2.3 Design for weather tightness

The primary goal in facade design is the provision of a building solution that manages the environmental conditions that the facade is subjected to during its design life. Of the various environmental conditions, the prevention of water ingress is critical.

The Hebel PowerPanel System for Facades is a high quality rain screen, and adopts the concept of pressure equalisation to provide a system that eliminates water being drawn through the rain screen due to a pressure differential.

When wind pressures act on the external surface of the facade, a pressure difference is generated between the external side and cavity space side of the Hebel PowerPanel cladding. The combination of a pressure differential; a penetration in the external coating and sealing system; and water, can result in water being drawn through the penetration and into the cavity.

The principal of pressure equalisation is, where wind pressure acting on the external surface of the facade can gain access to the cavity side, thus allowing the pressures on both sides of the cladding to become similar.

The elimination of a pressure differential significantly reduces the process of water being drawn through a penetration in the external coating/sealing system and cladding.

Additionally, the slots provided for pressure equalisation allow for drainage of water from the cavity if ingress occurs.

A compulsory part of the Hebel PowerPanel System for Facades is the wall wrap, which is installed on the external side of the stud frame to seal the cavity space.

Fig 2.5 Hidden Slab Edge Detail (HEB2000)

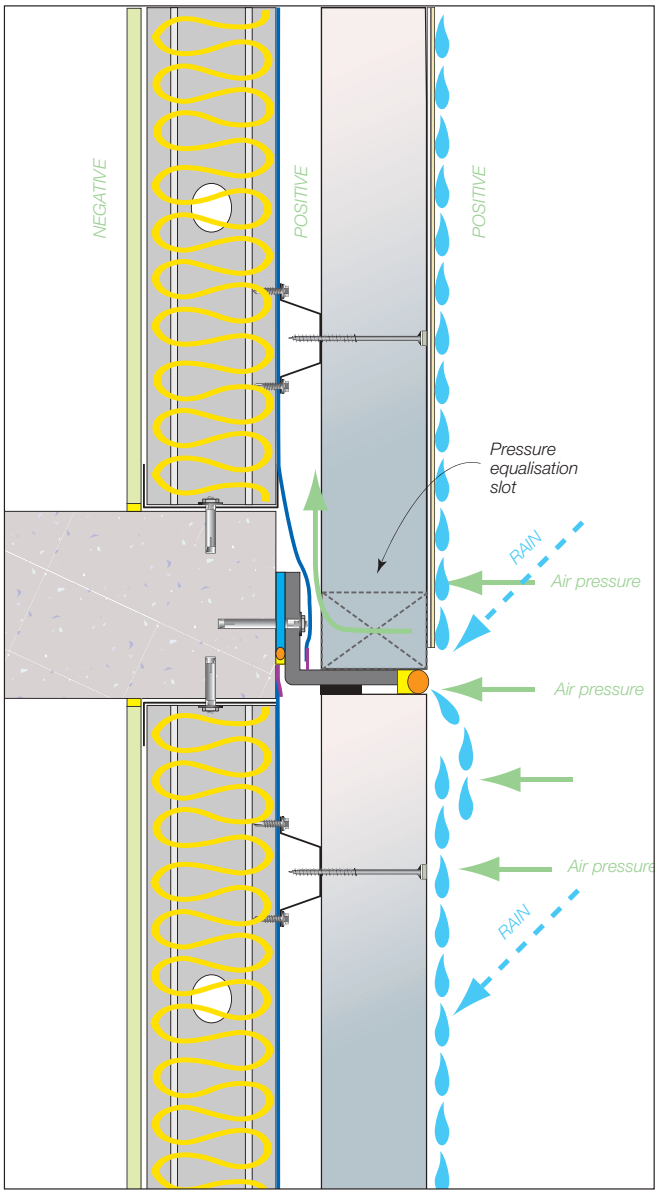
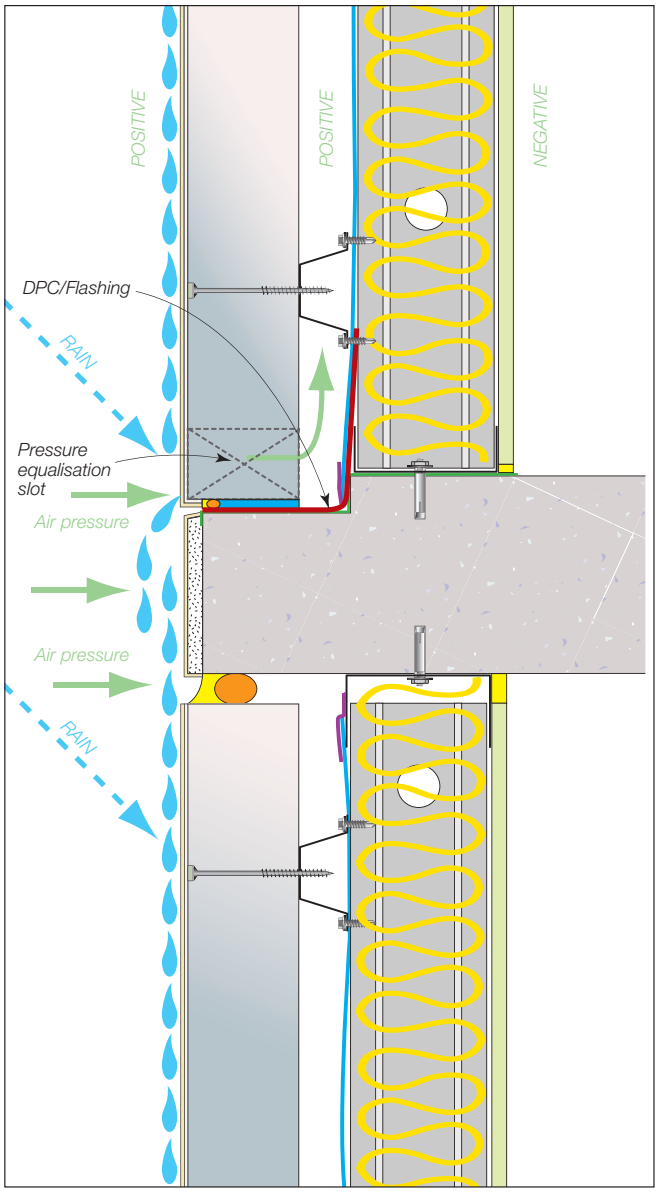


Fig 2.6 Exposed Slab Edge Detail (HEB2001)



Concrete Edge Beam

Pre-filling will be required where misalignment between the in-situ concrete elements, such as slab edges and columns, and the finished wall plane. To exploit the accuracy of the installed wall system and minimise the amount of rendering, CSR Hebel recommend establishing concrete tolerances that result in the unrendered concrete edge beam being located behind the finished wall plane. This will eliminate the need for scabbling of the edge beam and/or building out the wall surface. (Refer to Section 2.4 'Coatings for pre-filling and coating detail of visible slab edge).

Fig 2.7 Alignment of Edge Beam – Recommended Practice

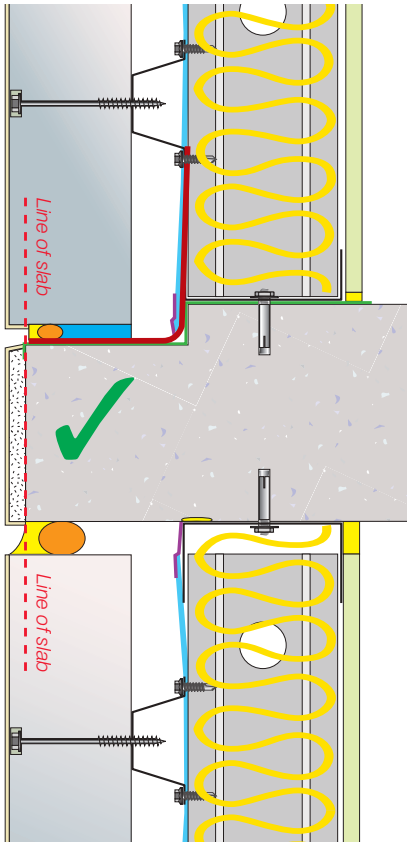
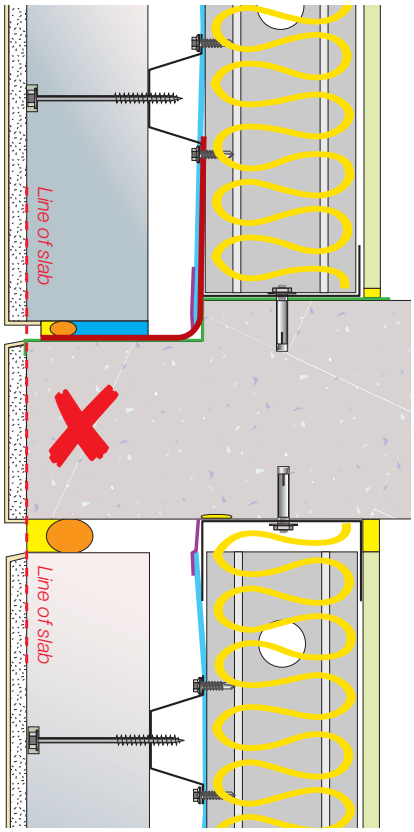


Fig 2.8 Alignment of Edge Beam – Not Recommended



Cladding Systems

Proprietary lightweight cladding systems such as Aluminium Composite Panels can be fixed to the Hebel PowerPanel. The Hebel PowerPanel System for Facades then acts as the structural backing for the proprietary cladding.

The designer should ensure the structural performance of the Hebel PowerPanel System for Facades is adequate. Contact CSR Hebel for more information.

Sealants

All movement joints and gaps between the panels and framing around windows must be caulked with an appropriate flexible sealant. Specifications must ensure sealant is compatible with the materials to be sealed and surfaces primed.

Wall Wrap

The Hebel PowerPanel System for Facades is designed as a high quality rain screen, if water ingress occurs, then the wall wrap between the Top Hats and the support framing will direct water to the drainage points (pressure equalisation slots).

2.7 Durability

Introduction

The durability of the Hebel Facade Wall System can be enhanced by periodic inspection and maintenance. Inspections should include examination of the coatings, flashings and seals. Facade finishes and sealants must be maintained in accordance with the manufacturer's recommendations. Any cracked and damaged finish or sealants, which would allow water ingress, must be repaired immediately by recoating or resealing the effected area. Any damaged flashings or panels must be replaced as for new work.

The durability of the system can also be increased by using Class 4 fixings throughout, additional treatment of steelwork, and by painting all exposed sealants to the sealant manufacturer's recommendations.

Coastal Areas

The Hebel PowerPanel System for Facades can be used in coastal areas with additional precautions to ensure salt does not build up on the surface of the wall. For buildings which are 300m to 1000m from a shoreline or large expanse of salt water, such as Swan River (west of the Narrows Bridge), Sydney Harbour (east of the Harbour Bridge or Spit Bridge), one of the following is required:

- All walls must be sufficiently exposed from above so that rain can perform natural wash-down of the wall; or
- Walls which are protected by soffits above must be washed down twice per year, to remove salt and debris build-up, particularly at the joints.

In all cases, Class 4 or Z450 stainless steel screws must be used.

For buildings less than 300m from the shoreline as defined above, CSR Hebel does not recommend that Hebel Facade be used without project specific consultation.

Hebel PowerPanel

Hebel PowerPanel has many properties which make it a very durable product, including:

- Will not rot or burn, is not a food source for termites, and unaffected by sunlight.
- Not adversely affected over normal temperature ranges.

Lightweight (Cold Formed) Steel Support Framing

The Building Code of Australia (BCA) Volume 2, Part 3.4.2 presents 'Acceptable Construction Practice' Performance Requirements for the protection of the steel frame from corrosion. These requirements consist of minimum protective surface coatings with restrictions on the location of the building and exposure condition of the steel frame.

For the Hebel PowerPanel System for Facades, the steel framing is considered located within the building envelope, hence the requirements are as follows:

- Where the steel frame is within the building envelope, in locations –
  - more than 300m from breaking surf, or
  - not in a heavy industrial area; the steel frame must have a minimum coating class in accordance with AS1397 of Z275 (275 grams of zinc per square metre) or AZ150 (150 grams of aluminium/zinc per square metre).

The BCA describes the building envelope as the space in the building where the steel frame does not have direct contact with the external atmosphere, other than for normal ventilation purposes. An example of such locations, are frames in masonry veneer construction.

IMPORTANT: The steel frame requirements outlined in the BCA should be considered in conjunction with steel frame design and construction advice from the steel frame manufacturer.

NOTE: The drainage openings (pressure equalisation slots) do not allow the external environment to circulate in the cavity space where the Top Hats are located. The cavity space is a stagnant column of air not subject to air circulation.

For regions classified as severe marine or heavy industrial, CSR Hebel recommends the designer ensures that the steelwork and AAC products have adequate protective systems to ensure durability is maintained. The designer can refer to Materials and Environments Report 08/078/2 and AS4312 for detailed information on corrosion.

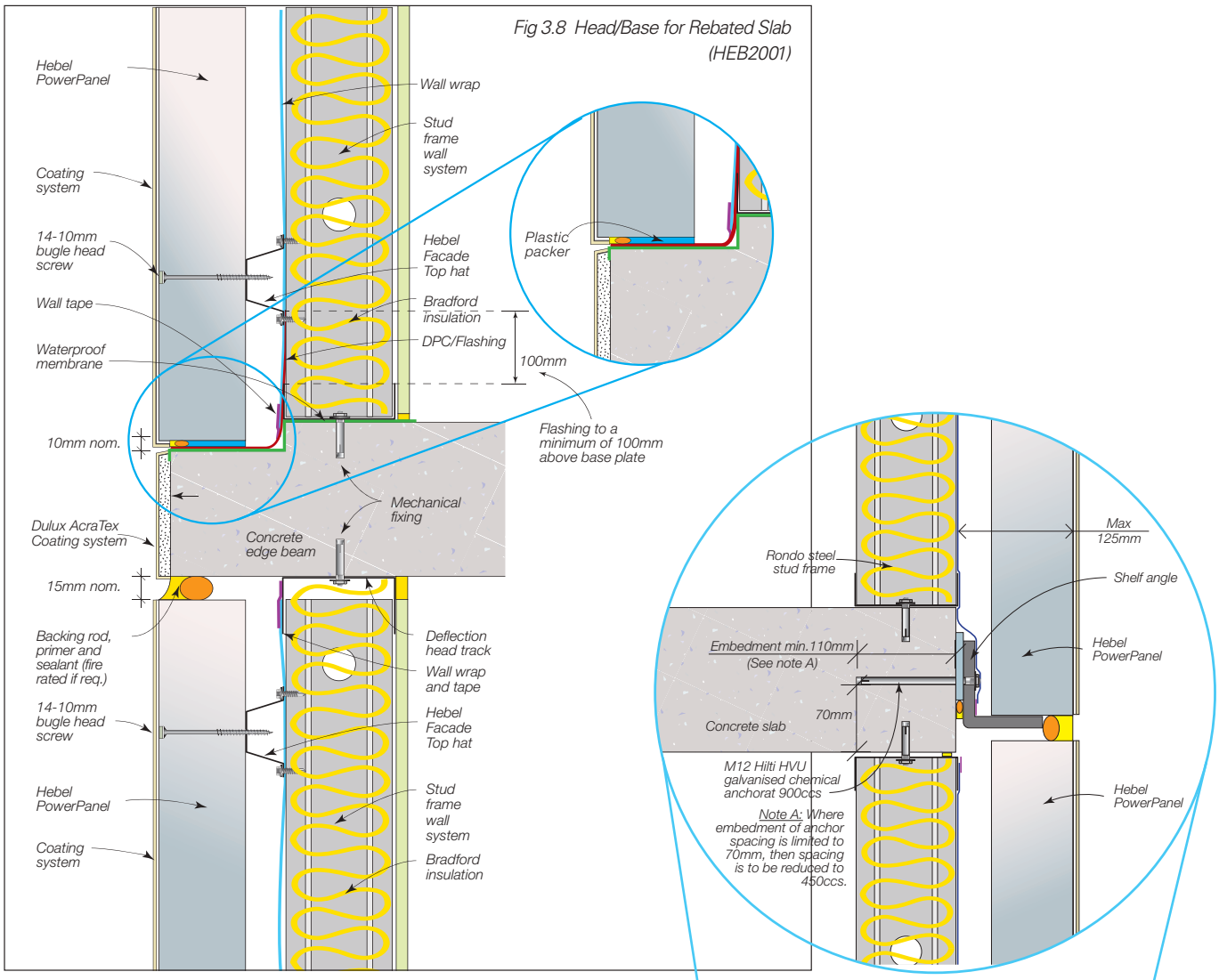


Fig 3.8 Head/Base for Rebated Slab (HEB2001)
Hebel PowerPanel
Coating system
14-10mm bugle head screw
Wall tape
Waterproof membrane
10mm nom.
Dulux AcraTex Coating system
15mm nom.
Backing rod, primer and sealant (fire rated if req.)
14-10mm bugle head screw
Hebel PowerPanel
Coating system
Wall wrap
Stud frame wall system
Hebel Facade Top hat
Bradford insulation
DPC/Flashing
100mm
Flashing to a minimum of 100mm above base plate
Mechanical fixing
Concrete edge beam
Deflection head track
Wall wrap and tape
Hebel Facade Top hat
Stud frame wall system
Bradford insulation
Plastic packer
Rondo steel stud frame
Max 125mm
Shelf angle
Embedment min.110mm (See note A)
70mm
Concrete slab
M12 Hilti HVU galvanised chemical anchorat 900ccs
Note A: Where embedment of anchor spacing is limited to 70mm, then spacing is to be reduced to 450ccs.
Hebel PowerPanel
Hebel PowerPanel

