

TAYLOR CONSTRUCTION GROUP PTY LTD



Salinity Management Plan

11-13 Mannix Parade, Warwick Farm NSW

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1. INTRODUCTION

1.1 Background

Taylor Construction Group Pty Ltd engaged EI Australia (EI) to prepare a Salinity Management Plan (SMP) for 11-13 Mannix Parade, Warwick Farm ('the site').

Located 26km west of the Sydney central business district, within the Local Government Area of Liverpool City Council (**Figure A.1, Appendix A**), the site covers a total area of 1,283.6m² (**Figure A.2, Appendix A**). At the time of drafting this SMP it was comprised of two residential properties.

Site investigations were completed as part of an environmental due diligence process, in accordance with *State Environmental Planning Policy No.55 - Remediation of Land* (SEPP 55), supporting an application to Liverpool City Council to redevelop the land for medium to high density residential use. The presence of saline soils was identified within the site, which subsequently required management during the proposed development.

1.2 Proposed Development

Based on the supplied survey and development plans (**Appendix B**), the proposed development involved demolition of the existing site structures, followed by the construction of a multi-storey, residential (apartment) building, overlying a single level basement. Construction of the basement required bulk excavation of soils across most of the available area, to depths of approximately 3m below ground level (BGL). Retained (deep) soil zones would occur along each of the site boundaries, for landscaping purposes.

1.3 Objective and Scope

The main objective of this plan is to outline appropriate procedures for the management of salinity during the disturbance (excavation and movement) of site soils. To achieve this objective, the scope of the plan includes:

- A review of relevant (hydro)geological, soil landscape and salinity maps for the project area, to determine the landform characteristics and regional setting of the site;
- Review of all previous reports relating to the site, focusing on any salinity-related findings, to determine the site-specific salinity characteristics;
- Review the proposed construction and management plans for the development, to identify the activities of risk that could result in adverse effects to the surrounding environment as a result of saline soils; and
- Detail measures for the management of saline soils during the development, in accordance with relevant legislation and standards.



1.4 Regulatory Framework

The regulatory framework considered for this SMP is identified in **Table 1-1**.

Table 1-1	Regulatory	Framework
	regulatory	i lancovort.

Legislation / Regulatory Instrument	Requirement
Contaminated Land Management Act 1997 (CLM Act 1997)	Promotes the effective management of contaminated land in NSW by setting out the roles and responsibilities of the EPA and the rules they use.
Environmental Planning and Assessment Act 1979 (EP&A Act 1979)	The EP&A Act 1997 stipulates the regulations and gives rise to state environmental planning policis, to assist regulators with the protection of human and environmental health.
Protection of the Environment Operations Act 1997 (POEO Act 1997)	The objective of the POEO Act 1997 is to achieve the protection, restoration and enhancement of the quality of the environment.
Water Management Act 2000 Water Act 1912	 Protects the health of rivers, streams and groundwater systems and gives rise to Water Sharing Plans and quality objectives for catchments within the state of NSW. Manages aquifer interference activities which involve: The penetration of an aquifer; The interference of water in an aquifer; The obstruction of water flow or taking of water from an aquifer when carrying out prescribed activities; and The disposal of water taken from an aquifer.
NSW Office of Water (2012) NSW Aquifer Interference Policy	Details the scope of aquifer interference activities and provides specific guidance on the licensing and approval requirements for activities that interfere with aquifers.
State Environmental Planning Policies	State Environmental Planning Policy No.55 - Remediation of Land Sydney Regional Growth Centres 2006.
National Protection (Assessment of Site Contamination) Measure 1999 / Amendment Measure 2013	Outlines methodology for contaminated land assessment and provides risk-based criteria for ecological and human health receptors of site contamination.
Liverpool City Council Plans and Policies	 Provides controls and guidelines for development in the area. Relevant to the site were: Liverpool Development Control Plan 2008; and Liverpool Local Environmental Plan 2008.
Relevant Guidelines	 DLWC (2002) Site Investigations for Urban Salinity. DIPNR (2002) Salinity Maps of Salinity Potential for Western Sydney and Guidelines to Accompany Maps. DPINR (2003) Building in a Saline Environment. DPI (2014) Salinity Training Manual. WSROC (2004) Western Sydney Salinity Code of Practice.



2. SITE DESCRIPTION

2.1 Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**. The site locality and layout are shown in **Figures A.1** and **A.2** (**Appendix A**).

Attribute	Description
Street Address	11-13 Mannix Parade, Warwick Farm NSW
Local Government Area and surrounds.	The site was located within the Local Government Area of Liverpool City Council. McGirr Parade lined the northern boundary and Mannix Parade lined the eastern boundary. Land use activities of the site and surrounds were predominantly residential.
Geographical Coordinates	 Geographic co-ordinates for north-eastern corner of site (GDA2020-MGA56): Easting: 308776.526 Northing: 6245619.639 (Ref: <u>http://maps.six.nsw.gov.au</u>)
Site Area	1,283.6m ² (Ref: site survey plan in Appendix B)
Site Owner	Taylor Construction Group Pty Ltd
Lot and Deposited Plan (DP)	 The site will result in the amalgamation of land legally identified as: Part of Lot 8 and Lot 26 in DP 36641 (11 Mannix Parade) Part of Lot 9 and Lot 27 in DP 36641 (13 Mannix Parade).
State Survey Marks	One state survey mark was situated on the corner of Mannix and McGirr Parades, being SS37185 (Ref: http://maps.six.nsw.gov.au)
Current Zoning	R4 – High Density Residential (Liverpool Local Environmental Plan 2008)
Current Land Use	Low density residential

Table 2-1 Site Identification

2.2 Regional Setting

The topography, geology and landscape information is summarised in Table 2-2.

Attribute	Description
Topography	The site surface is gently sloping to the north / north-east, with a surface elevation of 12.04 meters Australian Height Datum (AHD) in the north eastern corner, increasing to 13.27mAHD in the south western corner (site survey in Appendix B).
Site Drainage	Consistent with the general slope of the site, surface water is assumed to flow north-west, towards Brickmakers Creek. This creek drains to Cabramatta Creek, which ultimately discharges into the Georges River.
Regional Geology	The site was underlain by geological formations of the Wianamatta Group (Rwb), consisting of shale, carbonaceous claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff (DMR, 1991).
Soil Landscape	The site overlies a Blacktown (<i>bt</i>) resdidual soil landscape, characterised by gently undulating rises on Wianamatta Group shales. Typical landforms include local relief

Table 2-2 Regional Setting Information



Attribute	Description
	to 30m and slopes of <5%, and broad rounded crests and ridges with gently inclined slopes. Typical landscapes include cleared eucalypt woodland and tall open (wet sclerophyll) forests (Bannerman and Hazelton, 1990)
Acid Sulfate Soil (ASS) Risk	According to the Liverpool 1:25,000 Scale Acid Sulfate Soil Risk Map (Murphy, 1997) and Liverpool Local Environmental Plan 2008 1:20,000 Scale Acid Sulfate Soils Planning Map (Sheet ASS_010), the site lies within area where ASS are not known to occur. Therefore, no management of ASS was warranted.
Salinity Risk	With reference to the DIPNR (2003) <i>Salinity Potential in Western Sydney Map</i> , the subject site and its surroundings are in an area of <i>Moderate</i> ' salinity potential.
Hydrogeology	Groundwater is present within the porous, fractured shale bedrock and expected to be acidic, saline and of low to moderate productivity. A number of registered groundwater bores are identified within a 500m radius of the site, with the majority of these registered for monitoring purposes. The nearest registered bore was approximately 360m south-east of site; however, the use of this bore was unknown. No bores were registered for domestic or irrigation use, and drillers log information from the closest registered bores typically identified clay soil or silty sand to depths of 18.3-19.0m, underlain by siltstone (shale) bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur. Use of aroundwater is not proposed as part of the current development
Feature	Brickmakers Greek, located approximately 225m north-west of the site.



3. PREVIOUS INVESTIGATIONS

Investigations of site salinity were included in the following previous reports:

- JK Environments Pty Ltd (JK, 2020) Preliminary Site Investigation; 11-13 Mannix Parade, Warwick Farm NSW, for Taylor Construction Group (JK Report E33075BDrpt, dated 9 April 2020); and
- EI (2021) Additional Site Investigation; 11-13 Mannix Parade, Warwick Farm NSW (EI Australia Report E25074.E03.Rev1, dated 20 April 2021).

A summary of the key findings from each report is provided in **Table 3-1**.

Stage	Project Tasks and Findings
JK (2020) PSI	
Key Findings	The investigation included the drilling of seven boreholes (BH1-BH7) to a maximum depth of 1.7m BGL, with logging and sampling of soils to 1.6m BGL. The subsurface conditions of the site were generalised as a thin layer of filling material (0.3-0.5m BGL), overlying residual clays of low permeability and shale bedrock at depth. Laboratory analytical testing for pH, electrical conductivity (EC) and exchangeable sodium percentage (ESP) was performed on representative samples. The pH values ranged from 4.8 to 5.2, indicating (very) strongly acidic conditions. The soils were classified as mildly aggressively towards buried concrete, but non-aggressive towards buried steel. The EC results ranged from 76 μ S/cm to 250 μ S/cm (ECe all <2 dS/m). Given their clay-dominant texture, the soils to 1.6m were classified as non-saline. The ESP values ranged from 14.2% to 23.8%. The soils were subsequently classed as sodic to highly sodic.
Conclusion and Recommendation	The soils to <1.6m BGL (at least) were classed as non-saline, sodic to highly sodic and non-aggressive towards buried steel, though mildly aggressive to buried concrete. JK recommended that a salinity management plan (SMP) be prepared for the proposed development (i.e. to be implemented during the bulk excavation phase).
EI (2021) ASI	
Scope	Intrusive investigation was conducted on 30 March 2021, which involved the drilling of two boreholes, identified as BH1M and BH3M (Figure A.2, Appendix A). The bore logs are provided in Appendix C . A total of eight natural soil samples were obtained from the boreholes, to a maximum depth of 4m BGL (being 1m beyond the excavation depth of the proposed basement). The samples were analysed for pH, EC, soluble cations (sodium, potassium, calcium and magnesium), soluble anions (chloride, carbonate and sulfate), cation exchange capacity (CEC) and ESP. The analytical results are provided in Appendix D .
Key Findings	Based on the available data, the clay loams (BH3M) were non-saline; however, the sandy clays (BH1M) were of a saline nature, the strength of salinity increasing with depth. Of greatest concern was the moderate to high salinities observed for the sandy clays of BH1M, from depths greater than 3m BGL. Such depth was at, or just below, the depth of the proposed basement excavation. Consistent with the JK (2020) investigation findings, all soils (i.e. to 4m BGL) were classed as non-aggressive towards buried steel, but mildly aggressive to buried concrete. Susceptibility of soil to dispersion (i.e. sodicity) was estimated as ESP. All site soils were classified as highly sodic and thus prone to erosion (i.e. ESP >5%).
Conclusion and Recommendation	The sandy clays from 3m BGL onwards were classed as saline (as well as mildly aggressive to buried concrete and highly sodic). El agreed with the JK recommendation that a SMP be prepared for the proposed development.

 Table 3-1
 Summary of Previous Salinity Investigations



4. SALINITY MANAGEMENT FRAMEWORK

Site-specific investigations enable the determination of response levels required for the management of any salinity issues that may result from proposed works. The salinity management procedures prescribed by the Western Sydney Regional Organisation of Councils Ltd (WSROC, 2004) are outlined below. These will apply to the current site.

4.1 Salinity Indicators

Salinity is either a naturally occurring process or a result of human changes to ecosystems (DIPNR, 2005). Exposing saline soils can result in the release of an excess amount of salt into the environment, damaging ecosystems (particularly flora) and urban infrastructure. Typical indicators of salinity at a site are presented in **Table 4-1** below.

Table 4-1	Salinity	Indicators
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Building Indicators	Ecological Indicators
Crumbling of bricks and mortar (brick fretting) An accumulation of white salt crystals	An accumulation of surface water (waterlogged soil) High soil erosion and increased runoff "Buffingers" of dry soils or block iron steining
Bleaching of sandstone Breakdown of render or cement/concrete	Bare soil patches (with or without salt crystals) Clear waters
Efflorescence (of soil or building materials)	The presence of saline plants (e.g. spiny rush and sea barley grass)
	Yellow, stunted, wilting and/or dead vegetation, or distinct changes in vegetation growth

4.2 Level of Management Response for Salinity

For sites where salinity is identified to be a potential issue, a salinity response plan should be developed, to achieve an appropriate level of salinity resistance during development works. Three levels of management are outlined by WSROC (2004), summarised in **Table 4-2**. The response level for the current site is Level 3.

Level	Salinity / Development Requirements	Management Response
1	Small scale (single lot) developments involving low risk activities in areas of 'moderate' salinity, as defined by DIPNR (2002).	Implement the 'Level 1Response Checklist' which focuses on basic techniques and 'good house-keeping' to manage water and dampness.
2	Small scale (single lot) developments involving low risk activities in areas of 'high' salinity, as defined by DIPNR (2002).	Implement the 'Level 2 Response Checklist' which includes suggestions for varying building materials and techniques, with more stringent controls to manage water and dampness.
3	Multiple lot developments / rezoning in areas of 'moderate-high' salinity, as defined by DIPNR (2002), or for developments involving salinity risk activities ¹	Requires a SMP, detailing the site's response related to the proposed development, including controls to protect buildings and infrastructure (including roads and underground services) while maintaining the natural water balance of the surrounding environment.

Note 1 Salinity risk activities encompass quarrying, intensive agriculture, high levels of irrigation, infiltration to soil and/or groundwater from large, artificial water bodies, waste water re-use and/or treatment and major landscaping (including bulk excavations).



5. SALINITY MANAGEMENT STRATEGY

The site is located within an area of moderate salinity potential and intrusive investigations confirmed that moderate to high salinities are present within the sandy clay strata, at depths of and beyond 3m BGL. This SMP applies to such soils, to achieve an appropriate level of salinity resistance when the bulk excavation works reach the maximum prescribed (proposed) depth during basement construction.

5.1 Stormwater and Drainage

Overall, a low risk to surface water was identified. El expect standard surface water, sediment and erosion controls to be adequate for the management of salinity risk associated with the proposed development. These include:

- Implementation of measures to avoid the offsite migration of stormwater, as detailed by the site-specific stormwater management plans prepared by the client.
- Underground pipes carrying water or liquids such as on-site sewerage systems are to be properly installed, using rubber sealed pipes to minimise the risk of water leakage. Any existing pipes are to be checked for damage and any leaks repaired, to minimise infiltration.
- Basement infrastructure, concrete slabs, foundations and retaining walls should be designed and constructed with sufficient drainage to minimise water logging. The design and layout of retaining walls, driveways, and underground services should be constructed with good drainage and shall not impede natural groundwater flow. The design and construction of these features should meet the required standards and building codes, to ensure current best practice is achieved.
- On site guttering and down pipes for surface water management above ground for the final development should be properly connected to the municipal stormwater collection system, with adequate retention features installed (as required) and shall be regularly maintained.

5.2 Vegetation and Landscaping

Retained (deep) soil areas will surround the proposed new building and basement, to enable landscaping. The following measures apply to these parts of the site (i.e. the boundary lines):

- Areas of established vegetation should be maintained (where possible). In areas of deep soil, mulch should be used and the establishment of salt tolerant plants should be considered. Planting is recommended for the retained (deep) soil zones, to reduce any surface water infiltration.
- Landscaping plans should apply 'waterwise' gardening principles, which encourage the use of plants that have lower supplemental water needs and grouping plants by water needs to encourage more efficient water use. However, procedures designed to encourage excessive infiltration through the soil should be avoided.
- Irrigation systems should be properly installed to avoid leakage and smart sprinkler systems should be considered. In addition, watering of open space should be kept to a minimum and over watering must be avoided.

5.3 Construction

Construction activities should be undertaken in accordance with the requirements of the Liverpool DCP 2008, Liverpool LEP 2008 and DPINR (2003), as well as any other standards that may be relevant (e.g. Landcom 2004). El note for specific requirements for building in



saline environments, both the Building Code of Australia (BCA) and the Australian Standards (AS) relevant for the works should be referred to. With regards to salinity, the site-specific construction requirements should include (but not necessarily be limited to) the following.

5.3.1 Brickwork

- Exposure class masonry units and upgraded mortar classification (M4) should be utilised below the damp proof course.
- Consideration should be made to the use of salt resistant bricks and construction materials throughout the construction as a preventative measure for infrastructure degradation.
- Susceptible construction material, such as porous brickwork or lower quality materials should be avoided.
- Manufacturer's recommendations regarding the suitability for use in saline environments for all bricks and concrete blocks should be followed.

5.3.2 Concrete

- Class N32 concrete or type SR cement with water / cement ratio of 0.5 must be used, with reference to CCA Australia (2005) *Guide for Residential Slabs and Footings in Saline Environments*.
- Proper compaction of the concrete must be achieved.
- Proper curing procedures and duration (minimum 7 days).
- Ensure materials including sand and aggregate are suitable for site conditions.
- Concrete cover over steel reinforcement of minimum 50mm.
- Turbulence of any water flowing over a concrete structure should be minimised.
- For slab on ground construction, a layer of sand of minimum 50mm thickness must be provided under the slab, in accordance with BCA Clause 3.3.3.2.
- Appropriate sub-soil drainage must be installed for slabs, footings, retaining walls and driveways.

5.3.3 Damp Proof Course

- A damp proof course (DPC) should be installed beneath slabs and extend to the outside face of the external edge beam up the finished ground level, in accordance with BCA clause 3.2.2.6.
- Minimum lapping of 200mm at joints with appropriate sealing. Joint seals should be validated (i.e. via air lancing) to ensure satisfactory installation.
- Service penetrations shall be sealed with a close fitting sleeve (i.e. top hat with jubilee clip).
- The DPC materials should be in accordance with AS/NZS 2904 Damp-Proof Courses and Flashings.
- Once installed the DPC must not be breached by any later works or additions such as steps, verandas, walls, rendering, bagging, pointing, paving, or landscaping. Protective boards should be utilised where follow-on trades must work in an area where the DPC has been installed. The importance of the integrity of the DPC should be included within site toolbox talks to reduce the risk of damage.

5.3.4 Earthworks

- Areas of cut and fill should be restricted to the building /basement envelope.
- Appropriate measures are required to control stormwater and sediment resulting from road works or utility/service installation, in accordance with Landcom (2004) and any site specific management plans.



- Existing areas of waterlogging and poor drainage (if present) should be avoided or rectified, with consideration to shrink / swell hazards.
- Erosion / disturbance are to be minimised. Construction techniques should also minimise site disturbance and the exposure of sensitive soil material beyond 3m BGL.
- If extended periods of rain are forecast bare ground should be either:
 - covered with stable fill such are ripped sandstone; or
 - stabilised with lime proportioned to 3% by weight.
- The proposed excavations will expose acidic soils and may require treatment with lime or gypsum in order to make the soils suitable for plant growth.
- Soils designated for off-site disposal must be pre-classified in accordance with the EPA (2014) Waste Classification Guidelines. Saline soils cannot be classified / disposed / reused as excavated natural material (ENM), as defined under the EPA's Excavated Natural Material Order 2014.
- Imported soils (*if required*) should be non-saline.

Importation of Soil for Backfilling / Landscaping Purposes

Where soil is to be imported to the site, the material must be either virgin excavated natural material (VENM), or ENM.

In accordance with the *POEO Act 1997*, VENM must be 'natural material (such as clay, gravel, sand, soil or rock fines) that:

- Has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities; and
- Does not contain any sulfidic ores or soils or any other waste.'

The VENM must be accompanied by a validation certificate from the supplier which adequately certifies that the material is VENM.

In accordance with the *POEO (Waste) Regulation 2014*, ENM is naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that has:

- been excavated from the ground;
- contains at least 98% (by weight) natural material; and
- does not meet the definition of VENM in the POEO Act 1997.

ENM does not include:

- material located in a contamination hotspot;
- material that has been processed; or
- material that contains asbestos, actual or potential ASS, or sulfidic ores.

Assuming the material meets the above criteria, confirmation of the ENM classification is carried out by the comparison of contaminant concentrations against the thresholds presented in Table 4 of EPA's *The Excavated Natural Material Order 2014*.

Imported soil will be observed by a suitably qualified and experienced environmental consultant as it is delivered to site to confirm:

- That it appears consistent with the source; and
- That there is no visual or olfactory evidence of contamination such as staining, anthropogenic materials or odours.



In the case that discrepancies exist, the imported material will be refused entry to the site and not considered suitable for use until appropriately validated.

The appointed contractor will provide the Environmental Consultant with copies of dockets pertaining to imported fill soils to confirm the source, type and quantities of materials. These will be included in the validation report.

It is the responsibility of the receiver to ensure that the ENM:

- Meets all chemical and other material requirements as per the ENM Order 2014;
- Is only applied to land as engineering fill or for use in earthworks; and
- Is applied to land within a reasonable period of time after its receipt.

The receiver must keep a record of the quantity of ENM received and the suppliers' name and address for at least six years following receipt.

As part of the EPA resource recovery framework, resource recovery orders and resource recovery exemptions have been established which allow some wastes to be beneficially and safely reused independent of the usual laws that control the application of waste to land. Therefore, where the material is fit for purpose, chemically compliant with the proposed 'Residential A' land use scenario, and approved by the EPA, exempt material may be imported for use on-site.



6. STATEMENT OF LIMITATIONS

This plan has been prepared for the exclusive use of Taylor Construction Group Pty Ltd (the client), being the only intended beneficiary of El's work. The scope of the plan is limited to that agreed with the client.

No other party should rely on the document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

In preparing this plan, EI has used a degree of care and skill ordinarily exercised by reputable members of the environmental industry in Australia, as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices.

The methods and conclusions presented in this report are based on a limited investigation of conditions, with specific sampling locations chosen to be as representative as possible under the given circumstances.

El's professional opinions are reasonable and based on its professional judgment, experience, training and results from analytical data. El may also have relied upon information provided by the client and other third parties to prepare this document, some of which may not have been verified by El.

El's professional opinions contained in this document are subject to modification if additional information is obtained through further investigation, observations and/or validation testing during remedial activities. In some cases, further analysis may be required, which may result in a further report with different conclusions.



REFERENCES

- ANZG (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Governments and Australian State and Territory Governments, Canberra ACT, Australia, August 2018.
- CCA Australia (2005) *Guide for Residential Slabs and Footings in Saline Environments.* Published by Cement, Concrete and Aggregates Australia, 2005.
- DLWC (2002) Site Investigations for Urban Salinity, Department of Land and Water Conservation, 2002.
- DMR (1991) *Penrith 1:100,000 Geological Series Sheet 9030* (Edition 1). Geological Survey of New South Wales, Department of Mineral Resources.
- DPI (2014) Salinity Training Manual, Salinity Identification, Causes and Management. NSW Department of Primary Industries, June 2014.
- DPIE (2020) *eSPADE v2.0 Portal*. NSW Department of Planning, Industry and Environment, Retrieved from <u>www.espade.environment.nsw.gov.au</u>.
- DIPNR (2002) Salinity Potential in Western Sydney. Department of Infrastructure, Planning and Natural Resources, 2002.
- DPINR (2003) *Building in a Saline Environment*. Department of Infrastructure, Planning and Natural Resources, 2003.
- DIPNR (2005) Salinity Indicator Plants. Department of Infrastructure, Planning and Natural Resources, 2005.
- DUAP / EPA (1998) Managing Land Contamination. Planning Guidelines SEPP 55 -Remediation of Land. New South Wales Department of Urban Affairs and Planning / Environment Protection Authority, August 1998.
- EPA (2014) *Waste Classification Guidelines*. Environment Protection Authority of New South Wales, EPA 2014/0796, November 2014.
- EPA (2016) *Environmental Guidelines: Solid Waste Landfills*. Environment Protection Authority of New South Wales, EPA 2016/0259, April 2016.
- Hazelton PA and Murphy BW (2007) What Do All the Numbers Mean? A Guide to the Interpretation of Soil Test Results. CSIRO Publishing, December 2007.
- Landcom (2004) *Managing Urban Stormwater: Soils and Construction* (Fourth Edition). Published by the New South Wales Government, March 2004.
- McNally G (2004) Shale, Salinity and Groundwater in Western Sydney. Australian Geomechanics 39(3), 107–122, September 2004.
- NEPC (1999) National Environment Protection (Assessment of Site Contamination) Measure 1999. National Environment Protection Council, December 1999.
- NEPC (2013) National Environment Protection (Assessment of Site Contamination) Amendment Measure 1999. National Environment Protection Council, April 2013.
- Standards Australia (1995) Damp-Proof Courses and Flashings. Australian Standard / New Zealand Standard AS/NZS 2904-1995, Standards Australia 1995.
- Standards Australia (2009) *Piling Design and Installation*. Australian Standard AS 2159-2009, Standards Australia 2009.
- Standards Australia (2011) *Residential Slabs and Footings*. Australian Standard AS 2870-2011, Standards Australia 2011.
- WSROC (2004) Western Sydney Salinity Code of Practice. Western Sydney Regional Organisation of Councils Ltd, March 2003 (as amended January 2004).



ABBREVIATIONS

AHD	Australian Height Datum
AS	Australian Standard
ASS	Acid Sulfate Soil
BCA	Building Code of Australia
BGL	Below Ground Level
BH	Borehole
CBD	Central Business District
CEC	Cation Exchange Capacity
CLM	Contaminated Land Management
DA	Development Application
DCP	Development Control Plan
DIPNR	Department of Infrastructure, Planning and Natural Resources
DLWC	Department of Land and Water Conservations
DP	Deposited Plan
DPC	Damp Proof Course
EC	Electrical Conductivity
EC_{e}	Extract Electrical Conductivity
ENM	Excavated Natural Material
EPA	Environment Protection Authority (of New South Wales)
ESP	Exchangeable Sodium Percentage
km	Kilometres
m	Metres
LEP	Local Environmental Plan
LGA	Local Government Area
m	Metres
NATA	National Association of Testing Authorities, Australia
NEPC	National Environmental Protection Council
NEPM	National Environmental Protection Measure
NSW	New South Wales
рН	Potential Hydrogen (a measure of the acidity or basicity of an aqueous solution)
POEO	Protection of the Environment Operations
SEPP	State Environment Planning Policy
SMP	Salinity Management Plan
VENM	Virgin Excavated Natural Material
WSROC	Western Sydney Regional Organisation of Councils Limited



Appendix A – Figures





Site boundary Basement boundary OSD Tank location \bigcirc Borehole location



Taylor Construction Group Pty Ltd Salinity Management Plan

11-13 Mannix Parade, Warwick Farm NSW Sampling Location Plan

2

Project: E25074.E99

Appendix B – Proposed Development

LAHC WARWICK FARM

11-13 MANNIX PARADE, WARWICK FARM

A000 - GENERA	NOTES / SITE CONTEXT		
A001	COVER SHEET / DRAWING LIST	5	12/02/2021
A1000 - GENER	AL ARRANGEMENT PLANS		
A1001	SITE PLAN	3	18/12/2020
A1002	SITE DEMOLITION WORKS	1	18/12/2020
A1003	BASEMENT LEVEL FLOOR PLAN	5	12/02/2021
A1004		8	12/02/2021
A1005		8	
A1006		7	
A1007		7	12/02/2021
A1009		7	12/02/2021
A1010	BOOFLEVELPLAN	6	12/02/2021
A1100 - REFLEG	CTED CEILING PLANS		
A1101	BASEMENT LEVEL RCP	5	12/02/2021
A1102	GROUND LEVEL RCP	5	12/02/2021
A1103	LEVEL 1 RCP	5	12/02/2021
A1104	LEVEL 2 RCP	5	12/02/2021
A1105	LEVEL 3 RCP	5	12/02/2021
A1106	LEVEL 4 RCP	5	12/02/2021
A1107	LEVEL 5 RCP	5	12/02/2021
A1300 - CONCF	ETE SETOUT PLANS		
A1301	BASEMENT LEVEL CONCRETE SETOUT PLAN	2	18/12/2020
A1302	GROUND LEVEL CONCRETE SETOUT PLAN	2	18/12/2020
A1303	LEVEL 1-3 CONCRETE SETOUT PLAN	2	18/12/2020
A1304	LEVEL 4 CONCRETE SETOUT PLAN	2	18/12/2020
A1305	LEVEL 5 CONCRETE SETOUT PLAN	2	18/12/2020
A1306	ROOF CONCRETE SETOUT PLAN	2	18/12/2020
A1400 - COMPA		0	12/02/2021
A1401		<u> </u>	
A1402		1	
A1403		1	12/02/2021
A1404			12/02/2021
A2000 - ELEVA	LIONS		
A2001	NORTH & SOUTH ELEVATIONS	4	18/12/2020
A2002	EAST & WEST ELEVATIONS	4	18/12/2020
A3000 - SECTIC	DNS		
A3001	SECTIONS A & B	4	18/12/2020
A3002	SECTIONS C & D	4	18/12/2020
A3100 - SECTIC	INS		
A3101	WALL SECTION AA	2	18/12/2020
A3102	WALL SECTION BB	2	18/12/2020
A3103	WALL SECTION DD	1	29/01/2021
A4000 - CONST		2	10/10/0000
A4001		2	18/12/2020
A4005		2	18/12/2020
A5000 - VERTIC		0	18/12/2020
A5003	BALLISTRADE HANDRAIL & NOSING DETAILS	2	18/12/2020
A5004	ENTRY BAMP AND STAIR DETAILS	1	18/12/2020
		1	
A6000 - ROOM	LAYOUT		
A6001	BATHROOM LAYOUTS 01	2	18/12/2020
A6003	KITCHEN LAYOUTS 01	2	18/12/2020
A6004	JOINERY	2	12/02/2021
A6005	BICYCLE STORAGE, COMMS & SWITCHROOM	2	18/12/2020
A6006	WASTE / BULKY GOODS & GAS / WATER METER & BOOSTER	2	18/12/2020
Ac011	TYPICAL UNIT TYPE 01, 02, 03, 04 & 05	2	18/12/2020
Abutt	TYPICAL UNIT TYPE 06. 07 & 08	2	18/12/2020
A6012			
A6012 A6013	TYPICAL UNIT TYPE 09, 10, 11 & 12	2	18/12/2020
A6011 A6012 A6013	TYPICAL UNIT TYPE 09, 10, 11 & 12	2	18/12/2020
A6012 A6013 A9000 - DOOR /	TYPICAL UNIT TYPE 09, 10, 11 & 12 AND WINDOW SCHEDULE	2	18/12/2020
A6012 A6013 A9000 - DOOR / A9001	TYPICAL UNIT TYPE 09, 10, 11 & 12 AND WINDOW SCHEDULE WALL TYPES SCHEDULE 1	3	18/12/2020
A6012 A6013 A9000 - DOOR / A9001 A9001-1	TYPICAL UNIT TYPE 09, 10, 11 & 12 AND WINDOW SCHEDULE WALL TYPES SCHEDULE 1 WALL TYPES SCHEDULE 2	2 3 3	18/12/2020 18/12/2020 18/12/2020
A6012 A6012 A6013 A9000 - DOOR / A9001 A9001-1 A9001-2	TYPICAL UNIT TYPE 09, 10, 11 & 12 AND WINDOW SCHEDULE WALL TYPES SCHEDULE 1 WALL TYPES SCHEDULE 2 WALL TYPES SCHEDULE 3	2 3 3 3 3	18/12/2020 18/12/2020 18/12/2020 18/12/2020
A6011 A6012 A6013 A9000 - DOOR / A9001 A9001-1 A9001-2 A9002	TYPICAL UNIT TYPE 09, 10, 11 & 12 AND WINDOW SCHEDULE WALL TYPES SCHEDULE 1 WALL TYPES SCHEDULE 2 WALL TYPES SCHEDULE 3 DOOR TYPE ELEVATION	2 3 3 3 2	18/12/2020 18/12/2020 18/12/2020 18/12/2020 18/12/2020
A6011 A6012 A6013 A9000 - DOOR / A9001 A9001-1 A9001-2 A9002 A9004	TYPICAL UNIT TYPE 09, 10, 11 & 12 AND WINDOW SCHEDULE WALL TYPES SCHEDULE 1 WALL TYPES SCHEDULE 2 WALL TYPES SCHEDULE 3 DOOR TYPE ELEVATION WINDOW / LOUVRE TYPE ELEVATIONS & SCHEDULE	2 3 3 3 2 2 2	18/12/2020 18/12/2020 18/12/2020 18/12/2020 18/12/2020 18/12/2020 18/12/2020

HYDRAULIC LEGEND				
NOTE: REFER TO HYDRAULIC & FIRE ENG. DOCUMENTATION FOR DETAILS.				
DESCRIPT	FION:			
0	DOWNPIPE			
Φ	FLOOR WASTE			
\equiv	OVERFLOW CHANNELS			
\boxtimes	RAIN WATER OUTLET			
FH	FIRE HYDRANT			
0	EXPOSED SPRINKLER			
۲	SEMI RECESSED CEILING SPRINKLER			



ELECTRICAL FI	<u>GENER</u>	
NOTE: REFER TO EL FOR DETAILS.	ECTRICAL ENG. DOCUMENTATION	A/C BL
DESCRIPTION:		CD CP EX
I	SURFACE MOUNTED LINEAR LIGHT	DB DP
	SURFACE MOUNTED LINEAR LIGHT W/ EMERGENCY SPITFIRE	FCU FEX FH
O	CEILING LIGHT	FHR FW GD
\oslash	CEILING LIGHT	k L/D MJ
⊗	RECESSED LED EMERGENCY LUMINAIRE	MC NBN HWU
MD	MOTION DETECTOR	O/F RWO S
EXIT	EXIT SIGN	SWP
\mathbf{N}		MECHAN
\sim	CEILING MOUNTED FAN WITH BUILT IN LED LIGHT	NOTE: REF FOR DETA
어	WALL MOUNTED LIGHT	

BOLLARD LIGHT	

BLL -

 \bigcirc

GENERAL	ABBREVIATIONS:		ITRACT
A/C BL CD CP EX	A/C CONDENSER UNIT SPACE BOLLARD CLOTHES DRYING RACK CARPARK EXHAUST CONTROL JOINT	1.	CONTRAC AND COM TENANTS AMENDM
DB DP F FCU FEX	DISTRIBUTION BOARD DOWNPIPE FRIDGE FUTURE SPLIT UNIT FIRE EXTINGUISHER	2.	ANY DISC DOCUME REID CAN WORKS.
FH FHR FW GD	FIRE HYDRANT FIRE HOSE REEL FLOOR WASTE GRATED DRAIN	3.	CONTRA CONSTRI COMMEN
K L/D MJ	KITCHEN LIVING / DINING MOVEMENT JOINT (WITH THERMAL BREAK FIXING TO SECTION J REQUIRMENTS)	4.	ARCHITE ARCHITE IN CONJU DOCUME
NBN HWU O/F	NBN BOX HOT WATER UNIT OVERELOW CHANNELS	5.	CLIENT T PRIOR TO
RWO S SWP	RAIN WATER OUTLET STORAGR STORMWATER PIT	6.	CONTRA COMPLE CONSTR
MECHANIC	AL FITTINGS LEGEND	7.	CONTRA READ DC
NOTE: REFER FOR DETAILS	TO ELECTRICAL ENG. DOCUMENTATION	8.	CONTRA EXISTINO ALL NEW
	EGGCRATE TYPE GRILLE	9.	CONTRAC COMPLY

AIP WITH LIGHT ACCESS PANEL

10. ALL DRAWING ARE IN COLOUR AND MUST BE PRINTED IN COLOUR TO BE VIEWED CORRECTLY

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construction.

-Figured dimensions to be taken in preference to scaled drawings.

-All work is to conform to relevant Australian Standards and other Codes as applicable, together with other Authorities' requirements and regulations.

NSW Registered Architect Mark David Roach, 10332

1PRELIMINARY CONSULTANT ISSUE05/112FINAL ARCHITECTURAL LAYOUTS18/113TENDER ISSUE27/114TENDER ISSUE18/125TENDER ISSUE12/02	issue	Description	Date
2FINAL ARCHITECTURAL LAYOUTS18/113TENDER ISSUE27/114TENDER ISSUE18/125TENDER ISSUE12/02	1	PRELIMINARY CONSULTANT ISSUE	05/11/2020
3 TENDER ISSUE 27/11 4 TENDER ISSUE 18/12 5 TENDER ISSUE 12/02	2	FINAL ARCHITECTURAL LAYOUTS	18/11/2020
4 TENDER ISSUE 18/12 5 TENDER ISSUE 12/02	3	TENDER ISSUE	27/11/2020
5 TENDER ISSUE 12/02	4	TENDER ISSUE	18/12/2020
	5	TENDER ISSUE	12/02/2021



LAHC WARWICK FARM 11-13 MANNIX PARADE, WARWICK FARM

Client

A001

Project

Remembrance Ave

TOR'S NOTES

ACTOR MUST ENSURE WORKS ARE UNDERTAKEN MPLETED TO COMPLY WITH CLIENTS AND S DESIGN BRIEF/S, SPECIFICATIONS AND ALL MENTS.

CREPANCY FOUND WITHIN REID CAMPBELL'S ENTATION, PLEASE BRING TO THE ATTENTION OF AMPBELL BEFORE COMMENCEMENT OF ANY

ACTOR TO CONFIRM ALL REQUIRED RUCTION TOLERANCES PRIOR TO THE NCEMENT OF ANY WORKS.

SITE

mbanquete.com

ECTURAL SKETCHES (ASK) FORM PART OF THE ECTURAL DOCUMENTATION AND MUST BE READ JUNCTION WITH ALL OTHER ARCHITECTURAL IENTATION.

TO REVIEW ARCHITECTURAL DOCUMENTATION TO COMMENCEMENT OF WORKS.

ACTOR IS TO ENSURE ALL WORKS ARE ETED AS PER CURRENT CLIENT DESIGN AND RUCT BRIEF.

ACTOR MUST TAKE ALL REASONABLE STEPS TO OCUMENTATION PRIOR TO THE ISSUING OF RFIS.

ACTOR MUST CONFIRM THE LOCATION OF ALL IG SERVICES PRIOR TO WORKS, AND COORDINATE WORKS ACCORDINGLY.

ACTOR TO ENSURE WORKS ARE COMPLETED TO Y WITH THE RELEVANT AUSTRALIAN STANDARD, NATIONAL CONSTRUCTION CODE AND LEGISLATIVE COMPLIANCE.



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Notes



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work. -Report all discrepancies to project manager prior to

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Notes

drawings. -All work is to conform to relevant Australian Standards and other Codes as applicable, together with other Authorities' requirements and regulations.

NSW Registered Architect Mark David Roach, 10332

Issue		Description		Da	ite
1	PRELIMINARY	CONSULTANT IS	SUE	05/11	/202 /202
3	TENDER ISSU	E		27/11	/202
4	TENDER ISSU	E		18/12	/202
5	TENDER 1330			12/02	/202
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)m HHH SCALE Project	2m E BAR 1:100	4m 6m @ A1 ; 1:	200 @	3m A3	10
)m BCALE Project	2m E BAR 1:100 t HC WAF	4m 6m @ A1 ; 1: RWICK F	200 @ ARM	³m ⊨ A3	10
)m BCALE Project LAI 11-13	2m BAR 1:100 t - IC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F RADE, WARW	8 200 @ ARM /ICK FA	3m ⊢ A3 RM	10
)m BCALE Project LAI 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F RADE, WARW	8 200 @ ARM /ICK FA	3m ⊢ A3 RM	10
)m BCALE Project LAI 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F RADE, WARW	8 200 @ ARM /ICK FA	3m A3 RM	10
0m ⊟⊟⊟ SCALE Project LAI 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
0m BCALE Project LAH 11-13 Client	2m E BAR 1:100 t HC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
0m BCALE Project LAH 11-13 Client	2m E BAR 1:100 t HC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
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0m BCALE Project LAH 11-13 Client	2m BAR 1:100	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
0m BCALE Project LAH 11-13 Client	2m BAR 1:100	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
0m BCALE Project LAH 11-13 Client	2m BAR 1:100	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
Om FICALE Project LAF 11-13 Client	2m BAR 1:100	4m 6m @ A1 ; 1: RWICK F. RADE, WARW	8 200 @ ARM /ICK FA	Bm A3 RM	10
Om FICALE Project LAF 11-13 Client	2m BAR 1:100	4m 6m @ A1 ; 1: RWICK F RADE, WARW YLC	8 200 @ ARM /ICK FA	am A3 RM	10
Om FICALE Project LAF 11-13 Client	2m BAR 1:100	4m 6m @ A1 ; 1: RWICK F. RADE, WARW YLC	8 200 @ ARM /ICK FA		10
Om FICALE Project LAF 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA TACNO2 033 801 ACN 002 ACN 002	4m 6m @ A1 ; 1: RWICK F. RADE, WARW YLC	8 200 @ ARM /ICK FA		10
)m BCALE Project LAH 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA TACNO2 033 801 ACN 002 ACN 002	4m 6m @ A1 ; 1: RWICK F.	200 @ ARM ARM ARM SEL		10
Om HHH SCALE Project LAF 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA TAC WAF MANNIX PA	4m 6m @ A1 ; 1: RWICK F. RADE, WARW YLC Market Street W 2060 Australia 011 Email: sydney@ 946 Web: www.rei		A3 RM RM	10
Dm SCALE Project LAF 11-13 Client	2m BAR 1:100 t HC WAF MANNIX PA MANNIX PA TCA MANNIX PA	4m 6m @ A1 ; 1: RWICK F. RADE, WARW YLC State WICK F. RADE, WARW YLC Interiors, Planning SN 28 317 605 875 Iker Street W 2060 Australia 011 Email: sydney@ 946 Web: www.rei	8 200 @ ARM /ICK FA DF BELI BELI	A3 RM RM	10
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Dm FICALE Project LAF 11-13 Client Drawn MR Print C 12/02/	2m BAR 1:100 t HC WAF MANNIX PA TACNO2 033 801 AF Level 15, 124 Wa North Sydney NSV Tel: 61 02 9954 5 Fax: 61 02 9954 4 C M	4m 6m @ A1 ; 1: RWICK F. RADE, WARW YCC PADE, WARW YCC RADE, WARW YCC YCC RADE, WARW YCC RADE, WARW YCC RADE, WARW YCC RADE, WARW YCC RADE, WARW YCC YCC RADE, WARW YCC YCC RADE, WARW YCC YCC YCC YCC YCC YCC YCC YC			
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Om HHHH SCALE Project LAF 11-13 Client Drawn MR Print D 12/02/ Drawir BAS	2m BAR 1:100 t HC WAF MANNIX PA MANNIX PA TC VIAF MANNIX PA Contecture, I ACN 002 033 801 AF Level 15, 124 Wa North Sydney NSV Tel: 61 02 9954 5 Fax: 61 02 9954 4 C M Date 2021 10:58:58 F	4m 6m @ A1 ; 1: RWICK F. RADE, WARW YCC PADE, WARW YCC CANPE Name Street W 2060 Australia 011 Email: sydney(946 Web: www.rei thecked R PM			
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TOTAL NUMBER
15
5
22



-EX. CL OF 150 DIA SEWER LINE SHOWN (NEAREST SURVEYED INVERT 10.500). ALLOW FOR 45 DEGREE ZONE OF INFLUENCE.

-EX. CL OF 150 DIA SEWER LINE SHOWN INDICATIVELY BASE ON AUSFLOW PEGOUT

-PROPOSED SUBSTATION FENCE

-INDICATIVE SUBSTATION LOCATIONS -SUBSTATION LOCATION WITH GREATER CLEARANCE BOOSTER BUT OVER

-EXISTING FENCE LINE IN PURPLE

NOTE: ALL INFORMATION PROVIDED IS BASED ON SURVEY INFORMATION AND ENDEAVOUR ENERGY DRAWINGS

-TIMBER FENCE TO LANDSCAPE

Notes

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1 ISSUE		Date 05/11/2020
2	PRELIMINARY CONSULTANT ISSUE	13/11/2020
3	PRELIMINARY CONSULTANT ISSUE	16/11/2020
4	FINAL ARCHITECTURAL LAYOUTS	18/11/2020
6	TENDER ISSUE	27/11/2020
7	TENDER ISSUE	18/12/2020
8	I ENDER ISSUE	12/02/2021
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0m SCALE Projec LAI 11-13 Client	2m 4m 6m 8 BAR 1:100 @ A1 ; 1:200 @ T CWARWICK FARM MANNIX PARADE, WARWICK FA	3m 10m A3
	REIDCANPBEL Architecture, Interiors, Planning ACN 002 033 801 ABN 28 317 605 875 Level 15, 124 Walker Street North Sydney NSW 2060 Australia Tel: 61 02 9954 5011 Email: sydney@reidcampbe Fax: 61 02 9954 4946 Web: www.reidcampbell.co	II.com
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LAHC WARWICK FARM 11-13 MANNIX PARADE, WARWICK FARM, NSW 2170



20023 - STRUCTURAL DOCUMENTATION

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2 ISSUED FO	R TENDER (DRAFT)	N	MA 1A/BT	PAC	27.11.20
3 ISSUED FO	R TENDER (UPDATEI	D) N	1A/BT	PAC	18.12.20
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GENERAL

- 1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS.
- THESE ENGINEERING DRAWINGS HAVE BEEN PREPARED FROM INFORMATION AVAILABLE AT THE TIME, AS INFORMATION MAY BE SUBJECT TO CHANGE PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR IS REQUESTED TO ADVISE THE ENGINEER WHERE DIFFERENCES OCCUR.
- 3. THESE DRAWINGS SHALL NOT BE USED FOR FINAL SET OUT OF THE PROJECT UNLESS SPECIFICALLY STATED.
- ALL WORKS SHALL COMPLY WITH THE CURRENT, RELEVANT SAA CODES AND THE BUILDING CODE OF AUSTRALIA. THE FOLLOWING RELEVANT STANDARDS SHALL BE READ AS PART OF THESE GENERAL NOTES AND COPIES SHALL BE KEPT ON SITE WITH THE CONTRACTUAL DOCUMENTS:
- AS 1554 SAA WELDING CODE (ALL PARTS)
- AS 1684 SAA NATIONAL TIMBER FRAMING CODE (ALL PARTS)
- AS 1720 SAA TIMBER CODE (ALL PARTS) AS 2870 - SAA RESIDENTIAL SLABS AND FOOTINGS
- AS 3600 SAA CONCRETE STRUCTURES CODE AS 3610 - SAA FORMWORK FOR CONCRETE CODE
- AS 3700 SAA MASONRY STRUCTURES CODE
- AS 3798 SAA GUIDELINES FOR EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS AS 4100 - SAA STEEL STRUCTURES CODE AS 4600 - SAA COLD-FORMED STEEL STRUCTURE NCC 2019 - NATIONAL CONSTRUCTION CODE
- ALL STRUCTURAL WORK SHOWN ON THESE DRAWINGS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER
- PERIODICAL INSPECTIONS ARE REQUIRED TO BE PERFORMED BY A DULY APPOINTED INSPECTOR FROM "WEBBER DESIGN PTY. LTD.". THESE INSPECTIONS ARE REQUIRED TO BE PERFORMED IN ACCORDANCE WITH SCOPE OF INSPECTIONS IN SPECIFICATIONS PREPARED. THE INSPECTING ENGINEER IS RESPONSIBLE FOR PERFORMING MONITORING INSPECTIONS ONLY AND NOT SITE WORKS SUPERVISION, WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO PROVIDE A MINIMUM OF 24 HOURS NOTICE PRIOR TO INSPECTION.
- 7. SPECIFICATIONS OR INSTRUCTIONS ON DRAWINGS TAKE PRECEDENCE OVER THESE NOTES.
- 8. DO NOT SCALE FROM DRAWINGS.
- 9. DESIGN PARAMETERS ADOPTED FOR THIS PROJECT ARE AS FOLLOWS:

	WIND LOADS REGION TERRAIN CATEGORY SHIELDING Ms GUST WIND SPEED Vu TOPOGRAPHY Mt IMPORTANCE MI	A2 3 1 46m/s 1.0 1.0
	EARTHQUAKE LOADS (AS1170.2007) SITE SUB CLASS HAZARD FACTOR Z BCA IMPORTANCE LEVEL PROBABILITY FACTOR, Kp EDC	Ce 0.08 2.0 1.0 II
	SUPERIMPOSED DEAD LOADS (kPa) RESIDENTIAL NON-ACCESSIBLE ROOF TERRACES BALCONIES CARPARK BATHROOMS / WET AREAS CORRIDOR / FIRE STAIR COURTYARD / LANDSCAPE SUBSTATION	1.0 2.0 2.0 1.5 0.5 2.0 0.5 2.0 TBC
	LIVE LOADS (kPa) RESIDENTIAL NON-ACCESSIBLE ROOF TERRACES BALCONIES CARPARK BATHROOMS / WET AREAS CORRIDOR / FIRE STAIR COURTYARD / LANDSCAPE SUBSTATION	1.5 1.5 4.0 2.0 2.5 1.5 4.0 4.0, OR 18.0 (PER METRE OF SOIL DEPTH - WHERE APPLICABLE TBC
F	TRE RATING LIMIT (FRL) FOR STRUCTUR	AL ADEQUACY

CARPARK 120 MIN

EXPOSURE CLASSIFICATION **A2 INTERNAL**

RESIDENTIAL

B2 EXTERNAL B1 SURFACES IN CONTACT WITH THE GROUND

90 MIN.

- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND ADJACENT STRUCTURES IN A STABLE CONDITION. NO PART OF THESE STRUCTURES SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.
- 11. ALL PROPS AND FORMWORK FOR FLOOR BEAMS AND SLABS SHALL BE REMOVED BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR PARTITIONS ON THE FLOOR.
- 12. ALL NON LOAD-BEARING WALLS SHALL BE KEPT 20mm CLEAR OF THE UNDERSIDE OF SLABS AND BEAMS UNLESS NOTED OTHERWISE.
- 13. CONTRACTOR SHALL RECORD ALL VARIATIONS TO THE DRAWINGS AND BE RESPONSIBLE FOR PRODUCING AS-BUILD DRAWINGS AT THE COMPLETION OF THE WORK AS REQUIRED.
- 14. NO PENETRATION, DRILLING OR CHASING IN STRUCTURAL ELEMENTS IS PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 15. ALL PROPRIETARY PRODUCTS SPECIFIED ON THESE DRAWINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS, ALTERNATIVE EQUIVALENT PRODUCTS MAY ONLY BE USED WITH THE APPROVAL OF THE ENGINEER.
- 16. CONTRACTOR SHALL SUBMIT TO THIS OFFICE CONSTRUCTION METHODOLOGY, INCLUSIVE OF ALL TEMPORARY ERECTION STRUCTURE PRIOR TO THE COMMENCEMENT OF STEEL INSTALLATION.
- 17. IT IS A REQUIREMENT THAT ALL BUILDING MATERIALS USED AND INSTALLED ON THE PROJECT MUST BE COMPLIANT WITH THE NATIONAL CONSTRUCTION CODE, THE BUILDING CODE OF AUSTRALIA, THE AUSTRALIAN STANDARDS AND ANY OTHER APPLICABLE LAWS OR REGULATIONS.

BULK EXCAVATION:

- 1. ALL LEVELS, BATTERS, CONTOUR LINES AND LOCATIONS OF EXISTING SERVICES SHOWN ON PLAN ARE INDICATIVE ONLY AND SHALL BE VERIFIED ON SITE. REFER TO ARCHITECTURAL AND SURVEY PLANS FOR DETAILS.
- 2. THE CONTRACTOR IS TO NOTIFY ALL SERVICE AUTHORITIES AND ARRANGE FOR DISCONTINUANCE OF SERVICES OR SUPPLY AS APPLICABLE AND CARRY OUT ALL DISCONNECTION OR SEALING OFF OF SERVICES AND DRAINS AS REQUIRED. SERVICES OR SUPPLY LINES THAT ARE TO BE RETAINED SHALL REMAIN UNDAMAGED AND GIVEN ALL NECESSARY PROTECTION AS REQUIRED.
- 3. THE CONTRACTOR SHALL PROVIDE EFFECTIVE DIVERSION OR REMOVAL OF ALL SURFACE WATER FROM THE PREPARED SUB-GRADE.
- 4. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED ENVIRONMENTAL TREATMENT OF RUNOFF FROM THE CONSTRUCTION SITE.
- 5. THE BULK EXCAVATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE BULK EXCAVATION PLAN. EXCESS EXCAVATIONS SHALL NOT BE PAID FOR AS EXTRA EXCAVATION UNLESS AUTHORISED BY THE SUPER INTENDENT OR THE ENGINEER. EXCESS EXCAVATION SHALL BE FILLED BY THE CONTRACTOR WITH 3% CEMENT STABILISED SAND.
- BULK EXCAVATION BATTERS AROUND THE PERIMETER OF THE SITE ARE TO BE 1V:1.5.H UNLESS OTHERWISE NOTED

FOUNDATIONS:

- 1. THE FOUNDATION IS DESIGNED BASED ON FINAL GEOTECHNICAL REPORT NUMBER 20/0955 BY STS GEOTECHNIQUES DATED APRIL 2020. STS GEOTECHNIQUES SHALL BE ENGAGED TO QUALIFY AND ASSESS THE SUITABILITY OF THE FOUNDATION MATERIAL PRIOR TO PLACING CONCRETE.
- 2. THE BUILDER TO STUDY AND IMPLEMENT ALL RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT AND OTHER RELEVANT RECOMMENDATIONS FROM BUILDING TECHNOLOGY FILE 18 (FORMERLY KNOWN AS CSIRO NOTE 10-9).
- 3. REFER GEOTECHNICAL REPORT FOR SITE CLASSIFICATION IN ACCORDANCE WITH AS 2870.
- EXISTING ADJACENT FOOTINGS SHALL NOT BE UNDERMINED. NEW FOOTING FOUNDING DEPTH SHALL MATCH, BUT NOT EXCEED, ADJACENT FOOTING FOUNDING DEPTH. IN THE EVENT THAT UNDERPINNING IS REQUIRED PLEASE CONTACT THIS OFFICE.
- 5. ANY EXCAVATION WORKS FOR CONSTRUCTION OF FOOTINGS OR RETAINING WALLS SHALL NOT ENCROACH BEYOND 45° LINE OF INFLUENCE.
- 6. UNLESS NOTED OTHERWISE, WHEREVER A NEW FOOTING IS LOCATED CLOSE TO AN EXCAVATION, BATTER, EXISTING FOOTING, EXISTING SERVICE OR NEW SERVICE WHICH IS DEEPER THAN THE NEW FOOTING; THE EXCAVATION FOR THE NEW FOOTING SHALL BE DEEPENED AND BACKFILLED WITH BLINDING CONCRETE AS SPECIFIED. THE ENGINEER SHALL BE NOTIFIED IF IN DOUBT
- 7. THE STRUCTURAL DESIGN HAS BEEN UNDERTAKEN BASED ON THE FOOTING ALLOWABLE BEARING PRESSURES RECOMMENDED BY THE GEOTECHNICAL REPORT.
- 8. THE SITE SHALL BE STRIPPED, TRIMMED AND GENERALLY PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. IN ALL CASES THE SITE SHALL BE STRIPPED OF ALL VEGETATION IN BUILDING AREAS. NO VEGETATION OR ORGANIC MATTER SHALL EXIST IN THE SOIL STRATA BELOW FOOTINGS OR GROUND LEVEL
- 9. THE CONTRACTOR IS TO ALLOW FOR ANY ADDITIONAL INVESTIGATIONS AND MATERIAL TESTING DEEMED NECESSARY TO FURTHER ESTABLISH SITE CONDITIONS TO ACHIEVE THE REQUIRED FOUNDATION PARAMETERS.
- 10. ALL FOUNDATION MATERIALS SHALL BE VERIFIED BY TESTING AT THE EXPENSE OF THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE PLACEMENT OF MEMBRANE. REINFORCEMENT OR CONCRETE.
- 11. UNLESS OTHERWISE NOTED, THE SITE SHALL BE FILLED WITH APPROVED WELL GRADED SAND. 12. NO EXCAVATED MATERIAL FROM SITE SHALL BE SUITABLE FOR BACKFILL WITHOUT PRIOR GEOTECHNICAL
- ENGINEERS APPROVAL. 13. COMPACT FOUNDATION MATERIAL AND BACKFILL IN LAYERS NOT EXCEEDING 300mm INTERMEDIATE
- LAYERS TO 95% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289. PROVIDE COMPACTION TEST RESULTS PRIOR TO PROCEEDING. 14. COMPACTION METHODOLOGY SHALL BE VERIFIED BY THE CONTRACTOR TO CAUSE NO DAMAGE TO
- ADJACENT STRUCTURES.
- 15. LOWEST LEVEL FOOTINGS SHALL BE POURED FIRST. NO HEIGHT EXCEEDING HALF THE CLEAR DISTANCE BETWEEN FOOTINGS WITH DIFFERENT LEVEL IS PERMITTED.
- 16. ALL FOOTINGS TO BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS UNLESS OTHERWISE NOTED.
- 17. BLINDING CONCRETE OF 15MPa SHALL BE PROVIDED TO BACKFILL IN ANY NECESSARY OVER EXCAVATION TO ACHIEVE THE REQUIRED BEARING CAPACITY.
- 18. PRIOR TO PLACING CONCRETE, ALL FOUNDATIONS ARE TO BE FREE OF WATER OR LOOSE DELETERIOUS MATERIAL.
- 19. FOOTINGS ARE TO BE FOUNDED 100mm INTO THE NOMINATED MATERIAL UNLESS OTHERWISE NOTED AND PROVIDED WITH A 50mm BLINDING LAYER OF 15MPa CONCRETE.
- 20. RAFT SLABS AND SLABS ON GROUND SHALL BE UNDERLAIN BY HEAVY DUTY SEALED POLYTHENE VAPOUR BARRIER.
- 21. BORED PIERS AND PILES ARE TO BE CONSTRUCTED TO WITHIN 75mm OF THE DESIGNATED PLAN LOCATION. TRUE VERTICALITY OF PILES SHALL BE 1/100 OF THE TOTAL LENGTH OF THE PILE. THE CONTRACTOR SHALL ALLOW FOR AND PROVIDE TEMPORARY LINERS AS REQUIRED TO AVOID COLLAPSE IN THE BORED HOLE
- 22. ALL GROUND SLABS ARE TO BE UNDERLAIN BY A 50mm MINIMUM DEPTH LEVELLING SAND BED ON ADEQUATE SUBGRADE MATERIAL (50mm CRUSHED ROCK OR TO GEOTECHNICAL ENGINEERS RECOMMENDATIONS

PILING

- 1. ALL PILES SHALL BE DESIGNED IN INSTALLED IN ACCORDANCE WITH CURRENT SAA CODES AS 1170, AS 2159 AND AS 3600.
- 2. THE PILING CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL PILES ARE INSTALLED TO THE REQUIREMENTS OF;
 - STRUCTURAL DRAWINGS PILING SPECIFICATION

CAPWAP 2%

- AUSTRALIAN STANDARDS: AS 1170 (SAA LOADING CODE), AS 2159 (SAA PILING CODE), AS 3600 (SAA CONCRETE
- STRUCTURES CODE) AND AS 4100 (SAA STEEL STRUCTURES) GEOTECHNICAL INVESTIGATION REPORT
- ALL PILES SHALL BE DESIGNED TO ACCOMMODATE A LOAD ECCENTRICITY OF 75mm DUE TO INSTALLATION 3 TOLERANCES ON SITE
- 4. THE PILING CONTRACTOR SHALL SUBMIT ALL PILING AND RETENTION DETAILS AND DESIGN CALCULATION TO THE ENGINEER FOR REVIEW. ALLOW MINIMUM OF 5 WORKING DAYS FOR REVIEW PRIOR TO SITE COMMENCEMENT
- 5. PILES SHALL BE TESTED IN ACCORDANCE WITH THE SPECIFICATION. PILE TESTS TO BE CARRIED OUT AS FOLLOWS: DYNAMIC TESTING 5%
- 6. THE PILING CONTRACTOR IS RESPONSIBLE FOR SETTING OUT PILE LOCATIONS.
- 7. ALL PILE DESIGNS MUST INCORPORATE AN ALLOWANCE FOR ANY DOWN-DRAG DUE TO SOFT SOIL CONSOLIDATION WHERE APPLICABLE.
- 8. PILES ARE TO BE MONITORED FOR UPWARD HEAVE MOVEMENTS WHERE APPLICABLE. PILES WITH SIGNIFICANT MOVEMENT MAY REQUIRE TO BE RE-DRIVEN. 9. THE DESIGN OF PROPRIETARY BOUNDARY RETENTION SYSTEMS SHALL ENSURE THE SAFETY AND STABILITY
- OF THE SITE AND ADJACENT STRUCTURES AT ALL TIMES.
- 10. PILING CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE PRESENCE OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF ANY WORKS.

