SBA Architects, Greg has extensive experience across commercial, industrial, retail, residential and hospitality sectors. Greg is regarded as a leader in the field of Industrial Architecture, with over 30 years experience delivering large scale projects including manufacturing facilities, freight processing facilities, cold stores and warehouses for the major REIT's, design and construct contracts, owner occupier projects and private developments.

Greg has provided SBA Architects with strong leadership and direction since he co-founded the firm in 2003. He leads the design and business development functions of the organisation. Greg's personal integrity, commitment to customer service excellence and outstanding project management skills, have enabled SBA Architects to deliver exceptional outcomes for clients since the inception of the company. Greg has been responsible for the design of major commissions of a variety of corporate clients over the years including Goodman, GPT Group, Mirvac, Toyota, PAG, Australia Post, NRMA, as well as various design and construct contractors and project managers.

Key Projects

Oakdale South Industrial Estate

Master planning, full design and SSD Application to NSW Department of Planning for Goodman for 16 new warehouses totalling 420,000sqm GFA.

Oakdale Industrial Estate Lot 3 \$95 million

90,000sqm of warehousing spread across 4 buildings for Goodman at Oakdale Industrial Estate Horsley Park. Currently under construction.

Toyota Parts Facility Horsley Park NSW, \$30 million

36,000sqm Parts and Accessories warehouse and distribution facility for Goodman and Toll. Project is currently under assessment with Department of Planning and due for completion late 2017.

Pelikan Artline, \$25 million

30,000sqm warehouse and distribution facility for Fitzpatrick Developments, Erskine Park, NSW.

DHL 1 (Canon,) \$15 million

20,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

DHL 2, \$20 million

32,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

DHL 3, \$30 million

30,000sqm temperature controlled warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

DHL 4, \$20 million

28,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

Sigma Pharmaceuticals, \$50 million

40,000sqm temperature controlled warehouse and distribution facility with state of the art multilevel sortation and picking system.

Marsden Park Industrial Estate, \$65 million

70,000sqm of warehousing spread across 3 buildings for Taylor Construction Group. Currently under construction.

Oakdale West Industrial Estate

Master planning, Full design and SSD Application to NSW Department of Planning for Goodman for 22 new warehouses totalling 470,000sqm GFA.

Tyremax, \$18 million

20,000sqm tyre storage and distribution facility for Fitzpatrick Investments at Erskine Park. Coles Expansion, \$28 million 12,500sqm extension to Coles existing chilled distribution facility at Eastern Creek.

PMA Solutions, \$16 million

25,000sqm warehouse and distribution facility for Fitzpatrick Investments at Erskine Park.



Tony Salvarinas Director

Qualifications and Affiliations

- » Bachelor of Architecture, University of New South Wales
- » Registered Architect with; NSW Architects Registration Board, Board of Architects Queensland and Architects Registration Board of Victoria.

Experience

As Co-founder and Director of SBA Architects, Tony oversees the construction documentation and quality management functions of the business, taking projects from DA approval, through to detail design, contract documentation and project delivery.

With extensive industry experience, Tony has delivered excellent outcomes for clients across commercial, industrial and retail sectors. His experience is highly valued, particularly in the area of complex construction detailing and documentation, consultant co-ordination, contract administration, and team management.

Tony's commitment to producing quality outcomes and rigorous documentation, together with his keen attention to detail have enabled SBA Architects to develop a strong reputation and track record in the delivery of large complex projects. Under Tony's leadership SBA Architects has thrived in the Industrial sector and continues to deliver projects with quality outcomes and high levels of customer satisfaction. Tony's leadership responsibilities also involve mentoring and nurturing future leaders across the organisation.

Key Projects

Calibre Industrial Estate Eastern Creek, \$100 million

Concept planning for potential clients for Mirvac for 5 new warehouses totalling 120,000sqm GFA. Building 1 completed, Building 3 currently under construction.

Melbourne Markets Fresh Produce Warehouses, \$105 million

75,000sqm of warehousing spread across 5 buildings for the wholesale storage of fresh food to service Melbourne Markets.

Newcold Chilled Milk Storage Facility Victoria, \$60 million

40,500sqm Highbay storage facility for milk storage for Newcold and Hansen Yuncken.

Oakdale Central Industrial Estate Lot 3, \$95 million

90,000sqm of warehousing spread across 4 buildings for Goodman at Oakdale Industrial Estate Horsley Park. Currently under construction.

Toll Prestons, \$40 million

60,000sqm freight forwarding facility for Logos and Toll at Prestons NSW split across 2 buildings. Building 1 includes state of the art multi-level sortation system for high speed parcel processing.

Pelikan Artline, \$25 million

30,000sqm warehouse and distribution facility for Fitzpatrick Developments, Erskine Park, NSW.

DHL 1 (Canon), \$15 million

20,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

DHL 2, \$20 million

32,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

DHL 3, \$30 million

30,000sqm temperature controlled warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

DHL 4, \$20 million

28,000sqm warehouse and distribution facility for Goodman and DHL at Oakdale Industrial Estate Horsley Park.

Marsden Park Industrial Estate, \$65 million

70,000sqm of warehousing spread across 3 buildings for Taylor Construction Group. Currently under construction.

Endeavour Energy, \$30 million

New operational facility including Office Complex, workshops and storage facilities for Endeavour Energy at Unanderra NSW.

Breville, \$10 million

14,500sqm warehouse and distribution facility for Goodman and Prime Constructions at Keylink Industrial Estate Minto.

Wrigleys Chewing Gum, \$25 million

Design, documentation and project management of various projects since 2006 including:
1. 5,000sqm warehouse extension. **2.** Multi-level extension to Manufacturing facilities to incorporate sugar mill and processing plant. **3.** New 4 level manufacturing facility for new product line.

Nestle Purina, \$20 million

Design and documentation of 4 projects at the existing dog food manufacturing facility Blayney NSW. **1.** Dog Caring Facility – Design and Documentation for the construction of a new dog caring facility and pet food development kitchen. **2.** ACE 1: New Amenities Building (750sqm) and car park (5000sqm) with truck and large vehicle manoeuvring. **3.** ACE 2: Modifications to existing manufacturing facility to accommodate new wet plant processing equipment (9000sqm) and raising existing roof (3650sqm). **4.** ACE 3: New 4,000sqm Storage Facility and Civil Works.



David Chin Associate

Qualifications and Affiliations

- » Bachelor of Architecture, University of New South Wales
- » Chartered Architect NSW
- » NSW Architects Registration Board Registered Architect in NSW and Victoria

Experience

David brings a wealth of experience to SBA Architects particularly in the area of specialty warehousing and manufacturing, BIM management and team leadership. He has extensive experience in frozen and chilled warehousing projects, as well as highbay and multi-level processing towers. David's ability to produce outstanding 3D construction documentation, along with his expertise in all areas of project and BIM management, have helped develop the quality of construction documentation for which SBA has become renowned.