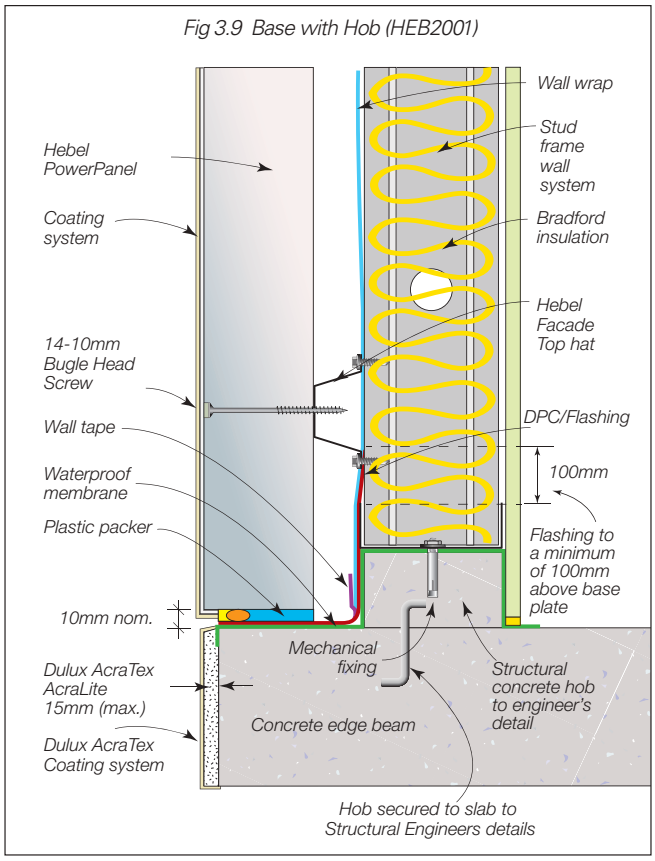


Fig 3.9 Base with Hob (HEB2001)
Hebel PowerPanel
Coating system
14-10mm Bugle Head Screw
Wall tape
Waterproof membrane
Plastic packer
10mm nom.
Dulux AcraTex AcraLite 15mm (max.)
Dulux AcraTex Coating system
Wall wrap
Stud frame wall system
Bradford insulation
Hebel Facade Top hat
DPC/Flashing
100mm
Flashing to a minimum of 100mm above base plate
Mechanical fixing
Structural concrete hob to engineer's detail
Concrete edge beam
Hob secured to slab to Structural Engineers details

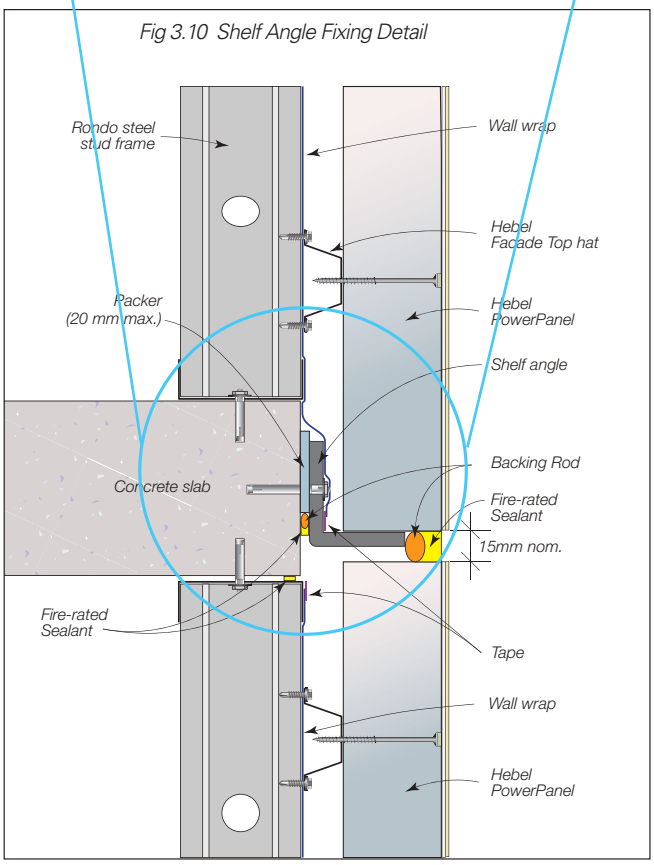
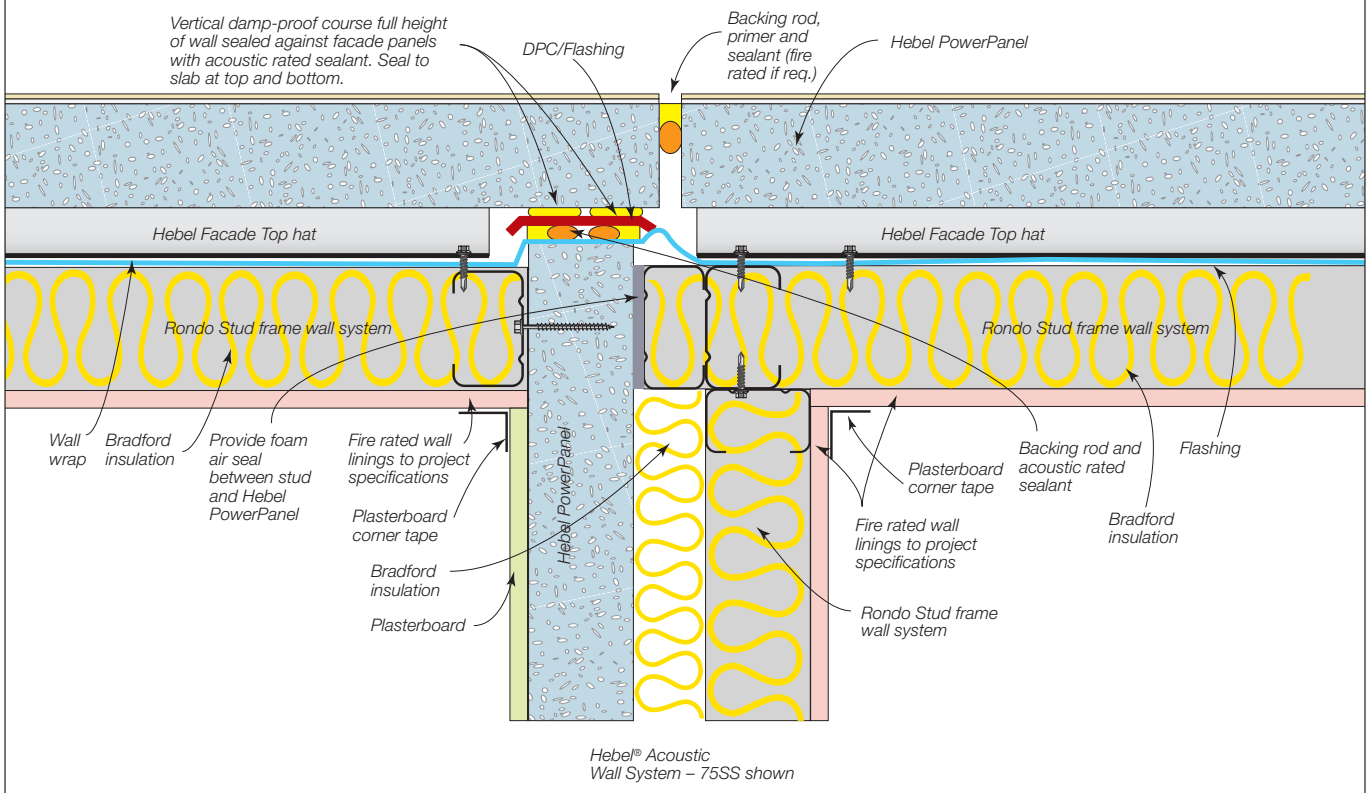


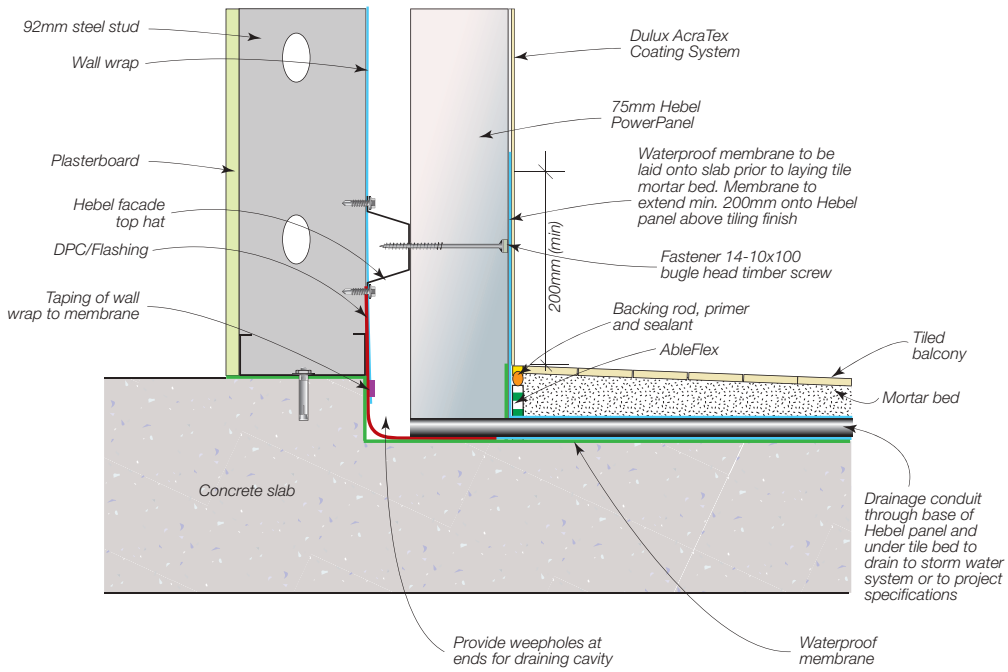
Fig 3.10 Shelf Angle Fixing Detail
Rondo steel stud frame
Wall wrap
Hebel Facade Top hat
Packer (20 mm max.)
Hebel PowerPanel
Shelf angle
Concrete slab
Backing Rod
Fire-rated Sealant
15mm nom.
Fire-rated Sealant
Tape
Wall wrap
Hebel PowerPanel

Fig 3.22 Party Wall Intersection



IMPORTANT: Treatment of party wall junctions requires specific project design and approval by structural, fire, acoustic and other project consultants.

Fig 3.23 Balcony Detail



NOTE: Pressure equalisation slots are to be installed at the tops of panels at a max. 3.0m CTRs over balconies greater than 3m in width.

Installation Guide

HardieTex™ System

EXTERIORS

Australia May 2019

Make sure your information is up to date.
When specifying or installing James Hardie™ products, ensure that you have the current technical information and guides. If in doubt, or you need more information, visit www.jameshardie.com.au or Ask James Hardie™ on 1311 08

CONTENTS

MADE IN AUSTRALIA

1 INTRODUCTION

1.1 APPLICATIONS

Current design trends in residential construction favour the use of colour and texture for external walls. The HardieTex™ system has been developed to deliver this colour and texture, along with design flexibility and a robust finish, that will withstand many years of exposure to the elements.

The design flexibility of the HardieTex™ system is further enhanced by the use of architectural profiles that provide a wide range of options for architectural detailing.

The freedom of lightweight, versatile HardieTex™ system makes it easy to turn the most inspiring design into reality, without heavy and often costly engineering detail.

The HardieTex™ system is adaptable, and offers new design and construction possibilities, even with a limited budget. With the HardieTex™ system, you can have design freedom, without compromising quality and cost-effectiveness.

Start with the strong, stable, lightweight and durable HardieTex™ system. Then sculpt the basic form of your design, whether it is strikingly modern, or monumentally grand.

The lightweight properties of the HardieTex™ system makes it the ideal material for additions. Perfect for second-storey additions, the

HardieTex™ system allows you to build with a reduced load, compared to building with masonry. This saves time and money.

HardieTex™ base sheets are designed to be coated with beautiful colours and textures, so it is easy to select a finish that will seamlessly match new areas to an existing building, or complement any materials used in the original structure.

HardieTex™ base sheets are easily fixed to timber and steel wall frames using common fasteners.

The specifier or the party responsible for the project must ensure the details in this specification are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope and specifications of this manual.

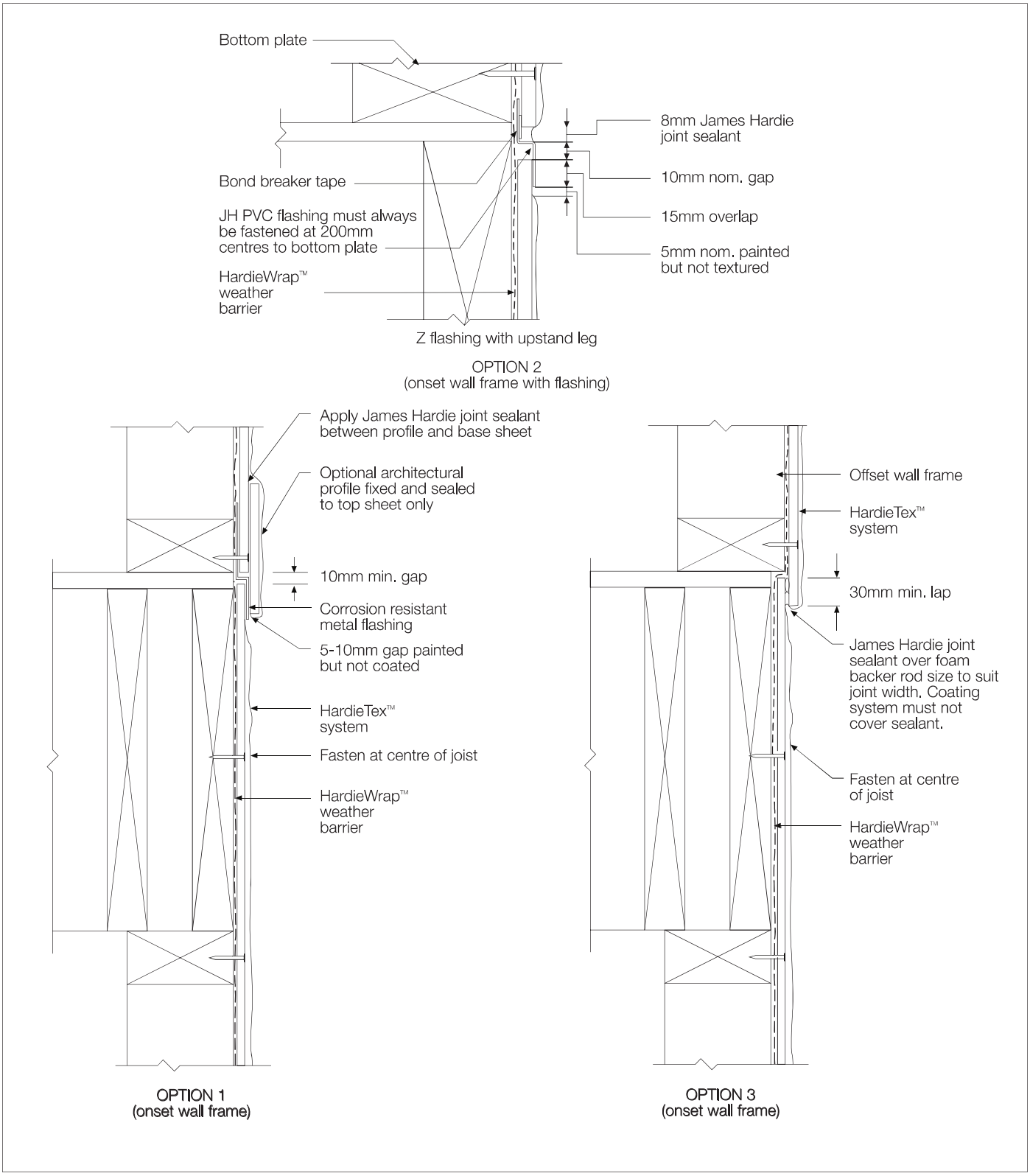


FIGURE 19 HORIZONTAL CONTROL JOINT - FLOOR JUNCTION OF A TWO STOREY HARDIETEX WALL

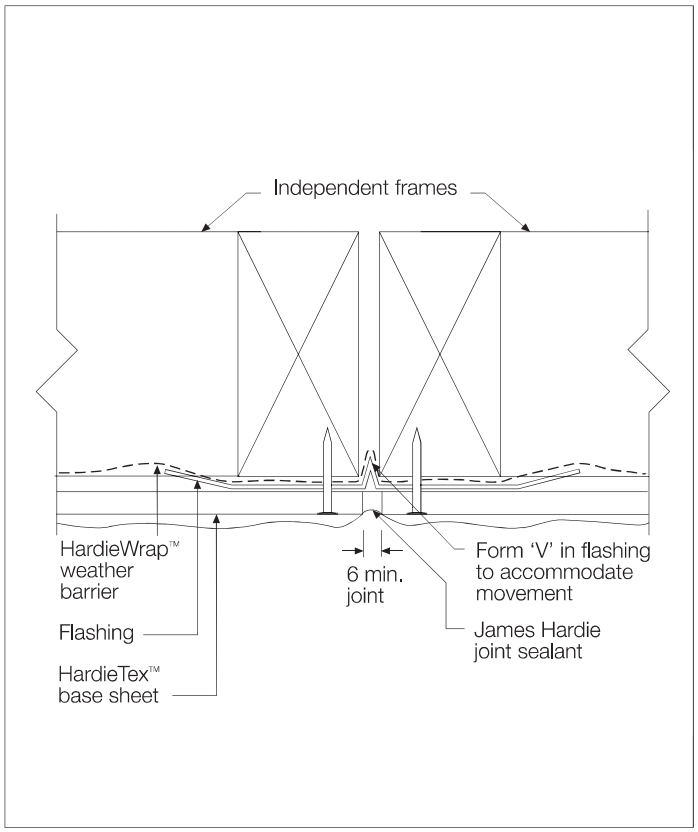


FIGURE 20 VERTICAL MOVEMENT JOINT IN HARDIETEX WALL (CONTROL JOINT REQUIRED BY DESIGN)