FORMWORK:

1. DESIGN OF FORMWORK AND SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH AS 3610.

2. REFER OTHER CONSULTANTS DOCUMENTATION FOR ADDITIONAL FIXING REQUIREMENTS

14 DAYS

3. MINIMUM STRIPPING TIMES WALLS AND COLUMNS 7 DAYS

GENERAL FLOOR

4. FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED AND MAINTAINED TO SAFELY SUPPORT ALL VERTICAL AND LATERAL LOADS THAT WILL BE APPLIED UNTIL SUCH LOADS CAN BE SUPPORTED BY THE CONCRETE STRUCTURE.

5. BACK PROP SLABS AND BEAMS TO ENGINEERS APPROVAL FOR A MINIMUM OF 28 DAYS AFTER CASTING.

- 6. STRIPPING AND BACK PROPPING TIMES MAY BE REDUCED UPON RECEIPT OF STRENGTH TEST RESULTS AT THE DISCRETION OF THE ENGINEER.
- 7. PRE-CAMBER ALL FORMWORK: SLABS AND BEAMS SPAN / 600 CANTILEVERS SPAN / 200
- 8. ENSURE DECK IS CLEANED OF ALL DEBRIS PRIOR TO CONCRETING.
- 9. CONTRACTOR SHALL PROVIDE SOLEBOARDS TO ALL SUPPORT SYSTEM LEGS BEARING ON GROUND OR SUSPENDED FLOOR AND ENSURE THAT THE GROUND OR SUSPENDED FLOOR IS CAPABLE OF SUPPORTING THE MAXIMUM DESIGN LEG LOAD
- 10. CONTRACTOR SHALL MONITOR FORMWORK DURING CONCRETE PLACEMENT AND ADJUST FORMWORK IF REQUIRED.
- 11. CONTRACTOR TO VERIFY THAT ALL PROPRIETARY MANUFACTURED FORMWORK (PROPS, FRAMES, JACKS AND BRACING ETC.) TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

CONCRETE

1. CONTRACTOR IS TO ENSURE THAT ALL CONCRETE ELEMENTS ARE CONSTRUCTED TO THE MINIMUM SIZE SHOWN ON DRAWINGS

- 2. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE APPLIED FINISHES.
- 3. APPROVED INTERNAL VIBRATORS SHALL BE USED TO COMPACT CONCRETE. CAVITY FILL SHALL BE RODDED. 4. ALL CONCRETE IS TO BE CURED FOR 14 DAYS MINIMUM AFTER POURING OR APPROVED PROPRIETARY SYSTEM. UNLESS OTHERWISE NOTED. SLABS SHALL BE THOROUGHLY WETTED. THEN COVERED FOR A MINIMUM OF 7 DAYS WITH 0.2MM THICK POLYTHENE SHEETING, WHICH SHALL BE SECURELY FIXED AGAINST TRAFFIC AND WIND AND OVERLAPPED 300MM MINIMUM AT JOINTS.

5. CONCRETE SHALL BE READY MIXED BY AN APPROVED SUPPLIER AS BELOW (UNLESS NOTED OTHERWISE):

ELEMENT	SLUMP (mm)	MAX. COURSE AGGREGATE (mm)	MIN. fc AT 28 DAYS (MPa)
PAD FOOTINGS	80	20	N50
STRIP FOOTINGS	80	20	N50
SLAB ON GROUND INTERNAL	80	20	N32
SLAB ON GROUND EXTERNAL	80	20	N32
CAVITY FILLS	100	10	N20
WALLS	80	20	(REFER SCHEDULE)
COLUMNS	80	20	(REFER SCHEDULE)
INT. SUSPENDED SLABS, BEAMS AND STAIRS	60	20	N40 FOR R.C (REFER SCHEDULE) S40 FOR P.T. (REFER SCHEDULE)
EXT. SUSPENDED SLABS, BEAMS AND STAIRS	60	20	N40

6. TYPE 'GP' PORTLAND CEMENT SHALL BE USED UNLESS OTHERWISE NOTED.

7. ADMIXTURES SHALL NOT ADVERSELY AFFECT THE SPECIFIED CONCRETE PROPERTIES. DO NOT USE ADMIXTURES UNLESS APPROVED BY THE ENGINEER. THE USE OF CALCIUM CHLORIDE, CHLORIDE ADMIXTURES AND SILICA FUME OR FLY ASH AS CEMENT SUBSTITUTES ARE NOT PERMITTED.

8. UNLESS NOTED OTHERWISE, CONCRETE STRENGTH SHALL BE GRADE N32 WITH: MINIMUM CEMENT CONTENT OF 320kg/m³ MAXIMUM WATER CONTENT OF 1651/m³

COARSE AGGREGATE SIZE OF 20mm, AND MAXIMUM SHRINKAGE AT 56 DAYS 600 MICROSTRAINS

9. FOR HIGH STRENGTH CONCRETE (fc EXCEEDING 40MPa), THE MIX DESIGN SHALL INCLUDE THE FOLLOWING: LOW WATER / CEMENT RATIO LOW CREEP LOW SHRINKAGE (i.e. 600 AVERAGE MICROSTRAINS AT 56 DAYS)

LOW HEAT HYDRATION SUPER-PLASTICISERS ADDITIVES TO INCREASE SLUMP SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME

FLY ASH AND GROUND GRANULATED BLAST FURNACE SLAG.

10. CURING IS ESSENTIAL TO PREVENT SELF DESICCATION IN EARLY AGE OF THE CONCRETE.

- 11. DETAILS OF ALL PROPOSED MIX DESIGNS SHALL BE FORWARDED TO THE ENGINEER PRIOR TO INCORPORATION IN THE
- 12. CAST CONCRETE TO JOINTS SHOWN ON DRAWINGS OR OTHERWISE APPROVED BY THE ENGINEER IN A HIT / MISS PATTERN.
- 13. THE ENGINEER SHALL BE NOTIFIED WHENEVER THE CURRENT AMBIENT TEMPERATURE OR THE TEMPERATURE FORECAST FOR THE DAY OF THE CONCRETE POUR EXCEEDS 35 DEGREES. ENGINEER AT HIS / HER DISCRETION MAY OR MAY NOT PERMIT CONCRETE BE POURED DURING THAT DAY
- 14. ALL COMPONENTS CAST INTO CONCRETE SHALL BE HOT DIP GALVANISED.
- 15. CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER 7 AND 28 DAY COMPRESSIVE STRENGTH TEST FOR EVERY 50m³ DELIVERED OR DELIVERY TO SITE. CONCRETE TESTING SHALL COMPLY WITH THE REQUIREMENTS OF AS 1379.

16. PROPOSED LOCATION OF CONSTRUCTION JOINT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. 17. DURING PLACEMENT, CONCRETE FALL HEIGHT SHALL BE RESTRICTED TO - 1800mm GENERALLY

FOR WALLS EQUAL TO OR - 2700mm GREATER THAN 200mm THICK

- 18. TOLERANCE CLASSES TO CONCRETE SURFACES SHALL BE DETERMINED BY A STRAIGHT EDGE PLACED ANYWHERE ON THE SURFACE IN ANY DIRECT AS FOLLOWS: CLASS A MAXIMUM DEVIATION FROM 3m STRAIGHT EDGE 3mm
 - CLASS B MAXIMUM DEVIATION FROM 3m STRAIGHT EDGE 6mm CLASS C MAXIMUM DEVIATION FROM 6m STRAIGHT EDGE 6mm

19. CONCRETE WORKS REQUIRING WATERPROOFING SHALL INCLUDE WATERPROOF ADMIXTURE AS PER MANUFACTURERS RECOMMENDATIONS

20. CONCRETE SURFACE SHALL BE FINISHED TO BE COMPLIANT WITH THE SPECIFIC REQUIREMENTS FOR ANY APPLIED SURFACE FINISHES INCLUDING CARPET TILES, VINYL FLOOR, TILES, ADHESIVES, OTHER SURFACE APPLICATION, ETC. REFER ARCHITECTURAL SPECIFICATION FOR EXTENT AND FINAL SLAB FINISH REQUIREMENTS.

REINFORCEMENT:

- BE FIXED AS SHOWN ON REINFORCING PLAN.
- 2. MATERIAL IS INDICATED BY THE FOLLOWING SYMBOLS R10 DENOTES 10mm DIAMETER HOT ROLLED PLAIN ROUND BAR N12 DENOTES 12mm DIAMETER HOT ROLLED DEFORMED BAR SL82 DENOTES SQUARE WELDED WIRE FABRIC RI 918 DENOTES RECTANGULAR WELDED WIRE FABRIC DENOTES 4 MAIN WIRES OF 12mm TRENCH MESH 4-L12TM DEFORMED BAR OF GRADE 500 ROUND BAR OF GRADE 250 LOW DUCTILITY BAR OF GRADE 500 SQUARE WELDED WIRE OF GRADE 500 RECTANGULAR WELDED WIRE MESH OF GRADE 500
- 3. THE BAR SIZE INDICATED BY A NUMBER AFTER THE ABOVE SYMBOL, WHICH INDICATES THE BAR DIAMETER IN MILLIMETERS. REFER TO NOTE 2 ABOVE FOR EXAMPLE.
- 4. GRADE 500 REINFORCEMENT TEST CERTIFICATES SHALL BE AVAILABLE FOR WEBBER DESIGN PTY. LTD. FOR APPROVAL PRIOR TO FIXING UPON REQUEST.
- 5. COVER TO REINFORCEMENT TO BE (UNLESS NOTED OTHERWISE):

ТҮРЕ	INTERNAL FACES	EXTERNAL FACES
FOOTINGS / PILE CAPS	-	50
COLUMNS	30	40
WALLS	30	40
RETAINING WALLS	50	50
BEAMS	35	40
SUSPENDED SLABS	25	40
SLABS ON GROUND	30	40
PRECAST	20	30

- 6. HOOKS AND COGS SHALL COMPLY WITH AS 3600 UNLESS OTHERWISE SHOWN. SLOPES OF CRANKS ARE NOT TO EXCEED 1 IN 6.
- 7. REINFORCE SLAB RE-ENTRANT CORNERS WITH 2N16 x 1500 BARS PLACED AT 45 DEGREES TIED TO THE INSIDE OF THE REINFORCEMENT.
- 8. MINIMUM LAPS FOR: MESH OVERLAP 2 OUTERMOST TRANSVERSE BARS N & R BARS 50 BAR DIAMETERS UNLESS NOTED OTHERWISE
- 10. ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING AT 800mm MAXIMUM WIDTH FOR BARS AND 600mm MAXIMUM WIDTHS FOR MESH.
- BAR CHAIRS IN REINFORCED CONCRETE ARE TO BE IN ACCORDANCE WITH AS / NZS 2425:2015 11. MOVE AFFECTED REINFORCEMENT TO EITHER SIDE OF HOLES IN SLAB UNLESS NOTED OTHERWISE.
- 12. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL ESTABLISH A WELDING PROCEDURE SUBMITTED TO THE ENGINEER FOR APPROVAL. ALL WELDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS 1554 PART 3.
- 13. ALL WELDING TO BE CARRIED OUT BY A QUALIFIED AUSTRALIAN SUPERVISOR, WELDING QUALIFICATION TO BE PRESENTED UPON REQUEST. MAXIMUM WELD SIZE TO BE 4 CFW EACH PASS, WITH E48XX ELECTRODE. THE CONTRACTOR SHALL ENGAGE A WELDING INSPECTOR TO INSPECT THE PROCEDURE AND SITE WELDS.
- 14. REINFORCEMENT IS NOT PERMITTED TO BE HEATED ABOVE 400 DEGREES
- 15. NO WELDS PERMITTED WITHIN 50mm OF BAR BENDS 16. ABBREVIATIONS USED IN DRAWINGS:

EW	EACH WAY
NF	NEAR FACE
FF	FAR FACE
EF	EACH FACE
CTR	CENTRAL
Т	ТОР
В	BOTTOM
LG	BAR LENGTH (NOT
CTS	CENTRES
REINF.	REINFORCEMENT
SEC.	SECONDARY

17. SAFETY MESH TO BE SUPPLIED FOR DEPTHS GREATER THAN 350mm AND INSTALLED AS REQUIRED ONSITE

INCLUDING COG)

1. REINFORCEMENT IS TO BE MANUFACTURED IN ACCORDANCE WITH AS/NZS 4671 AND AS 1302 AND SHALL

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9. REINFORCEMENT SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION

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ISSUED FOR TENDER

STRUCTURAL DRAWING



LAHC WARWICK FARM 11-13 MANNIX PARADE, WARWICK FARM, NSW 2170

GENERAL NOTES - SHEET 1

DATE	DESIGNED BY	CHECKED BY	
NOV 2020	MA/BT	AC	
SCALES AT A1	DRAWN BY	APPROVED BY	
1:100	PAC	PW	1
JOB No.	DRAWING No.		REV.
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TENDER NOTES

- 1. ALL DRAWINGS ARE CURRENTLY BEING COORDINATED WITH ARCHITECT AND SERVICES ENGINEER. BUILDER SHALL MAKE ALLOWANCE WHERE NECESSARY OR RAISE QUERIES FOR CLARIFICATION.
- SERVICES PENETRATIONS TO BE COORDINATED WITH SERVICES ENGINEER. WHERE RELOCATION IS NOT POSSIBLE, BUILDER SHALL MAKE ALLOWANCE FOR STRUCTURAL REDESIGN AS DEEMED NECESSARY. NO SETDOWN HAS BEEN ALLOWED FOR. IF REQUIRED, ADDITIONAL CONCRETE DEPTH, REINFORCEMENT AND CONCRETE STRENGTH MAY BE REQUIRED.
- 3. REFER TO ARCHITECT FOR ALL ARCHITECTURAL FACADE TREATMENT.
- 4. BUILDER SHALL MAKE ADDITIONAL ALLOWANCE FOR CONSTRUCTION SEQUENCE/JOINTS/POUR STRIPS, ADDITIONAL REINFORCEMENT AND ADDITIONAL LOADING CAPACITY. THESE DOCUMENTATIONS ARE FOR THE BASE BUILDING STRUCTURAL REQUIREMENTS ONLY. ANY CONSTRUCTION RELATED WORKS, REDESIGN AND COST ARE EXCLUDED. BUILDER TO MAKE NECESSARY ALLOWANCE AS REQUIRED.
- ALTERNATIVE METAL DECK COMPOSITE FORMWORK SHALL BE IN EQUIVALENT TO DECK SPECIFICATION NOMINATED. CERTIFICATES OF COMPLIANCE SHALL BE PROVIDED PRIOR TO CONSTRUCTION.
- ADDITIONAL BUILDING MAINTENANCE ACCESS SYSTEM FIXING AND LOADING REQUIREMENT SHALL BE REVIEWED AND ALLOWED FOR.
- REFER ARCHITECTURAL FOR OTHER SECONDARY STRUCTURAL STEEL (NON-BASE BUILDING RELATED) SUCH AS HAMPER TRUSS. CEILING FRAME. BALUSTRADES, ARCHITECTURAL FEATURE WALL, FENCE. WHERE NOT DOCUMENTED. BUILDER SHALL MAKE ADEQUATE ALLOWANCE
- 8. EDGE TREATMENTS (Eg. PRECAST, SLAB THICKENINGS, LIGHTWEIGHT FACADE, CAST-IN PFC EDGE, ETC.) TO ALL SUSPENDED RESIDENTIAL SLABS ARE CURRENTLY BEING REVIEWED ALONG WITH ITS CORRESPONDING CANTILEVER SPAN. THE EXTERNAL COLUMNS MAY NEED TO BE ADJUSTED TO SUIT SLAB THICKNESS NOMINATED ALTERNATIVELY, CANTILEVER SPAN WILL NEED TO BE THICKENED WITH REVISED SPECIFICATION. TRANSFER SLAB AND BEAM SHALL BE REVIEWED ACCORDINGLY.
- ALL ARCHITECTURAL FACADES ARE BEING COORDINATED AND UNDER REVIEW FOR ADEQUATE STRUCTURAL CAPACITY, STRUCTURAL SUPPORT AND PANEL BREAK UPS. BUILDER TO MAKE ALLOWANCE AS NECESSARY FOR TRANSPORTATION AND REDESIGN.
- 10. THE CLIENT REQUIRES ALL ADDITIONAL DOCUMENTATION WHICH RELATES TO BULDERS ALTERNATIVE STRUCTURAL SOLUTION, NON BASE STRUCTURE RELATED SECONDARY STEELWORK SHALL BE CARRIED OUT BY WEBBER DESIGN AND ADDITIONAL CERTIFICATION COST BY OTHERS SHALL BE BORNE BY THE BUILDER.

POST TENSIONING

- 1. THE POST TENSIONING CONTRACTOR / INSTALLER IS TO ENSURE ALL STRESSING EQUIPMENT SHALL POSSESS CURRENT CALIBRATION CERTIFICATES, AVAILABLE TO THE ENGINEER UPON REQUEST.
- 2. ALL POST TENSIONING AND PRE-STRESSED WORKS SHALL BE IN ACCORDANCE WITH AS 3600 AS A MINIMUM. 3. ALL CABLE DRAPES ARE SHOWN TO THE UNDERSIDE OF THE DUCT, DIMENSIONS TO LIVE AND DEAD ENDS ARE
- MEASURED TO THE CENTRE OF CONCRETE DEPTH. (a) TENDONS SHALL BE PROFILED AND LOCATED IN ACCORDANCE WITH THE DRAWING USING CHAIR SUPPORTS OR SIMILAR OF THE SPECIFIED HEIGHTS. TENDONS SUPPORTS SHALL BE SUPPLIED AND INSTALLED TO A VERTICAL TOLERANCE OF ± 2.0mm.
- (b) SUPPORT CHAIRS SHALL BE EVENLY SPACED BETWEEN HIGH POINTS AND AT A NOMINAL MAXIMUM SPACING OF 1200mm
- (c) SPECIFIED PROFILE HEIGHTS ARE GIVEN FROM SOFFIT OF SLAB/BEAM TO: - UNDERSIDE OF DUCT ALONG TENDON LENGTH (U.N.O) - CENTRE LINE OF ANCHOR AT END ANCHORAGES (U.N.O.)
- 4. ALL BAND & EDGE TENDONS ARE TO HAVE ONIONED DEAD ENDS WITH THE FREE LENGTH OF THE STRAND TAPED AND GREASED TO ENSURE LOAD TRANSFER TO THE DEAD END ANCHORAGE.
- 5. ALL PRE-STRESSING CABLES TO CONSIST OF SUPER STRESS RELIEVED LOW RELAXATION STRANDS (TO AS1311) SHALL BE:
- 12.7mm STRANDS 184kN MINIMUM BREAKING LOAD - MAXIMUM JACKING LOAD = 85% OF BREAKING LOAD = 156 kN/STRAND
- STRESS PER STRAND JACKING FORCE: 25% = 39kN (24 HOURS MAX. OR 7MPa)

100% = 156 kN (7 DAYS OR 22 MPa)

- 15.2mm STRANDS - 250kN MINIMUM BREAKING LOADS
- MAXIMUM JACKING LOAD 85% = OF BREAKING LOAD = 212kN / STRAND STRESS PER STRAND - JACKING FORCE:

25% = 53kN (24 HOURS MAX, OR 9MPa) 100% = 212 kN (7 DAYS OR 25MPa)

- 6. STRESS ALL STRANDS 25% AT 24 HOURS AND THEN 100% WHEN CONCRETE STRENGTH REACHES 25MPa
- 7. THE END OF ALL STRANDS SHALL BE SPRAY PAINTED (OR SIMILAR) 100mm FROM ANCHORAGE SO THAT THE EXTENSION CAN BE CLEARLY SEEN BY THE ENGINEER
- 8. TENDON EXTENSIONS SHALL BE MEASURED TO THE ACCURACY OF 3mm. THE STRANDS SHALL NOT BE CUT AND DUCTS CONTAINING TENDONS GROUTED UNTIL THE ENGINEER APPROVES THE STRANDS EXTENSIONS. A MINIMUM OF 24 HOURS NOTICE IS REQUIRED PRIOR TO THE ENGINEERS APPROVAL
- 9. THE SPECIALIST CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF ANCHORAGES AND SUPPLY ANY ADDITIONAL ZONE REINFORCEMENT DEEMED NECESSARY
- 10. THE STRESSING CONTRACTOR SHALL SUBMIT 2 COPIES OF THE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL SETTING OUT:
- a. PROPOSED ORDER OF STRESSING
- b. DETAILS OF ALL INTERMEDIATE DRAPES c. DETAILS OF ALL ANCHORAGES
- 11. TENDON PROFILES GENERALLY SHALL BE PARABOLIC WITHIN SPANS U.N.O. SLAB TENDON PROFILES SHALL BE HORIZONTAL OVER BAND BEAMS. REFER TO PLANS FOR CHAIR HEIGHTS.
- 12. TENDON ANCHORAGE POSITIONS (IN PLAN) SHALL BE AS PER SETOUT ON DRAWINGS (TOLERANCE ±20mm). MINOR DEVIATIONS FROM SPECIFIED PLAN ALIGNMENT MAY BE ALLOWED BETWEEN ANCHORAGES (TOLERANCE ± 100mm). HOWEVER REFER ANY DISCREPANCIES AND/OR OBSTACLES TO BUILDER/DESIGN ENGINEER FOR DIRECTION PRIOR TO TENDON INSTALLATION.
- 13 TENDON PROFILE AND/OR ALIGNMENT SHALL HAVE PRIORITY OVER OTHER REINFORCEMENT OR CAST IN ITEMS (CONDUITS ETC)
- 14. TOTAL JACKING FORCE = 156 kN/STRAND (85% OF THE STRAND BREAKING LOAD)
- 15. DUCT TO BE 19mm FLAT DUCT FOR SLAB POST TENSIONING. 75mm OR 90mm WIDE DEPENDING ON NUMBER AND SIZE OF STANDS.
- 16. STRAND EXTENSIONS TO BE FORWARDED TO THIS OFFICE FOR APPROVAL WHERE DESIGNED BY WEBBER DESIGN.
- 17. RECORD AND REVIEW STRAND EXTENSIONS ON COMPLETION OF STRESSING. SUBMIT FINAL EXTENSIONS TO THIS OFFICE PRIOR TO PROCEEDING WITH FURTHER WORK.
- 18. TENDON GROUTING SHALL BE CONDUCTED WITHIN 14 DAYS OF APPROVAL OF FINAL EXTENSIONS.
- 19. CONCRETE SAMPLES FOR TRANSFER STRENGTH TESTS SHALL BE SITE CURED UNDER CONDITIONS CONSISTENT WITH THE CONCRETE POUR. (TYPICALLY AIR CURED).
- 20. WHERE DRAPE IS DEEMED CLASHING, ADJUST SLAB TENDONS LOCALLY TO ACHIEVE NOMINATED DRAPE. REFER WEBBER DESIGN FOR CLARIFICATION IF IN DOUBT
- 21. IF IN DOUBT WITH THE QUALITY OF THE CONCRETE AT TIME OF STRESSING, REFER TO ENGINEER FOR DIRECTION AND ADVICE.

7 8 9

- 22. POST TENSION TO COMPLY WITH FOLLOWING CRACK CONTROL REQUIREMENTS (U.N.O. ON PLAN):
- INTERNAL AREAS - EXTERNAL AREAS (BALCONIES, TERRACES, ROOF) - AREAS IN CONTACT WITH GROUND

MODERATE STRONG STRONG

DESIGN AND CONSTRUCTION POST TENSIONING FLOOR SLAB AND BEAM DESIGN BRIEF:

- THE SUSPENDED FLOOR SLABS ARE A DESIGN AND CONSTRUCT COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, CERTIFICATION, CONSTRUCTION AND PRICING ASPECTS OF THIS COMPONENT. ANY RATES SUPPLIED ARE INDICATIVE ONLY AND SHOULD BE VERIFIED BY THE CONTRACTOR BASED ON THEIR PREFERRED DESIGN.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR ALL SUSPENDED FLOOR SLABS AND ROOF SLAB, EXCLUDING SLAB TO LIFT OVERRUN.
- 3. COMPUTATIONS SHALL BE SUBMITTED TO WEBBER DESIGN FOR REVIEW AND APPROVAL. COMPUTATIONS PROVIDED SHALL BE REFERENCED WITH PAGES AND IN ITS ENTIRETY. IF DESIGN INPUT AND OUTPUT IS LIMITED DUE TO LIMITATION OF DESIGN SOFTWARE, THE SOFTWARE FILE SHALL BE PROVIDED AS PART OF THE SUBMISSION.
- 4. SHOP DRAWINGS SHOWING COMPLETE TENDON PROFILES, POST TENSIONING DETAILS, ANCHOR DETAILS AND ADDITIONAL REINFORCEMENT REQUIRED FOR CONSTRUCTION MUST BE SUBMITTED WITH THE COMPUTATIONS FOR REVIEW AND APPROVAL BY WEBBER DESIGN.
- 5. THE CONCRETE PROFILE SHOWN HEREIN REPRESENTS A COORDINATED STRUCTURE. THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE HOWEVER THE SUPERINTENDENT IS NOT BOUND TO ANY ALTERNATIVE.

GENERAL DESIGN CRITERIA

- THE DESIGN SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS AND SPECIFIC PROJECT REQUIREMENTS. IN ADDITIONAL THE DESIGN SHALL COMPLY WITH THE RELEVANT STRUCTURAL ITEMS NOTED BELOW:
- 1. THE POST TENSIONING CONTRACTOR SHALL ENSURE POTENTIAL INTERNAL FORCES AND CRACKS INDUCED BY PRESTRESSING, SHRINKAGE, AND/OR TEMPERATURE ARE CONTROLLED IN THE VICINITY OF RESTRAINING ELEMENTS AND MAKE PROVISION FOR MOVEMENT AND SHRINKAGE AS REQUIRED THROUGHOUT, INCLUDING MOVEMENT JOINTS, POUR STRIPS, LOW SHRINKAGE CONCRETE MIX ETC.
- 2. NO COLUMN STIFFNESS SHOULD BE USED IN THE SLAB AND BEAM DESIGN.
- 3. SLABS TO BE CHECKED FOR PUNCHING WITH MOMENT DERIVED WITH 100% COLUMN STIFFNESS. PT CONTRACTOR TO MAKE ALLOWANCE FOR SHEAR HEAD REINFORCEMENT (WHERE REQUIRED) TO SATISFY PUNCHING SHEAR REQUIREMENTS.
- 4. leff TO Igross MAX RATIO TO BE DETERMINED BY THE DESIGNER BUT IN NO INSTANCE SHALL BE GREATER THAN 0.7 FOR THE SLAB AND BEAM CALCULATIONS.
- 5. DEFLECTION CRITERIA SHALL GENERALLY BE IN ACCORDANCE WITH AS3600 SUBJECT TO THE FOLLOWING, MAXIMUM LONG TERM DEFLECTIONS SHALL GENERALLY BE LIMITED TO: TYPICAL SLAB AND BEAMS -- SPAN/250 OR 20mm MAXIMUM, CANTILEVERS --SPAN/125 OR 15mm MAXIMUM. SLABS AND BEAMS SUPPORTING BRITTLE ELEMENTS -- SPAN/500, CANTILEVER -- SPAN/250 INCREMENTAL. TRANSFER SLABS AND BEAMS -- SPAN/1000 OR 10mm MAXIMUM. DIFFERENTIAL DEFLECTION BETWEEN FLOORS TO BE LIMITED TO SPAN/500 OR 15mm AT FACADE LOCATIONS.
- 6. POST TENSIONING CONTRACTOR SHALL ALLOW FOR LIVE LOAD PATTERNING FOR CANTILEVERS AND AREAS WITH LOCALIZED OR HIGH LIVE LOADS (LOADING DOCK AND CAR PARK) IN ACCORDANCE WITH AS3600.
- 7. REFER LOADING DRAWINGS FOR ALL GENERAL IN-SERVICE APPLIED LOADS. ALL ADDITIONAL APPLIED LOADS (BLOCK WALLS, PRECAST PANELS ETC) SHALL BE ADDITIONAL AS PER THE ARCHITECT'S DRAWING'S.
- 8. ALL SPECIFIC TRANSFER LOADS SHALL BE DETERMINED BY THE DESIGN ENGINEER AND SUBMITTED TO WEBBER DESIGN FOR REVIEW AND APPROVAL WITH THE COMPUTATIONS. ANY ADDITIONAL LATERAL LOAD SHALL BE ALLOWED FOR ACCORDINGLY. (REFER WEBBER DESIGN FOR CONFIRMATION)
- 9. POST TENSIONING CONTRACTOR SHALL COORDINATE ALL SLAB SERVICE PENETRATIONS FOR TENDON AND REINFORCEMENT LAYOUT.
- 10. ALL MOVEMENT JOINTS AND DETAILING SHALL BE BY THE DESIGN ENGINEER AND BE CO-ORDINATED WITH THE ARCHITECT WHERE APPLICABLE
- 11. ALL POST TENSION SLABS AND BEAMS ARE TO BE EDGE STRESSED (ACCESSIBILITY, POUR SEQUENCE AND SITE CONDITIONS PENDING) SHOULD PAN STRESSING BE REQUIRED, BUILDER TO COORDINATE WITH POST-TENSION CONTRACTOR.
- 12. PT CONTRACTOR TO MAKE ALLOWANCE FOR STRUCTURAL INTEGRITY REINFORCEMENT IN ACCORDANCE WITH CL9.2.2 OF AS3600-2018 FOR ALL SLABS AND BEAMS
- 13. PT CONTRACTOR TO PROVIDE A MINIMUM P/A OF 1.4MPA (AFTER FINAL LOSSES) TO ALL INTERNAL CONCRETE SLABS AND BEAMS, AND 2.0 MPa (AFTER FINAL LOSSES) TO ALL EXTERNAL AREAS (BALCONIES, TERRACES, EXPOSED ROOFS, ETC.) PLUS SL82 TOP MESH U.N.O.
- 14. ALL EXPOSED SLABS/BEAMS CRACK WIDTH TO BE LIMITED TO 0.3MM MAX
- 15. REFER TO ARCHITECT'S DRAWINGS FOR ALL SETDOWN, STEPS, HOBS, KERBS DRIP GROOVES, FALLS AND RECESSES U.N.O. SLAB THICKNESSESS SHOWN ARE MINIMUM.
- 16. ALL HOBS ARE NON-STRUCTURAL. TYP. UNO.
- 17. BUILDER TO COORDINATE LOCATION OF CONSTRUCTION JOINT WITH APPOINTED SLAB DESIGNER.
- 18. SAFETY MESH IS TO BE SUPPLIED FOR DEPTHS GREATER THAN 350MM AND INSTALLED AS REQUIRED ONSITE. ENSURE ALLOWANCE IS MADE FOR SAFETY MESH.
- 19. PROVIDE WATERPROOF SHEET MEMBRANE TO ALL EXTERNAL SLABS TO ARCHITECT'S AND CONTRACTOR'S DETAILS U.N.O.

STRUCTURAL STEEL

12. USE WASHERS UNDER ALL NUTS.

PURLIN WEBS ONLY.

- REFER TO ARCHITECTS DRAWINGS FOR ANY ADDITIONAL INCIDENTAL AND SECONDARY STEELWORK REQUIRED NOT SHOWN ON STRUCTURAL DRAWINGS.
- 2. UNLESS OTHERWISE NOTES ALL STRUCTURAL STEEL SHALL BE: - GRADE 300 PLUS FOR UB, UC, WB, WC, PFC, ANGLES, FLATS AND HOT ROLLED PLATES GRADE 350 FOR RHS, CHS AND SHS
- 3. BOLTS SHALL BE
- 8.8/S HIGH STRENGTH STRUCTURAL BOLTS OF STRESS GRADE 8.8 TO AS 1252 TIGHTENED TO A SNUG TIGHT CONDITION - 8.8/TB HIGH STRENGTH STRUCTURAL BOLTS OF STRESS GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A
- BEARING JOIN - 8.8/TF HIGH STRENGTH STRUCTURAL BOLTS OF STRESS GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A FRICTION JOINT
- 4.6/S COMMERCIAL GRADE BOLTS TO STRESS GRADE 4.6 TO AS 1252 TIGHTENED TO A SNUG TIGHT CONDITION
- 4. ALL WELDS SHALL BE 6mm CONTINUOUS FILLET FROM E48XX ELECTRODES, ALL WELDS SHALL BE CATEGORY SP UNLESS NOTED OTHERWISE.
- ALL CLEATS AND GUSSETS SHALL BE 10mm PLATE UNLESS NOTED OTHERWISE.
- 6. ALL EXPOSED STEELWORK SHALL BE HOT DIP GALVANISED UNLESS NOTED OTHERWISE
- 7. ALL HOLLOW SECTIONS SHALL BE FULLY SEALED USING 5mm PLATES UNLESS NOTED OTHERWISE. PROVIDE BLOW HOLES TO
- ALL GALVANISED SECTIONS.
- 8. SHOP DRAWINGS TO BE SUBMITTED FOR DOCUMENTATION COMPLIANCE REVIEW PRIOR TO FABRICATION. ALL 5 WORKING DAYS FOR REVIEW. REVIEW DOES NOT INCLUDE CHECKING OF DIMENSIONS.
- 9. ALL PRE-CAMBERS TO BE NATURAL CAMBER WITH UNIFORM CURVE TO BE UPWARDS.
- 10. STEELWORK SHALL BE IN ONE LENGTH, UNLESS OTHERWISE APPROVED. REFER TO DRAWINGS FOR ALL SPLICE LOCATIONS.
- 11. ALL HOLES SHALL BE 2mm OVERSIZED IN CLEATS, 10mm OVERSIZED FOR H.D. BOLT DIAMETERS IN BASE PLATES WITH 50x50x6.0 MINIMUM WASHERS.

13. ALL BOLTS TO BE GRADE 8.8/S, SNUG TIGHTENED UNLESS NOTED OTHERWISE.

14. ALL MEMBERS SHALL BE ERECTED FREE FROM TWISTS AND DISTORTIONS.

FOR ANY SPANS MORE THAN 2500mm UNLESS NOTED OTHERWISE.

STRUCTURE PRIOR TO THE COMMENCEMENT OF STEEL INSTALLATION.

HAVE TURNBUCKLES OR SIMILAR DEVICE.



SITE RETENTION SPECIFICATION:

GENERAL REQUIREMENTS:

PRELIMINARIES:-

SURVEY POINTS SHALL BE ESTABLISHED ON THE ADJACENT BUILDINGS WALLS AT FOUR (4) MIN LOCATIONS. THE LOCATION AND LEVEL OF THESE POINTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER & MONITORED BY A LICENSED SURVEYOR AT MAXIMUM WEEK INTERVALS INITIALLY (MAY BE ADJUSTED AS PROJECT PROCEEDS). DATE AND RESULTS SHALL BE PROGRESSIVELY ADDED TO A SURVEY PLAN, AND COPIES FORWARDED TO THE ENGINEER AT EACH STAGE. THE TOP OF SOLDIERS SHALL BE LOCATED BY SURVEY UPON INSTALLATION, AND AT REGULAR INTERVALS DURING THE PROJECT. ANY MOVEMENT DETECTED SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.

CONSTRUCTION SEQUENCE SOLDIER SHORING WALL:-

- 1. DRILL HOLES TO THE SETOUT AND DEPTHS SHOWN ON PLANS, ELEVATIONS AND SECTIONS, PLACE REINFORCEMENT CAGE AND POUR SOLDIERS. NOTE SOLDIERS MAY NEED TO BE CONSTRUCTED IN HIT 1 MISS 1 SEQUENCE DEPENDENT ON GEOTECHNICAL ADVICE.
- 2. CONSTRUCT CAPPING BEAMS
- 3. EXCAVATE WITHIN SITE TO A LEVEL 500mm BELOW TOP ANCHOR LOCATION.
- 4. DRILL, INSTALL AND STRESS ANCHORS (REFER GROUND ANCHORS NOTES)
- 5. EXCAVATE BETWEEN SOLDIERS TO THE BACK OF THE INFILL WALL, DRILL AND EPOXY TIE BARS. REFER
- DETAIL
- INSTALL STRIP DRAINS.
- SPRAY INFILL WALL PANELS. (REFER SPECIFICATION FOR SPRAY MIX DETAILS, PROCEDURES ETC.) MAXIMUM HEIGHT UNRESTRAINED SHALL BE 1.5m.
- REPEAT STEPS 3 THROUGH 7 AS REQUIRED
- MINIMUM THREE MONTHS AFTER POURING BRACING FLOOR SLAB. CLEAN OUT REBATES AT SUSPENDED BASEMENTS AND GROUT AS SHOWN ON DETAIL. WHEN GROUT HAS ATTAINED STRENGTH OF (fc) 40MPa. GROUND ANCHORS SHALL BE DE-STRESSED, ANCHOR HEADS REMOVED.

TOLERANCE FOR PIERS/SOLDIERS:-

- 1. PIERS SHALL BE CENTRED WITHIN 25mm OF THE "DESIGN CENTRE" AS INDICATED ON THE PLANS.MAXIMUM "OUT OF PLUMB" OF PIERS SHALL BE 25mm.
- 2. SOLDIERS SHALL BE SET OUT BY STRINGLINE SO THAT INTERNAL FACES ARE TRUE TOPOSITION AND LINE. MAXIMUM OUT OF POSITION "ALONG WALL" (AT INITIAL SURFACE LEVEL) SHALL BE 25mm.
- 3. PIERS SHALL BE CENTRED SUCH THAT THE EXTERIOR FACE OF THE SOLDIER/PANEL DOES NOT PROJECT OVER THE ADJOINING PROPERTY.

GROUND ANCHORS:-

- 1. CONTRACTOR IS TO CONFIRM LOCATION & DEPTH OF EXISTING BUILDING FOOTINGS, BASEMENTS & EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANCHOR WORKS TYPICAL.
- 2. GROUND ANCHORS ARE EACH TO BE DESIGNED IN ACCORDANCE WITH AS, 1481 FOR A WORKING LOAD AS SHOWN IN THE SCHEDULE. THE DESIGN AND DETAILS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT ON SITE, REFER ALSO TO RECOMMENDATION PROVIDED BY SOIL INVESTIGATION REPORT.
- 3. ANCHORS SHALL CONSIST OF LOW RELAXATION STRESS RELIEVED SUPERGRADE STEEL STRAND TO AS. 1313 AND ANCHORAGES SHALL CONFORM TO AS. 1314.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY "ACTUAL" ANCHOR LENGTH BY TEST ANCHORS ETC.. AND TO PROOF LOAD EACH ANCHOR AS PER NOTE BELOW.
- 5. PRIOR TO ANY DRILLING OPERATIONS, THE CONTRACTOR SHALL ACQUAINT HIMSELF WITH ALL ADJACENT UNDERGROUND SERVICES AND ENSURE THAT NONE OF THESE ARE DISRUPTED BY GROUND ANCHORS. ALL APPROPRIATE APPROVALS, PERMITS AND AGREEMENTS SHALL BE OBTAINED BEFORE COMMENCEMENT OF THE WORK.
- 6. ANCHORS SHALL BE STRESSED AT THE APPROPRIATE STAGES OF THE CONSTRUCTION SEQUENCE, PROVIDED THAT AT LEAST THREE DAYS HAVE ELAPSED AFTER GROUTING THE ANCHORAGE LENGTH. SUFFICIENT STRAND SHALL BE LEFT PROJECTING FROM THE ANCHORAGE TO ENABLE ANY SUBSEQUENT STRESSING.
- 7. EACH ANCHOR SHALL BE PROOF LOADED IE. STRESSED TO 150% OF THE WORKING LOAD, HELD FOR FIVE MINUTES, AND SLOWLY EASED BACK. THE ANCHOR SHALL THEN BE STRESSED TO WORKING LOAD AND LOCKED OFF. ANY ANCHOR WHICH FAILS TO HOLD THE LOAD SHALL BE REMOVED AND REPLACE WITH ANOTHER ANCHOR. SUCH WORK SHALL BE CARRIED OUT IN THE PRESENCE OF THE ENGINEER. CONTRACTOR SHALL KEEP ON SITE AN ADEQUATE SUPPLY OF ANCHOR CABLES, GROUT ETC. FOR EMERGENCY USE.
- 8. THE CONTRACTOR SHALL KEEP ON SITE AN ADEQUATE SUPPLY OF ANCHOR CABLES, GROUT ETC. FOR EMERGENCY USE.
- 9 THE CONTRACTOR SHALL REGULARLY MONITOR THE STRESS IN THE ANCHORS TO ENSURE NO MAJOR LOSSES ARE OCCURRING. IF STRESS LOSSES ARE DETECTED THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 10. GROUT FOR GROUND ANCHORS SHALL BE NEAT PORTLAND CEMENT/WATER MIX WITH "METHOCELL" ADDED TO MANUFACTURERS SPECIFICATION, MAXIMUM WATER/CEMENT RATIO = 0.50. THE GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF S20MPa AT THREE (3) DAYS. GROUT CYLINDERS SHALL BE TAKEN ON THE BASIS OF ONE SAMPLE (TWO CYLINDERS) FOR EVERY TEN ANCHORS AND TESTED ON THE DAY OF STRESSING. THE GROUT SHALL BE MIXED IN A HIGH SPEED IMPELLER TYPE MACHINE.
- 11. SITE RECORDS (DATES AND DETAILS) SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE FOLLOWING STAGES:
 - ANCHOR INSTALLATION (NOTE FREE LENGTH/ANCHOR LENGTH PROVIDED)
 - ANCHOR GROUTING
- STRESSING /PROOF LOADING AND CONFIRMATION OF ACCEPTABLE ANCHOR PERFORMANCE - MONITORING (NOTE ACTUAL ANCHOR LOADS)

BULK EXCAVATION:-

- THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED TO PROVIDE SUPERVISION OF EXCAVATIONS ADJACENT TO EXISTING BUILDINGS/PAVEMENTS TO PREVENT DAMAGE OR INSTABILITY.
- THE BUILDER SHALL BE RESPONSIBLE FOR VIBRATION CONTROLS DURING EXCAVATION.
- REFER TO THE GEOTECHNICAL ENGINEER TO CONFIRM THE REQUIREMENTS FOR EXCAVATION OF THE BASEMENT MATERIAL
- WHERE BASEMENT IS AT WATER TABLE LEVEL THE BUILDER IS TO PROVIDE MOVABLE SHIELDS FOR 4 VERTICAL SIDED DRIVES THROUGH BATTERED AND BENCHED EXCAVATION LEVELS. STABILITY CHECKS ARE TO BE PROVIDED FOR EXCAVATIONS GREATER THAN 600mm. THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED TO PROVIDE SUPERVISION AND FURTHER RECOMMENDATION AS REQUIRED.
- THE BASE OF THE EXCAVATION SHALL BE GRADED / DRAINED TO SUMPS AND PUMPED AS REQUIRED TO MAINTAIN THE EXCAVATION FREE OF SURFACE WATER. THE SUMPS ARE TO BE FITTED WITH SILT TRAPS. DO NOT PUMP ANY MUD OR SLUDGE INTO COUNCIL DRAINS. THE INITIAL EXCAVATION MAY BE CARRIED OUT TO LEVELS SHOWN ON THE DRAWINGS WITH THE FINAL TRIMMING TO DESIGN LEVELS PRIOR TO POURING BASE SLABS.
- REDUCED LEVELS NOTED ARE MINIMUM EXCAVATION LEVELS TO ACHIEVE THE NOMINATED FINISHED FLOOR LEVELS. CONSIDERATION SHOULD BE GIVEN TO FOUNDING CONDITIONS WHEN NOMINATING THE INITIAL BULK EXCAVATION LEVELS.

GEOTECHNICAL ENGINEER SUPERVISION NOTE:-

- 1. THE CONTRACTOR SHALL PAY ALL FEES REQUIRED FOR ADDITIONAL GEOTECHNICAL SERVICES.
- 2. ALL EXCAVATIONS ADJOINING AN EXISTING BUILDING ALONG A SITE BOUNDARY OR EXCAVATIONS OF A GEOTECHNICAL ENGINEER.
- 3. GEOTECHNICAL ENGINEER TO PROVIDE SUPERVISION OF EXCAVATION TO PREVENT DAMAGE TO EXISTING BUILDING ON ADJOINING SITE BOUNDARY.
- 4. THE BUILDER SHALL BE RESPONSIBLE FOR VIBRATION CONTROLS DURING EXCAVATION WORKS.
- CONTACTED TO PROVIDE SUPERVISION AND FURTHER RECOMMENDATION AS REQUIRED.
- EXCAVATION. IF THERE IS A TENDENCY OF INSTABILITY DURING THE EXCAVATION WORKS. THE EXCAVATION TO PROCEED.
- 7. REFER TO GEOTECHNICAL NOTES FROM S-WEB-001 FOR GEOTECHNICAL REPORT REFERENCE

SHOTCRETE NOTES:

- <u>GENERAL</u> PROCESS.
- 2. DEFINITIONS SPECIFICATION:
 - VELOCITY FROM A NOZZLE INTO PLACE TO PRODUCE A DENSE HOMOGENEOUS MASS.
 - NOT MORE THAN 20mm.
 - DOES NOT CONFORM TO THE DEFINITION OF SPRAYED CONCRETE. NOZZLE - IS THE ATTACHMENT AT THE END OF THE HOSE FROM WHICH THE MATERIAL IS JETTED AT
- HIGH VELOCITY. CONSISTENCY. AND MAKES THE FINAL DISPOSITION OF THE MATERIAL
- <u>MIX DESIGN</u> APPLY UNLESS OTHERWISE STATED.
- INITIAL SET OF CEMENT/ADMIXTURE PASTE 3 MINS. (a) FINAL SET OF CEMENT/ADMIXTURE PASTE
- (b) 8 HOUR STRENGTH OF CONCRETE 24 HOUR STRENGTH OF CONCRETE

ALL CONSTITUENTS SHALL BE UNIFORMLY DISPERSED THROUGHOUT 'THE MIX.

- QUALIFICATIONS OF OPERATORS SPRAYING, THE CONTRACTOR SHALL CERTIFY TO THE ENGINEER THAT THE FOREMAN, NOT AVAILABLE.
- PLANT 5. THE CONSTRUCTION OF THE WORKS.
- SUBSTRATE PREPARATION PREVENT EROSION WHEN THE SPRAYED CONCRETE IS APPLIED.
- SPRAYING PROCEDURE SPRAYED CONCRETE SHALL BE PROTECTED FROM RAIN OR WATER TILL THE SURFACE IS OF CONCRETE MIXER SHALL BE KEPT AND MADE AVAILABLE TO THE CONSTRUCTION MANAGER,
- JOINTS
- QUALITY CONTROL MANUAL "RECOMMENDED PRACTICE SPRAYED CONCRETE" CLAUSE A12 OF THE REFERENCE SPECIFICATION PREPARED BY THE CONCRETE INSTITUTE OF AUSTRALIA.

INTERFACE BETWEEN NEW AND EXISTING ADJACENT STRUCTURES:

MEMBRANE BETWEEN EXISTING & PROPOSED FOOTINGS.

WHICH MAY UNDERMINE AN ADJOINING BUILDING MUST BE CONDUCTED UNDER THE SUPERVISION

WHERE BASEMENT IS AT WATER TABLE LEVEL THE BUILDER IS TO PROVIDE MOVABLE SHIELDS FOR VERTICAL SIDED DRIVES THROUGH BATTERED AND BENCHED EXCAVATION LEVELS. STABILITY CHECK TO BE PROVIDED FOR EXCAVATION GREATER THAN 2000mm THE GEOTECHNICAL ENGINEER SHALL BE

AS EXCAVATION PROCEEDS FOR RETENTION SYSTEM ADJACENT TO THE EXISTING BUILDING OR ON ADJOINING BOUNDARY, THE GEOTECHNICAL ENGINEER SHALL PROVIDE SUPERVISION TO THE THE GEOTECHNICAL ENGINEER SHALL PROVIDE FURTHER SPECIFICATION AND RECOMMENDATION FOR

THE CONCRETE IN THE PANELS OF THE RETAINING WALLS MAY BE PLACED BY THE SHOTCRETING

THE FOLLOWING DEFINITIONS EXPLAIN THE MEANING OF CERTAIN WORDS AND TERMS AS USED IN THIS

 SPRAYED CONCRETE - IS A MIXTURE OF CEMENT, AGGREGATE AND WATER PROJECTED AT HIGH SHOTCRETE - IS A TERM USED FOR SPRAYED CONCRETE WHERE THE MAXIMUM AGGREGATE SIZE IS

REBOUND - IS A TERM USED FOR ALL MATERIAL HAVING PASSED THROUGH THE NOZZLE WHICH

• NOZZLEMAN - IS THE WORKMAN WHO MANIPULATES THE NOZZLE. THE NOZZLEMAN MAINTAINS

MIX PROPORTIONS SHALL BE DESIGNED BY THE CONTRACTOR AND SHALL BE TO THE APPROVAL OF THE SUPERINTENDENT. ALL CONCRETE SHALL BE OBTAINED FROM AN APPROVED CONCRETE SUPPLIER AND SHALL BE PREMIXED AND DELIVERED TO SITE IN ACCORDANCE WITH AS 1379. WHERE ADMIXTURES ARE APPROVED BY THE SUPERINTENDENT FOR ADDITION TO THE MIX TO ALTER THE SETTING RATE OF THE CEMENT, THE FOLLOWING SETTING TIMES AND STRENGTHS SHALL

- 12 MINS.

- 3 MPa

- 10 MPa

ALL OPERATORS SHALL BE TO THE APPROVAL OF THE ENGINEER. PRIOR TO COMMENCEMENT OF NOZZLEMAN AND DELIVERY EQUIPMENT OPERATIVES HAVE COMPLETED SATISFACTORY WORK IN SIMILAR CAPACITIES ELSEWHERE. WHERE REQUIRED BY THE ENGINEER THE OPERATOR SHALL SPRAY PRE-CONSTRUCTION PANELS WHICH SHALL BE APPROVED BY THE ENGINEER BEFORE THE OPERATORS ARE EMPLOYED ON THE WORKS. SUCH PANELS MAY ALSO BE USED BY THE ENGINEER TO ASSESS THE COMPETENCE OF OPERATORS OR TRAINEES FOR WHOM SUCH CERTIFICATION IS

THE CONTRACTOR SHALL STATE THE NUMBERS AND TYPE OF PLANT WHICH HE PROPOSES TO USE FOR

THE SURFACE SHALL BE COMPACT, TRIMMED AND GRADED AS REQUIRED AND DAMP BEFORE THE APPLICATION OF SPRAYED CONCRETE. NATURAL SURFACES MUST BE SUFFICIENTLY COHESIVE TO

NO CONCRETE SHALL BE SPRAYED IN AIR TEMPERATURES LESS THAN 5 DEGREES CELSIUS. FRESHLY SUFFICIENT HARDNESS TO PREVENT DAMAGE. SPRAYING SHALL BE DISCONTINUED IF WIND OR AIR CURRENTS CAUSE SEPARATION OF THE NOZZLE STREAM DURING PLACEMENT. DURING STARTING OR STOPPING OF THE SPRAYING OPERATION OR WHENEVER SPRAYING IS IRREGULAR, THE NOZZLE SHALL BE DIRECTED AWAY FROM THE WORKS. ALL CORNERS AND ANY AREAS WHERE REBOUND CANNOT ESCAPE OR BE BLOWN FREE, SHALL BE FILLED PRIOR TO GENERAL SPRAYING, REBOUND SHALL NOT BE WORKED INTO THE CONSTRUCTION OR RE-USED IN THE WORKS. GUIDES SHALL BE SET UP TO ESTABLISH FINISHED SURFACES. THESE GUIDES SHALL BE TO THE APPROVAL OF THE ENGINEER PRIOR TO SPRAYING. SPRAYED CONCRETE SHALL BE APPLIED SO THAT IT NEITHER SAGS NOR SLUMPS. SPRAYED CONCRETE SHALL BE TROWELLED TO A SMOOTH SURFACE. MAXIMUM DEVIATION FROM A 1m STRAIGHT EDGE SHALL BE 10mm. FULL RECORDS OF ALL MATERIALS DELIVERED TO THE SPRAYED

THE POSITION AND TYPE OF ALL CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER.

TESTING OF SHOTCRETE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPRAYED CONCRETE

1. THE PILING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN APPROVED BOND BREAKER OR



TYPICAL GROUND ANCHOR SECTION AT EXISTING SERVICES LOCATION NOT TO SCALE

NOTE: REFER TO RETENTION ELEVATIONS FOR NUMBER OF ANCHORS AND LOCATIONS. ALSO REFER TO RETENTION DETAILS AND SECTIONS FOR ANCHOR REQUIREMENTS

NOTES

REFER TO GEOTECH FOR ANCHOR DESIGN AND PARAMETERS. ALL ANCHORS TO BE PROOF TESTED TO 1.5 TIMES THE WORKING LOAD.

REFERENCE NOTE:

REFER TO RETENTION DRAWING FOR SHOTCRETE WALL TYPES AND MAXIMUM VERTICAL DRIVES REFER RETENTION ELEVATIONS FOR NUMBER OF ANCHORS AND LOCATIONS. ALSO REFER TO RETENTION DETAILS & SECTION FOR ANCHOR REQUIREMENTS.

EXISTING SERVICES NOTES:

LOCATION AND LEVELS OF EXISTING SERVICES SHOWN INDICATIVELY ONLY. EXACT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. REFER ALSO TO ALL SERVICES (IE. HYDRAULIC, CIVIL) FOR FURTHER DETAILS TYPICAL

ENSURE FIRST GROUND ANCHOR IS MINIMUM 1000mm BELOW INVERT LEVEL OF LOWEST ADJACENT SERVICE.

PRIOR TO COMMENCEMENT OF TEMPORARY SOIL ANCHOR INSTALLATION SUBCONTRACTOR TO CONFIRM LOCATION & EXTENT OF EXISTING SERVICES SO AS TO ENSURE TEMPORARY SOIL ANCHORS FALL BELOW ANY EXISTING SERVICES WHEN INSTALLED

WATERPROOFING NOTE:

CONCRETE IN WALLS, FLOOR SLABS EXPOSED TO EXTERNAL WEATHER AND BASE OF ALL PITS TO CONTAIN WATERPROOFING ADDITIVE TO MANUFACTURERS RECOMMENDATIONS. APPLY A SLURRY COAT OF WATERPROOFING ADDITIVES TO CONSTRUCTION JOINTS, ALSO REFER TO MANUFACTURERS RECOMMENDATIONS. ALL CONSTRUCTION JOINTS AND PIT WALL BASES TO CONTAIN A CONTINUOUS WATERSTOP TO BASE OF WALL.

WATER DRAINAGE NOTE:

BASE EXCAVATION SHALL BE GRADED / DRAINED TO SUMPS AND PUMPED AS REQUIRED TO MAINTAIN THE EXCAVATION FREE OF SURFACE WATER. BULK EXCAVATION TO BE SUITABLY DRAINED INTO SUMPS FITTED WITH SILT TRAPS. DO NOT PUMP ANY MUD OR SLUDGE INTO COUNCIL DRAINS. INITIAL EXCAVATION MAY BE CARRIED OUT TO LEVELS SHOWN ON THIS DRAWINGS WITH THE FINAL TRIMMING TO DESIGN LEVELS PRIOR TO POURING BASE SLAB.

CONSTRUCTION MANAGEMENT NOTE:

CONSTRUCTION MANAGEMENT PLAN IS TO BE PROVIDED TO THE LOCAL COUNCIL FOR APPROVAL BY THE BUILDER/CONTRACTOR. THIS PLAN IS TO COVER TRAFFIC MOVEMENTS TO AND FROM SITE, PEDESTRIAN SAFETY, NUISANCE MANAGEMENT AND NOISE / DUST CONTROL. REFER TO COUNCIL FOR REQUIREMENTS.

BOND BREAKER NOTE:

THE PILING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN APPROVED BOND BREAKER OR MEMBRANE BETWEEN EXISTING & PROPOSED FOOTINGS.

EXISTING FOOTINGS NOTE:

CONTRACTOR IS TO CONFIRM LOCATION & DEPTH OF EXISTING BUILDING FOOTINGS, BASEMENTS & EXISTING SERVICES PRIOR TO COMMENCEMENT OF ANCHOR WORKS TYPICAL.