David previously worked with BECA and managed key clients such as Swire, Versacold, Austrak, Nestle, Bidvest and Tesco. He also has experience in water filtration plants, aviation, commercial multi-storey buildings and high-rise office towers. His ability to lead large project teams and deliver on all client specifications have given him a good name in the industry.

Key Projects

Newcold Chilled Milk Storage Facility Victoria, \$60 million

40,500sqm Highbay storage facility for milk storage for Newcold and Hansen Yuncken.

Toll Prestons, \$40 million

60,000sqm freight forwarding facility for Logos and Toll at Prestons NSW split across 2 buildings. Building 1 includes state of the art multi-level sortation system for high speed parcel processing.

Toyota Parts Facility Horsley Park NSW, \$30 million

36,000sqm Parts and Accessories warehouse and distribution facility for Goodman and Toll. Project is currently under assessment with Department of Planning and due for completion late 2017.

Sigma Pharmaceuticals, \$50 million

40,000sqm temperature controlled warehouse and distribution facility with state of the art multilevel sortation and picking system.

Marsden Park Industrial Estate, \$65 million

70,000sqm of warehousing spread across 3 buildings for Taylor Construction Group. Currently under construction and due for completion mid-2017.

Torino Food Services Distribution Facility (DA Only)

5,200sqm distribution facility inclusive of 1,500sqm chiller/freezer space at Ingleburn NSW for FDC Construction and Fitout.

Commercial Lease Office Towers, \$50 million (with Thiessen Architects)

Located in Mascot NSW, the project consisted of 24,000sqm of office space and carparking for 800 cars and space.

Administration Headquarters for TAB, \$45 million (with Thiessen Architects)

Located in Ultimo Sydney the project consisted of 15,000sqm of office space and carparking for 60 cars.

Commercial Offices and Retail, Castlereagh St, Sydney, \$9 million (with Thiessen Architects)

Located at the heart of Sydney CBD on Castlereagh St the project consisted of 3,500sqm of office and retail space. Client Tingdale.

Commercial Offices, Narabang Way, Belrose NSW, \$22 million (with Thiessen Architects)

Project 1 consisted of 4,000sqm of office space with carpark for 150 cars. Project 2 consisted of 7,500sqm of office space with carpark for 300 cars. Both projects were completed for Hawden Properties.

Food Production Facility, Q Catering, Brisbane, Australia, (with Beca Pty Ltd), \$80 million

Q-Catering is an airline food related supplier. It supplies all the International airlines flying from Brisbane airport. The facility is approximately 8000m² of food production, freezers, docks and associated offices.

Sydney International Airport carpark (with Design Inc.)

Design and document 3 storey extension of main multi-level open deck carpark for Richard Crookes.

Nestle, Kuala Lumpur – Carpark (with Beca Pty Ltd)

Design and document multi-level open deck carpark for Nestle International in Kuala Lumpur

Car park experience: Design and documentation lead (with Thiessen Architects):

- » Wagga Wagga regional Woolworths carpark - retail structured 1000 space carpark at Big W shopping centre.
- » Multi-level basement carpark for National Trust Heritage listed Greengate Hotel, Sydney
- » Multi-level basement carpark for mixed use retail and residential apartments, Northbridge
- » Multi-level basement carpark for high rise residential tower at Hurstville
- » Multi-level basement carpark for mixed use retail and residential apartment at Cronulla
- » Multi-level open deck carpark for commercial development at Chatswood
- » Multi-level basement carpark for mixed use Child Care Facility - commercial/retail use at Chatswood



Matthew Williams

Senior Design Manager

Qualifications and Affiliations

- » Bachelor of Architecture, University of Bachelor of Architecture (Hons), Queensland University of Technology
- » ERASMUS Student, Politecnico di Milano
- » NSW Architects Registration Board Board of Architects, Queensland Masters of Project Management, UNSW (current)

Experience

Matthew plays an integral lead role in the design team at SBA Architects. His international experience and extensive industry knowledge form the foundation of his success. Matthew's passion for the creative process together with his strong consultation, design and technical skills ensure that each project he leads delivers above expectations. A highly talented designer, Matthew is regarded as an industry leader in his profession. He mobilises his passion for design by mentoring future designers and representing the profession at industry conventions.

Matthew's creativity, forward thinking solutions and focus on client needs, make him an influential award-winning designer. Matthew has gained project experience from design industry leaders including Berry Marshall (Denton Corker Marshall), Ken Yeang (TRHY), Tom Wright (Atkins), Kisho Kurokawa (KKA) and Shane Thompson (BVN). Matthew's international experience includes key roles in Milan, Dubai, Beijing, Kuala Lumpur and Jakarta.

Key Projects

Enfield Intermodal Terminal

Enfield ILC encompasses approximately 31ha of Industrial Development Land, previously known as the Enfield Marshalling Yards Site, in Sydney's inner west. Design Masterplan includes Industrial Warehouses, Administrative Offices, Worker Amenities, Landscaping, Car and Bicycle parking, Truck circulation and Hardstand.

Edinburgh Road Marrickville – Building A

The Project provides approximately 5,200sqm of commercial grade office space over three levels, approximately 800sqm of Hi-Tech Industrial or Food Retail Space and approximately 55 tenant car spaces. Project for Spirecorp.

Oakdale South Industrial Estate

Master planning, Full design and SSD Application to NSW Department of Planning for Goodman for 16 new warehouses totalling 420,000sqm GFA.

Symbion Distribution Facility and Speculative Warehouse Development, Greystanes

Full design and concept drawings for 2 warehouses totalling 30,500sqm, including recessed and on-grade docks, chiller, vault and 200sqm of Mezzanine office space, external hardstand and truck manoeuvring areas, for Dexu.

Brisbane City Hall, Refurbishment (with HBO + EMTB)

This complex and significant public project has brought new life to the City of Brisbane and revitalised a building at the core of its civic and community identity. Matthew was responsible for the designs of the new Auditorium Ceiling.

French Quarter Scheme B, Residential (with ML Design)

Site linkages assessment; preliminary authorities consultation; planning constraints review; views assessment; solar assessment; precinct traffic analysis; logistics review and coordination; project brief and yield assessments; landscape concepts; tower concepts; brand development; ground plane design; activated podium design; apartments design; structure coordination; services coordination; facade studies.

MH60R Training and Simulator facilities, Defence (with Woods Bagot)

Designed as a new facility at the HMAS Albatross Base in Nowra, the building will provide logistics, training and support for the new Seahawk Navy Helicopters. Matthew worked as joint Project Leader for this \$220m facility, the largest single defence project in Australia at that time.