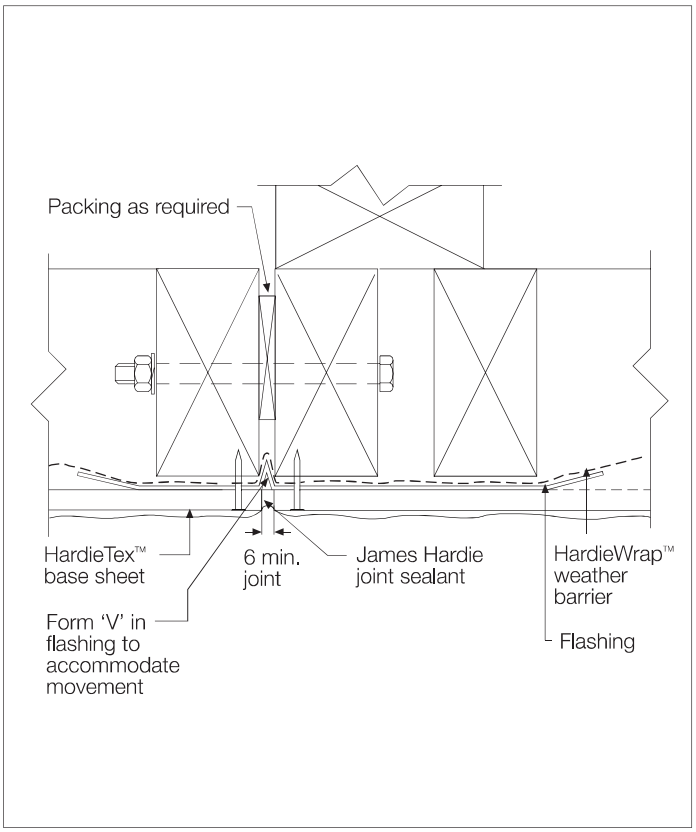


FIGURE 22 VERTICAL MOVEMENT JOINT - INTERSECTION WITH EXISTING CLAD STRUCTURE

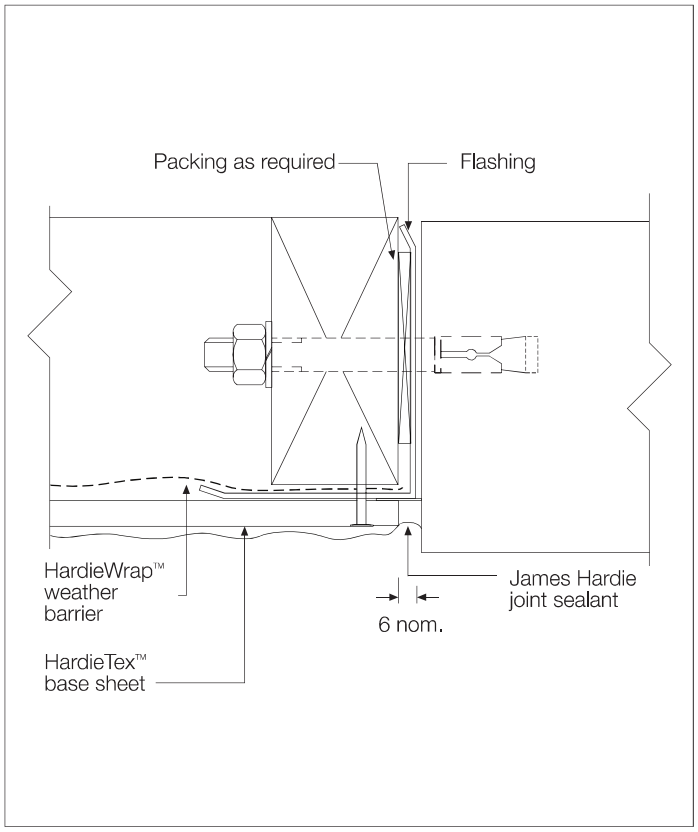


FIGURE 21 VERTICAL MOVEMENT JOINT - INTERSECTION WITH MASONRY STRUCTURE

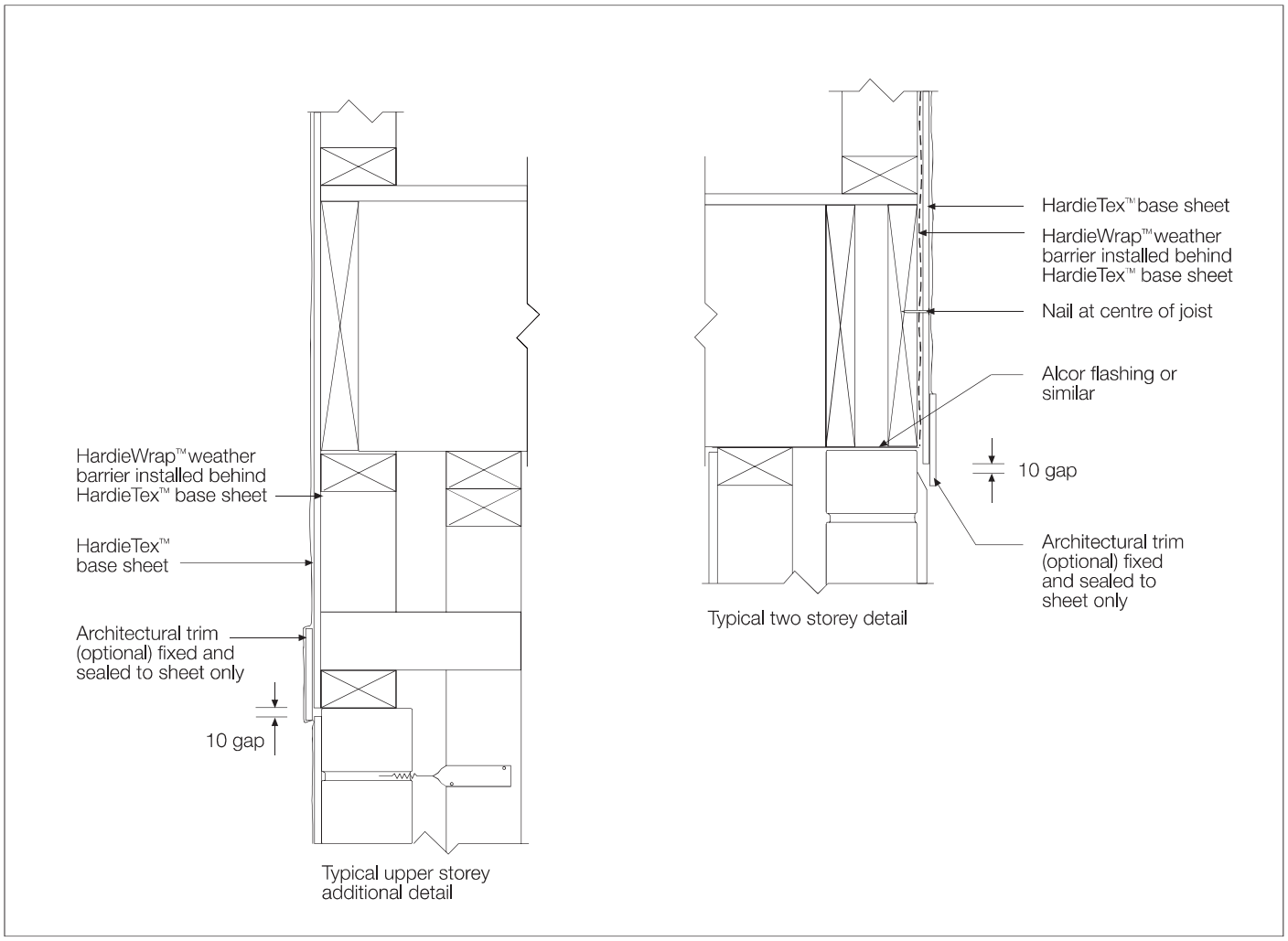


FIGURE 23 HORIZONTAL MOVEMENT JOINT - FLOOR JUNCTION WITH MASONRY GROUND FLOOR

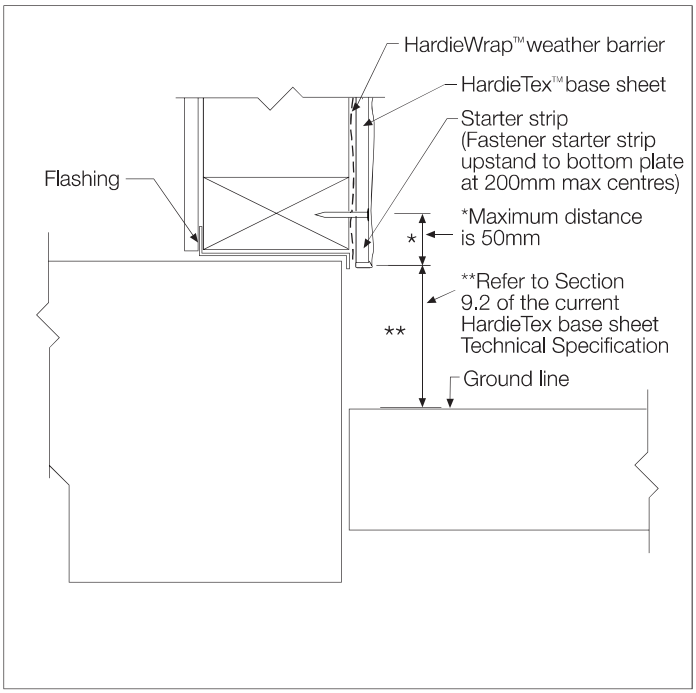


FIGURE 24 SLAB EDGE DETAIL

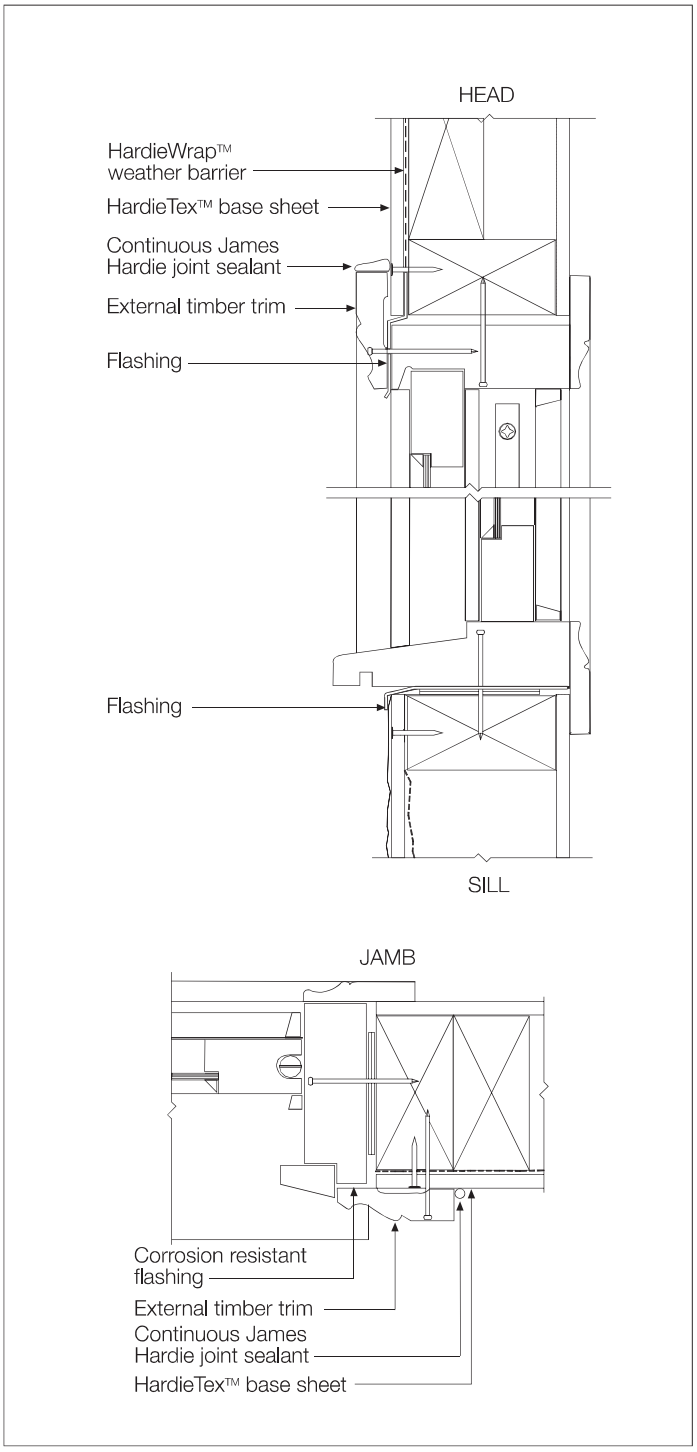


FIGURE 28 TIMBER WINDOW DETAILS - WITH TIMBER TRIM

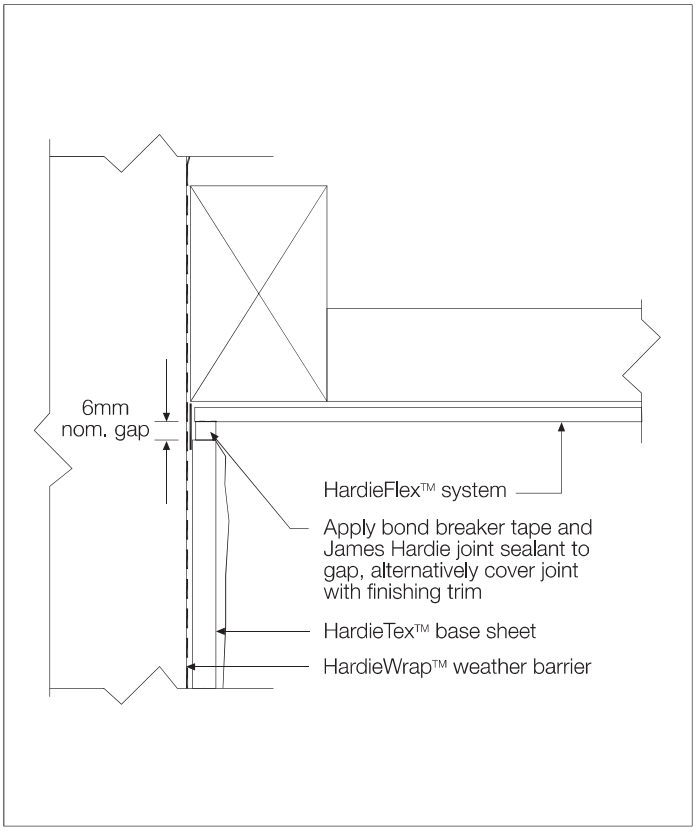


FIGURE 29 HARDIETEX SYSTEM STOPS AT EAVES LINING

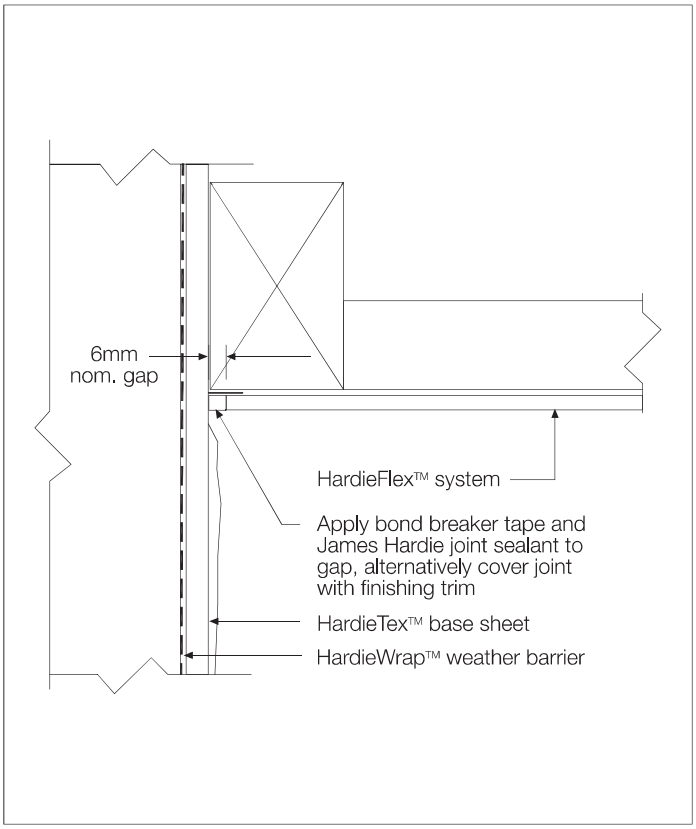


FIGURE 30 HARDIETEX SYSTEM CONTINUES PAST EAVES LINING

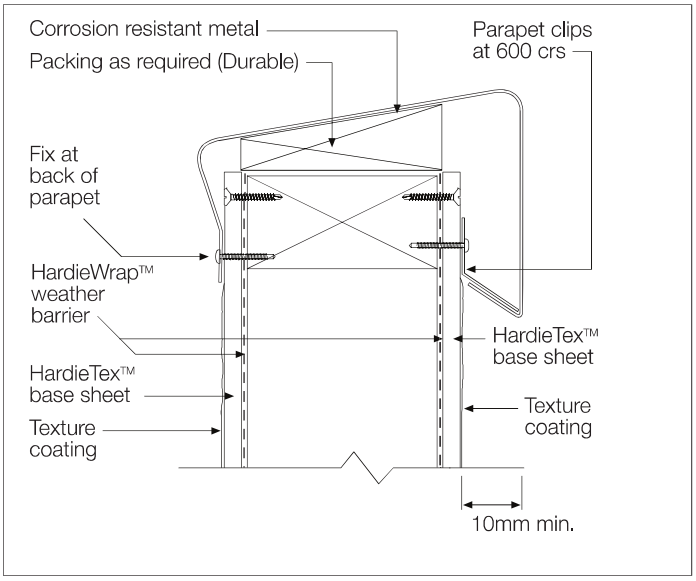


FIGURE 31 PARAPET CAPPING

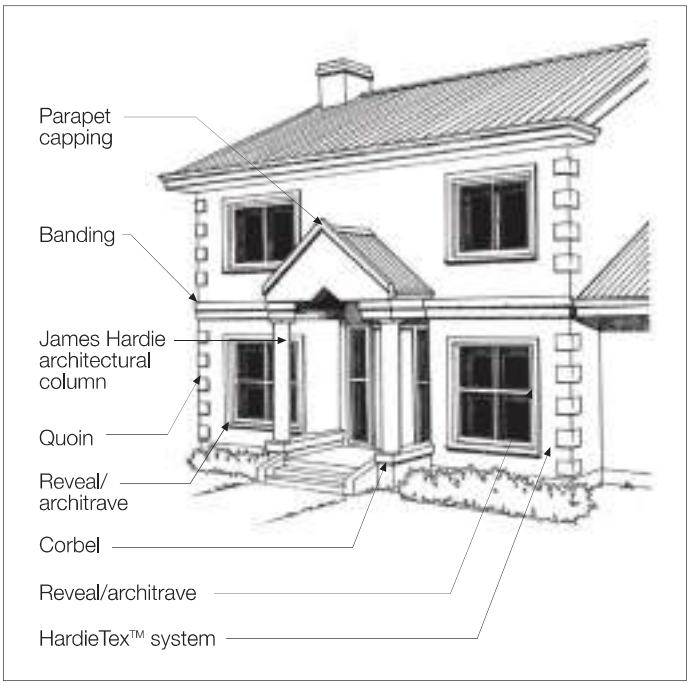


FIGURE 32 EXAMPLE OF USE OF DECORATIVE TREATMENTS

STANDARDISATION GUIDE 009:

PREPARATION OF STANDARDS FOR LEGISLATIVE ADOPTION

Published by Standards Australia Limited
GPO Box 476, Sydney, NSW 2001, Australia

Contents

1 Scope and Objective

This Standardisation Guide is intended to assist Technical Committees developing Australian Standards® which are specifically intended for reference in legislation, or those Standards that may be considered for legislative reference in the future.