DEWATERING:

THE CONTRACTOR SHALL PROVIDE ALL PUMPS, SPEARS, SUMPS ETC. AS NECESSARY TO EFFECTIVELY DEWATER THE SITE BELOW THE LOWEST EXCAVATION LEVEL TO PERMIT CONSTRUCTION. ALL DEWATERING WORKS, PERMITS AND DISCHARGE SHALL BE BY THE CONTRACTOR IN ACCORDANCE WITH THE RELEVANT STANDARDS, GEOTECHNICAL AND HYDROLOGICAL CONSULTANTS AND LOCAL AUTHORITIES REQUIREMENTS. DEWATERING SHALL CONTINUE UNTIL ALL STORMWATER PITS, SUMPS AND PUMPS HAVE BEEN COMMISSIONED AND WRITTEN APPROVAL OF THIS OFFICE. MONITORING OF ADJACENT PROPERTIES SHOULD COMMENCE BEFORE DEWATERING COMMENCES. THE CONTRACTOR SHALL ENGAGE THE GEOTECHNICAL AND HYDROLOGICAL CONSULTANTS AS REQUIRED FOR FURTHER ADVICE IF REQUIRED.

SURVEY MONITORING NOTE:

BUILDER TO PROVIDE SURVEY MONITORING POINTS ALONG RETENTION WALLS. THESE ARE TO BE MONITORED AND CHECKED FORTNIGHTLY. A RECORD OF THE FINDINGS/READINGS ARE TO BE KEPT ON SITE FOR VIEWING BY COUNCIL AS REQUIRED.

BUILDER TO CONFIRM SERVICES LOCATIONS PRIOR TO THE COMMENCEMENT OF WORKS. SERVICES SHOWN ARE INDICATIVE ONLY. REFER TO HYDRAULIC AND/OR CIVIL AND ALL SERVICE ENGINEERS DRAWINGS FOR EXISTING SERVICE





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DESIGN CRITERIA

- 1. REFER TO STS GEOTECHNICS (A GEOTECHNICAL DESIGN PARAM
- 2. DESIGN SURCHARGE TO BE 20 k SURCHARGE.
- 3. RETENTION WALL HORIZONTAL TERM)
- 4. D & C PILE DESIGN TO INCORPO AS A RESULT OF PILING OFFSE

<u>NOTE:</u>

REFER TO SECTIONS ON DRG S-. 1 DRG S-WEB-028 FOR TYPICAL D mmmmm 2. GROUND ANCHORS TO BOUNDA 3. ALL RETENTION PILES TO BE SO EXCAVATION/LINE OF INFLUENCE RECOMMENDATIONS. 4. QUALIFIED GEOTECHNICAL ENGI

SOCKET FOUNDING MATERIAL 5. INTERNAL TEMPORARY PROPPI BY D&C CONTRACTOR.

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BASEMENT CONSTRUCTION AS PER THE LATEST GEOTECHNICAL SLAB AND LOWER RETENTION WALL DRAINAGE SYSTEM (DESIGNED BY 01 BOTH DURING CONSTRUCTION AND THEY HAVE NOT BEEN DESIGN AS A WATERPROOF MEDIUM (MEMBRANE PERMEATING THROUGH THE CONCR WATERPROOFING CONSULTANT SHO REQUIREMENTS INCLUDING POTENT ALL COLD JOINTS TO PILES, SHOTCR

- ALL DETAILING OF MEMBRANE AND PENDING TO FURTHER SF
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- REQUIREMENTS. ALLOW FOR WATERPROOF ADM
- POUR STRIP AND POUR SIZE 1 STRATEGY ALONG WITH ADDI

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BUILDER TO PROVIDE TEMPORARY CONCRETING AS NECESSARY WITH FOOTPATH REINSTATED ON COMPL

NOTE:

- 1. ALL BORED PIER EMBEDMENT WORKING CAPACITY NOMINAT DESIGN PARAMETERS.
- 2. RETENTION PIER SOCKETS AD INCREASED BY EXCAVATION D

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RETENTION WALL AND PI
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FOUNDATION SCHEDULE										
		f'c	REINF. RATE							
MARK	SIZE	(MPa)	(kg/m ³)	REMARKS						
PC1	700d x 1500 x 1500	50	160	PILE CAP WITH BP1						
PC2	700d x 2000 x 1300	50	160	PILE CAP WITH BP1						
RF1	800d x AS NOTED ON PLAN	50	130	CORE RAFT						
SF1	600d x 600w	40	110	STRIP FOOTING						

		BORE	D PIER SCHEE
MARK	SIZE	f'c (MPa)	REINF. RATE (kg/m³)
BP1	750 DIA.	50	N/A

NOTES:

1. ALL BORED PIERS TO BE FOUNDED INTO UNDERLYING BEDROCK AS PER GEOTECHNICAL

REPORT RECOMMENDATIONS. BORED PIERS D&C BY OTHERS. 2. ALL BORED PIER EMBEDMENT DEPTH TO CONTRACTOR'S DESIGN TO ACHIEVE WORKING

CAPACITY NOMINATED IN DESIGN PARAMETERS IN LATEST GEOTECHNICAL REPORT. 3. ALL COLUMNS TO BE CONCENTRIC TO THE PAD FOOTING U.N.O. 4. GEOTECHNICAL ENGINEER TO INSPECT FOOTING EXCAVATIONS AND / OR BORED PIER HOLE DRILLING TO CONFIRM THAT THE FOOTINGS AND PIERS ARE FOUNDED OR SOCKETED

ADEQUATELY INTO THE FOUNDING MATERIALS THAT SATISFY THE DESIGN ALLOWABLE BEARING PRESSURES. 5. REFER TO DRAWING S-WEB-030 FOR FOUNDATION LOADS.

BASEMENT CONSTRUCTION PHILISOPHY:

AS PER THE LATEST GEOTECHNICAL REPORT(STS GEOTECHNICS, APRIL 2020), THE BASEMENT SLAB AND LOWER RETENTION WALLS ARE STRUCTURALLY DESIGNED WITH AN EFFECTIVE DRAINAGE SYSTEM (DESIGNED BY OTHERS) WITH NO RESULTANT HYDROSTATIC PRESSURE BOTH DURING CONSTRUCTION AND THE LIFETIME OF THE STRUCTURE. THEY HAVE NOT BEEN DESIGN AS A LIQUID RETAINING STRUCTURE AND AS SUCH RELIES ON A WATERPROOF MEDIUM (MEMBRANE, WATERPROOF ADDITIVES OR SIMILAR) TO STOP WATER PERMEATING THROUGH THE CONCRETE OR POTENTIAL CRACKS IN THE STRUCTURE. A WATERPROOFING CONSULTANT SHOULD BE ENGAGED TO ADVISE ON ALL WATERPROOFING REQUIREMENTS INCLUDING POTENTIAL MEMBRANES, CONCRETE ADDITIVES AND DETAILING OF ALL COLD JOINTS TO PILES, SHOTCRETE WALLS, SLABS, FOUNDATIONS AND WALLS.

- ALL DETAILING OF MEMBRANES, WATER STOPS, ETC MADE HEREIN ARE INDICATIVE ONLY
- AND PENDING TO FURTHER SPECIALIST ADVICE. • ALLOWANCE FOR POTENTIAL 50mm BLINDING LAYER TO BASEMENT SLAB SHOULD BE MADE PENDING CONFIRMATION OF THE WATERPROOFING SYSTEM ADOPTED AND SPECIFIC REQUIREMENTS.
- ALLOW FOR WATERPROOF ADMIXTURE IN CONCRETE BELOW THE WATERTABLE. • POUR STRIP AND POUR SIZE TO BE CONSIDERED IN CONJUNCTION WITH WATERPROOFING STRATEGY ALONG WITH ADDITIONAL REINFORCEMENT TO CONTROL CRACK WIDTH.

DULE

REMARKS PILE BY D&C CONTRACTOR



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3	ISSUED FOR TENDER (UPDATED)	MA/BT	PAC	18.12.20							
4	ISSUED FOR TENDER (UPDATED)	MA/BT	PAC	05.02.21							

DRAWING REFERENCE	REFERENCE NO.
DRAWING INDEX	S-WEB-000
GENERAL NOTES	S-WEB-001-002
RETENTION	S-WEB-010-029
CONCRETE COLUMNS	S-WEB-800-819
IN-SITU WALLS	S-WEB-820-879
PRECAST WALLS	S-WEB-880-909
SLAB ON GROUND DETAILS	S-WEB-950-951
SUSPENDED CONCRETE SLABS	S-WEB-960-962
POST TENSIONING DETAILS	S-WEB-965-966
R.C. STAIR DETAILS	S-WEB-970
MASONRY DETAILS	S-WEB-980-981
STEEL DETAILS	S-WEB-990-991

ISSUED FOR TENDER

STRUCTURAL DRAWING



FOUNDATION PLAN

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11-13 MANNIX F WARWICK FARM, N TITLE FOUNDATION TY DATE NOV 2020 MA/BT SCALES AT A1 1:20 DRAWING NO.	PARADE NSW 21 YPICAL ET 2 AC	. 70



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		E	BASEME	NT 1 - S	SLAB SC	HEDU	JLE			WORK SHALL BE REPRODI MEANS (GRAPHIC, ELECTR PHOTOCOPYING, RECORDI SYSTEMS) WITHOUT THE		HANICAL, MATION RI	ETRIEVAL
THICKNESS	f'c (M	1Pa)	REINF	RATE m ³)	P.T. RA	ATE	REMARKS		DO) NOT SCALE DRAWINGS. USE	FIGURED		SIONS
150	40)	4))	N/A	S	LAB ON GROUND	Re	ev.	Description	Eng.	Draft.	Date
200*	40)	4	C	N/A	R	.C. RAMP SLAB	1		WORK IN PROGRESS ISSUE	MA	PAC	18.11.20
200	40)	11	.0	N/A	В	ONDEK SLAB	2	2	ISSUED FOR TENDER (DRAFT)	MA/BT	PAC	27.11.20
								3	;	ISSUED FOR TENDER (UPDATED) ISSUED FOR TENDER (UPDATED)	MA/BT	PAC PAC	18.12.20 05.02.21
	BA	SEME	ENT 1- C	ONCRE	TE COLI	JMN S	SCHEDULE	$\neg \vdash$	-				
				REIN	. RATE				1				
MARK	SIZE	1	f'c (MPa)	(kg	/m³)		REMARKS		+		<u> </u>		
C1 3	300 x 100	0	65	1	.90	INSITU	CONCRETE COLUMN		+				
C6	500 x 500)	65	1	.50	INSITU							
C10	500 DIA.		65		/0	INSITU	CONCRETE COLUMN						
								[D	RAWING REFERENCE	REFEF	RENCE	E No.
		E	BASEME	NT 1 - V	NALL SC	CHEDI	ULE		DF	RAWING INDEX	S-WEB-(000	
								— -	GE	ENERAL NOTES	S-WEB-0	$\frac{001-002}{010-029}$	2
		fla (N	/IDa) F				DEMADKS		CC	ONCRETE COLUMNS	S-WEB-8	300-819	9
			0 0	(kg/III				— -	IN	I-SITU WALLS	S-WEB-8	320-879	9
CW1	200	5	0	220				—— -	PF SL	AB ON GROUND DETAILS	S-WEB-8	380-90 950-95	9 1
CW2	250	5	0	180	IN		ONCRETE CORE WALL	——] [SL	JSPENDED CONCRETE SLABS	S-WEB-9	960-962	2
CW3	150	5	0	180	IN	ISITU CO	ONCRETE CORE WALL		PC	OST TENSIONING DETAILS	S-WEB-S	965-966	ŝ
W1	200	4	0	220	IN	ISITU CO	ONCRETE WALL		<u>к</u> . М	ASONRY DETAILS	S-WEB-9	970 980-98°	1
W2	250	4	0	180	IN	ISITU CO	ONCRETE WALL	†	ST	TEEL DETAILS	S-WEB-9	990-99	1
 ALL SERVICES REBATES AND WITH ARCHITE CONTRACTOR CONTRACTOR REFER TO ARC REFER TO ARC PER THE LATES AB AND LOWER AINAGE SYSTEM TH DURING CON HAVE NOT BE ATERPROOF MED RMEATING THRO ATERPROOF MED COLD JOINTS T ALL DETAILIN AND PENDIN ALLOWANCE MADE PENDI REQUIREMENT 	PENETRA CAST IN I ECT. SHALL AL HITECT'S DNSTRL T GEOTEC RETENTIC I (DESIGNI ISTRUCTIO EN DESIC DUM (MEN DUGH THE CONSULT/ CLUDING TO PILES, NG OF ME FOR POTING CONF NG CONF NTS.	TIONS PLATES LOW F DRAWI JCTIO CHNICAI DRAWI ED BY (ON ANI GN AS A MBRAN E CONC ANT SH POTEN SHOTC MBRAN THER S ENTIAL IRMATI	TO BE CO-G FOR STRU OR CONSTRU- INGS FOR C DN PHILI L REPORT(S LS ARE ST OTHERS) W D THE LIFE A LIQUID RI IE, WATERF RETE OR P IOULD BE E ITIAL MEMI RETE WALI RETE WALI SPECIALIST 50mm BLI ION OF THE	DRDINATE CTURAL S RUCTION J AR CRASH AR CRASH STS GEOTH TS GEOTH TH NO RI TIME OF T TAINING PROOF ADI OTENTIAL NGAGED BRANES, C S, SLABS R STOPS, H ADVICE. NDING LA WATERPI	D AND APF TEEL WOR OINTS AS I BARRIER ECHNICS, A LY DESIGN ESULTANT HE STRUCTUR DITIVES OR CRACKS IN TO ADVISE CONCRETE FOUNDAT ETC MADE I YER TO BA ROOFING S	PROVED REQUIR REQUIR REQUIF NED WIT HYDRO TURE. RE AND A SIMILA N THE S ON ALL ADDITIN TONS AT HEREIN SEMEN SYSTEM	BY WEBBER DESIGN. FACADE TO BE CO-ORDINATED ED. REMENTS. D20), THE BASEMENT TH AN EFFECTIVE STATIC PRESSURE AS SUCH RELIES ON A R) TO STOP WATER TRUCTURE. A WATERPROOFING VES AND DETAILING OF ND WALLS. ARE INDICATIVE ONLY T SLAB SHOULD BE ADOPTED AND SPECIFIC			GENERAL ARRANGEME xx* -DENOTES SLAB/BA -DENOTES COLUMN -DENOTES LOAD BE UNDER & OVER -DENOTES BLOCK W S.C.J. -DENOTES SAWCUT C.J. -DENOTES CONSTRUCT -DENOTES SLAB SE REFER TO ARCH. DE	VT LEG VD BEAM OVER ER ARING EL ARING EL JOINT JOINT JOINT JCTION J(TOWN. TAILS FC	END THICK EMENT EMENT R DINT	UNDER
POUR STRIP STRATEGY AI	AND POU LONG WIT	IR SIZE	TO BE CON	ISIDERED	IN CONJUN	NCTION CONTROL	WITH WATERPROOFING L CRACK WIDTH.				· · ·		

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		E	BASEN	1ENT 1 - \$	SLAB SC	CHEDI	ULE			Means (graphic, electr Photocopying, recordi Systems) without the I	onic or m Ng or info Permissioi	Echanic Rmatic Nof We	Cal, IN DN RE EBBER	icluding Frieval Design Pty
THIOKNESS	fle (N	4De)	REIN	IF. RATE	P.T. R	ATE								
1HICKNESS 150	5 TC (IV 40	0 0	(к 	(g/m ³) 40	(kg/ff N/A	1 ²)	REMARKS SLAB ON GROUND	Rev	JINOTISC	Description	-IGUREL		EINS aft.	Date
200*	4(0		40	N/A	F	R.C. RAMP SLAB	1	WORK IN	PROGRESS ISSUE	MA	. P/	AC	18.11.20
200	40	0		110	N/A] E	BONDEK SLAB	2	ISSUED FO	DR TENDER (DRAFT)	MA/E	BT P/	AC	27.11.20
								3	ISSUED FO	DR TENDER (UPDATED)	MA/E MA/E	BT PA	AC AC	18.12.20 05.02.21
	BA	SEME	ENT 1-	CONCRE	TE COL	UMN	SCHEDULE							
				RFINE	. RATF									
MARK	SIZE	f	f'c (MF	Pa) (kg	r/m³)		REMARKS							
C1	300 x 100	0	65	1	.90	INSITU	J CONCRETE COLUMN	1					_	
C6	500 x 500	D	65	1	.50	INSITU	J CONCRETE COLUMN							
010	500 DIA.		65		.70	INSIT	J CONCRETE COLUMN	J [
									RAWI	NG REFERENCE	REFE	REN	ICE	No.
		E	BASEN	1ENT 1 - \	WALL SO	CHED	DULE		RAWING		S-WEB	-000	000	
			T	RFINF F	RATE				<u>ENERAL</u> ETENTIO	NOTES N	S-WEB	-001- -010-	002	
MARK	/IDTH	f'c (N	/Pa)	(kg/m	3)		RFMARKS		ONCRET	E COLUMNS	S-WEB	-800-	819	
BW1	190	20	0	60	, C	ORE FII	LLED BLOCKWORK		N-SITU W RECAST \	ALLS WALLS	S-WEB	<u>-820-</u> -880-	<u>879</u> 909	
CW1	200	50	0	220	11	NSITU C	CONCRETE CORE WALL	S	LAB ON (GROUND DETAILS	S-WEB	-950-	951	
CW2	250	50	0	180	11	NSITU C	CONCRETE CORE WALL		USPENDI	ED CONCRETE SLABS	S-WEB	-960-	962 066	
CW3	150	50	0	180	11	NSITU C	CONCRETE CORE WALL		.C. STAIF	SIONING DETAILS	S-WEB	-965- -970	966	
<u>W1</u>	200	4(0	220	11	NSITU C		- M	IASONRY	DETAILS	S-WEB	-980-	981	
 ALL SERVICES REBATES AND WITH ARCHITI CONTRACTOR REFER TO ARC REFER TO ARC PER THE LATES AB AND LOWER RAINAGE SYSTEN DTH DURING COI HAVE NOT B ATERPROOF MEI ERMEATING THRI ALL DETAILI AND PENDIR ALL DETAILI AND PENDIR ALLOWANCE MADE PEND REQUIREME ALLOW FOR 	Denetra Cast in Ect. Shall al Chitect's DIST Geotec Retention (Design NSTRUCTI EEN DESIG DIUM (MEI OUGH THI CONSULT, NCLUDING TO PILES, NG OF ME NG TO FUF E FOR POT DING CONF ING CONF ING STO FUF E FOR POT DING CONF	LOW FO DRAWI JCTIO CHNICAI DN WAL DN	TO BE C FOR ST OR CONS NGS FOI NGS FOI L REPOF LS ARE DTHERS D THE LI A LIQUID E, WATE RETE OF IOULD B ITIAL ME RETE WA SPECIAL 50mm I ON OF T OMIXTUF	O-ORDINATE RUCTURAL S STRUCTION J R CAR CRASH (STS GEOTE STRUCTURAL WITH NO RI FETIME OF T RETAINING RETAINING RETAINING RETAINING RETAINING MBRANES, C ALLS, SLABS, TER STOPS, F IST ADVICE. BLINDING LA HE WATERPI RE IN CONCR	D AND API STEEL WOF OINTS AS H BARRIER ECHNICS, A LLY DESIG ESULTANT HE STRUC STRUCTUF DITIVES OF CRACKS II TO ADVISE XONCRETE FOUNDAT ETC MADE YER TO BA ROOFING S ETE BELOV	PROVEL RK AND REQUIF REQUIF REQUIF REQUIF HYDRO TURE. REAND R SIMIL N THE S ADDITI TIONS A HEREIN ASEMEN SYSTEM	D BY WEBBER DESIGN. PACADE TO BE CO-ORDINATED RED. IREMENTS. 2020), THE BASEMENT TH AN EFFECTIVE OSTATIC PRESSURE AS SUCH RELIES ON A AR) TO STOP WATER STRUCTURE. A L WATERPROOFING IVES AND DETAILING OF AND WALLS. N ARE INDICATIVE ONLY NT SLAB SHOULD BE 1 ADOPTED AND SPECIFIC WATERTABLE.		GENER XX* XX* S.C.J. C.J. TEP mm	AL ARRANGEME -DENOTES SLAB/BAI -DENOTES COLUMN -DENOTES COLUMN -DENOTES LOAD BE UNDER & OVER -DENOTES BLOCK W -DENOTES SAWCUT -DENOTES SAWCUT -DENOTES SLAB SET REFER TO ARCH. DE	NT LE ND BEAI OVER ER ARING E ARING E /ALL OV JOINT JOINT JOINT	GEN // THI/ LEME LEME ER JOINT		ESS JNDER
STRATEGY A	LONG WI	TH ADD	ITIONAL	REINFORCE	MENT TO C	CONTRO	DL CRACK WIDTH.							

										ALL RIGHT RESERVED. THI THE PROPERTY OF WEBBE	3 WORK IS CO R DESIGN PT	OPYRIGHT /	AND REMAIN PART OF THIS
		E	BASEME	NT 1 - S	SLAB SC	HEDU	JLE			WORK SHALL BE REPRODI MEANS (GRAPHIC, ELECTR PHOTOCOPYING, RECORDI SYSTEMS) WITHOUT THE		HANICAL, MATION RI	ETRIEVAL
THICKNESS	f'c (M	1Pa)	REINF	RATE m ³)	P.T. RA	ATE	REMARKS		DO) NOT SCALE DRAWINGS. USE	FIGURED		SIONS
150	40)	4))	N/A	S	LAB ON GROUND	Re	ev.	Description	Eng.	Draft.	Date
200*	40)	4	C	N/A	R	.C. RAMP SLAB	1		WORK IN PROGRESS ISSUE	MA	PAC	18.11.20
200	40)	11	.0	N/A	В	ONDEK SLAB	2	2	ISSUED FOR TENDER (DRAFT)	MA/BT	PAC	27.11.20
								3	;	ISSUED FOR TENDER (UPDATED) ISSUED FOR TENDER (UPDATED)	MA/BT	PAC PAC	18.12.20 05.02.21
	BA	SEME	ENT 1- C	ONCRE	TE COLI	JMN S	SCHEDULE	$\neg \vdash$	-				
				REIN	. RATE				1				
MARK	SIZE	1	f'c (MPa)	(kg	/m³)		REMARKS		+		<u> </u>		
C1 3	300 x 100	0	65	1	.90	INSITU	CONCRETE COLUMN		+				
C6	500 x 500)	65	1	.50	INSITU							
C10	500 DIA.		65		/0	INSITU	CONCRETE COLUMN						
								[[D	RAWING REFERENCE	REFEF	RENCE	E No.
		E	BASEME	NT 1 - V	NALL SC	CHEDI	ULE		DF	RAWING INDEX	S-WEB-(000	
								— -	<u>GE</u> RF	ENERAL NOTES	S-WEB-0	$\frac{001-002}{010-029}$	2
		fla (N	/IDa) F				DEMADKS		CC	ONCRETE COLUMNS	S-WEB-8	300-819	9
			0 0	(kg/III				— -	IN	I-SITU WALLS	S-WEB-8	320-879	9
CW1	200	5	0	220				—— -	PF SL	AB ON GROUND DETAILS	S-WEB-8	380-90 950-95	9 1
CW2	250	5	0	180	IN		ONCRETE CORE WALL		SL	JSPENDED CONCRETE SLABS	S-WEB-9	960-962	2
CW3	150	5	0	180	IN	ISITU CO	ONCRETE CORE WALL		PC	OST TENSIONING DETAILS	S-WEB-S	965-966	ŝ
W1	200	4	0	220	IN	ISITU CO	ONCRETE WALL		<u>к</u> . М	ASONRY DETAILS	S-WEB-9	970 980-98°	1
W2	250	4	0	180	IN	ISITU CO	ONCRETE WALL	†	ST	TEEL DETAILS	S-WEB-9	990-99	1
 ALL SERVICES REBATES AND WITH ARCHITE CONTRACTOR CONTRACTOR REFER TO ARC REFER TO ARC PER THE LATES AB AND LOWER AINAGE SYSTEM TH DURING CON HAVE NOT BE ATERPROOF MED RMEATING THRO ATERPROOF MED COLD JOINTS T ALL DETAILIN AND PENDIN ALLOWANCE MADE PENDI REQUIREMENT 	PENETRA CAST IN I ECT. SHALL AL HITECT'S DNSTRL T GEOTEC RETENTIC I (DESIGNI ISTRUCTIO EN DESIC DUM (MEN DUGH THE CONSULT/ CLUDING TO PILES, NG OF ME FOR POTING CONF NG CONF NTS.	TIONS PLATES LOW F DRAWI JCTIO CHNICAI DRAWI ED BY (ON ANI GN AS A MBRAN E CONC ANT SH POTEN SHOTC MBRAN THER S ENTIAL IRMATI	TO BE CO-G FOR STRU OR CONSTRU- INGS FOR C DN PHILI L REPORT(S LS ARE ST OTHERS) W D THE LIFE A LIQUID RI IE, WATERF RETE OR P IOULD BE E ITIAL MEMI RETE WALI RETE WALI SPECIALIST 50mm BLI ION OF THE	DRDINATE CTURAL S RUCTION J AR CRASH AR CRASH STS GEOTH TS GEOTH TH NO RI TIME OF T TAINING PROOF ADI OTENTIAL NGAGED BRANES, C S, SLABS R STOPS, H ADVICE. NDING LA WATERPI	D AND APF TEEL WOR OINTS AS I BARRIER ECHNICS, A LY DESIGN ESULTANT HE STRUCTUR DITIVES OR CRACKS IN TO ADVISE CONCRETE FOUNDAT ETC MADE I YER TO BA ROOFING S	PROVED REQUIR REQUIR REQUIF NED WIT HYDRO TURE. RE AND A SIMILA N THE S ON ALL ADDITIN TONS AT HEREIN SEMEN SYSTEM	BY WEBBER DESIGN. FACADE TO BE CO-ORDINATED ED. REMENTS. D20), THE BASEMENT TH AN EFFECTIVE STATIC PRESSURE AS SUCH RELIES ON A R) TO STOP WATER TRUCTURE. A WATERPROOFING VES AND DETAILING OF ND WALLS. ARE INDICATIVE ONLY T SLAB SHOULD BE ADOPTED AND SPECIFIC			GENERAL ARRANGEME xx* -DENOTES SLAB/BA -DENOTES COLUMN -DENOTES LOAD BE -DENOTES LOAD BE -DENOTES BLOCK W S.C.J. -DENOTES SLOAD SE C.J. -DENOTES CONSTRUCT -DENOTES SLAB SE REFER TO ARCH. DE	VT LEG VD BEAM OVER ER ARING EL ARING EL JOINT JOINT JOINT JCTION J(TOWN. TAILS FC	END THICK EMENT EMENT R DINT	UNDER
POUR STRIP STRATEGY AI	AND POU LONG WIT	IR SIZE	TO BE CON	ISIDERED	IN CONJUN	NCTION CONTROL	WITH WATERPROOFING L CRACK WIDTH.				· · ·		





BASEMENT 1 - RAMP PART PLAN SCALE: 1:100



						$\langle \Lambda N \rangle$	THE PROPE	RIY OF WEBBE	R DESIGN PTY	LID. NO H	ARI OF I	HIS
MF	P - SLAI	B SCH	IEDULE				MEANS (GR PHOTOCOP'	APHIC, ELECTR (ING, RECORDI	ONIC OR MECH	HANICAL, I		G G DTV
E	P.T. R	ATE					LTD.		PERMISSION C	F WEDDE	(DESIGN	PTI
	(kg/n	n²)	REMARKS		D	O NOT SO	CALE DRAWI	NGS, USE I	FIGURED I	DIMENS	SIONS	
\sim	N/A		R.C. RAMP SLAB		Rev.		Descriptio	on	Eng.	Draft.	Date	
Ŷ	Ň/A	Ŷ Ŷ	BONDEK SLAB		1	ISSUED F	OR TENDER (DI	RAFT)	MA/BT	PAC	27.11	20
					2	ISSUED F	OR TENDER (U	PDATED)	MA/BT	PAC	18.12.	20
- \	NALL S	CHE	DULE									
F	ATE											
/m	³)		REMARKS									
50	(CORE F	ILLED BLOCKWORK									_
20	1	INSITU	CONCRETE CORE WALL								<u> </u>	
80		UTIZA	CONCRETE CORE WALL								<u> </u>	
<u>~~</u> 80		INSITU	CONCRETE CORE WALL								<u> </u>	
20	$\sim \sim 4$	ÍNSITI I	CONCRETE WALL									_
20							$\mathcal{X}\mathcal{X}\mathcal{X}$	$\langle \cdot \rangle \langle \cdot $		\sim	\sim	J
$\overline{\gamma}$				<u></u>	₿ [r	DRAWI	NG REFE	RENCE	REFER	ENCE	No.	Ţ
				$\left\langle \right\rangle$	⋭┟╴				S_WFB_C	00		ł
DLV	ED.			5		FNFRAL	NOTES		S-WEB-C	01-002	<u> </u>	ť
٩ΤΕ	d and af	PROVE	D BY WEBBER DESIGN.	Ž		FTENTIO	N		S-WFB-C	10-02	 }	-[2
AL S	TEEL WO	RK ANI	D FACADE TO BE CO-ORDINATED	$\left\{ \right.$		ONCRFT	F COLUMNS		S-WFB-8	00-819	<u>,</u> ,	╡
				\rightarrow	¢ hī	N-SITU W	VALLS		S-WEB-8	20-879	•	-i
ΝJ	OINTS AS	S REQU	IRED.	5	R P	RECAST	WALLS		S-WEB-8	80-909	•	ť
ASF	BARRIE	R REQL	JIREMENTS.	z	k s	LAB ON (GROUND DE	TAILS	S-WEB-9	50-951		-13
				$\left\{ \right.$	t s	USPEND	ED CONCRE	LE SLABS	S-WEB-9	60-962	>	Ť
ΗY				\mathbf{c}	₽	OST TEN	ISIONING DE	TAILS	S-WEB-9	65-966	5	
-от			2020) THE BASEMENT	3	R R	.C. STAIF	R DETAILS		S-WEB-9	70		Ţ
		CNED V	AUTH AN EFFECTIVE	z	k ∎	1ASONRY	/ DETAILS		S-WEB-9	80-981		
				$\langle \wedge \rangle$	K S	TEEL DE	TAILS		S-WEB-9	90-991		Ţ
ר דר ו דר			NOSTATIC FRESSORE)/2		J.J.J.						5
	STRUCTI	IRF AN	ID AS SLICH RELIES ON A	3	ì							
	DITIVES		I AR) TO STOP WATER	$\boldsymbol{\zeta}$								
ΓΙΔΙ	CRACKS		STRUCTURE A	\rightarrow								
FD		SF ON A		5								
S	CONCRET	F ADDI	TIVES AND DETAILING OF	z								
ABS	. FOUND	ATIONS	AND WALLS.	$\left\{ \right.$								
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PS, CF	ETC MAD	e here	IN ARE INDICATIVE ONLY	$\left\{ \right\}$								
3 I <i>I</i>		RASEM	ENT SLAB SHOULD BE	\mathbf{i}								
ERP	ROOFING	SYSTE	M ADOPTED AND SPECIFIC	3								
				3								
NCF	RETE BEL	OW TH	E WATERTABLE.	$\boldsymbol{\zeta}$								
RED	IN CONJ	UNCTIO	N WITH WATERPROOFING	\rightarrow								
RCE	MENT TO	CONT	ROL CRACK WIDTH.)								
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STRUCTURAL DRAWING



LAHC WARWICK FARM 11-13 MANNIX PARADE, WARWICK FARM, NSW 2170

BASEMENT 1 -	RAMP PART							
PLAN								

20023	S-WEI	B-091	2
JOB No.	DRAWING No.		REV.
1:100	PAC	PW	1
SCALES AT A1	DRAWN BY	APPROVED BY	
NOV 2020	MA/BT	AC	
DATE	DESIGNED BY	CHECKED BY	



		GROUI	ND FLOO	OR SLAB S	SCHEDI	JLE		All Right Reserved. The property of wee Work shall be repre	This work is CC Ber Design PTY DUCED or Copi	PYRIGHT AI LTD. NO PA ED IN ANY I	ND REMAINS ART OF THIS FORM OR BY
		REIN	F. RATE	P.T. R	ATE			MEANS (GRAPHIC, ELEC PHOTOCOPYING, RECO	TRONIC OR MEC	HANICAL, IN	VCLUDING
THICKNE	ESS f'c (MP	a) (k	g/m ³)	(kg/n	1 ²)	REMARKS		LTD.			
150 180	40		40 40	1.8	P P	T. SLAB BY D&C CONTRACTOR T. SLAB BY D&C CONTRACTOR	DO NOT SCA	LE DRAWINGS, US	E FIGURED	DIMENS	IONS
200	40	60 + S	L82 MESH	. 5.0	P	T. SLAB BY D&C CONTRACTOR	Rev.	Description	Eng.	Draft.	Date
200*	40		130	N/A	Ь	ONDEK SLAB	2 ISSUED FOR	R TENDER (DRAFT)	MA/BT	PAC	27.11.20
200*	40		130	N/A	R	.C. RAMP SLAB	3 ISSUED FOR	R TENDER (UPDATED)	MA/BT	PAC	18.12.20
210	40	60 + S	40 L82 MESH	2.5	P P	T. SLAB BY D&C CONTRACTOR	4 ISSUED FOR	TENDER (UPDATED)	MA/BT	PAC	05.02.21
300	40	TOP TH		- 55	D						
500	40		40	5.5		1. SLAD DI DAG CONTRACTOR				+	
	GRC	UND FLC	OR - CC	NCRETE	BEAM S	CHEDULE					
					<u>т</u>		┨ ┠──┼────			$\left \right $	
		fc			DONS				I		
	SIZE	(MPa)	(kg/m	³) (kg	/m ²)	REMARKS	DRAWING	G REFERENCE	REFER	ENCE	No.
4000	d x 2400w	40	40	7	′.0	P.T. BEAM BY D&C CONTRACTOR	DRAWING IN	IDEX DTFS	S-WEB-0	<u>)0</u>)1-002	
4000	d x 2400w d x 1200w	40	40	8	0.5 3.5	P.T. BEAM BY D&C CONTRACTOR P.T. BEAM BY D&C CONTRACTOR	RETENTION		S-WEB-0	10-029	
				•			IN-SITU WAL	LS	S-WEB-8	20-819	
	GROL	JND FLOC	R - CON	ICRETE CO	OLUMN	SCHEDULE	SLAB ON GR	ALLS OUND DETAILS	S-WEB-8 S-WEB-9	<u>30-909</u> 50-951	
			RE	INF. RATI	E		SUSPENDED	CONCRETE SLABS	S-WEB-9	50-962 55-966	
MARK	SIZE	f'c (N	IPa)	(kg/m³)		REMARKS	R.C. STAIR D	ETAILS	S-WEB-9	70	
C2	250 x 1200	D 50)	230	INSITU	CONCRETE COLUMN	MASONRY D	<u>ETAILS</u> LS	S-WEB-98	<u>30-981</u> 30-991	
C3 C4	200 x 1400 300 x 600	50 50)	250	INSITU	CONCRETE COLUMN			•		
C5	400 x 400	50)	210	INSITU	CONCRETE COLUMN]				
] <u>Genera</u> i		ENT LEGE	IND	
		GROUN	D FLOO	R - WALL	SCHED	ULE					202
			REIN	RATE				-DEINUTES SLAB/B/	AND BEAM I	HICKINE	.55
MARK	WIDTH	f'c (MPa)	(kg	(/m ³)		REMARKS		-DENOTES COLUM	N OVER		
CW1 CW2	200	<u> </u>	1	.80	INSITU CO	NCRETE CORE WALL		-DENOTES WALL C	VFR		
CW3	150	50	1	.80	INSITU CO	NCRETE CORE WALL					
W1 W2	200 250	<u> </u>	2	80	INSITU CO	NCRETE WALL		-DENOTES LOAD B	EARING ELE	MENT U	NDER
			•					-DENOTES LOAD B	EARING ELE	MENT	
1 ALL PENE	TRATIONS TO F							UNDER & OVER			
2. ALL SERV	ICES PENETRAT	TIONS TO BE	CO-ORDIN		PROVED	BY WEBBER DESIGN.		-DENOTES BLOCK	WALL OVER		
3. REBATES	AND CAST IN P	ITECT.	GIRUCTUR	AL STEEL WC	rk and i	ACADE TO BE CO-	<u> </u>	-DENOTES SAWCU	T JOINT		
4. CONTRAC	TOR SHALL ALI	LOW FOR CO	NSTRUCTIO	on joints as	S REQUIR	ED.	C.J.	-DENOTES CONSTE		NT	
POST TEN	SIONED SL	AB NOTES	<u>):</u>								
THE SUSPENI	DED FLOOR SLA AWING S-WEB-	ABS ARE A D	ESIGN AND 3-002 For	CONSTRUCT	COMPO	IENT. UCTION POST-	STEP	-DENOTES SLAB SI REFER TO ARCH, F	ETDOWN. DETAILS FOR	ALLE	VFLS.
TENSIONING	FLOOR SLAB AI	ND DESIGN E	RIEF AND	GENERAL DE	SIGN & L	DADING CRITERIA					VELO.
GENERAI	NOTES										
	RETE SLABS AN	D REAMS TO									
PT AND RE	EINFORCEMENT	TO BE DESI	GNED BY F	T CONTRACT	OR.						
- THE POST	TENSIONING C	ONTRACTOR	SHALL EN	SURE POTEN	ITIAL						
INTERNAL	FORCES AND (CRACKS INDU	JCED BY PI			TV					
OF RESTR/	AINING ELEMEN	NTS AND MA	KE PROVIS	ON FOR MO	/EMENT A	ND					
Shrinkag Joints, Po	ge as require our strips, lo	D THROUGH	DUT, INCL GE	UDING MOVI	EMENT		100				
CONCRETE	E MIX ETC.										
- NO COLUN	/IN STIFFNESS \$	SHOULD BE	JSED IN TH	IE SLAB			Status				
- NO COLUN AND BEAN	/IN STIFFNESS \$ /I DESIGN.	SHOULD BE	JSED IN TH	IE SLAB			Status	STRUCTURAL	DRAWIN	G	
 NO COLUN AND BEAM SLABS TO 	AN STIFFNESS S A DESIGN. BE CHECKED F		JSED IN TH	HE SLAB		D	Status	STRUCTURAL	DRAWIN	G	
 NO COLUN AND BEAM SLABS TO WITH 100' FOR SHEA 	An Stiffness (A Design. Be Checked F % Column Sti R Head Reinfo	Should be Or Punchin Ffness. Pt Orcement (JSED IN TH IG SHEAR [\] CONTRACT WHERE RE	HE SLAB MITH MOMEN OR TO MAKE QUIRED) TO S	nt derivi Allowa Satisfy	ED NCE	Status	STRUCTURAL	DRAWIN	G	
 NO COLUN AND BEAM SLABS TO WITH 100' FOR SHEA PUNCHING 	An Stiffness (A Design. Be Checked F & Column Sti R Head Reinf G Shear Reinf	Should be Or punchin FFNESS. PT Orcement (Orcements	JSED IN TH IG SHEAR Y CONTRACT WHERE RE	HE SLAB With Momen Or to Make Quired) to 9	nt derivi Allowa Satisfy	ED NCE	Status Status	STRUCTURAL	DRAWIN	G	
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 NO COLUN AND BEAM SLABS TO WITH 100° FOR SHEA PUNCHINC Ieff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS 	AN STIFFNESS S A DESIGN. BE CHECKED F & COLUMN STI R HEAD REINF S SHEAR REINF SS MAX RATIO S SHEAR REINF TANCE SHALL E CULATIONS. ACTOR TO MAK EMENT IN ACC S AND BEAMS.	Should be or punchin ffness. Pt dreement (forcements to be deter be greater (e allowan ordance w	USED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.1	HE SLAB WITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600	NT DERIVI ALLOWA SATISFY ER BUT NB AND NTEGRITY -2018 FC	ED NCE	Status	STRUCTURAL	DRAWIN	G	
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 NO COLUM AND BEAM SLABS TO WITH 100° FOR SHEA PUNCHINC Ieff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN FXPOSED 1 	AN STIFFNESS S A DESIGN. BE CHECKED F & COLUMN STI R HEAD REINF S SHEAR REINF SS MAX RATIO S SHEAR REINF TANCE SHALL E CULATIONS. ACTOR TO MAK EMENT IN ACC S AND BEAMS. ACTOR TO PRO O ALL INTERNA VAL LOSSES) TO ROOFS FTC 2 P	SHOULD BE OR PUNCHIN FFNESS. PT DRCEMENT (ORCEMENTS TO BE DETER BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETT D ALL EXTER LUS SI 82 TO	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.1 MUM P/A O E SLABS AN VAL AREAS	HE SLAB WITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AI ID BEAMS, AI 5 (BALCONIES N.O	NT DERIVI ALLOWA SATISFY ER BUT B AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRA(ED NCE R AL Pa DES,	Status	STRUCTURAL	DRAWIN	G	
 NO COLUM AND BEAM SLABS TO WITH 100 FOR SHEA PUNCHING Ieff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED F 	AN STIFFNESS S A DESIGN. BE CHECKED F & COLUMN STI R HEAD REINFO S SHEAR REINF SS MAX RATIO TANCE SHALL E CULATIONS. ACTOR TO MAK EMENT IN ACC S AND BEAMS. ACTOR TO PRO O ALL INTERNA VAL LOSSES) TO ROOFS, ETC.) P	SHOULD BE OR PUNCHIN FFNESS. PT DRCEMENT (ORCEMENTS TO BE DETER BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETT D ALL EXTER LUS SL82 TO	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.2 MUM P/A C SLABS AN VAL AREAS P MESH U	HE SLAB WITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AI ID BEAMS, AI (BALCONIES N.O.	NT DERIVI ALLOWA SATISFY ER BUT B AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAG	ED NCE R AL Pa DES,		STRUCTURAL ESC T U R A I F		G E F R	N G
 NO COLUM AND BEAM SLABS TO WITH 100 FOR SHEA PUNCHING Ieff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED I ALL EXPOSE TO 0.3mm 	An Stiffness (design). Be checked f column Sti r head reinfo shear reinfo ss max ratio ⁻ tance shall f culations. Actor to mak ement in Acc S and Beams. Actor to pro o all interna NAL Losses) to roofs, etc.) p Sed Slabs/Bea Max.	SHOULD BE OR PUNCHIN FFNESS. PT DRCEMENT (ORCEMENTS TO BE DETER BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETT D ALL EXTER US SL82 TO MS CRACK V	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.3 MUM P/A C SLABS AN VAL AREAS OP MESH U	HE SLAB WITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AI ID BEAMS, AI (BALCONIES I.N.O. SE LIMITED	NT DERIVI ALLOWA SATISFY ER BUT AB AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAG	ED NCE R AL Pa DES,	Status	STRUCTURAL ESSC TURAL E		G E E R 19A BOUND/	I N G Ary street
 NO COLUN AND BEAM SLABS TO WITH 100 FOR SHEA PUNCHING leff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED F ALL EXPOS TO 0.3mm 	AN STIFFNESS S A DESIGN. BE CHECKED F & COLUMN STI R HEAD REINFO G SHEAR REINFO SS MAX RATIO SS MAX RATIO TANCE SHALL F CULATIONS. ACTOR TO MAK EMENT IN ACC S AND BEAMS. ACTOR TO PRO O ALL INTERNA VAL LOSSES) TO ROOFS, ETC.) P SED SLABS/BEA MAX.	SHOULD BE OR PUNCHIN FFNESS. PT DRCEMENT ORCEMENTS TO BE DETEF BE GREATER (E ALLOWAN ORDANCE W WIDE A MINII AL CONCRETH D ALL EXTER US SL82 TO	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.3 MUM P/A C SLABS AN VAL AREAS OP MESH L /IDTH TO E	HE SLAB WITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AI ID BEAMS, AI (BALCONIES N.O. E LIMITED	NT DERIVI ALLOWA SATISFY ER BUT AB AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAG	ED NCE R AL Pa DES,	Status	STRUCTURAL ESSEC TURAL E TURAL E	DRAWIN	G E E R 19A BOUND/ NSW, AUST	ING ARY STREET RALIA 2011
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 NO COLUM AND BEAM SLABS TO WITH 100° FOR SHEA PUNCHING Ieff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED I ALL EXPOS TO 0.3mm EXPOSURE CI A2 INTERN B1 EXTERN B1 SURFA FIRE RATING RESIDENTI CARPARK 	An Stiffness a design. Be Checked F Column Sti R Head Reinfo Shear Reinfo Shar Reinfo Shear Reinfo Shear Reinfo Shear Reinfo Shear Reinfo Shear Reinfo Shar Reinfo Shear R	SHOULD BE OR PUNCHIN FFNESS. PT ORCEMENT (ORCEMENTS TO BE DETEF BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETH D ALL EXTER LUS SL82 TO MS CRACK V CT WITH THE TES FRL S FRL	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.1 MUM P/A O SLABS AN VAL AREAS OP MESH U /IDTH TO E	HE SLAB MITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AU ID BEAMS, AU 0 BEALCONIES I.N.O. SE LIMITED	NT DERIVI ALLOWA SATISFY ER BUT B AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAG	ED NCE R AL Pa SES,	Status Status Status STRUC STRUC MELBOURNE, VIC, AUS T: +61 3 9614 7155 CLIENT	STRUCTURAL ESC TURALE TREET STRALIA 3000 TAYLO	DRAWIN	G E E R 19A BOUND/ NSW, AUST	ING ARY STREET RALIA 2011
 NO COLUN AND BEAM SLABS TO WITH 100' FOR SHEA PUNCHING Ieff TO Igro IN NO INS' BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED I ALL EXPOS TO 0.3mm EXPOSURE CI - A2 INTERN B1 EXTERN B1 SURFA FIRE RATING RESIDENTI CARPARK SERVICEABILI TOTAL LON 	AN STIFFNESS S A DESIGN. BE CHECKED F & COLUMN STI R HEAD REINFO G SHEAR REINFO SS MAX RATIO TANCE SHALL F CULATIONS. ACTOR TO MAK EMENT IN ACC S AND BEAMS. ACTOR TO PRO O ALL INTERNA VAL LOSSES) TO ROOFS, ETC.) P SED SLABS/BEA MAX. <u>ASSIFICATION</u> VAL NAL CES IN CONTAC IAL 90 MINUT 120 MINUTE	SHOULD BE OR PUNCHIN FFNESS. PT ORCEMENT (ORCEMENTS TO BE DETEF BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETH D ALL EXTER LUS SL82 TO MS CRACK V CT WITH THE TES FRL S FRL	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.1 MUM P/A C SLABS AN VAL AREAS P MESH L /IDTH TO E GROUND	HE SLAB MITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AI ID BEAMS, AI 5 (BALCONIES N.O. 3E LIMITED	NT DERIVI ALLOWA SATISFY ER BUT B AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAG	ED NCE R AL Pa SES,	Status	STRUCTURAL ESC TURALE TURALE STRALIA 3000 TAYLO	DRAWIN		ING ARY STREET RALIA 2011
 NO COLUN AND BEAM SLABS TO WITH 100° FOR SHEA PUNCHING Ieff TO Igro IN NO INS BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED I ALL EXPOSE TO 0.3mm EXPOSURE CI - ALL EXPOSE TO 0.3mm EXPOSURE CI - ALL EXPOSE TO 0.3mm EXPOSURE CI - A2 INTERN - B1 EXTERN B1 SURFA FIRE RATING - RESIDENTI CARPARK SERVICEABILI - TOTAL LOP CANTILEVE 	An Stiffness S Design. Be Checked F Column Sti R Head Reinfo Shear	SHOULD BE OR PUNCHIN FFNESS. PT DRCEMENT (ORCEMENTS TO BE DETEF BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETH D ALL EXTER LUS SL82 TO MS CRACK V CT WITH THE TES FRL S FRL S FRL	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.3 MUM P/A O SLABS AN VAL AREAS OP MESH U /IDTH TO E GROUND	HE SLAB MITH MOMEN OR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AI ID BEAMS, AI 0 (BALCONIES I.N.O. BE LIMITED	NT DERIVI ALLOWA SATISFY ER BUT B AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAC	ED NCE R AL Pa SES,	Status	STRUCTURAL ESSC TURALE TURALE STRALIA 3000 TAYLO TAYLO IC WARW 3 MANNI	DRAWIN N G I N ONEY OFFICE: JITE 301, LEVEL 3, JSHCUTTERS BAY +61 2 9690 2488 OR OR		ING ARY STREET RALIA 2011
 NO COLUM AND BEAM SLABS TO WITH 100' FOR SHEA PUNCHING Ieff TO Igro IN NO INS' BEAM CAL PT CONTR REINFORC ALL SLABS PT CONTR LOSSES) TO (AFTER FIN EXPOSED I ALL EXPOS TO 0.3mm EXPOSURE CL - A2 INTERN B1 EXTERN B1 SURFA FIRE RATING RESIDENTI CARPARK SERVICEABILI OCANTILEVE TOTAL LON CANTILEVE TINCREMEN 	An Stiffness (Design. Be Checked F Column Sti R Head Reinfo Shear	SHOULD BE OR PUNCHIN FFNESS. PT DRCEMENT (ORCEMENTS TO BE DETEF BE GREATER (E ALLOWAN ORDANCE W WIDE A MININ AL CONCRETH D ALL EXTER LUS SL82 TO MS CRACK V MS CRACK V CT WITH THE TES FRL S FR	JSED IN TH IG SHEAR Y CONTRACT WHERE RE MINED BY THAN 0.7 CE FOR STI TH CL9.2.1 MUM P/A C SLABS AN VAL AREAS P MESH L /IDTH TO E GROUND	HE SLAB WITH MOMENOR TO MAKE QUIRED) TO S THE DESIGN FOR THE SLA RUCTURAL IN 2 OF AS3600 F 1.4MPA (AU 10 BEAMS, AU 10 BEAMS, AU 10 BEAMS, AU 10 BEAMS 10 BEAMS 10 BEAMS	NT DERIVI ALLOWA SATISFY ER BUT B AND NTEGRITY -2018 FC FTER FIN/ ND 2.0W S, TERRAC S, TERRAC	ED NCE R AL Pa DES,	Status	STRUCTURAL ESC TURALE TURALE STRALIA 3000 TAYLO AC WARW 3 MANNI /ICK FARM	DRAWIN N G I N VDREY OFFICE: JITE 301, LEVEL 3, JSHCUTTERS BAX +61 2 9690 2488 OR OR ICK FA X PAR X, NSV		ING ARY STREET RALIA 2011
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			GROUN	D FLO	OR SLA	B SCHEI	DUL	E		\mathcal{G}	all right reserve The property of V Work shall be re	D. This W Vebber De Produced	ork is cof Sign Pty Or copie	'YRIGHT A LTD. NO F D IN ANY	and remains Part of this Form or by
			REINF	. RATE	E P.T	. RATE		5511151/0			Means (graphic, e Photocopying, re Systems) withou	Lectronic Cording (T the Peri	or Mech Dr Inform Mission O	ANICAL, II ATION RE F WEBBEF	NCLUDING TRIEVAL R DESIGN PTY
THICKNE 150	ESS f'c (MF	Pa)	(kg/ 4	′m³) .0	(k	<mark>.g/m²)</mark> 1.8	P.T.	REMARKS SLAB BY D&C CONTRACTOR							
180	40		4 60 + SL	.0 82 MESH	4	1.8	P.T.	SLAB BY D&C CONTRACTOR	Rev.		Description	JSE FIG	Eng.	Draft.	Date
200*	40		TOP THR	DUGHOU	<u>т</u>	N/A	BON		1 WOR	K IN PF				PAC	18.11.20
200*	40		13	30		N/A	R.C.	RAMP SLAB	3 ISSU	ED FOR	R TENDER (UPDATED))	MA/BT	PAC	18.12.20
210	40		4 60 + SL8	0 82 MESH	 	2.5	P.T. P.T.	SLAB BY D&C CONTRACTOR	4 ISSU	ED FOR	R TENDER (UPDATED))	MA/BT	PAC	05.02.21
300	40		TOP THRO 4	OUGHOU 0		5.5	P.T.	SLAB BY D&C CONTRACTOR]						
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100	SIZE		(MPa)	(kg/m	1 ³)	(kg/m ²)		REMARKS				E R			No.
400 500	d x 2400w d x 2400w		40	40 65		7.0	Р. Р.	T. BEAM BY D&C CONTRACTOR T. BEAM BY D&C CONTRACTOR	- GENER	AL NO	DTES	S-\ S-\	NEB-00 NEB-00 NEB-01	1-002 0-029	
400	d x 1200w		40	40		8.5	Ρ.	T. BEAM BY D&C CONTRACTOR		ETE C J WAL	COLUMNS LS	S-\ S-\	NEB-80 NEB-82	0-819	
	GRO	UNE) FLOOF	R - COI	NCRETE	E COLUN	лN S	CHEDULE	PRECA SLAB C	ST WA	ALLS OUND DETAILS	S-\ S-\	NEB-88 NEB-95	0-909 0-951	
				RE	EINF. R	ATE			SUSPE POST T	NDED ENSIC	CONCRETE SLAI	BS S-\ S-\	NEB-96 NEB-96	0-962 5-966	
MARK	SIZE 250 x 120	00	f'c (MF	Pa)	(kg/m ³ 230) INSIT	TU CC	REMARKS	R.C. ST MASON	<u>AIR D</u> IRY D	DETAILS ETAILS	S-\ S-\	NEB-97 NEB-98	0 0-981	
C3	200 x 140	00	50		250	INSI	TU CC			DETAI	LS	S-V	NEB-99	0-991	
C4 C5	400 x 40	0	50		210	INSI	TU CC	NCRETE COLUMN	∃∣						
									ך <u>Gen</u>	ERAI	L ARRANGEN	<u>MENT</u>	LEGE	ND	
							EDU	LC	- xx*	ן ,	-DENOTES SLAB/	'BAND E	BEAM TI	HICKNE	ESS
MARK	WIDTH	f'c	(MPa)	KEIN (kį	г. кан g/m³)	-		REMARKS	6		-DENOTES COLU	MN OVE	ĒR		
CW1	200		50		220	INSITU	CONC	CRETE CORE WALL							
CW3	150		50		180	INSITU	CONC	CRETE CORE WALL	┥║╩┶╼	- \4					
W1 W2	250		40		220 180	INSITU	CONC	CRETE WALL	╧╢╘══┇		-DENOTES LOAD	BFakil	NG ELEN	/IENT U	JNDER
NOTES:										× T	-DENOTES LOAD UNDER & OVER	BEARIN	NG ELEN	<i>I</i> ENT	
1. ALL PENE 2. ALL SERV	TRATIONS TO	BE R ATION	EVIEWED / IS TO BE C	and res :0-ordin	Solved. Nated an	d approve	ED BY	WEBBER DESIGN.		72 .	-DENOTES BLOC	k wall	OVER		
3. REBATES ORDINATI	AND CAST IN ED WITH ARCH	PLAT HITEC	es for st T.	RUCTUR	RAL STEEL	. Work Ani	id fac	CADE TO BE CO-	S.C.J	<u> </u>	-DENOTES SAWC	NOL TON	NT		
4. CONTRAC		LLOW	FOR CON	STRUCTI	ON JOINT	's as requ	ЛRED.		<u>C.J</u> .		-DENOTES CONS	TRUCTI	on Joii	νT	
<u>POST TEN</u> THE SUSPEN	<u>ISIONED SL</u> DED FLOOR SL	<u>_AB</u> _ABS	<u>NOTES:</u> ARE A DES	Sign ane	D CONSTF	RUCT COMP	PONEN	VT.			-DENOTES SLAB	SETDO	WN.		
REFER TO DR ENSIONING	RAWING S-WEE FLOOR SLAB A	3-001 AND [& S-WEB- DESIGN BR	-002 FOF RIEF AND	r design) generai	AND CONS [®] _ DESIGN &	STRUC & LOAI	TION POST- DING CRITERIA			REFER TO ARCH	. DETAI	LS FOR	ALL LE	VELS.
GENERAL	NOTES:														
ALL CONC	RETE SLABS A	ND E	BEAMS TO	BE POST	-TENSION	ED U.N.O.									
pt and ri	EINFORCEMEN	NT TO	BE DESIG	NED BY I	PT CONTF	ACTOR.									
THE POST	TENSIONING	CONT CRA	RACTOR S	Shall en Ced by P	NSURE PC PRESTRES	TENTIAL SING,									
SHRINKAC	ge, and/or te Aining eleme	EMPE ENTS	RATURE A	RE CONT	FROLLED SION FOR	N THE VICI	inity T Ane)							
JOINTS, P	OUR STRIPS, L	LOW S	SHRINKAG	UT, INCL E	LUDING N	/IOVEMENT				ISS	SUED FO	R TI	END	ER	
	E IVIA ETC.	SHU							Status						
AND BEAN	A DESIGN.	5110								(STRUCTURA	L DR/	WING		
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leff TO Igro	oss MAX RATIO) TO E	BE DETERM	/INED BY	Y THE DES	SIGNER BUT	т								
IN NO INS BEAM CAL	TANCE SHALL CULATIONS.	BE G	REATER T	HAN 0.7	FOR THE	SLAB AND)								
PT CONTR	ACTOR TO MA	KE AI	LLOWANCE	E FOR ST	RUCTUR/	AL INTEGRI ⁻	ITY			,					
REINFORC	CEMENT IN ACC S AND BEAMS.	CORD	ANCE WIT	H CL9.2.	.2 of AS3	600-2018	FOR			/ 					
PT CONTR	ACTOR TO PR	OVID		UM P/A (OF 1.4MP	A (AFTER FI	INAL			\vdash		N			
Losses) t (After Fii	O ALL INTERN NAL LOSSES) T	ial Co Fo al	DNCRETE S	SLABS AI	ND BEAM S (BALCC	s, and 2.0 Nies, terf	OMPa RACES	ò,			\mathbf{H}	-1			
EXPOSED	ROOFS, ETC.)	PLUS	SL82 TOP			ī			STR	U C	TURAL	E N G		EER	ING
TO 0.3mm	SED SLABS/BE 1 MAX.	AIVIS	CRACK WI		BE LIMITE	D			MELBOURNE LEVEL 2, 31 G MELBOURNE	OFFICE: UEEN ST	TREET STRALIA 3000	SYDNEY C SUITE 301 RUSHCUT	FFICE: , LEVEL 3, 1 TERS BAY,	9A BOUNE NSW, AUS	DARY STREET
		1							T: +61 3 9614 CLIENT	7155		T: +61 2 9	690 2488		
B1 EXTERI	NAL NAL NES IN CONTA		אדם דווד מ												
											IAI				
RESIDENT CARPARK	TAL 90 MINU 120 MINUT	JTES FS FF	FRL RI						PROJECT						
SERVICEABIL	ITY	Lott							l	_AF	HC WAR	NIC	k FA	١RN	1
TOTAL LOI CANTILEVI	NG TERM DEFI ER SPAN / 1	LECTI 25 OI	ON SPAI R 15mm M	n / 250 (1AXIMUN	OR 25mm 1	MAXIMUM	1,		1	1-1	l 3 Mann	NIX F	PAR	ADE	Ξ,
TRANSFER	R SLABS & BEA NTAL DEFLECT	AMS - TON L	- Span/10 Imits fof	00 OR 10 R SLABS /	omm Max And Beal	(IMUM MS			WA	RW	/ICK FAR	RM, I	NSV	/ 21	170
SUPPORTI	ING BRITTLE TIAL DEFLECT	ELEN ION E	/IENTS S BETWEEN F	PAN/500 FLOORS), CANTIL TO BE LIN	ever SPA 11ted to	AN/12	5	TITLE	G	ROUND	FLC	OR	-	
SPAN/500	OR 15mm MA	XIMU	JM AT FAC	ade loc	ATIONS				GE	INE	RAL ARI	RAN	GEN	ЛЕN	IT
GROUI	ND FLOOR	- LA	NDSCA	PE FO	OTING	SCHEDU	JLE				PL	٩N			
		、	REINF	. RATE				—	DATE	20	DESIGNED BY	CHECKED B	Y		
MARK	t'c (MPa	a)	(kg	/m ³)	REM			_	NUV 20	2U			AC	,	
573	32		5	JU	I 21 KIN	FOOTING]	1:100)	PAC	altricuved	P۷	v	
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		(GROUN	d floo	R SLAB S	SCHED	ULE		All Right Reserve The property of V Work Shall be re	d. This work is c Vebber design Pt Produced or cof	opyright . Y LTD. No 'Ied in Any	and remains Part of this ' form or by
			REINF	. RATE	P.T. R	ATE			MEANS (GRAPHIC, E PHOTOCOPYING, RE SYSTEMS) WITHOU	LECTRONIC OR MEC CORDING OR INFOF THE PERMISSION	CHANICAL, RMATION RI OF WEBBE	INCLUDING ETRIEVAL R DESIGN PTY
	ESS f'c (MF	°a)	(kg/	′m³)	(kg/n	n ²)			LTD.			
130	40		4	.0	1.8	3	P.T. SLAB BY D&C CONTRACTOR	DO NOT SC	ALE DRAWINGS, U	JSE FIGURED	DIMEN	SIONS
200	40		60 + SL8 TOP THR0	82 MESH DUGHOUT	5.0)	P.T. SLAB BY D&C CONTRACTOR	1 WORK IN I	PROGRESS ISSUE	MA	PAC	18.11.20
200* 200*	40		13 13	30 30	N/A	4 4	BONDEK SLAB R.C. RAMP SLAB	2 ISSUED FO)r Tender (draft))r Tender (updated)) MA/B ⁻	F PAC	27.11.20
210	40		4	.0	2.5	5	P.T. SLAB BY D&C CONTRACTOR	4 ISSUED FC	DR TENDER (UPDATED)) MA/B	F PAC	05.02.21
250	40		TOP THR	82 MESH DUGHOUT	2.8	5	P.1. SLAB BY D&C CONTRACTOR					
300	40		4	.0	5.5	5	P.T. SLAB BY D&C CONTRACTOR					
	GR	OUN	ID FLOC	DR - COI	NCRETE	BEAM	SCHEDULE					
				REINF	. P	.т.						
			f'c	RATE	TEN	DONS						
400	SIZE		(MPa)	(kg/m ³) (kg	/m²)	REMARKS	DRAVVIN DRAWING I	IG REFERENC	S-WEB-(INO.
5000	d x 2400w		40	40 65	1	0.5	P.T. BEAM BY D&C CONTRACTOR	GENERAL N RETENTION	IOTES I	S-WEB-C	01-002	
4000	d x 1200w		40	40	8	3.5	P.T. BEAM BY D&C CONTRACTOR	CONCRETE	COLUMNS	S-WEB-8	00-819 20-879	
	GROU	UND	FLOOF	R - CON	CRETE C	OLUM	N SCHEDULE	PRECAST W	/ALLS ROUND DETAILS	S-WEB-8	80-909 50-951	
				REI	NF. RATI	E		SUSPENDE POST TENS	D CONCRETE SLAI	3S S-WEB-9	60-962	
MARK	SIZE		f'c (MF	Pa) (kg/m ³)		REMARKS	R.C. STAIR	DETAILS	S-WEB-9	70 80-981	
C2 C3	250 x 120 200 x 140	00 00	50 50		230 250	INSITU INSITU	J CONCRETE COLUMN J CONCRETE COLUMN	STEEL DET	AILS	S-WEB-9	90-991	
C4	300 x 600	0	50		210							
0.5	400 x 400	0	50		210							
		G	ROUNE) FLOOF	R - WALL	SCHE	DULE	<u>GENER</u> A	<u>AL ARRANGEN</u>	<u>/IENT LEG</u>	<u>END</u>	
				REINF	. RATE			XX*	-DENOTES SLAB/	BAND BEAM	THICKN	ESS
MARK	WIDTH	f'c	(MPa)	(kg/	′m³)		REMARKS	6	-DENOTES COLU	MN OVER		
CW1 CW2	200 250		50 50	22	20 30	INSITU C	ONCRETE CORE WALL			OVER		
CW3	150		50	18	30	INSITU C	ONCRETE CORE WALL			OVER		
W1 W2	200		40	18	20 30	INSITU C	ONCRETE WALL		-DENOTES LOAD	BEARING ELE	EMENT (JNDER
NOTES:										BEARING ELE	EMENT	
1. ALL PENE	TRATIONS TO	BE R	EVIEWED	AND RESO	LVED.				-DENOTES BLOC	k wall ovef		
2. ALL SERV 3. REBATES	AND CAST IN	PLAT	ES FOR ST	RUCTURA	L STEEL WC	PPROVEL DRK AND	FACADE TO BE CO-	S.C.J.	-DENOTES SAWO			
ORDINATE 4. CONTRAC	ed with Arch Tor shall al	ITEC LOW	T. FOR CON	STRUCTIO	N JOINTS AS	s requif	RED.					
POST TEN	SIONED SL	AB	NOTES:					[] <u> </u>	-DENOTES CONS	TRUCTION JC	INT	
	DED FLOOR SL	ABS		SIGN AND			NENT.	STEP	-DENOTES SLAB	SETDOWN.		
TENSIONING	FLOOR SLAB A	ND D	& S-WEB- DESIGN BR	RIEF AND G	ENERAL DE	ESIGN & I	LOADING CRITERIA		REFER TO ARCH			IVELS.
GENERAL	NOTES:											
ALL CONCI	RETE SLABS A	ND B	EAMS TO I	BE POST-T	ENSIONED	U.N.O.						
pt and re	EINFORCEMEN	т то	BE DESIG	NED BY PT	CONTRACT	for.						
THE POST	TENSIONING (FORCES AND	CONT CRAC	RACTOR S KS INDUC	HALL ENS	URE POTEN ESTRESSING	ITIAL G.						
SHRINKAG	GE, AND/OR TE	MPE	RATURE A	RE CONTR	OLLED IN T	HE VICIN	ITY AND					
SHRINKAG	E AS REQUIRE			UT, INCLU	IDING MOV	EMENT						
CONCRETE	E MIX ETC.	.000 2		L				15	SUED FU	RIEN	JER	
NO COLUN	IN STIFFNESS	SHO	JLD BE US	SED IN THE	E SLAB			Status				
AND BEAN	1 DESIGN.								STRUCTURA	L DRAWIN	IG	
SLABS TO WITH 100°	BE CHECKED I % COLUMN ST	for f Tffn	PUNCHING ESS. PT CO	G SHEAR W ONTRACTC	/ITH MOMEN PR TO MAKE	nt deriv E Allow/	/ED ANCE	\ \ /				
FOR SHEAD	r head reinf G shear rein	FORCE FORC	EMENT (W EMENTS	HERE REG	UIRED) TO	SATISFY						
leff TO Igro	ss MAX RATIO	то в	E DETERM	/INED BY 1	HE DESIGN	IER BUT						
IN NO INS	TANCE SHALL	BE G	REATER T	HAN 0.7 F	OR THE SLA	AB AND		╟╍╈┥				
		אב עו					4					
REINFORC			ANCE WIT	H CL9.2.2	OF AS3600	0-2018 F	DR					
ALL SLABS	AND BEAIVIS.	0.405										
LOSSES) T	O ALL INTERN	al co	A MINIM	um p/a of Slabs ani	1.4MPA (A D BEAMS, A	ND 2.0	IAL MPa	D				
(AFTER FIN EXPOSED F	NAL LOSSES) T ROOFS, ETC.) F	'o ali Plus	L EXTERN/ SL82 TOP	al areas ⁹ Mesh U.	(BALCONIE: N.O.	S, TERRA	ACES,			N R		
ALL EXPOS	SED SLABS/BEA	AMS (CRACK WI	dth to be	E LIMITED			STRUC	TURAL	ENGIN	EER	ING
TO 0.3mm	MAX.							MELBOURNE OFFICI LEVEL 2, 31 QUEEN MELBOURNE, VIC, A	E: STREET USTRALIA 3000	SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BA	, 19A BOUN 7, NSW, AUS	DARY STREET STRALIA 2011
EXPOSURE CL		l						1: +61 3 9614 7155 CLIENT		1: +61 2 9690 2488		
B1 EXTERN	VAL VAL	OT M							T A \ /I			
BI SURFA	CES IN CONTA	CIW	11H THE G	ROUND					IAYI	LOR		
FIRE RATING RESIDENT	IAL 90 MINU	JTES	FRL									
CARPARK	120 MINUTE	ES FR	:L									1
SERVICEABILI	I <u>TY</u> NG TERM DEFL	ECTI	ON SPAI	N / 250 OF	25mm MA	XIMUM.						-
CANTILEVE	ER SPAN / 12 8 SLABS & BEA	25 OF MS	R 15mm M SPAN/10	1AXIMUM 00 or 10n	nm MAXIML	, JM						_, 1 70
INCREMEN	NTAL DEFLECT		IMITS FOR	R SLABS AN	ND BEAMS		W125					170
	TIAL DEFLECTI		ETWEEN F	FLOORS TO	DE LIMITE	D TO	¥ 12.5	(GROUND	FLOOF	2 -	
JYAN/500	UK 15MM MA	⊼IIVIU	IVIAT FAC	AUE LUCA				GEN	ERAL ARI	RANGE	MEN	١T
GROUN	ND FLOOR	- LA	NDSCA	PE FOO	TING SCH	HEDUL	E		PL/	١N		
				RATE			—	DATE	DESIGNED BY	CHECKED BY		
MARK	fc (MPa	a)		/m ³)	REMAR	K		NOV 2020	MA/BT	,	AC	
SF3	32		5	50	STRIP FOO	TING		SCALES AT A1	DRAWN BY	APPROVED BY		
								1:100	PAC	I	-vv	

		GROUN	ID FLOOF	R SLAB SCI	HEDL	ILE		All Right Reserved The property of W Work shall be Rep). This work is c Ebber design Pt Roduced or cop	OPYRIGHT A Y LTD. NO P IED IN ANY	ND REMAINS ART OF THIS FORM OR BY
		REINF	. RATE	P.T. RAT	E			MEANS (GRAPHIC, EL PHOTOCOPYING, REC	ECTRONIC OR MEC ORDING OR INFOR	HANICAL, II MATION RE	NCLUDING TRIEVAL
THICKNE	SS f'c (MPa) (kg	/m ³)	(kg/m ²)		REMARKS		LTD.			
150 180	40		10 10	1.8 1.8	Р. Р.	T. SLAB BY D&C CONTRACTOR T. SLAB BY D&C CONTRACTOR	DO NOT SCA	LE DRAWINGS, U	SE FIGURED	DIMENS	IONS
200	40	60 + SL	82 MESH	5.0	Ρ.	T. SLAB BY D&C CONTRACTOR	Rev.	Description	Eng.	Draft.	Date
200*	40	101-111	30	N/A	В	DNDEK SLAB	2 ISSUED FOR	ROGRESS ISSUE R TENDER (DRAFT)	MA/BT	PAC PAC	27.11.20
200*	40	1	30	N/A	R	C. RAMP SLAB	3 ISSUED FOR	R TENDER (UPDATED)	MA/B1	PAC	18.12.20
210	40	60 + SL	+0 .82 MESH	2.5	Р. Р.	T. SLAB BY D&C CONTRACTOR	4 ISSUED FOR	R TENDER (UPDATED)	MA/B1	PAC	05.02.21
300	40	TOP THR		5.5	D						
	40		+0	5.5	[Г.	T. SLAB BT DAC CONTRACTOR					
	GRO	JND FLO	DR - CON	ICRETE BE	AM S	CHEDULE					
		fc	RATF	TFNDO	NS				I		
	SIZE	(MPa)	(kg/m ³)	(kg/m	²)	REMARKS	DRAWIN	G REFERENC	E REFER	RENCE	No.
4000	d x 2400w	40	40	7.0		P.T. BEAM BY D&C CONTRACTOR	DRAWING IN GENERAL NO	IDEX DTES	S-WEB-0	00	
4000	d x 2400w d x 1200w	40	65 40	8.5		P.T. BEAM BY D&C CONTRACTOR P.T. BEAM BY D&C CONTRACTOR	RETENTION		S-WEB-0	10-029	
		•					IN-SITU WAL		S-WEB-8	20-819	
	GROUI	ND FLOO	R - CONC	RETE COL	UMN	SCHEDULE	SLAB ON GR	ALLS OUND DETAILS	S-WEB-8 S-WEB-9	80-909 50-951	
			REII	NF. RATE			SUSPENDED	CONCRETE SLAB	S S-WEB-9	60-962	
MARK	SIZE	f'c (M	Pa) (I	kg/m³)		REMARKS	R.C. STAIR D	DETAILS	S-WEB-9	70	
C2	250 x 1200	50		230 I	NSITU	CONCRETE COLUMN	MASONRY D STEEL DETA	<u>etails</u> Ils	S-WEB-9	<u>80-981</u> 90-991	
C3 C4	200 x 1400 300 x 600	50		250 I 210 I	NSITU	CONCRETE COLUMN					
C5	400 x 400	50		210 I	NSITU	CONCRETE COLUMN					
							GENERA	L ARRANGEN	IENT LEGI	END	
		GROUNI) FLOOR	- WALL SC	CHED	ULE					-00
			REINF.	RATE				-DENUTES SLAB/E	SAND BEAM	HICKINE	255
MARK	WIDTH f	ⁱ c (MPa)	(kg/r	m ³)		REMARKS	to to	-DENOTES COLUN	/IN OVER		
CW1 CW2	200	50 50	18	0 INS 0 INS	ITU CO ITU CO	NCRETE CORE WALL		-DENOTES WALL	OVFR		
CW3	150	50	18	0 INS	ITU CO	NCRETE CORE WALL					
W1 W2	200 250	50 40	22 18	0 INS 0 INS	<u>ITU CO</u> ITU CO	NCRETE WALL		-DENOTES LOAD	BEARING ELE	EMENT L	JNDER
								-DENOTES LOAD	BEARING ELE	MENT	
1 ALL PENE	TRATIONS TO BE	F REVIEWED	AND RESOL	VFD				UNDER & OVER			
2. ALL SERV	ICES PENETRATI	ONS TO BE (CO-ORDINAT		ROVED	BY WEBBER DESIGN.		-DENUTES BLUCK			
3. REBATES	and cast in Pl Ed with Archit	ATES FOR S ECT.	IRUCTURAL	STEEL WORK	AND F	ACADE TO BE CO-	<u> </u>	-DENOTES SAWCI	JT JOINT		
4. CONTRAC	TOR SHALL ALL	OW FOR CON	ISTRUCTION	I JOINTS AS RE	EQUIRE	D.	C.J.	-DENOTES CONST	RUCTION JO	INT	
POST TEN	SIONED SLA	<u>B NOTES</u>	<u>.</u>								
THE SUSPENI	DED FLOOR SLAF	BS ARE A DE	Sign and C -002 for d	ONSTRUCT CO	OMPON ONSTR	ENT. ICTION POST-	STEP	-DENOTES SLAB S	SETDOWN. DETAILS FOR	RALLE	VELS
TENSIONING	FLOOR SLAB AN	D DESIGN B	RIEF AND G	ENERAL DESIG	SN & LO	ADING CRITERIA					VELO.
GENERAI	NOTES										
	RETE SLARS ANI	D REAMS TO									
PT AND RE	EINFORCEMENT	TO BE DESIG	NED BY PT	CONTRACTOR	1.0.						
- THE POST	TENSIONING CC	NTRACTOR	SHALL ENSU	JRE POTENTIA	L						
INTERNAL		RACKS INDU	CED BY PRE	STRESSING,		\sim					
OF RESTRA	AINING ELEMEN	TS AND MAK	E PROVISIO	N FOR MOVEN	VICINI VENT A	ND					
Shrinkag Joints, Po	Ge as required Our strips, lov	THROUGHO N SHRINKAO	UT, INCLUI E	DING MOVEME	ENT		100				
CONCRETE	E MIX ETC.									JLN	
- NO COLUN	/IN STIFFNESS SI	HOULD BE U	SED IN THE	SLAB			Status				
and beam	1 DESIGN.						:	STRUCTURAL		IG	
- SLABS TO			G SHEAR W			D					
FOR SHEA	% COLUMIN STIF	RCEMENT (V	/HERE REQU	JIRED) TO SAT	ILOVVAI TISFY	ICE					
PUNCHING	G SHEAR REINFO	RCEMENTS									
- leff TO Igro	ss MAX RATIO TO			HE DESIGNER	BUT						
IN NO INS BEAM CAL	CULATIONS.	- GREATER I	HAN 0.7 FC	DR THE SLAB F	AND						
- PT CONTR	ACTOR TO MAKE		E FOR STRI	JCTURAI INTE	GRITY						
REINFORC	EMENT IN ACCO		TH CL9.2.2	OF AS3600-20	018 FO	7					
ALL SLABS	DAND BEAINS.										
- PT CONTR	ACTOR TO PROV O ALL INTERNAI	IDE A MINIM	IUM P/A OF SLABS AND	1.4MPA (AFTE BEAMS. AND	R FINA 2.0M	L Pa					
- PT CONTR LOSSES) TO (AFTER FIN	ACTOR TO PROV O ALL INTERNAL VAL LOSSES) TO	IDE A MININ CONCRETE ALL EXTERN	IUM P/A OF SLABS AND AL AREAS	1.4MPA (AFTE) BEAMS, AND (BALCONIES, T	R FINA 2.0M ERRAC	L Pa ES,	₿h	Rr-	N		
- PT CONTRA LOSSES) TO (AFTER FIN EXPOSED F	ACTOR TO PROV O ALL INTERNAL NAL LOSSES) TO ROOFS, ETC.) PL	IDE A MININ CONCRETE ALL EXTERN US SL82 TO	ium P/A of Slabs and Al Areas (P Mesh U.N	1.4mpa (Afte) Beams, and (Balconies, t V.O.	r fina 2.0m Terrac	L Pa ES,	K K			F F P	
 PT CONTRUCTION CONTRUCTORICO CONTRUCTICO CONTRUCTURA CONTRUCTURA	Actor to prov o all internal Nal Losses) to Roofs, etc.) pl Sed Slabs/Bean Max.	IDE A MININ . CONCRETE ALL EXTERN US SL82 TOI 1S CRACK W	ium P/A of Slabs and Al Areas (° Mesh U.N DTH TO BE	1.4mpa (Afte) Beams, and (Balconies, t N.O. Limited	r fina 2.0m Errac	L Pa ES,	K S T R U C MELBOURNE OFFICE:		ENGIN SYDNEY OFFICE: SUITE 301, LEVEL 3		I N G
 PT CONTRUCTION CONTRUCTUAL CONTRUCTUAL CONTRUCTUAL CONTRUCTUAL CONTRUCTUAL CONTRUCTUAL CONTRUCTUCICA CONTRUCTUAL CONTRUCTUCONTUCAL CONTRUCTUAL CONTRUCTUAL CONTRUCTUAL CONTRUCTUAL CONTRU	ACTOR TO PROV O ALL INTERNAL NAL LOSSES) TO ROOFS, ETC.) PL SED SLABS/BEAN MAX.	IDE A MININ . CONCRETE ALL EXTERN US SL82 TOI 1S CRACK W	ium P/A of Slabs and Al Areas (° Mesh U.N DTH TO BE	1.4mpa (Afte Beams, and (Balconies, t N.O. Limited	er fina 2.0m Errac	L Pa ES,	STRUC MELBOURNE OFFICE: LEVEL 2, 31 QUEEN S MELBOURNE, VIC, AU T: +61 3 9614 7155	TURAL E	ENGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAY T: +61 2 9690 2488	EER , 19A BOUND 7, NSW, AUS	ING
 PT CONTRUCTION CONTRUCTICO CONTRUCTURA CONTRUCTICA CONTRUCTURA CO	Actor to prov o all internal NAL Losses) to Roofs, etc.) pl Sed Slabs/Bean Max. <u>Assification</u> NAL	IDE A MININ . CONCRETE ALL EXTERN US SL82 TOI 1S CRACK W	ium P/A of Slabs and Al Areas (° Mesh U.N DTH TO BE	1.4mpa (Afte Beams, and (Balconies, t N.O. Limited	R FINA 2.0M Errac	L Pa ES,	K K K K K K K K K K	TURAL E	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BA T: +61 2 9690 2488	E E R , 19A BOUND 7, NSW, AUST	ING
 PT CONTRUCTION CONTRUCTUON CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURICA CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURA CONTRUCTURA	Actor to prov o all internal val losses) to roofs, etc.) pl sed slabs/beam max. <u>Assification</u> val val ces in contact	IDE A MININ CONCRETE ALL EXTERN US SL82 TO IS CRACK W	IUM P/A OF SLABS AND AL AREAS (P MESH U.N DTH TO BE GROUND	1.4mpa (Afte Beams, and Balconies, t N.O. Limited	R FINA 2.0M Errac	L Pa :ES,	K S T R R R R R R R R R R	TURAL E TURAL E STRALIA 3000	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAX T: +61 2 9690 2488	E E R , 19A BOUND (, NSW, AUS'	ING VARY STREET TRALIA 2011
 PT CONTRUCTION CONTRUCTOR CONTRUCTOR CONTRUCTION CONTRUCTION CONTRUCTION CONTRUCTION CONTRUCTION CONTRUCTION CONTRUCTOR CONTRUCTO	Actor to prov o all internal val losses) to roofs, etc.) pl sed slabs/beam max. <u>Assification</u> val val ces in contact	IDE A MININ CONCRETE ALL EXTERN US SL82 TO IS CRACK W	IUM P/A OF SLABS AND AL AREAS (P MESH U.N DTH TO BE	1.4mpa (Afte Beams, and Balconies, t N.O. Limited	R FINA 2.0M Errac	L Pa :ES,	K S T R R R R R R R R R R	TURAL E TURAL E TRALIA 3000	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAX T: +61 2 9690 2488	E E R , 19A BOUND (, NSW, AUS	ING VARY STREET TRALIA 2011
 PT CONTRUCTION CONTRUCTOR CONTRUCTOR	Actor to prov o all internal NAL Losses) to Roofs, etc.) pl Sed Slabs/Bean Max. <u>Assification</u> NAL NAL Ces in contact	IDE A MININ CONCRETE ALL EXTERN US SL82 TO IS CRACK W	IUM P/A OF SLABS AND AL AREAS (P MESH U.N DTH TO BE	1.4mpa (Afte Beams, and Balconies, t .o. Limited	R FINA 2.0M Errac	L Pa :ES,	REBOURNE OFFICE: LEVEL 2, 31 QUEEN S MELBOURNE, VIC, AU T: 461 3 9614 7155 CLIENT	TURAL E	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAY T: +61 2 9690 2488	E E R , 19A BOUND (, NSW, AUS'	ING WARY STREET TRALIA 2011
 PT CONTRUCTION CONTRUCTO CONT	Actor to prov o all internal NAL Losses) to Roofs, etc.) pl Sed Slabs/Bean Max. <u>Assification</u> NAL NAL Ces in contact IAL 90 minut 120 minutes	IDE A MININ CONCRETE ALL EXTERN US SL82 TO IS CRACK W S WITH THE ES FRL FRL	IUM P/A OF SLABS AND AL AREAS (P MESH U.N DTH TO BE	1.4mpa (Afte Beams, and Balconies, t .o. Limited	R FINA 2.0M Errac	L Pa ES,	ROJECT	TURAL E	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAX T: +61 2 9690 2488		ING
 PT CONTRUCTION CONTRUCTUO CONTRUCTUO CONTRUCTUO CONTRUCTUO CONTRUCTUAL CONTRU	Actor to prov o all internal val losses) to roofs, etc.) pl sed slabs/beam Max. <u>Assification</u> val val ces in contact ial 90 minut 120 minutes	IDE A MININ CONCRETE ALL EXTERN US SL82 TO IS CRACK W WITH THE ES FRL FRL	IUM P/A OF SLABS AND AL AREAS (P MESH U.N DTH TO BE GROUND	1.4MPA (AFTE BEAMS, AND BALCONIES, T N.O. LIMITED	R FINA 2.0M ERRAC	L Pa :ES,	ROJECT	TURAL E	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAX T: +61 2 9690 2488		ING
 PT CONTRUCTION CONTRUCTOR CO	Actor to prov o all internal NAL Losses) to Roofs, etc.) pl Sed Slabs/Bean Max. <u>Assification</u> NAL NAL Ces in contact IAL 90 minut 120 minutes <u>TY</u> NG term defled ER Span / 125	IDE A MININ CONCRETE ALL EXTERN US SL82 TO IS CRACK W S CRACK W WITH THE ES FRL FRL CTION SPA	IUM P/A OF SLABS AND AL AREAS (MESH U.N DTH TO BE GROUND	1.4MPA (AFTE BEAMS, AND BALCONIES, T N.O. LIMITED 25mm MAXIM	:R FINA 2.0M ERRAC	L Pa :ES,	ROJECT	TURAL E TURAL E TREET STRALIA 3000 TAYL	NGIN SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAX T: +61 2 9690 2488 OR OR	E E R , 19A BOUND , NSW, AUS ARN ARN RADE	ING
 PT CONTRUCTIONSES) TO LOSSES) TO (AFTER FINE EXPOSED F ALL EXPOSE TO 0.3mm EXPOSURE CL - A2 INTERN B1 EXTERN B1 SURFAN FIRE RATING RESIDENTI CARPARK SERVICEABILI TOTAL LON CANTILEVE TRANSFER INCREMEN 	Actor to prov o all internal val losses) to roofs, etc.) pl sed slabs/beam max. <u>Assification</u> val val ces in contact ial 90 minut 120 minutes <u>ty</u> vg term deflec aslabs & beam vtal deflectio	IDE A MINIM CONCRETE ALL EXTERN US SL82 TO IS CRACK W IS CRACK W S CRACK W S CRACK W S CRACK W S FRL FRL CTION SPA OR 15mm N S SPAN/10 N LIMITS FO	IUM P/A OF SLABS AND AL AREAS (P MESH U.N DTH TO BE GROUND GROUND (N / 250 OR MAXIMUM 000 OR 10m R SLABS AN	1.4MPA (AFTE BEAMS, AND BALCONIES, T N.O. LIMITED 25mm MAXIMUM ID BEAMS	ir finf 2.0m Terrac	L Pa :ES,	PROJECT	TURAL E TURAL E TREET STRALIA 3000 TAYL -IC WARV L3 MANN /ICK FAR	N G I N SYDNEY OFFICE: SUITE 301, LEVEL 3 RUSHCUTTERS BAX T: +61 2 9690 2488 OR OR VICK FA	E E R , 19A BOUND , NSW, AUS ARN ARN RADE N 21	I N G DARY STREET TRALIA 2011
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		(GROUN	DFLC	DOR S	SLAB S		ULE			The property of Work Shall be re Means (graphic, e	WEBBER DES PRODUCED LECTRONIC	Sign Pty Or Copie Or Mech	ltd. No p d in any Ianical, i	art of this Form or by Ncluding
THICKNE	SS f'c (MF	Pa)	REINF (kg	. RAT /m³)	E	P.T. R/ (kg/m	ATE 1 ²)	REMARK	s		PHOTOCOPYING, RE SYSTEMS) WITHOL LTD.	Cording of T the perm	R INFORM ISSION O	ATION RE F WEBBEF	TRIEVAL (DESIGN PTY
150	40		4	10		1.8		P.T. SLAB BY D&C CONT	RACTOR	DO NOT SCA	LE DRAWINGS,	USE FIGL	JRED D	IMENS	IONS
200	40		60 + SL	82 MES	H	5.0		P.T. SLAB BY D&C CONT P.T. SLAB BY D&C CONT	RACTOR	Rev.	Description		Eng.	Draft.	Date
200*	40		10P THR	00GH0 30		N/A		BONDEK SLAB		1 WORK IN PI 2 ISSUED FOF	Rogress Issue R Tender (Draft)		MA MA/BT	PAC PAC	18.11.20 27.11.20
200* 210	40		1	30 10		N/A 2.5		R.C. RAMP SLAB P.T. SLAB BY D&C CONT	RACTOR	3 ISSUED FOR 4 ISSUED FOR	TENDER (UPDATE))))	MA/BT MA/BT	PAC PAC	18.12.20 05.02.21
250	40		60 + SL TOP THR	82 MES OUGHO	H UT	2.8		P.T. SLAB BY D&C CONT	RACTOR						
300	40		2	10		5.5		P.T. SLAB BY D&C CONT	RACTOR						
	GR				ONC	RETE F	REAM								
						P									
			f'c	RA	TE	TEND	DONS								
400d	SIZE		(MPa)	(kg/r	m ³)	(kg/	′ <u>m²)</u>				J REFERENC	CE RE	.FERE /EB-00		No.
500d	1 x 2400w		40	65	5	10).5	P.T. BEAM BY D&C CC	ONTRACTOR	GENERAL NO	DTES	S-W S-W	/EB-00 /EB-01	1-002	
4000	1 x 1200w		40	40)	8.	.5	P.T. BEAM BY D&C CC	DNTRACTOR	CONCRETE C	XOLUMNS	S-W S-W	/EB-80 /EB-82	0-819 0-879	
	GRO	UNE) Flooi	R - CC	NCR	ETE CO	DLUM	N SCHEDULE		PRECAST WA	ALLS OUND DETAILS	S-W S-W	/EB-88 /EB-95	0-909 0-951	
				R	REINF	. RATE	Ξ			SUSPENDED POST TENSIO	CONCRETE SLA	BS S-V S-V	/EB-96 /EB-96	0-962 5-966	
MARK	250 x 120	00	f'c (M	Pa)	(kg 2	/m ³) 30		REMARKS		R.C. STAIR D	ETAILS ETAILS	S-W S-W	/EB-97 /EB-98	0 ;0-981	
C3	200 x 140	00	50		2	50	INSIT	J CONCRETE COLUMN		STEEL DETA	LS	S-W	/EB-99	0-991	
C4 C5	400 x 60	0	50		2	10 10	INSIT	J CONCRETE COLUMN							
					~ ~					GENERA	_ ARRANGEI	MENT I	EGE	ND	
		G	ROUNI) FLO	OR -	WALL	SCHE	DULE		 	-DENOTES SLAB	/BAND B	EAM TI	HICKNE	SS
MARK	WIDTH	f'c	(MPa)	REIN	NF. R kø/m ³	ATE		REMARKS							
CW1	200		50		220	, II	NSITU (CONCRETE CORE WALL		Ct	-DENUTES COLU		۲		
CW2 CW3	250 150		50 50		180 180		NSITU (NSITU (CONCRETE CORE WALL		× · · · · · · · · · · · · · · · · · · ·	-DENOTES WALI	OVER			
W1 W2	200 250		50 40		220 180		NSITU (NSITU (ONCRETE WALL			-DENOTES LOAD	BEARIN	g elen	/IENT L	INDER
NOTES:						I						BEARIN	G ELEN	ЛЕNT	
1. ALL PENE	TRATIONS TO	BE R		AND RE		D.					-DENOTES BLOC	K WALL	OVER		
3. REBATES /	AND CAST IN		ES FOR ST	IRUCTU	IRAL S	TEEL WO	RK AND	FACADE TO BE CO-		S.C.J.	-DENOTES SAW	CUT JOIN	Т		
4. CONTRACT	TOR SHALL AI	LLOW	FOR CON	STRUCT	tion J	DINTS AS	REQUI	RED.		C.J.		TRUCTIO		NT	
POST TENS	SIONED SL		NOTES	<u>.</u>	15 001							057501			
REFER TO DR	AWING S-WEE	LABS / 3-001	ARE A DE	-002 FC	ND COR DR DES	IGN AND		RUCTION POST-		STEP	-DENOTES SLAB REFER TO ARCH	I. DETAIL	/N. S FOR	ALL LE	VELS.
			JESIGN Br		D GEN	ERAL DE	SIGN &	LUADING CRITERIA							
GENERAL	<u>NOTES:</u>														
PT AND RE	EINFORCEMEN	NT TO	BE DESIG	INED BY	PT CC	NTRACT(0R.								
- THE POST	TENSIONING	CONT	RACTOR S	SHALL E			TIAL								
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SHRINKAG	E AS REQUIRI			UT, INC		NG MOVE	EMENT	AND							
CONCRETE	E MIX ETC.			1						153	SUED FC		INL	ΈK	
- NO COLUM	IN STIFFNESS	SHO	uld be u	SED IN	THE SI	_AB				Status					
- SLABS TO I	BE CHECKED	FOR F	PUNCHIN	3 SHFAF			IT DFRI	/FD			STRUCTURA	L DRA	WING	ג 	
WITH 100%	% COLUMN ST	TIFFN	ESS. PT C	ontra(/HFRF F	CTOR T	O MAKE	ALLOW	ANCE		ΝΛΙ					
PUNCHING	SHEAR REIN	IFORC	EMENTS			,				ΙДД					
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BEAM CALC	CULATIONS.														
- PT CONTRA	ACTOR TO MA EMENT IN ACC	ke al Cord	LLOWANC	e for s Th Cl9.2	STRUCT 2.2 OF	fural in As3600-	itegrit -2018 f	Y OR							
ALL SLABS	AND BEAMS.														
- PT CONTRA	ACTOR TO PRO O ALL INTERN	ovide Jal Co	E A MINIM ONCRETE	ium P/A Slabs /	of 1.4 And B	4mpa (Af Eams, an	TER FII	VAL MPa		Юh		N			
(AFTER FIN EXPOSED F	IAL LOSSES) T ROOFS, ETC.)	fo al Plus	l extern Sl82 tof	AL ARE/ P MESH	AS (BA U.N.C	ALCONIES).	6, TERR	ACES,		ML		コヽ			
- ALL EXPOS	ED SLABS/BE	AMS (CRACK WI	DTH TC) BE LII	MITED					TURAL	ENG	IN I	EER	ING
TO 0.3mm	MAX.									LEVEL 2, 31 QUEEN S MELBOURNE, VIC, AU T: +61 3 9614 7155	IREET STRALIA 3000	SUITE 301, RUSHCUTT T: +61 2 969	LEVEL 3, 1 ERS BAY, 10 2488	9A BOUND NSW, AUS ⁻	ARY STREET IRALIA 2011
- A2 INTERN	<u>ASSIFICATION</u> IAL	4								CLIENT					
B1 EXTERNB1 SURFACE	NAL CES IN CONTA	ACT W	/ITH THE (GROUNI	D						TAY	OR			
FIRE RATING											.,				
- RESIDENTI. - CARPARK -	al 90 mini 120 minut	utes Es ff	FRL RL							PROJECT					
SERVICEABILI						-	// .								 _
- TOTAL LON CANTILEVE	R SPAN / 1	25 OF	R 15mm N	ия / 250 ЛАХІМU	0K 25 M		MUVIUM,								-, . 70
- INCREMEN	ITAL DEFLECT	-11713 TON L	- SPAINIC LIMITS FOI					N/125				kivi, ľ	NSV	▼ ∠ .	1/0
- DIFFERENT	TAL DEFLECT	ION E	BETWEEN	FLOORS	S TO BE	E LIMITED	SPA) ТО	VICJ		G	ROUND	FLO	OR	-	
ST ATV300		VUIVIL		UL LU	07110					GENE	RAL AR	RAN	GEN	ΛEN	IT
GROUN	ND FLOOR	- LA	NDSCA	PE FC		NG SC⊢	IEDUL	E			PL	٩N			
MARK	fr (MD	a)	REIN	F. RAT	E	FNADU	(DATE NOV 2020	DESIGNED BY	CHECKED BY	AC		
SF3		u/	(kg	/m ³) 50			TING			SCALES AT A1	DRAWN BY	APPROVED B	(
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ζ	CO IN-	NCF SITI	ret J V	TE C VAL	OLL LS	JMN	١S			S-V S-V	NEB- NEB-	.80 .82	0-819 0-879	9 9		
کر کر	PR SL	ECA AB (ST DN	WA GR(S ND E	DETA	ILS		S-V S-V	NEB- NEB-	.88 .95	0-909 0-951	9 1		
Ľ	SU PO	SPE ST 1	ΝΕ ΓΕΝ	DED NSIC		NCF NG [RETE DETA		ABS	S-V S-V	NEB- NEB-	96 96	0-962 5-966	2 6		
5	R.(J.S NSON	I Al NR	к D Y DE		ILS				S-\ S-\	NEB-	.97	0-981 0-981	1		
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		REINF. F	ATE P.T. F	RATE				R	PHOTOCOPYING, SYSTEMS) WITH LTD.	, electroi Recording Dut the Pe	G OR INFORM ERMISSION C	NATION R	ETRIEVAL R DESIGN PT
THICKNE	SS f'c (MPa	1) (kg/m	³) (kg/I	m²)		CTOD	D	O NOT SC/	ALE DRAWINGS	, USE FI	GURED [DIMEN	SIONS
200	40	45	4.	.0	ADDITIONAL SL82 MESH T EXTERNAL AREAS	OP TO	Rev.		Description		Eng.	Draft.	Date
200*	40	130	N/	/A	R.C. CORE SLAB		2	ISSUED FO	R TENDER (DRAFT)	MA/BT	PAC	27.11.20
	LEV	'EL 1 - CON	CRETE COLU	JMN SC	HEDULE		3	ISSUED FO	r tender (updat R tender (updat	ED) ED)	MA/BT MA/BT	PAC PAC	18.12.20 05.02.21
	0175		REINF. RAT	E									
C2	SIZE 250 x 1200	f'c (MPa) 50	(kg/m ³) 230	INSITU	CONCRETE COLUMN								
C3 C4	200 x 1400 300 x 600	50 50	250 210	INSITU	CONCRETE COLUMN								
C5	400 x 400	50	210	INSITU	CONCRETE COLUMN								
		LEVEL	1 - WALL SCH	HEDULE									No.
		R	EINF. RATE				GI	ENERAL N	OTES		6-WEB-00 6-WEB-01)1-002 10-029	<u>.</u>
MARK cw1	WIDTH f'a	50 (MPa)	(kg/m ³) 220	INSITU CO	REMARKS			ONCRETE	COLUMNS LLS	S	6-WEB-80 6-WEB-82)0-819 20-879)
CW3	150	50	180		NCRETE CORE WALL		Pf Sl	RECAST W _AB ON GF	ALLS ROUND DETAILS	S S	6-WEB-88 6-WEB-95	30-909 50-951)
W2	250	40	180	INSITU CO	NCRETE WALL		SI PO	JSPENDED DST TENSI	O CONCRETE SL	ABS S	S-WEB-96 S-WEB-96	50-962 55-966	
NOTES.							R. M	C. STAIR I ASONRY D	DETAILS DETAILS		S-WEB-97 S-WEB-98	70 30-981	
1. ALL PENET	RATIONS TO BE	REVIEWED AN	D RESOLVED.					EEL DETA	ILS		5-VVEB-99	90-991	
 ALL SERVIO REBATES A 	CES PENETRATION ND CAST IN PL	ONS TO BE CO-0 ATES FOR STRU	ORDINATED AND A	APPROVEI VORK AND) by webber design. Facade to be co-								
ORDINATEI 4. CONTRACT	D WITH ARCHIT OR SHALL ALLC	ECT. IW FOR CONSTR	RUCTION JOINTS /	as requii	RED.			GENERA	L ARRANG	EMEN	t lege	END	
POST TEN	SIONED SI A	B NOTES:						xx*	-DENOTES SLA	AB/BAND) beam t	HICKN	ESS
THE SUSPENE		BS ARE A DESIG			ONENT.			6	-DENOTES COI	LUMN O	VER		
REFER TO DR. TENSIONING I	AVVING S-VVEB-(FLOOR SLAB AN	D DESIGN BRIE	UZ FUR DESIGN A	DESIGN &	LOADING CRITERIA			י ₹	-DENOTES WA	ILL OVEF	7		
GENERAL	NOTES:								-DENOTES LOA	AD BEAF	RING ELE	MENT	UNDER
- ALL CONC	RETE SLABS AN	d beams to be	E POST-TENSIONE	D U.N.O.									ONDER
- SLABS TO	BE MINIMUM 20	Domm THICK. f	c = 40MPa AND	loron.					UNDER & OVE	R			
POST-TEN	SION BY OTHER	S U.N.O.						//////	-DENOTES BLC	ock wai	LL OVER		
- THE POST INTERNAL	TENSIONING CO FORCES AND C	NTRACTOR SHA	all ensure pot d by prestressi	ENTIAL ING,			-	<u>S.C.J.</u>	-DENOTES SAV	NCUT JO	DINT		
SHRINKAG OF RESTRA	GE, AND/OR TEM AINING ELEMEN	PERATURE ARE TS AND MAKE F	E CONTROLLED IN PROVISION FOR M	N THE VICI	NITY AND		-	C.J.	-DENOTES COI	NSTRUC	TION JOI	NT	
Shrinkag Joints, Po	ie as required Dur Strips, Lo') THROUGHOUT W SHRINKAGE	, INCLUDING MO	OVEMENT			S1	EP [7777	-DENOTES SLA		OWN.		
CONCRETE	E MIX ETC.												
- NO COLUN AND BEAN	1 DESIGN.	HOULD BE USE	D IN THE SLAB										
- SLABS TO	BE CHECKED FC % COLUMN STIE	R PUNCHING S	SHEAR WITH MON		VED								
FOR SHEAI	R HEAD REINFO	RCEMENT (WHI RCEMENTS	ERE REQUIRED) T	TO SATISFY	ANCE,								
- leff TO Igro	ss MAX RATIO T	O BE DETERMIN	NED BY THE DESIG	gner but									
IN NO INST BEAM CAL	TANCE SHALL B CULATIONS.	E GREATER THA	AN 0.7 FOR THE S	SLAB AND									
- PT CONTRA	Actor to Make	E ALLOWANCE F	FOR STRUCTURAL	L INTEGRI ⁻	γ			IS	SUED FO	OR T	FEND	DER	
REINFORC	EMENT IN ACCC S AND BEAMS.	RDANCE WITH	CL9.2.2 OF AS36	600-2018	FOR		Statu	S					
- PT CONTRA	ACTOR TO PROV	IDE A MINIMU	M P/A OF 1.4MPA	(AFTER FI	NAL				STRUCTUR	AL DF	RAWIN	G	
LOSSES) TO (AFTER FIN	O ALL INTERNAI	L CONCRETE SL	ABS AND BEAMS, AREAS (BALCON	, AND 2.0 NIES, TERF	MPa ACES,			Λ /					
EXPOSED F	ROOFS, ETC.) PL	US SL82 TOP N	MESH U.N.O.				Y	Д					
TO 0.3mm	MAX.	IS CRACK WIDT	TH TO BE LIWITED)									
EXPOSURE CL	<u>ASSIFICATION</u>							IJ					
 B1 EXTERN B1 SURFAGE 	NAL CES IN CONTAC	T WITH THE GR	OUND					\mathbf{D}					
FIRE RATING								Π					
- RESIDENTI - CARPARK -	ial 90 minut 120 minutes	ES FRL 5 FRL						ΣГ					
SERVICEABILI	<u>TY</u>							٦L		ר כ	N		
- TOTAL LON CANTILEVE	NG TERM DEFLE ER SPAN / 125	CTION SPAN , 5 OR 15mm MA	/ 250 OR 25mm N XIMUM	Maximum,			S T Mele	RUC	TURAL	E N sydne'	GIN Y OFFICE:	EER	RING
TRANSFERINCREMEN	R SLABS & BEAM	IS SPAN/1000 N LIMITS FOR S) or 10mm Maxin Slabs and beam	MUM IS			LEVE MELB T: +61	2, 31 QUEEN S OURNE, VIC, AU 3 9614 7155	STREET JSTRALIA 3000	SUITE 3 RUSHC T: +61 2	301, LEVEL 3, CUTTERS BAY, 2 9690 2488	19A BOUN NSW, AUS	DARY STREET STRALIA 2011
- DIFFERENT	NG BRITTLE E	LEMENTS SPA N BETWEEN FLO	AN/500, CANTILE OORS TO BE LIMI	ver SPA Ted to	N/125		CLIENT						
SPAN/500	OR 15mm MAXI	MUM AT FACAL	DE LOCATIONS						TAY	/LOF	र		
		T					PROJEC	π ΙΛΙ		»\\\/\ <i>C</i>	יע בו		Л
40	Jmm CAVITY —		REFE	ER TO ARC	HITECT			11_ ¹	IC WAR 12 MAN				'I F
			M12 WITH	2 HILTI HIT H HILTI HI	-Z-F AT 450 CTS. T HY-200-R,		Ιv	VARV		RM	NSV		∟, 170
· · · · · · · · · · · · · · · · · · ·			_ x 120	U EMBEDN	ЛЕNI 		TITLE	<i>▼7</i> \I \ ¥			1 10 1	• ~	-,0
								LE	EVEL 1 -	GE	NER	۹L	
			110					AR	RANGE	MEN	IT PL	AN	
PRO	DVIDE BACKING		150>	x150x10 E	A SHELF ANGLE,		DATE		DESIGNED BY	CHECKED) BY		
κυL			H.D. FIRE	E RATING T	SED. O		N	OV 2020	MA/BT		A	С	
		v	ARCI	niteut's [JETAILS		SCALES	AT A1	DRAWN BY	APPROVE	ED BY	•	
FCTION	Λ Δ						1:	20, 1:100	PAC		P		
	· / ^	١					JUB No		DRAWING No.			REV.	

	40mm CAVITY
LEVEL 1	
	PROVIDE BACKING ROD & SEALANT



S-WEB-110



		LEVEL 2 - S
		REINF. RAT
THICKNESS	f'c (MPa)	(kg/m ³)
200	40	45
200*	40	130

									AN	All Right Reserve The property of N Work shall be re	ed. This w Webber d	ORK IS COI ESIGN PTY	PYRIGHT A LTD. NO F	AND REMAII PART OF TH
			LEVE	EL 2 - SL	AB SCH	EDUL		IARKS DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS						NCLUDING ETRIEVAL R DESIGN P
THICKNE	ESS fc (MPa)	REINF	F. RATE	P.T. F	RATE m ²)	REMARKS				ISE FIG			
200		40	(1)	45	4.	8	P.T. SLAB BY D&C CONTRACTOR	Rev.		Description		Eng.	Draft.	Date
							EXTERNAL AREAS		WORK IN P	ROGRESS ISSUE		MA MA/BT	PAC	18.11.2
200*		40	1	130	N/	A	R.C. CORE SLAB	3	ISSUED FOR	R TENDER (UPDATED))	MA/BT	PAC	18.12.2
		LEVE	L 2 - C(ONCRET	E COLU	MN SC	HEDULE	4	ISSUED FOR	R TENDER (UPDATEL))	MA/BT	PAC	05.02.2
				REII	NF. RAT	E								
MARK C2	250 x 12	200	f'c (Mf	Pa) (kg/m ³) 230		REMARKS	-						
C3	200 x 14	400	50		250	INSIT								<u> </u>
C4 C5	300 x 6 400 x 4	.00	50		210	INSIT	U CONCRETE COLUMN							L
											E R			No.
							.E	G	ENERAL NO	DTES	S-	WEB-00 WEB-01	01-002 0-029	
MARK	WIDTH	f'c	(MPa)	REINF. (kg/i	m ³)		REMARKS		ONCRETE O	COLUMNS	S-	WEB-80 WFB-82	0-819	
CW1	200		50 50	22	0	INSITU (CONCRETE CORE WALL	P S	RECAST W	ALLS OUND DETAILS	S- S-	WEB-88 WEB-95	0-909 0-951	
W1	200		50 50	22	0	INSITU (CONCRETE WALL	S	USPENDED OST TENSI	CONCRETE SLA	BS S-	WEB-96 WEB-96	0-962 5-966	
W2	250		40	18	0	INSITU (CONCRETE WALL		.C. STAIR D IASONRY D	DETAILS ETAILS	S-	WEB-97 WEB-98	0 0-981	
OTES:								S	TEEL DETA	ILS	S-	WEB-99	0-991	
REBATES / ORDINATE CONTRACT	and cast II D with Are for shall . Sioned : Ded Floor Awing S-W Floor Slae	N PLATE CHITEC ALLOW SLABS SLABS (EB-001 3 AND E	ES FOR ST T. FOR CON MOTES ARE A DE & S-WEB DESIGN BF	TRUCTURAL STRUCTION SIGN AND (5-002 FOR L RIEF AND G	_ STEEL W N JOINTS A CONSTRUC DESIGN AN GENERAL D	ork ane s requi ct comp id cons esign &	D FACADE TO BE CO- RED. ONENT. TRUCTION POST- LOADING CRITERIA		GENERA	L ARRANGE	MENT Øband JMN ov L over	⁻ LEGE BEAM T ′ER	<u>ND</u> HICKN	ESS
<u>ENERAL</u>	NOTES:									-DENOTES LOAD) BEARI	NG ELE	MENT	UNDER
ALL CONCI PT AND RE	RETE SLABS EINFORCEM	s and b Ent to	EAMS TO BE DESIG	BE POST-T GNED BY PT	ENSIONED	U.N.O. CTOR.				-DENOTES LOAD) BEARI	NG ELE	MENT	
SLABS TO	BE MINIMU	M 200n	nm THICK	, f'c = 40N	1Pa AND				///////	-DENOTES BLOC	CK WAL	L OVER		
POST-TEN	SION BY OT	HERS U	J.N.O.						<u>S.C.J.</u>	-DENOTES SAW	CUT JO	INT		
INTERNAL	FORCES AN	G CONT ID CRAC	CKS INDU	CED BY PR	ESTRESSIN	NHAL NG, TUE VICI			C.J.	-DENOTES CONS	STRUCT	ION JOI	NT	
OF RESTRA	AINING ELEI		AND MAK	E PROVISIO	On For Mo		AND							
JOINTS, PO	DUR STRIPS	, LOW S	SHRINKAG	GE GE				S Z	TEP	REFER TO ARCH	I. DETA	ILS FOR	ALL LE	EVELS.
NO COLUM	IN STIFFNE	SS SHO	uld be u	ISED IN THI	E SLAB									
SLABS TO WITH 100° FOR SHEAI PUNCHING	BE CHECKE % COLUMN R HEAD REI 3 SHEAR RE	d for f Stiffn Nforci Inforc	PUNCHING ESS. PT C EMENT (M CEMENTS	g shear w Ontracto Vhere Reg	/ITH Mome or to Mak Quired) to	ent der E Allow Satisfy	IVED /ANCE /							
leff TO Igro IN NO INS ⁻ BEAM CAL	ss MAX RAT TANCE SHAI CULATIONS	'IO TO E LL BE G	Be detern Reater t	VINED BY 1 Than 0.7 F	THE DESIGI OR THE SL	NER BUT AB AND	-		ISS	SUED FO	RT	ENC	ER	
PT CONTRA	ACTOR TO N EMENT IN A	/AKE AI	LLOWANC	E FOR STR Th Cl9.2.2	UCTURAL OF AS360	INTEGRI ⁻ 0-2018	TY FOR	Statu	IS					
ALL SLABS	S AND BEAM	IS.							A /	STRUCTURA		4001100	ג 	
LOSSES) TO (AFTER FIN EXPOSED F	ACTOR TO F O ALL INTEF VAL LOSSES ROOFS, ETC	ROVIDE RNAL CO) TO AL .) PLUS	- A MININ ONCRETE L EXTERN SL82 TOF	ium p/a of Slabs ani Ial areas P mesh u.) 1.4mpa (/ D BEAMS, / (BALCONII N.O.	AND 2.0 ES, TERF	NAL DMPa RACES,	Y	<u>М</u>					
ALL EXPOS TO 0.3mm	sed slabs/e Max.	BEAMS	CRACK WI	idth to be	E LIMITED				\mathbf{H}					
(<u>Posure Cl</u> A2 Intern B1 extern	<u>_ASSIFICATI(</u> NAL NAL	<u>NC</u>						Ĺ	Ĩ					
BI SURFA	CES IN CON IAL 90 MI 120 MINI	IACI W NUTES	FRL	GROUND				F	$\frac{1}{2}$	R	7			
RVICEABILI	<u>TY</u>	ו ו	_					s -	T R U C	TURAL	ENC	■ G I N I	EER	ING
TOTAL LON CANTILEVE TRANSFER INCREMEN SUPPORTI	NG TERM DE ER SPAN / R SLABS & B NTAL DEFLEC NG BRITTI	EFLECTI 125 OI EAMS CTION L LE ELEN	ON SPA R 15mm M - SPAN/1C JIMITS FOI MENTS S	N / 250 OF MAXIMUM DOO OR 10r R SLABS AN SPAN/500,	R 25mm M/ nm MAXIM ND BEAMS CANTILEVE	aximum um Er Spa	N/125	MELE LEVE MELE T: +6 CLIEN	BOURNE OFFICE: EL 2, 31 QUEEN S BOURNE, VIC, AU 1 3 9614 7155	TREET STRALIA 3000	SYDNEY SUITE 30 RUSHCU T: +61 2 9	OFFICE: 1, LEVEL 3, 1 ITERS BAY, 1690 2488	9A BOUNE NSW, AUS	DARY STREE
SPAN/500	OR 15mm N	MAXIMU	JM AT FAC	CADE LOCA	TIONS					IAYI	_OR			
		0.00			I	0		PROJE			NIC	K F4		
	40mm	I CAVIT	r —		\mathbf{i}	- REFER	IO ARCHITECT		<u>11-1</u>	L3 MANN		PAR		- -
						- M12 H WITH F x 120	ILTI HIT-Z-F AT 450 CTS. HILTI HIT HY-200-R, EMBEDMENT	v	VARV	/ICK FAR	RM,	NSV	V 2	_, 170
		A	A					TITLE						
4	a a , a , a , a , a , a	, P., ., ., ., ., ., ., ., ., ., ., ., ., .	۲ <u>-</u>		110				LE AR	EVEL 2 - RANGEN	GEN 1EN	NER/ T PL	AL AN	
	PROV	DE BAC	KING —		\backslash	- 150x1	50x10 EA SHELF ANGLE,	DATE		DESIGNED BY	CHECKFD	3Y		
	ROD &	x SEALA	AN I			H.D. G. FIRE R	ALVANISED. ATING TO	N	10V 2020	MA/BT		AC)	
				╌╌╜╟╱╱╌└╴		ARCHI	TECT'S DETAILS	SCALE	ς ατ α1	DRAWN BY	APPROVED	BV		

