



ABN: 29 154 320 653

SPAN CONSULTING ENGINEERS PTY LTD

Structural Engineering Design Services and Inspection Services

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2. INTRODUCTION

Span Consulting Engineers (SpanCE) was founded to provide state-of-the-art technical solutions in various sectors including residential, commercial and industrial.

From design and engineering to construction management, SpanCE's technical knowledge and experience helps deliver specialized services to customer satisfaction across the entire project life cycle.

With ever increasing financial constraints on projects coupled with the necessity to provide safe, cost-effective, quick and sustainable solutions, the pressure has never been too demanding. Span Consulting Engineers aims at project delivery and ensuring customer satisfaction through an involved process of discussion, understanding customer & project needs, providing practical and feasible solution and ensuring a cost-effective, sustainable, environment friendly, safe and innovative solution.

3. STATEMENT OF CONFIDENTIALITY AND NON-DISCLOSURE

This document contains proprietary and confidential information. All data in this document is provided in reliance upon its consent not to use or disclose any information contained herein except in the context of its business dealings with Span Consulting Engineers Pty Ltd.

The recipient agrees to instruct its officers, employees, agents, solicitors and advisers that they must not disclose any information concerning this document to others except to the extent those matters are generally known to, and are available for use by, the public. The recipient also agrees not to duplicate or distribute or permit others to duplicate or distribute any material contained herein without Span Consulting Engineers Pty Ltd express written consent.

Despite the above, Span Consulting Engineers Pty Ltd retains all title, ownership and intellectual property rights to the material and trademarks contained herein, including all supporting documentation, files, marketing material, and multimedia.



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4. EXECUTIVE SUMMARY

Span Consulting Engineers Pty Ltd (SpanCE) is pleased to express the interest to provide structural engineering services to you/your company. We understand our responsibility to deliver project in time during the preliminary, tender and construction stages. We constantly work towards providing practical and cost-effective engineering solutions in time and within budget for our client. As a firm we are experienced, capable and demonstrate;

- Social responsibilities,
- Capabilities,
- Resources and,
- Past project experience

We believe that we have the experience and expertise in our specified fields that enable us to deliver the project most effectively within the nominated cost and time frame.



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AREA OF EXPERTISE

SpanCE is a Structural Engineering and Building Diagnostic firm, practicing across a wide range of specialty areas. We provide specialized advice in relation to structural design - documentation for new varieties of structures but not limited to the following:

a. Residential



Residential market is competitive, and the demand has always been to lower project cost and yet provide an appealing design to not only serve the intended purpose but also be a landmark structure.

SpanCE provides structural design services for residential projects ranging from individual residences to high-density developments and luxury residences. We also provide inspection services to Architects, Builders,

Developers, Strata Manager and Home Owners. With over 20 years of experience SpanCE has the technical expertise and knowledge of local council requirements thus helping in developing a compliant, feasible and cost-effective solution to the satisfaction of the customer.

- New Residential Multi-Unit Developments
- Multistory Residential Development
- Design Check and Certification
- Shoring Wall Design
- Development Applications and Tendering
- Building Structural Inspection

- Town House Developments
- New Residential Dwelling
- Renovations and Additions
- Retaining Structure
- Concrete Footing Design
- Dilapidation Report



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Residential Projects include but not limited to following

9 Sylan Street Marsden Park NSW 2765



17 Bellflower Ave Schofields NSW 2762



16 Atkinson Street Marsden Park NSW 2765



3 Mellish Street Marsden Park NSW 2765



51 Floribunda Parade Marsden Park NSW 276



36 Culverston Avenue Denham Court NSW 2565





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b. Commercial



- Multistory Commercial Development
- New Commercial Buildings
- Commercial Fit-out and Alteration
- Structural assessment for compactus loads
- Development Applications

Commercial structures continue to focus on optimum space utilization along with providing an aesthetic appeal and serve a multitude of functions.

SpanCE provides solutions which encompass a wide range of requirements which are generally expected of a commercial structure along with ensuring an aesthetic appeal, serving the intended function and at the same time optimizing space utilization for maximum returns per square meter of area.

- Renovations and Additions
- Commercial Signage Design
- Commercial Awning Design
- Construction Certification
- Dilapidation Reports

Tafe Façade Wetherill Park



Australian Nuclear Science and Technology Organization ANSTO



Parramatta Council Stormwater Upgrade



Canterbury Bankstown Council Stormwater work





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c. Industrial



At **SpanCE** we understand that industrial structures are built to deliver comprehensive solutions that create the best outcomes at every stage. **SpanCE** provide structural engineering design for various industrial projects from small to large size.

- Industrial Building Concrete Structure
- Industrial Steel Structure
- Industrial Warehouse
- Monorail Design
- Crane Beam Design

- Structural assessment for load rezoning
- Building Structural Inspection
- Construction Certification
- Dilapidation Report



Sydney Water Monorail Design



36 Ton Drum Screen Support at SUEZ



Stability Check of Stack 2 at water Treatment Plant SUEZ

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6. SERVICES

a. Structural Design Services

Our structural engineers are Chartered Professional Engineers (CPEng), National Professional Engineers Register (NPER) and skilled designers in concrete, steel, timber and masonry structure. Consulting our team will lead to innovative yet simple design solutions that are buildable and cost effective.

- Concrete Framed Buildings
- Steel Framed Buildings
- Post-tensioned Concrete Buildings
- Precast Concrete Buildings
- Concrete Swimming Pools
- Load Bearing Masonry Buildings
- Façade Design Including Glass Steel and Aluminum Design
- Cold Formed Steel and Aluminum Product Specifications
- Structural Documentation and Certification
- Structural Feasibility Study
- Structural Inspection Services
- Engineering Drafting Services

b. Inspection Services

SpanCE provides engineering and building diagnostic services to Building Strata, Property Management Service Industry, Construction Industry and Private Property Owners. Our business is about forensic engineering and finding innovative solutions to buildings that have deterioration, damage, stability, durability and permeability problems.

- Design Check and Certification of Temporary Structure
- Design Check and Certification of Permanent Structure
- Pre-purchase Structural Inspection Report
- Structural Defect Report
- Structural Feasibility Report
- Dilapidation Report
- Structural Adequacy Report



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7. STRUCTURAL DAMAGE

a. Steel Corrosion / Rust Damage



Steel is popular in construction industry for its strength, construction simplicity, time and cost benefits. Despite its benefits, steel has a major problem of corrosion. It corrodes in almost all environments. The rate of corrosion and rust damage depends on the type of environment. For comprehensive professional report, please contact Span Consulting Engineers on (02) 9633 2280 (o) or 0413 789 639(M).

b. Cracking of wall



Masonry walls are used in almost all low-rise buildings. Either they are used as primary structural element or partition walls. Cracking of masonry wall is one of the most common problems in Australia. There are number of different reasons for cracking of walls. Most common reasons are reactive clay type and ground movements, corrosion of reinforcement used in the wall, under designed footing, etc... For comprehensive professional report, please contact Span Consulting Engineers on (02) 9633 2280 (o) or 0413 789 639 (M).

c. Tree root damage



When masonry building is situated near a big tree, it is susceptible to get damaged by the tree roots. Often serious damage is caused by tree roots which could mean thousands of dollars in repair costs to buildings, foundations, backyards, pavements and plumbing systems.

For a comprehensive professional report, please contact Span Consulting Engineers on (02) 9633 2280 (O) 0413 789 639 (M).



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d. Concrete Spalling



Concrete Spalling is caused when the steel reinforcement within a concrete slab begins to rust. As steel rusts it can expand 5 to 7 times its original size causing the surrounding concrete to crack and become flaky. As the steel pushes the concrete away, more water gets to the steel expediting the process. The process is often referred to as concrete cancer. For comprehensive professional report, please contact Span Consulting Engineers on (02) 9633 2280 or 0413 789 639 (M).

e. Dilapidation report (Building condition report)



A Dilapidation report is an inspection carried out, at a specific point in time, in order to assess the condition of a building, land and/or property prior to proposed building or infrastructural work. The report is generated through photographs and observation and contains text describing the condition, identifying any defects and damages. For comprehensive professional report, please contact Span Consulting Engineers on (02) 9633 2280 or 0413 789 639 (M).

f. Removal of wall



Majority of existing houses are based on old architectural concept having numerous walls, dividing the house in to different areas for privacy purposes. Opposed to that, the new architectural concept of open living area requires removal of these walls to convert the house interiors in to open area. For comprehensive professional report, please contact Span Consulting Engineers on (02) 9633 2280 or 0413 789 639 (M).



PERSONNEL PROFILE

Swetal Shah (Principal Engineer)

Swetal Shah | Principal Engineer

Qualifications

BE(Civil)
ME (Struct) (Distinction)
Diploma in Business Management
CPEng NER APEC Engineer IntPE (Aus)

Affiliations

Member Institute of Engineers, Australia Chartered Professional Engineer (Structural) (CPEng) National Engineering Register (Structural) (NER) Member of Master Builder Association Australia (MBA)



Career Overview

Swetal has completed Master of Engineering Degree from University of Technology Sydney with Distinction in 2003. Prior to completing Master Degree, he has completed Bachelor of Engineering Degree in Civil and Diploma in Business Management from Sydney Australia.

Swetal has total 23 years with 18 years of local experience in Sydney, ranging from 100K to multi-million-dollar projects within public and private sectors. His involvement in the project from start to finish enabled him to understand the design and on-site buildability and simplifying the construction process. This experience helped him to deliver cutting edge solutions whilst achieving architectural intent within budget and time.

Early in his career, he worked five years on-site as Project Manager for multistoried projects and worked as Government approved contractor for Public Works Department helped him to gain on site construction experience which has reinforced his engineering design expertise.

In the past, Swetal has been associated as senior structural engineering consultant with AECOM, Meinhardt, Henry & Hymas, K.F. Williams, Bonacci Group, Sinclair Knight Merz (now Jacobs), Bonacci Rickard etc...

Swetal is fluent with following engineering software: RAPT, Stand7, RAM Concept, RAM Struct System, Etabs, Microstran, Spacegass, AutoCAD.

Swetal is currently providing structural engineering consulting services for Span Consulting Engineers Pty Ltd. Span Consulting Engineers Pty Ltd (SpanCE) is providing structural engineering design and certification for Residential, Commercial and Industrial projects. SpanCE's current clients ranging from Architects, Builders, private clients to government bodies. For example, various councils, Department of Education, Sydney water, Suez, etc.

In recent years, Swetal has been involved in multiple place of worship projects where he has developed understanding on the various ritual requirements for the temple and importance of developing solutions to accommodate them and making sure the structural designs comply with local Australian Standards. Swetal has developed structural system where there is no use of ferrous material or steel reinforcements for such projects.

Project experience

- Community Building and Hindu Temple Girraween, Sydney (Vitraag Jain Shwetamber Sangh Sydney Inc.) (10M): Complete structural design of Traditional Stone Masonry Temple Structure without using any steel elements to comply with traditional temple requirements. Swetal has also designed a two storied prayer hall for 1000 people capacity. Swetal has been a link between Indian Sompura (Architect) and Australian Architect / builder. Swetal has been coordinating traditional stone building design with Sompura and regularly visiting Makrana, Rajasthan for quality control of the stone carving and for scheduling the stone delivery according to the construction stages.
- Hindu Temple Moorabbin Melbourne (Melbourne Shwetambar Jain Sangh Inc MSJS): (10M) Complete structural design of Traditional Stone-Masonry Temple structure. Swetal has been coordinating project with Indian Sompura (Architects) to understand the ritual requirements to accommodate in the Temple Structure.
- City of Parramatta Council: Upgradation of Existing Storm water at Carlingford. Engineering design service for 60m of Box Culverts and 150m of Gabion wall works.