Australian Standards can be directly referenced in legislation in full or part, while others may be referenced for evidentiary or guidance purposes only.

The objective of this Guide is to provide direction on the appropriate drafting style and terminology to ensure that Australian Standards are:

a) compatible with legal requirements in all jurisdictions around Australia;

b) structured in a format suitable for legislative referencing; and

c) written in a clear, concise and consistent manner, avoiding ambiguity.

All standards intended for reference in legislation shall be in accordance with this Guide. The provisions are presented in a highly simplified form and shall not be relied upon as legal advice.

This Guide includes three Appendices:

1. Appendix A: Glossary of Terms
2. Appendix B: Drafting of Standards that may be referenced under in WHS Legislation
3. Appendix C: Drafting of Standards that may be referenced by Water Utilities

2 General requirements for Standards referenced in legislation

When developing a new Standard, or revising an existing Standard, it is important to ensure, where possible, that its provisions are compatible with existing legislation. Standards shall not prescribe any technical or other requirements differing from those prescribed in legislation. The Standard acts to support any relevant legislation.

A Standard shall not repeat requirements specified in legislation. Where repetition is considered unavoidable for the sake of completeness, the duplication shall be referred to the relevant regulator(s) for confirmation of compatibility.

If a Standard includes definitions, whether of an administrative or technical nature, they shall be consistent with any definitions incorporated in the relevant legislation, regulatory code or specification. Additionally, Technical Committees shall take due care to ensure definitions are compatible with other related Standards and industry documents.

It is not appropriate for specific administrative procedures or responsibilities to be referred to in a Standard, as these may vary from jurisdiction to jurisdiction and change over a period of time.

To accommodate the various purposes of a Standard, it may be necessary to arrange the contents such that the requirements intended to be adopted in legislation are clearly separate from those which are not.

In some cases, it may be difficult to create a clear division between the various provisions in a Standard, and practical drafting considerations may make it necessary to develop other means of segregation. For example, the requirements that are not to be adopted in legislation may be in a separate section, part, or appendix. The section, part or appendix that contains regulatory compliance provisions, shall not make reference to the section or part not necessary for legislative compliance. In some cases, a separate Standard or a series of Standards may have to be developed to meet the needs of all stakeholders.

A Note in the Preface of the Standard may be included to detail the legislation, contract or other means by which the Standard is, or is likely, to be mandated.

Drafting of the Standard shall be in accordance with Standardisation Guides SG-001: Preparing Standards and SG-006: Rules for the structure and drafting of Australian Standards.

3 How a Standard may be referenced

The Commonwealth, State and Territory Governments may choose to incorporate any normative or informative Standards Australia product, including amendments to existing Standards, into their legislative frameworks — that is, reference them in an Act, Regulation or Code of Practice.

The exact manner of incorporation will determine whether the Standard (or part thereof):

- shall be complied with (i.e. referenced in an Act or Regulations); or
- sets a minimum standard or benchmark (i.e. referenced in a Code of Practice).

The referencing will also determine whether the whole Standard, or only specific sections or provisions of the Standard are incorporated.

There are a number of ways that Standards may be referred to in legislation:

- by Standard number (and title);
- by Standard number (and title) and year of publication;

- by Standard number (and title), year of publication, and the added words “as amended from time to time” to reference any amendments; and
- by Standard number (and title) and year of publication, with each amendment separately referenced.

Regulations specify the date on which a Standard or Amendment for Regulatory Adoption and other documents come into effect.

It is recommended that regulatory authorities consult with Standards Australia regarding amendments to legislation that reference Australian Standards.

Incorporation of an Australian Standard into a Code of Practice has the effect of making the Standard part of the Code — that is, part of the guidance on how to comply with the provisions of the Act or Regulation. Australian Standards may also be referred to in government guidance materials.

For guidance regarding the numbering (designation) of Australian Standards, or drafting the title of a Standard, refer to SG-006: Rules for the structure and drafting of Australian Standards.

For guidance when using Standards in support of policy and regulation and how to identify a Standard, refer to Best Practice Guide to Using Standards and Risk Assessments in Policy and Regulation, Department of Industry, Innovation and Science, June 2016.

4 Performance and prescriptive Standards

Standards can be structured as performance based Standards or prescriptive Standards (or “deemed to comply”). The performance requirements can be contained in legislation or an Australian Standard which references another Australian Standard, or part of a Standard which is written in prescriptive form, as a complying solution. For more information on performance based and prescriptive Standards, refer to SG-003: Standards and other publications.

When drafting a Standard, every effort should be made to ensure clarity in the “objectives” and “performance aims” of the particular Standard. This includes incorporating details of criteria and testing methods, or verifications relevant to assessing performance, and where possible, specifications which are deemed to satisfy the performance requirements, of the specified performance criteria.

Where Standards Australia is requested to prepare a Standard with the performance requirements in addition to the ‘deemed to comply’ solution, the performance based Standard should be prepared as a separate document, with a separate Standard number, or in a clearly differentiated separate part. The ‘deemed to comply’ Standard should be referenced in the normal way and should not reference a performance based Standard.

Some regulations specify ‘performance’ requirements and list Standards or specifications which are deemed to satisfy the prescribed performance. By doing this, flexibility is preserved in the application of the legislation by allowing for the development of further Standards or specifications (using existing or evolving technology), or the adoption of alternative means, which also achieve the desired performance.

5 Use of Must, Shall and Should

In accordance with the International Organization for Standardization (ISO) Directives, the word ‘shall’ is used to state that a requirement needs to be followed in order to conform to the Standard. Consequently, there can be no deviation from that requirement, other than a specified tolerance.

Standards Australia notes that in legislation and specifications it is common to use the word ‘must’ to express a requirement. Where Standards are adopted in legislation, the word ‘shall’ in the Standard should be considered as equivalent to ‘must’ in the legislation. The word ‘must’ is not used in Standards in place of ‘shall’.

The term ‘mandatory’ shall not be used to express or refer to a requirement in an Australian Standard, as this may cause the requirement to be confused with a mandatory legal requirement.

The word ‘should’ introduces a suggestion or recommendation that is not a requirement. It is not necessary that such recommendations or suggestions be followed in order to conform to the Standard.

In a Standard intended for legislative adoption, ‘should’ shall not be used in Normative Clauses or in Normative Appendices, but may be used in Advisory Notes or Informative Appendices. This may be used to outline generally accepted practice in the industry concerned.

For more guidance, refer to SG-006: Rules for the structure and drafting of Australian Standards.

6 Use of Practicable and Reasonably Practicable

The terms ‘practicable’ and ‘reasonably practicable’ should be used with care in Australian Standards. Where possible, they should be avoided, as the terms are commonly used in legal frameworks, and have specific meanings in that setting.

The terms ‘practicable’ and ‘reasonably practicable’ should not be used where their use may cause ambiguity. It must be possible to interpret the requirements of an Australian Standard in precise, unambiguous terms, without reference to an external source, such as a regulatory authority or a Standards Australia committee.

The term ‘practicability’ should not be used to mean ‘technically feasible’. It is preferable to set out the technical conditions that govern the applicability of the requirement, rather than to rely on the test of practicability. If a requirement cannot be reworded to remove the word ‘practicable’, it may be expressed as a recommendation (i.e. with the verb ‘should’), rather than as a requirement (‘shall’) of the Standard.

7 Use of Normative Appendices

A Normative Appendix is an integral part of a Standard referenced in legislation. Compliance with the Normative Appendix is required in order to conform to the Standard.

Normative Appendices shall be clearly marked as Normative and shall be referenced from a Clause in the Standard for Legislative Reference.

For more guidance, refer to SG-006: Rules for the structure and drafting of Australian Standards.

8 Use of Advisory Notes and Informative Appendices

The use of Advisory Notes and Informative Appendices should be avoided. Advisory Notes and Informative Appendices can be misinterpreted as part of the requirements.

If Advisory Notes and Informative Appendices are used in a Standard intended for legislative adoption, they should only be used to provide commentary or additional guidance on recommended considerations or technical procedures, or as a cross-reference to other documents or publications. It shall not suggest a higher level of conformity than required, nor provide alternatives to or allow exemptions from the normative content.

Informative Appendices shall be referenced from an Advisory Note. Advisory Notes shall be separated from the requirements and expressed in such a way to make it clear that they are included for guidance only.

If Notes are used in the document, they shall be differentiated from the main text by a smaller font size and should be indented from the main text. A notice may be inserted into the Preface, as follows:

"Notes used in this Standard are of an advisory nature only and are used to give explanation or guidance to the user on recommended considerations or technical procedures, or to provide an informative cross-reference to other documents or publications. Notes to clauses in this Standard do not form a mandatory part in order to conform to this Standard".

For more guidance, refer to SG-006: Rules for the structure and drafting of Australian Standards.

9 Use of Commentaries

Commentaries can be used to provide additional information on the derivation and scope of specific Clauses. Ideally, for Standards intended for legislative adoption, Commentaries should be published as a separate informative supplement or part. Commentaries are related to the parent Standard; with paragraph numbers aligning with the corresponding clause numbers in the parent Standard (e.g. Commentary on Clause 2.1 is provided by Paragraph C2.1).

If the Commentaries are relatively short and few in number, they may be included in the Standard either as an Informative Appendix or directly following the relevant Clause, numbered as above.

If the Commentary directly follows the relevant Clause, it shall be differentiated from the main text, and have a notice inserted in the Preface, which reads:

"This Standard incorporates a Commentary on some of the clauses. The Commentary directly follows the relevant Clause, is designated by 'C' preceding the clause number and is printed in italics in a panel. The Commentary is for information only and does not need to be followed in order to conform to the Standard".

Commentaries may make reference to the Standard; however the normative Clauses in the Standard shall not make reference to a Commentary.

Commentaries shall not contain requirements.

For more guidance on the use of commentaries, refer to SG-003: Standards and other publications.

10 Reference to Approval Procedures or Bodies

It is not appropriate for specific administrative procedures or responsibilities to be referred to in a Standard, as these may change over a period of time or may vary from area to area depending on local conditions.

A Standard for Legislative Adoption, shall not:

a) duplicate legislative requirements;

b) specify or define the respective rights, responsibilities or obligations as between the Standard user and any manufacturer, supplier or purchaser;

c) specify or define the responsibilities of any person, or of any authority or other body;

d) require the submission for approval of any material, component, form or method of work to any person, authority or body.

e) specify that a material, component, form or method of work shall be submitted to any person, authority or body for an expression of opinion; or

f) permit a departure from a code, rule, specification or provision at the discretion of the manufacturer or purchaser, or by arrangement or agreement between the manufacturer and purchaser.

If the Standard for Legislative Adoption is required to cover any of the above matters due to exceptional circumstances, approval shall be sought from the Standards Development and Accreditation Committee

(SDAC) to do so. Those provisions should be located in an Informative Appendix, Commentary or Advisory Note.

In order for a Standard to be suitable for legislative adoption, it shall not include powers, functions or responsibilities that the legislation does not give. A Standard shall not specify requirements outside the ambit of legislative policy, nor shall it incorporate inappropriate contractual or administrative provisions. For example, a Standard shall not allow for discretion to be exercised by a body or authority other than the one which is responsible by law for the administration of the legislation which call up the Standard; a Standard shall not add to or detract from the legislative duties and liabilities of the responsible authority.

The word 'approved' should not occur in the requirements of Standards for Legislative Adoption. ***Approval*** means the granting of formal permission in relation to an application or proposal, with or without conditions, given by the body having statutory powers under legislation.

11 Cross-referencing

Care shall be taken if a Standard referenced in legislation includes a compliance cross-reference to any other Standard. The other Standard should be drafted in accordance with the principles in this Standardisation Guide.

Secondary/tertiary references should be kept to a minimum, and used only where it is essential to the process of proving compliance to the Standard and SG-006: Rules for the structure and drafting of Australian Standards.

12 Revision of Standards referenced in legislation

When an Australian Standard referenced in legislation is revised, the revision shall not conflict with the existing legislative framework. If a proposed revision is supported but does conflict with the existing legislative framework, the relevant committee shall seek to engage with the appropriate regulator.

When revising a Standard, several questions can arise, including whether or not the revised requirements apply retrospectively to existing installations and equipment. The date and impact of the change in legal requirements is a matter to be determined by the relevant regulator. However, a Technical Committee may determine that it would be useful to include wording in a Standard to encourage users to review their practices where appropriate, particularly where there are technical issues involved in the timing of the changeover.

13 Net Benefit

In order for an Australian Standard or revision to an existing Standard to be referenced in legislation, that Standard must demonstrate positive Net Benefit to the community as a whole. This requirement reflects the Memorandum of Understanding (MoU) between Standards Australia and the Commonwealth Government. The Net Benefit Case must be made prior to the development of an Australian Standard.

If it is intended or likely that the Standard will be called up in legislation, this should be taken into account when developing the Net Benefit Case and the relevant regulators should be consulted. The regulators may require a Regulatory Impact Statement (RIS) or a Preliminary Impact Assessment (PIA). The Net Benefit Case may serve as a basis for development of a RIS or PIA. Conversely, an existing RIS or PIA can be used as the basis for a Net Benefit Case.

The following references may assist proponents in developing a Net Benefit Case:

- Standards Australia Guide to Net Benefit
- Best Practise Regulation: A guide for Ministerial Councils and National Standards Setting Bodies

- Commonwealth Department of Finance and Deregulation Office of Best Practice Regulation (OBPR)

14 International adoption

In accordance with SG-001: Preparing Standards, Standards Australia has a policy of adoption, wherever possible, of International Standards prepared by the International Standards Organisation (ISO) and the International Electrotechnical Commission (IEC). This policy has been implemented to reflect Australian Government policy on compliance with the World Trade Organisation Technical Barriers to Trade (WTO TBT) agreement.

Where an International Standard deals with the subject covered by a new Standard, revision or Amendment for legislative adoption, the International Standard will be considered and evaluated for adoption in Australia. Suitability and compatibility with Australian legislation and local requirements shall be considered by the Technical Committee.

Where a committee decides not to adopt the International Standard, the committee shall provide reasons for the unsuitability of the International Standard for use in Australia. Where the International Standard is adopted but national variations are incorporated, the committee shall provide documented reasons for these variations.

For more guidance on the adoption of International Standards, refer to SG-007: Adoption of International Standards.

APPENDIX A – Glossary of Terms used in this Guide

The following definitions apply in this guide.

A1 Application Clause

An optional element that is only required in those situations where the reader may be unclear as to how to apply the document.

The Application Clause provides information about how the document is intended to be used.

This should not be confused with defining the boundaries of the subject area covered by the document, which is the purpose of the Scope Clause. In general, statements beginning with the words “this Standard applies to . . .” belong in the Scope rather than the Application Clause.

EXAMPLE 1 This Standard is intended to be read in conjunction with the relevant mandatory requirements for cigarette lighters under the Commonwealth Competition and Consumer Act 2010.

EXAMPLE 2 This Standard is suitable for use under a third-party certification programme; however, certification is not a requirement of the Standard and the Standard may equally well be applied on a self-assessment basis within an organization.

EXAMPLE 3 This Standard is intended for use by the governing body of a hospital, the administration, the physicians.

A2 Code of Practice

A code of practice made and gazetted under jurisdictional law, which provides an acceptable means of complying with the relevant Act or Regulation.

1. *There may be other means of complying with the Act or Regulation apart from that set out in the Code of Practice.*
2. *Codes of Practice are generally accepted to have evidentiary status.*

A3 Australian Standard

A Standard published by Standards Australia and prepared by Standards Australia or a body accredited by its Standards Development and Accreditation Committee (SDAC). The term ‘Australian Standard’ is a registered trademark of Standards Australia.

A4 Guidance Material

An advisory document issued by a regulatory authority to provide information on the laws and to assist with compliance. Guidance has no particular legal standing except that it contributes to the ‘state of knowledge’.

A5 Inspecting Authority

The body having statutory powers to inspect and approve under legislation.

A6 Legislation

An Act of Parliament or regulations or other kinds of subordinate legislation.

A7 Model Code of Practice

A Code of Practice developed and issued by Safe Work Australia, under the terms of its Act, and intended for use by state and territory regulatory authorities as a Code of Practice.

A8 Part

A part of a Standard, a separate publication (book) of a related suite of Standards. For example, AS 1530.1 is Part 1 of AS 1530.

A9 Primary Adopted Standard

A Standard directly adopted in whole or in part in a piece of legislation.

A10 Regulation

Any rule endorsed by government where there is an expectation of compliance. This includes legislation, regulations, quasi-regulations and any other aspect of regulator behaviour which can influence or compel specific behaviour by business, community organisations or individuals.

A11 Regulatory Authority

The body having statutory powers to administer legislation.

A12 Requirement

When applied to a Standard, is a prerequisite which shall be followed in order to conform to the Standard.

A13 Section

When applied to a multi-section Standard, a clause or group of clauses with a common purpose.

A14 Standard

A document established by consensus and approved by a recognised body, which provides for common and repeated use, rules, guidelines or characteristics for activities or results, aimed at the achievement of the optimum degree of order in a given context. See also ISO/IEC Guide 2.

A15 State of Knowledge

The knowledge about a hazard or risk, and any ways of eliminating or minimising the hazard or risk that a duty-holder knows, and what a reasonable person in the duty-holder's position (e.g. a person in the same industry) would reasonably be expected to know.

APPENDIX B – Drafting of Standards that may be referenced in WHS legislation

B1 General approach to drafting Standards that may be referenced in WHS legislation

In the WHS regulatory framework, Australian Standards® are used in a variety of ways, ranging from reference in Acts and Regulations to the administrative application of a Standard by a WHS regulator for compliance purposes.

When developing or revising a Standard, it is important to be aware of the needs of users of the Standard. This includes the specific needs of the authority in each jurisdiction that intends to use the Standard for regulatory purposes.

Care must be taken during the drafting of a Standard that may be referenced in WHS legislation to ensure that its provisions are entirely compatible with existing (and if possible, proposed) legislation and does not attempt to expand the coverage of that legislation.

B2 Tiering of requirements

A Standard that may be referenced in WHS legislation shall represent the minimum acceptable performance and not best practice in the industry. This is a complex matter to judge when dealing with issues associated with health and safety because, as technology improves, the community's expectation of the minimum acceptable level of health and safety also rises. Thus, new editions of Standards need to keep pace with improved knowledge of the risks associated with the subject at hand, and with any new technology.

Where a Technical Committee feels that there would be benefit including requirements in an Australian Standard that go beyond the minimum acceptable levels of health and safety, the requirements may need to be tiered.

Tiering may be achieved in several ways. The simplest approach is to divide the Standard into parts, with Part 1 covering basic health and safety measures able to be referenced by law. The additional requirements then covered by Part 2. It is important to note that while such a Part 2 Standard may be used in contractual arrangements, the Standard itself shall not contain contractual requirements (concerning claims, guarantees, covering of expenses etc.).

B3 Interface with regulators – Duties of employers, employees, designers of equipment and others

A challenge that Standards Australia's Technical Committees often face is trying to develop Standards that will fit into a regulatory framework that is based on the responsibilities of employers, employees, designers of equipment and others. As these duties need always be tied back to the overall duties set out in an Act of Parliament in each jurisdiction, it is neither desirable nor feasible to try to establish in an Australian Standard the duties of the different parties.

In addition, there may be fundamental differences between the Acts in the different jurisdictions; this in turn will affect the way duties can be ascribed to parties. As a result, what is deemed appropriate by a representative on a Technical Committee from one jurisdiction, may conflict with the requirements of a representative from another jurisdiction.

The establishment of a common national approach to the duties of the different parties is part of the role of Safe Work Australia. Australian Standards shall be written so as to be compatible with model WHS legislation, Codes of Practice and guidance material developed by Safe Work Australia, but shall not duplicate this work.

Australian Standards shall also take into account the whole range of regulatory requirements (not just WHS requirements) that, for example, may affect how a product is designed, how a certain substance is handled, or the many other subjects covered by the Standard.

To take a practical example, if the subject of the Standard is the storage of a flammable liquid, it may be affected by WHS legislation, environmental law, consumer protection law, and planning law. The Standard shall not attempt to restate or modify the legal obligations of the occupier of the site. Instead, it should specify the minimum acceptable performance for the occupier of the site in accordance with all of the external facilities, including their many legal obligations and the need to operate the facility in an efficient manner.

The appropriate way to express a requirement for the siting of a tank is in the form ‘Tanks shall be located with a minimum effective separation distance of x metres’, rather than ‘Occupiers shall locate tanks at a minimum separation distance of x metres’.

In one WHS jurisdiction, the siting of the tank may be a duty placed on ‘the occupier’, and in another it may be a duty of ‘the employer’. Similarly, under planning law, it may be a duty of ‘the applicant’ to take account of tank location.

An Australian Standard should reflect the range of ways in current use in industry by which legal obligations are normally met. It is not necessary to cover every way of meeting those obligations. Under the performance-based regulatory regimes operating in Australia, regulations focus, as far as possible, on outcomes. This provides opportunity for new and innovative ways of achieving those outcomes. The Australian Standard should, therefore, meet the needs of users who simply need to know what to do, rather than those interested in innovative approaches, which are otherwise catered for.

One test of whether a requirement should be specified in an Australian Standard or be dealt with in a regulation is to ask whether the requirement is likely to change over time as a result of technical innovation or other similar factors. If there is a likelihood of change, then it is normally appropriate to specify that requirement in a Standard. In general, anything that involves setting a specific numerical value will be liable to change.

B4 Revision of Standards referenced under WHS legislation

When an Australian Standard referenced under State WHS regulatory systems is revised, the revision shall not conflict with the National WHS legislative framework. If a proposed revision is supported but does conflict with the framework, the relevant Technical Committee shall seek to engage with Safe Work Australia through Standards Australia.

APPENDIX C – Drafting of Standards that may be referenced by water utilities

C1 General approach to drafting Standards that may be referenced by water utilities

Australian Standards® intended to be adopted by the water industry for regulatory, contractual or guidance purposes shall be consistent with the objectives of the water utilities, which strive to provide quality and value for money water services, while recognising that water resources need to be managed sustainably for the benefit of future generations.

Standards shall ensure the ability of water utilities to operate and maintain reliable and serviceable water and wastewater infrastructure for minimum operational lives, as required, within the key performance indicators for water and wastewater management.

All Standards shall be consistent with the principle of ecologically sustainable development; for example, by permitting the use of recycled materials wherever possible and practicable.

All Standards should, generally, be performance based and should not discourage innovation or restrict the adoption of new technology.

All product Standards shall provide minimum conformity requirements as a baseline for manufacturers, certification bodies and quality management system auditors. Installation Codes of Practice shall provide minimum field testing requirements for constructors and auditors.

In summary

Water supply and reticulation infrastructure shall:

- be safe for contact with drinking water in all conditions and throughout its life;
- maintain structural integrity and resist all loads under normal service conditions;
- provide long term leak free joints;
- maintain hydraulic capacity; and
- fulfil minimum life requirements.

Wastewater infrastructure shall:

- minimise any operational impact on the environment;
- maintain structural integrity and resist all loads under normal service conditions;
- minimise inflow infiltration and exfiltration;
- maintain hydraulic capacity; and
- fulfil minimum life requirements.

Design, construction and maintenance Standards shall:

- enable compliance with all regulations;
- offer a range of solutions or options that are based on risk management principles;
- provide cost-effective installation, repair, maintenance and provision of service connections; and
- provide an effective basis for industry training by identifying outcomes of industry training programs.

C2 Structure of Standards

Standards have a major role in enabling water utilities to manage risk in commercial environments. Standards for the water utilities should be structured in such a way that the water utilities referencing that Standard for regulatory, contractual or guidance purposes, have a choice of options available to them which can be selected on a risk management basis. Standards should not be pitched at such a high level that they represent the least risk option to the end user. For example, the selection of a water reticulation main that will service the CBD of a major city is quite different to the selection of a water reticulation main for a rural community. On the other hand, some Standards will offer no choice because there can be no differentiation in the level of risk. For instance, in the above example, materials used in contact with the drinking water in both reticulation systems shall meet the same Standard, which will reflect industry best practice.

Committees shall exercise good judgment because, as the regulatory climate changes and technology improves, the expectation of the minimum acceptable level of performance also rises. Thus, new editions of Standards should keep pace with the subject at hand and with new technology.

Individual Standards shall, where necessary, be structured so that there is a hierarchical form, with the higher form expressed in performance terms and the lower form in prescriptive terms (as conformance solutions).

Every effort should be made in the drafting of Standards to incorporate details of the 'objectives' and 'performance' aims of the particular Standard. For example, a general Standard for plastics piping systems for buried and above ground drainage and sewerage under pressure would constitute a higher form Standard with the individual Standards for specific plastics pipes and fittings (PVC, PE, GRP and the links) forming the lower form Standard.

Performance requirements in a Standard shall be readily verifiable by referenced test methods, with clear distinction between design and performance type testing, and production and installation quality control testing. A schedule of minimum sampling and testing frequencies shall be developed for each product and installation Standard to provide a baseline for demonstrating conformance to the Standard in the absence of third-party product/installation certification.

'Methods of Test' Standards and appendices shall detail the relevance and the principle of the test method, as well as the test apparatus (see AS 2929, Test methods-Guide to the format style and content).

C3 WSAA committee representation

In general, a representative of Water Services of Australia (WSAA) will be a member of the Technical Committee responsible for the preparation of a Standard that is intended for use by the water utilities. That representative will be available to advise on water industry policies, directions and requirements through a caucus system within the WSAA membership. WSAA's representative(s) on the Technical Committee will be responsible for liaising with the Committee on matters concerning the specific Standard. WSAA representation will, as far as practicable, be individually continuous on the Technical Committee.

15 Document History

To follow details the history of this document:

Date	Author	Amendment Details
13/03/08		v1.0 - First issued.
26/05/10	Process & Procedures Officer	v1.1 - Hyperlinks updated & SG reissued.
22/02/12	Process & Procedures Officer	v1.2 - Hyperlinks updated after new corporate website released & SG reissued.
16/01/13	Process & Procedures Officer	v1.3 - Reconfirmed/updated Document History & SG reissued.
06/03/17	Process & Procedures Coordinator	v2.0 - Text from SG-017: Drafting of Standards referenced in WHS legislation & SG-018: Standards referenced by water utilities added to SG-009 appendices then reviewed & revised to reflect current practice & terminology.

AS 2047—1999
(Incorporating Amendment Nos 1 and 2)

Australian Standard™

Windows in buildings—
Selection and installation

**Building Code of Australia
primary referenced Standard**

SECTION 6 CONSTRUCTION

6.1 GENERAL Window assemblies shall be constructed to meet the materials and performance requirements of Sections 2, 3, 4 and 5.

6.2 TOLERANCES The sizes of rectangular window assemblies shall be within a tolerance of ±3.0 mm of the agreed sizes, and the maximum difference between diagonals shall be 4 mm.

6.3 JOINTS The joints between members shall be capable of withstanding all forces applied to the various components, as required by Section 2.

6.4 GLAZING

6.4.1 Glazed windows Glazing methods not covered in AS 1288 are acceptable provided the glazed assembly complies with Section 2.

NOTE: The majority of windows for housing are supplied factory-glazed and use individual proprietary methods which are not described in AS 1288.

6.4.2 Site glazing Glazing after the frame is installed in the building shall be in accordance with one or more of the methods in AS 1288.

6.4.3 Structural glazing This Section does not cover construction of structural glazing, refer to AS 1288 for details.

NOTES:

1 The use of structural silicone and adhesive glazing tapes for the bonding of glass or panels onto framing systems is a specialist procedure requiring very careful choice of materials and treatment of the bonding surfaces.

2 Consultation with all material suppliers is of critical importance. Only experienced structural glazers should be used and the process should be strictly in accordance with the manufacturer's specific process.

6.5 REVEAL LININGS Where wood products are used for reveal linings they shall conform to the requirements of Clause 3.2.1 and the relevant States Timber Marketing Act.

6.6 FLASHINGS Flashing materials shall be in accordance with AS/NZS 2904 and shall be compatible with window assemblies.

NOTE: Flashings may be attached to windows at the time of assembly to facilitate their installation in the building.

AS 4654.2—2012

Australian Standard®

Waterproofing membranes for external above-ground use

Part 2: Design and installation

Australian Standard®

Waterproofing membranes for external above-ground use

Part 2: Design and installation

First published as AS 4654.2—2009.
Second edition 2012.

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ISBN 978 1 74342 226 7

2.4.2 Service conditions

The design and installation of exposed and protected membrane systems, as determined in accordance with AS 4654.1, shall resist the following service conditions or any combination thereof:

(a) Ultraviolet light (where exposed).

(b) Heat ageing.

(c) Membrane temperature within the range of its operating temperatures.

NOTES:

1 Membranes used in Australia may experience variations in temperature from −15°C to +85°C. The actual range depends on local environmental conditions. Low temperatures may result in significant loss of elongation and high temperatures may result in softening and significant increase in elongation of the membrane. Extended exposure at high temperatures may result in a hardening of the membrane resulting in loss of elasticity.

2 Where thermal insulation is in direct contact with the membrane, consideration should be given to its effect on the temperature range to which the membrane is subject.

(d) Bioresistance.

(e) Water immersion.

(f) Chemical resistance.

NOTE: Cooling tower and swimming pool chemicals can adversely affect waterproofing membranes and service conditions. Such circumstances may require specific design.

2.5 SUBSTRATE

2.5.1 General

The substrate material in contact with the waterproofing shall be suitable for and compatible with the waterproofing membrane system.

Particleboard sheeting shall not be used as a substrate for external waterproofing systems.

Tile and slate underlay shall not be used externally as a waterproofing system.

NOTE: For further information on suitability of materials used for substrates, refer to the following:

(a) Concrete, AS 3600.

(b) Timber, AS 1684 (all parts).

(c) Plywood, AS/NZS 2269.

(d) Cellulose-cement products, AS/NZS 2908.2 or ISO 8336.

The substrate shall be resistant to moisture damage caused by condensation forming on the underside.

2.5.2 Falls

Falls in finishes shall ensure water drains to the drainage outlet. Water shall not be retained on the finished surface with the exception of residual water remaining due to surface tension.

The fall shall be in the structural substrate, or formed by a screed over the structural substrate.

NOTE: Falls for surface drainage should be no flatter than 1 in 100.

2.7 FILLETS

Fillets shall be used when a membrane changes from a horizontal to vertical or vertical to vertical plane.

NOTE: The cove should be dimensioned as a 40 mm × 40 mm fillet/cove for 'sheet' membranes and a 15 mm × 15 mm fillet/bond breaker for 'liquid' membranes.

2.8 TERMINATION OF MEMBRANES

2.8.1 Upward terminations

2.8.1.1 *Height*

Where the membrane termination is to prevent water entry, the finished height of the membrane above the finished surface level shall be sufficient to prevent water, including wind driven, flowing over the top of the membrane.

NOTE: For information on termination heights, see Appendix A.

2.8.1.2 *Anchoring*

Sheet membranes shall be secured along the top edge or bottom edge.

NOTE: The method of securing is dependent on the membrane type.

2.8.1.3 *Membrane termination finishing*

The sheet membrane shall be finished with over-flashing or cover-flashing.

NOTE: Typical membrane finishing with over-flashing is shown in Figure 2.2.

The termination of a pressure seal flashing shall comply with the following:

(a) Pressure seal flashing shall be attached using mechanical fixings at maximum 150 mm centres. The lap from the bottom edge of the mechanical fixing to the bottom edge of the pressure seal flashing shall be a minimum of 15 mm.

(b) Sealant shall be used to encapsulate the pressure seal flashing to the weatherproof wall.

(c) There shall be a minimum 10 mm gap between the bottom of the flashing and finished level.

NOTE: Typical details of pressure seal flashing are shown in Figure 2.3.

The termination of an over-flashing shall comply with the following:

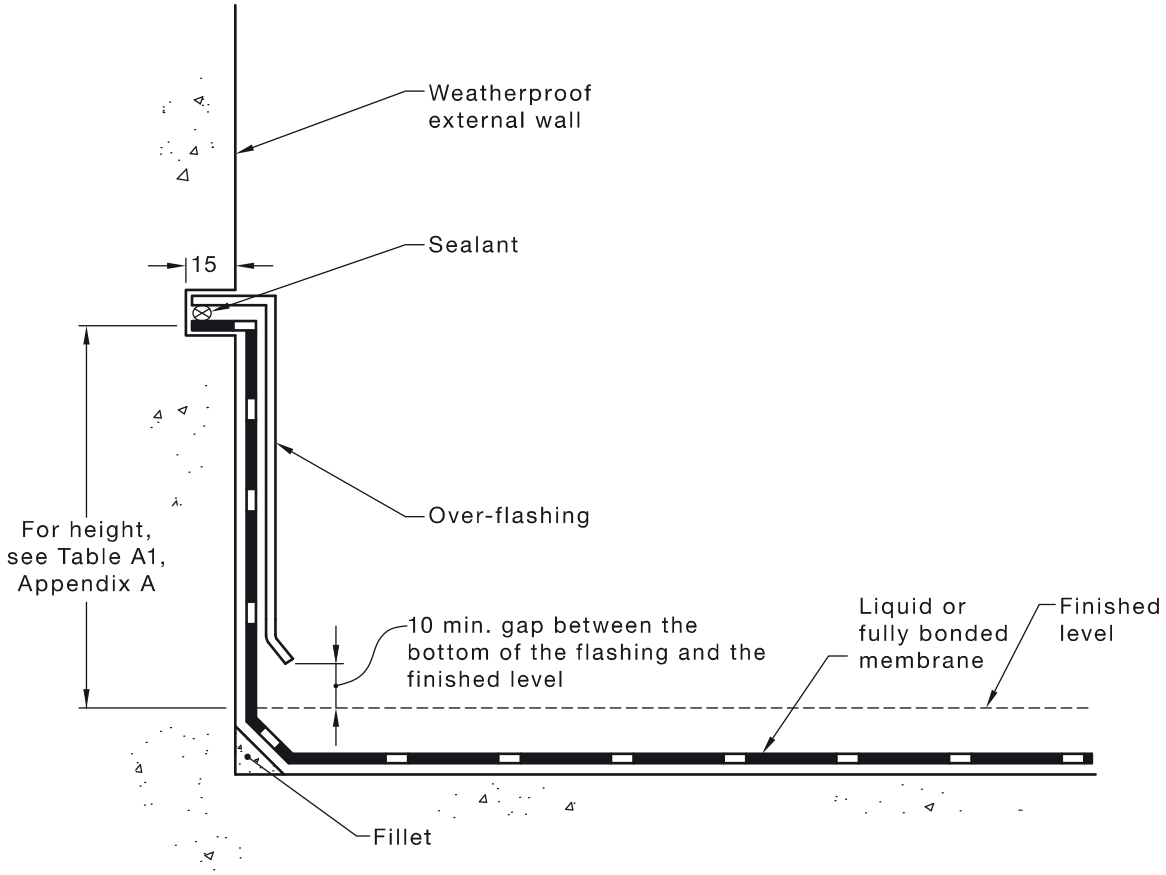
(i) The over-flashing shall be attached into the waterproof wall via a reglet of minimum 15 mm and shall be fixed in place and sealed with sealant.

(ii) The lap from the top edge of the sealed reglet to the bottom of the fully bonded membrane shall be a minimum of 75 mm.

(iii) There shall be a minimum 10 mm gap between the bottom of the flashing and the finished level.

For balconies with a fully bonded membrane, the membrane may be terminated at the drip groove.

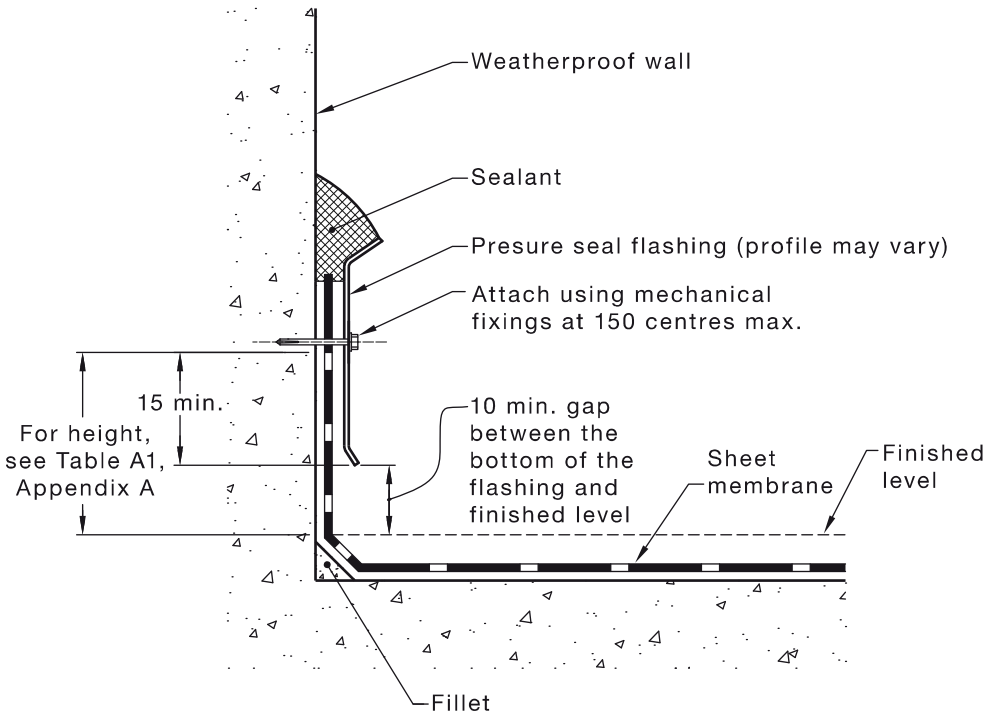
NOTE: For a typical treatment, see Figure 2.4(b).



NOTE: For falls, see Clause 2.5.2.

DIMENSIONS IN MILLIMETRES

FIGURE 2.2 TYPICAL VERTICAL UPWARD TERMINATION—DETAIL OF OVER-FLASHING FOR LIQUID OR FULLY BONDED SHEET MEMBRANES



NOTE: For falls, see Clause 2.5.2

DIMENSIONS IN MILLIMETRES

FIGURE 2.3 TYPICAL VERTICAL UPWARD TERMINATION—DETAIL OF PRESSURE SEAL FOR SHEET MEMBRANE

2.8.2 Vertical downward termination

2.8.2.1 *Roofs and balconies*

The vertical downward termination for roofs or similar structures using sheet membrane shall extend a minimum of 100 mm from the junction.

NOTE: Typical vertical downward terminations are detailed in Figure 2.4. A typical 100 mm extension is shown in Figure 2.4(a).

For balconies with a fully bonded membrane, the membrane may be terminated at the drip groove.

NOTE: For a typical treatment, see Figure 2.4(b).

2.8.3 Doors and windows onto external waterproofed areas

For doors and windows onto external waterproofed areas, the following apply:

(a) Sub-sill flashing shall be included as part of the membrane system (see Note 1).

(b) Where the internal and external finished floor levels do not allow an upturn, the membranes shall be fixed under the sill and terminate in the stormwater system (see Note 2).

NOTES:

1 For typical detail of sub-sill flashing, see Figure 2.8.

2 For typical detail of membrane fixed under the sill and terminating in the stormwater system, see Figure 2.9.

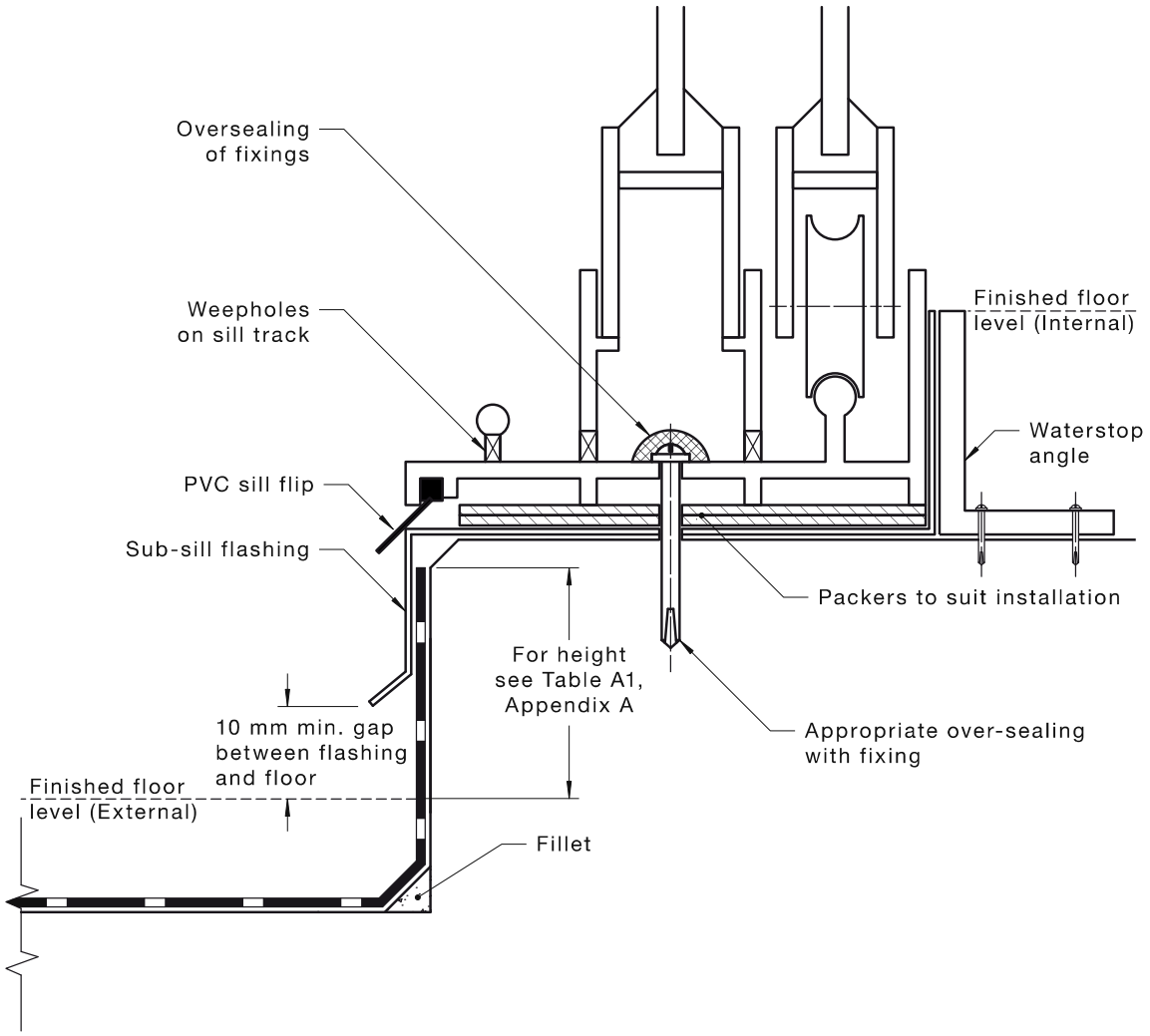
3 Ideally, the deck surface should fall away from the grate, and additionally the grate should be to the width of or greater than the opening.

4 Typical details of external terminations at external opening doors and at wall openings are shown in Figure 2.8 and Figure 2.9.

5 Openings should be provided with a set-down or hob to provide a vertical surface of sufficient dimension. See also Table A1, Appendix A.

6 Where circumstances do not permit the inclusion of a set-down or hob (e.g., for wheelchair access), a gutter should be formed into the substrate immediately in front of the opening.

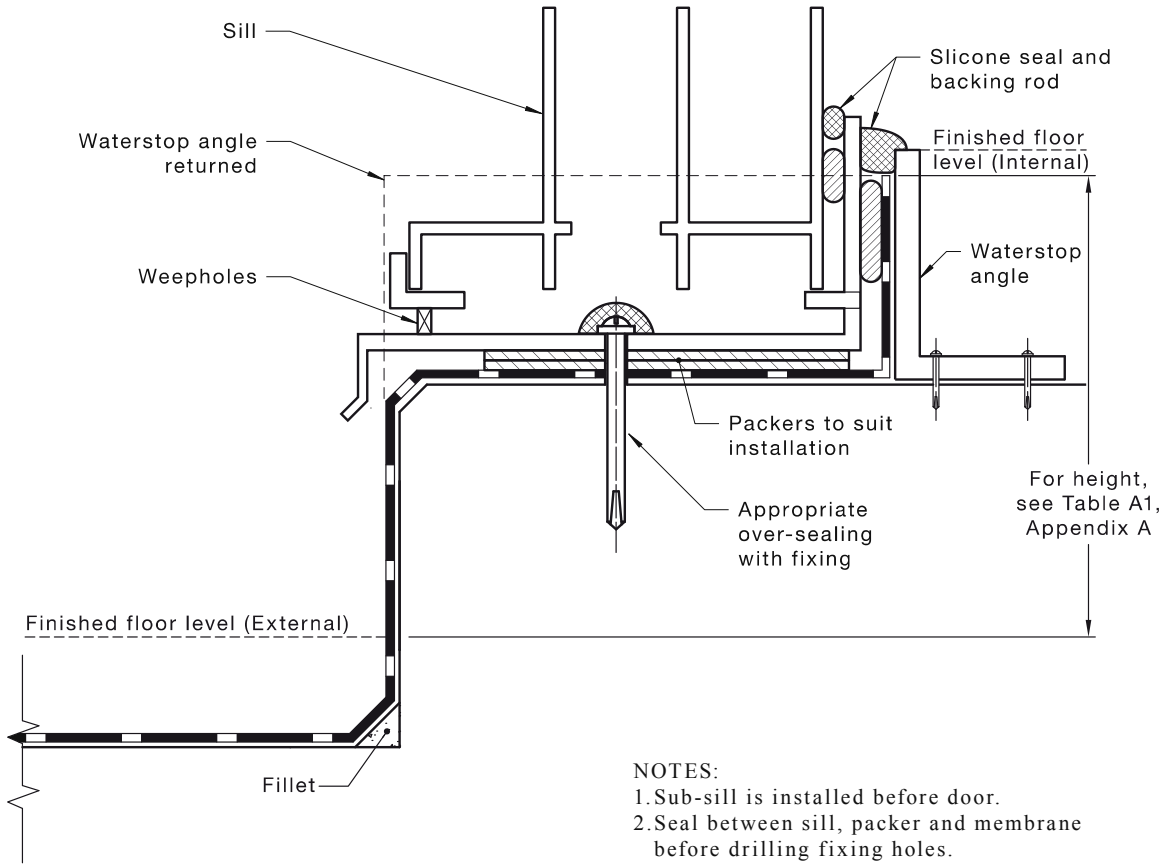
7 Requirements for fixings to seals and frames are given in AS 2047.



NOTE: For falls, see Clause 2.5.2.

(a) Option 1 Opening higher than sill upward termination

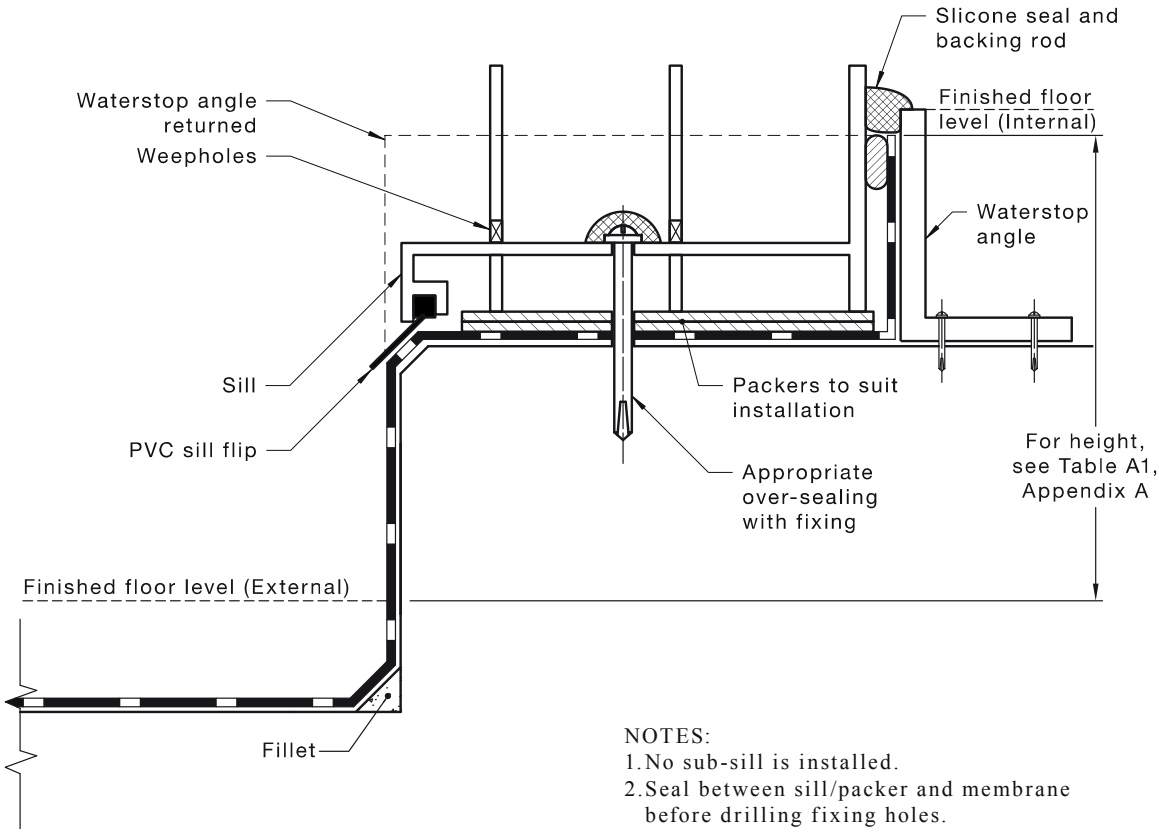
FIGURE 2.8 (in part) TYPICAL DETAILS OF MEMBRANE TERMINATION AT EXTERNAL OPENING DOORS



NOTE: For falls, see Clause 2.5.2.

(b) Option 2 Sill with sub-sill

FIGURE 2.8 (in part) TYPICAL DETAILS OF MEMBRANE TERMINATION AT EXTERNAL OPENING DOORS



NOTE: For falls, see Clause 2.5.2.

(c) Option 3 Sill—No sub-sill

FIGURE 2.8 (in part) TYPICAL DETAILS OF MEMBRANE TERMINATION AT EXTERNAL OPENING DOORS

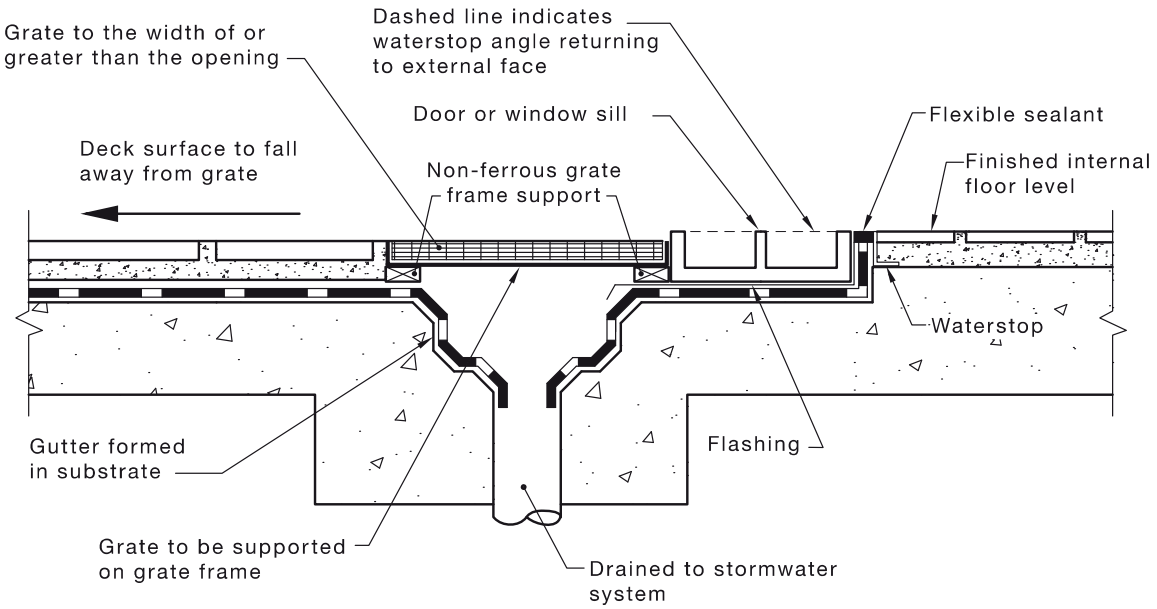


FIGURE 2.9 TYPICAL DETAILS OF MEMBRANE TERMINATION AT WALL OPENINGS WHERE THE INTERNAL AND EXTERNAL FINISHED FLOOR LEVELS DO NOT ALLOW FOR AN UPTURN

2.8.4 Penetrations

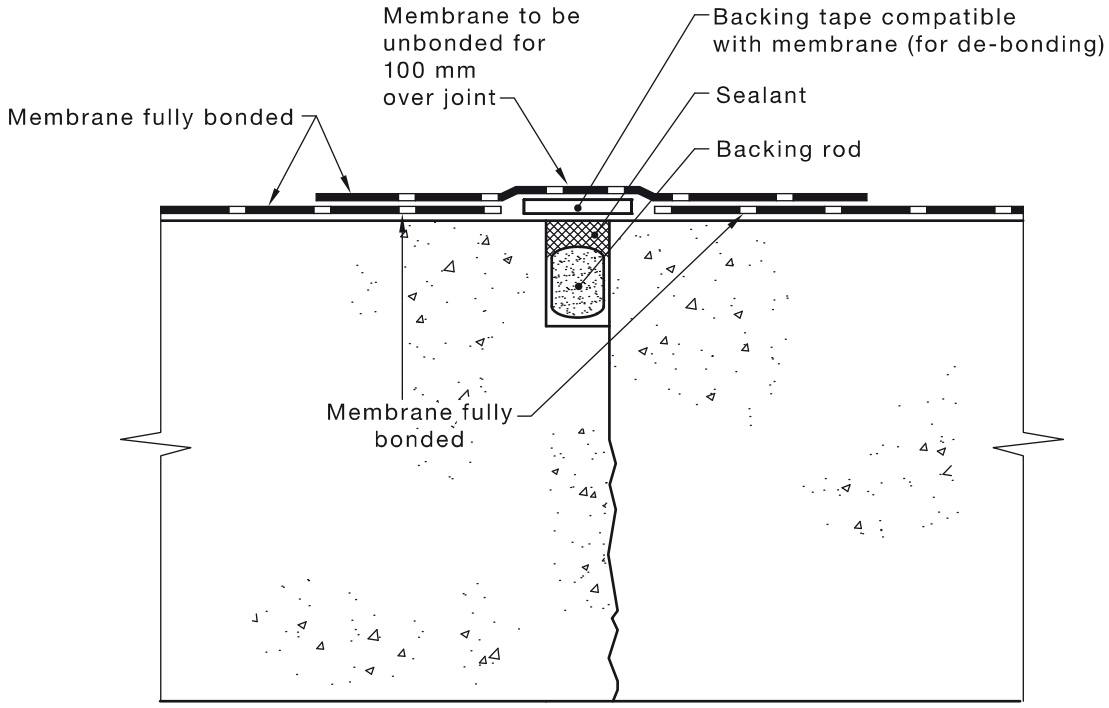
Any fixings that penetrate the membrane shall be sealed. The sealant shall be compatible with the surface material.

Where backing rods are used to support the sealant, they shall be a minimum of 12 mm.

NOTES:

1 Typical details of penetrations are shown in Figures 2.10 and 2.11.

2 Typical details of metal post supports are shown in Figure 2.12.



NOTE: For falls, see Clause 2.5.2.

FIGURE 2.14 TYPICAL CONTINUOUS MOVEMENT JOINT

2.10 DRAINS

The membrane shall be connected to the stormwater drainage system through a turn down of the membrane into the inlet of the system as shown in Figure 2.15.

An alternative connection may have a flange to which the membrane is clamped or attached (see Note 1).

To minimize blockage from debris, the drain shall have a sump, inlet pit, grate or cage.

NOTES:

1 The flange may be part of the inlet to the stormwater system or a separate item fitted on site.

2 Where the finished surface is above the level of the membrane, a variable level inlet or grate is used to provide surface drainage.

3 The variable level inlet should allow sub-surface drainage at the membrane level.

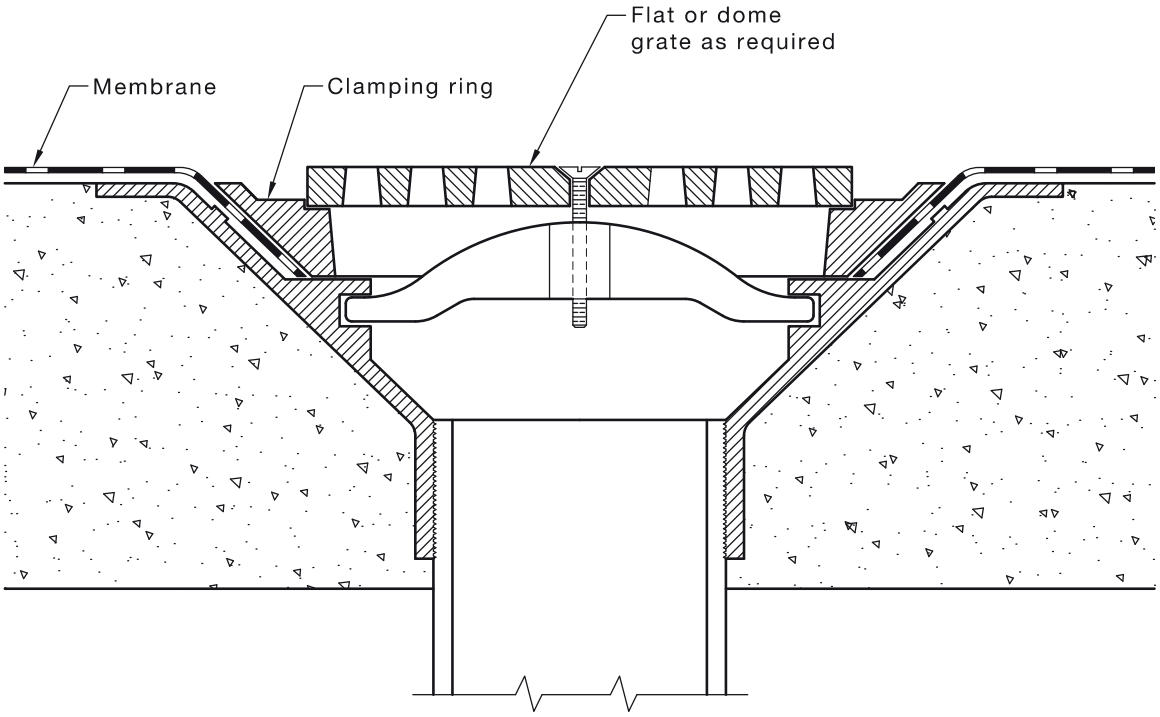


FIGURE 2.15 DRAINAGE DETAIL FOR AN EXPOSED MEMBRANE

2.11 OVERFLOWS

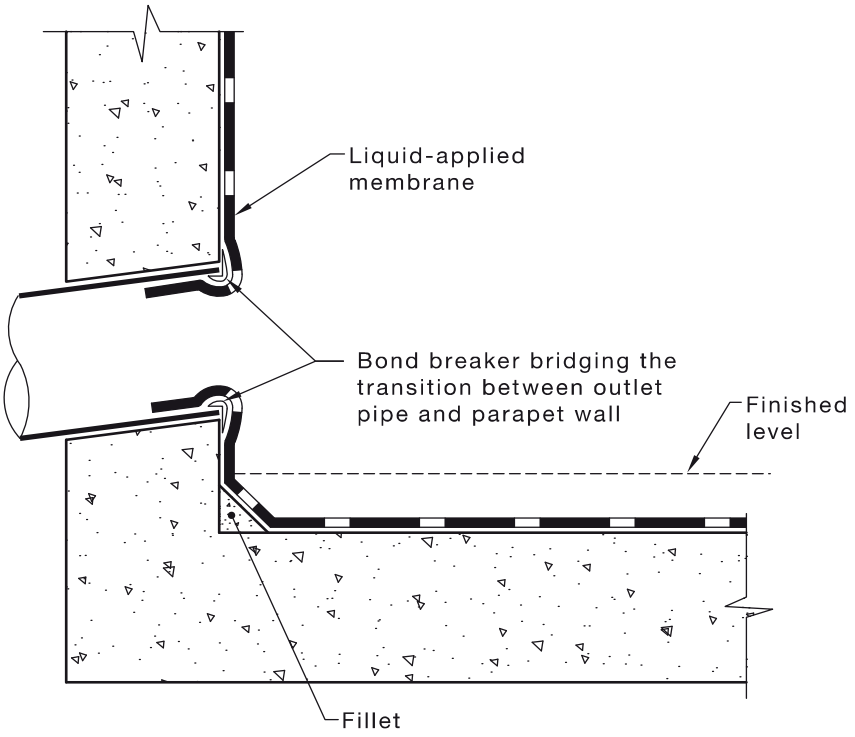
The membrane shall be turned into the overflow, to prevent moisture from tracking behind the membrane.

The finished floor level shall not reduce the design flow of an outlet.

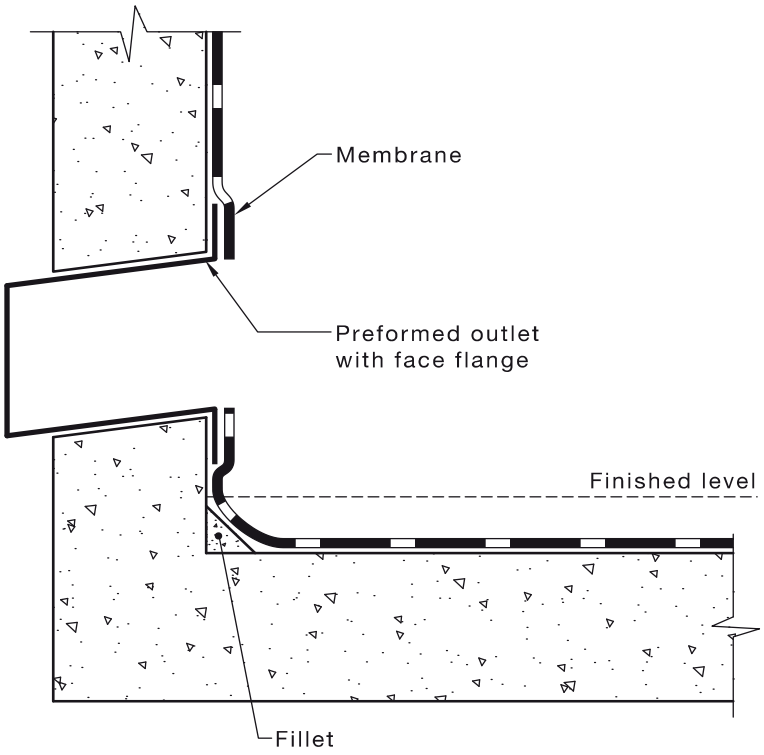
NOTES:

1 Typical examples of membranes turned into the overflow are shown in Figure 2.16.

2 Overflow facilities should direct water away from the building.



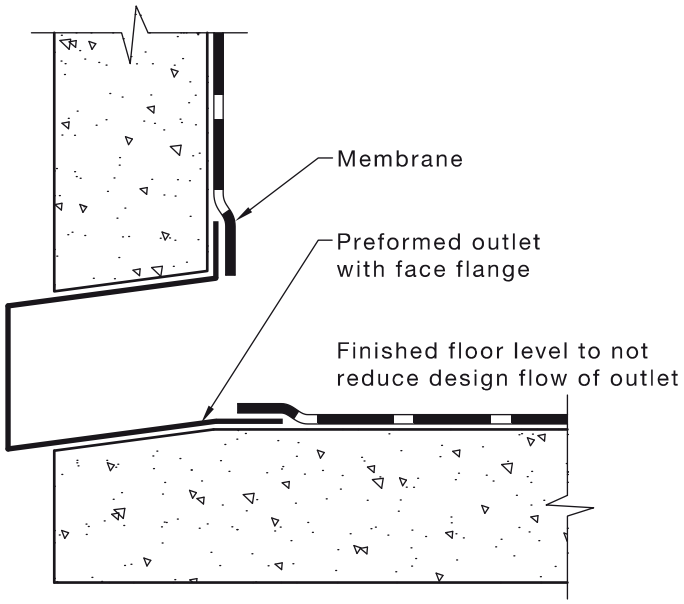
(a) Overflow through parapet



(b) Preformed overflow through parapet

NOTE: The overflow pipe should be located in a readily visible location to alert of a potential blockage.

FIGURE 2.16 (in part) TYPICAL DETAILS OF OVERFLOW



(c) Preformed outlet to parapet overflow

FIGURE 2.16 (in part) TYPICAL DETAILS OF OVERFLOW PIPE

2.12 CHANGES IN DIRECTION OR UPSTANDS

Any changes in the membrane's direction from horizontal to vertical shall meet the requirements of Clause 2.3.

The membrane system shall be designed to accommodate differential horizontal movement (shear) between the vertical and horizontal substrate.

Bond breakers shall be provided where movement between substrates is expected. They shall be of sufficient dimension to allow the membrane to accommodate the movement.

Upstands (e.g., piers or posts) shall be treated as posts and post supports, and shall be detailed in accordance with Clause 2.8.4.

Hobs around plant rooms or similar structures shall be treated as upward terminations and shall be detailed in accordance with Clause 2.8.1.

NOTE: Plinths used for exposed plant should be placed over the roofing membrane. Protection of the membrane against vibration should be provided.

2.13 PLANTER BOXES

The membrane shall be sealed to the drainage outlet. It shall extend vertically to a height of 100 mm above the soil or fill level.

Falls in the base of the planter shall be in accordance with Clause 2.5.2.

NOTES:

1 The planter box should be provided with a suitable overflow.

2 Protection boards should be provided to minimize root damage to the waterproofing membrane. The suitability of the plants to be installed should be considered, as certain rooting systems are aggressive and may penetrate the membrane.

3 Mulch should be considered when determining the soil fill level.

4 Externally exposed walls of planter boxes should be waterproofed to prevent failure of the internal planter box membrane.

5 A typical example of waterproofing inside a planter box is shown in Figure 2.17.

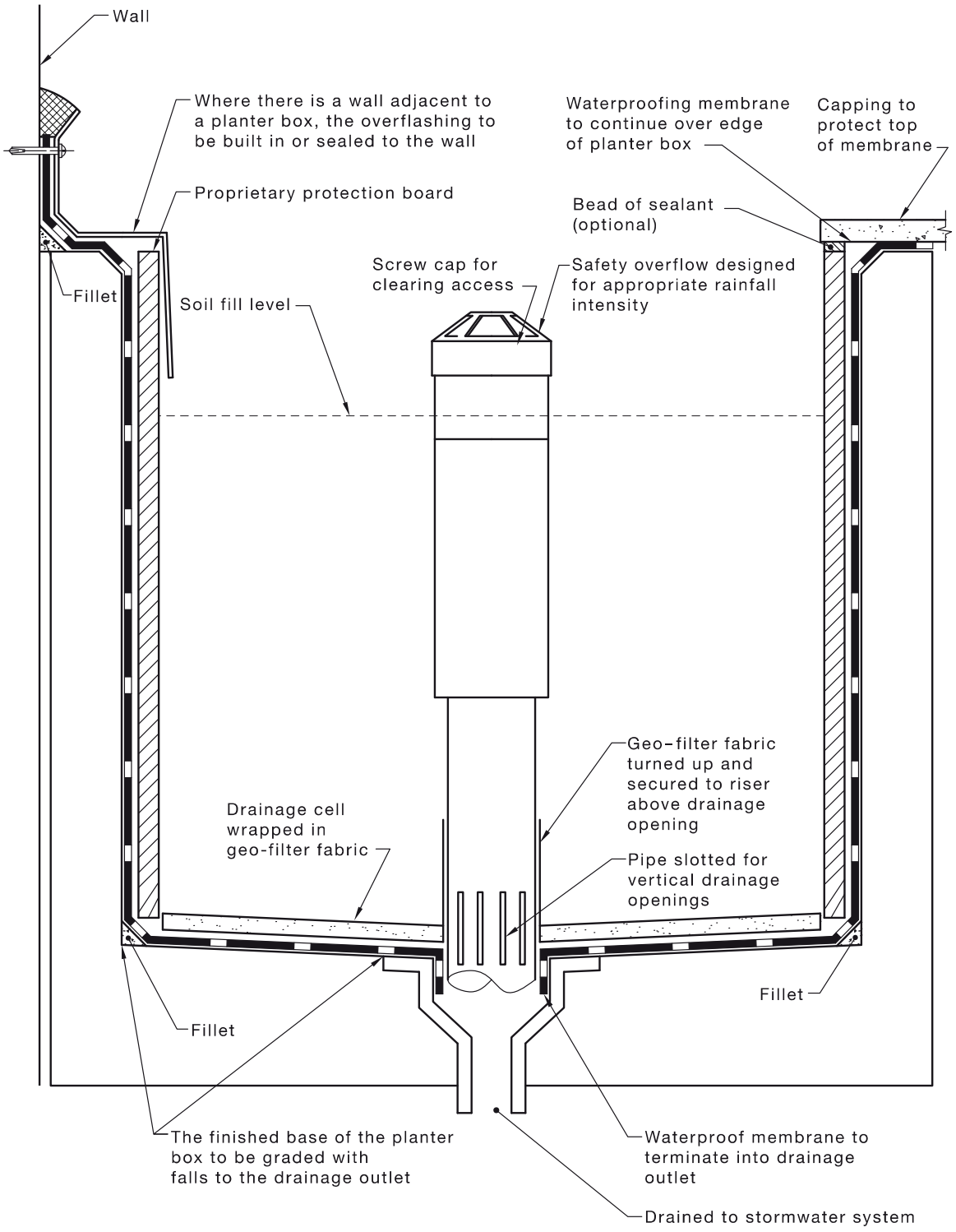


FIGURE 2.17 TYPICAL PLANTER BOX CONSTRUCTION

APPENDIX A

VERTICAL UPWARD TERMINATION HEIGHTS

(Informative)

This Appendix applies to the determination of vertical upward termination of height as given in Table A1.

The vertical heights may be determined by either of the following methods:

(a) Vertical upward termination to be at a height above finished level not less than specified in Table A1.

(b) Where stormwater retention is designed into the waterproofed area, the height of the upturn to be above the overflow level.

TABLE A1

VERTICAL UPWARD TERMINATION HEIGHTS

Wind class Regions A and B (non-cyclonic) AS 4055	Wind class Regions C and D (cyclonic) AS 4055	Ultimate limit state wind speed ($V_{h,u}$) AS/NZS 1170.2	Termination height mm
N1	—	34	40
N2	—	40	50
N3	C1	50	70
N4	C2	61	100
N5	C3	74	150
N6	C4	86	180

AS/NZS 3500.3.2:1998

Australian/New Zealand Standard™

National plumbing and drainage

Part 3.2: Stormwater drainage—Acceptable solutions

ABCB
Australian Building Codes Board

STANDARDS AUSTRALIA
STANDARDS NEW ZEALAND

SECTION 5 SURFACE DRAINAGE SYSTEMS — DESIGN

5.1 SCOPE OF SECTION This Section specifies acceptable solutions for the design of surface drainage systems.

5.2 DESIGN METHODS

5.2.1 Methods Surface drainage systems for single dwellings in rural areas, and single dwellings on urban allotments with areas less than 1000 m^2, shall be designed using the nominal method (see Clause 5.4.)

Surface drainage systems for the following types of buildings shall be designed using the general method (see Clause 5.5):

(a) Single dwellings on urban allotments with areas of 1000 m^2 or greater.

(b) Allotments with group (cluster) housing.

(c) Small industrial or commercial developments.

(d) Large group housing, industrial, commercial or institutional (e.g. schools) developments.

NOTE: Type (d) developments may include a number of site stormwater drains connecting to common main-internal drains (see Clause 1.3.8). Main-internal drains shall be sized in the same way as stormwater drains in streets in accordance with methods specified by the network utility operator (see ARR97 and manuals in Paragraph A2, Appendix A).

5.2.2 General requirements Piped systems shall meet the minimum pipe diameter, cover and gradient requirements specified in this Standard. Such systems shall be arranged so that any overflows will not pond against, or enter into, buildings.

5.2.3 Design rainfall intensity Elements shall be designed to contain within surface drains, gutters or formed flow paths minor storm events of the appropriate average recurrence interval (ARI) specified in Table 5.1. Surface drainage systems shall be designed to ensure overflows, in major storm events with an ARI of 100 years in Australia or 50 years in New Zealand, do not present a hazard to people or cause significant damage to property.

5.3 LAYOUT

5.3.1 General Layouts of surface drainage systems should take full advantage of the existing and proposed topography of the site and the position and level of the point or points of connection to the stormwater drainage network.

5.3.2 Influences on layout Factors that determine a layout include the following:

(a) Site conditions, including—

(i) the intended uses of existing and proposed buildings;

(ii) location of downpipes and overflow devices, where appropriate, surcharge outlets and outlets of any internal drainage or pump-out systems;

(iii) any stormwater discharges from adjacent land;

(iv) location of existing and proposed pervious and impervious areas, such as paved areas, parking lots and gardens;

(v) soil types and strata, and vegetative cover and trees;

(vi) locations of access to the site, and to ground-level and below-ground floors of buildings (see Clause 5.3.3.4);

5.3.3.4 *Entry into buildings* Stormwater shall be prevented from entering doorways and other openings in buildings. Where these are lower than the adjacent ground surfaces, grated drains shall be placed across ramps or entrances to intercept any flow which would otherwise drain into the building.

5.3.3.5 *Containment of harmful substances* Separate surface drainage systems or special arresters (see Clause 8.6) shall be provided for any parts of the property where materials that could pollute or block such drainage systems are stored or used. These drainage systems shall comply with the requirements of the network utility operator regarding containment of polluting substances.

5.3.3.6 *Inlet and pit locations* Inlet pits should be located to intercept surface flows, while also fitting neatly into the layout of the site stormwater drains.

On-grade pits situated on sloping surfaces or in channels or gutters shall be sized to intercept a large proportion of the flow. They shall be located so that any bypass flows under minor storm event conditions will not cause a nuisance and that widths of concentrated flow are negotiable by pedestrians.

NOTES:

1 Care should be taken in locating and specifying details of grated pits in areas subject to pedestrian or vehicular traffic to avoid possible damage to pits and danger to pedestrians and cyclists.

2 Site stormwater drains should be laid in straight lines—

(a) to avoid conflict with other services; and

(b) to minimize overall length and number of changes in direction.

5.3.3.7 *Sanitary drainage system* Surface drainage systems shall be completely separate to any sanitary drainage system.

5.4 NOMINAL METHOD For single dwellings in rural areas, and single dwellings on urban allotments with areas less than 1000 m^2 in area or single dwellings on non-urban allotments, pipe design shall be determined according to local practice and experience (without specific design calculations), and according to the minimum diameter (Clause 7.3.4), cover (Clause 7.2.6), gradient (Clause 7.3.5) and other relevant requirements of this Standard.

The layout shall comply with Clause 5.3.

NOTE: An example illustrating the application of the nominal method is given in Appendix K.

5.5 GENERAL METHOD

5.5.1 Basis The general method for design of surface drainage systems uses the Rational Formula (see Equation 5.5.7) to calculate design flows from rainfalls of a given ARI and hydraulic charts to determine characteristics of the pipes needed to convey such flows.

Surface drainage systems shall be designed to provide protection against potential losses caused by any overflows, including damage to buildings and their contents, and injury and nuisance to persons.

NOTES:

1 The larger the ARI selected for design, the greater the design rainfall intensity and flow, the larger the system and, subject to regular inspection and cleaning (see Clause 4.6), the lower the probability of overflow.

2 Examples that illustrate the application of the general methods are given in Appendix K.

10.8 Attachment H - Supplied Documents

Sydney WATER

Case No. 175866

SUBDIVIDER/DEVELOPER COMPLIANCE CERTIFICATE

(A certificate under Division 9 Section 73 of the Sydney Water Act, 1994)

DESCRIPTION OF SUBDIVISION/DEVELOPMENT					
Council	**Sutherland Shire Council**				
Street	**11-15 Mitchell Avenue, Jannali NSW 2226**				
Lot No	**2**	DP	**206541**	Lot No **1**	DP **210456**
Lot No	**M**	DP	**415456**		
Development	**Demolition of existing structures and construction of a residential flat building**				
NAME OF APPLICANT	**Truland Development Pty Ltd**				
APPLICANT'S ADDRESS	**c/- Greg Houston Plumbing Pty Ltd** **1/9 Hargraves Place, Wetherill Park NSW 2164**				

Sydney Water Corporation certifies that the above named applicant has complied with the requirements, relating to the plan of Subdivision/Development described above, of Division 9 of the Sydney Water Act, 1994.

THE FOLLOWING ITEMS **2** AND **5** APPLY TO THE DEVELOPMENT:

1. ~~Water facilities are to be provided as a result of the subdivider/developer's compliance with Sydney Water's requirements.~~
2. **Water facilities are available.**
3. ~~Water facilities cannot be provided within a reasonable time from the date of this certificate.~~
4. ~~Sewerage facilities are to be provided as a result of the subdivider/developer's compliance with Sydney Water's requirements.~~
5. **Sewerage facilities are available.**
6. ~~Sewerage facilities are under the control of the local council.~~
7. ~~Sewerage facilities cannot be provided within a reasonable time from the date of this certificate.~~
8. ~~Sydney Water's requirements for future subdivision of this dual occupancy development have NOT been met. On subdivision an additional certificate will be required.~~
9. ~~Water facilities have NOT been provided. They will only be provided after compliance with Sydney Water's requirements placed on a future applicant for subdivision/development or connection.~~
10. ~~Sewerage facilities have NOT been provided. They will only be provided after compliance with Sydney Water's requirements placed on a future applicant for subdivision/development or connection.~~
11. ~~Sewerage facilities are under the control of the local council.~~

Applicant Reference No. **GHP2991**

Council Reference No. **DA18/0393**

Approval date: **20 November 2018**

Name Ric Facci

Signature

(Approving Officer for and on behalf of Sydney Water)

Name Margaret McTainsh

Signature

(Approving Officer for and on behalf of Sydney Water)

Liveable City Solutions **Wollongong Office**

Dated: **1 April 2020**

THIS CERTIFICATE IS ONLY VALID WHEN SIGNED BY TWO AUTHORISED SYDNEY WATER OFFICERS
A signed copy is held by Sydney Water

The original of this certificate must be presented to the appropriate consent authority, usually Council, with which the plan of subdivision/development was lodged so that you can satisfy the relevant condition of consent.

DRAWING REGISTER

A 0000	COVER SHEET & BASIX COMMITMENTS
A 0001	BASIX COMMITMENTS
A 0002	DEMOLITION PLAN
A 0003	MATERIAL FINISHES
A 0004	SITE PLAN
A 0201	WALL TYPE DETAILS
A 1001	BASEMENT 2 PLAN
A 1002	BASEMENT 1 PLAN
A 1003	GROUND FLOOR PLAN
A 1004	LEVEL 1-3 PLAN
A 1005	LEVEL 4 PLAN
A 1006	ROOF PLAN
A 1101	CONCRETE SETOUT PLAN - BASEMENT 2
A 1102	CONCRETE SETOUT PLAN - BASEMENT 1
A 1103	CONCRETE SETOUT PLAN - GROUND FLOOR
A 1104	CONCRETE SETOUT PLAN - LEVEL 1-3
A 1105	CONCRETE SETOUT PLAN - LEVEL 4
A 1106	CONCRETE SETOUT PLAN - ROOF
A 1303	RCP - GROUND FLOOR
A 1304	RCP - LEVEL 1-3
A 1305	RCP - LEVEL 4
A 2001	ELEVATION - SOUTH
A 2002	ELEVATION - WEST
A 2003	ELEVATION - NORTH
A 2004	ELEVATION - EAST
A 3001	SECTION AA
A 3002	SECTION BB
A 3003	SECTION CC
A 3004	SECTION DD
A 4001	SECTION DETAILS 01
A 4002	SECTION DETAILS 02
A 4101	BALUSTRADE DETAILS
A 4201	TYPICAL METAL WORKS
A 4301	BUILDING DETAILS
A 4501	PERGOLA / AWNING DETAILS
A 4601	THRESHOLD DETAILS 01
A 4602	CEILING FLOOR JUNCTION DETAIL
A 5101	FIRE STAIR 01 DETAILS
A 5102	FIRE STAIR 02 DETAILS
A 5103	FIRE STAIR 03 DETAILS
A6001	WINDOW SCHEDULE
A6101	DOOR SCHEDULE 01 & DOOR JAMB DETAILS
A6102	DOOR SCHEDULE 02
A7101	KITCHEN DETAILS TYPE A
A7102	KITCHEN DETAILS TYPE B
A7103	KITCHEN DETAILS TYPE C
A7201	WET AREA DETAILS TYPE A
A7202	WET AREA DETAILS TYPE B
A7203	WET AREA DETAILS TYPE C
A7301	TYPICAL JOINERY DETAILS
A6501	ADAPTABLE LAYOUT - TYPE A
A6502	ADAPTABLE LAYOUT - TYPE B
A6503	ADAPTABLE LAYOUT - TYPE C

AREA SCHEDULE

Level	Unit No.	Type	Unit Area (m2)	Terrace/ Balcony (m2)	Adaptable Unit	Livable Unit
GF	G01	1 bed	56	20	✓	
	G02	2 bed	85	50		
	G03	2 bed	76	74		
	G04	2 bed	84	97		
	G05	2 bed	77	135		
	G06	3 bed	99	89		
	G07	1 bed	51	26	✓	
Level 1	101	2 bed	76	18		
	102	2 bed	85	12		
	103	2 bed	76	13		
	104	2 bed	84	21		
	105	2 bed	77	29		✓
	106	3 bed	99	18		
	107	1 bed	51	13	✓	
Level 2	201	2 bed	76	18		
	202	2 bed	85	12		
	203	2 bed	76	13		
	204	2 bed	84	21		
	205	2 bed	77	29		✓
	206	3 bed	99	18		
	207	1 bed	51	13	✓	
Level 3	301	2 bed	76	18		
	302	2 bed	85	12		
	303	2 bed	76	13		
	304	2 bed	84	21		
	305	2 bed	77	29		✓
	306	3 bed	99	18		
	307	1 bed	51	13	✓	
Level 4	401	2 bed	81	53		
	402	2 bed	84	23		
	403	3 bed	98	87	✓	

Assessor Construction Summary

Project:	**Address:**	11-15 Mitchell Avenue, Jannali NSW			
	Applicant:	Truland Development Pty Ltd			
Contact:	**Name:**	Layla Kim - PBD			
	Contact:	layla@pbdarchitects.com.au			
Assessor:	**Name:**	Victor Lin		**Company:**	Victor Lin & Associates
	Address:	PO Box 5080, Sth Turramurra. 2074		**Number:**	BDAV/12/1454
	Contact:	0412-988088		**Email:**	vlin007@hotmail.com

Ext. Walls:	**Construction**	**Insulation**		**Colour**	**Details**
	Hebel wall	None		Med	As per plans
		R1.5			See table below
	Weatherboard Cavity	None			As per plans
Int. Walls:	**Construction**				**Details**
	Hebel wall	None			As per plans
Floors:	**Construction**	**Insulation**			**Details**
	Concrete	None			Carpet, Tiles, Timber
		R2.0			Floor above car park
		R3.0			See table below
Ceilings:	**Construction**	**Insulation**			**Details**
	Suspended Plasterboard	R4.0			Under all roofs & Ceiling with balcony above
Roof:	**Construction**	**Insulation**		**Colour**	**Details**
	Concrete	None		Medium	As per plans
Windows:	**Product ID**	**Glass**	**Frame**	**Uw/SHGCw**	**Window types**
	Generic	Single Clear	Aluminium	6.70 / 0.70	Fixed & sliding windows and doors
				6.70 / 0.57	Awning windows
		Sinige Low E		5.40 / 0.58	Sliding windows/doors
Skylights:	**Product ID**	**Glass**	**Frame**	**Uw/SHGCw**	**Details**
	Generic	Single Clear	Aluminium/timber	NA	

Other:	**Orientation**	**Terrain**	**Weatherseals**	**Climate Zone**	**Recessed Downlights**
	15	Suburban	Yes	56	YES - SEALED TYPE ONLY

50mm LED at 1 per 5 sqm of ceiling space

Overshadowing Details:	Other Project Buildings
Assessment:	**Drawings:** dwgs as stamped
	File Ref: 4177A
	Software: BERS Pro 4.3

Certification Number: 0003200790 **Date:** 23-September-2018

Unit No.	Insulation Summary (refer also to table above)							
	Floor insulation R2.0	Wall insulation R1.5	Ceiling insulation R4.0	Roof insulation	Low E	Additional Requirements	SEALED Recessed Downlights ONLY	Sealed exhaust vents
G001	X	X					X	X
G002	X						X	X
G003	X						X	X
G004	X	X					X	X
G005	R3.0	X					X	X
G006	X						X	X
G007	X							
101							X	X
102							X	X
103							X	X
104		X					X	X
105		X			South facing windows in living/dining		X	X
106							X	X
107								
201							X	X
202							X	X

Certification Number: 0003200790 **Date:** 23-September-2018

Unit No.	Insulation Summary (refer also to table above)							
	Floor insulation R2.0	Wall insulation R1.5	Ceiling insulation R4.0	Roof insulation	Low E	Additional Requirements	SEALED Recessed Downlights ONLY	Sealed exhaust vents
203							X	X
204		X					X	X
205		X			South facing windows in living/dining		X	X
206							X	X
207							X	X
301			X				X	X
302			X				X	X
303							X	X
304		X					X	X
305		X	X		South facing windows in living/dining		X	X
306							X	X
307							X	X
401			X				X	X
402		X	X				X	X
403			X				X	X

GENERAL ACCESS SPECIFICATIONS

All Doors- in residential common use areas
- In common use areas, all single hinged doors and in case of multiple leaf doorways, at least 1 operable leaf is required to provide a clear opening of 850mm (850cl) with the door circulations spaces as per AS1428.1-2009.
- When using sliding doors in common use areas, flush transition is required so provide fully recessed floor tracks. Also all sliding doors to have 510mm minimum available to latch side of the sliding door to enable access to door handle.
- All fully glazed doors to have glazing strips. The marking should be for the full width with a solid and non-transparent 75mm wide, contrasting line located 900-1100mm above FFL and provide a minimum luminance contrast of 30% when viewed against the floor surface within 2M of the glazing on the opposite end. Graphical representation or cut-outs are not permitted.
- In common use areas, doorways to have a minimum luminance contrast of 30% provided between; Door leaf and door jamb or Door leaf and adjacent wall or Architrave and wall or Door leaf and architrave or Door jamb and adjacent wall. The minimum width of the luminance contrast to be 50mm.
- Note that the circulation spaces (other than doorway threshold ramp) to have a maximum floor grade of 1:40. Where there is a level difference at the door threshold, the maximum level difference can be 35mm if provided with a 1:8 doorway threshold ramp.

Door hardware requirements -in residential common use areas
- D shaped door handles to be used, located at 900-1100mm above FFL.
- Clearance between the handle and the back plate or the door face at the center grip section of the handle to be between 35-45mm with a minimum of 20mm turn at the end of the handle

All stairways require the following
- All stairways to be compliant with AS1428.1-2009, including but not limited to opaque risers, with 1M clear space (handrail to handrail /wall).
- Each tread to have a nosing strip between 50mm-75mm for the full width of the stair, which can be setback for a maximum of 15mm from the front of the nosing. This strip is to have a minimum luminance contrast of 30% to the background and to comply with any change in level requirements if attached on the treads.
- Handrails to be located between 865mm-1000mm above FFL, with no vertical sections. Diameter of handrails to be between 30mm-50mm and located not less than 50mm from adjacent walls with no obstructions to top 270° arc.
- Slip resistance to also comply with BCA Table D2.14 when tested in accordance with AS4586. For treads and landings, slip resistance of R11 / P4 and for nosing strips slip resistance of P4 should be provided (requirement under D2.13 and D2.14) when tested as per AS4586.

In addition to the above all non-fire-isolated stairways require the following
- Handrails to be provided to both sides and to extend a minimum of 300mm horizontally past the nosing on the top riser. At the bottom of the stairs the handrail is to extend at least one tread depth parallel to the line of the nosing, plus a minimum of 300mm horizontally from the last riser.

All 1:20 walkways require the following
- For 1:20 grade walkways, landings are required every 15M.
- The floor surface abutting the sides of the walkway to be provided with a firm and level surface (of a different material) at the same level and grade of the walkway, and extend horizontally for a minimum of 600mm unless one of the following is provided: kerb, kerb-rail and handrail or wall of minimum 450mm height.

Braille / Tactile Signage as per BCA requirements to be provided to:
- All doors nominated as Exit doors require signage
- Accessible Toilet (LH sign)

TGSIs are required in the following locations (only to non-fire-isolated stairways and ramps):
- At top and bottom landings of stairways/ ramps, 600-800mm depth or min 12 discrete cones are required at 300+/-10mm from edge of hazard (unless the landings are less than 3M, in which case, provide 300mm depth)
- At mid landings of stairway/ ramps, 300-400mm depth or min 6 discrete cones are required only where handrails are not continuous or landing or if landing is less than 3M.

Compliance is required with AS1428.4.1. Luminance contrast requirements of TGSIs are to be as listed below,
- Integrated TGSIs require min of 30% Discrete TGSIs require min of 45%
- Discrete with 2 colours require the raised surface to have a min of 60%

Floor or ground surfaces
- The texture of the surface is to be traversable by people who use a wheelchair and those with an ambulant or sensory disability. Abutment of surfaces is to have a smooth transition. Construction tolerances to be +/- 3mm vertical or +/-5mm (provided the edges have a bevelled or rounded edge). Grates (if used in the accessible path of travel) are required to comply with AS1428.1.

Accessible Car parking
- Dedicated space 2.4Mx5.4M, Shared space 2.4Mx5.4M to be at the same level
- Slip resistant flooring surface with maximum fall 1:40 in any direction or maximum 1:33 if bituminous and outdoors
- Central Bollard in shared space at 800+/-50mm from entry point
- Pavement marking in dedicated space by means of access symbol between 800mm-1000mm high placed on a blue rectangle of maximum 1200mm and between 500mm-600mm from its entry point (marking not required where allocated to an Adaptable unit)
- Minimum headroom of 2.2M at entrances and 2.5M is required over shared zones as well as dedicated spaces
- Non-trafficked area of the shared space to have marking strips at 45°, 150-200mm wide at 200mm-300mm spaces (not required where driveways are used as shared spaces)
- The pavement marking shall have the appropriate slip resistance for the location.

Lifts
- