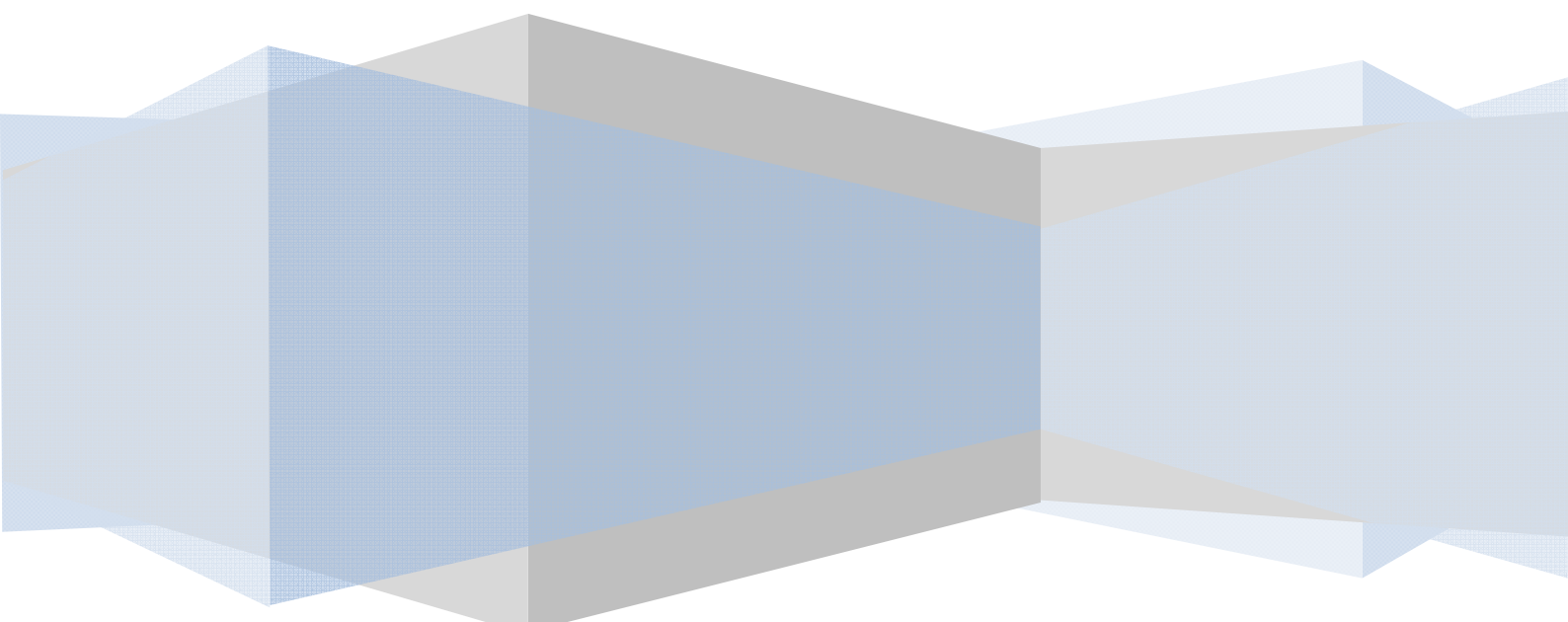


# **NSP** Geotechnics Pty Ltd

## **Capability Statement**



**NSP Geotechnics Pty Ltd** ABN 48 340 751 834  
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## BACKGROUND

**NSP Geotechnics Pty Ltd** is a small consulting engineering group specialising in the geotechnical aspects of civil engineering, construction and development projects.

NSP Geotechnics' senior personnel and founding partner comprise Mr Peter Noonan, a Principal Geotechnical Engineer with over 30 years experience in the geotechnical field. Mr Noonan's experience also includes 12 years with BFP Consultants and more recently Coffey Geotechnics since their acquisition of BFP Consultants. Curriculum Vitae for Mr Noonan is attached for information.

The principal geotechnical services provided by the group are:

- Pavement Analysis and Design
- Subsurface Investigations
- Contamination Assessments
- Foundation Analysis and Design
- Contract Documentation, Tender Evaluation and Construction Supervision

The group employs senior personnel with considerable Australian and overseas experience in the geotechnical consulting field, and has primary aims of maintaining high technical standards whilst ensuring the timely and efficient completion of assignments.

Clients include major Australian engineering consultants, contractors, developers and government authorities.

# GEOTECHNICAL SERVICES

NSP Geotechnics provides expertise in:

## PAVEMENT ANALYSIS AND DESIGN

Analyses and designs, including back analysis of existing pavement profiles and specification preparation, can be provided for:

- road pavements
- heavy duty container terminal and airfield pavements of either concrete, block or flexible construction
- special purpose pavements

## SUBSURFACE INVESTIGATIONS

Investigation techniques include geological mapping, test pitting, drilling and static cone testing for:

- domestic, commercial and industrial structures
- bridges, retaining structures and marine facilities
- roads, airfields, container terminals and railways
- sub-divisional developments
- development of landfill and quarry backfill sites
- borrow source evaluations
- mining infrastructure development

## FOUNDATION ANALYSIS AND DESIGN

The subsurface data may be utilised to provide:

- geotechnical design for buildings and structures
- evaluation of settlement characteristics
- assessment of the causes of foundation movements in expansive soils
- assessment of contaminant levels and recommendations for remedial measures
- analysis for retaining structures
- design of soil and rock anchoring systems
- groundwater dewatering

## **CONTAMINATION ASSESSMENTS**

Investigation and assessment of sites using documented protocols and techniques to evaluate:

- potential or existence of contamination
- significance with respect to proposed usage
- necessity and/or methods for remediation.

## KEY PERSONNEL

***Peter Noonan***

Peter is the principal geotechnical engineer within the Melbourne office responsible for general operations and development of the group.

Technical and fee proposals, including detailed curriculum vitae where appropriate, can be provided for any geological or geotechnical engineering services that may be required for civil engineering or mining projects.

# NSP Geotechnics Pty Ltd

Peter J Noonan

Principal Geotechnical Engineer

## SUMMARY

Mr. Noonan jointly founded NSP Geotechnics in 2008 following employment with Coffey Geotechnics since 2005 following the acquisition of BFP Consultants and has thirty years experience in geotechnical engineering for a variety of projects, including structural foundations, pavement investigations and design and contaminated site investigations and analyses.

## Qualifications

- B.E. (Civil), Swinburne Institute of Technology, 1990

## Professional Affiliations

- Member, Institution of Engineers, Australia

## Area of Expertise

- Foundation Investigation & Design
- Pavements Investigation and Design
- Contamination Site Investigations and Analysis

## Appointments

- 2008 – Current – **NSP Geotechnics**, Principal Geotechnical Engineer
- 2005 - 2008 – **Coffey Geotechnics (following acquisition of BFP Consultants Pty Ltd), Melbourne**, Associate Geotechnical Engineer
- 1993 - 2005 - **BFP Consultants Pty Ltd (formerly Barrett, Fuller & Partners), Melbourne**, Manager Civil/Geotechnical Section
- 1991-92- **Dames & Moore, Darwin**, Geotechnical Engineer
- 1989 - **Minenco, Melbourne**, Trainee Engineer (6 months)
- 1988 - **Gutteridge, Haskins & Davey, Melbourne**, Trainee Engineer (6 months)

## Project Experience:

### Foundation Investigations

- **Bogong Power Station Development, Mt Bogong** Inspection and review of secant pile retaining wall and slope stability analysis for temporary bund wall
- **State Square Project, Darwin, Northern Territory**  
Foundation Certification.
- **Sappes Project, Alexandroupolis, Greece**  
Site investigation for proposed cross valley type tailings dam.
- **Tritton Copper Project, Girilambone**  
Site investigation for proposed tailings dam.
- **Yarra River, Melbourne**  
Geotechnical investigation for proposed Como and South Yarra landings.
- **East Devonport, Tasmania**  
Detailed geotechnical investigation for a proposed deep sewer line.
- **Barron River, Cairns**  
Geotechnical investigation including overwater drilling for scour analysis of the Barron River, Cairns.
- **Katherine Northern Territory**  
Investigation for sewerage pump station.
- **Misima Island, Papua New Guinea**  
Investigation for earth satellite antenna.
- **Cairns, Queensland**  
Investigation for large commercial development.
- **Darwin Harbour, Northern Territory**  
Detailed investigation including overwater drilling for proposed seawall.
- **Pine Creek, Northern Territory**  
Investigation for proposed waste dump site including permeability testing.
- **Northern Territory University, Darwin Northern Territory**  
Foundation inspection and certification
- **Lihir Island, Papua New Guinea**  
Borehole core logging for proposed mine infrastructure.
- **Penna, Tasmania**  
Foundations investigation for proposed reservoir.
- **Maribyrrnong, Victoria**  
Numerous foundation investigations and pavement designs for ongoing extensions to the Highpoint Shopping Centre.
- **Melbourne, Victoria**  
Investigation for numerous McDonalds Family Restaurant developments within Victoria.
- **Melbourne, Victoria**  
Numerous Investigation and Design of proposed multi-storey buildings within the CBD .
- **Broadmeadows, Victoria**  
Investigation for proposed extension to the Broadmeadows Shopping Centre.
- **Browns Creek Mine, New South Wales**  
Investigation for proposed mine plant.
- **Werribee, Victoria**  
Investigation for proposed redevelopment of the Werribee Zoological Park.
- **Puckapunyal, Victoria**  
Foundation investigation and certification for proposed buildings at the Puckapunyal Army Base.
- **Shepparton, Victoria**  
Foundation investigation for proposed extensions to the Goulburn Valley Base Hospital.
- **Melbourne, Victoria**  
Site investigation and foundation design for numerous commercial residential and industrial developments.

### Roadworks/Earthworks

- **Kakadu National Park, Northern Territory**  
Pavement and road subgrade investigation.
- **Pine Creek, Northern Territory**  
Subgrade investigation for realignment of Stuart Highway.
- **Timber Creek, Northern Territory**  
Subgrade investigation for widening of Victoria Highway.
- **Litchfield National Park, Northern Territory**  
Pavement and subgrade evaluation of roads.
- **Darwin, Northern Territory**  
Pavement and subgrade investigations for various roads within the Darwin area.
- **Cairns, Queensland**  
Earthworks supervision for site development.
- **Port Moresby, Papua New Guinea**  
Materials testing laboratory manager for PNG Department of Works.
- **Newcastle waters, Northern Territory**  
Pavement investigation for airstrip upgrading.
- **Burnie, Tasmania**  
Subgrade investigation for proposed new access road.

- **Monageeta, Victoria**  
Subgrade investigation and pavement design for proposed braking test pavements at the Army proving ground.
- **Melbourne, Victoria**  
Subgrade and pavement investigation and design for numerous roads, carparks, service stations and airstrips.

## Geotechnical / Contamination

- **Melbourne, Victoria**  
Geotechnical investigation and contamination assessments for numerous proposed and existing service station sites.
- **Devonport, Tasmania**  
Geotechnical Investigation of an active landslip.
- **Adelaide, South Australia**  
Contaminated site investigation of paint manufacturing site.
- **Port Melbourne, Victoria**  
Geotechnical Investigation including slope stability analysis for proposed Pier 35 Development.
- **Leitchville, Victoria**  
Preliminary geotechnical investigation for proposed waste water disposal lagoons.
- **Olympic Dam, South Australia**  
Laboratory testing of mine stope backfill materials for optimisation purposes.

## Formed NSP Geotechnics

- 2008

## Experience

- 17 years

## Year of Birth

- 1968

## Nationality

- Australian



## COMMERCIAL

Site	Involvement
25 Little Bourke Street, Melbourne, Vic.	SI for 12 storey office development over Silurian mudstones.
254 Queen Street, Melbourne Vic.	SI for 15 storey office development on Tertiary basalt over Silurian mudstones.
365 Queens Street, Melbourne, Vic.	SI for 15 storey office development over Tertiary basalt.
8 Dorcas Street, South Melbourne, Vic	SI for 17 storey office development over Silurian mudstones.
Cameron Street, Launceston, Tas	SI for 8 storey hotel development over Tertiary sediments.
189 Sturt Street, South Melbourne, Vic	SI for medium level office development over Quaternary alluvium.
Kings Place, South Melbourne, Vic	SI for medium level office development over Quaternary alluvium.
75 Brady Street, South Melbourne, Vic	SI for Ambulance Workshop over Quaternary Alluvium.
Lorimer Street, Port Melbourne, Vic	SI for Portside Office project over Quaternary alluvium.
Jamieson Street, Cheltenham, Vic	SI for multi storey medical centre over Tertiary sands.
Dodds Street, Melbourne, Vic	SI for medium level office development over Tertiary basalt.
Toorak Road, South Yarra, Vic	SI for medium level office development on Tertiary sediments over Silurian mudstones.
Beaconsfield Parade, St Kilda, Vic	SI for 8 storey development over Silurian mudstones.
Tullamarine Airport, Vic	SI for extensions to International and Qantas Terminal Buildings over Quaternary basalt. (multiple projects)
Bridge Road, Richmond, Vic	SI for multi-level hotel and office complex over Quaternary basalt.
25 Queens Rd, South Melb, Vic	SI for 8 storey residential complex on Tertiary sediments.
222 Russell St, Melbourne, Vic	SI for 18 storey mixed development on Silurian mudstones.
Burnie, Tas	SI for newspaper complex on Tertiary sediments.
Paterson, St, Launceston, Tas	SI for 6 storey carpark on Tertiary sediments.
Spreyton, Tas	SI for new UMT complex

## COMMERCIAL/RETAIL

Site	Involvement
Castlemaine, Vic	SI for Loddon Regional Prison over Shales.
Wangaratta, Vic	SI for proposed police station complex over Alluvium.
Portland, Vic	SI for Municipal offices extension over Limestone.
Caulfield, Vic	SI for Municipal Offices extension over Tertiary sediments.
Maryvale, Vic	SI for Latrobe Private Hospital over Tertiary sediments.
TSIT, Launceston, Tas	SI for extensions to college over Tertiary sediments.
Schintler Reserve, W.Melb, Vic	SI for proposed lighting towers on Fill over Quaternary alluvium.
Western Institute, Werribee, Vic	SI for new university campus over Basalt.
Monash University, Clayton, Vic	SI for extensions to engineering school over Tertiary sediments.
Monash University, Caulfield, Vic	SI for new business school over Tertiary sediments.
Diamond Creek, Vic	SI for new community centre on Fill over Quaternary alluvium.
Dynon Road, Footscray, Vic	SI for waste transfer station on Fill over Quaternary alluvium.
Forest Hill, Vic	SI for Stage 2 development of shopping complex over Silurian mudstones.
Synott Street, Werribee, Vic	SI for new shopping complex over Quaternary Basalt.
Broadmeadows Railway Station, Vic	SI for redevelopment of station over Quaternary Basalt.
Chadstone, Vic	SI for upgrading and extensions to carpark.
Endeavour Hills, Vic	SI for extension to shopping complex on Fill over Devonian sediments.
Hogans Road, Werribee, Vic	SI for new retail development over Quaternary Basalt.
Waverley Gardens, Mulgrave, Vic	SI for extensions to shopping complex over Tertiary sediments.
Maribyrnong, Vic	SI for extensions to shopping complex located within old quarry workings.
Broadmeadows, Vic	SI for extensions to shopping complex over basalt.
Prospect, Tas	SI for new shopping centre.

## LANDFILL

Site	Involvement
Harper Street, Abbotsford, Vic	SI for Commercial development over backfilled creek containing random fill.
Plenty Road, Reservoir, Vic	SI for Commercial development over backfilled pit containing random fill.
Bell Street, Preston, Vic	SI for Industrial development over backfilled quarry containing random fill.
Bendigo, Vic	SI for Commercial development over mine tailings.
Bendigo, Vic	SI for Residential development over mine tailings.
Barkly Street, Brunswick, Vic	SI for Residential development over backfilled quarry containing random fill.
Hume Highway, Campbellfield, Vic	SI for Commercial development over backfilled quarry containing compacted fill.
Hallam Road, Hallam, Vic	SI for Commercial development over backfilled pit containing random fill.
Dawson Street, Brunswick, Vic	SI for playing field and grandstand over backfilled quarry containing random fill.
Gipps Street, Abbotsford, Vic	SI for Commercial development partly over backfilled creek containing random fill.
Field Street, Clifton Hill, Vic	SI for residential development on backfilled quarry.

## INDUSTRIAL

Site	Involvement
ANM, Boyer, Tas	SI for proposed TMP Complex on Fill over alluvium.
ANM, Boyer, Tas	Pile load testing on existing warehouse over River bed alluvium.
ANM, Boyer, Tas	SI for proposed co-generation project over alluvium.
EZ, Risdon, Tas	SI for Zinc Purification Plant over Dolerite.
Comalco, Bell Bay, Tas	SI for proposed Baking Furnace over Tertiary Basalt, plus inspection of bored piers.
ANI, Bell Bay, Tas	SI for proposed Wharf on Fill over Tertiary sediments.
GMH, Dandenong, Vic	SI for proposed Paintshop over Tertiary sediments.
Cabot, Altona, Vic	SI for proposed Bulk Silo Complex over Basalt.
GEB, Geelong, Vic	SI for Transfer Terminal over Tertiary sediments.
Monier, Heybridge, Tas	SI for Silica Benefication Plant over Shales.
Tioxide, Heybridge, Tas	SI for Evaporative Concentration Plant over Shales.
APPM, Wesley Vale, Tas	SI for Effluent Treatment Plant over Tertiary Basalt.
Victoria Dock, Melbourne, Vic	SI for proposed slipway on Fill over Quaternary and Tertiary Basalt.
Gellibrand Pier, Williamstown, Vic	SI for proposed pier reconstruction on Quaternary sediments over Tertiary Basalt.
ASTA, Port Melbourne, Vic	SI for extensions to plant on Fill over Quaternary sediments.
Douglas Parade, Newport, Vic	SI for Oil Terminal upgrade over Tertiary Basalt.
Goliath Cement, Railton, Tas	Consultations re excavation stability in Residual limestones.
Comalco, Bell Bay, Tas	SI for proposed Dry Scrubber Unit on basalt.
Burnie, Tas	SI for proposed new wharf on phyllites
Georgetown, Tas	SI for proposed medium density fibreboard plant.
Comalco, Bell Bay, Tas	SI including seismic studies for proposed potline on variable basalt profile.

## PAVEMENTS

Site	Involvement
Naracoorte, SA	Evaluation of existing airfield pavement on calcareous sands/clays.
Geelong, Vic	Investigation for new airport at Lovely Banks over basaltic clays.
Tullamarine, Vic	Investigations for proposed airport pavement extensions over basaltic clays.
Footscray, Vic	Investigation/design for V/Line container terminal upgrade, Dynon Yard on fill over Quaternary alluvium.
Footscray, Vic	Investigation for V/Line container terminal upgrade, South Dynon Yard on fill over Quaternary alluvium.
Melbourne, Vic	Benkelman Beam testing to evaluate pavement, V/Line No. 4 Shed on fill over Quaternary alluvium.
Brooklyn, Vic	Evaluation of heavy duty pavements over basaltic clays.
Altona, Vic	Investigation, design and documentation of road pavement upgrade on basaltic clays.
Footscray, Vic	Investigation of backfill gasometer base beneath heavy duty pavements on fill over Basalt.
Victoria Dock, Melbourne, Vic	Investigation and design for heavy duty pavements on fill over Quaternary alluvium.
Footscray, Vic	Investigation and design for container pavement over alluvium.
Dunk Island, Queensland	Evaluation of stabilization techniques for pavement upgrade on sands.
BHP, Westernport, Vic	Investigation and design for steel handling pavement over alluvium.
Mayne Road, Port Melbourne, Vic	Investigation and design for container pavement over alluvium.
Webb Dock 1 & 2, Port Melbourne, Vic	Investigation and design check of existing pavements over alluvium.
North Parkes, NSW	Design of underground pavements for mine traffic.
Station Street, Fairfield, Vic	Benkelman Beam testing of road pavements.
Shire of Corio, Vic	Benkelman Beam testing of road pavements.

## CONTAMINATED SITE ASSESSMENT

<b>Site</b>	<b>Involvement</b>
Wattyl Paints, Footscray	Numerous contamination assessments to detect location and extent of previous contamination for the removal of underground storage tanks.
Collingwood Nursery, Collingwood	General contamination assessment for EPA acceptance of proposed development of the site.
Mobil Service Stations Box Hill, Chelsea, Rye, Endeavour Hills, Bentleigh & Moorabbin. Merindah Avenue, Sandringham	Contamination assessment of underground tank backfill for underground tank replacement.  General contamination assessment for proposed subdivision.
Alamein School, Alamein	General contamination assessment for proposed new subdivision.
Mitsubishi, Heidelberg	Contamination assessment of subsurface materials to allow removal of spoil to landfill in accordance with EPA regulations.
Comalco, Bell Bay, Tasmania	Contamination audit of the encapsulation project.
Stephenson Toyota, Launceston	General contamination assessment for proposed redevelopment.
Albert Park Golf Course, Victoria	Contamination assessment of spoil materials to allow removal of landfill to EPA standards.
Best Street, Devonport, Tasmania	Contamination assessment of site for proposed restaurant development on former service station site.
Ministry of Housing, Caulfield	Contamination assessment for proposed residential development on former incinerator site.
ICI, Yarraville	Contamination assessment of subsurface materials to allow removal to landfill in accordance with the EPA standards.
Burnley Street, Richmond	General contamination assessment for proposed site development.
Telecom Depot, Geelong	General contamination assessment for EPA approval of site redevelopment.

## WATER SUPPLY/WASTE WATER (VIC)

Site	Involvement
Gisborne, Vic	SI for proposed water supply tanks.
Gisborne, Vic	Geotechnical Investigation for proposed new water supply pipelines.
Moonee Ponds, Vic.	Geotechnical Investigation for proposed new sewer pipeline.
Turner Street, Port Melbourne	Geotechnical Investigation proposed realignment of sewer pipelines.
Albion Street, Brunswick	Geotechnical Investigation for proposed new sewer alignment
Castlemaine, Vic	Geotechnical investigation for proposed new sewerage treatment lagoons.
Stoney Creek, Vic	Geotechnical Investigation for proposed sewer diversion.
Balnarring, Vic	Geotechnical investigation for proposed new sewer and pump station to service township.
Maldon, Vic	Geotechnical Investigation for proposed new sewer reticulation scheme servicing the township.
Koroit, Vic	Geotechnical Investigation for proposed new sewer reticulation scheme servicing the township.