Canterbury Bankstown City Council:

- Design, Certification and Safety Inspection for Storage Racks for Roseland Depot, Greenacre Depot and Panania Depot.
- Addition and alteration at Sefton Golf Course.
- Design and certification of multiple stormwater pits and connections to Sydney Water Services.
- Retaining wall/ Bus zone upgrade at Bankstown City Garden
- Stormwater Culvert Upgrade at Uranus Rd Padstow.
- Retaining walls at Christina Rd Chester Hill.
- Parking Bay and retaining walls at Lang St Padstow.
- Canterbury Bankstown City Council: Design and Certification on Sydney Water Culvert Design
- Prospect Water Treatment Plant (SUEZ): SpanCE has been involved in number of projects for this site.
 - Design and certify steel structure to lift 35 ton of water screening wheel for the major maintenance work.



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- Structural stability checks on East West Silo.
- Structural stability checks for stack 2 at water treatment plant.
- Sydney Water West Camden Biosolids Treatment Plant: 2tonne Monorail design for equipment handling
- Department of Education: Addition & Alteration of Schools.
 - Alstoneville High School
 - Tweed River High School
 - · Kingcliff High School
 - Evan River Community School
 - South Grafton High School
- Place of Worship (ISKCON Temple North Sydney) Swetal has been involved in alteration & addition of the existing Temple Structure to accommodate additional facilities for increased number of visiting devotees. Alteration & Addition to existing temple structure and complete design and certification of the new steel shade structure. Swetal has been dealing with their building committee to provide best solution for their renovation work.
- Place of Worship (Digambar Jain Temple Seven Hills Sydney): Complete design and certification of the additional steel floor to accommodate more facilities to the existing Temple. Swetal has work with the managing committee to accommodate these additional facilities in existing warehouse structure.

Industrial Warehouse Design:

- Unit 7/15 Tucks Road Seven Hills NSW 2147
- Unit 30/160 Gilba Road Girraween NSW 2145
- Schweppes Warwick Farm steel structure.
- Access Platform Design (Master Fabrications)
- SUEZ Prospect Water Treatment Plant

Commercial:

- Shop 39 Station Street Wentworthville NSW 2145
- 13 Joyce Street Pendle Hill NSW 2145
- Three Pedestrian Bridges Stephen Edward Constructions.

* Residential

- Swetal has been involved in about 200 residential projects in last two years.
- The Following are a few other projects that Swetal has completed.
 - Blacktown TAP: Swetal has been involved in design of new link bridge between existing station and Richmond node. He has developed strand 7 models for the bridge and carried out design for lateral stability and involved in detail design of the bridge component i.e. pile caps, bridge pier, hollow core plants etc...
 - Cerberus HMAS: This was a defense job in Victoria. The project
 was to extend the training facility in their existing HMAS site. He has
 designed Dynamic Leak Stop Repair Unit (DLSRU) & Gas and Dieses
 Fire Fighting Unit (GDFFU). Swetal was looking after three engineers
 and four draftees
 - Madeira Street Sylvania \$10M QY Group: Coordination and design of complete project with Architect and builder from Concept to Construction Stage.
 - Travel Lodge 7M Paynter Dixon: Coordination and design of steel roof and PT slab system.
 - Flinder Centre Bankstown \$25M Paynter Dixon:
 Coordination, design and managing 10 storied office building over the four-storied car park building.

- Residential Apartment 10M Calder Flower Architect):
 Coordination, design and managing full project from concept to construction stage.
- Norwest Private Hospital (Façade HPI Architect): Project comprises façade detail design for the Building. Swetal has coordinated project with Architect and designed light weight steel structure to support Exotec Façade Panels for four storied structure.
- Oran Park Town Centre (\$40M) Greenfield Development) Project comprises three storied retail + commercial building with one basement parking and adjacent public road structure.
- Pacific Point Apartments (\$20M Denham Constructions) Project comprises 13 storied residential + 3 storied basement parking.
- Northpoint Tower Façade, Lovington Zauner Constructions: I have designed and signed off entire Glass + Aluminum Façade for five storied residential building.
- Australia Post Distribution Centre Alexandria Adco Construction
 it was two large steel warehouse structure with approximate
 10,000m2 area each. I have designed all the steel structure including
 90m propped portal frame and slab on ground.
- Australia Towers, Sydney Olympic Park \$80M Billbergia Group: It
 is 24 storied residential + commercial building. I have carried out
 design of footings, all vertical elements, PT floors including transfer
 floor using RAM Concept.
- 4-14 Merriwa Street & 3 22 McIntyre Street Gordon (\$55M MERITON): It includes couple of nine storied residential buildings. I have looked after this project from preliminary design stage to the final construction stage.
- 118 Alfred Street Milsons Point \$ 35M Australand St Hilliers I have managed this 15-storied building from preliminary design to construction stage.
- Project: Bobbin Head Marinas \$5M Empire Marinas: The Bobbin Head Empire Marina has 165 floating marina berths and 44 swing moorings along with a boatshed and service facilities. This project comprises an extension of existing car park, pedestrian access facilities, a steel shed, hardstand and finger piers for travel lift to replace the existing slipways.
- Recycling Water Treatment Plant Rouse Hill Sydney 5M John Holland: This project comprises design of Idals and Equalization Basin about 6 meters in height and combined about 150 meter long with additional detention tanks. I had also been involved in the development of Finite Element Model in Strand 7.
- The Dalgety Townsville 30M Parkview Construction: This project comprises 21 levels of residential floors in Townsville and separate 9 levels of a car park building.
- Cammeray Apartments (A.V. Jennings) (Project cost AUS\$ 16M):
 This project comprises 69 residential apartments, which includes two levels of basement parking, ground and three levels of residential floors with structural steel roof.
- 21 Knowlman Avenue Pymble \$15M Genesis Prime
 Development: The project comprises 12 two storied brick houses
 with one floor conventional concrete slab and the second floor
 designed with Ultrafloor slab system.
- Caroma Industry Warehouse \$15M St Hilliers Construction: It is a large industrial steel shed with one level of basement, gate house and inbuilt office area. It has 58m spanned 22 steel portal frames at about 9m spacings.



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9. Our Clients

We have created long lasting relationship with many clients including but not limited to followings.



10. Our Association

We are Chartered Professional Member of Engineers Australia and Registered NER Engineers. We are also a member of Master Builder Association.







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11. CONCLUSION

Span Consulting Engineers (**SpanCE**) are constantly working towards the goal to achieve practical and yet economical – cost effective design solution. We provide tailored design solutions to suit site condition and consider buildability.

SpanCE works on very competitive price with the quality of service. We always look forward to help our customers even after design phase to sort out any onsite problems during construction. When combining above, SpanCE comes very close to providing unbeatable value. Our engineers are always available to provide design solutions and meet with our potential clients without any initial cost, which will then enable us to readily provide a fair estimate for the work involved.

Our designers are motivated to apply innovative principles and incorporate new products & materials. Developing buildable and cost effective design solutions for clients is a result of our high value engineering standard, designing in safety and constructability.

If required, we would be pleased to meet clients to discuss our services further. Should you wish to discuss our submission further or if you require any further assistance please do not hesitate to contact the undersigned.

We very much look forward to your response with the view of helping to facilitate the successful delivery of projects.

Yours Sincerely,
Swetal Shah
Principal Engineer
BECivil, MEStruct MIEAust CPEng NER APEC Engineer INTPE(Aus)







Span Consulting Engineers Pty Ltd (trading as Span Consulting Engineers-SpanCE)

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- ✓ STRUCTURAL ENGINEERING DESIGN
- RESIDENTIAL, COMMERCIAL, INDUSTRIAL PROJECTS
- CONCRETE AND STEEL STRUCTURE
- ▼ FACADE ENGINEERING DESIGN
- CONSTRUCTION DOCUMENTS
- ✓ BUILDING INSPECTION REPORT
- ✓ STRUCTURAL CONDITION REPORT
- ✓ DILAPIDATION REPORT
- ✓ PRE-PURCHASE INSPECTION REPORT
- **▼** BUILDING DIAGNOSTICS
- DRAFTING SERVICES



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