									ALL RIGHT RESERVED. T THE PROPERTY OF WEB	HIS WORK IS CC BER DESIGN PTY	PYRIGHT / LTD. NO I	and Remai Part of th
			LEVEL 2	2 - SLAB SC	HEDUL	E			WORK SHALL BE REPRO MEANS (GRAPHIC, ELECT PHOTOCOPYING, RECOR	DUCED OR COPI IRONIC OR MECI DING OR INFORM	ed in Any Hanical, I Mation Re	' Form or I Including Etrieval
			REINF. F	RATE P.T.	RATE				LTD.	E PERMISSION C	F WEBBEI	R DESIGN P
THICKN 200	IESS f'c (N 4	/IPa) 0	(kg/m 45	³) (kg	g/m²) 4.8	REMARKS		O NOT SC/	ALE DRAWINGS, USE	E FIGURED I	DIMENS	SIONS
						ADDITIONAL SL82 MESH TOP TO EXTERNAL AREAS	1	WORK IN F	PROGRESS ISSUE	MA	PAC	18.11.2
200*	4	0	130	1	N/A	R.C. CORE SLAB	2	ISSUED FO	R TENDER (DRAFT) R TENDER (UPDATED)	MA/BT MA/BT	PAC PAC	27.11.2 18.12.2
	l	EVEL	2 - CON	CRETE COLI	JMN S	CHEDULE	4	ISSUED FO	R TENDER (UPDATED)	MA/BT	PAC	05.02.2
				REINF. RA	TE		$\dashv \vdash$					
MARK	SIZE	f	f'c (MPa)	(kg/m ³)								
C2 C3	250 x 120 200 x 140	00	50 50	230 250	INSI	U CONCRETE COLUMN						
C4 C5	300 x 60 400 x 40	00	50 50	210 210	INSIT INSIT	U CONCRETE COLUMN	\dashv					
								RAWIN	G REFERENCE	REFER	ENCE	No.
			LEVEL	2 - WALL SC	CHEDUL	E	G	RAWING II ENERAL N	NDEX OTES	S-WEB-00	00 01-002	
		flo (N	(IDa)	EINF. RATE			R C	ETENTION ONCRETE	COLUMNS	S-WEB-01	10-029 00-819	
CW1	200	1 C (IV 50		(Kg/III °) 220	INSITU	CONCRETE CORE WALL	IN	N-SITU WA RECAST W	LLS ALLS	S-WEB-82 S-WEB-88	20-879 30-909	
CW3 W1	150 200	50 50	0 0	180 220	INSITU	CONCRETE CORE WALL		LAB ON GE	ROUND DETAILS D CONCRETE SLABS	S-WEB-99	50-951 50-962	
W2	250	40	0	180	INSITU	CONCRETE WALL		OST TENSI .C. STAIR	ONING DETAILS DETAILS	S-WEB-96 S-WEB-97	55-966 70	
NOTES:							N S	IASONRY E TEEL DETA	DETAILS NLS	S-WEB-98 S-WEB-99	30-981 90-991	
 REBATES ORDINAT CONTRAC CONTRAC POST TEN THE SUSPEN REFER TO D TENSIONING 	S AND CAST IN TED WITH ARC CTOR SHALL A NOED FLOOR S RAWING S-WE G FLOOR SLAB	PLATES HITECT. LLOW FC LABS AR B-001 & AND DES	FOR STRUG DR CONSTR OTES: RE A DESIGN S-WEB-002 SIGN BRIEF	CTURAL STEEL V UCTION JOINTS N AND CONSTRU 2 FOR DESIGN A AND GENERAL	WORK ANI AS REQU JCT COMF AND CONS DESIGN &	O FACADE TO BE CO- RED. ONENT. TRUCTION POST- LOADING CRITERIA		GENERA	AL ARRANGEME -DENOTES SLAB/BA -DENOTES COLUMP -DENOTES WALL O	ENT LEGE AND BEAM T N OVER VER	<u>END</u> THICKN	ESS
GENERAL	<u>NOTES:</u>								-DENOTES LOAD BE	EARING ELE	MENT	UNDER
- ALL CON	CRETE SLABS	and bea NT to be	AMS TO BE I	POST-TENSIONE	D U.N.O.				-DENOTES LOAD BE	EARING ELE	MENT	
- SLABS TO		1 200mm	n THICK. f'c	= 40MPa AND					UNDER & OVER -DENOTES BLOCK V	VALL OVER		
POST-TEI	NSION BY OTH	IERS U.N	1.0.					SCI				
- THE POS ⁻ INTERNA	T TENSIONING L FORCES ANE	CONTRA	actor sha S induced	LL ENSURE POT BY PRESTRESS	ENTIAL ING,			0.0.3.	-DENOTES SAVICOT	JOINT		
Shrinka Of Reste Shrinka Joints, F Concre	age, and/or t Raining elem Ge as requif Pour strips, Te mix etc.	EMPERA ENTS AN RED THRO LOW SH	iture are ND Make PF Oughout, Rinkage	CONTROLLED IN ROVISION FOR M INCLUDING M	N THE VIC NOVEMEN OVEMENT	NITY F AND	S [°]		-DENOTES CONSTR -DENOTES SLAB SE REFER TO ARCH. D	UCTION JO TDOWN. ETAILS FOF	INT RALL LE	EVELS.
- NO COLU	IMN STIFFNES	S SHOUL	D BE USED	IN THE SLAB								
- SLABS TO	D BE CHECKED	FOR PU	INCHING SH	HEAR WITH MON	/IENT DER	IVED						
WITH 100 FOR SHE PUNCHIN	0% Column S Ar head rein Ng Shear rein	STIFFNES IFORCEN NFORCEN	S. PT CONT IENT (WHEI MENTS	ractor to ma Re required) t	KE ALLOV TO SATISF	VANCE Y						
- leff TO lgr IN NO IN BEAM CA	ross MAX RATIO STANCE SHALI ILCULATIONS.) to be L be gre	Determine Eater thai	Ed by the design 0.7 for the s	gner bu [:] Slab and	Γ		IS	SUED FOR	TEND	DER	
- PT CONTI REINFOR ALL SLAE	Ractor to M Cement in AC 35 and beams	ake allo Cordan S.	OWANCE FO	DR STRUCTURAI 2L9.2.2 OF AS36	L INTEGRI 500-2018	TY FOR	Statu	IS	STRUCTURAL I	DRAWIN	G	
- PT CONTI LOSSES) (AFTER F EXPOSED	Ractor to PF To all Interi INAL Losses) Roofs, etc.)	rovide a Nal Con To All E Plus Si	a minimum Icrete Sla External A L82 Top Mi	P/A of 1.4MPA BS AND BEAMS AREAS (BALCON ESH U.N.O.	(AFTER F , AND 2.0 NIES, TERF	NAL DMPa RACES,	Y	Д				
- ALL EXPO TO 0.3mr	DSED SLABS/BE m MAX.	EAMS CR	ACK WIDTH	H TO BE LIMITED)		∣⊢	+				
EXPOSURE (CLASSIFICATIO	N						ŕ				
- B1 EXTER - B1 SURF	RNAL RNAL ACES IN CONT	ACT WIT	H THE GRO	UND				Ħ				
FIRE RATING	<u>3</u> Tial 90 min	IUTES FR	RL					λΓ	FAN			
- CARPARK	∖ i∠u minu Lity	i eð frl					S -		TURAI F	N G I N	EER	
- TOTAL LC	DNG TERM DEF VFR SPAN / 1	LECTION	N SPAN / 3 15mm MAX	250 OR 25mm N IMLIM	MAXIMUM	,	MELE LEVE MELE	BOURNE OFFICE	STREET SU	DNEY OFFICE: ITE 301, LEVEL 3, SHCUTTERS BAY.	19A BOUNE	DARY STREE
 TRANSFE INCREME SUPPORT DIFFEREN SPAN/500 	R SLABS & BE NTAL DEFLEC TING BRITTLE NTIAL DEFLECT	AMS S TION LIM E ELEMEI FION BET	SPAN/1000 AITS FOR SL NTS SPAI TWEEN FLO	OR 10mm MAXII ABS AND BEAM V500, CANTILE ORS TO BE LIMI	MUM IS VER SP/ TED TO	AN/125	T: +6 CLIENT	1 3 9614 7155	TAYLC)R		
2. , , , , , 00								07				
	40mm	CAVITY -	\neg		— REFER	TO ARCHITECT	PROJE		HC WARW			1
					— M12 ⊢ WITH x 120	IILTI HIT-Z-F AT 450 CTS. HILTI HIT HY-200-R, EMBEDMENT	V	11- VARV	13 MANNI VICK FARM	x par 1, nsv	ADE V 21	_, 170
		A , , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·				TITLE	LI AR	EVEL 2 - G RANGEMF	ENER	AL _AN	
								<i>,</i>			1	



SECTION

SCALE: 1 : 20

(A)

120

20023	S-WE	B-120	4
JOB No.	DRAWING No.		REV.
1:20, 1:100	PAC	PW	/
SCALES AT A1	DRAWN BY	APPROVED BY	
NOV 2020	MA/BT	AC	
DATE	DESIGNED BY	CHECKED BY	



			I FVFI	3 - 51	AB SCH	EDIII	E] [/		All Right Res The property Work Shall E	Served. This ' Y of Webber Be Reproduc	Work is co Design Pty Ed or copie	Pyright A Ltd. No F Ed in Any	ND REMAINS ART OF THIS FORM OR BY
			REINF.	RATE	P.T. F	RATE			$\left \right \left(\right)$	N/) MEANS (GRAPH PHOTOCOPYIN SYSTEMS) WIT	HIC, ELECTRON IG, RECORDING THOUT THE PE	NIC OR MECH GOR INFORM RMISSION O	Hanical, I Mation Re F Webber	NCLUDING .TRIEVAL R DESIGN PTY
THICKN	ESS f'c ((MPa)	(kg/r	m ³)	(kg/r	m²)						 GS. USE FI	GURED [DIMENS	SIONS
200		40	4:)	4.0	2	ADDITIONAL SL82	2 MESH TOP TO	Rev		Description		Eng.	Draft.	Date
200*		40	13	0	N//	Ą	R.C. CORE SLAB		1 2	WORK IN P	PROGRESS ISSUE	<u>-</u> .FT)	MA MA/BT	PAC PAC	18.11.20 27.11.20
		I FVF	I 3 - COI	NCRFT	F COLUI	MN SC	CHEDULE		3	ISSUED FO	r tender (upd. R tender (upd.	ATED) ATED)	MA/BT MA/BT	PAC PAC	18.12.20 05.02.21
				REI	NF. RAT	E									
MARK	SIZI	E	f'c (MPa	a) (I	kg/m ³)			RKS							
C2 C3	250 x 1 200 x 1	400	50 50		230	INSIT	U CONCRETE COLU	JMN							
C4 C5	300 x 6 400 x 4	500 400	50 50		210 210	INSIT	U CONCRETE COLU U CONCRETE COLU	JMN	╘						
							_		- [[ORAWIN	G REFERE	ENCE F	REFERI	ENCE	No.
				<u>3 - W</u>	ALL SCH	IEDUL	E			RAWING IN	NDEX OTES	S	-WEB-00)0)1-002	
MARK	WIDTH	f'c ((MPa)	REINF. (kg/r	m ³)		REMAR	KS		CONCRETE (-WEB-01	0-029	
CW1 CW3	200 150		50 50	22 18	0 0	INSITU (INSITU (CONCRETE CORE W	VALL VALL		RECAST W	LLS ALLS ROLIND DETAI		-WEB-82 -WEB-88 -WEB-95	20-879 30-909 50-951	
W1 W2	200 250		50 40	22 18	0 0	INSITU (INSITU (CONCRETE WALL			USPENDED	CONCRETE S	SLABS S	-WEB-96 -WEB-96	50-962 55-966	
NOTES					- 1					R.C. STAIR E MASONRY D	DETAILS DETAILS	S S	-WEB-97 -WEB-98	70 30-981	
1. ALL PENI					LVED.				S	TEEL DETA	ILS	S	-WEB-99	90-991	
2. ALL SERV 3. REBATES	AND CAST		TES FOR STR	RUCTURA	L STEEL W	ORK AN	D FACADE TO BE (CO-							
4. CONTRAC	CTOR SHALL		FOR CONS	TRUCTIO	N JOINTS A	AS REQL	IIRED.			GENERA	L ARRANO	<u>GEMEN</u>	<u>r lege</u>	<u>ND</u>	
			NOTEO							XX*	-DENOTES SI	LAB/BAND	BEAM T	HICKN	ESS
P <u>OST TEP</u> THE SUSPEN	NDED FLOOF	SLAB R SLABS	NOTES: ARE A DES	ign and	CONSTRU	CT COM	PONENT.			6	-DENOTES CO	OLUMN O	V ER		
refer to di Tensioning	RAWING S-V G FLOOR SLA	NEB-00: Ab and	1 & S-WEB-(DESIGN BRI	002 For EF AND (DESIGN AN GENERAL D	ND CONS DESIGN &	STRUCTION POST-	RIA		, , , , , , ,	-DENOTES W	VALL OVEF	2		
GENERAL	<u>NOTES:</u>										-DENOTES LO	oad bear	ING ELEI	MENT L	JNDER
- ALL CON	CRETE SLAB	BS AND E	BEAMS TO E) U.N.O.					-DENOTES LO	oad bear	ING ELEI	MENT	
- SLABS TO		JM 200	mm THICK,	f'c = 40N	/Pa AND	JION.				//////	UNDER & OV -DENOTES B	/er Lock Wal	L OVER		
POST-TEI	NSION BY O	THERS l	J.N.O.							S.C.J.	-DENOTES S	AWCUT JC	NT		
- THE POST	T TENSIONII L FORCES A	NG CON	TRACTOR SI	HALL ENS	SURE POTE	NTIAL NG,				— - — C.J.		ONSTRUC		NT	
OF REST	GE, AND/OF RAINING ELE	EMENTS	AND MAKE		OLLED IN ON FOR MO	THE VIC	T AND								
JOINTS, F	POUR STRIP	S, LOW	SHRINKAGE						S ⁻	TEP minin	REFER TO AF	RCH. DETA	AILS FOR	ALL LE	VELS.
- NO COLU	MN STIFFN	ESS SHC	ould be us	ed in th	e slab										
AND BEA	M DESIGN.														
- SLABS TO WITH 100 FOR SHE PUNCHIN) be checki)% columi Ar head re Ig shear r	ed for N Stiffn Einforc Einfor(PUNCHING IESS. PT CO EMENT (WH CEMENTS	Shear V Intracto Here Reo	vith mome Dr to mak Quired) to	ENT DEF E ALLO) SATISF	RIVED WANCE Y								
- leff TO Igr IN NO INS BEAM CA	OSS MAX RA STANCE SHA LCULATION	TIO TO E ALL BE C S.	BE DETERM GREATER TH	ined by ⁻ Ian 0.7 f	The Desig For the Sl	NER BU .AB AND	T)			15	SUED F		FNC)FR	
- PT CONTI REINFOR ALL SLAE	Ractor to Cement in 85 and beai	Make a Accore Ms.	LLOWANCE DANCE WITH	FOR STR H CL9.2.2	OF AS360	INTEGR 0-2018	ity For		State	us					
- PT CONTI LOSSES) (AFTER F	ractor to to all inte inal losse	PROVID ERNAL C S) TO AL	e a minimu Oncrete s 1. externa	JM P/A OF SLABS AN L AREAS	= 1.4MPA () D BEAMS, / (BALCONI	AFTER F AND 2. ES. TER	TNAL OMPa RACES.			Λ/				а 	
EXPOSED	ROOFS, ET	C.) Plus /Beams	sl82 top Crack Wie	MESH U. DTH TO BI	N.O. E LIMITED	,	,								
EXPOSURE C - A2 INTER	CLASSIFICAT	ION							۲	R					
- B1 EXTEF - B1 SURF/ FIRE RATING	RNAL ACES IN COI	NTACT V	VITH THE G	ROUND						Ϋ́			-		
- RESIDEN - CARPARK	TIAL 90 M (120 MIN _ITY	1INUTES IUTES FI	FRL RL						┢	Y C	Ю	Æ			
- TOTAL LC CANTILE\ - TRANSFE)ng term d /er Span /r Slabs & I	Deflect / 125 0 Beams -	ION SPAN R 15mm M SPAN/100	1 / 250 OF AXIMUM 00 OR 10r	R 25mm M mm MAXIM	aximun Ium	1,		S MEL LEVE MEL T: +6	TRUC BOURNE OFFICE EL 2, 31 QUEEN S BOURNE, VIC, AL 31 3 9614 7155	TURAL STREET JSTRALIA 3000	L E N SYDNEY SUITE 3 RUSHC T: +61 2	G I N OFFICE: 01, LEVEL 3, UTTERS BAY, 9690 2488	E E R 19A BOUNE NSW, AUS	ING DARY STREET TRALIA 2011
SUPPORT	INTAL DEFLE ING BRITI	TLE ELEI	LINITS FOR MENTS SF RETWEEN F	SLABS A PAN/500, LOORS T(CANTILEV	ER SP	AN/125		CLIEN	T					
SPAN/500	0 OR 15mm	MAXIM	JM AT FACA	ADE LOCA	TIONS						TA	YLOF	ł		
	40mm CAV	ITY —		7-	/ REFI	ER TO A	RCHITECT		PROJE						
					– M12	HILTI F	IIT-Z-F AT 450 CTS	.							-
					WITH x 12	H HILTI O EMBE	HIT HY-200-R, DMENT			VARV			NSV	ν2 [.]	-, 170
	а, а, а,	4		4					TITLE					· <u>~</u> ·	
4	4. 4	<u></u>								LE	EVEL 3	- GE	NER	4L	
P	ROVIDF BAG	CKING -			150	150-10				AR	RANGE	EMEN	T PL	AN	
R	COD & SEALA	ANT				κιουχ10 GALVAI Γρατινία) LA SHELF ANGLE NISED. 3 TO	,	DATE		DESIGNED BY	CHECKED	BY		
					ARC	HITECT	S DETAILS		1	NOV 2020	MA/BT		A	C	
	פרסדי								SCALE	es at a1 :20, 1:100	DRAWN BY PAC	APPROVE	d by P\	N	
		UN ; 20	(<i>P</i>	$\begin{pmatrix} \mathbf{v} \\ \mathbf{o} \end{pmatrix}$					JOB N	lo.	DRAWING No.			REV.	
			10							20023	S-V	VEB-13	0	1	4

										ALL RIGHT RES	ERVED. THIS V	Vork is co Design Pty	PYRIGHT	and remains Part of this
			-L 3 - SL			E T				WORK SHALL B MEANS (GRAPH PHOTOCOPYING	JE REPRODUCE HC, ELECTRON G, RECORDING	D OR COPI	ED IN ANY HANICAL, MATION RI	FORM OR BY INCLUDING ETRIEVAL
THICKN	IESS f'c (MF	Pa) REINF Pa) (kg	RATE g/m ³)	P.I.ト (kg/r	KATE m²)	REMARKS				Systems) wit LTD.	HOUT THE PEP	RMISSION C)F WEBBE	R DESIGN PTY
200	40		45	4.8	8	P.T. SLAB BY D&C CONTR ADDITIONAL SL82 MESH	ACTOR,	DC	D NOT SCA		S, USE FIC			SIONS
200*	· 40	1 1	30	N//	Δ	EXTERNAL AREAS		Rev.	WORK IN P	PROGRESS ISSUE		Eng. MA	Draπ. PAC	Date 18.11.20
200**	40		150	IN/7	A	R.C. CORE SLAB		2	ISSUED FO	R TENDER (DRAF	-T) ATED)	MA/BT	PAC	27.11.20
	LE	VEL 3 - CO	ONCRET	e colui	MN SO	CHEDULE		4	ISSUED FO	R TENDER (UPDA	ATED)	MA/BT	PAC	05.02.21
			REI	NF. RAT	E									
MARK	SIZE	f'c (MF	^{>} a) (I	kg/m ³)		REMARKS								
C2 C3	250 x 1200 200 x 1400	50		230 250	INSI INSI	U CONCRETE COLUMN								
C4 C5	300 x 600 400 x 400	50 50		210 210	INSIT INSIT	U CONCRETE COLUMN								
					•									No
		LEVE	EL 3 - W.	ALL SCH	IEDUI	.E		DF	RAWING II	NDEX		-WEB-00		. 110.
			REINF.	RATE				GE	ENERAL N	OTES	<u> </u>	-WEB-00 -WEB-01	01-002 10-029	
MARK	WIDTH 200	f'c (MPa)	(kg/r	m ³)				CC IN·	NCRETE (-SITU WA	COLUMNS LLS	<u> </u>	-WEB-80 -WEB-82	00-819 20-879	
CW1 CW3	150	50	18	0	INSITU	CONCRETE CORE WALL		PF SL	RECAST W AB ON GF	'ALLS ROUND DETAII	LS S	-WEB-88 -WEB-95	30-909 50-951	
W1 W2	200 250	50 40	22 18	0 0	INSITU INSITU	CONCRETE WALL		SL PC	JSPENDED ST TENSI	OCONCRETE S	SLABS S- LS S-	-WEB-96 -WEB-96	50-962 55-966	
NOTES								R.0 M/	C. STAIR I ASONRY D	DETAILS DETAILS	<u> </u>	-WEB-97 -WEB-98	70 30-981	
1. ALL PEN	ETRATIONS TO E	BE REVIEWED	AND RESO	UVED.				ST	EEL DETA	NLS	S	-WEB-99	90-991	
2. ALL SER 3. REBATE	VICES PENETRA ⁻ S AND CAST IN F	TIONS TO BE (PLATES FOR S	CO-ORDINA TRUCTURA	TED AND A	approv /Ork an	ed by webber design. Id facade to be co-								
ORDINA 4. CONTRA	TED WITH ARCH	ITECT. LOW FOR CON	ISTRUCTIO	N JOINTS A	AS REQL	JIRED.		G	FNFRA	I ARRANG			ND	
									~*					
<u>POST TE</u>	<u>NSIONED</u> SL	<u>AB NOTES</u>	<u>):</u>						x.	-DENOTES SL	-46/BAND	dlam 1	HICKN	LOO
THE SUSPE		ABS ARE A DE	ESIGN AND			PONENT.		ll d	101	-DENOTES CO	olumn ov	/ER		
TENSIONIN	G FLOOR SLAB A	ND DESIGN B	RIEF AND (GENERAL D	DESIGN &	LOADING CRITERIA			4	-DENOTES W	ALL OVER			
<u>GENERA</u>	L NOTES:									-DENOTES LC)ad Beari	NG ELE	MENT (JNDER
- ALL CON		ND BEAMS TO) BE POST-T) U.N.O.					-DENOTES LC	Dad Bearl	NG ELE	MENT	
					JUR.					UNDER & OV				
POST-TE	ENSION BY OTHE	RS U.N.O.	 , i ⊂ 40i 	AND						-DENOTES DE				
- THE POS	ST TENSIONING C								<u>S.C.J.</u>	-DENOTES SA	YMCUT JO	INT		
SHRINK	AGE, AND/OR TE	MPERATURE A	ARE CONTR	ROLLED IN	NG, THE VIC			-	C.J.	-DENOTES CO	ONSTRUCT	TON JOI	NT	
OF REST SHRINKA	RAINING ELEME AGE AS REQUIRE	nts and mak D through	KE PROVISIO DUT, INCLU	on for Mo Jding Mo	OVEMEN VEMEN	IT AND -		STI	-P [7777777	-DENOTES SL	_AB SETDC	WN.		
JOINTS, CONCRE	Pour Strips, Li Te Mix etc.	OW SHRINKA	GE							REFER TO AR	CH. DETA	ILS FOR	ALL LE	EVELS.
- NO COLL	JMN STIFFNESS	SHOULD BE L	JSED IN TH	E SLAB										
	AM DESIGN.													
- SLABS IT WITH 10	0 BE CHECKED F 00% COLUMN ST	IFFNESS. PT (IG SHEAR V CONTRACT(OR TO MAK	ENT DEF	WANCE								
FOR SHE	AR HEAD REINF	ORCEMENT (V FORCEMENTS	WHERE REC	QUIRED) IC) SATISH	Ŷ								
- leff TO lg	gross MAX RATIO	TO BE DETER	MINED BY	THE DESIG	INER BL	Т								
in no in Beam Ca	ISTANCE SHALL ALCULATIONS.	BE GREATER ⁻	Than 0.7 F	For the Sl	_ab ani)			IS	SLIED F		FNL)FR	
- PT CONT	RACTOR TO MA	KE ALLOWANC	CE FOR STR	UCTURAL	INTEGR	ITY								
REINFOF ALL SLAI	rcement in ACC BS AND BEAMS.	ORDANCE WI	TH CL9.2.2	2 of AS360	0-2018	FOR		Status	3			<u></u>	<u> </u>	
- PT CONT	RACTOR TO PRO	OVIDE A MININ	/IUM P/A of	= 1.4MPA (AFTER F	INAL			• •	SIRUCIU		AVVIIN	G	
LOSSES) (AFTER F	TO ALL INTERN INAL LOSSES) T	AL CONCRETE O ALL EXTERN	ESLABS AN NAL AREAS	D BEAMS, (BALCONI	AND 2. ES, TER	OMPa RACES,			\mathbf{N}					
EXPOSE	D ROOFS, ETC.) F	PLUS SL82 TO	P MESH U.	.N.O.				 X	Д					
- ALL EXPO TO 0.3m	OSED SLABS/BEA Im MAX.	AMS CRACK W	/IDTH TO BI	e limited										
EXPOSURE	CLASSIFICATION								IJ					
A2 INTERB1 EXTER	RNAL RNAL								\square					
- B1 SURF	FACES IN CONTA	CT WITH THE	GROUND						Π					
FIRE RATIN	<u>g</u> Itial 90 minu	ITES FRL							5F					
- CARPAR	k 120 minute	ES FRL							٢L		(L	V		
SERVICEABI	I <u>LITY</u> ONG TERM DEFL	ECTION SPA	an / 250 of	R 25mm M	AXIMUN	1.		S T	RUC	TURAL	E N (GIN	EER	ING
CANTILE	VER SPAN / 12 ER SLABS & BEA	25 OR 15mm MS SPAN/1(Maximum 000 or 101	mm MAXIM	IUM	,		MELBO LEVEL MELBO	DURNE OFFICE 2, 31 QUEEN S DURNE, VIC, AL	:: STREET JSTRALIA 3000	SYDNEY SUITE 30 RUSHCL	OFFICE: D1, LEVEL 3, JTTERS BAY,	19A BOUN NSW, AUS	DARY STREET STRALIA 2011
- INCREMI	ENTAL DEFLECTI	ON LIMITS FO	R SLABS A	ND BEAMS	S FR SF	AN/125		T: +61 CLIENT	3 9614 7155		T: +61 2 :	9690 2488		
- DIFFERE	NTIAL DEFLECTION	ON BETWEEN	FLOORS TO CADE LOCA	O BE LIMIT	ED TO					ΤΛ				
										IA	ILOR			
		A	L						-					
	40mm CAVITY			- REFI	ER TO A	RCHITECT		PROJEC	LA	HC WAI	RWIC	K F	١R	1
					2 HILTI F	HT-Z-F AT 450 CTS.			11-1	13 MAN	NNIX	PAR	ADI	Ξ,
				x 12	O EMBE	DMENT		V I	VARV	VICK FA	٩RΜ,	NSV	V 2	170
								TITLE			/			
۵ 									LE	EVEL 3	- GEľ	NER	AL	
-									AR	RANGE	MEN	T PL	AN	
F	PROVIDE BACKIN ROD & SEALANT			—— 150) H.D.	x150x10 . GALVA) EA SHELF ANGLE, NISED.		DATE			015015	PV		
				FIRE	RATINO HITECT	G TO S DETAILS		DATE NC	OV 2020	DESIGNED BY MA/BT	CHECKED	ים A	С	
					_ • `			SCALES	AT A1	DRAWN BY	APPROVE) BY		
	SECTIO	N	A					1:2	20, 1:100	PAC		Р	W	
	SCALE: 1:20		130					JOB No.		DRAWING No.			REV.	
		\sim						1 2	0023	S-W	VEB-130)	1	4



		LEVEL 4 -
		REINF. RAT
THICKNESS	f'c (MPa)	(kg/m³)
200	40	45
200*	40	130

			LEVE	L 4 - SI	_AB SCHE	DUL	Ē				ALL RI THE PI WORK MEANS PHOTO SYSTE	GHT RESEF ROPERTY C SHALL BE S (GRAPHIC DCOPYING, MS) WITH(RVED. THIS ¹ DF WEBBER REPRODUC C, ELECTROM RECORDING OUT THE PE	Nork IS Co Design Pty Ed or Copii NC or Mech Or Inform Rmission C	Pyright / LTD. No f Ed in Any Hanical, I Hation Re F Webber	and Remains Part of This Form or By Ncluding Trieval R design Pty
THICKNI 200	ESS f	'c (MPa) 40	REINF. (kg/	. RATE m ³) ⁵	P.T. RA (kg/m 4.8	ΔTE 2)	REMARKS P.T. SLAB BY D&C CONTRACT	ŌR,	DC Rev.		CALE DRA	AWINGS	S, USE FI	GURED [DIMENS	SIONS
200*		40	13	30	N/A		ADDITIONAL SL82 MESH TOP EXTERNAL AREAS R.C. CORE SLAB	° TO	1 2	Work in Issued Fo	PROGRESS OR TENDE	s ISSUE R (DRAFT	_)	MA MA/BT	PAC PAC	18.11.20 27.11.20
		LEVE	EL 4 - CO	NCRET	E COLUM	IN SC	HEDULE		3	ISSUED FO	or tende or tende	r (updat r (updat	red) red)	MA/BT MA/BT	PAC PAC	18.12.20 05.02.21
MARK	S	IZE	f'c (MPa	a) (I	NF. RATE		REMARKS									
C2 C3	250 200	x 1200 x 1400	40 40		160 180	INSITU INSITU	J CONCRETE COLUMN J CONCRETE COLUMN									
C4	300	x 600	40		160	INSIT	J CONCRETE COLUMN									No
			LEVE	L 4 - W		EDUL	E		DF	RAWING I	NG KEI INDEX NOTES			-WEB-00 -WEB-00)0)1-002	TNO.
MARK	WID1	TH f'c	(MPa)	KEINF (kg	/m ³)				RE CO IN-	TENTION NCRETE	N COLUM ALLS	NS	S S S	-WEB-01 -WEB-80 -WEB-82	0-029 0-819 0-879	
CW1 CW3 W1	200 150 200)	40 40 50	1	80 80 20	INSIT	J CONCRETE CORE WALL		PR SL	RECAST V AB ON G	VALLS ROUND		S S	-WEB-88	30-909 50-951	
W1 W2	250)	40	1	80	INSIT	J CONCRETE WALL		PC R (SPENDE ST TENS	D CONCI BIONING	RETE SL DETAILS	LABS S S S	-WEB-96 -WEB-96 -WEB-97	60-962 65-966 70	
ALL PENE ALL SERV REBATES ORDINAT CONTRAC	TRATION ICES PEI AND CA: ED WITH TOR SH/ NOR SH/ NDED FL(RAWING	NS TO BE F NETRATION ST IN PLAT I ARCHITEC ALL ALLOW <u>ED SLAB</u> S-WEB-00	REVIEWED A NS TO BE CO TES FOR STF T. / FOR CONS B NOTES: ARE A DES 1 & S-WEB-	ND RESO D-ORDINA RUCTURA STRUCTION SIGN AND	LVED. TED AND AP L STEEL WOI N JOINTS AS CONSTRUCT DESIGN AND	PROVE RK ANE REQUI	d by webber design.) Facade to be co- red. Onent. Truction post-		ST C	EEL DET	AILS AL ARI -DENC -DENC	RANG DTES SLA	EMEN B/BANE	-WEB-99 T LEGE) BEAM 1 VER	<u>90-991</u> <u>END</u> THICKN	ESS
ENSIONING	FLOOR	SLAB AND	DESIGN BR	RIEF AND (GENERAL DE	SIGN 8	LOADING CRITERIA)'	-DENC	DTES WA	ALL OVEF	R		
ENERAL	<u>. NOTE</u> Crete Si	<u>S:</u> LABS AND	Beams to I	BE POST-1	TENSIONED I	J.N.O.					-DENC	otes lo	ad Beaf	RING ELE	MENT	JNDER
PT AND F	D BE MIN	CEMENT TO) BE DESIGI)mm THICK,	NED BY P f'c = 40N	T CONTRACT /IPa AND	OR.				17 T N	-DENC UNDEI	DTES LOAR & OVE	AD BEAF		MENT	
POST-TEI	nsion b' T tensic	Y OTHERS NING CON	U.N.O. ITRACTOR S	HALL ENS	SURE POTEN	TIAL				S.C.J.	-DENC)TES BLO				
INTERNA SHRINKA OF RESTF SHRINKA JOINTS, F	l force Ge, and Raining Ge as ri Pour st	S AND CRA)/OR TEMP ELEMENTS EQUIRED T RIPS, LOW	ACKS INDUC ERATURE A S AND MAKE THROUGHOU SHRINKAG	CED BY PF RE CONTF E PROVISI UT, INCLU E	Restressing Rolled in Ti On For Mov Jding Movi	à, HE VICI /EMEN [:] EMENT	NITY F AND		<u>—</u> sт	C.J	-DENC	DTES CO	NSTRUC	TION JOI	NT	
NO COLU AND BEA	MN STIF M DESIG	TC. 'FNESS SH(iN.	ould be us	SED IN TH	E SLAB											
SLABS TO WITH 100 FOR SHE PUNCHIN) be che)% coll Ar head Ng sheai	ECKED FOR JMN STIFF) REINFOR R REINFOR	PUNCHING NESS. PT CO CEMENT (W CEMENTS	à Shear V Ontracto /Here Reo	Vith Momen Dr to Make Quired) to 9	nt der Allov Satisf	IVED VANCE Y									
leff TO Igr IN NO IN BEAM CA PT CONTI	ross MAX STANCE : LCULATI RACTOR	RATIO TO SHALL BE ONS. TO MAKE /	BE DETERM GREATER TI	hined by Han 0.7 F	THE DESIGN FOR THE SLA	er bu' B and	TY			IS	SUE	D F	OR T	ENC	DER	
REINFOR ALL SLAE	CEMENT S AND E	IN ACCOR BEAMS.	DANCE WIT	H CL9.2.2	2 OF AS3600	-2018	FOR		Status	;	etou				<u> </u>	
PT Conti Losses) (After F Exposed	Ractor To all I Inal Los Roofs,	TO PROVIE NTERNAL (SSES) TO A ETC.) PLU	DE A MINIMI CONCRETE S LL EXTERNA S SL82 TOP	um P/A OI Slabs An Al Areas ? Mesh U	F 1.4MPA (A D BEAMS, A (BALCONIES .N.O.	-TER F ND 2.(6, TERF	NAL DMPa RACES,		V	V	SIRU				ב 	
ALL EXPO TO 0.3mr)SED SLA n MAX.	ABS/BEAMS	CRACK WI	DTH TO B	e limited					Ū.						
XPOSURE (A2 INTER B1 EXTER B1 SURF	<u>Classifi(</u> RNAL RNAL ACES IN	<u>CATION</u> CONTACT	WITH THE G	GROUND												
<u>IRE RATINO</u> RESIDEN CARPARI ERVICEABII	<u>)</u> TIAL 9 (120 LITY	o minutes Minutes f	S FRL TRL						F	łŁ	E	X	Æ			
TOTAL LC CANTILEN TRANSFE INCREME SUPPORT)ng teri /er Sf :r Slabs :ntal De [ing bf	M DEFLEC PAN / 125 (& BEAMS EFLECTION RITTLE ELE	FION SPAI DR 15mm M SPAN/100 LIMITS FOF MENTS S	N / 250 01 1AXIMUM 00 OR 10 R SLABS A PAN/500,	r 25mm Ma mm Maximu ND Beams Cantilever	KIMUM M R SP/	, NV/125		S T MELBO LEVEL MELBO T: +61	RUC DURNE OFFIC 2, 31 QUEEN DURNE, VIC, A 3 9614 7155	CTUF E: I STREET AUSTRALIA 30	R A L	E N SYDNET SUITE 3 RUSHCI T: +61 2	G I N OFFICE: 01, LEVEL 3, JTTERS BAY, 9690 2488	E E R 19A BOUNE NSW, AUS	ING DARY STREET TRALIA 2011
SPAN/500	0 OR 15r	mm MAXIM	UM AT FAC	ADE LOCA	TIONS							ΤΑ	YLO F	R		
	40m	m CAVITY			RE M1 WT x 1	Fer TC 2 Hilt Th Hil 20 Emi	ARCHITECT I HIT-Z-F AT 450 CTS. II HIT HY-200-R, BEDMENT			LA 11- VARV	HC \ 13 M NICK	Naf Man K Fa	rwic Inix RM,	k Fa Par Nsv	ARM Ade V 21	1 <u>-</u> , 170
				011						L AF	evei Rrap	L 4 - NGEI	- GEI MEN	NER/ T PL	AL AN	
	ROD &	SEALANT			└──── 15 H.[FIF AR	Dx150x D. Gal\ E Rati Chitec	10 EA SHELF ANGLE, /ANISED. NG TO :T'S DETAILS		DATE NC	DV 2020	DESIGNED	D BY 1A/BT BY	APPROVE	BY A(D BY	C	
SECT	ION	(A						JOB No.	.0, 1:100	DRAWING	FAU à No.		P	REV.	
SCALE:	1 : 20		140						20	0023		S-WI	EB-14	0		4

			LEVEI	_ 4 - SI	LAB SCHE	EDULE				WORK SHALL BE RE MEANS (GRAPHIC, E PHOTOCOPYING, RE	WEBBER DESIG EPRODUCED OI ELECTRONIC OI ECORDING OR	GN PTY L R COPIEL R MECHA	TD. NO F D IN ANY ANICAL, I ATION RE	PART OF THIS FORM OR BY NCLUDING TRIEVAL				
			REINF.	RATE	P.T. RA	ATE				/ Systems) withou LTD.	IT THE PERMIS	SION OF	WEBBEF	R DESIGN PTY				
THICKN 200	IESS	f'c (MPa) 40	(kg/r 45	m ³)	(kg/m) 4.8	²)	REMARKS P.T. SLAB BY D&C CONTRACTO	OR, F	DO NOT SC Rev.	Description	USE FIGUF	RED D Eng.	IMENS	SIONS Date				
						,	ADDITIONAL SL82 MESH TOP EXTERNAL AREAS	то	1 WORK IN	PROGRESS ISSUE		MA	PAC	18.11.20				
200*	k	40	130	0	N/A		R.C. CORE SLAB	-	3 ISSUED FO	OR TENDER (DRAFT) OR TENDER (UPDATEI	N (C	MA/BT	PAC	18.12.20				
		LEVE	L 4 - CO	NCRET	E COLUN	IN SC	HEDULE		4 ISSUED FO	OR TENDER (UPDATEI	O) N	ИА/ВТ	PAC	05.02.21				
				REI	NF. RATE		DEMARKA											
C2	250	SIZE) x 1200	f'c (MPa 40	a) (kg/m³) 160	INSITU	CONCRETE COLUMN	—										
C3 C4	200 30	0 x 1400 0 x 600	40 40		180 160	INSITU INSITU	CONCRETE COLUMN CONCRETE COLUMN											
									DRAWIN			FRF	NCE	No.				
			LEVEL	_ 4 - W	ALL SCHE	EDULE	<u> </u>		DRAWING	INDEX NOTES	S-WE	EB-00) 1-002					
MARK	WID	TH f'c ((MPa)	REINF (kg	F. RATE (/m ³)		REMARKS		RETENTION CONCRETE	N COLUMNS	S-WE	EB-010 EB-800	D-029 D-819					
CW1	20	0	40	1	.80	INSITU	CONCRETE CORE WALL		IN-SITU WA	ALLS VALLS	S-WE S-WE	EB-820 EB-880)-879)-909					
W1	20	0	50 40	2	220	INSITU	CONCRETE WALL		SLAB ON G	ROUND DETAILS	BS S-WE	EB-950 EB-960	D-951 D-962					
	25	0	40	1	.60		CONCRETE WALL		R.C. STAIR	DETAILS	S-WE	EB-96	$\frac{5-966}{2}$					
1. ALL PEN	IETRATIC	INS TO BE R	eviewed ai	ND RESO	LVED.				STEEL DET	AILS	S-WE	EB-980 EB-990	D-981 D-991					
2. ALL SER	VICES PE S AND CA	ENETRATION	IS TO BE CO ES FOR STR T	-ORDINA RUCTURA	TED AND AP L STEEL WOF	Provee RK and) by webber design. Facade to be co-											
4. CONTRA	CTOR SH	HARCHITEC	FOR CONS	TRUCTIO	N JOINTS AS	REQUIF	RED.		GENER	AL ARRANGE	MENT L	EGE	ND					
									xx*	-DENOTES SI AF	3/BAND RF		HICKN	ESS				
THE SUSPE	INDED FL		ARE A DES	IGN AND	CONSTRUCT	r compo	DNENT.		6)	-DENOTES COL		2	1					
REFER TO D	orawing G Floof	G S-WEB-003 R SLAB AND	1 & S-WEB-(DESIGN BRI	002 For Ief and (design and General de	D CONST SIGN &	RUCTION POST- LOADING CRITERIA		Ct _			•						
<u>GENERA</u>	L NOT	<u>ES:</u>								DENOTES WAL		<u>רי</u>						
- ALL CON		SLABS AND E	BEAMS TO E	BE POST-	TENSIONED U	U.N.O.				-DENOTES LOAL) BEARING	á ELEN		JNDER				
- SLABS T			mm THICK,	CK, f'c = 40MPa AND														
POST-TE	ENSION E	BY OTHERS U	J.N.O.						-DENOTES BLOO	CK WALL C	OVER							
- THE POS	ST TENSI AL FORC	ONING CON ES AND CRA	TRACTOR SI CKS INDUC	HALL EN: ED BY PF	SURE POTEN	ITIAL G,			<u> </u>	-DENOTES SAW	CUT JOINT	Г						
SHRINK OF REST	AGE, AN	D/OR TEMPE GELEMENTS	AND MAKE	RE CONTR PROVISI	Rolled in Th On For Mov	HE VICII VEMENT	AND		C.JDENOTES CONSTRUCTION JOINT									
JOINTS,	AGE AS F POUR S	TRIPS, LOW	SHRINKAGE	E INCL	UDING MOVE	EIVIEINT			STEP	-DENOTES SLAE	B SETDOW	'N. S FOR		TVFLS				
- NO COLL	UMN STI	FFNESS SHO	ould be us	ED IN TH	IE SLAB													
AND BE	AM DESI	GN.																
- SLABS T WITH 10	TO BE CH DO% COL	ECKED FOR UMN STIFFN	PUNCHING NESS. PT CC	SHEAR \ NTRACT	with momen or to make	nt deri Allow	VED ANCE											
FOR SHE PUNCHI	EAR HEA NG SHEA	D REINFORC	CEMENT (WH	HERE RE	QUIRED) TO S	SATISFY												
- leff TO lg	gross MAX	X RATIO TO I	BE DETERM		THE DESIGN	ER BUT												
BEAM C	ALCULAT	TONS.						-	21				FR					
- PT CONT REINFOR	TRACTOF RCEMEN	r to make a T in accore	LLOWANCE	FOR STF HCL9.2.2	RUCTURAL IN 2 OF AS3600	NTEGRIT -2018 f	Y ïOR											
ALL SLA	BS AND	BEAMS.						S	otatus	STRUCTURA		VING						
- PT CONI LOSSES)	TRACTOF	R TO PROVID	E A MINIMU ONCRETE S	JM P/A O SLABS AN	F 1.4MPA (AI	FTER FII ND 2.0	NAL MPa		Λ /				•					
EXPOSEI	D ROOFS	, ETC.) PLUS	S SL82 TOP	MESH U	(BALCONIES .N.O.	S, TERR	ACES,		VV									
- ALL EXP TO 0.3m	POSED SL nm MAX.	ABS/BEAMS	CRACK WIE	ОТН ТО В	E LIMITED				ΓT 1									
EXPOSURE	CLASSIF	ICATION							H I									
A2 INTEB1 EXTE	RNAL RNAL								H									
- B1 SURF	FACES IN	I CONTACT V	MITH THE G	ROUND					H									
- RESIDEN	NTIAL 9 8K 120	90 MINUTES MINUTES FI	i FRL RI						H									
SERVICEAB	BILITY								ΠL		ΖN							
- TOTAL L CANTILE	.ong tef Ever S	RM DEFLECT PAN / 125 C	TON SPAN R 15mm M	N / 250 0 AXIMUM	R 25mm MAX	XIMUM,			STRUC	CTURAL	ENG I	INE	ER	ING				
- TRANSF	ER SLAB	S & BEAMS - EFLECTION	SPAN/100 LIMITS FOR	DO OR 10 SLABS A	mm Maximu ND Beams	JM			LEVEL 2, 31 QUEEN MELBOURNE, VIC, A T: +61 3 9614 7155	I STREET AUSTRALIA 3000	SUITE 301, LE RUSHCUTTER T: +61 2 9690	EVEL 3, 19 RS BAY, N 2488	9A BOUNE ISW, AUS	DARY STREET TRALIA 2011				
- DIFFERE	ENTIAL D	BRITTLE ELE	MENTS SH BETWEEN F	PAN/500, LOORS T	, CANTILEVEN O BE LIMITEI	r Spa d to	W125	CI	LIENT									
SPANJU	JU UK 11			ADE LOUP						TAY	LOR							
	40n	nm CAVITY -	\neg		T - REI	FER TO	ARCHITECT	PI	ROJECT		WICK	FA	RM	1				
					M1	2 HII TI	HIT-7-F AT 450 CTS		11-	13 MAN	NIX P	AR/	ADE	,				
					Wi x 1	TH HILT 20 EME	I HIT HY-200-R, EDMENT		WAR	NICK FAF	RM, N	ISN	/ 21	170				
Δ _Λ , , , , , , , , , , , , , , , , , , ,	4							TI	ITLE									
	₹ <u>3</u> 4 4	, d'A_, - À , d	4 . 4		2					EVEL 4 -	GENE	-RA						
	ייים								Ah	KRANGEN		۲L	AIN					
	ROD 8	SEALANT			└───── 150 H.[Ox150x2 D. GALV	LO EA SHELF ANGLE, ANISED.	D			CHECKED BY							
				\mathbb{A}	FIR AR	KE RATII CHITEC	NG TO LS DETAILS		CALES AT A1			AC						
			_					5	1:20, 1:100	PAC	NOVED BY	PW	1					
SEC	TION		A					JC		DRAWING No.			REV.					
SCALE:	1 : 20		.40						20023	S-WE	в-140			4				

LEVEL 4	40mm CAVITY
	PROVIDE BACKING ROD & SEALANT
	v



										ALL RIGHT RE THE PROPERT WORK SHALL	Served. This iy of webbef be reprodu	s work is cc r design pty Iced or copi)PYRIGHT / / LTD. NO ED IN ANY	and Remain Part of This ' Form or B
		LEVI	EL 5 - SL	AB SCH	EDUL	E				MEANS (GRAF PHOTOCOPYIN SYSTEMS) WI	'HIC, ELECTRO NG, RECORDIN 'ITHOUT THE F	onic or mec NG or infori Permission (Hanical, I Mation Re DF Webbe	ncluding Etrieval R design Pt
		REIN	F. RATE	P.T. F	RATE									
THICKN	IESS f'c (N	MPa) (k	g/m ³)	(kg/ı	m²)	RE	MARKS	_ _	Rev.	Description	GS, USE F า	Eng.	DIVIENS	Date
200 200*	4	0	95 130	4. N/	8 A	P.T. SLAB BY D R.C. CORE SLA	B		1 WORK I	IN PROGRESS ISSU	E	MA	PAC	18.11.20
								- F	2 ISSUED 3 ISSUED	FOR TENDER (DRA FOR TENDER (UPE	AFT) DATED)	MA/BT MA/BT	PAC PAC	27.11.20 18.12.20
		LEVEL 5 - C	ONCRET	E COLU	MN S	CHEDULE		٦F	4 ISSUED) FOR TENDER (UPE	DATED)	MA/BT	PAC	05.02.21
			REI	NF RAT	F			- E						
MARK	SIZE	f'c (M	Pa) (I	kg/m ³)	-	REM	ARKS							
C2	250 x 120	00 40 00 40		160 180		TU CONCRETE CO		\neg					<u> </u>	
C4	300 x 60	00 <u>40</u> 00 <u>40</u>		160	INSI	TU CONCRETE CO	DLUMN							
								_				DEEED		No
		LEV	EL 5 - W	ALL SCH	HEDU	LE			DRAWING	G INDEX		S-WEB-00		
			REINF.	RATE			DVO		GENERAL RETENTIO	<u>l notes</u> On		S-WEB-00 S-WEB-00	<u> </u>	
	200	TC (MPa) 40	(Kg/I 18	m ³) 0	INSITU	CONCRETE CORE	E WALL		CONCRET	TE COLUMNS		S-WEB-80 S-WEB-82	<u> 20-819</u> 20-879	
CW3	150	40	18	0		CONCRETE CORE	EWALL		PRECAST SLAB ON	WALLS	AILS	S-WEB-88 S-WEB-99	<u>80-909</u> 50-951	
W1 W2	250	40	18	0	INSITU	CONCRETE WALL	L		SUSPENE POST TEN	DED CONCRETE	SLABS	S-WEB-96 S-WEB-96	50-962 65-966	
NOTES:									R.C. STAI	IR DETAILS		S-WEB-9	70 80-981	
1. ALL PEN	ETRATIONS TO) be reviewed	AND RESO	LVED.					STEEL DE	ETAILS		S-WEB-99	90-991	
 ALL SERV REBATES 	VICES PENETR S AND CAST IN	RATIONS TO BE N PLATES FOR S	CO-ORDINA STRUCTURA	TED AND A L STEEL W	approv /Ork af	'ed by webber Nd facade to bi	DESIGN. E CO-							
ORDINAT 4. CONTRA	TED WITH ARC	CHITECT. ALLOW FOR COI	NSTRUCTIO	N JOINTS A	AS REQI	JIRED.								
									GENE	RAL ARRAN		NT LEG	END	
POST TF	NSIONED S	SLAB NOTES	S:											
THE SUSPER	NDED FLOOR S	SLABS ARE A D	ESIGN AND	CONSTRU	CT COM	PONENT.	-			-DENOTES	∋LAR∕BAN	ID RFAM .	THICKN	1522
REFER TO D)rawing S-WE G Floor Slab	EB-001 & S-WE 3 AND DESIGN E	B-002 For Brief and (design af General e	ND CON DESIGN	STRUCTION POS & LOADING CRIT	T- TERIA		ct (0)	-DENOTES (COLUMN	OVER		
GENERAI	NOTES									-DENOTES	WALL OVE	ER		
- ALL CON	<u>CRETE SLABS</u>	AND BEAMS TO) be post-1	FENSIONE) U.N.O					-DENOTES	I OAD BEA	ARING FLF	FMFNT	UNDER
PT AND I	REINFORCEME	ENT TO BE DESI	GNED BY P	T CONTRA	CTOR.	•								ONDER
- SLABS TO		VI 200mm THIC	K, f'c = 40 N	/IPa AND					· · · · · · · · · · · · · · · · · · ·	-DENOTES UNDER & C	load bea)ver	ARING ELE	EMENT	
POST-TE		HERS U.N.U.								-DENOTES	BLOCK W/	ALL OVER	٤	
- THE POS	T TENSIONING	G CONTRACTOR D CRACKS INDU	shall ens Jced by Pr	SURE POTE RESTRESSI	ENTIAL NG,				S.C.J.	-DENOTES	SAWCUT .	JOINT		
SHRINKA OF RESTI	age, and/or 1 Raining elen	TEMPERATURE //ENTS AND MA	ARE CONTR	Rolled in On for M	THE VIO	CINITY NT AND								
SHRINKA JOINTS, J	AGE AS REQUII POUR STRIPS.	RED THROUGH	OUT, INCLU	JDING MO	VEMEN	Т				DENUTES	CONSTRU		лімт	
CONCRE	TE MIX ETC.								STEP	-DENOTES	SLAB SETI	DOWN. Tails for	RALLI	EVELS
- NO COLL	JMN STIFFNES	S SHOULD BE	USED IN TH	E SLAB										
AND BEA	AM DESIGN.													
- SLABS TO WITH 10	0 be checkee 0% column \$) for punchin Stiffness. Pt	NG SHEAR V CONTRACTO	vith mom Dr to maþ	ent de Ke allo	RIVED WANCE								
FOR SHE	AR HEAD REIN	NFORCEMENT (NFORCEMENTS	WHERE REC	QUIRED) T(O SATISI	FY								
						гт								
IN NO IN	ISTANCE SHAL	L BE GREATER	THAN 0.7 F	FOR THE SI	LAB ANI	D								
BEAM CA	ALCULATIONS.									SSUED	FOR ⁻	TEND	DER	
- PT CONT REINFOR	RACTOR TO M	1ake allowan Ccordance w	CE FOR STR 1TH CL9.2.2	2 of AS360	INTEGF 00-2018	rity 3 for			Yotuo					
ALL SLAE	BS AND BEAM	S.											<u> </u>	
- PT CONT LOSSES)	RACTOR TO PL TO ALL INTER	ROVIDE A MINII	MUM P/A OF E SLABS AN	⁻ 1.4MPA (D BEAMS.	AFTER	FINAL .OMPa				3110010			<u> </u>	
(AFTER F	TINAL LOSSES)	TO ALL EXTER	NAL AREAS	(BALCONI	ES, TEF	RRACES,			Λ					
									ΥΥ					
TO 0.3m	m MAX.	EAIVIS URAUN V												
EXPOSURE (CLASSIFICATIO	<u>NN</u>												
A2 INTEFB1 EXTER	RNAL RNAL													
- B1 SURF	ACES IN CONT	TACT WITH THE	GROUND						H					
FIRE RATING	<u>g</u> Itial 90 mir	NUTES FRL							ЦL					
- CARPARI	K 120 MINU	ITES FRL							\mathbf{H}	F				
SERVICEABI	LITY			2 25mm M		Л			\ L			N		
CANTILE	VER SPAN /	125 OR 15mm	MAXIMUM			vi,			STRU MELBOURNE OFI	CTURA	L E N	GIN EY OFFICE:	EER	ING
- TRANSFE - INCREME	er slabs & Be Ental Deflec	LAMS SPAN/I CTION LIMITS FO	OOO OR 101 OR SLABS A	mm Maxin ND Beams	ium S				LEVEL 2, 31 QUE MELBOURNE, VIO T: +61 3 9614 715	EN STREET C, AUSTRALIA 3000 55	SUITE RUSH(T: +61	301, LEVEL 3, CUTTERS BAY 2 9690 2488	19A BOUNE , NSW, AUS	JARY STREET
- DIFFEREI	ting brittl Ntial deflec	E ELEMENTS TION BETWEEN	SPAN/500, NFLOORS T(Cantilev d be limit	'er Sf 'ed to	PAN/125		С	LIENT					
SPAN/50	0 OR 15mm N	Maximum at fa	ACADE LOCA	TIONS						ТД		R		
										۲ <i>۲</i>				
									ROJECT					
	л		TT	┢ <u>॑</u> _			ITECT			AHC WA	RWI(CK FA	4RN	1
	4(11	-13 MA	NNIX		ADI	Ξ,
			\searrow			M12 HILTI HIT-Z- WITH HILTI HIT H	-F AT 450 CTS. HY-200-R,		WAR		ARM.	, NSV	N 2	170
)	K 120 EMBEDME	NT	Т	ITLE	• • •				
										LEVEL 5	5 - GF	NER	AL	
A A A									Δ	RRANG	EMEN		AN	
	_ ~								7 \			I L	· · · · ·	
	PR(ROI	JVIDE BACKING D & SEALANT			1 H	L50x150x10 EA S H.D. GALVANISE	Shelf Angle, D.	D	ATE		CHECKE	ED BY		
					F				1907 2020	, MA/B1		Α	0	
					ŀ	NOTITEUTS DEI		S	CALES AT A1	DRAWN BY	APPROV	/ED BY	w.	
								1	1.20, 1:10U		1	P		

										(All Right Reserv The property of Work shall be r	'ED. THIS V WEBBER EPRODUC	WORK IS CO DESIGN PTY ED OR COPII	PYRIGHT # LTD. NO F ED IN ANY	AND REMAIN Part of the Form or e
				LEVEL	_ 5 - SI	AB SCH	EDUL	E] \	Ň	MEANS (GRAPHIC, PHOTOCOPYING, RI SYSTEMS) WITHOU LTD.	ELECTRON ECORDING JT THE PE	NIC OR MECH GOR INFORM RMISSION C	Hanical, I Mation Re)F webbef	NCLUDING TRIEVAL R DESIGN P
THICKN	ESS	f'c (M	Pa)	REINF. (kg/i	RATE m ³)	P.T. F	RATE m ²)	RFM	ARKS		DO NOT SC/	ALE DRAWINGS,	USE FI	gured i	DIMENS	SIONS
200		40	1 0)	9! 12	5	4.	8	P.T. SLAB BY D&	C CONTRACTOR	Rev	/. WORK IN F	Description PROGRESS ISSUE		Eng. MA	Draft. PAC	Date 18.11.20
200"		40		15	0	IN/	Α	R.C. CORE SLAB		2	ISSUED FO	R TENDER (DRAFT) R TENDER (UPDATE		MA/BT MA/BT	PAC PAC	27.11.20
		L	EVEL	5 - CO	NCRE	TE COLU	MN S	CHEDULE		4	ISSUED FO	R TENDER (UPDATE	D)	MA/BT	PAC	05.02.2
					REI	NF. RAT	E			$\neg \vdash$						
MARK C2	250	SIZE 0 x 1200	0	C (MPa 40	a) (. kg/m³) 160	INSIT	REMA U CONCRETE COL	RKS UMN							
C3 C4	200 30	0 x 1400 0 x 600	0	40 40		180 160	INSIT INSIT	U CONCRETE COL U CONCRETE COL	UMN UMN	$\exists \vdash$						
										- [[DRAWIN	G REFERENC	CEF	REFER	ENCE	No.
					_ 5 - W	ALL SCI	HEDUL	_E			DRAWING II GENERAL N	NDEX IOTES	S	-WEB-00 -WEB-00)0)1-002	
MARK	WID	тн	f'c (M	IPa)	(kg/	(m ³)		REMAR	KS	F	RETENTION	COLUMNS	S	-WEB-01	10-029 00-819	
CW1 CW3	20 15	0	40 40)	18	30 30	INSITU (INSITU (CONCRETE CORE V	VALL VALL		N-SITU WA PRECAST W SLAB ON GE	ILLS /ALLS ROLIND DETAILS		-WEB-82 -WEB-88 -WEB-94	<u>20-879</u> 30-909 50-951	
W1 W2	20 25	0	50 40)	18 18	30 30	INSITU INSITU	CONCRETE WALL			SUSPENDEL POST TENSI	OCONCRETE SLA	ABS S	-WEB-96 -WEB-96	50-962 55-966	
NOTES:										F	R.C. STAIR I MASONRY D	DETAILS DETAILS	S	-WEB-97 -WEB-98	70 30-981	
. ALL PENI	ETRATIC	ONS TO ENETRA	BE REV	IEWED A	ND RESO	OLVED. ATED AND A	APPROV	ED BY WEBBER DE	ESIGN.		STEEL DETA	AILS	S	S-WEB-99) 0-991	
ORDINAT	ED WIT	AST IN I TH ARCH HALL AL	PLATES HITECT.	FOR STE		N IOINTS	IORK AN	D FACADE TO BE (0-							
											GENERA	AL ARRANGE	MEN	T LEGI	<u>end</u>	
OST TEN	SION	ied sl	LAB N	OTES:							XX*	-DENOTES SLA	B/BAN[) beam ⁻	THICKN	IESS
HE SUSPEN EFER TO D	NDED FL RAWIN(LOOR SL G S-WEE	LABS AF B-001 &	RE A DES S-WEB-	IGN AND	CONSTRU	CT COMI	PONENT. STRUCTION POST-	ΔΙΔ		-10	-DENOTES COL	.UMN C	VER		
		FS.	AND DE	SIGN BR	IEF AND	GENERAL I	JESIGN	X LUADING CRITER			Gr 	-DENOTES WAL	_L OVEI	7		
ALL CON	CRETE S	<u>lo.</u> Slabs a	AND BEA	AMS TO E	BE POST-	TENSIONEI) U.N.O.					-DENOTES LOA	.D BEAF	ring ele	EMENT	UNDER
PT AND F			NT TO B		NED BY F		CTOR.					-DENOTES LOA	.D BEAF	ring ele	EMENT	
POST-TE	NSION E	BY OTHE	ERS U.N	1.0.	10 - 40	VIFA AIND					///////////////////////////////////////	UNDER & OVEF -DENOTES BLO	₹ ICK WA	ll over)	
THE POS	t tensi L forci	oning Es and	CONTR/ CRACK	actor s s induc	Hall en Ed by Pi	SURE POTE RESTRESSI	ENTIAL NG,				<u>S.C.J.</u>	-DENOTES SAW	VCUT J(DINT		
OF REST	AGE, AN RAINING GE AS E	d/or te 3 eleme 3 folur	EMPERA ENTS AN ED THR	ND MAKE	RE CONT	Rolled in Ion for M Liding MC	THE VIC OVEMEN	INITY IT AND -			C.J	-DENOTES CON	ISTRUC	CTION JO	INT	
JOINTS, F	Pour s Te mix e	TRIPS, L ETC.	LOW SH	RINKAGE	Ë							-DENOTES SLA	B SETC	OWN.		
NO COLU	IMN STI	FFNESS	SHOUL	.D BE US	ED IN TH	HE SLAB						REFER TO ARC	H. DET	AILS FOF	₹ ALL LI	EVELS.
SLABS TO) BE CH	GN.	For Pu	INCHING	SHEAR	WITH MOM	ent def	RIVED								
WITH 10 FOR SHE	0% COL AR HEA	UMN ST D REINI	TIFFNES FORCEM	S. PT CO IENT (WI	ONTRACT HERE RE	or to Mał Quired) to	(E ALLO) D SATISF	WANCE Y								
PUNCHIN	NG SHEA	AR REIN						т								
IN NO IN BEAM CA	STANCE	SHALL	BE GRE	EATER TH	HAN 0.7	FOR THE S	LAB AND)								
PT CONT REINFOR ALL SLAE	RACTOF CEMEN ^T 3S AND	r to ma t in aco beams.	AKE ALLO CORDAN	OWANCE NCE WITI	FOR STI H CL9.2.	RUCTURAL 2 of AS360	INTEGR 00-2018	ity For		Stat	US US	SUED FC)r t	END)ER	
	RACTOF					F 1.4MPA						STRUCTURA	1L DR	AWIN	G	
(AFTER F EXPOSED	INAL LC ROOFS)SSES) 1 5, ETC.)	TO ALL I PLUS SI	EXTERNA L82 TOP	AL AREAS MESH L	BALCON J.N.O.	IES, TER	RACES,			Λ					
ALL EXPO)SED SL	ABS/BE	AMS CF	ack WI	отн то е	BE LIMITED										
TO 0.3mr XPOSURF (n MAX. CLASSIF		N							⊢	++					
A2 INTER B1 EXTER	RNAL RNAL		-								\mathbf{H}					
B1 SURF	ACES IN	I CONTA	ACT WIT	'H THE G	ROUND						\mathbf{H}					
RESIDEN CARPARI	<u>-</u> TIAL 9 (120	90 MINU MINUT	utes ff 'Es frl	RL							51		N			
ERVICEABI										 	٦L		コ	N		
CANTILE TRANSEE	/ER S R SI AB	RM DEFI PAN / 1 S & BFA	LECTION .25 or 1 AMS S	N SPAN 15mm M 300/100	n / 250 C Aximum 30 or 10	0R 25mm M 0mm MAXIN	iaximun //um	1,		S MEL	TRUC BOURNE OFFICE			GIN OFFICE:	E E R	ING
INCREME	INTAL D	EFLECT BRITTLE	TON LIN	AITS FOR NTS SI	SLABS A	AND BEAMS , CANTILEV	S ER SP	AN/125		MEL T: +(BOURNE, VIC, AU 61 3 9614 7155	JSTRALIA 3000	RUSHCI T: +61 2	UTTERS BAY, 9690 2488	NSW, AUS	TRALIA 2011
DIFFEREN SPAN/50	NTIAL D D OR 15	EFLECT 5mm MA	ION BE	rween f I at fac <i>i</i>	LOORS T ADE LOC	O BE LIMIT ATIONS	ED TO					T A \ <i>I</i>				
												IAY	LOF	κ		
										PROJ	ECT					
		401	mm CAV	/ITY —	$\setminus \square$		F	REFER TO ARCHITE	ECT				vvic	K F/	ארא יחמי	1 =
							N	/12 HILTI HIT-Z-F VITH HILTI HIT HY	AT 450 CTS. -200-R.		LI- WARV	TO IVIAINI	MS MS	NSV	λυτ V 2'	_, 170
							×	120 EMBEDMEN	Г	TITLE	- <i>• •</i> • • • • •					_, _
	A										Lł	EVEL 5 -	GE	NER	AL	
						110					AR	RANGEN	/IEN	T PL	AN	
		PRO\ ROD	vide Ba & Seal	.CKING - ANT			1 F	50x150x10 EA SH I.D. GALVANISFD	IELF ANGLE,	DATE	NOV 2020		CHECKED	BY		
							F A	IRE RATING TO RCHITECT'S DETA	ILS	SCAL	ES AT A1	DRAWN BY	APPROVE	A D BY		
										1	:20, 1:100	PAC		P	w	

20023

S-WEB-150

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									ALL RIGHT RESERVI	ed. This W Webber [Produce	Vork is coi Design Pty D or copie	PYRIGHT A LTD. NO I	and Remain Part of This form or B
		LEVI			MEANS (GRAPHIC, E PHOTOCOPYING, RE SYSTEMS) WITHOU	ELECTRON	IC OR MECH OR INFORM RMISSION O	ianical, i 1ation re F webbei	NCLUDING ETRIEVAL R DESIGN PT				
		REIN	F. RATE	P.T. F	RATE		— -						
THICKN	ESS f'c (N	MPa) (k	g/m ³)	(kg/i	n ²)			ev.	Description		Eng.	Draft.	Date
200*	4	.0	95 130	4. N/	A R.C. COR	E SLAB			PROGRESS ISSUE		MA MA/BT	PAC	18.11.20
·								3 ISSUED FO	DR TENDER (UPDATE))	MA/BT	PAC	18.12.20
		LEVEL 5 - C	ONCRET	E COLU	MN SCHEDUL	E			JR TENDER (OPDATEI	<i>)</i>]		PAC	05.02.21
MADK	SIZE	fo (M	REIN	NF. RAT	E								
C2	250 x 12	00 40	ra) (i	160	INSITU CONCRE								
C3 C4	200 x 14 300 x 60	00 40 00 40		180 160	INSITU CONCRE	TE COLUMN							
							——, [r	DRAWIN			PEFER	FNCE	No
	1	LEV	EL 5 - W		IEDULE				NDEX		WEB-00)0)1 002	
MARK	WIDTH	f'c (MPa)	REINF. (kg/r	RATE m ³)	R	EMARKS		RETENTION		<u> </u>	-WEB-00 -WEB-01 -WEB-80	.0-029 .0-819	
CW1	200	40	18	0	INSITU CONCRETE	CORE WALL		IN-SITU WA	ALLS VALLS	<u>S-</u>	-WEB-82 -WEB-88	<u>20-879</u> 30-909	
W1	200	50	18	0	INSITU CONCRETE	WALL		SLAB ON G	ROUND DETAILS D CONCRETE SLA	BS S [.]	-WEB-95 -WEB-96	50-951 50-962	
	250	40	18	0	INSITU CONCRETE	WALL] [POST TENS R.C. STAIR	IONING DETAILS DETAILS	S- S·	-WEB-96 -WEB-97	5-966 0	
<u>INOTES:</u> 1. ALL PEN	ETRATIONS TO) be reviewed) and reso	LVED.				MASONRY I STEEL DET/	DETAILS AILS	S- S·	-WEB-98 -WEB-99	30-981 30-991	
2. ALL SER 3. REBATES	VICES PENETF 5 AND CAST IN	RATIONS TO BE N PLATES FOR S	CO-ORDINA STRUCTURA	TED AND A L STEEL W	Approved by wee ork and facade	BBER DESIGN. TO BE CO-							
ORDINAT 4. CONTRA	red with arc Ctor shall <i>f</i>	CHITECT. ALLOW FOR COI	NSTRUCTIO	N JOINTS A	S REQUIRED.								
								<u>GENER</u>	AL ARRANGE	<u>MEN</u>	T LEGE	<u>END</u>	
POST TEI	NSIONED S	SLAB NOTES	<u>S:</u>					XX*	-DENOTES SLA	3/BAND	BEAM 1	HICKN	IESS
REFER TO D	NDED FLOOR S RAWING S-WI	SLABS ARE A DI EB-001 & S-WE	ESIGN AND B-002 FOR I	CONSTRUCT DESIGN AN	T COMPONENT.	N POST-		6	-DENOTES COL	umn o'	VER		
		S AND DESIGN E		JEINERAL L	ESIGN & LUADING			G	-DENOTES WAL	L OVEF	8		
- ALL CON	<u>_ INUTES:</u> CRETE SLABS	AND BEAMS TO) RF POST-T	FNSIONE						D RFAR	ING ELE	MENT	
PT AND I	REINFORCEME	ENT TO BE DESI	GNED BY P	T CONTRAC	CTOR.								ONDER
- SLABS TO POST-TE	o be minimun Nsion by oth	M 200mm THIC HERS U.N.O.	K, f'c = 40N	/IPa AND					UNDER & OVER				
- THE POS	T TENSIONING	G CONTRACTOR	SHALL ENS	SURE POTE	NTIAL				-DENOTES BLO	jk vval	L OVER		
INTERNA SHRINKA	AL FORCES AN	D CRACKS INDU	JCED BY PR ARE CONTR	ESTRESSII	NG, THE VICINITY			<u>S.C.J.</u>	-DENOTES SAW	CUT JC	NINT		
OF REST	RAINING ELEN AGE AS REQUI	MENTS AND MA	KE PROVISIO OUT, INCLU	JN FOR MO JDING MO	OVEMENT AND VEMENT			C.J	-DENOTES CON	STRUC	TION JO	NT	
CONCRE	TE MIX ETC.	, LUW SHRINKA	GE					STEP	-DENOTES SLAP	3 SETD(H. DET/	OWN. All S FOR		EVELS.
- NO COLL	JMN STIFFNES M DESIGN.	SS SHOULD BE I	USED IN TH	E SLAB									
- SLABS TO	O BE CHECKEI	d for punchin	NG SHEAR V	VITH MOM	ENT DERIVED								
WITH 10 FOR SHE	0% Column Ar head reii	STIFFNESS. PT (NFORCEMENT (CONTRACTO	or to mak Quired) to	E ALLOWANCE) SATISFY								
PUNCHI	NG SHEAR REI	INFORCEMENTS	5										
- leff TO lg IN NO IN	ross MAX RATI STANCE SHAL	IO TO BE DETER _L BE GREATER	rmined by Than 0.7 F	THE DESIG FOR THE SI	NER BUT .AB AND								
	ALCULATIONS.				INTEODITY			IS	SUED FC)R T	ENC)ER	
REINFOR	CEMENT IN A	CCORDANCE W	1TH CL9.2.2	2 OF AS360	0-2018 FOR		Sta	atus					
- PT CONT	RACTOR TO P	ROVIDE A MINII	mum p/a of	- 1.4MPA (AFTER FINAL				STRUCTURA	L DR	AWING	3	
Losses) (After f	TO ALL INTER INAL LOSSES)	RNAL CONCRETE) TO ALL EXTER	e slabs an Nal Areas	d Beams, (Balconi	AND 2.0MPa ES, TERRACES,		Ν	Λ/					
EXPOSED) ROOFS, ETC.) PLUS SL82 TC	op mesh u.	N.O.				<u>V</u>					
- ALL EXPO TO 0.3m	dsed Slabs/B m Max.	BEAMS CRACK V	VIDTH TO BI	E LIMITED									
		<u>NC</u>						J					
- B1 EXTER	RNAL RNAL ACES IN CONT	TACT WITH THE	GROUND					T					
FIRE RATIN	G						1						
- RESIDEN - CARPARI	itial 90 mii K 120 minu	NUTES FRL JTES FRL						シト	TCY	N			
<u>SERVICEABI</u>	LITY									ר '	N		
- TOTAL LO	ONG TERM DE VER SPAN /	FLECTION SP 125 OR 15mm	AN / 250 OF MAXIMUM	R 25mm M	AXIMUM,		S	TRUC	TURAL ≞	EN (sydney	GIN OFFICE:	EER	ING
- INCREME	ENTAL DEFLEC	EAIVIS SPAINT CTION LIMITS FO	OCO OR TOP OR SLABS A	ND BEAMS			M T:	EVEL 2, 31 QUEEN ELBOURNE, VIC, A +61 3 9614 7155	USTRALIA 3000	SUITE 30 RUSHCU T: +61 2 9)1, LEVEL 3, 7 ITTERS BAY, 9690 2488	I9A BOUNL NSW, AUS	JARY STREET
- DIFFERE	NTIAL DEFLEC	TION BETWEEN	I FLOORS TO CADE LOCA	D BE LIMIT	EN SI AIVIZS ED TO			LINI					
									TAY	LOR			
	Λ.						PR		HC WAR	WIC	K FA	١RM	1
	4							11-	13 MAN	ΝIX	PAR	AD	Ξ,
						пн-2-н АТ 450 СТ8 - HIT HY-200-R, Ермемт	э. Г	WARV	VICK FAF	۲M,	NSV	V 2 2	170
A A A	A - A						— TIT	LE _	n /=: -	<u> </u>			
								L	EVEL 5 -	GEN		ΆL	
								AH	KANGEN	'IEIN	I PL	AN	
	PR(ROI	OVIDE BACKING D & SEALANT	i — /		—— 150x150x10 Н. р. салуа	0 ea shelf angle Nised	, DA		DESIGNED BY	CHECKED	BY		
					FIRE RATIN	G TO S DETAILS		INUV ZUZU		APPROV (57	A	,	
			_				SC/	1:20, 1:100	PAC	-1 FRUVED	P\	N	

LEVEL 5







ſ							ALL RIGHT RESERVE THE PROPERTY OF WORK SHALL BE RE	ED. THIS WORK WEBBER DESIGN PRODUCED OR	S COPYRIG PTY LTD. 1 OPIED IN /	ht and remains No part of this Any form or by
		ROOF - SLAI	B SCHEDULE			N	Means (graphic, e Photocopying, re Systems) withou LTD.	CORDING OR IN THE PERMISSI	Formation Tormation On of wee	AL, INCLUDING N RETRIEVAL BBER DESIGN PTY
THICKNESS	f'c (MPa)	(kg/m ³)	(kg/m ²)		D	O NOT SCA	LE DRAWINGS,	USE FIGURI	ED DIME	INSIONS
220	40	120	6.5 N/A	P.T. SLAB BY D&C CONTRACTOR	Rev.	WORK IN P	Description ROGRESS ISSUE	Er	ig. Dra 1A PA	ft. Date C 18.11.20
					2	ISSUED FOR	R TENDER (DRAFT) R TENDER (UPDATEL	D) MA	/BT PA	C 27.11.20 C 18.12.20
NOTES:					4	ISSUED FOF	R TENDER (UPDATEI	D) MA	/BT PA	C 05.02.21
2. ALL SERVICES 3. REBATES AND	PENETRATION CAST IN PLAT	NS TO BE CO-ORDINA TES FOR STRUCTURA	TED AND APPROVE _ STEEL WORK AN	ED BY WEBBER DESIGN. D FACADE TO BE CO-						
ORDINATED WI 4. CONTRACTOR S	ITH ARCHITEC SHALL ALLOW	CT. V FOR CONSTRUCTION	n Joints as requ	IRED.						
POST TENSIO	NED SLAE	<u>3 NOTES:</u> s are a design and	CONSTRUCT COM	PONENT.			G REFERENC	E REFI	ERENC 3-000	CE No.
REFER TO DRAWI	ng S-Web-oc Dr Slab and	01 & S-WEB-002 FOR DESIGN BRIEF AND (DESIGN AND CONS GENERAL DESIGN	STRUCTION POST- & LOADING CRITERIA	G R	ENERAL NO	DTES	S-WEE	3-001-00 3-010-02	02 29
<u>GENERAL NO</u>	TES:					I-SITU WAL	LS ALLS	S-WEB S-WEB S-WEB	3-800-8 3-820-8 3-880-9(79 79 09
- ALL CONCRETE PT AND REINFO	e slabs and Orcement to	Beams to be post- to be designed by p	TENSIONED U.N.O. T CONTRACTOR.		SI SI	LAB ON GR USPENDED	OUND DETAILS	S-WE	3-950-9 3-960-9	51 62
- SLABS TO BE N POST-TENSION	MINIMUM 220 N BY OTHERS	Omm THICK, f'c = 40N U.N.O.	/IPa AND		R	.C. STAIR D	DETAILS ETAILS ETAILS	S-WE	3-970 3-980-98	81
- THE POST TEN		NTRACTOR SHALL EN			S	TEEL DETA	ILS	S-WE	3-990-99	91
SHRINKAGE, A	ND/OR TEMP	erature are contr S and make provisi	RESTRESSING, ROLLED IN THE VIC ON FOR MOVEMEN	ZINITY IT AND						
SHRINKAGE AS JOINTS, POUR	S REQUIRED 1 STRIPS, LOW	Throughout, inclu / Shrinkage	JDING MOVEMEN	Γ		GENERA	L ARRANGE	MENT LE	GEND	2
- NO COLUMN S	TIFFNESS SH	ould be used in th	IE SLAB			xx*	-DENOTES SLAB	/Band Bea	M THICH	(NESS
AND BEAM DE	SIGN. CHECKED FOR					,0) ,†	-DENOTES COLU	IMN OVER		
WITH 100% CO FOR SHEAR HE	DLUMN STIFF	NESS. PT CONTRACTOR CEMENT (WHERE REC	OR TO MAKE ALLO QUIRED) TO SATISF	WANCE TY		4	-DENOTES WALL			
PUNCHING SH	EAR REINFOF	RCEMENTS BE DETERMINED BY	THE DESIGNER BL	IT			-DENOTES LOAD	BEARING I		
IN NO INSTANO BEAM CALCUL	CE SHALL BE ATIONS.	GREATER THAN 0.7 F	For the slab and)			UNDER & OVER -DENOTES BLOC	K WALL OV	ER	
- PT CONTRACTOR	or to make / Int in accor	ALLOWANCE FOR STR RDANCE WITH CL9.2.2	RUCTURAL INTEGR 2 OF AS3600-2018	ITY For		<u>S.C.J.</u>	-DENOTES SAWC	CUT JOINT		
ALL SLABS AN	d Beams. Or to provid		Ε 1 ΛΜΡΔ (ΔΕΤΕΡ Ι	ΞΙΝΔΙ	_	C.J.	-DENOTES CONS	STRUCTION	JOINT	
LOSSES) TO AL (AFTER FINAL	L INTERNAL (LOSSES) TO A	CONCRETE SLABS AN ALL EXTERNAL AREAS	D BEAMS, AND 2 (BALCONIES, TER	INAL OMPa RACES,	ST	EP	-DENOTES SLAB	SETDOWN		LEVELS
- ALL EXPOSED SED S	FS, ETC.) PLU SLABS/BEAMS	IS SL82 TOP MESH U S CRACK WIDTH TO B	.N.O. E LIMITED							
TO 0.3mm MAX	X.									
- A2 INTERNAL - B1 EXTERNAL	<u>IFICATION</u>									
- B1 SURFACES	IN CONTACT	WITH THE GROUND								
- RESIDENTIAL - - CARPARK 12	- 90 minutes 20 minutes f	S FRL FRL				100				2
<u>SERVICEABILITY</u> - TOTAL LONG T	FRM DEFLEC	TION SPAN / 250 O	R 25mm MAXIMUN	Λ	Statu	IS				`
CANTILEVER - TRANSFER SLA	SPAN / 125 (ABS & BEAMS	OR 15mm MAXIMUM SPAN/1000 OR 10		,		-	STRUCTURA	L DRAW	ING	
 INCREMENTAL SUPPORTING DIFFERENTIAL 	BRITTLE ELE DEFLECTION	I LIMITS FOR SLABS A EMENTS SPAN/500, BETWEEN FLOORS TO	.ND BEAMS CANTILEVER SF O BE LIMITED TO	PAN/125		Λ/				
SPAN/500 OR	15mm MAXIN	IUM AT FACADE LOCA	TIONS		 ¥	Å				
					⊢	+				
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									NFF	RING
		a l			MELE LEVE MELE	BOURNE OFFICE: L 2, 31 QUEEN S BOURNE, VIC, AU	TREET STRALIA 3000	SYDNEY OFFIC SUITE 301, LEV RUSHCUTTERS	EL 3, 19A BC BAY, NSW, J	DUNDARY STREET AUSTRALIA 2011
					CLIENT			1. +012 9090 24	00	
SE	CTION	A					TAY	LOR		
SCALI	E: 1:20	160				CT				
			Г	· ; ``	PROJE			WICK	FAR	M
						11-1 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	L3 MANN	NIX PA	(KAE)E, 2170
		ROOF			TITLE	₩7 \I \ ₩ \				
						F	ROOF - G	ENER		
						AR	KANGEN	1ENT	-LAI	N
					DATE	IOV 2020	DESIGNED BY	CHECKED BY	AC	
					SCALES	S AT A1	DRAWN BY	APPROVED BY	-	
B		SEC	TION	C	1: JOB NO	2 U, 1:100	PAC DRAWING No.		PW REV.	
160		SCALE:	1 : 20	160	2	20023	S-WEI	3-160		4





LEVEL 1 - LOADING PLAN SCALE: 1:200



LEVEL 3 - LOADING PLAN SCALE: 1:200

		-						
	LOADING PLAN LEGEND RESIDENTIAL SIDL = 1.0 kPa LL = 1.5 kPa		R	ALL RIGHT RESERVE THE PROPERTY OF V WORK SHALL BE RE MEANS (GRAPHIC, E PHOTOCOPYING, RE SYSTEMS) WITHOUT LTD.	D. THIS WO VEBBER DE PRODUCED LECTRONIC CORDING C I THE PERM	DRK IS CO SIGN PTY OR COPII OR MECH OR INFORM MISSION C	PYRIGHT LTD. NO ED IN ANY HANICAL, MATION RI IF WEBBE	AND REMAINS PART OF THIS Y FORM OR BY INCLUDING ETRIEVAL R DESIGN PTY
	<u>NON-ACCESSIBLE ROOF</u> SIDL = 2.0 kPa	D Rev.	O NOT SCA	LE DRAWINGS, U Description	JSE FIG	URED [Eng.	DIMENS	SIONS Date
	$LL = 1.5 \text{ kPa}$ $\frac{\text{TERRACES}}{\text{SIDL} = 2.0 \text{ kPa}}$ $LL = 4.0 \text{ kPa}$	1 2	ISSUED FOR	TENDER (DRAFT) TENDER (UPDATED))	MA/BT MA/BT	PAC PAC	27.11.20 18.12.20
	<u>BALCONIES</u> SIDL = 1.5 kPa LL = 2.0 kPa							
	<u>CARPARK</u> SIDL = 0.5 kPa LL = 2.5 kPa							
	<u>BATHROOM / WET AREAS</u> SIDL = 2.0 kPa LL = 1.5 kPa		RAWING IN	G REFERENC	E RI	EFER	ENCE	No.
	<u>CORRIDOR / FIRE STAIR</u> SIDL = 1.5 kPa LL = 4.0 kPa	GRICI≦PIS	ETENTION ONCRETE C I-SITU WAL RECAST WA LAB ON GRO	OLUMNS LS ALLS OUND DETAILS	S-\ S-\ S-\ S-\ S-\ S-\	VEB-01 VEB-80 VEB-82 VEB-88 VEB-88	10-029 00-819 20-879 30-909 50-951	
	<u>COURTYARD / LANDSCAPE</u> SIDL = 2.0 kPa LL = 4.0 kPa MIN. OR 18.0 kPa (PER METRE OF SOIL DEPTH)		USPENDED OST TENSIC .C. STAIR D ASONRY DI	CONCRETE SLAI DNING DETAILS ETAILS ETAILS	3S S-\ S-\ S-\ S-\	NEB-96 NEB-96 NEB-97 NEB-98	50-962 55-966 70 30-981	
	SUBSTATION SIDL = TBC LL = TBC				<u> </u>	VEB-95	<u>10-991</u>	
	<u>WASTE</u> SIDL = 0.5 kPa LL = 3.0 kPa							
	<u>LIGHT PLANT</u> SIDL = 2.0 kPa LL = 5.0 kPa							
TO FURTH REFER LIF LIFT PIT / I	ER COORDINATION WITH BUILDER. T CONTRACTOR DETAILS FOR LID LOADING, AND LIFTING HOOK SET OUT.				R TI	ΞΝΓ)FR	
		Statu						
			<u>ج</u> ۲ ۸	STRUCTURA	L DRA	WIN	G	
		S T MELE LEVE MELE T: +6' CLIENT	T R U C SOURNE, VIC, AUS 13 9614 7155	TURAL TREET STRALIA 3000	ENG SUITE 301 RUSHCUT T: +61 2 96	IN FFICE: LEVEL 3, TERS BAY, 1990 2488	E E R 19A BOUN NSW, AUS	A I N G DARY STREET STRALIA 2011
				TAYL	_OR			
		PROJE	LAH 11-1 VARW	IC WARV 3 MANN ICK FAR	VICI NIX F M, I	k Fa Par NSV	ARM ADI V 21	1 E, 170
			LOADI	ING PLAI	NS -	SH	EET	1
		DATE N	IOV 2020	DESIGNED BY MA/BT	CHECKED B	۲ A	C	
		SCALES	s at a1 1:200	DRAWN BY PAC	APPROVED E	BY P'	W	
		<u>ЈОВ No</u>	20023	DRAWING No. S-WEE	3-200		REV.	2

N



LEVEL 4 - LOADING PLAN SCALE: 1:200







LEVEL 5 - LOADING PLAN SCALE: 1:200

ROOF - LOADING PLAN SCALE: 1:200

								AND REMAINS
	LOADING PLAN LEGEND RESIDENTIAL			THE PROPERTY OF WORK SHALL BE RE MEANS (GRAPHIC, I PHOTOCOPYING, RE SYSTEMS) WITHOL	WEBBER DE EPRODUCED ELECTRONIC ECORDING C IT THE PERM	ESIGN PTY OR COPIE OR MECH OR INFORM MISSION O	LTD. NO F D IN ANY IANICAL, I IATION RE F WEBBEF	PART OF THIS FORM OR BY NCLUDING ETRIEVAL R DESIGN PTY
	SIDL = 1.0 kPa LL = 1.5 kPa		O NOT SCA	LTD.	USE FIG	URED E	DIMENS	SIONS
	SIDL = 2.0 kPa $LL = 1.5 kPa$	1 2	ISSUED FOR	Description R TENDER (DRAFT) R TENDER (UPDATE))	Eng. MA/BT MA/BT	Draft. PAC PAC	Date 27.11.20 18.12.20
	<u>TERRACES</u> SIDL = 2.0 kPa LL = 4.0 kPa							
	<u>BALCONIES</u> SIDL = 1.5 kPa LL = 2.0 kPa							
	<u>CARPARK</u> SIDL = 0.5 kPa LL = 2.5 kPa			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			~~~~	
	<u>BATHROOM / WET AREAS</u> SIDL = 2.0 kPa LL = 1.5 kPa		RAWING IN	G REFERENC	CE RI	EFERI WEB-OC	ENCE	No. {
	<u>CORRIDOR / FIRE STAIR</u> SIDL = 1.5 kPa LL = 4.0 kPa	C I P S	ONCRETE C I-SITU WAL RECAST WA	COLUMNS LS ALLS OUND DETAILS	S-\ S-\ S-\ S-\ S-\	WEB-80 WEB-82 WEB-88 WEB-88	0-819 0-879 0-879 0-909 0-951	
	<u>COURTYARD / LANDSCAPE</u> SIDL = 2.0 kPa LL = 4.0 kPa MIN. OR 18.0 kPa (PER METRE OF SOIL DEPTH)		USPENDED OST TENSIC .C. STAIR D IASONRY D TEEL DETAI	CONCRETE SLA DNING DETAILS DETAILS ETAILS LS	BS S-\ S-\ S-\ S-\ S-\	NEB-96 NEB-96 NEB-97 NEB-98 NEB-98	0-962 5-966 0 0-981 0-991	
	SUBSTATION SIDL = TBC LL = TBC	2	 \	·····	u.	····	····	
	<u>WASTE</u> SIDL = 0.5 kPa LL = 3.0 kPa							
	<u>LIGHT PLANT</u> SIDL = 2.0 kPa LL = 5.0 kPa							
- REFER LIF LIFT PIT / I	ER COORDINATION WITH BUILDER. T CONTRACTOR DETAILS FOR JID LOADING, AND LIFTING HOOK SET OUT.	Statu	ISS	SUED FC	R TI	END	ER	
			;	STRUCTURA	L DRA	WIN	3	
		S MELI LEVE MELE T: +6 CLIENT		TURAL TREET STRALIA 3000 TAY	E N G SUITE 301 RUSHCUT T: +61 2 97	FFICE: , LEVEL 3, 7 TERS BAY, 390 2488	E E R I9A BOUNE NSW, AUS	ING
		τιτιε	11-1 VARW	IC WAR	NIX F RM, I NS -	PAR NSV	ADE V 21	170 170 2
		DATE	IOV 2020	DESIGNED BY MA/BT	CHECKED B	Υ	2	
		SCALE	s at a1 1:200	DRAWN BY	APPROVED I	BY P\	N	
		JOB N	20023	DRAWING No.	B-201		REV.	2



$\overline{\mathcal{N}}$	DENOTES 1200 x 1200 LOCALLY INCREASED SLAB fc ZONE.
	LOCAL SLAB ZONE f'c SHALL BE ≥ 0.75 COLUMN f'c



- LOCATION OF CONCEALED PIPES.
- 2. NON-STRUCTURAL ZONE TO BE FORMED AND POURED MONOLITHICALLY WITH STRUCTURAL ZONE.



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	DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS
	Rev Description Eng Draft. Date
	1ISSUED FOR TENDER (DRAFT)MA/BTPAC27.11.20
	2 ISSUED FOR TENDER (UPDATED) MA/BT PAC 18.12.20
ΝΙΟΙΝΤ	
	C DRAWING REFERENCE REFERENCE No.
	DRAWING INDEX S-WEB-000
	RETENTION S-WEB-010-029
	CONCRETE COLUMNS S-WEB-800-819
	PRECAST WALLS S-WEB-880-909
_	SLAB ON GROUND DETAILS S-WEB-950-951
_	POST TENSIONING DETAILS S-WEB-965-966
	MASONRY DETAILS S-WEB-980-981
IONAL RANK IN	STEEL DETAILS
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	STRUCTURAL DRAWING
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	MELBOURNE OFFICE: MELBOURNE OFFICE: SYDNEY OFFICE: SUBTRACT FOR A CONSTRUCT OF
	MELBOURNE, VIC, AUSTRALIA 3000 SUITE 301, LEVEL 3, 19A BOUNDARY STREET MELBOURNE, VIC, AUSTRALIA 3000 RUSHCUTTERS BAY, NSW, AUSTRALIA 2011 T: +61 3 9614 7155 T: +61 2 9690 2488
	CLIENT
	TAYLOR
	PROJECT
	LAHC WARWICK FARM
	11-13 MANNIX PARADE
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INSITU CORE WALL SCHEDULE								
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IN-SITU WALL REINFORCEMENT & CONCRETE NOTES:

1. ALL SERVICES PENETRATION TO BE COORDINATED AND APPROVED BY WEBBER DESIGN.

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- 2. CONTRACTOR SHALL ALLOW FOR CONSTRUCTION JOINT AS REQUIRED. 3. PROVIDE 25mm CLEAR COVER TO CORE WALL REINFORCEMENT (U.N.O.).
- 4. WHERE BARS OF DIFFERENT DIAMETERS ARE SPLICED, USE THE SPLICE OF THE LARGER BAR DIAMETER.
- BY 1.4
- 6. UNLESS SHOWN ON DRAWINGS, THE SPLICE LOCATIONS MUST BE APPROVED BY THE ENGINEER.
- 7. IF BARS HAVE STANDARD COGS AT THE ENDS, HALVE THE ABOVE LENGTHS. 8. N36 AND N40 BARS IN TENSION ARE NOT TO BE SPLICED.

NOTES:-CO-ORDINATE ALL PENETRATION SIZES AND LOCATIONS WITH SERVICES CONSULTANTS. NO PENETRATION TO BE INCREASED IN SIZE OR MOVED WITHOUT THE WRITTEN AGREEMENT OF WEBBER DESIGN PTY. LTD.

ANCHORAGE AND SPLICE LENGTH INSITU/PRECAST WALLS UNO.					
N12	600				
N16	800				
N20	1000				
N24	1200				
N28	1400				
N32	1400				
N36	1400 (COMPRESSION SF				
GENERAL	45 BAR DIA.				



HEADER BEAM DETAIL FOR IN-SITU WALLS SCALE 1:20

- . REFER TO LIFT SHAFT MANUFACTURER SHOP DRAWINGS FOR LIFT DETAILS,
- REQUIREMENTS AND DIMENSIONS. . CO-ORDINATE ALL LIFT SHAFT PENETRATION SIZES AND LOCATIONS WITH
- SERVICES CONSULTANTS. NO PENETRATION TO BE INCREASED IN SIZE OR MOVED WITHOUT THE WRITTEN AGREEMENT OF THIS OFFICE.
- 3. REFER TO LIFT MANUFACTURER FOR ALL ADDITIONAL CAST IN ITEMS AND BLOCK OUTS.
- A. REFER TO LIFT SUPPLIERS DRAWINGS FOR DETAILS AND LOCATIONS OF ALL CAST IN FERRULES, UNI-STRUTS ETC. FOR FIXING OF ALL LIFT EQUIPMENT.

	IN-SITU CORE HEADER BEAM SCHEDULE							
MARK	WIDTH	DEPTH	LEVEL	REINF. (kg/m ³)				
CW1	200	800	BASEMENT 1 - LEVEL 3	220				
CW2	250	800 MIN.	LEVEL 4 - LEVEL 5	200				

5. FOR WALLS WITH BARS ANCHORED OR SPLICED AT LESS THAN 150 CTS. MULTIPLY THE ABOVE LENGTHS



REFER HEADER BEAM SCHEDULE FOR REINF. DETAILS AND SIZE.

D	DO NOT SCALE DRAWINGS, USE FIGURED DIMENSIONS					
Rev.	Description	Eng.	Draft.	Date		
1	ISSUED FOR TENDER (DRAFT)	MA/BT	PAC	27.11.20		
2	ISSUED FOR TENDER (UPDATED)	MA/BT	PAC	18.12.20		
3	ISSUED FOR TENDER (UPDATED)	MA/BT	PAC	05.02.21		
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	INCLUNCE INC.
DRAWING INDEX	S-WEB-000
GENERAL NOTES	S-WEB-001-002
RETENTION	S-WEB-010-029
CONCRETE COLUMNS	S-WEB-800-819
IN-SITU WALLS	S-WEB-820-879
PRECAST WALLS	S-WEB-880-909
SLAB ON GROUND DETAILS	S-WEB-950-951
SUSPENDED CONCRETE SLABS	S-WEB-960-962
POST TENSIONING DETAILS	S-WEB-965-966
R.C. STAIR DETAILS	S-WEB-970
MASONRY DETAILS	S-WEB-980-981
STEEL DETAILS	S-WEB-990-991

ISSUED FOR TENDER

Status STRUCTURAL DRAWING GINEERING MELBOURNE OFFICE: LEVEL 2, 31 QUEEN STREET MELBOURNE, VIC, AUSTRALIA 3000 T: +61 3 9614 7155 SYDNEY OFFICE: SUITE 301, LEVEL 3, 19A BOUNDARY STREET RUSHCUTTERS BAY, NSW, AUSTRALIA 2011 T: +61 2 9690 2488 TAYLOR LAHC WARWICK FARM 11-13 MANNIX PARADE, WARWICK FARM, NSW 2170 CORE KEY PLANS

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		LAB ON GRO	OUND DETAILS CONCRETE SLABS	S-WEB-95 S-WEB-96	0-951	
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<u>GROUND FLOOR - INSITU WALL KEY PLAN</u> SCALE: 1 : 200



INSITU WALL SCHEDULE							
MARK	MARK WIDTH ffc (MPa) (kg/m ³) REMARKS						
W1	200	50	220	INSITU CONCRETE WALL			
W2	250	40	180	INSITU CONCRETE WALL			

IN-SITU WALL REINFORCEMENT & CONCRETE NOTES:

1. ALL SERVICES PENETRATION TO BE COORDINATED AND APPROVED BY WEBBER DESIGN. 2. CONTRACTOR SHALL ALLOW FOR CONSTRUCTION JOINT AS REQUIRED.

3. PROVIDE 25mm CLEAR COVER TO CORE WALL REINFORCEMENT (U.N.O.).

4. WHERE BARS OF DIFFERENT DIAMETERS ARE SPLICED, USE THE SPLICE OF THE LARGER BAR DIAMETER. 5. FOR WALLS WITH BARS ANCHORED OR SPLICED AT LESS THAN 150 CTS. MULTIPLY THE ABOVE LENGTHS BY 1.4 6. UNLESS SHOWN ON DRAWINGS, THE SPLICE LOCATIONS MUST BE APPROVED BY THE ENGINEER.

7. IF BARS HAVE STANDARD COGS AT THE ENDS, HALVE THE ABOVE LENGTHS. 8. N36 AND N40 BARS IN TENSION ARE NOT TO BE SPLICED.

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ANCHORAGE AND SPLICE LENGTH FOR INSITU/PRECAST WALLS UNO.					
600					
800					
1000					
1200					
1400					
1400					
1400 (COMPRESSION SPLICE)					
45 BAR DIA.					

LEVEL 1 - INSITU WALL KEY PLAN (LEVELS 2-5 SIMILAR)

R	ALL THE WO MEA PHC SYS LTD
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STEEL DETAILS

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S-WEB-990-991

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S	LAB ON GROUND DETAILS	S-V	VEB-95	0-951		$\left \right\rangle$
S	USPENDED CONCRETE SLABS	S-V	VEB-96	0-962		- 5
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	.C. STAIR DETAILS	S-V	VEB-97	0		13
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ISSUED FOR TENDER

STRUCTURAL DRAWING



LAHC WARWICK FARM 11-13 MANNIX PARADE, WARWICK FARM, NSW 2170

IN-SITU WALL KEY PLANS & ELEVATION

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2N16 TOP
N12-200 HORIZONTAL EACH FACE
N12-200 VERTICAL EACH FACE
ALTERNATIVELY DRILL & EPOXY VERTICAL BARS. 120 MIN. EMBEDMENT
SCABBLED JOINT
FLOOR SLAB
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VALL DETAIL

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TYPICAL PIT/SUMP/GRATED TRENCH DETAIL SCALE 1:20

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					\wedge	IN-SITU WALLS	S-WEB-800-	-819 -879
					<u> 2</u>	SLAB ON GROUND DETAILS	S-WEB-880- S-WEB-950-	-909 -951
						SUSPENDED CONCRETE SLAB	S-WEB-960- S-WEB-965-	-962 -966
						R.C. STAIR DETAILS	S-WEB-970 S-WEB-980-	-981
ADDITIONAL RE	INFORCEMENT TO REINFORCEMENT	ADDITIONAL		REINFORCEMENT COVER.		STEEL DETAILS	S-WEB-990・	-991 ~ ~ ~ ~ /
NOTES ON GENI	ERAL NOTES REINFORCEMNT	REINFORCEMENT IN SAME LAYER AS		NOTES ON GENERAL NOTES	г	ALL TYPICAL SUSPENDED SLA	B DETAILS	
PLAN NOTES FC	DR COVER.	MESH.		PLAN NOTES FOR COVER.		SHOWN ARE FOR INFORMATIC	N, AND PRICIN ACTOR TO PRO	IG VIDE
						THEIR OWN SUSPENDED SLAE	B TYPICAL DETA	AILS OVAL
		• • •	•			PRIOR TO CONSTRUCTION ON	SITE.	
		f						
	ADDITIONAL VERTICAL		TYPICAL MESH HORIZONTAL BAF	RIN				
	REINFORCEME	ENT	OUTERMOST LAY	ER.				
	<u>TYPICA</u>	<u>L REINFORCEME</u>	<u>NT COVER DET/</u>	AILS				
	SCALE 1:5							
								-P
						ISSUED FOR	R TENDE	ER
	ANCHO	RAGE AND SPLIC	CE LENGTHS OF			ISSUED FOR Status	R TENDE	ER
	ANCHO TENSIC	RAGE AND SPLIC	CE LENGTHS OF MS AND SLABS			ISSUED FOR Status STRUCTURAL	R TENDE	ER
	ANCHO TENSIC	PRAGE AND SPLIC ON BARS IN BEAT	CE LENGTHS OF MS AND SLABS MORE THAN 300	nm OF CONCRFTF		ISSUED FOR Status STRUCTURAL	R TENDE	ER
	ANCHO TENSIC LESS THAN 300 BELOW HOP	PRAGE AND SPLIC ON BARS IN BEAT Omm OF CONCRETE RIZONTAL BAR	CE LENGTHS OF MS AND SLABS MORE THAN 3000 BELOW HOR	nm OF CONCRETE IZONTAL BAR		ISSUED FOR Status STRUCTURAL	R TENDE DRAWING	ER
BAR SIZE	ANCHO TENSIC LESS THAN 300 BELOW HOP CONCRE	PRAGE AND SPLIC ON BARS IN BEAD Omm OF CONCRETE RIZONTAL BAR	CE LENGTHS OF MS AND SLABS MORE THAN 3000 BELOW HOR CONCRE	nm OF CONCRETE IZONTAL BAR TE GRADE		ISSUED FOR Status STRUCTURAL	R TENDE DRAWING	ER
AR SIZE	ANCHO TENSIC LESS THAN 300 BELOW HOP CONCRE	PRAGE AND SPLIC ON BARS IN BEAD Omm OF CONCRETE RIZONTAL BAR ETE GRADE	CE LENGTHS OF MS AND SLABS MORE THAN 300 BELOW HOR CONCRE	mm OF CONCRETE IZONTAL BAR TE GRADE		ISSUED FOR Status STRUCTURAL	R TENDE	ER
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AR SIZE	ANCHO TENSIC LESS THAN 300 BELOW HOP CONCRE 25 MPa 400 500 700	PRAGE AND SPLIC DN BARS IN BEAD Omm OF CONCRETE RIZONTAL BAR ETE GRADE >=32 MPa 400 450 650	CE LENGTHS OF MS AND SLABS MORE THAN 3000 BELOW HOR CONCRE 25 MPa 500 650 900	mm OF CONCRETE IZONTAL BAR TE GRADE >=32 MPa 500 600 800		ISSUED FOR Status STRUCTURAL	R TENDE	ER
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BAR SIZE N10 N12 N16 N20 N24	ANCHO TENSIC LESS THAN 300 BELOW HOP CONCRE 25 MPa 400 500 700 900 1100	PRAGE AND SPLIC DN BARS IN BEAD Dmm OF CONCRETE RIZONTAL BAR ETE GRADE >=32 MPa 400 450 650 800 1000	CE LENGTHS OF MS AND SLABS MORE THAN 3000 BELOW HOR CONCRE 25 MPa 500 650 900 1200 1550	$\frac{1000}{1300}$		STRUCTURAL STRUCTURAL		ER
AR SIZE N10 N12 N16 N20 N24 N28	ANCHO TENSIC LESS THAN 300 BELOW HOP CONCRE 25 MPa 400 500 700 900 1100 1250	PRAGE AND SPLIC DN BARS IN BEAD Dmm OF CONCRETE RIZONTAL BAR ETE GRADE >=32 MPa 400 450 650 800 1000 1100	CE LENGTHS OF MORE THAN 3000 BELOW HOR CONCRE 25 MPa 500 650 900 1200 1550 1750	mm OF CONCRETE IZONTAL BARTE GRADE>=32 MPa 500 600 800 1100 1300 1600		ISSUED FOR Status STRUCTURAL STRUCTURAL STRUCTURAL E BELBOURNE OFFICE: LEVEL 2, 31 QUEEN STREET	R TENDE	ER E R I N
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AR SIZE N10 N12 N16 N20 N24 N28 N32 N36	ANCHO TENSIC LESS THAN 300 BELOW HOP CONCRE 25 MPa 400 500 700 900 1100 1250 1600 2000	PRAGE AND SPLIC DN BARS IN BEAD Dmm OF CONCRETE RIZONTAL BAR ETE GRADE >=32 MPa 400 450 650 800 1000 1100 1400 1700	CE LENGTHS OF MORE THAN 3000 BELOW HOR CONCRE 25 MPa 500 650 900 1200 1550 1750 2100 2600	mm OF CONCRETE ZONTAL BAR TE GRADE >=32 MPa 500 600 800 1100 1300 1600 1850 2200		ISSUED FOR Status STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL STRUCTURAL EVEL 2, 31 QUEEN STREET MELBOURNE OFFICE: LEVEL 2, 31 QUEEN STREET MELBOURNE, VIC, AUSTRALIA 3000 T: +61 3 9614 7155	R TENDE	ER BOUNDARY STRE W, AUSTRALIA 201
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<u>PLAN VIEW</u>

TYPICAL INTERNAL STRESSING POCKET SCALE 1:10

1. REFER TO PLAN FOR ADDITIONAL REINFORCEMENT.

TYPICAL LIVE END BLOCK REINFORCEMENT

TYPICAL DEAD END BLOCK REINFORCEMENT

6 7 8 9 10 _____ | ___ |

SECTION 1-1

	ALL RIGHT RESERVED. T THE PROPERTY OF WEBI WORK SHALL BE REPRO MEANS (GRAPHIC, ELECT PHOTOCOPYING, RECOR SYSTEMS) WITHOUT TH LTD	HIS WORK IS COPYRIGHT AND REMAINS BER DESIGN PTY LTD. NO PART OF THIS DUCED OR COPIED IN ANY FORM OR BY IRONIC OR MECHANICAL, INCLUDING DING OR INFORMATION RETRIEVAL E PERMISSION OF WEBBER DESIGN PTY
	DO NOT SCALE DRAWINGS. USE	FIGURED DIMENSIONS
	Rev. Description	Eng. Draft. Date
	1 ISSUED FOR TENDER (DRAFT) 2 ISSUED FOR TENDER (UPDATED)	MA/BT PAC 27.11.20
	2 ISSUED FOR TENDER (UPDATED)	
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	DRAWING REFERENCE	REFERENCE No.
	CRAWING INDEX	S-WEB-000 S-WEB-001-002
	RETENTION CONCRETE COLUMNS	S-WEB-010-029 S-WEB-800-819
2	IN-SITU WALLS	S-WEB-820-879
<u> </u>	SLAB ON GROUND DETAILS SUSPENDED CONCRETE SLABS	S-WEB-950-951 S-WEB-960-962
	POST TENSIONING DETAILS	S-WEB-965-966
		S-WEB-980-981
	PURPOSES ONLY. SUB-CONTRAT THEIR OWN SUSPENDED SLAB TO WEBBER DESIGN FOR REVIE PRIOR TO CONSTRUCTION ONSI	CTOR TO PROVIDE TYPICAL DETAILS W AND APPROVAL TE.
	ISSUED FOR Status STRUCTURAL I	<b>TENDER</b> DRAWING
	STRUCTURAL E MELBOURNE OFFICE: LEVEL 2, 31 QUEEN STREET MELBOURNE, VIC, AUSTRALIA 3000 T: +61 3 9614 7155 CLIENT	NGINEERING DNEY OFFICE: ITE 301, LEVEL 3, 19A BOUNDARY STREET SHCUTTERS BAY, NSW, AUSTRALIA 2011 +61 2 9690 2488
	PROJECT	
	LAHC WARW 11-13 MANNI WARWICK FARM	ICK FARM X PARADE, 1, NSW 2170
	TYPICAL POST T DETAILS - S	ENSIONING HEET 2
	DATE DESIGNED BY CHEC NOV 2020 MA/BT SCALES AT A1 DRAWN BY APPF	CKED BY AC ROVED BY
	1:10 PAC	PW REV.
	20023 S-WEB-9	2

![](_page_66_Figure_0.jpeg)

- MAIN WIRES TO BE LOWER MOST WITH 20mm COVER TO TRAY FORMWORK. 4.
- LANDING REINFORCEMENT MUST NOT BE INTERRUPTED BY SIDES OF FLIGHTS CONTINUOUS INTO LANDING. 5.

STAIR THROAT THICKNESS (T) mm	STAIR LANDING THICKNESS (D) mm	MAXIMUM FLIGHT SPAN (L) mm	COMMENT
150	150	3200	-
160	160	3500	-
170	170	3800	-
180	180	4000	-
190	190	4300	-
200	200	4600	-
250	250	5600	-

# <u>NOTES</u>

1. MAXIMUM SPANS NOTED ABOVE FOR STAIR SLIGHTS ASSUME SPAN TO CENTRE LINES OF LANDINGS AND THAT LANDING SPANS

ACROSS TO THE ADJACENT LOAD BEARING WALLS (ie WALLS THAT RUN PARALLEL TO STAIR FLIGHTS). 2. DESIGN LOADING FOR STAIRS = 4.0 kPa LIVE LOAD.

4. REFER TO PLANS FOR LOCATIONS.

SECTION 1-1

		WORK SHALL BE RI MEANS (GRAPHIC, I PHOTOCOPYING, RI SYSTEMS) WITHOL LTD.	EPRODUCED ELECTRONIC ECORDING OI IT THE PERM	OR COPIE OR MECH R INFORM ISSION OI	d in Any Anical, I Ation Re Webber	Form or by NCLUDING TRIEVAL R DESIGN PTY
	DO NOT SCA Rev. 1 ISSUED FOF	LE DRAWINGS, Description R TENDER (DRAFT)	USE FIGU	JRED D Eng. MA/BT	DIMENS Draft. PAC	Date 27.11.20
	2 ISSUED FOR	R TENDER (UPDATE	D)	MA/BT	PAC	18.12.20
	DRAWING IN DRAWING IN GENERAL NO	G REFERENC IDEX DTES	CE RE S-V S-V S-V	FERE VEB-00 VEB-00 VEB-01	0 1-002 0-029	No. 5
2	CONCRETE C IN-SITU WAL PRECAST WA SLAB ON GR SUSPENDED	COLUMNS LS ALLS OUND DETAILS CONCRETE SLA	S-V S-V S-V BS S-V BS S-V	VEB-80 VEB-82 VEB-88 VEB-95 VEB-96 VEB-96	0-819 0-879 0-909 0-951 0-962 5-966	
	A R.C. STAIR D MASONRY D STEEL DETAI	DETAILS ETAILS ILS	S-V S-V S-V	VEB-90 VEB-97 VEB-98 VEB-99	0-981 0-991	
	ISS	SUED FC	R TE	END	ER	
	Status	STRUCTURA	L DRA	WINC	<u>,</u>	
	Щ					
	KE	B	Æ	J		
	STRUC MELBOURNE OFFICE: LEVEL 2, 31 QUEEN S' MELBOURNE, VIC, AU T: +61 3 9614 7155 CLIENT	T U R A L TREET STRALIA 3000	ENG SUITE 301, RUSHCUTT T: +61 2 969	IN EFICE: LEVEL 3, 1 ERS BAY, 90 2488	E E R 9A BOUNE NSW, AUS	ING
		TAY	LOR			
	PROJECT LAF 11-1 ₩ΔΡ\Λ	HC WARY 13 MANI /ICK FAF	WICH NIX F	K FA PAR	ADE	 <u>=</u> ,   70
		C. STAIR	DET ET 1	AIL	s -	
	DATE NOV 2020	DESIGNED BY MA/BT	CHECKED BY	AC	;	
	SCALES AT A1 1:20	DRAWN BY PAC	APPROVED B	Y PV	V	
	JOB No. 20023	DRAWING No.	B-970		REV.	2

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![](_page_67_Figure_0.jpeg)

![](_page_68_Figure_0.jpeg)

2700	3000
0x100x6.0 EA	100x100x6.0 EA
0x100x6.0 EA	150x90x8.0 UA
0x90x8.0 UA	150x90x8.0 UA
0x90x8.0 UA	150x90x8.0 UA
0x90x8.0 UA	150x100x10.0 UA
x100x10.0 UA	

LOCATION OF FENCES ARE APPROXIMATE ONLY ONLY VISIBLE SERVICES HAVE BEEN LOCATED ACCURATELY NO UNDERGROUND SERVICES SEARCH HAS BEEN CARRIED OUT

![](_page_69_Figure_1.jpeg)

# BOUNDARY DIMENSIONS AND AREAS ARE SUBJECT TO FINAL SURVEY

No.	DATE	NOTATION/AMENDMENT	No.	DATE	NOTATION/AME	NDMENT	CONTOUR INTERVAL: 0.5m
							DATUM: A.H.D
							ORIGIN OF DATUM: S.S.M
							14.738 SCIMS
							100 YEAR FLOOD RL:
				FILE	FILE SIZE (MB)	CHECKED BY	RECOMMENDED MINIMUM FLOOR RL:
							SOURCE OF FLOOD INFO:

m I.D. .M. 38840	LEGEND OF COMMONLY USED SYMBOLS WATER	REDUCTION RATIO         1         250 @ A1 500 @ A1           0         12.5         25	DATE OF SURVEY: 16 / 06 /2016 SURVEY CONSULTANT:	<b>NSW</b> Family & Community Services	LOCATION WARWICK FARM	
	ELECTRICITY       O/H       U/G       E       PP       Street       Consumer       Connection Box         TELECOM       O/H       U/G       T       Pit       T       Distribution         GAS      G       Valve       Q       G       Pit       Plate      G         DRAINAGE - Common      D      I50 dia       Pit	LAND TITLE INFORMATION LOT: 6, 7, 8, 9, 10, 14, 15, 24, 25, 26 & 27 PLAN NO : D.P. 36641	Degotardi Smith & Partners CONSULTING SURVEYORS ESTABLISHED 1957 1/19-23 Bidge Street   Pymble   NSW 2073   Australia L (+61) 2 9440 1100   L (+61) 2 9440 1055 e. survey@degotardi.com.au	DRAWING TITLE PROPOSED SUBDIVISION	STREET ADDRESS MANNIX PARADE, HINKLER AVENUE & MCGIRR PARADE	TYPE LUA
	- Main 525 dia BENCH MARK A SURVEY CONTROL MARK SSM	OTHER: AREA: TOTAL 6582.4m ²	REGISTERED SURVEYOR PAUL GARRETT REF. 34441A01.DWG		JOB NUMBER BGMLG	SHT. 1 OF 1

PARADE

![](_page_69_Picture_6.jpeg)

![](_page_69_Picture_7.jpeg)

\$.7

MGA

![](_page_69_Picture_8.jpeg)

# L.G.A. OF LIVERPOOL

		· · · · · · · · · · · · · · · · · · ·	
LEGEND :		<u>Notes:</u>	λ
+36.41	- DENOTES SPOT LEVEL	TREE SIZES ARE ESTIMATES ONLY	$\wedge$
+36.41A	- DENOTES AWNING		
+33.27TK	- DENOTES TOP OF KERB LEVEL	CONTOURS ARE INDICATIVE ONLY. CONTOUR INTERVAL     0.5m.	
+30.12G	- DENOTES GUTTER FLOWLINE LEVEL		$\langle \mathcal{R} \rangle$
+30.17LIP	- DENOTES LIP OF KERB	ONLY VISIBLE SERVICES HAVE BEEN LOCATED IN THIS     SURVEY	NAV NAV
+37.76FL	- DENOTES FLOOR LEVEL	Solve 1.	LUJ
+30.17VFL	- DENOTES VERANDAH FLOOR LEVEL	SERVICE & UTILITIES SHOWN ON PLAN HAVE BEEN     LOCATED BY DHYSICAL EVIDENCE ON SITE SOME BITS MAX	۴
+37.76DFL	- DENOTES DECK FLOOR LEVEL	NOT HAVE BEEN OPENED TO VERIFY THE TYPE OF UTILITY.	
+33.15VC	- DENOTES VEHICLE CROSSING	NEITHER EXCAVATION NOR POTHOLING HAVE BEEN CARRIED	
+45.40GUT.	- DENOTES TOP OF GUTTER	SHOULD BE CONFIRMED WITH THE RELEVANT SERVICE	
+41.92TW	- DENOTES TOP OF WALL	AUTHORITY DURING DESIGN & PRIOR TO ANY CONSTRUCTION.	T
+40.19BW	- DENOTES BOTTOM OF WALL	• LOT DIMENSIONS AND SITE AREA ARE TAKEN FROM THE	
+49.15RR	- DENOTES ROOF/RIDGE	TITLE DIAGRAM.	A.
VC	- DENOTES VEHICLE CROSSING	ALL DIMENSIONS MUST BE VERIFIED ON SITE PRIOR TO ANY	
	- DENOTES GATE.	CONSTRUCTION.	8
۲	- DENOTES WATER STOP VALVE	• THIS PLAN HAS BEEN PREPARED FOR THE EXCLUSIVE LISE	$ \phi$
WM 🖸	- DENOTES WATER METER	OF NSW LAND AND HOUSING CORP.	
HY	- DENOTES WATER HYDRANT		
	- DENOTES WATER TAP	AND IS SHOWN TO TOPOGRAPHIC ACCURACIES. IF	
<u> </u>	- DENOTES SINGLE TELSTRA PIT	CLEARANCES TO BOUNDARIES OR OTHER FEATURES ARE	
	- DENOTES TELSTRA TWIN CONC. PIT	SURVEY MAY BE REQUIRED.	
$\Theta$	- DENOTES TELSTRA DISTRIB. PILLAR		
DP•	- DENOTES DOWN PIPE	BOUNDARIES HAVE BEEN DEFINED AS PART OF THIS     SURVEY	
	- DENOTES GRATED DRAIN.		
	- DENOTES DRAIN	ANY CONSTRUCTION ON OR NEAR BOUNDARIES WILL	
PP O	- DENOTES POWER POLE	BOUNDARIES CAN BE PLACED.	
LP 🔆	- DENOTES LIGHT POLE		
(A)	- DENOTES BOUNDARY CORNER	• BEARING AND DISTANCES OF BOONDARIES ARE BY TITLE ONLY WITH BEARINGS RELATED TO M.G.A	
$\triangleleft$	- DENOTES PHOTO LOCATION		
Ρ	- DENOTES SIGN	• IF ACCURATE TRUE NORTH IS REQUIRED A FURTHER SURVEY WOULD BE NECESSARY.	
SMH	- DENOTES SEWER MANHOLE	• COPYRIGHT © DEGOTARDI SMITH & PARTNERS SURVEYORS	
	- DENOTES MAILBOX	2017.	
LH	- DENOTES LAMPHOLE	NO PART OF THIS SURVEY MAY BE REPRODUCED, STORED IN	
SIP	- DENOTES SEWER INSPECTION POINT	WITHOUT THE WRITTEN PERMISSION OF THE COPYRIGHT	
GAS	- DENOTES GAS METER	OWNER EXCEPT AS PERMITTED BY THE COPYRIGHT ACT 1968.	
——— E ———	- DENOTES OVERHEAD ELEC. LINE	ANY PERMITTED DOWNLOADING, ELECTRONIC STORAGE,	
w	- DENOTES WATER MAIN (DBYD)	DISPLAY, PRINT, COPY OR REPRODUCTION OF THIS SURVEY	
s	- DENOTES SEWER LINE (DBYD)	ORIGINAL SURVEY.	
G	- DENOTES GAS LINE (DBYD)		GRASS
т	- DENOTES TELSTRA LINE	THIS NUTICE MUST NOT BE ERASED.	
EU - EU -	- DENOTES U/G ELEC. LINE (DBYD)		×
	- DENOTES TELEPHONE LINE		* CONC.
D	- DENOTES DRAINAGE LINE		*
<b>—</b> c <b>—</b> c <b>—</b> c <b>—</b> c <b>—</b> c	- DENOTES COMMUNICATIONS		allo a
L			N. 12 3 3 1 1
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			NV. NV. 53
			COAL
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			w w w h

LOTS 6, 7, 8, 9, 10, 14, 15, 24, 25, 26 & 27 BOUNDARY CORNERS							
	M.G.A. COORDINATES						
CORNER	CORNER EASTING NORTHING						
А	308708.103	6245611.961					
В	308776.985	6245617.303					
С	308780.058	6245613.973					
D	6245527.875						
E	308766.331	6245512.318					
F	308768.031	6245506.464					
G	308716.532	6245509.742					
Н	308725.630	6245535.944					
I	308700.419	6245553.693					
J	308699.077	6245559.062					
K	308702.526	6245567.799					
L	308705.445	6245581.200					
М	308705.733	6245595.217					
N	308704.739	6245608.031					

36 D.P. 36641 GRASS

ADJOINS SHEET 3

No.	DATE	NOTATION/AMENDMENT	No.	DATE	NOTATION/AME	NDMENT	CONTOUR INTERVAL: 0
1	DD/MM/YY	FINAL ISSUE					DATUM: A
							ORIGIN OF DATUM: S
							14.738 SCIMS
							100 YEAR FLOOD RL:
				FILE	FILE SIZE (MB)	CHECKED BY	RECOMMENDED MINIMU FLOOR RL:
							SOURCE OF FLOOD INFO

![](_page_70_Figure_6.jpeg)

![](_page_71_Figure_0.jpeg)

	ONLY VISIB SURVEY.	BLE SERVICES HAVE BEEN	LOCATED IN THIS
	SERVICE & LOCATED BY NOT HAVE B NEITHER EXC OUT TO CON SHOULD BE AUTHORITY E	UTILITIES SHOWN ON PLA PHYSICAL EVIDENCE ON S EEN OPENED TO VERIFY T AVATION NOR POTHOLING FIRM UNDERGROUND LOCA CONFIRMED WITH THE RELI DURING DESIGN & PRIOR T	N HAVE BEEN SITE. SOME PITS MAY HE TYPE OF UTILITY. HAVE BEEN CARRIED TION. SERVICE DETAILS EVANT SERVICE O ANY CONSTRUCTION.
	LOT DIMENT TITLE DIAGRA	SIONS AND SITE AREA AR	E TAKEN FROM THE
	ALL DIMENS CONSTRUCTION	SIONS MUST BE VERIFIED	ON SITE PRIOR TO ANY
	• THIS PLAN OF NSW LAN	HAS BEEN PREPARED FO D AND HOUSING CORP.	R THE EXCLUSIVE USE
	THE POSITI AND IS SHOW CLEARANCES CRITICAL ANI SURVEY MAY	ION OF SURVEYED DATA H MN TO TOPOGRAPHIC ACCI TO BOUNDARIES OR OTHI D DIMENSIONS ARE NOT S 7 BE REQUIRED.	IAS BEEN LOCATED JRACIES. IF ER FEATURES ARE HOWN FURTHER
	• BOUNDARIE SURVEY.	S HAVE BEEN DEFINED AS	S PART OF THIS
- DENOTES SPOT LEVEL	ANY CONS REQUIRE FUR BOUNDARIES	TRUCTION ON OR NEAR BO RTHER SURVEY IN ORDER CAN BE PLACED.	DUNDARIES WILL THAT MARKS DEFINING
- DENOTES TOP OF KERB LEVEL - DENOTES GUTTER FLOWLINE LEVEL	• BEARING A ONLY WITH E	ND DISTANCES OF BOUND BEARINGS RELATED TO M.G	ARIES ARE BY TITLE 3.A
- DENOTES LIP OF KERB - DENOTES FLOOR I FVFI	• IF ACCURA SURVEY WOU	TE TRUE NORTH IS REQUI	RED A FURTHER
- DENOTES VERANDAH FLOOR LEVEL	• COPYRIGHT 2017.	© DEGOTARDI SMITH & F	PARTNERS SURVEYORS
- DENOTES VEHICLE CROSSING - DENOTES TOP OF GUTTER - DENOTES TOP OF WALL	NO PART OF A RETRIEVAL WITHOUT THE OWNER EXCE	THIS SURVEY MAY BE RE SYSTEM OR TRANSMITTED WRITTEN PERMISSION OF PT AS PERMITTED BY THE	PRODUCED, STORED IN D IN ANY FORM, THE COPYRIGHT COPYRIGHT ACT 1968.
- DENOTES BOTTOM OF WALL - DENOTES ROOF/RIDGE - DENOTES VEHICLE CROSSING	ANY PERMITI DISPLAY, PRI SHOULD CON ORIGINAL SUI	TED DOWNLOADING, ELECTF INT, COPY OR REPRODUCT ITAIN NO ALTERATION OR RVEY.	RONIC STORAGE, ION OF THIS SURVEY ADDITION TO THE
- DENOTES GATE. - DENOTES WATER STOP VALVE	THIS NOTICE	MUST NOT BE ERASED.	
- DENOTES WATER METER - DENOTES WATER HYDRANT			
- DENOTES WATER TAP - DENOTES SINGLE TELSTRA PIT	LOTS 6,	7, 8, 9, 10, 14,	15, 24, 25, 26
- DENOTES TELSTRA TWIN CONC. PIT - DENOTES TELSTRA DISTRIB. PILLAR	& 27	BOUNDARY	CORNERS
- DENOTES DOWN PIPE - DENOTES GRATED DRAIN		M.G.A. COORDIN	NATES
- DENOTES DRAIN	CORNER	EASTING	NORTHING
- DENOTES POWER POLE	A	308708.103	6245611.961
- DENOTES BOUNDARY CORNER	В	308776.985	6245617.303
- DENOTES PHOTO LOCATION	С	308780.058	6245613.973
DENOTES SIGN	D	308766.486	6245527.875
- DENOTES SIGN		209766 221	6245512.318
- DENOTES SEWER MANHOLE	E	308700.331	
- DENOTES SIGN - DENOTES SEWER MANHOLE - DENOTES MAILBOX	E F	308768.031	6245506.464
- DENOTES SIGN - DENOTES SEWER MANHOLE - DENOTES MAILBOX - DENOTES LAMPHOLE - DENOTES SEWER INSPECTION POINT	E F G	308768.031 308716.532	6245506.464 6245509.742
- DENOTES SIGN - DENOTES SEWER MANHOLE - DENOTES MAILBOX - DENOTES LAMPHOLE - DENOTES SEWER INSPECTION POINT - DENOTES GAS METER	F G H	308768.031 308768.031 308716.532 308725.630	6245506.464 6245509.742 6245535.944
- DENOTES SIGN - DENOTES SEWER MANHOLE - DENOTES MAILBOX - DENOTES LAMPHOLE - DENOTES SEWER INSPECTION POINT - DENOTES GAS METER - DENOTES OVERHEAD ELEC. LINE - DENOTES WATER MAIN (DEVD)	F G H	308768.031 308716.532 308725.630 308700.419	6245506.464 6245509.742 6245535.944 6245553.693
DENOTES SIGN     DENOTES SEWER MANHOLE     DENOTES MAILBOX     DENOTES LAMPHOLE     DENOTES SEWER INSPECTION POINT     DENOTES GAS METER     DENOTES OVERHEAD ELEC. LINE     DENOTES WATER MAIN (DBYD)     DENOTES SEWER LINE (DBYD)	E F G H	308768.031 308768.031 308716.532 308725.630 308700.419 308699.077	6245506.464 6245509.742 6245535.944 6245553.693 6245559.062
DENOTES SIGN DENOTES SEWER MANHOLE DENOTES MAILBOX DENOTES LAMPHOLE DENOTES SEWER INSPECTION POINT DENOTES GAS METER DENOTES OVERHEAD ELEC. LINE DENOTES WATER MAIN (DBYD) DENOTES SEWER LINE (DBYD) DENOTES GAS LINE (DBYD)	Е F G H I J	308768.031 308768.031 308716.532 308725.630 308700.419 308699.077 308702.526	6245506.464 6245509.742 6245535.944 6245553.693 6245559.062 6245559.062
<ul> <li>DENOTES SIGN</li> <li>DENOTES SEWER MANHOLE</li> <li>DENOTES MAILBOX</li> <li>DENOTES LAMPHOLE</li> <li>DENOTES GAS METER</li> <li>DENOTES OVERHEAD ELEC. LINE</li> <li>DENOTES WATER MAIN (DBYD)</li> <li>DENOTES SEWER LINE (DBYD)</li> <li>DENOTES GAS LINE (DBYD)</li> <li>DENOTES TELSTRA LINE</li> <li>DENOTES W/G ELEC. LINE (DBYD)</li> </ul>	F G H I J K	308768.031 308768.031 308716.532 308725.630 308700.419 308699.077 308702.526 308705.445	6245506.464 6245509.742 6245535.944 6245553.693 6245559.062 6245567.799 6245581.200
<ul> <li>DENOTES SIGN</li> <li>DENOTES SEWER MANHOLE</li> <li>DENOTES MAILBOX</li> <li>DENOTES LAMPHOLE</li> <li>DENOTES SEWER INSPECTION POINT</li> <li>DENOTES OVERHEAD ELEC. LINE</li> <li>DENOTES WATER MAIN (DBYD)</li> <li>DENOTES SEWER LINE (DBYD)</li> <li>DENOTES GAS LINE (DBYD)</li> <li>DENOTES TELSTRA LINE</li> <li>DENOTES U/G ELEC. LINE (DBYD)</li> <li>DENOTES TELEPHONE LINE</li> </ul>	E F G H I J K L	308768.031 308768.031 308716.532 308725.630 308700.419 308699.077 308702.526 308705.445	6245506.464 6245509.742 6245535.944 6245553.693 6245559.062 6245567.799 6245581.200
<ul> <li>DENOTES SIGN</li> <li>DENOTES SEWER MANHOLE</li> <li>DENOTES MAILBOX</li> <li>DENOTES LAMPHOLE</li> <li>DENOTES SEWER INSPECTION POINT</li> <li>DENOTES GAS METER</li> <li>DENOTES OVERHEAD ELEC. LINE</li> <li>DENOTES WATER MAIN (DBYD)</li> <li>DENOTES SEWER LINE (DBYD)</li> <li>DENOTES GAS LINE (DBYD)</li> <li>DENOTES TELSTRA LINE</li> <li>DENOTES U/G ELEC. LINE (DBYD)</li> <li>DENOTES TELEPHONE LINE</li> <li>DENOTES DRAINAGE LINE</li> </ul>	E F G H I J K L M	308768.031 308768.031 308716.532 308725.630 308700.419 308699.077 308702.526 308705.445 308705.733	6245506.464           6245509.742           6245535.944           6245553.693           6245559.062           6245567.799           6245581.200           624559.217

<u>Notes:</u>

• TREE SIZES ARE ESTIMATES ONLY

• CONTOURS ARE INDICATIVE ONLY. CONTOUR INTERVAL 0.5m.

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N.24 GUC

ADJOINS SHEET 4

Family & Community Services	WARWICK FARM						
TAIL & LEVEL SURVEY	STREET ADDRESS 3-13 MANNIX PARADE, 2-6 HINKLER AVENUE & 2-4 MCGIRR PARADE	TYPE S					
-	SITE LAYOUT JOB	SHT. 2					
		OF 6					
	y W						
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No. DATE	NOTATION/AMENDMENT	No.	DATE	NOTATION/AME	NDMENT	CONTOUR INTER	RVAL: 0.5
1 DD/MM/YY	FINAL ISSUE					DATUM:	A.H
						ORIGIN OF DATU	JM: S.S
						14.738 S	CIMS
						100 YEAR FLOOI	D RL:
			FILE	FILE SIZE (MB)	CHECKED BY	RECOMMENDED	) MINIMUM
						SOURCE OF FLC	od info:

LOTS 6,	7, 8, 9, 10, 14,	15, 24, 25, 26			
& 27	BOUNDARY C	ORNERS			
M.G.A. COORDINATES					
CORNER	EASTING	NORTHING			
А	308708.103	6245611.961			
В	308776.985	6245617.303			
С	308780.058	6245613.973			
D	308766.486	6245527.875			
Е	308766.331	6245512.318			
F	308768.031	6245506.464			
G	308716.532	6245509.742			
Н	308725.630	6245535.944			
	308700.419	6245553.693			
J	308699.077	6245559.062			
K	308702.526	6245567.799			
L	308705.445	6245581.200			
М	308705.733	6245595.217			
N	308704.739	6245608.031			

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LOTS 6,	7, 8, 9, 10, 14,	15, 24, 25, 26		
& 27	BOUNDARY C	ORNERS		
	M.G.A. COORDIN	ATES		
CORNER	EASTING	NORTHING		
А	308708.103	6245611.961		
В	308776.985	6245617.303		
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I	308700.419	6245553.693		
J	308699.077	6245559.062		
K	308702.526	6245567.799		

<ul> <li>THE POSITION OF SURVEYED DATA HAS BEEN LOCATED AND IS SHOWN TO TOPOGRAPHIC ACCURACIES. IF CLEARANCES TO BOUNDARIES OR OTHER FEATURES ARE CRITICAL AND DIMENSIONS ARE NOT SHOWN FURTHER SURVEY MAY BE REQUIRED.</li> <li>BOUNDARIES HAVE BEEN DEFINED AS PART OF THIS SURVEY.</li> </ul>	
• ANY CONSTRUCTION ON OR NEAR BOUNDARIES WILL REQUIRE FURTHER SURVEY IN ORDER THAT MARKS DEFINING BOUNDARIES CAN BE PLACED.	PP O
• BEARING AND DISTANCES OF BOUNDARIES ARE BY TITLE ONLY WITH BEARINGS RELATED TO M.G.A	
• IF ACCURATE TRUE NORTH IS REQUIRED A FURTHER SURVEY WOULD BE NECESSARY.	
$\bullet$ COPYRIGHT © DEGOTARDI SMITH & PARTNERS SURVEYORS 2017.	SMH
NO PART OF THIS SURVEY MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM, WITHOUT THE WRITTEN PERMISSION OF THE COPYRIGHT OWNER EXCEPT AS PERMITTED BY THE COPYRIGHT ACT 1968.	LH () SIP (2) 645
ANY PERMITTED DOWNLOADING, ELECTRONIC STORAGE, DISPLAY, PRINT, COPY OR REPRODUCTION OF THIS SURVEY SHOULD CONTAIN NO ALTERATION OR ADDITION TO THE ORIGINAL SURVEY.	E W 
THIS NOTICE MUST NOT BE ERASED.	G T

LEGEND :	
+36.41	- DENOTES SPOT LEVEL
+36.41A	- DENOTES AWNING
+33.27TK	- DENOTES TOP OF KERB LEVEL
+30.12G	- DENOTES GUTTER FLOWLINE LEVEL
+30.17LIP	- DENOTES ELCOR LEVEL
+30.17VEL	- DENOTES VERANDAH FLOOR LEVEL
+37.76DFL	- DENOTES DECK FLOOR LEVEL
+33.15VC	- DENOTES VEHICLE CROSSING
+45.40GUT.	- DENOTES TOP OF GUTTER
+41.92TW	- DENOTES TOP OF WALL
+40.19BW	- DENOTES BOTTOM OF WALL
+49.15RR	- DENOTES ROOF/RIDGE
	- DENOTES GATE.
	- DENOTES WATER STOP VALVE
WM 🖸	- DENOTES WATER METER
HY	- DENOTES WATER HYDRANT
	- DENOTES WATER TAP
	- DENOTES SINGLE TELSTRA FIT
$\overline{\oplus}$	- DENOTES TELSTRA DISTRIB. PILLAR
DP•	- DENOTES DOWN PIPE
	- DENOTES GRATED DRAIN.
	- DENOTES DRAIN
	- DENOTES POWER POLE
A A	- DENOTES EIGHT FOLL
$\checkmark$	- DENOTES PHOTO LOCATION
	- DENOTES SIGN
	- DENOTES SEWER MANHOLE
	- DENOTES MAILBOX - DENOTES LAMPHOLE
SIP	- DENOTES SEWER INSPECTION POINT
GAS	- DENOTES GAS METER
E	- DENOTES OVERHEAD ELEC. LINE
w	- DENOTES WATER MAIN (DBYD)
s	- DENOTES SEWER LINE (DBYD)
G	- DENOTES GAS LINE (DBTD)
EU - EU -	- DENOTES U/G ELEC. LINE (DBYD)
- TEL - TEL -	- DENOTES TELEPHONE LINE
D	- DENOTES DRAINAGE LINE
	- DENOTES COMMUNICATIONS



GRASS

14.74.701P

ADJOINS SHEET 5



<u>Notes:</u>

• TREE SIZES ARE ESTIMATES ONLY

CONTOURS ARE INDICATIVE ONLY. CONTOUR INTERVAL
0.5m.

ONLY VISIBLE SERVICES HAVE BEEN LOCATED IN THIS SURVEY.

• SERVICE & UTILITIES SHOWN ON PLAN HAVE BEEN LOCATED BY PHYSICAL EVIDENCE ON SITE. SOME PITS MAY NOT HAVE BEEN OPENED TO VERIFY THE TYPE OF UTILITY. NEITHER EXCAVATION NOR POTHOLING HAVE BEEN CARRIED OUT TO CONFIRM UNDERGROUND LOCATION. SERVICE DETAILS SHOULD BE CONFIRMED WITH THE RELEVANT SERVICE AUTHORITY DURING DESIGN & PRIOR TO ANY CONSTRUCTION.

• LOT DIMENSIONS AND SITE AREA ARE TAKEN FROM THE TITLE DIAGRAM.

• ALL DIMENSIONS MUST BE VERIFIED ON SITE PRIOR TO ANY CONSTRUCTION.

• THIS PLAN HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF NSW LAND AND HOUSING CORP.

37 D.P. 36641

10, 3, 3, 6 · ·

13:10 K.

<u></u> PP 🗶

NA. CO

14.23

KIMALER

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**ADJOINS SHEET 1** 





# ADJOINS SHEET 2

<u>Notes:</u>

• TREE SIZES ARE ESTIMATES ONLY



DENOTES SPOT LEVEL DENOTES AWNING DENOTES TOP OF KERB LEVEL DENOTES GUTTER FLOWLINE LEVEL DENOTES LIP OF KERB DENOTES FLOOR LEVEL DENOTES VERANDAH FLOOR LEVEL DENOTES VERANDAH FLOOR LEVEL DENOTES DECK FLOOR LEVEL DENOTES DECK FLOOR LEVEL DENOTES TOP OF GUTTER DENOTES TOP OF GUTTER DENOTES TOP OF WALL DENOTES BOTTOM OF WALL DENOTES BOTTOM OF WALL DENOTES ROOF/RIDGE DENOTES WATER STOP VALVE DENOTES WATER STOP VALVE DENOTES WATER METER DENOTES WATER METER DENOTES WATER TAP DENOTES SINGLE TELSTRA PIT DENOTES TELSTRA TWIN CONC. PIT DENOTES TELSTRA DISTRIB. PILLAR DENOTES DOWN PIPE DENOTES DOWN PIPE	
DENOTES SIGN	
JENOTES SEWER MANHOLE	
DENOTES MAILBOX DENOTES LAMPHOLE DENOTES SEWER INSPECTION POINT DENOTES GAS METER DENOTES OVERHEAD ELEC. LINE DENOTES WATER MAIN (DBYD)	
DENOTES SEWER LINE (DBYD)	
DENOTES GAS LINE (DBTD)	
DENOTES U/G ELEC. LINE (DBYD)	

<ul> <li>CONTOURS ARE INDICATIVE ONLY. CONTOUR INTERVAL 0.5m.</li> </ul>
ONLY VISIBLE SERVICES HAVE BEEN LOCATED IN THIS SURVEY.
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LOTS 6, 7, 8, 9, 10, 14, 15, 24, 25, 26
& 27 BOUNDARY CORNERS
M.G.A. COORDINATES

CORNER	EASTING	NORTHING
А	308708.103	6245611.961
В	308776.985	6245617.303
С	308780.058	6245613.973
D	308766.486	6245527.875
Е	308766.331	6245512.318
F	308768.031	6245506.464
G	308716.532	6245509.742
Н	308725.630	6245535.944
Ι	308700.419	6245553.693
J	308699.077	6245559.062
К	308702.526	6245567.799
L	308705.445	6245581.200
М	308705.733	6245595.217
Ν	308704.739	6245608.031

# ADJOINS SHEET 6

Family & Community Services		ARWICK FAR	Μ	
DRAWING TITLE	STREET ADDRESS 3-13 MANNI 2-6 HINKLEF 2-4 MCGIRR	X PARADE, R AVENUE & PARADE		TYPE S
-	SITE	LAYOUT J	OB	SHT. 4
		/ /		OF 6



No.	DATE	NOTATION/AMENDMENT	No.	DATE	NOTATION/AME	NDMENT	CONTOUR INTERVAL: 0.5
1	DD/MM/YY	FINAL ISSUE					DATUM: A.
							ORIGIN OF DATUM: S.
							14.738 SCIMS
							100 YEAR FLOOD RL:
				FILE	FILE SIZE (MB)	CHECKED BY	RECOMMENDED MINIMUN
							SOURCE OF FLOOD INFO





- DENOTES SPOT LEVEL - DENOTES AWNING - DENOTES TOP OF KERB LEVEL - DENOTES GUTTER FLOWLINE LEVI - DENOTES LIP OF KERB - DENOTES FLOOR LEVEL	ΞL
<ul> <li>DENOTES VERANDAH FLOOR LEVE</li> <li>DENOTES DECK FLOOR LEVEL</li> <li>DENOTES VEHICLE CROSSING</li> <li>DENOTES TOP OF GUTTER</li> <li>DENOTES TOP OF WALL</li> <li>DENOTES BOTTOM OF WALL</li> <li>DENOTES ROOF/RIDGE</li> <li>DENOTES VEHICLE CROSSING</li> <li>DENOTES WATER STOP VALVE</li> <li>DENOTES WATER STOP VALVE</li> <li>DENOTES WATER METER</li> <li>DENOTES WATER HYDRANT</li> <li>DENOTES SINGLE TELSTRA PIT</li> <li>DENOTES TELSTRA DISTRIB. PILLA</li> <li>DENOTES DOWN PIPE</li> <li>DENOTES DRAIN</li> <li>DENOTES DRAIN</li> <li>DENOTES LIGHT POLE</li> <li>DENOTES BOUNDARY CORNER</li> <li>DENOTES PHOTO LOCATION</li> </ul>	IT R
<ul> <li>DENOTES SIGN</li> <li>DENOTES SEWER MANHOLE</li> <li>DENOTES MAILBOX</li> <li>DENOTES LAMPHOLE</li> <li>DENOTES SEWER INSPECTION PO</li> <li>DENOTES GAS METER</li> <li>DENOTES OVERHEAD ELEC. LINE</li> <li>DENOTES WATER MAIN (DBYD)</li> <li>DENOTES GAS LINE (DBYD)</li> <li>DENOTES TELSTRA LINE</li> </ul>	INT

• SERVICE & UTILITIES SHOWN ON PLAN HAVE BEEN LOCATED BY PHYSICAL EVIDENCE ON SITE. SOME PITS MAY NOT HAVE BEEN OPENED TO VERIFY THE TYPE OF UTILITY. NEITHER EXCAVATION NOR POTHOLING HAVE BEEN CARRIED OUT TO CONFIRM UNDERGROUND LOCATION. SERVICE DETAILS SHOULD BE CONFIRMED WITH THE RELEVANT SERVICE AUTHORITY DURING DESIGN & PRIOR TO ANY CONSTRUCTION.
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THIS NOTICE MUST NOT BE ERASED.
LOTS 6, 7, 8, 9, 10, 14, 15, 24, 25, 26
& 27 BOUNDARY CORNERS

	M.G.A. COORDIN	ATES
CORNER	EASTING	NORTHING
А	308708.103	6245611.961
В	308776.985	6245617.303
С	308780.058	6245613.973
D	308766.486	6245527.875
Е	308766.331	6245512.318
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I	308700.419	6245553.693
J	308699.077	6245559.062
K	308702.526	6245567.799
L	308705.445	6245581.200
М	308705.733	6245595.217
N	308704 739	6245608 031

Appendix C – Borehole Logs



EA LB 103GLB Log IS AUBOREHOLE 3 252074.E03 BOREHOLE LOGS.GPJ <</p>

# BOREHOLE: BH1M

<b>e</b>	Pia	BU	Stra s for Built E		Project Location Position I Job No. I Client	Addii 11-1: Refe E250 Faylo	tional S 3 Manr r to Fig 074.E03 or Cons	Site Ii nix Pa gure 2 3 struc	vestigation rade, Warwick Farm NSW ? Contractor HartGeo Pty L ion Group Pty Ltd Drill Rig Ute-Mounted I	td Drill R	ig		Sheet Date Started Date Completed Logged AS	1 OF 1 30/3/21 30/3/21 Date:30/3/21
									Inclination -90°				Checked	Date:
	7	Dril	ling		Sampling			2	Field Material Desc	riptic	on ∖		PIEZOMETER DE	TAILS
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBC	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE		<u>ID Sta</u> BH1M	tic Water Level	
			0	0.20			$\boxtimes$	-	FILL: Silty CLAY; medium plasticity, dark brown, with trace organic roots, no odour.	м	-			
			-	0.30				СІ	Silty CLAY; medium plasticity, dark orange, no odour.	м	-		- Б ССС ССС ССС ССС ССС ССС ССС ССС ССС С	Backfill
			- 1 -	1.60	BH1M_1.00-1.10 ES			СН	CLAY; high plasticity, grey-orange mottled red, no odour.	м	-		<b>4</b> − E	Bentonite
		30/03/21	2		BH1M_2.00-2.10 ES		× · · · · · · · · · · · · · · · · · · ·	SM	Silty SAND; fine to coarse grained sand, light orange-grey, no odour.					
AD/T	-	<b>Y</b>		2.60	BH1M_3.00-3.10 ES		× , × ,		From 2.6 m, with fine to medium ironstone gravels, no odour.	_ D	-			PVC 50 mm Casing
4			-	3.40				CI	Silty Sandy CLAY; medium plasticity, red-brown, with white-grey silt and sand, no odour.	+				
			4	4.50	BH1M_4.00-4.10 ES				From 4.5 m, red-orange, with orange silt and sand, no odour.					Sand PVC 50 mm Gcreen
			- 5 - -							D - M	-			
			6	6.20			× · · · · · · · · · · · · · · · · · · ·	4						
			- - 7						Borenole Terminated at 6.20 mBGL; Target Depth Reached.					
			- - - 8											
			- - 9											
			- - - -											

This borehole log should be read in conjunction with El Australia's accompanying standard notes.



# BOREHOLE: BH3M

1 OF 1

Sheet

Project	Additional Site Investigation
Location	11-13 Mannix Parade, Warwick Farm NSW
Position	Refer to Figure 2
Job No.	E25074.E03
Client	Taylor Construction Group Pty Ltd

Contractor -Drill Rig 2t Excavator Inclination -90°

		Dril	ling		Sampling				Field Material Desci	iptic	on	
МЕТНОП	PENETRATION	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USCS SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	PIEZOMETER DETAILS
			0	0.30				- CI	FILL: Silty CLAY; medium plasticity, dark brown, with trace organic roots, no odour.	м	-	
			-	0.70				s	Gravelly SAND; fine to coarse grained sand, orange, fine to medium gravels, sandstone, no odour.	м	-	Backfill
			1 — -		BH3M_1.00-1.10 ES		, O ,			D	-	
			-	1.60			, 0 , , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 ,	SM	Silty SAND; fine to coarse grained sand, light grey, no odour.			16621 1262
			-	2.60	BH3M_2.00-2.10 ES		× · · · ×					Bentonite
Ľ			- - 3—	2.00	BH3M 3 00-3 10 ES		× · · · × × · · ·		From 2.6 m, with ironstone banding, no odour.	D	-	uPVC 50 mm Casing
		121	-		2.1011_0.00 0.10 2.0		× · · · × · · · · ×					
CU-10-41 U2 C		1 30/03	4	3.80	BH3M_4.00-4.10 ES		×	s	Gravelly SAND; fine to coarse grained sand, dark brown-grey, fine to medium gravels, no odour.			
01-03 FIJ: EIA 1.0			-							D	-	Sand uPVC 50 mm Screen
D: EIN 1.03 20 14-			- 5 —	5.00			× 0.	СІ	Silty Sandy CLAY; medium plasticity, red-orange, with orange silt and sand, no odour.			
1 1001 - DOD   E			-							D- M	-	
			6—	6.10			×					
ע המואפו רמר			-						Borehole Terminated at 6.10 mBGL; Target Depth Reached.			
10-0-01			-	-								
14/2021			7—	-								
			-									
-vulawiilg			-									
, C-9-09/			8									
			-									
NOG COL			-									
5 E23014			9—									
			-									
anve fr			-									
.00.GLD L(			10 —	I	This borehol	e lo	i og shou	uld be	e read in conjunction with EI Australia's accompanying star	ndar	d not	es.

Appendix D – Laboratory Analytical Results

tos identification	asbesi		au	a.com	austral	b@eia	ults to: la	lory resi	ail labora	se e-ma	Plea	SGS	018 FORM v.4 -	COC March 2		n i Geotochnicai	Contamination   Remediatio
aments for TP2 & TP6	Note: Pic								TANT:	POR	MI	m.au	stralia.co	o@eiau	la	alla	elausti
are test the additioned	Nto ola	2.55	0	3/24	3510	Da		/2021	30/03	te	Da	EU08	516 0722	Ph: 9	_	)	
brahim@eiaustralia.com.au	Andrew.I		5	Ac	Inature	Sig	N	(,	452	nature	Sig	Street,	55 Miller	ite 6.01,	Su		0
: Linder, Xiao	Please cc:		٩	Sup		Pn	lidt	v Schrr	Andrey	nt	Pri					um	= glass vial, Tefton Sept = Zip-Lock Bag
omments:	Sampler's Co			SGS):	eived by (	Rec			ame (EI):	pler's N	San					ttle	natural HDPE plastic bo
ort with EI Waste Classification Table	Repo	e with	ccordanc	cted in a dures.	ere colle ng proce	mples w I sampli	these sa rd El fielo	est that standa	ator: I att	nvestig	_				led glass jar	sed, Tefton sea	tainer Type: solvent washed, acid rin: solvent washed, acid rin
	_	E	$\vdash$		$\vdash$	$\vdash$	-				X	1		4	212		- 04-0.5
				×	X	17				X	×				2×248	6	6-0.2-0.3
72											4				4		-0.4.0.5
				$\times$												(7i	5_01-0.2
	1822	SE2															0.4-0.5
	S Sydney	SGS EH		$\times$		+							-			4	4-0.1-0.2
TURNA																	10.4-0.5
PAH				$\times$												ω	3-0-1-0.7
TRH (F1, F2, BTEX											X				202		-0.5-0.0
Total Cyanic Metals (Al,				$\times$	×	FC IC				×	X				2×243)	þ	2_0.2.03
TDS / TDU Hardness											x				243		-0.6-0.7
Dewatering				×							×	5	021 er	30/03/2	A CHE	~	1-0.2.0.3
Chlo TC Nercury	sP(	Dev	рН	Ast	Ast	vo	HM	нм	HM OC	оті	SO	ne	T	Date	Type S So(?)	D	D
LP H	AS	water	/ CE0	pesto	pesto	Cs	^ /T	^ /T	^A /T P/OP	HER			ampling	S	Container	Laboratory	Sample
s A/ / PAH Nickel Zinc Arsenic Constraint	3	ing Suite	C (cation exch	s Quantificatio	5		RH/BTEX	RH/BTEX/PA	RH/BTEX/PAH /PCB/Asbesto					et, ; 94 0499	ia laddox Stre A NSW 201: 400 F: 02 85	SGS Austral Unit 16, 33 N ALEXANDRI P: 02 8594 0	oratory:
Arsenic Cadmium Chromium Copper Lead			ange)	n				ls	Hs os				325074		c Farm	e, Warich	-13 Mannix Pd
HM A			_			_	_				_	0:	Project N				
Comn		0	Analysi							Matrix	ample	G					et 1 of 7
									1			-					

heet Z of Z					Sa	imple I	Matrix								Analy	/sis						e		Comments
ite:			-	Project No:		-														_	ion	9 hot		HM A
1-13 Mannix Po	le, Warick	c Farm	н	25074				5	3						nge)	uctivity)				21 .1	635,66	sonate, Sul		Cadmium Chromium Copper
aboratory:	SGS Austral Unit 16, 33 N ALEXANDRI P: 02 8594 0-	ia laddox Stre A NSW 201 400 F: 02 85	et, 5 94 0499					RH/BTEX/PAH	RH/BTEX/PAH	RH/BTEX			1	Quantification	C (cation excha	electrical cond	ng Suite			-	lextwal	gehloride, Gu	/I A/ / PAH	Mercuny Nickel Zinc HM ^B Arsenic
Sample	Laboratory	Container	Sar	mpling	TER	L	IER		A /TR	A /TR	X	Cs	estos	estos	CEC	EC (	vateri	CAS	S	hates	h le	idin	P HN	Cadmium Chromium
D.	ō	Туре	Date	Time	WA	SOI	OTH	HM	НМ	НМ	BTE	VOC	Asb	Asb	pH /		Dew	sPC	PFA	Sulp	Co lu	inclu	TCL	Lead Mercury
87-0-2-0-3	7	CCB	30/03/20	21 Qu	د	×								Х										Nickel Dewatering Suite
-0.5-06		5	1																					pH & EC TDS / TDU Hardness
341-10-1.1	9p	G													×	×					×	×		Total Cyanide Metals (Al, As, Cd, Cr,
-20-2.1	٥														$\times$	×					$\times$	×		Cu, Pb, Hg, Ni, Zh) TRH (F1, F2, F3, F4) BTEX
-3.0-3.1	10													,	×	×					×	$\times$		РАН
-4.0-41	5			4											×	×					$\times$	×		LABORATORY
BH3M-10-1.1	12			29		-									$\times$	×	<b>_</b>				×	$\times$		V Standard
-2.0-2.1	13			-											×	$\times$					×	×		24 Hours
-3,0-3.)	ĩ														×	×					$\times$	$\times$		48 Hours
-4.0-4.1	5	£	Ł	Ę		E									$\times$	$\times$					×	×		72 Hours
200					+															_	_			Other
				-	$\vdash$	┢											-							
Sontainer Type: = solvent washed, acid rir = solvent washed, acid ri	ised, Tefton sea nsed glass botlle	led glass jar				=	Ivestiga	tor: I at	stand	at these lard El f	isampl field sa	es were mpling	e collec	ted in a ures.	accorda	ince wi	5		Report	with E	Waste	Classi	fication	1 Table
" = natural HDPE plastic bo	ottle					Sam	pler's Na	tme (EI)				Receiv	ed by (S	GS):				ample	r's Cor	nment	S			
LB = Zip-Lock Bag						Prii	74	Andre	ew Sch	midt		Print	(A	E.	٩			lease	ecc:	R	14.	(IZO	alia	han in and
		SL	lite 6.01, 5	5 Miller Str	eet,	Sig	nature	AS	p	Y.	bo	Signa	Mag	tx E	5	1		Andre	w.Ib	rahin	n@ei	austra	ilia.co	om.au
			Ph: 95	516 0722	U III	Da	ē	30/0	3/202			Date	5/03	12	0	2.2	7							
	an I Geolechnical	la	b@eiaus	tralia.com	.au	IMF	OR	ANT																
			COC March 201	18 FORM v.4 - SGS								ľ												



CLIENT DETAIL	S	LABORATORY DETA	AILS	
Contact	Andrew Schmidt	Manager	Huong Crawford	
Client	EIAUSTRALIA	Laboratory	SGS Alexandria Environmental	
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone	61 2 95160722 (Not specified)	Telephone	+61 2 8594 0400 +61 2 8594 0499	
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com	
Project	E25074 1-13 Mannix Pde, Warick Farm	Samples Received	Tue 30/3/2021	
Order Number	E25074	Report Due	Thu 8/4/2021	
Samples	17	SGS Reference	SE218221	

- SUBMISSION DETAILS

This is to confirm that 17 samples were received on Tuesday 30/3/2021. Results are expected to be ready by COB Thursday 8/4/2021. Please quote SGS reference SE218221 when making enquiries. Refer below for details relating to sample integrity upon receipt.

- Samples clearly labelled Sample container provider Samples received in correct containers Date documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested
- Yes SGS Yes 30/3/2021 Yes 12.7°C Standard

Complete documentation received Sample cooling method Sample counts by matrix Type of documentation received Samples received without headspace Sufficient sample for analysis Yes Ice Bricks 15 Soil, 2 Material COC Yes Yes

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS -

7 samples have been placed on hold as no tests have been assigned for them by the client. These samples will not be processed.

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SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

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#### - CLIENT DETAILS -

Client EI AUSTRALIA

Project E25074 1-13 Mannix Pde, Warick Farm

 SUMMARY	OF ANALYSIS									
No.	Sample ID	Alkalinity in Soil	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soil Texture (AS4419)	Soluble Anions (1:5) in Soil by Ion Chromatography	Total Recoverable Elements in Soil/Waste	
008	BH1M_1.0-1.1	4	1	13	1	1	1	2	4	
009	BH1M_2.0-2.1	4	1	13	1	1	1	2	4	
010	BH1M_3.0-3.1	4	1	13	1	1	1	2	4	
011	BH1M_4.0-4.1	4	1	13	1	1	1	2	4	
012	BH3M_1.0-1.1	4	1	13	1	1	1	2	4	
013	BH3M_2.0-2.1	4	1	13	1	1	1	2	4	
014	BH3M_3.0-3.1	4	1	13	1	1	1	2	4	
015	BH3M_4.0-4.1	4	1	13	1	1	1	2	4	

_ CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .



#### - CLIENT DETAILS -

Client EI AUSTRALIA

- SUMMARY OF ANALYSIS

		materials	ion in soil	ermination soil
No.	Sample ID	Fibre ID in bulk	Fibre Identificat	Gravimetric De of Asbestos in S
001	TP1_0.2-0.3	-	2	9
002	TP2_0.2-0.3	-	2	9
003	TP3_0.1-0.2	-	2	9
004	TP4_0.1-0.2	-	2	9
005	TP5_0.1-0.2	-	2	9
006	TP6_0.2-0.3	-	2	9
007	TP7_0.2-0.3	-	2	9
016	TP2_0.2-0.3 FCP	1	-	-
017	TP6_0.2-0.3 FCP	1	-	-

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .

31/03/2021

#### Project E25074 1-13 Mannix Pde, Warick Farm

	III.au	ciausu alia.co		iry results		doe e-III		.4 - SGS	COC March 2018 FORM v			
Envirolab (COC attatetes			F		TANT:	POR	Ā	com.au	o@eiaustralia.	lat	tion   Geotechnical	
-Please found au at	1:30	late Level L			/ ul r	ate (	D	22	Ph: 9516 07	-	)	
Put aw-arel on hod		Signature		le	C	gnature A-S	<u>\</u>	er Street,	te 6.01, 55 Mille	Sui		
Please cc: Linda.Xiao and Andre	VSAUGT	Print MICHNELBO		midf	Sch	ndreu	A P				ptum	VC = glass vial, Tefton Se ZLB = Zip-Lock Bag
Sampler's Comments:		Received by (SGS):	-		ame (El):	mpler's N	Sar				ottle	P = natural HDPE plastic b
Report with El Waste Classification T	n accordance with	s were collected ir pling procedures.	se sample: I field sam	st that thes standard E	ator: I atte	Investig				ed glass jar	insed, Tefton seal	Container Type: J = solvent washed, acid ri S = solvent washed, acid r
				-			1	3	1/4/21	, P, 2xuc	96	aw-orl
18294	SEX		X			-		f	4	4	2	GW_QTS1
s Svdnev COC			×					ie,	Lab Repar	-Cr	0	LW_ ATBI
								t	¢		2B	aw-orbi
			/	×							S	LW-BRI
				×				~		,P,ZxUC	4 5	(W_QV)
	Ł	1		<				3	0	f	$\sim$	CM-BH3M-1
								5	-	_	N	aw-BH24-1
×	×	×		×				1	1/12/	2+10	~	GW-BHIM-1
SPC PFA Sulp Chlo Solu Chlo	pH / pH / Dew	VO( Asb Asb	вте	нм	HM OCI	OTH	SOI	Time	Date	Туре	D	D
rides	CEC EC (	estos estos	X	^ /ТГ ^ /ТГ	^a /TF P/OP	- IER			Sampling	Container	Laboratory	Sample
e & suif	c (cation exchated a control of the	Ruantification	0 0 0	RH/BTEX/PAH	RH/BTEX/PAH /PCB/Asbesto				st, 94 0499	a addox Stree A NSW 2015 00 F: 02 859	SGS Australi Unit 16, 33 M ALEXANDRI P: 02 8594 04	_aboratory:
(including ate)	ange) ductivity)			ls	ls s			14	ELSO	with Fa	x Pde, U	site: 11-13 Merni
-	Analysis	_		-		Matrix	ample	(0)				Sheet <u></u> of \

SGS Ref. SE2



CLIENT DETAIL	S	LABORATORY DETA	AILS	
Contact	Andrew Schmidt	Manager	Huong Crawford	
Client	EIAUSTRALIA	Laboratory	SGS Alexandria Environmental	
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015	
Telephone	61 2 95160722	Telephone	+61 2 8594 0400	
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499	
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com	
Project	E25074 11-13 Manrix Pde, Warick Farm	Samples Received	Thu 1/4/2021	
Order Number	E25074	Report Due	Thu 8/4/2021	
Samples	7	SGS Reference	SE218294	

SUBMISSION DETAILS

This is to confirm that 7 samples were received on Thursday 1/4/2021. Results are expected to be ready by COB Thursday 8/4/2021. Please quote SGS reference SE218294 when making enquiries. Refer below for details relating to sample integrity upon receipt.

- Samples clearly labelled Sample container provider Samples received in correct containers Date documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested
- Yes SGS Yes 1/4/2021 Yes 15.0°C Three Days

Complete documentation received Sample cooling method Sample counts by matrix Type of documentation received Samples received without headspace Sufficient sample for analysis

Yes Ice Bricks 7 Water COC Yes Yes

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS -

1 sample has been placed on hold as no tests have been assigned for it. This sample will not be processed.

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#### - CLIENT DETAILS -

Client EI AUSTRALIA

Project E25074 11-13 Manrix Pde, Warick Farm

 SUMMARY	OF ANALYSIS									
No.	Sample ID	Anions by Ion Chromatography in Water	Conductivity and TDS by Calculation - Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	pH in water	Total Phenolics in Water	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water	
001	GW_BH1M-1	2	1	22	1	1	9	78	7	
002	GW_BH2M-1	2	1	22	1	1	9	78	7	
003	GW_BH3M-1	2	1	22	1	1	9	78	7	
004	GW_QD1	-	-	-	-	-	9	11	7	
005	GW_QR1	-	-	-	-	-	9	11	7	
006	GW_QTB1	-	-	-	-	-	-	11	-	
007	GW_QTS1	-	-	-	-	-	-	11	-	

_ CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .



#### - CLIENT DETAILS -

Client EI AUSTRALIA

- SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS
001	GW_BH1M-1	1	7
002	GW_BH2M-1	1	7
003	GW_BH3M-1	1	7
004	GW_QD1	1	7
005	GW_QR1	1	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document. The numbers shown in the table indicate the number of results requested in each package. Please indicate as soon as possible should your request differ from these details . Testing as per this table shall commence immediately unless the client intervenes with a correction .

1/04/2021

#### Project E25074 11-13 Manrix Pde, Warick Farm



## **ANALYTICAL REPORT**





- CLIENT DETAILS		LABORATORY DE	LABORATORY DETAILS					
Contact Client Address	Andrew Schmidt EI AUSTRALIA SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Manager Laboratory Address	Huong Crawford SGS Alexandria Environmental Unit 16, 33 Maddox St Alexandria NSW 2015					
Telephone	61 2 95160722	Telephone	+61 2 8594 0400					
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499					
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com					
Project	<b>E25074 1-13 Mannix Pde, Warick Farm</b>	SGS Reference	<b>SE218221 R0</b>					
Order Number	E25074	Date Received	30/3/2021					
Samples	17	Date Reported	8/4/2021					

#### COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Sample #4: Asbestos found in approx 5x3x2mm cement sheet fragment in >2mm portion. Sample #6: Asbestos found in approx 6x4x2mm cement sheet fragments in >2mm portion.

Asbestos analysed by Approved Identifiers Ravee Sivasubramaniam and Yusuf Kuthpudin .

SIGNATORIES

Dong LIANG Metals/Inorganics Team Leader

S. Ravender.

Ravee SIVASUBRAMANIAM Hygiene Team Leader

'Uno

Huong CRAWFORD Production Manager

en

Shane MCDERMOTT Inorganic/Metals Chemist

Kamrul AHSAN Senior Chemist

SGS Australia Pty Ltd ABN 44 000 964 278 Environment, Health and Safety

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### Soluble Anions (1:5) in Soil by Ion Chromatography [AN245] Tested: 1/4/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
Chloride	mg/kg	0.25	49	150	330	840	8.7
Sulfate	mg/kg	5	220	140	70	150	91

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
Chloride	mg/kg	0.25	25	54	210
Sulfate	mg/kg	5	56	61	110



### SE218221 R0

### pH in soil (1:5) [AN101] Tested: 1/4/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
pH	pH Units	0.1	4.7	5.4	5.3	5.2	5.3

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
pН	pH Units	0.1	5.5	5.5	5.2



### SE218221 R0

### Conductivity and TDS by Calculation - Soil [AN106] Tested: 1/4/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
Conductivity of Extract (1:5 dry sample basis)	μS/cm	1	170	200	290	630	60

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	57	88	220



### Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 6/4/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
Exchangeable Sodium, Na	mg/kg	2	690	990	1200	1100	230
Exchangeable Sodium, Na	meq/100g	0.01	3.0	4.3	5.2	4.9	1.0
Exchangeable Sodium Percentage*	%	0.1	23.3	35.9	37.0	46.1	25.0
Exchangeable Potassium, K	mg/kg	2	120	190	220	170	150
Exchangeable Potassium, K	meq/100g	0.01	0.30	0.48	0.55	0.43	0.39
Exchangeable Potassium Percentage*	%	0.1	2.3	4.0	3.9	4.0	9.9
Exchangeable Calcium, Ca	mg/kg	2	190	87	160	17	49
Exchangeable Calcium, Ca	meq/100g	0.01	0.95	0.43	0.82	0.08	0.24
Exchangeable Calcium Percentage*	%	0.1	7.3	3.6	5.8	0.8	6.1
Exchangeable Magnesium, Mg	mg/kg	2	1100	830	920	640	290
Exchangeable Magnesium, Mg	meq/100g	0.02	8.7	6.8	7.5	5.2	2.4
Exchangeable Magnesium Percentage*	%	0.1	67.1	56.5	53.3	49.1	59.1
Cation Exchange Capacity	meq/100g	0.02	13	12	14	11	4.0

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			-	-	-
	11014		50/5/2021	50/5/2021	50/5/2021
PARAMETER	UOM	LUK	SE216221.013	SE210221.014	SE216221.015
Exchangeable Sodium, Na	mg/kg	2	770	790	780
Exchangeable Sodium, Na	meq/100g	0.01	3.3	3.5	3.4
Exchangeable Sodium Percentage*	%	0.1	37.4	39.2	43.4
Exchangeable Potassium, K	mg/kg	2	190	200	180
Exchangeable Potassium, K	meq/100g	0.01	0.48	0.51	0.47
Exchangeable Potassium Percentage*	%	0.1	5.4	5.7	6.0
Exchangeable Calcium, Ca	mg/kg	2	18	6	21
Exchangeable Calcium, Ca	meq/100g	0.01	0.09	0.03	0.11
Exchangeable Calcium Percentage*	%	0.1	1.0	0.3	1.4
Exchangeable Magnesium, Mg	mg/kg	2	610	590	470
Exchangeable Magnesium, Mg	meq/100g	0.02	5.0	4.8	3.8
Exchangeable Magnesium Percentage*	%	0.1	56.2	54.8	49.3
Cation Exchange Capacity	meq/100g	0.02	8.9	8.8	7.8



### SE218221 R0

### Alkalinity in Soil [AN002/AN135] Tested: 1/4/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
Bicarbonate Alkalinity as HCO3 in Soil*	mg/kg	25	130	260	86	83	67
Carbonate Alkalinity as CO3 in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Hydroxide Alkalinity as OH in Soil*	mg/kg	25	<25	<25	<25	<25	<25
Total Alkalinity as CaCO3 in Soil*	mg/kg	25	100	210	70	68	55

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
Bicarbonate Alkalinity as HCO3 in Soil*	mg/kg	25	76	210	72
Carbonate Alkalinity as CO3 in Soil*	mg/kg	25	<25	<25	<25
Hydroxide Alkalinity as OH in Soil*	mg/kg	25	<25	<25	<25
Total Alkalinity as CaCO3 in Soil*	mg/kg	25	62	170	59



### SE218221 R0

### Soil Texture (AS4419) [AN051] Tested: 1/4/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
Texture Classification*	No unit	1	Medium Clay	Sandy Clay	Sandy Clay	Sandy Clay	Clay Loam

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
Texture Classification*	No unit	1	Clay Loam	Clay Loam	Clay Loam



### **ANALYTICAL RESULTS**

### SE218221 R0

### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 31/3/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
				0.011	00"	00"	00"
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
Calcium, Ca	mg/kg	5	190	270	9	16	55
Magnesium, Mg	mg/kg	10	1100	900	1100	730	420
Potassium, K	mg/kg	10	120	240	320	290	430
Sodium, Na	mg/kg	10	700	1000	1500	1200	300

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
Calcium, Ca	mg/kg	5	8	8	30
Magnesium, Mg	mg/kg	10	690	580	580
Potassium, K	mg/kg	10	330	380	530
Sodium, Na	mg/kg	10	790	770	860



### SE218221 R0

### Moisture Content [AN002] Tested: 31/3/2021

			BH1M_1.0-1.1	BH1M_2.0-2.1	BH1M_3.0-3.1	BH1M_4.0-4.1	BH3M_1.0-1.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.008	SE218221.009	SE218221.010	SE218221.011	SE218221.012
% Moisture	%w/w	1	19.4	12.3	12.7	12.0	6.6

			BH3M_2.0-2.1	BH3M_3.0-3.1	BH3M_4.0-4.1
			SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.013	SE218221.014	SE218221.015
% Moisture	%w/w	1	12.7	12.2	11.6



### SE218221 R0

#### Fibre Identification in soil [AN602] Tested: 7/4/2021

			TP1_0.2-0.3	TP2_0.2-0.3	TP3_0.1-0.2	TP4_0.1-0.2	TP5_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.001	SE218221.002	SE218221.003	SE218221.004	SE218221.005
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

			TP6_0.2-0.3	TP7_0.2-0.3
			SOIL	SOIL
			30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.006	SE218221.007
Asbestos Detected	No unit	-	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01



### Gravimetric Determination of Asbestos in Soil [AN605] Tested: 7/4/2021

			TP1_0.2-0.3	TP2_0.2-0.3	TP3_0.1-0.2	TP4_0.1-0.2	TP5_0.1-0.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			30/3/2021	30/3/2021	30/3/2021	30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.001	SE218221.002	SE218221.003	SE218221.004	SE218221.005
Total Sample Weight*	g	1	852	954	805	677	879
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	0.0488	<0.00001
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil ( >7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	0.007	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	0.007	<0.001
Fibre Type*	No unit	-	NAD	NAD	NAD	Chrysotile, Amosite	NAD

			TP6_0.2-0.3	TP7_0.2-0.3
DADAMETED	UOM		SOIL - 30/3/2021 SE218221 006	SOIL - 30/3/2021 SE218221.007
Total Sample Weight*	g	1	774	831
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	0.0324	<0.00001
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001
Asbestos in soil ( >7mm ACM)*	%w/w	0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	0.004	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	0.004	<0.001
Fibre Type*	No unit	-	Chrysotile	NAD



### Fibre ID in bulk materials [AN602] Tested: 7/4/2021

			TP2_0.2-0.3 FCP	TP6_0.2-0.3 FCP
			MATERIAL	MATERIAL
			30/3/2021	30/3/2021
PARAMETER	UOM	LOR	SE218221.016	SE218221.017
Asbestos Detected	No unit	-	Yes	Yes



METHOD	METHODOLOGY SUMMARY
AN002/AN135	Alkalinity (and forms of) by Titration: The sample is extracted 1to 5 in deionised water and the extract titrated with standard acid to pH 8.3 (P titre) and pH 4.5 (T titre) and permanent and/or total alkalinity calculated. The results are expressed as equivalents of calcium carbonate or recalculated as bicarbonate, carbonate and hydroxide. Reference APHA 2320. Internal Reference AN135
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN051	A small sample of soil is kneaded with water and then pressed out into a ribbon. The behaviour of this ribbon is used to classify the soil into one of the texture classes in AS 4419.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN106	Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as $\mu$ mhos/cm or $\mu$ S/cm @ 25°C. For soils, an extract of as received sample with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.
AN122	Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meq/100g.
AN122	The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100. ESP can be used to categorise the sodicity of the soil as below :
	ESP < 6%non-sodicESP 6-15%sodicESP >15%strongly sodic
	Method is referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1
AN245	Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO2, NO3 and SO4 are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-
	<ul> <li>(a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres):</li> <li>(b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and</li> <li>(c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.</li> </ul>



### METHOD SUMMARY

AN605	This technique gravimetrically determines the mass of Bonded Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight. Any fibrous asbestos (FA) found in this fraction will be added to the 2-7mm fraction and its mass recorded there.
AN605	This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free/respirable fibres which are only observed by standard trace analysis as per AN602.
AN605	Bonded asbestos containing material (Bonded ACM) comprises asbestos-containing-material which is sound in condition. Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. Asbestos fines (AF) includes free fibres, small fibre bundles and also small fragments of bonded ACM that passes through a 7mm sieve - which implies that the bonded ACM fragments have a substantial degree of damage which increases the potential for fibre release.
AN-605	Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009 and NEPM 1999 (2013) schedule B1 section 4

#### FOOTNOTES -

*	NATA accreditation does not cover	-	Not analysed.	UOM	Unit of Measure.
	the performance of this service.	NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding	IS	Insufficient sample for analysis.	¢↓	Raised/lowered Limit of
	time exceeded.	LNR	Sample listed, but not received.		Reporting.
***	Indicates that both * and ** apply.		•		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <u>www.sgs.com.au/en-gb/environment-health-and-safety</u>.

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# STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAI	ILS
Contact	Andrew Schmidt	Manager	Huong Crawford
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone Facsimile Email	61 2 95160722 (Not specified) andrew.schmidt@eiaustralia.com.au	Telephone Facsimile Email	+61 2 8594 0400 +61 2 8594 0499 au.environmental.sydney@sgs.com
Project Order Number Samples	<b>E25074 1-13 Mannix Pde, Warick Farm</b> E25074 17	SGS Reference Date Received Date Reported	<b>SE218221 R0</b> 30 Mar 2021 08 Apr 2021

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Analysis DateMoisture Content8 itemsDuplicateAlkalinity in Soil1 item

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	15 Soil, 2 Material
Date documentation received	30/3/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	12.7°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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8/4/2021

### HOLDING TIME SUMMARY

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Alkalinity in Soil							Method: ME-(AU	)-[ENV]AN002/AN135
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH1M 2.0-2.1	SE218221.009	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH1M 3.0-3.1	SE218221.010	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH1M 4.0-4.1	SE218221.011	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH3M 1.0-1.1	SE218221.012	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH3M 2.0-2.1	SE218221.013	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH3M 3.0-3.1	SE218221.014	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
BH3M 4.0-4.1	SE218221.015	LB221879	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	15 Apr 2021	06 Apr 2021
Conductivity and TDR by Colouis	ation Coll						Mothodul	
Conductivity and TDS by Calcula	auon - 301						Meurioa. I	ME-(AO)-[ENV]ANTOO
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH1M_2.0-2.1	SE218221.009	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH1M_3.0-3.1	SE218221.010	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH1M_4.0-4.1	SE218221.011	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH3M_1.0-1.1	SE218221.012	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH3M_2.0-2.1	SE218221.013	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH3M_3.0-3.1	SE218221.014	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
BH3M_4.0-4.1	SE218221.015	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	06 Apr 2021	06 Apr 2021
Exchangeable Cations and Cation	on Exchange Capacity	y (CEC/ESP/SAR)					Method: I	ME-(AU)-[ENV]AN122
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH1M_2.0-2.1	SE218221.009	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH1M_3.0-3.1	SE218221.010	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH1M_4.0-4.1	SE218221.011	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH3M_1.0-1.1	SE218221.012	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH3M_2.0-2.1	SE218221.013	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH3M_3.0-3.1	SE218221.014	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
BH3M 4.0-4.1	SE218221.015	LB221928	30 Mar 2021	30 Mar 2021	27 Apr 2021	06 Apr 2021	27 Apr 2021	07 Apr 2021
				00 100 2021	2170021	007.01	21 / 40/ 2021	
Fibre ID in bulk materials				00 111 2021	2171012021	007.012021	Method: I	
Fibre ID in bulk materials	Openale No.	00 5-6	O smalled	Dessioned		Estrated	Method: I	ME-(AU)-[ENV]AN602
Fibre ID in bulk materials Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Method: I Analysis Due	ME-(AU)-[ENV]AN602 Analysed
Fibre ID in bulk materials Sample Name TP2_0.2-0.3 FCP	Sample No. SE218221.016	QC Ref LB222056	Sampled 30 Mar 2021	Received 30 Mar 2021	Extraction Due 30 Mar 2022	Extracted 07 Apr 2021	Method: I Analysis Due 30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021
Fibre ID In bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP	Sample No. SE218221.016 SE218221.017	QC Ref LB222056 LB222056	Sampled 30 Mar 2021 30 Mar 2021	Received 30 Mar 2021 30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022	Extracted 07 Apr 2021 07 Apr 2021	Method: I Analysis Due 30 Mar 2022 30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials Sample Name TP2_0.2-0.3 FCP TP6_0.2-0.3 FCP Fibre Identification in soil	Sample No. SE218221.016 SE218221.017	QC Ref LB222056 LB222056	Sampled 30 Mar 2021 30 Mar 2021	Received 30 Mar 2021 30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022	Extracted 07 Apr 2021 07 Apr 2021	Method: I Analysis Due 30 Mar 2022 30 Mar 2022 Method: I	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602
Fibre ID in bulk materials Sample Name TP2_0.2-0.3 FCP TP6_0.2-0.3 FCP Fibre Identification in soil Sample Name	Sample No. SE218221.016 SE218221.017 Sample No.	QC Ref LB222056 LB222056 QC Ref	Sampled 30 Mar 2021 30 Mar 2021 Sampled	Received 30 Mar 2021 30 Mar 2021 Received	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due	Extracted 07 Apr 2021 07 Apr 2021 Extracted	Method: I Analysis Due 30 Mar 2022 30 Mar 2022 Method: I Analysis Due	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed
Fibre ID in bulk materials Sample Name TP2_0.2-0.3 FCP TP6_0.2-0.3 FCP Fibre Identification in soil Sample Name TP1_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001	QC Ref LB222056 LB222056 QC Ref LB222057	Sampled 30 Mar 2021 30 Mar 2021 Sampled 30 Mar 2021	Received 30 Mar 2021 30 Mar 2021 Received 30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022	Extracted 07 Apr 2021 07 Apr 2021 Extracted 07 Apr 2021	Method: I Analysis Due 30 Mar 2022 30 Mar 2022 Method: I Analysis Due 30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021
Fibre ID in bulk materials Sample Name TP2_0.2-0.3 FCP TP6_0.2-0.3 FCP Fibre Identification in soil Sample Name TP1_0.2-0.3 TP2_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057	Sampled 30 Mar 2021 30 Mar 2021 Sampled 30 Mar 2021 30 Mar 2021	Received 30 Mar 2021 30 Mar 2021 Received 30 Mar 2021 30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted 07 Apr 2021 07 Apr 2021 Extracted 07 Apr 2021 07 Apr 2021	Method: I Analysis Due 30 Mar 2022 30 Mar 2022 Method: I Analysis Due 30 Mar 2022 30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057	Sampled 30 Mar 2021 30 Mar 2021 Sampled 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021	Received 30 Mar 2021 30 Mar 2021 Received 30 Mar 2021 30 Mar 2021 30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022	Extracted 07 Apr 2021 07 Apr 2021 Extracted 07 Apr 2021 07 Apr 2021 07 Apr 2021 07 Apr 2021	Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057	Sampled 30 Mar 2021 30 Mar 2021 Sampled 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.005	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled 30 Mar 2021 30 Mar 2021 Sampled 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Method: I           Method: I           30 Mar 2022           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021
Fibre ID In bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP6_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.006	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled 30 Mar 2021 30 Mar 2021 Sampled 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021 30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Method: I           Method: I           30 Mar 2022           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP6_0.2-0.3           TP6_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received 30 Mar 2021 30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Analysis Due           30 Mar 2022           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021 08 Apr 2021
Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP5_0.2-0.3           TP4_0.2-0.3           TP4_0.2-0.3           TP4_0.2-0.3           TP7_0.2-0.3           TP7_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.006 SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Erryp Edet           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 208
Fibre ID In bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.007 Destos In Soil	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021           07 Apr 2021           07 Apr 2021           Extracted           07 Apr 2021	Erryp Edet           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 200 08 Apr 2021 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TD1_0.0.2	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.005           SE218221.006           SE218221.007           bestos in Soil           Sample No.	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           Method: I           Analysis Due           26 Ser 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID In bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification In soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP1_0.2-0.3	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.005           SE218221.006           SE218221.007           bestos in Soil           Sample No.           SE218221.001	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           20 Method: I           26 Sep 2021           26 Sep 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN605 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.007 Destos in Soil Sample No. SE218221.001 SE218221.002	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 20	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP6_0.2-0.3           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.006 SE218221.007 Destos in Soll Sample No. SE218221.001 SE218221.003 SE218221.003	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           30 Mar 202	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP6_0.2-0.3           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.006 SE218221.007 Destos in Soll Sample No. SE218221.001 SE218221.003 SE218221.004 SE218221.004	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           20 Method: I           26 Sep 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP5_0.1-0.2           TP5_0.2-0.3	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.006 SE218221.006 SE218221.007 bestos in Soll Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.005 SE218221.005 SE218221.005	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022 26 Sep 2021 26 Sep 2021 27 Sep 2021	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           20 Method: I           26 Sep 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP6_0.2-0.3           TP2_0.2-0.3	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.005           SE218221.006           SE218221.006           SE218221.007           bestos in Soll           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.005           SE218221.006           SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 30 Mar 2022 Extraction Due 30 Mar 2022 30 Mar 2022 26 Sep 2021 26 Sep 2021 27 Sep 2021	Extracted           07 Apr 2021	Erryp Edel           Method: I           Analysis Due           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           20 Method: I           26 Sep 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP5_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP2_0.2-0.3	Sample No.           SE218221.016           SE218221.017           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.005           SE218221.006           SE218221.007           bestos in Soll           Sample No.           SE218221.001           SE218221.002           SE218221.003           SE218221.004           SE218221.003           SE218221.004           SE218221.005           SE218221.006           SE218221.006           SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due           30 Mar 2022           26 Sep 2021           26 S	Extracted           07 Apr 2021	Erryp Edel           Method: I           30 Mar 2022           26 Sep 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Moisture Content	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.004 SE218221.005 SE218221.006 SE218221.007 SE218221.001 SE218221.001 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due           30 Mar 2022           20 Sep 2021           26 S	Extracted           07 Apr 2021	Errigit Ref.           Method: I           30 Mar 2022           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           26 Sep 2021           26 Sep 20	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 202
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP4_0.2-0.3           TP7_0.2-0.3           Moisture Content           Sample Name	Sample No. SE218221.016 SE218221.017 SE218221.001 SE218221.002 SE218221.002 SE218221.003 SE218221.005 SE218221.005 SE218221.006 SE218221.007 SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.004 SE218221.005 SE218221.006 SE218221.007 SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due           30 Mar 2022           26 Sep 2021           26 S	Extracted           07 Apr 2021	Errigit Recti           Method: I           Method: I           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           26 Sep 2021           26 Sep 202	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 202
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP5_0.1-0.2           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP7_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.2-0.3           TP4_0.2-0.3           TP4_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Moisture Content           Sample Name           BH1M_1.0-1.1	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.006 SE218221.006 SE218221.007 Sestos in Soil Sample No. SE218221.004 SE218221.004 SE218221.005 SE218221.006 SE218221.006 SE218221.007 Sample No. SE218221.007	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021           30 Mar 2021	Extraction Due           30 Mar 2022           20 Mar 2022           20 Mar 2022           30 Mar 2022           20 Mar 2022           30 Mar 2022           30 Mar 2022           20 Mar 2022           30 Mar 2022           20 Sep 2021           26 S	Extracted           07 Apr 2021	Errigit Recti           Method: I           Method: I           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           26 Sep 2021           26 Sep 202	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021
Fibre ID in bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.2-0.3           TP4_0.2-0.3           TP4_0.2-0.3           TP4_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.2-0.3           TP4_0.2-0.3           TP4_0.2-0.3           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.2-0.3           TP7_0.2-0.3           Moisture Content           Sample Name           BH1M_1.0-1.1           BH1M_2.0-2.1	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.004 SE218221.006 SE218221.006 SE218221.007 Setate State	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 20 Sep 2021 26 Sep 2021 27 Sep 2021 28 Sep 2021 29 Sep 2021 20	Extracted           07 Apr 2021	Errigit Social           Method: I           Method: I           30 Mar 2022           26 Sep 2021           26 Sep 2	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021
Fibre ID In bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification in soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.2-0.3           TP4_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Moisture Content           Sample Name           BH1M_1.0-1.1           BH1M_3.0-3.1	Sample No. SE218221.016 SE218221.017 Sample No. SE218221.001 SE218221.002 SE218221.003 SE218221.003 SE218221.006 SE218221.006 SE218221.007 SE218221.007 SE218221.003 SE218221.003 SE218221.004 SE218221.005 SE218221.006 SE218221.006 SE218221.007 SAmple No. SE218221.007 SAmple No. SE218221.008 SE218221.009 SE218221.009 SE218221.009	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021	Received           30 Mar 2021	Extraction Due 30 Mar 2022 30 Mar 2022 20 Mar 2022 20 Sep 2021 26 Sep 2021 27 Sep 2021 28 Sep 2021 29 Sep 2021 20	Extracted           07 Apr 2021	Errigit Coll           Method: I           Method: I           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           26 Sep 2021	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021
Fibre ID In bulk materials           Sample Name           TP2_0.2-0.3 FCP           TP6_0.2-0.3 FCP           Fibre Identification In soil           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP3_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Gravimetric Determination of Ast           Sample Name           TP1_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP2_0.2-0.3           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP4_0.1-0.2           TP5_0.1-0.2           TP6_0.2-0.3           TP7_0.2-0.3           Moisture Content           Sample Name           BH1M_1.0-1.1           BH1M_2.0-2.1           BH1M_3.0-3.1           BH1M_4.0-4.1	Sample No. SE218221.016 SE218221.017 SE218221.017 SE218221.001 SE218221.002 SE218221.003 SE218221.003 SE218221.006 SE218221.006 SE218221.007 SE218221.007 SE218221.003 SE218221.004 SE218221.004 SE218221.006 SE218221.006 SE218221.007 SE218221.007 SE218221.008 SE218221.009 SE218221.010 SE218221.010	QC Ref LB222056 LB222056 QC Ref LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057 LB222057	Sampled           30 Mar 2021           30 Mar 2021	Received           30 Mar 2021           30 Mar 2021	Extraction Due 30 Mar 2022 26 Sep 2021 27 26 Sep 2021 27 27 28 Sep 2021 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	Extracted           07 Apr 2021           07 Apr 2021	Errigitzet           Method: I           Method: I           30 Mar 2022           30 Mar 2022           Method: I           Analysis Due           30 Mar 2022           26 Sep 2021           26 Sep 2021 </td <td>ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021</td>	ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 08 Apr 2021 ME-(AU)-[ENV]AN602 Analysed 08 Apr 2021 08 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021 06 Apr 2021



### HOLDING TIME SUMMARY

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued)							Method:	ME-(AU)-[ENV]AN002
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3M_2.0-2.1	SE218221.013	LB221844	30 Mar 2021	30 Mar 2021	13 Apr 2021	31 Mar 2021	05 Apr 2021	06 Apr 2021†
BH3M_3.0-3.1	SE218221.014	LB221844	30 Mar 2021	30 Mar 2021	13 Apr 2021	31 Mar 2021	05 Apr 2021	06 Apr 2021†
BH3M_4.0-4.1	SE218221.015	LB221844	30 Mar 2021	30 Mar 2021	13 Apr 2021	31 Mar 2021	05 Apr 2021	06 Apr 2021†
pH in soil (1:5)							Method:	ME-(AU)-[ENV]AN101
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH1M_2.0-2.1	SE218221.009	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH1M_3.0-3.1	SE218221.010	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH1M_4.0-4.1	SE218221.011	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH3M_1.0-1.1	SE218221.012	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH3M_2.0-2.1	SE218221.013	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH3M_3.0-3.1	SE218221.014	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
BH3M_4.0-4.1	SE218221.015	LB221872	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
Soil Texture (AS4419)							Method:	ME-(AU)-[ENV]AN051
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH1M_2.0-2.1	SE218221.009	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH1M_3.0-3.1	SE218221.010	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH1M_4.0-4.1	SE218221.011	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH3M_1.0-1.1	SE218221.012	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH3M_2.0-2.1	SE218221.013	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH3M_3.0-3.1	SE218221.014	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
BH3M_4.0-4.1	SE218221.015	LB221864	30 Mar 2021	30 Mar 2021	26 Sep 2021	01 Apr 2021	26 Sep 2021	01 Apr 2021
Soluble Anions (1:5) in Soil t	oy Ion Chromatography						Method:	ME-(AU)-[ENV]AN245
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH1M_2.0-2.1	SE218221.009	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH1M_3.0-3.1	SE218221.010	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH1M_4.0-4.1	SE218221.011	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH3M_1.0-1.1	SE218221.012	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH3M_2.0-2.1	SE218221.013	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH3M_3.0-3.1	SE218221.014	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
BH3M_4.0-4.1	SE218221.015	LB221873	30 Mar 2021	30 Mar 2021	06 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021
Total Recoverable Elements	in Soil/Waste Solids/Mat	terials by ICPOES					Method: ME-(AL	J)-[ENV]AN040/AN320
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1M_1.0-1.1	SE218221.008	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH1M_2.0-2.1	SE218221.009	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH1M_3.0-3.1	SE218221.010	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH1M_4.0-4.1	SE218221.011	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH3M_1.0-1.1	SE218221.012	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH3M_2.0-2.1	SE218221.013	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH3M_3.0-3.1	SE218221.014	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021
BH3M_4.0-4.1	SE218221.015	LB221822	30 Mar 2021	30 Mar 2021	26 Sep 2021	31 Mar 2021	26 Sep 2021	06 Apr 2021



### **SURROGATES**

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.



## **METHOD BLANKS**

### SE218221 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

Alkalinity in Soil			Method: ME-	(AU)-[ENV]AN002/AN135
Sample Number	Parameter	Units	LOR	Result
LB221879.001	Total Alkalinity as CaCO3 in Soil*	mg/kg	25	<25

#### Conductivity and TDS by Calculation - Soil

Conductivity and TDS by Calculation - Soil N				
Parameter	Units	LOR	Result	
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.17	
	Parameter Conductivity of Extract (1:5 dry sample basis)	Parameter         Units           Conductivity of Extract (1:5 dry sample basis)         μS/cm	Parameter         Units         LOR           Conductivity of Extract (1:5 dry sample basis)         µS/cm         1	

Exchangeable Cations and Cation Exchangeable	ange Capacity (CEC/ESP/SAR)		Metho	od: ME-(AU)-[ENV]AN122
Sample Number	Parameter	Units	LOR	Result
LB221928.001	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0
Soluble Anions (1:5) in Soil by Ion Chro	matography		Metho	od: ME-(AU)-[ENV]AN245
Sample Number	Parameter	Units	LOR	Result
LB221873.001	Chloride	mg/kg	0.25	<0.25
	Sulfate	mg/kg	5	<5.0

Total Recoverable Elements in Soll/Waste Solids/Materials by ICPOES			Method: ME-	(AU)-[ENV]AN040/AN320
Sample Number	Parameter	Units	LOR	Result
LB221822.001	Calcium, Ca	mg/kg	5	<5
	Potassium, K	mg/kg	10	<10
	Magnesium, Mg	mg/kg	10	<10
	Sodium, Na	mg/kg	10	<10


### **DUPLICATES**

Method: ME-(AU)-[ENV]AN002

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD =  $100 \times SDL$  / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may give a different calculated RPD.

Alkalinity in Soil		Method: ME	-(AU)-[ENV]AI	N002/AN135				
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218221.015	LB221879.012	Total Alkalinity as CaCO3 in Soil*	mg/kg	25	59	130	41	78 ②

#### Moisture Content

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218217.002	LB221844.011	% Moisture	%w/w	1	7.8	7.8	43	0
SE218217.012	LB221844.022	% Moisture	%w/w	1	7.5	6.7	44	10
SE218218.006	LB221844.032	% Moisture	%w/w	1	6.9	6.4	45	7
pH in soil (1:5)						Meth	od: ME-(AU)-	[ENV]AN101
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218221.012	LB221872.014	На	pH Units	0.1	5.3	5.3	32	1

#### Soluble Anions (1:5) in Soil by Ion Chromatography

Soluble Anions (1:5) in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN								
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218221.012	LB221873.013	Chloride	mg/kg	0.25	8.7	8.9	33	3
		Sulfate	mg/kg	5	91	84	36	7

Total Recoverable	otal Recoverable Elements in Soll/Waste Solids/Materials by ICPOES							N040/AN320
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218221.015	LB221822.024	Calcium, Ca	mg/kg	5	30	35	45	17
		Potassium, K	mg/kg	10	530	540	32	2
		Magnesium, Mg	mg/kg	10	580	590	32	0
		Sodium, Na	mg/kg	10	860	850	31	1



# LABORATORY CONTROL SAMPLES

Method: ME-(AU)-[ENV]AN245

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

Alkalinity in Soil					Method:	ME-(AU)-[EN\	/JAN002/AN135
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB221879.002	Total Alkalinity as CaCO3 in Soil*	mg/kg	25	320	297.5	80 - 120	107

#### Conductivity and TDS by Calculation - Soil

Conductivity and TDS by Calculation - S			N	lethod: ME-(A	U)- <mark>[ENV]AN106</mark>		
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB221872.002	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	100

Exchangeable Cations and Cat	angeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)				Method: ME-(AU)-[E						
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %				
LB221928.002	Exchangeable Sodium, Na	meq/100g	0.01	0.21	0.194	80 - 120	108				
	Exchangeable Potassium, K	meq/100g	0.01	0.62	0.63	80 - 120	98				
	Exchangeable Calcium, Ca	meq/100g	0.01	6.5	6.3	80 - 120	103				
	Exchangeable Magnesium, Mg	meq/100g	0.02	1.1	1.11	80 - 120	98				
pH in soil (1:5)					N	lethod: ME-(A	U)-[ENV]AN101				
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %				
LB221872.003	pH	pH Units	0.1	7.4	7.415	98 - 102	99				

#### Soluble Anions (1:5) in Soil by Ion Chromatography

Sample Number	Parameter	Uni	ts LO	R Resul	Expected	Criteria %	Recovery %
LB221873.002	Chloride	mg/kg	0.25	96	100	70 - 130	96
	Sulfate	mg/kg	5	96	100	70 - 130	96

#### Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: ME-(AU)-[ENV]AN040/AN320 Sample Number Parameter Expected Criteria % Recovery % Units LOR Result LB221822.002 80 - 120 Calcium, Ca mg/kg 5 9800 10367 94 Potassium, K mg/kg 10 1400 1348 80 - 120 106 Magnesium, Mg 10000 10422 80 - 120 97 mg/kg 10 Sodium, Na mg/kg 10 890 756 80 - 120 118



# **MATRIX SPIKES**

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

QC Sample Sample Number Parameter Units LOR



Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- 6 LOR was raised due to sample matrix interference.
- O LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- [®] LOR was raised due to high conductivity of the sample (required dilution).
- t Refer to relevant report comments for further information.

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# **ANALYTICAL REPORT**





- CLIENT DETAILS		LABORATORY DE	TAILS	
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Project Order Number Samples	E25074 11-13 Manrix Pde, Warick Farm E25074 7	SGS Reference Date Received Date Reported	<b>SE218294 R0</b> 1/4/2021 8/4/2021	

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

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# SE218294 R0

### VOCs in Water [AN433] Tested: 7/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1	GW_QD1	GW_QR1
			WATER	WATER	WATER	WATER	WATER
			-	-	-	-	-
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003	SE218294.004	SE218294.005
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	<5	-	-
Chloromethane	µg/L	5	<5	<5	<5	-	-
Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	<0.3	-	-
Bromomethane	µg/L	10	<10	<10	<10	-	-
Chloroethane	µg/L	5	<5	<5	<5	-	-
Trichlorofluoromethane	µg/L	1	<1	<1	<1	-	-
Acetone (2-propanone)	µg/L	10	<10	<10	<10	-	-
lodomethane	µg/L	5	<5	<5	<5	-	-
1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Acrylonitrile	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	<5	-	-
Allyl chloride	µg/L	2	<2	<2	<2	-	-
Carbon disulfide	µg/L	2	<2	<2	<2	-	-
trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	<2	-	-
1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Vinyl acetate	µg/L	10	<10	<10	<10	-	-
MEK (2-butanone)	µg/L	10	<10	<10	<10	-	-
cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Bromochloromethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Chloroform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Dibromomethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
2-nitropropane	µg/L	100	<100	<100	<100	-	-
Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	<5	-	-
cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
2-hexanone (MBK)	µg/L	5	<5	<5	<5	-	-
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Chlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Bromoform (THM)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	-	-
Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2,3-trichloropropane	μg/L	0.5	<0.5	<0.5	<0.5	-	-
trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1	-	-
1				1			·



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### VOCs in Water [AN433] Tested: 7/4/2021 (continued)

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1	GW_QD1	GW_QR1
				WATER	WATER		MATER
			-	-	-	-	-
			1/4/2021	1/4/2021	1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003	SE218294.004	SE218294.005
Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Bromobenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
n-propylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
2-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
4-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
tert-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
sec-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	<0.3	-	-
p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	1.8	-	-
1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
n-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5	-	-
Total VOC	µg/L	10	<10	<10	<10	-	-



## SE218294 R0

### VOCs in Water [AN433] Tested: 7/4/2021 (continued)

			GW_QTB1	GW_QTS1
			WATER	WATER
			- 1/4/2021	- 1/4/2021
PARAMETER	UOM	LOR	SE218294.006	SE218294.007
Benzene	µg/L	0.5	<0.5	[101%]
Toluene	µg/L	0.5	<0.5	[102%]
Ethylbenzene	µg/L	0.5	<0.5	[101%]
m/p-xylene	µg/L	1	<1	[100%]
o-xylene	µg/L	0.5	<0.5	[101%]
Total Xylenes	µg/L	1.5	<1.5	-
Total BTEX	µg/L	3	<3	-
Naphthalene	µg/L	0.5	<0.5	-
Dichlorodifluoromethane (CFC-12)	µg/L	5	-	-
Chloromethane	µg/L	5	-	-
Vinyl chloride (Chloroethene)	µg/L	0.3	-	-
Bromomethane	µg/L	10	-	-
Chloroethane	µg/L	5	-	-
Trichlorofluoromethane	µg/L	1	-	-
Acetone (2-propanone)	µg/L	10	-	-
Iodomethane	µg/L	5	-	-
1,1-dichloroethene	µg/L	0.5	-	-
Acrylonitrile	µg/L	0.5	-	-
Dichloromethane (Methylene chloride)	µg/L	5	-	-
Allyl chloride	µg/L	2	-	-
Carbon disulfide	µg/L	2	-	-
trans-1,2-dichloroethene	µg/L	0.5	-	-
MtBE (Methyl-tert-butyl ether)	µg/L	2	-	-
1,1-dichloroethane	µg/L	0.5	-	-
Vinyl acetate	µg/L	10	-	-
MEK (2-butanone)	µg/L	10	-	-
cis-1,2-dichloroethene	µg/L	0.5	-	-
	µg/L	0.5	-	-
	µg/L	0.5	-	-
2,2-dichioropropane	µg/L	0.5	-	-
	µg/L	0.5	-	-
	µg/L	0.5	-	-
1,1-dichioropropene	µg/L	0.5	-	-
	µg/L	0.5	-	-
	µg/L	0.5	-	-
Tricklesethers (Tricklesethulans TCE)	µg/L	0.5	-	-
	µg/L	100	-	-
	µg/L	0.5	-	-
MIRK (4 method 2 postocopo)	µg/L	0.5	-	-
cis 1 3 dichloropropene	µg/L	0.5	-	-
trans-1 3-dichloronronene	µg/L	0.5		
1 1 2-trichloroethane	µg/L	0.5		
1 3 dichloropropage	µg/L	0.5		
Dibromochloromethane (THM)	ug/L	0.5		
2-bevanone (MBK)	µg/L	5		
1 2-dibromoethane (EDB)	P9/⊏ Un/l	0.5		
Tetrachloroethene (Perchloroethylene PCE)	19/5 Un/l	0.5	_	
1.1.1.2-tetrachloroethane	ua/L	0.5	-	
Chlorobenzene	μα/L	0.5	-	
Bromoform (THM)	μα/L	0.5		_
cis-1,4-dichloro-2-butene	μα/L	1	-	
Styrene (Vinyl benzene)	μg/L	0.5	-	_
1,1,2,2-tetrachloroethane	µg/L	0.5	-	
1,2,3-trichloropropane	µg/L	0.5	-	-
trans-1,4-dichloro-2-butene	μg/L	1	_	-



### VOCs in Water [AN433] Tested: 7/4/2021 (continued)

			GW_QTB1	GW_QTS1
			WATER	
			-	-
			1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.006	SE218294.007
Isopropylbenzene (Cumene)	µg/L	0.5	-	-
Bromobenzene	µg/L	0.5	-	-
n-propylbenzene	µg/L	0.5	-	-
2-chlorotoluene	µg/L	0.5	-	-
4-chlorotoluene	µg/L	0.5	-	-
1,3,5-trimethylbenzene	µg/L	0.5	-	-
tert-butylbenzene	µg/L	0.5	-	-
1,2,4-trimethylbenzene	µg/L	0.5	-	-
sec-butylbenzene	µg/L	0.5	-	-
1,3-dichlorobenzene	µg/L	0.5	-	-
1,4-dichlorobenzene	µg/L	0.3	-	-
p-isopropyltoluene	µg/L	0.5	-	-
1,2-dichlorobenzene	μg/L	0.5	-	-
n-butylbenzene	µg/L	0.5	-	-
1,2-dibromo-3-chloropropane	µg/L	0.5	-	-
1,2,4-trichlorobenzene	µg/L	0.5	-	-
Hexachlorobutadiene	µg/L	0.5	-	-
1,2,3-trichlorobenzene	µg/L	0.5	-	-
Total VOC	µg/L	10	-	-



# SE218294 R0

### Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 7/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1	GW_QD1	GW_QR1
			WATER	WATER	WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003	SE218294.004	SE218294.005
TRH C6-C9	µg/L	40	<40	<40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50	<50	<50



# SE218294 R0

### TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 6/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1	GW_QD1	GW_QR1
			WATER	WATER	WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003	SE218294.004	SE218294.005
TRH C10-C14	µg/L	50	<50	<50	770	<50	<50
TRH C15-C28	µg/L	200	<200	<200	400	<200	<200
TRH C29-C36	µg/L	200	<200	<200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	800	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	800	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500	<500	<500
TRH C10-C40	µg/L	320	<320	<320	1200	<320	<320



### PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 6/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1
			WATER		
			-	WAIER -	-
			1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003
Naphthalene	µg/L	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	μg/L	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<1	<1	<1



### Total Phenolics in Water [AN289] Tested: 6/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1
			WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003
Total Phenols	mg/L	0.01	0.03	<0.01	0.01



### Anions by Ion Chromatography in Water [AN245] Tested: 6/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1
			WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003
Chloride	mg/L	0.05	13000	8000	6800
Sulfate, SO4	mg/L	1	820	540	850



### pH in water [AN101] Tested: 1/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1
			WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003
pH**	No unit	-	4.9	5.7	5.2



### Conductivity and TDS by Calculation - Water [AN106] Tested: 1/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1
			WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003
Conductivity @ 25 C	µS/cm	2	41000	20000	18000



### Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 6/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1	GW_QD1	GW_QR1
			WATER	WATER	WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003	SE218294.004	SE218294.005
Arsenic, As	µg/L	1	3	<1	7	<1	<1
Cadmium, Cd	µg/L	0.1	0.5	0.5	0.6	0.5	<0.1
Chromium, Cr	µg/L	1	2	<1	1	<1	<1
Copper, Cu	µg/L	1	24	12	18	3	<1
Lead, Pb	µg/L	1	3	<1	1	<1	<1
Nickel, Ni	μg/L	1	170	81	360	78	<1
Zinc, Zn	µg/L	5	2700	4800	2100	4900	<5



# SE218294 R0

### Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 6/4/2021

			GW_BH1M-1	GW_BH2M-1	GW_BH3M-1	GW_QD1	GW_QR1
			WATER	WATER	WATER	WATER	WATER
			1/4/2021	1/4/2021	1/4/2021	1/4/2021	1/4/2021
PARAMETER	UOM	LOR	SE218294.001	SE218294.002	SE218294.003	SE218294.004	SE218294.005
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001



METHOD	METHODOLOGY SUMMARY
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN106	Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as $\mu$ mhos/cm or $\mu$ S/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Total Dissolved Salts can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. SGS use 0.6. Reference APHA 2510 B.
AN106	Salinity may be calculated in terms of NaCl from the sample conductivity. This assumes all soluble salts present, measured by the conductivity, are present as NaCl.
AN245	Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO2, NO3 and SO4 are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B
AN289	Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.
AN403	Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoveerable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.



#### FOOTNOTES -

*	NATA accreditation does not cover
	the performance of this service.
**	Indicative data, theoretical holding
	time exceeded.

*** Indicates that both * and ** apply.

Not analysed.
 NVL Not validated.
 IS Insufficient sample for analysis.
 LNR Sample listed, but not received.

UOM Unit of Measure. LOR Limit of Reporting. ↑↓ Raised/lowered Limit of Reporting.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: <u>www.sgs.com.au/en-gb/environment-health-and-safety</u>.

This document is issued by the Company under its General Conditions of Service accessible at <u>www.sqs.com/en/Terms-and-Conditions.aspx</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

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# STATEMENT OF QA/QC PERFORMANCE

CLIENT DETAILS		LABORATORY DETAIL	LS
Contact	Andrew Schmidt	Manager	Huong Crawford
Client	EI AUSTRALIA	Laboratory	SGS Alexandria Environmental
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	61 2 95160722	Telephone	+61 2 8594 0400
Facsimile	(Not specified)	Facsimile	+61 2 8594 0499
Email	andrew.schmidt@eiaustralia.com.au	Email	au.environmental.sydney@sgs.com
Project	E25074 11-13 Manrix Pde, Warick Farm	SGS Reference	SE218294 R0
Order Number	E25074	Date Received	01 Apr 2021
Samples	7	Date Reported	08 Apr 2021

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document. This QA/QC Statement must be read in conjunction with the referenced Analytical Report. The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

Samples clearly labelled Yes Complete documentation received Yes SGS Ice Bricks Sample container provider Sample cooling method Samples received in correct containers Sample counts by matrix 7 Water Yes 1/4/2021 Type of documentation received COC Date documentation received Samples received in good order Yes Samples received without headspace Yes Sample temperature upon receipt 15.0°C Sufficient sample for analysis Yes Turnaround time requested Three Days

SGS Australia Pty Ltd ABN 44 000 964 278

SAMPLE SUMMARY

Environment, Health and Safety

Unit 16 33 Maddox St Alexandria NSW 2015 PO Box 6432 Bourke Rd BC Alexandria NSW 2015 t +61 2 8594 0400 f +61 2 8594 0499

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# HOLDING TIME SUMMARY

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Anions by Ion Chromatography	y in Water						Method: N	IE-(AU)-[ENV]AN245
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW_BH1M-1	SE218294.001	LB221923	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW_BH2M-1	SE218294.002	LB221923	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW_BH3M-1	SE218294.003	LB221923	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
Conductivity and TDS by Calc	ulation - Water						Method: N	/E-(AU)-[ENV]AN106
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW BH1M-1	SE218294.001	LB221904	01 Apr 2021	01 Apr 2021	29 Apr 2021	01 Apr 2021	29 Apr 2021	01 Apr 2021
GW BH2M-1	SE218294.002	LB221904	01 Apr 2021	01 Apr 2021	29 Apr 2021	01 Apr 2021	29 Apr 2021	01 Apr 2021
GW_BH3M-1	SE218294.003	LB221904	01 Apr 2021	01 Apr 2021	29 Apr 2021	01 Apr 2021	29 Apr 2021	01 Apr 2021
Mercury (dissolved) in Water							Method: ME-(AU)-[ENV]	AN311(Perth)/AN312
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW BH1M-1	SE218294.001	LB221924	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW BH2M-1	SE218294.002	LB221924	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW BH3M-1	SE218294.003	LB221924	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW OD1	SE218294.004	LB221924	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW QR1	SE218294.005	LB221924	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
PAH (Polynuclear Aromatic Hy	/drocarbons) in Water		•	· · · ·			Method: N	E-(AU)-IENVIAN420
Samplo Namo	Sample No	OC Pof	Sampled	Pacaivad	Extraction Duo	Extracted	Analysis Duo	Analysod
GW BH1M-1	SE218294 001	L B221021	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW BH2M-1	SE218294.001	I B221021	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_BH3M-1	SE218294.002	LB221921	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_DD1	SE218294.004	LB221021	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_QB1	SE218294.005	LB221021	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
nH in water	02210201.000		0174712021	0174712021	0074712021	0074012021	Method: N	4E-(ALI)-IENVIAN101
Sample Name	Sample No	OC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Duo	Analysed
	SE218204 001	L R221004	01 Apr 2021	01 Apr 2021	02 Apr 2021	O1 Apr 2021	Analysis Due	Anaryseu
CW_BH2M 1	SE218294.001	LB221904	01 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
GW_BH3M-1	SE218294.002	LB221904	01 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021	02 Apr 2021	01 Apr 2021
Total Bhanalias in Water	32210234.003	LD221304	01 Apr 2021	01 Api 2021	02 Api 202 i	01 Apr 2021	Vetbodi	
Total Phenolics III water							Method. N	
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW_BH1M-1	SE218294.001	LB221922	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW_BH2M-1	SE218294.002	LB221922	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
GW_BH3M-1	SE218294.003	LB221922	01 Apr 2021	01 Apr 2021	29 Apr 2021	06 Apr 2021	29 Apr 2021	06 Apr 2021
Trace Metals (Dissolved) in Wa	ater by ICPMS						Method: N	/IE-(AU)-[ENV]AN318
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW_BH1M-1	SE218294.001	LB221959	01 Apr 2021	01 Apr 2021	28 Sep 2021	06 Apr 2021	28 Sep 2021	07 Apr 2021
GW_BH2M-1	SE218294.002	LB221959	01 Apr 2021	01 Apr 2021	28 Sep 2021	06 Apr 2021	28 Sep 2021	07 Apr 2021
GW_BH3M-1	SE218294.003	LB221959	01 Apr 2021	01 Apr 2021	28 Sep 2021	06 Apr 2021	28 Sep 2021	07 Apr 2021
GW_QD1	SE218294.004	LB221959	01 Apr 2021	01 Apr 2021	28 Sep 2021	06 Apr 2021	28 Sep 2021	07 Apr 2021
GW_QR1	SE218294.005	LB221959	01 Apr 2021	01 Apr 2021	28 Sep 2021	06 Apr 2021	28 Sep 2021	07 Apr 2021
TRH (Total Recoverable Hydro	ocarbons) in Water						Method: N	/IE-(AU)-[ENV]AN403
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW_BH1M-1	SE218294.001	LB221921	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_BH2M-1	SE218294.002	LB221921	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_BH3M-1	SE218294.003	LB221921	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_QD1	SE218294.004	LB221921	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
GW_QR1	SE218294.005	LB221921	01 Apr 2021	01 Apr 2021	08 Apr 2021	06 Apr 2021	16 May 2021	08 Apr 2021
VOCs in Water							Method: M	/E-(AU)-[ENV]AN433
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW_BH1M-1	SE218294.001	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_BH2M-1	SE218294.002	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_BH3M-1	SE218294.003	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QD1	SE218294.004	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QR1	SE218294.005	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QTB1	SE218294.006	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QTS1	SE218294.007	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021



# HOLDING TIME SUMMARY

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Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Volatile Petroleum Hydrocarbons in Water						Method: N	/IE-(AU)-[ENV]AN433	
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
GW_BH1M-1	SE218294.001	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_BH2M-1	SE218294.002	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_BH3M-1	SE218294.003	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QD1	SE218294.004	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QR1	SE218294.005	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QTB1	SE218294.006	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021
GW_QTS1	SE218294.007	LB222070	01 Apr 2021	01 Apr 2021	08 Apr 2021	07 Apr 2021	17 May 2021	08 Apr 2021



### **SURROGATES**

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water

#### Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %	
2-fluorobiphenyl (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	50	
	GW_BH2M-1	SE218294.002	%	40 - 130%	44	
	GW_BH3M-1	SE218294.003	%	40 - 130%	51	
d14-p-terphenyl (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	92	
	GW_BH2M-1	SE218294.002	%	40 - 130%	84	
	GW_BH3M-1	SE218294.003	%	40 - 130%	89	
d5-nitrobenzene (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	40	
	GW_BH2M-1	SE218294.002	%	40 - 130%	42	
	GW_BH3M-1	SE218294.003	%	40 - 130%	42	
/OCs in Water Method: ME-(AU)-[ENV]AN433						

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	103
	GW_BH2M-1	SE218294.002	%	40 - 130%	101
	GW_BH3M-1	SE218294.003	%	40 - 130%	102
	GW_QD1	SE218294.004	%	40 - 130%	101
	GW_QR1	SE218294.005	%	40 - 130%	100
	GW_QTB1	SE218294.006	%	40 - 130%	99
	GW_QTS1	SE218294.007	%	40 - 130%	101
d4-1,2-dichloroethane (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	102
	GW_BH2M-1	SE218294.002	%	40 - 130%	103
	GW_BH3M-1	SE218294.003	%	40 - 130%	103
	GW_QD1	SE218294.004	%	40 - 130%	103
	GW_QR1	SE218294.005	%	40 - 130%	100
	GW_QTB1	SE218294.006	%	40 - 130%	99
	GW_QTS1	SE218294.007	%	40 - 130%	102
d8-toluene (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	98
	GW_BH2M-1	SE218294.002	%	40 - 130%	97
	GW_BH3M-1	SE218294.003	%	40 - 130%	97
	GW_QD1	SE218294.004	%	40 - 130%	97
	GW_QR1	SE218294.005	%	40 - 130%	98
	GW_QTB1	SE218294.006	%	40 - 130%	97
	GW QTS1	SE218294.007	%	40 - 130%	100

#### Volatile Petroleum Hydrocarbons in Water

Volatile Petroleum Hydrocarbons in Water					E-(AU)-[ENV]AN433
Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	103
	GW_BH2M-1	SE218294.002	%	40 - 130%	101
	GW_BH3M-1	SE218294.003	%	40 - 130%	102
	GW_QD1	SE218294.004	%	40 - 130%	101
	GW_QR1	SE218294.005	%	40 - 130%	100
d4-1,2-dichloroethane (Surrogate)	GW_BH1M-1	SE218294.001	%	60 - 130%	102
	GW_BH2M-1	SE218294.002	%	60 - 130%	103
	GW_BH3M-1	SE218294.003	%	60 - 130%	103
	GW_QD1	SE218294.004	%	60 - 130%	103
	GW_QR1	SE218294.005	%	60 - 130%	100
d8-toluene (Surrogate)	GW_BH1M-1	SE218294.001	%	40 - 130%	98
	GW_BH2M-1	SE218294.002	%	40 - 130%	97
	GW_BH3M-1	SE218294.003	%	40 - 130%	97
	GW_QD1	SE218294.004	%	40 - 130%	97
	GW_QR1	SE218294.005	%	40 - 130%	98



# **METHOD BLANKS**

### SE218294 R0

Method: ME-(AU)-[ENV]AN420

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

Anions by Ion Chromatography in Water			Meth	od: ME-(AU)-[ENV]AN245
Sample Number	Parameter	Units	LOR	Result
LB221923.001	Chloride	mg/L	0.05	<0.05
	Sulfate, SO4	mg/L	1	<1.0

#### Conductivity and TDS by Calculation - Water

Conductivity and TDS by Calculation - Water			Metho	od: ME-(AU)-[ENV]AN106
Sample Number	Parameter	Units	LOR	Result
LB221904.001	Conductivity @ 25 C	μS/cm	2	<2

#### Mercury (dissolved) in Water

Mercury (dissolved) in Water			Method: ME-(AU)-[E	NVJAN311(Perth)/AN312
Sample Number	Parameter	Units	LOR	Result
LB221924.001	Mercury	mg/L	0.0001	<0.0001

#### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Sample Number		Parameter	Units	LOR	Result
LB221921.001		Naphthalene	μg/L	0.1	<0.1
		2-methylnaphthalene	µg/L	0.1	<0.1
		1-methylnaphthalene	μg/L	0.1	<0.1
		Acenaphthylene	μg/L	0.1	<0.1
		Acenaphthene	μg/L	0.1	<0.1
		Fluorene	µg/L	0.1	<0.1
		Phenanthrene	μg/L	0.1	<0.1
		Anthracene	μg/L	0.1	<0.1
		Fluoranthene	μg/L	0.1	<0.1
		Pyrene	μg/L	0.1	<0.1
		Benzo(a)anthracene	μg/L	0.1	<0.1
		Chrysene	μg/L	0.1	<0.1
		Benzo(a)pyrene	μg/L	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	μg/L	0.1	<0.1
		Dibenzo(ah)anthracene	μg/L	0.1	<0.1
		Benzo(ghi)perylene	μg/L	0.1	<0.1
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	52
		2-fluorobiphenyl (Surrogate)	%	-	68
		d14-p-terphenyl (Surrogate)	%	-	86
Total Phenolics in Water				Meth	od: ME-(AU)-[ENV]AN289
Sample Number		Parameter	Units	LOR	Result
LB221922.001		Total Phenols	mg/L	0.01	<0.01

#### ace Metals (Dissolved) in Water by ICPMS

Trace Metals (Dissolved) in Water by ICP	NS		Meth	nod: ME-(AU)-[ENV]AN318
Sample Number	Parameter	Units	LOR	Result
LB221959.001	Arsenic, As	μg/L	1	<1
	Cadmium, Cd	μg/L	0.1	<0.1
	Chromium, Cr	μg/L	1	<1
	Copper, Cu	μg/L	1	<1
	Lead, Pb	μg/L	1	<1
	Nickel, Ni	μg/L	1	<1
	Zinc, Zn	µg/L	5	<5
TRH (Total Recoverable Hydrocarbons) in	Water		Meth	nod: ME-(AU)-[ENV]AN403
Sample Number	Parameter	Units	LOR	Result
LB221921.001	TRH C10-C14	μg/L	50	<50
	TRH C15-C28	μg/L	200	<200
	TRH C29-C36	μg/L	200	<200
	TRH C37-C40	μg/L	200	<200
VOCs in Water			Meth	nod: ME-(AU)-[ENV]AN433
Sample Number	Parameter	Units	LOR	



# **METHOD BLANKS**

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

### VOCs in Water (continued)

VOCs in Water (conti	nued)			Meth	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB222070.001	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5
		1.2-dichloropropane	ua/L	0.5	<0.5
		cis-1 3-dichloropropene		0.5	<0.5
		trans-1 3-dichloropropene	µg/2	0.5	<0.5
		1 2 dibromoethane (EDB)	pg,2	0.5	<0.5
	Hologopotod Aliphotics	Dishloradifluoromethana (CEC 12)	μg/L	0.5	<0.5
	Halogenated Aliphatics	Obligerent and	µg/L	5	<0
		Chloromethane	µg/L	5	<5
		Vinyl chloride (Chloroethene)	μg/L	0.3	<0.3
		Bromomethane	μg/L	10	<10
		Chloroethane	μg/L	5	<5
		Trichlorofluoromethane	μg/L	1	<1
		Iodomethane	μg/L	5	<5
		1,1-dichloroethene	μg/L	0.5	<0.5
		Dichloromethane (Methylene chloride)	µg/L	5	<5
		Allyl chloride	μg/L	2	<2
		trans-1,2-dichloroethene	μα/L	0.5	<0.5
		1 1-dichloroethane		0.5	<0.5
		cic_1 2-dichloroethane	pg/2	0.5	<0.5
		Promochloromothana	μg/L	0.5	<0.5
			μ9/ε	0.5	<0.5
		1,2-dichloroethane	μg/L	0.5	<0.5
		1,1,1-trichloroethane	μg/L	0.5	<0.5
		1,1-dichloropropene	μg/L	0.5	<0.5
		Carbon tetrachloride	μg/L	0.5	<0.5
		Dibromomethane	μg/L	0.5	<0.5
		Trichloroethene (Trichloroethylene,TCE)	μg/L	0.5	<0.5
		1,1,2-trichloroethane	μg/L	0.5	<0.5
		1,3-dichloropropane	µg/L	0.5	<0.5
		Tetrachloroethene (Perchloroethylene,PCE)	μg/L	0.5	<0.5
		1.1.1.2-tetrachloroethane	ug/L	0.5	<0.5
		cis-1 4-dichloro-2-butene	µg/L	1	<1
				0.5	<0.5
		1 2 3-trichloropropage	pg,2	0.5	<0.5
		trans 1.4 dishlara 2 butana	μg/L		-0.0
			μg/L	i	-0.5
			μg/L	0.5	<0.5
		Hexachlorobutadiene	µg/L	0.5	<0.5
	Halogenated Aromatics	Chlorobenzene	μg/L	0.5	<0.5
		Bromobenzene	μg/L	0.5	<0.5
		2-chlorotoluene	μg/L	0.5	<0.5
		4-chlorotoluene	μg/L	0.5	<0.5
		1,3-dichlorobenzene	μg/L	0.5	<0.5
		1,4-dichlorobenzene	μg/L	0.3	<0.3
		1,2-dichlorobenzene	µg/L	0.5	<0.5
		1,2,4-trichlorobenzene	µg/L	0.5	<0.5
		1.2.3-trichlorobenzene	ug/L	0.5	<0.5
	Monocyclic Aromatic	Benzene		0.5	<0.5
	Hydrocarbons		pg/2	0.5	<0.5
	Tydrocarbons		μ9/Ε	0.5	<0.5
			μg/L	0.5	<0.5
		n/p-xylene	μg/L		×1
		o-xylene	µg/L	0.5	<0.5
		Styrene (Vinyl benzene)	μg/L	0.5	<0.5
		Isopropylbenzene (Cumene)	μg/L	0.5	<0.5
		n-propylbenzene	μg/L	0.5	<0.5
		1,3,5-trimethylbenzene	μg/L	0.5	<0.5
		tert-butylbenzene	μg/L	0.5	<0.5
		1,2,4-trimethylbenzene	µg/L	0.5	<0.5
		sec-butylbenzene	μg/L	0.5	<0.5
		p-isopropyltoluene	ua/L	0.5	<0.5
		n-butylbenzene	ug/L	0.5	<0,5
	Nitrogenous Compounds	Acrylonitrile		0.5	<0.5
	Ovvænsted Compounds	Acetone (2. proganone)	µg/∟	10	<10
	Oxygenated Compounds		µg/L	2	>10
			10/1	/	S I



# **METHOD BLANKS**

## SE218294 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

### VOCs in Water (continued)

VOCs in Water (continue	id)			Mett	od: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB222070.001	Oxygenated Compounds	Vinyl acetate	μg/L	10	<10
		MEK (2-butanone)	μg/L	10	<10
		MIBK (4-methyl-2-pentanone)	μg/L	5	<5
		2-hexanone (MBK)	μg/L	5	<5
	Polycyclic VOCs	Naphthalene	μg/L	0.5	<0.5
	Sulphonated	Carbon disulfide	μg/L	2	<2
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	96
		Bromofluorobenzene (Surrogate)	%	-	95
	Trihalomethanes	Chloroform (THM)	μg/L	0.5	<0.5
		Bromodichloromethane (THM)	μg/L	0.5	<0.5
		Dibromochloromethane (THM)	μg/L	0.5	<0.5
		Bromoform (THM)	μg/L	0.5	<0.5
Volatile Petroleum Hydro	carbons in Water			Mett	nod: ME-(AU)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result
LB222070.001		TRH C6-C9	μg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	97
		d8-toluene (Surrogate)	%	-	96
		Bromofluorobenzene (Surrogate)	%	-	95



### **DUPLICATES**

Method: ME-(AU)-[ENV]AN318

Method: ME-(AU)-[ENV]AN403

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may give a different calculated RPD.

Conductivity and TDS by Calculation - Water Meth					od: ME-(AU)-	[ENV]AN106		
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218294.003	LB221904.009	Conductivity @ 25 C	µS/cm	2	18000	18000	15	1

#### arcuny (dissolved) in Water

Mercury (dissolved) i	in Water				Metho	d: ME-(AU)-[I	ENVJAN311(P	erth)/AN312
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218294.005	LB221924.013	Mercury	μg/L	0.0001	<0.0001	<0.0001	83	5

#### pH in water

pH in water					Meth	od: ME-(AU)-[	ENVJAN101	
Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218294.003	LB221904.009	рН**	pH Units	-	5.2	5.2	17	0

#### **Total Phenolics in Water**

Total Phenolics in Wa	I Phenolics in Water					Meth	od: ME-(AU)-[	ENVJAN289
Original	Duplicate	Parameter	Units I	LOR	Original	Duplicate	Criteria %	RPD %
SE218278.001	LB221922.008	Total Phenols	mg/L	0.01	<0.01	<0.01	200	0

#### Trace Metals (Dissolved) in Water by ICPMS

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218310.002	LB221959.014	Arsenic, As	µg/L	1	3	3	45	1
		Cadmium, Cd	µg/L	0.1	0.4	0.4	40	1
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	2	2	74	3
		Lead, Pb	µg/L	1	<1	<1	184	0
		Nickel, Ni	µg/L	1	33	34	18	2
		Zinc, Zn	µg/L	5	440	440	16	2
SE218310.006	LB221959.019	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	200	0
		Chromium, Cr	µg/L	1	<1	<1	200	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	<1	<1	200	0
		Zinc, Zn	µg/L	5	<5	<5	200	0

TRH (Total Recoverable Hydrocarbons) in Water

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE218294.005	LB221921.022		TRH C10-C14	µg/L	50	<50	<50	200	0	
			TRH C15-C28	µg/L	200	<200	<200	200	0	
			TRH C29-C36	µg/L	200	<200	<200	200	0	
			TRH C37-C40	µg/L	200	<200	<200	200	0	
			TRH C10-C40	µg/L	320	<320	<320	200	0	
		TRH F Bands	TRH >C10-C16	µg/L	60	<60	<60	200	0	
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0	
			TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0	
			TRH >C34-C40 (F4)	ug/L	500	<500	<500	200	0	

VOCs in Water							Meth	od: ME-(AU)-	[ENV]AN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218316.023	LB222070.025	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.4	9.9	30	4
			d8-toluene (Surrogate)	µg/L	-	9.8	9.6	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	9.7	10.2	30	5



### **DUPLICATES**

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD =  $100 \times SDL$  / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may give a different calculated RPD.

#### VOCs in Water (continued)

VOCs in Water (co	ntinued)						Meth	od: ME-(AU)-	ENVJAN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218316.024	LB222070.026	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	μg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.6	10.2	30	4
			d8-toluene (Surrogate)	μg/L	-	10.2	9.6	30	6
			Bromofluorobenzene (Surrogate)	μg/L	-	9.9	10.1	30	1
Volatile Petroleum Hydrocarbons in Water							Meth	od: ME-(AU)-	ENVJAN433
Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE218316.023	LB222070.025		TRH C6-C10	μg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.4	9.9	30	4
			d8-toluene (Surrogate)	µg/L	-	9.8	9.6	30	3
			Bromofluorobenzene (Surrogate)	μg/L	-	9.7	10.2	30	5
		VPH F Bands	Benzene (F0)	μg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	μg/L	50	<50	<50	200	0
SE218316.024	LB222070.026		TRH C6-C10	μg/L	50	<50	<50	200	0
			TRH C6-C9	μg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	μg/L	-	10.6	10.2	30	4
			d8-toluene (Surrogate)	μg/L	-	10.2	9.6	30	6
			Bromofluorobenzene (Surrogate)	μg/L	-	9.9	10.1	30	1
		VPH F Bands	Benzene (F0)	μg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	μg/L	50	<50	<50	200	0



# LABORATORY CONTROL SAMPLES

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

vnions by Ion Chromatography in Water Method: ME-(AU)-[ENV]AN245										
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %			
LB221923.002	Chloride	mg/L	0.05	19	20	80 - 120	97			
	Sulfate, SO4	mg/L	1	19	20	80 - 120	96			

#### Conductivity and TDS by Calculation - Water

Conductivity and TDS by Calculation - Water Me					lethod: ME-(Al	U)- <mark>[ENV]AN10</mark> 6	
Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB221904.002	Conductivity @ 25 C	µS/cm	2	300	303	90 - 110	100

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

PAH (Polynuclear A	vromatic Hydroca	arbons) in Water					Method: ME-(A	U)-[ENV]AN420
Sample Number		Parameter	Ur	its LO	R Res	ult Expecte	d Criteria %	Recovery %
LB221921.002		Naphthalene	µg/l	0.1	2	6 40	60 - 140	64
		Acenaphthylene	µg/l	0.1	3	3 40	60 - 140	83
		Acenaphthene	µg/l	0.1	3	0 40	60 - 140	76
		Phenanthrene	µg/l	0.1	3	2 40	60 - 140	81
		Anthracene	μg/l	0.1	3	1 40	60 - 140	77
		Fluoranthene	μg/l	0.1	3	2 40	60 - 140	81
		Pyrene	μg/l	0.1	3	4 40	60 - 140	86
		Benzo(a)pyrene	μg/	0.1	3	3 40	60 - 140	82
	Surrogates	d5-nitrobenzene (Surrogate)	μg/		0.	3 0.5	40 - 130	54
		2-fluorobiphenyl (Surrogate)	μg/		0.	3 0.5	40 - 130	62
		d14-p-terphenyl (Surrogate)	μg/l		0.	4 0.5	40 - 130	78
pH in water							Method: ME-(A	.U)-[ENV]AN101
Sample Number		Parameter	Ur	its LO	R Res	ult Expecte	d Criteria %	Recovery %
LB221904.003		pH**	No u	nit -	7.	4 7.415	98 - 102	99

#### Total Phanolics in Water

Total Phenolics in Water	s in Water Method: ME-(Al			U)-[ENV]AN289			
Sample Number	Parameter	Unit	s LOR	Result	Expected	Criteria %	Recovery %
LB221922.002	Total Phenols	mg/L	0.01	0.22	0.25	80 - 120	88

#### Trace Metals (Dissolved) in Water by ICPMS

Monocyclic

Aromatic

Benzene

Toluene

Ethylbenzene

Trace Metals (Diss	olved) in Water by	ICPMS				N	/lethod: ME-(A	U)-[ENV]AN318
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB221959.002		Arsenic, As	µg/L	1	19	20	80 - 120	97
		Cadmium, Cd	µg/L	0.1	22	20	80 - 120	111
		Chromium, Cr	µg/L	1	22	20	80 - 120	110
		Copper, Cu	µg/L	1	23	20	80 - 120	114
		Lead, Pb	µg/L	1	23	20	80 - 120	114
		Nickel, Ni	µg/L	1	21	20	80 - 120	105
		Zinc, Zn	µg/L	5	22	20	80 - 120	108
TRH (Total Recove	rable Hydrocarbo	ns) in Water				N	Nethod: ME-(A	U)-[ENV]AN403
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB221921.002		TRH C10-C14	μg/L	50	1300	1200	60 - 140	Recovery %
		TRH C15-C28	μg/L	200	1500	1200	60 - 140	126
		TRH C29-C36	μg/L	200	1500	1200	60 - 140	122
	TRH F Bands	TRH >C10-C16	µg/L	60	1500	1200	60 - 140	121
		TRH >C16-C34 (F3)	µg/L	500	1500	1200	60 - 140	123
		TRH >C34-C40 (F4)	μg/L	500	710	600	60 - 140	119
VOCs in Water						N	/lethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB222070.002	Halogenated	1,1-dichloroethene	μg/L	0.5	46	45.45	60 - 140	101
	Aliphatics	1,2-dichloroethane	μg/L	0.5	52	45.45	60 - 140	114
		Trichloroethene (Trichloroethylene, TCE)	μg/L	0.5	50	45.45	60 - 140	110
	Halogenated	Chlorobenzene	ug/l	0.5	51	45 45	60 - 140	112

µg/L

µg/L

µg/L

0.5

0.5

0.5

46

48

49

101

106

108

45.45

45.45

45.45

60 - 140

60 - 140

60 - 140



Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water (cor	ntinued)					I	Nethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB222070.002	Monocyclic	m/p-xylene	µg/L	1	99	90.9	60 - 140	108
	Aromatic	o-xylene	µg/L	0.5	50	45.45	60 - 140	109
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0	10	60 - 140	100
		d8-toluene (Surrogate)	µg/L	-	10.0	10	70 - 130	100
		Bromofluorobenzene (Surrogate)	µg/L	-	9.8	10	70 - 130	98
	Trihalomethan	Chloroform (THM)	µg/L	0.5	54	45.45	60 - 140	119
Volatile Petroleum	Hydrocarbons in V	/ater				N	Nethod: ME-(A	U)-[ENV]AN433
Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB222070.002		TRH C6-C10	µg/L	50	930	946.63	60 - 140	98
		TRH C6-C9	µg/L	40	800	818.71	60 - 140	98
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.0	10	60 - 140	100
		d8-toluene (Surrogate)	µg/L	-	10.0	10	70 - 130	100
		Bromofluorobenzene (Surrogate)	µg/L	-	9.8	10	70 - 130	98
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	640	639.67	60 - 140	99



# **MATRIX SPIKES**

Method: ME-(AU)-[ENV]AN433

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in Green when within suggested criteria or Red with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury (dissolve	ed) in Water				Me	thod: ME-(AU)-	[ENV]AN31	1(Perth)/AN312
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE218284.017	LB221924.004	Mercury	mg/L	0.0001	0.0021	0.098	0.008	102

### Total Phenolics in Water

Total Phenolics in	tal Phenolics in Water Method: N			hod: ME-(Al	J)-[ENV]AN289			
QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE218294.001	LB221922.004	Total Phenols	mg/L	0.01	0.24	0.03	0.25	86

#### **VOCs in Water**

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE218287.001	LB222070.023	Monocyclic	Benzene	µg/L	0.5	0	45.45	103
		Aromatic	Toluene	μg/L	0.5	0.07574729113	45.45	103
			Ethylbenzene	μg/L	0.5	0.00886582398	45.45	103
			m/p-xylene	μg/L	1	0.02166972893	90.9	103
			o-xylene	µg/L	0.5	0.00664357187	45.45	103
		Polycyclic	Naphthalene	µg/L	0.5	0.13139874194	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.1875045353§	-	104
			d8-toluene (Surrogate)	µg/L	-	9.71775583984	-	101
			Bromofluorobenzene (Surrogate)	μg/L	-	9.92066741402	-	101
Volatile Petroleu	ım Hydrocarbons in V	Vater					Me	ethod: ME-(AU)-
QC Sample	Sample Number	r	Parameter	Units	LOR	Original	Spike	Recovery%
SE218287.001	LB222070.023		TRH C6-C10	µg/L	50	0	946.63	82
			TRH C6-C9	µg/L	40	0	818.71	86
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.1875045353§	-	104
			d8-toluene (Surrogate)	µg/L	-	9.71775583984	-	101
			Bromofluorobenzene (Surrogate)	µg/L	-	9.92066741402	-	101
		VPH F	Benzene (F0)	µg/L	0.5	0	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	0	639.67	78



Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Red with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.



Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

- * NATA accreditation does not cover the performance of this service.
- ** Indicative data, theoretical holding time exceeded.
- *** Indicates that both * and ** apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- 2 RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- 6 LOR was raised due to sample matrix interference.
- O LOR was raised due to dilution of significantly high concentration of analyte in sample.
- Image: Image:
- Recovery failed acceptance criteria due to sample heterogeneity.
- [®] LOR was raised due to high conductivity of the sample (required dilution).
- t Refer to relevant report comments for further information.

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