Richard Prince

Senior Project Architect

Qualifications and Affiliations

- » Masters of Education (Social Ecology), University of Western Sydney
- » Advanced Diploma of Gestalt Psychotherapy, Sydney Gestalt Institute
- » Bachelor of Arts (Architecture), University of Technology, Sydney
- » Advanced Certificate of Business Management, Hornsby TAFE
- » Mechanical Technology Certificate, Meadowbank TAFE

Experience

Richard adds enormous value to projects across SBA Architects with his strong client focus, time management skills and solution driven approach. Richard has successfully managed a diverse range of projects across commercial, retail and industrial sectors.

He has been responsible for the delivery of projects for key clients including industrial warehouses, commercial fitouts, child-care centres, swim schools, motor showrooms (Jaguar, LandRover and Mercedes) and state of the art hydroponic glass houses.

Richard has a strong track record in the architectural industry, having previously delivered multiple projects including the Department of Defence, Education, commercial hotels, commercial interiors in Australia and internationally. He consistently receives positive feedback from clients for his exceptional service levels, attention to detail and technical expertise.

Key Projects

Calibre Industrial Estate, Eastern Creek. \$100 million

Master planning, full design and SSD Application to NSW Planning for Mirvac for five new warehouses totalling 120,000sqm GFA. Building 1 completed.

Oakdale Central Industrial Estate Lot 3, Eastern Creek. \$95 million

90,000sqm of warehousing spread across 4 buildings for Goodman at Oakdale Industrial Estate Horsley Park. Currently under construction.

G Brothers Mercedes Benz, Mona Vale. \$8 million

Design of New Car Showroom and Pre-owned Car and Van service centre at Mona Vale.

Livpac Peninsular Business Estate: Stages 2 & 3. \$15 million

Design and construction of 18000sqm building including commercial office, warehouse, childcare and Indoor pool facilities.

Nectar Farms Stawell, Victoria. \$50 million

Design and construction of 100,000sqm Green house facility



David Cullen Senior Documentation

Qualifications and Affiliations

- » Architectural Draftsman Certificate, Sydney College of TAFE
- » Bachelor of Architecture (Design completed) NSW Institute of Technology
- » CAD 1 & CAD 2, Wyong College of TAFE
- » 3D CAD Works in Microstation XM, Bentley Architecture & Revit Management, Hornsby TAFE

Experience

David joined SBA Architects early in 2017 and has rapidly proved to be a valuable member of the team. Now a senior lead of documentation, David's experience and expertise in all areas of design development, planning and coordination, his easy manner with clients and his technical expertise are evidenced by the smooth passage of otherwise complex projects.

David has a wealth of experience in the architectural industry, having previously worked for highly regarded industry leaders on major large developments including: Barangaroo, Darling Park Development, Large scale retail developments, (Sydney), High-rise residential apartments (Melbourne), RAAF live in accommodation across Australia, Prisons (Kuwait).

Key Projects

Marsden Park Industrial Estate. \$65 million

70,000sqm of warehousing spread across 3 buildings for Taylor Construction Group. Currently under construction.

Autonexus. \$4 million

56,000sqm of outdoor car storage facility for FDC Constructions with 9,500sqm of warehousing fitout for Autonexus.

Matraville Industrial Unit. \$12 million

5,000sqm Two-level storage facility as part of a masterplanned Industrial development for Spirecorp at Botany.

ATO Canberra (with Bovis Lend Lease). \$270 million

Twin tower development for Bovis Lend Lease Design, Sydney. Detailed design development and construction documentation.

Darling Park Development (Stage 3) (with Bovis Lend Lease). \$230 million

Podium and high-rise tower building for Bovis Lend Lease Design, Sydney. Design and preparation of 3D graphics, co-ordination of services and documentation.

Seamless Transfer – Qantas, International to Domestic Terminals (with Travis McQuewn Group). \$56 million

Design and construction of 100,000sqm Green house facility.

Kuwait Prisons/ RAAF Live-in accommodation (with Rice Daubney)

Using BIM assist in the documentation for construction of Kuwait prison façade package and assist in documenting scheme design review for RAAF personnel live-in accommodation for 105 personnel, Kuwait.

Castle Towers Stage 2A & 2C Shopping Centre, Castle Hill. (with Bovis Lend Lease) Cost \$270M

Design develop & document to fast track system alterations & additions to Castle Hill Shopping Centre, NSW.

High Rise Residential Apartments, Victoria (with Bovis Lend Lease)

Design develop, prepare 3d graphics for design resolution. Prepare, 'for construction' detail drawings, coordinate services and assist other commercial teams.



Ryann Musca BIM Manager

Qualifications and Affiliations

- » Bachelor of Science in Architecture, Far Eastern University, Manila
- » Registered Architect with Professional Regulatory Commission, Manila
- » Certified Autodesk Revit Architecture Professional
- » Certified Autodesk Revit Architecture Associate

Experience

Ryann has been responsible for driving the BIM initiatives within SBA Architects and managing BIM strategic direction. He draws on years of experience from diverse architectural and interior design projects across Australia, Middle East, and Asia.

During his time with SBA Ryann has developed and implemented BIM standards, migrating the platform standards to the Revit platform and developing the framework, protocols, workflows and project implementation strategy. In addition Ryann has implemented cloud-based integration solutions to collaborate in real time and work seamlessly in documenting projects.

Ryann's passion for embracing new technologies is evidenced in his continual improvement of the BIM system and his dedication to his craft.

Key Projects

Enfield Intermodal Logistics Centre. \$190 million

Enfield ILC encompasses 31ha of industrial development land. Design Masterplan includes Industrial Warehouses, Administrative Offices, Worker Amenities, Landscaping, Car and Bicycle parking, Truck circulation and Hardstand.

Edinburgh Road Marrickville – Building A. \$18 million

The Project provides approximately 5,200sqm of commercial grade office space over three levels, approximately 800sqm of Hi-Tech Industrial or Food Retail Space and approximately 55 tenant car spaces. Project for Spirecorp.

Newcold Chilled Milk Storage Facility Victoria. \$60 million

40,500sqm Highbay cold storage facility for milk storage for Newcold and Hansen Yuncken.

Marsden Park Industrial Estate. \$65 million

70,000sqm of warehousing spread across 3 buildings for Taylor Construction Group. Currently under construction and due for completion mid-2017.

Mercedes Benz Castle Hill. \$10 million

Full design and construction documentation of new 20 car showroom and associated service centre at Castle Hill.

Automotive Holdings Group

BIM Management of construction documentation of New Warehouse, Storage, Vehicle Parts Distribution (10,000sq.m), Office and Administration Facility (4,500sqm) at Hoxton Park

Mercedes Benz Pre Owned Car Showroom Mona Vale

BIM Management of New dealership for G Brothers Mercedes Benz including 12 car showroom for pre-owned and demo vehicles, new car delivery bay, administration, external display and customer parking. Project Value \$3m.

Sydney International Terminal Carpark, (with Design Inc) \$64M

Design and Construction of multi-level car park at Sydney international Airport for Abigroup and Sydney Airport Corporation

New Royal Adelaide Hospital, (with Design Inc) cost \$3.2B

Construction Documentation of the New Hospital for HLYC Joint Venture, South Australia

Woolworths, Crows Nest, (with Nettleton Tribe) cost \$20M

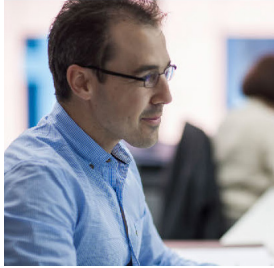
BIM management of 450sqm development for Woolworths at Crows Nest, NSW

Byron Bay Central Hospital, (with Nettleton Tribe) cost \$46M

BIM Management for development of Byron Bay Hospital for Health Infrastructure, NSW

Queen Mary Building, Camperdown (with Nettleton Tribe) cost \$50M

BIM Management of Student Accommodation for Sydney University at Camperdown, NSW



Jose Alonso

Senior Architectural Draftsperson

Qualifications and Affiliations

- » Certificate IV in Architectural Technology, Ultimo TAFE
- » Diploma of Architectural Technology, Ultimo TAFE
- » Software: REVIT, Microstation, Aconex, Adobe Photoshop, Project Centre

Experience

Jose is a skilled Architectural Draftsperson with experience in Construction Documentation and Detailing across commercial, residential, transportable accommodation, educational and industrial sectors.

Throughout his career, Jose has developed expertise in construction detailing and an extensive knowledge of construction methodology. He takes pride in his ability to liaise with consultants, subcontractors and key stakeholders to achieve positive outcomes and complete projects on time and within budget. His thorough knowledge of 2D CAD and 3D BIM software allows him to produce high quality architectural documentation for all stages of the documentation process.

Jose previously worked for Crone Partners with key clients such as Ernst and Young and the ATO. His experience includes: high rise office towers, multi-storey commercial buildings and residential projects.

Key Projects

Oakdale Central Industrial Estate Lot 3 Eastern Creek. \$95 million

90,000sqm of warehousing spread across 4 buildings for Goodman at Oakdale Industrial Estate Horsley Park. Currently under construction.

Tyremax. \$18 million

20,000sqm tyre storage and distribution facility for Fitzpatrick Investments at Erskine Park.

NRMA, Gladesville

40,500sqm Highbay cold storage facility for milk storage for Newcold and Hansen Yuncken.

World Square, Ernst & Young Tower (with Cronos). \$515 million

Design & Construction Documentation of 56 Storey Commercial Office Tower, for Multiplex.

World Square, 52 Goulburn Street, Sydney (with Cronos) \$114 million

Design & Construction Documentation of the purpose built ATO Commercial Office Tower, for Multiplex.

Transportable Mining Accommodation (with Civeo)

Masterplanning & documentation of Workforce Housing and Villages throughout the Pilbara and North Queensland mining districts for Civeo.

Bluestar Huntingwood

Design Development and detailed construction documentation of proposed warehouse refurbishment for GPT at Huntingwood.

Schneider Electrical

Design development and construction documentation of 6,500sqm warehouse expansion, 500sqm offices, battery charge, new carpark/hardstand and landscaping to Schneider Electric at Ingleburn for Hansen Yuncken Pty Ltd

Layer, Eastern Creek

Construction documentation of 1,500sqm warehouse building plus 700sqm offices, staff amenities, external car parking and vehicle manoeuvring and loading areas at Grevillea Road Eastern Creek for Taylor Construction Group.

2 Market Street, Sydney (with Crone Architects) \$41.7m

Design and Construction Documentation of the 13 storey forecourt commercial office building for Allianz



Laszlo Kotvan

Graduate Architect / Digital Design Visualisation

Qualifications and Affiliations

- » Bachelor of Design in Architecture, University of Technology, Sydney
- » Master of Architecture, University of Technology, Sydney
- » Certificate IV in Architectural Technology, Granville TAFE
- » Diploma of Architectural Technology, Granville TAFE
- » Bentley Systems Course - MicroStation V8i for Advanced Users
- » Skills: BIM Modelling, Advanced 3D Modelling and Digital Prototyping

Experience

Since commencing at SBA Laszlo has graduated as an Architect and become a talented member of the design team. Throughout his degree he developed a passion for digital architecture including BIM, 3D Architectural Visualisation and digital prototyping (scripting) all of which have been great additions to the skillset at SBA. Laszlo's extensive knowledge of CAD software and understanding of the design development process enables ideas and concepts to be visually communicated through high quality presentations.

Laszlo has gained experience on a wide array of projects across a variety of sectors including industrial, commercial, retail and hospitality, residential and automotive. He has been involved in all phases, from Masterplanning, design development, documentation and project delivery.

Additionally, Laszlo has been instrumental in establishing CAD and BIM standards at SBA and over time has offered valuable assistance to the BIM Manager particularly during the transition process from Microstation/AECOSim to Revit.

Key Projects

Enfield Intermodal Logistics Centre \$190 million

vEnfield ILC encompasses 31 ha of industrial development land. Design Masterplan includes Industrial Warehouses, Administrative Offices, Worker Amenities, Landscaping, Car and Bicycle parking, Truck circulation and Hardstand.

Chatswood Toyota. \$14 million

Design & design development of flagship showroom and vehicle servicing centre for Toyota Motor Corporation Australia.

Purnell Motors, Blakehurst.

Full design, documentation and contract administration for a LandRover and Jaguar showroom and subsequent upgrade to current corporate branding standards.

Oakdale Central Industrial Estate Lot 3, Eastern Creek. \$95 million

Design & Construction Documentation of 56 Storey Commercial Office Tower, for Multiplex.

G Brothers Mercedes Benz, Mona Vale. \$8 million

Design of New Car Showroom and Pre-owned Car and Van service centre at Mona Vale.

Australia Post Canberra CBD

Developed BIM model for design, and detailed construction documentation and interior fitout of Canberra GPO

Oakdale South Industrial Estate

Master planning, Full design and SSD Application to NSW Department of Planning for Goodman for 16 new warehouses totalling 420,000sqm GFA.

Matraville Industrial Unit. \$12 million

5,000sqm Two-level storage facility as part of a masterplanned Industrial development for Spirecorp at Botany.

Edinburgh Road Marrickville – Building A

The Project provides approximately 5,200sqm of commercial grade office space over three levels, approximately 800sqm of Hi-Tech Industrial or Food Retail Space and approximately 55 tenant car spaces. Project for Spirecorp.

Subaru, Castle Hill

Concept Design and Visualisation of new façade for proposed new Subaru Facility at Castle Hill for Inchcape Australia Ltd



Farah Akbar Project Architect

Qualifications and Affiliations

- » Bachelor of Architecture, National University of Iran
- » Member of Constructive Women Incorporated, Sydney
- » Registered with Iranian Institute of Architects
- » Member of Consulting Engineers Society, Iran
- » Software Skills: BIM Revit, Microstation, 3D Max, Aconex

Experience

Farah has extensive experience in all aspects of architectural practice. Her career encompasses project work across a variety of sectors, including: industrial, mixed commercial/retail, high-rise residential and luxury residential developments.

At SBA Farah has been responsible for detailed design development and construction documentation output from DA, CC through to construction approval.

Farah's dedication to the profession is evident throughout her work. Fluent in many languages, Farah is a clear concise and confident communicator. These skills, combined with her solid technical ability are key factors to the successful realization of her projects.

Key Projects

Edinburgh Road Marrickville – Building A. \$18 million

The Project provides approximately 5,200sqm of commercial grade office space over three levels, approximately 800sqm of Hi-Tech Industrial or Food Retail Space and approximately 55 tenant car spaces. Project for Spirecorp.

Mercedes Benz Castle Hill. \$10 million

Full design and construction documentation of new 20 car showroom and associated service centre at Castle Hill.

Nectar Farms Stawell, Victoria

Design and construction of 100,000sqm Green house facility.

Calibre Industrial Estate Eastern Creek \$100 million

Master planning, full design and SSD Application to NSW Planning for Mirvac for five new warehouses totalling 120,000sqm GFA.

G Brothers Mercedes Benz, Mona Vale. \$8 million

Design and documentation of New Car Showroom and Pre-owned Car and Van service centre at Mona Vale.

Toll Prestons. \$40 million

60,000sqm freight forwarding facility for Logos and Toll at Prestons NSW split across 2 buildings. Building 1 includes state of the art multi-level sortation system for high speed parcel processing.

UNSW Housing (with Architectus)

19 Buildings (2 – 9 storey) Townhouses for student accommodation including basement car park and structural/services coordination

5.0 Experience & Past Performance

SBA Architects are highly regarded within the industrial sector evident in the referral and repeat business undertaken by our practice in recent years. We have been involved in many large scale industrial projects across the eastern seaboard of Australia.

Project completed by SBA Architects in recent years of a similar nature to the Sydney Gateway Project are included on the following pages;

Calibre 3 Concept





Enfield Intermodal

Client: Goodman
Value: \$190
Location: Enfield, NSW

Project Summary:
The project design for Enfield Intermodal Logistics Centre (ILC), won in competition by SBA, espouses the following principles:

- » Modern, progressive designs and materials
- » Innovative warehouse typology
- » Healthy workplace design
- » Responsive, habitable landscape strategies

The project seeks to set a new benchmark for design of industrial developments in Australia. Enfield ILC encompasses approximately 31 ha of industrial development land at Strathfield South. The site is previously known as the Enfield Marshalling Yards Site, and is located approximately 15kms by road from the Sydney CBD and 18kms by rail from Port Botany. The site is surrounded by light industrial and low density residential uses.

Working for Goodman, acting in their capacity as Project Manager for Sydney Ports Corporation, the Project will deliver 110,000sqm of industrial use facilities as part of the development and rehabilitation of this key Sydney city site.



Calibre

Client: Mirvac
Value: \$100M
Location: Eastern Creek, NSW

Project Summary:
Lot 1 Calibre Estate is the first development in the Calibre Industrial Estate comprising a 18,000sqm warehouse facility incorporating a 900sqm commercial office and 125sqm dock office in Eastern Creek Sydney.

This facility was designed in consultation with Mirvac who wanted to push the design envelope and create a distinguished look and feel that would set the standard above and beyond comparable facilities.

SBA has been involved with the masterplanning and design for the entire estate totalling 123,500sqm with a realised project value \$100m.



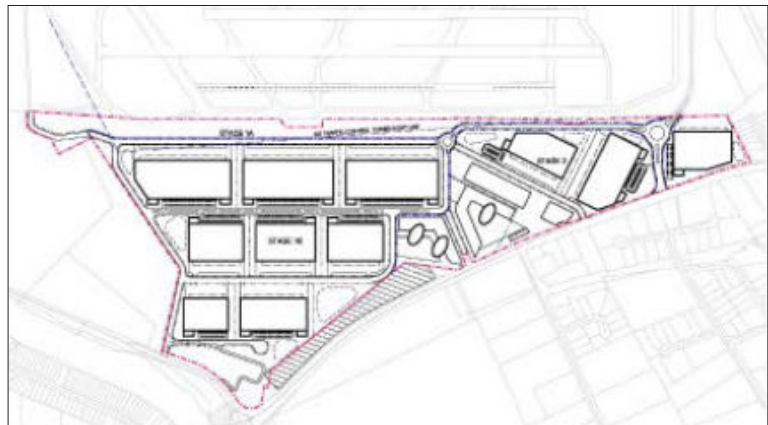
Bankstown Airport

Client: ALTIS
Value: TBA
Location: Bankstown, NSW

Project Summary:

ALTIS invited SBA to participate in an airport wide Masterplan being completed by AECOM, for the Bankstown Airport. SBA were responsible for design and coordination in the Bankstown Airport South Precinct, to assist ALTIS to understand the most appropriate design for the development of this Precinct as Industrial, bulky good Retail and possibly other mixed use functions. As part of this process, SBA were required to understand and interpret BAL Development guidelines, Object Limitation Surfaces, Wind Management requirements, Control Tower view lines amongst others.

SBA also were required to interpret several other complex site specific issues in order to produce a functional layout, including complex staging around existing leases and tenures, on site flood detention, continuity of service for existing air side services, upgrade and staging of existing and new roadworks and infrastructure, introduction of public transport routes and cycleways, and building design subject to wind design criteria. Complex site geometry and information was coordinated via the 3D BIM environment 'Navisworks' to ensure design integration and compliance.



NewCold Chilled Food Storage Facility, VIC

Client: NewCold
Value: \$200M
Location: Truganini, VIC

Project Summary:

SBA was engaged by Hansen Yuncken to develop the design and document the NewCold Advanced Cold Logistics storage facility in Victoria.

This 26,000sqm x 36m high bay facility is fully automated with a total storage capacity of over 100,000 pallets. The facility operates 24/7 with the ability to operate across multiple temperatures concurrently.



Toll IPEC, VIC

Client: Qanstruct
Value: \$80M
Location: Tullamarine, VIC

Project Summary:

Following on from the success of Toll IPEC Sydney, SBA was engaged by Qanstruct (Aust) to design this landmark freight sorting facility adjacent to Melbourne Airport for Toll IPEC.

This \$80m project involved the design of a 68,000sqm freight processing and distribution facility, to include a state of the art parcel sortation system which processes over 35,000 parcels per hour. The overall facility consists of 50,000sqm warehouse, 8,000sqm mezzanine floor, driver rest rooms, truck workshop and fuelling, two gate houses, 4,500sqm head office and over 100,000sqm of hardstand areas.



Toll IPEC, NSW

Client: Goodman
Value: \$65M
Location: Huntingwood, NSW

Project Summary:

SBA was engaged for the Design and Design Development of the Toll IPEC facility at Bungaribee Industrial Estate, Huntingwood NSW.

This unique \$65m project involved the design of a 62,000sqm freight processing and distribution facility, complete with a state of the art parcel sortation system in 46,000sqm warehouse, 8,000sqm mezzanine floor, driver rest rooms, truck workshop and fuelling, two gate houses, 4,000sqm head office and over 100,000sqm of hardstand areas.

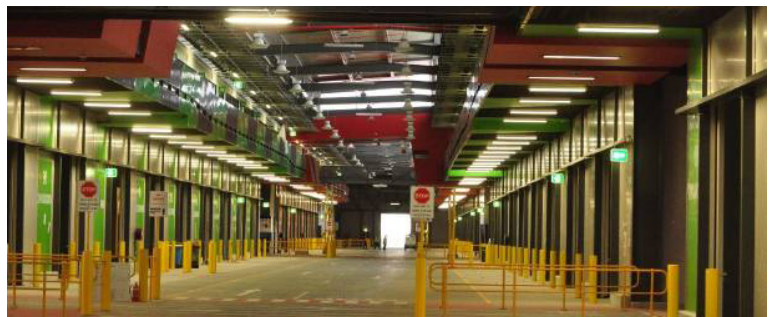


Melbourne Markets Fresh Produce Warehouse

Client: Hansen Yuncken
Value: \$105M
Location: Epping, VIC

Project Summary:
Melbourne Markets fresh Produce Warehouses are modern, innovative and efficient distribution and food storage facilities located to provide complimentary warehousing for the adjoining fresh food markets.

SBA was engaged to develop the design and document various tenancy fitouts across the 5 buildings ranging in size from 10,000 to 25,000sqm.



Sigma Pharmaceuticals

Client: Goodman
Value: \$40M
Location: Oakdale South Industrial Estate, Horsley Park, NSW

Project Summary:
SBA was engaged to design the 40,000sqm warehouse and distribution facility at Oakdale South.

The facility is fully temperature controlled for the storage of pharmaceutical products.



Oakdale South Industrial Estate

Client: Goodman
Value: Ongoing
Location: Horsley Park, NSW

Project Summary:

SBA Architects was engaged in 2014 by Goodman Property Group to masterplan this new 117 hectare industrial estate at Horsley Park NSW including the design and preparation of the development application for sixteen industrial facilities encompassing a total floor area of over 330,000sqm.



Oakdale Central Industrial Estate Lot 3

Client: Goodman
Value: \$20M
Location: Horsley Park, NSW

Project Summary:

As part of Goodman's Industrial Estate SBA was engaged to design 4 new buildings ranging in area from 6000sqm to 35,000sqm. Tenants include; DDSV, Petbarn and Reckitt Benckiser.

SBA's engagement included concept design through to completion of full construction documentation.



Toll Prestons

Client: Toll
Value: \$40M
Location: Prestons, NSW

Project Summary:
SBA was engaged by Richard Crookes Construction on behalf of Logos and Toll to develop the design and document Toll's new 60,000sqm freight forwarding facility.

The facility is split across 2 buildings with building 1 housing a state-of-the-art sortation system for high speed parcel processing.



Toyota Parts Facility Horsley Park, NSW

Client: Goodman/Toyota
Value: \$30M
Location: Horsley Park, NSW

Project Summary:
As part of the Oakdale Industrial Estate SBA Architects was engaged by Goodman Property Group and Toyota Motor Corporation Australia to design the new Parts and Accessories Facility which includes a 36,000sqm warehouse and distribution facility, 8,000sqm mezzanine for parts storage, 2,000sqm office and associated hardstands and parking.



DHL 1 (Canon)

Client: Goodman
Value: \$15M
Location: Oakdale Central Industrial Estate, Horsley Park, NSW

Project Summary:
SBA was designed by Goodman to design and document DHL's 20,000sqm warehouse and distribution facility for DHL at Oakdale Industrial Estate Horsley Park.

DHL 1B is one of four DHL facilities at the Oakdale Central Estate and SBA Architects was novated for all four buildings from initial design to construction documentation and project completion.



DHL 2

Client: Goodman/DHL
Value: \$20M
Location: Oakdale Central Industrial Estate, Horsley Park, NSW

Project Summary:
SBA Architects was commissioned by Goodman Property Group for the design, design development and construction documentation of a 32,000sqm warehouse and distribution facility for DHL at Oakdale Industrial Estate Horsley Park.



Marsden Park Industrial Estate

Client: Medline
Value: \$35M
Location: Marsden Park, NSW

Project Summary:

Creation of a contemporary, clean lined and sophisticated corporate building aesthetic and appropriate public image for Medline Australia within the defined cost budget.

The new 25,200sqm facility for Medline comprised warehouse storage area and dock offices, main office and staff facilities over two levels, 1,675sqm clean room areas of Grade C and D classification, 8 flush docks and 6 recessed docks.

The clean room was designed to international standards for a production facility, requiring careful and meticulous detailing, floor, wall and ceiling junctions, and material selections. Significant focus and attention was also applied to the coordination of mechanical systems and plant room equipment requirements with the architectural design.

Maximizing the site area use whilst maintaining efficient heavy vehicle access and perimeter emergency vehicle access routes, and providing the required car parking numbers were a few of the key challenges of the project.

SBA was also able to provide flexible warehouse and office space to enable future re-configuration and adapted uses.



Rooty Hill RSL Carpark

Client: Rooty Hill RSL
Value: \$5M
Location: Rooty Hill, NSW

Project Summary:

SBA was engaged by FDC Construction and Fitout to develop the design and provide detailed construction documentation for the multi storey 5,000sqm carpark for Rooty Hill RSL Club.





6.0 Fee Schedule

	Carpark	SDC Centre	Catering
Stage 1 – Issue of Project Brief / Qantas PPR	\$54,000	\$15,000	\$30,000
Stage 2 – Schematic Design, Masterplanning, Submission Document	\$108,000	\$30,000	\$60,000
Stage 3 – Concept Design / Design to DA	\$162,000	\$43,000	\$90,000
Stage 4 – Design Development	\$378,000	\$100,000	\$210,000
Stage 5 – Detailed Design and Documentation	\$216,000	\$57,000	\$120,000
Stage 6 – Complete Design and Construction Services	\$248,000*	\$123,000*	\$250,000*
Stage 7 – Project Finalisation	\$54,000	\$15,000	\$30,000
Totals	\$1,220,000	\$383,000	\$790,000

Please note all fees quoted are exclusive of 10% GST and subject to payment within 14 days under the terms of the Security of Payments Act 1999.

Additional Works

Variations to the agreed scope of services shall be charged on the following hourly rates or as otherwise agreed between us:

Hourly Rates for Variations (Excluding GST)	
Director	\$270.00
Associate	\$250.00
Senior Architect	\$220.00
Interior Designer	\$220.00
Architect - Registered	\$200.00
Architect – Mid Level	\$185.00
Draftsperson	\$160.00
Administration	\$160.00

*Note

Stage 6 fees are inclusive of the following fees for provision of support staff to answer queries for the duration of construction.

Projects	Months	Hrs/Month	Rate/hr	Total
Carpark	20	32	\$220	\$140,800
Catering	18	48	\$220	\$190,080
SDC Centre	18	24	\$220	\$95,040

Appendix A



GPO Box 1453
Brisbane QLD 4001
Australia

www.vero.com.au

AAI Limited ABN 48 005
297 807 trading as Vero
Insurance

Business Insurance Certificate of Currency

The following cover applies across the policy for all premises:

Issue Date: 06/02/2017

Period of Insurance

17/02/2017 - 17/02/2018

Policy Number

SME009158751

Policyholder

SBA Architects Pty Ltd

Policyholder Address

Suite 702, 83 Mount Street North Sydney NSW 2060

The Business

Architect's Practice

Interested Parties

N/A

Legal Liability

	Insured Amount
Public Liability	\$ 20,000,000
Property in care, custody and control	\$ 250,000
Products Liability	\$ 20,000,000
Management Liability	\$
Management Employee Dishonesty	\$

Note: This facsimile is intended for the addressee only. It may contain confidential information and if you are not an authorised recipient you are requested to preserve this confidentiality and to notify us immediately. The contents are not to be used, copied or disclosed to anyone other than the addressee.



CERTIFICATE OF CURRENCY



SBA ARCHITECTS PTY LTD
SUITE 702 83 MOUNT ST
NORTH SYDNEY NSW 2060

Date of Letter: 31/01/2017

Dear Sir/Madam,

1. STATEMENT OF COVERAGE

The following policy of insurance covers the full amount of the employer's liability under the *Workers Compensation Act 1987 (NSW)*.

This Certificate is valid from 31/01/2017 to 31/01/2018

The information provided in this Certificate of Currency is correct at: 31/01/2017

2. EMPLOYER'S INFORMATION

POLICY NUMBER 1SF0056493GWC154
LEGAL NAME SBA ARCHITECTS PTY LTD
ABN 85 103 593 077
ACN 103 593 077

Workers Compensation Industry Classification Number (WIC)	Industry	Numbers of Workers*	Wages*
782100	Architectural Services	23	\$1,870,885.00

* Number of workers includes contractors/deemed workers

† Total wages estimated for the current period

3. IMPORTANT INFORMATION

Principals relying on this certificate should ensure it is accompanied by a statement under section 175B of the *Workers Compensation Act 1987 (NSW)*. Principals should also check and satisfy themselves that the information is correct and ensure that the proper workers compensation insurance is in place, ie. compare the number of employees on site to the average number of employees estimated; ensure that the wages are reasonable to cover the labour component of the work being performed; and confirm that the description of the industry/industries noted is appropriate.

A principal contractor may become liable for any outstanding premium of the sub-contractor if the principal has failed to obtain a statement or has accepted a statement where there was reason to believe it was false.

Yours faithfully,

Underwriting Department
Employers Mutual



Certificate of Currency

Class of Business: Professional Indemnity

Policy Number: P-PI/0/142634/17/I-8

Policyholder: SBA Architects Pty Ltd

Business Description: Architectural Services

Insurance Period: From 4:00pm on 17/02/2017 to 4:00pm on 17/02/2018
Australian local time in the State or Territory where this **policy** was purchased

Indemnity Limit: \$10,000,000 any one **claim** and \$50,000,000 in the aggregate during the **insurance period**

Deductibles: \$ 10,000 including **defence costs** by the **insured** for each **claim**

Retroactive Date: Unlimited excluding any known claims or circumstances

Insurer: DUAL Australia Pty Ltd on behalf of certain underwriters at Lloyd's

Signature:

A handwritten signature in black ink, appearing to be "DC", written over a horizontal line.

Damien Coates - Chief Executive Officer, DUAL Asia Pacific

DUAL AUSTRALIA PTY LTD

Tel: 1300 769 772

Email : reception@dualaustralia.com.au

Website : www.dualaustralia.com.au

Registered under ABN 16 107 553 257



LLOYD'S

Professional Indemnity Insurance Policy

LLOYD'S

We hereby agree, to the extent and in the manner hereinafter provided, to indemnify or otherwise pay **you** in respect of the contingencies or events specified in the sections of the **policy**. However this **policy** only applies to those sections as indicated in the **schedule** attached to this **policy**.

The **policy**, **schedule**, exclusions and general conditions shall be read together as one contract and any word or expression to which a specific meaning has been attached in any part of the **policy**, **schedule**, exclusions and general conditions shall bear the same meaning wherever it may appear.

Please read this **policy** and, if it is incorrect, return it immediately for alteration.

A handwritten signature in black ink, appearing to be "A. B. L.", written over a horizontal line.

Signed by DUAL Australia Pty Ltd on behalf of certain underwriters at Lloyd's



Professional Indemnity Schedule

All words in bold within the policy or this schedule shall have the meaning given to them in Section 6 of the policy entitled "Definitions".

ITEM 1	Policy Number:	P-PI/0/142634/17/I-8
ITEM 2	Policyholder:	SBA Architects Pty Ltd C/O: SFAS Rose Stanton Insurance Brokers
ITEM 3	Business Description:	Architectural Services
ITEM 4	Insurance Period:	From 4:00pm on 17/02/2017 to 4:00pm on 17/02/2018 Australian local time in the State or Territory where this policy was purchased
ITEM 5	Indemnity Limit:	\$10,000,000 any one claim and \$50,000,000 in the aggregate during the insurance period
ITEM 6	Deductible:	\$10,000 including defence costs by the insured for each claim
ITEM 7	Retroactive Date:	Unlimited excluding any known claims or circumstances

ITEM 8 Extensions:

Extension	Included	Deductible	Sub-limit
3.1 Attendance at Investigations	Included	\$1,000	Indemnity limit
3.2 Consultants, Subcontractors and Agents	Included	\$10,000	Indemnity limit
3.3 Consumer Protection Legislation	Included	\$10,000	Indemnity limit
3.4 Continuous Cover	Included	\$10,000	Indemnity limit
3.5 Court Attendance Costs	Included	\$10,000	\$500 per day
3.6 Crime	Included	\$2,000	\$50,000
3.7 Defamation	Included	\$10,000	Indemnity limit
3.8 Discovery Period	Included	\$10,000	Indemnity limit
3.9 Emergency Defence Costs	Included	\$1,000	Indemnity limit
3.10 Former Subsidiary	Included	\$10,000	Indemnity limit
3.11 Fraud and Dishonesty for Innocent Parties	Included	\$10,000	Indemnity limit
3.12 Heirs, Estates and Legal Representatives	Included	\$1,000	Indemnity limit
3.13 Intellectual Property	Included	\$10,000	Indemnity limit
3.14 Joint Venture Liability	Included	\$10,000	Indemnity limit
3.15 Lost Data	Included	\$1,000	Indemnity limit
3.16 Newly Created or Acquired Entity or Subsidiary	Included	\$10,000	Indemnity limit
3.17 Panel Counsel	Included	Nil	1 hr per claim
3.18 Previous Business	Included	\$10,000	Indemnity limit
3.19 Public Relations	Included	\$1,000	Indemnity limit
3.20 Reinstatement of Indemnity Limit	Included	\$10,000	N/A
3.21 Statutory Liability	Included	\$1,000	\$100,000

ITEM 9 Optional Extensions:

Optional Extension	Included	Deductible	Sub-limit
4.1 Employment Practices Liability	Excluded	N/A	Nil
4.2 USA and Canada Cover	Excluded	N/A	Nil
4.3 Whistleblower Hotline Access	Excluded	N/A	Nil

ITEM 10 Policy Wording: DUAL Australia Design and Engineering Professional Indemnity Wording (08.14).pdf

ITEM 11 Insurer: DUAL Australia Pty Ltd on behalf of certain underwriters at Lloyd's
Unique Market Reference
Professional Indemnity: B0775UPD05817A

ITEM 12 Endorsements applying to this policy:
No endorsements to apply unless client specific is shown.



Professional Indemnity Schedule

All words in bold within the policy or this schedule shall have the meaning given to them in Section 6 of the policy entitled "Definitions".

Signed:

A handwritten signature in black ink, appearing to be 'F. B. L.', written over a horizontal line.

Signed by DUAL Australia Pty Ltd on behalf of certain underwriters at Lloyd's

Appendix B



Verification Certificate

SBA Architects Pty Ltd

ABN: 85 103 593 077

To verify that their

Corporate Environmental Management System

has been assessed as meeting with the requirements of the
NSW Government *Environmental Management Systems Guidelines*.

Scope of works covered by verification and locations

Refer to the Verification Schedule for further details.

Verification Number 20513
Issue Date 09/05/2017
Issue Number 02

Period of Registration
09/05/2017 to 09/05/2020

A handwritten signature in black ink, appearing to read 'John Edwards'.

John Edwards, Operations Director
dlcs international

This certificate and certification mark remains the property of
dlcs international • www.dlcsi.com.au
St Kilda Rd Towers, 1 Queens Road, Level 2, Suite 220-222
Melbourne, VIC 3004



Verification Schedule

SBA Architects Pty Ltd

Verification Number 20513

Scope of works covered by verification

Provision of Pre Design; Schematic Design; Design Development; Construction Documentation; Post Construction; and Contract Administration.

At the following locations

Suite 702, 83 Mount Street, North Sydney, NSW, 2060

Issue Date	09/05/2017
Issue Number	02
Page	01/01



Verification Certificate

SBA Architects Pty Ltd

ABN: 85 103 593 077

To verify that their

Corporate Occupational Health & Safety Management System

has been assessed as meeting with the requirements of the
NSW Government *WHS Management Systems and Auditing Guidelines* 5th edition.

Scope of works covered by verification and locations

Refer to the Verification Schedule for further details.

Verification Number 20513
Issue Date 09/05/2017
Issue Number 02

Period of Registration
09/05/2017 to 09/05/2020

A handwritten signature in black ink, appearing to read 'John Edwards'.

John Edwards, Operations Director
dlcs international

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dlcs international • www.dlcsi.com.au
St Kilda Rd Towers, 1 Queens Road, Level 2, Suite 220-222
Melbourne, VIC 3004



Verification Schedule

SBA Architects Pty Ltd

Verification Number 20513

Scope of works covered by verification

Provision of Pre Design; Schematic Design; Design Development; Construction Documentation; Post Construction; and Contract Administration.

At the following locations

Suite 702, 83 Mount Street, North Sydney, NSW, 2060

Issue Date	09/05/2017
Issue Number	02
Page	01/01



Certificate of Conformity

SBA Architects Pty Ltd

ABN: 85 103 593 077

To certify that their

Quality Management System

has been assessed and registered as complying with the requirements of the Australian/New Zealand Standard AS/NZS ISO 9001:2008 – *Quality management systems – Requirements*

Scope of works covered by certification, locations and exclusions
Refer to the Certification Schedule for further details.

Certification Number 20513
Issue Date 03/05/2016
Issue Number 02

Period of Registration
7/05/2016 to 15/09/2018

A handwritten signature in black ink.

John Edwards, Operations Director
dlcs international

Certification is subject to ongoing surveillance assessments
The validity of this certificate can be verified at www.jas-anz.org/register

This certificate and certification mark remains the property of
dlcs international • www.dlcsi.com.au
St Kilda Rd Towers, 1 Queens Road, Level 2, Suite 220-222 Melbourne, VIC 3004



Accredited by the Joint Accreditation System of
Australia and New Zealand.
Acc. No. M5250513AM



Certification Schedule

SBA Architects Pty Ltd

Certification Number 20513

Scope of works covered by certification

Provision of Pre Design; Schematic Design; Design Development; Construction Documentation; Post Construction; and Contract Administration.

At the following locations

Suite 702, 83 Mount Street, North Sydney, NSW, 2060

Exclusions

- 7.5.2 Validation of processes for production and service provision
- 7.5.4 Customer property
- 7.5.5 Preservation of product
- 7.6 Control of monitoring and measuring devices

Issue Date 03/05/2016
Issue Number 02
Page 01/01



SUITE 702, 83 MOUNT STREET
NORTH SYDNEY, NSW 2060
SYDNEY, AUSTRALIA
+61 2 9929 9988

Greg Baird
+61 412 390 402
greg@sbaarch.com.au
www.sbaarch.com.au

At SBA Architects we consider every project an opportunity to positively contribute to both the client's expectations and the built environment.
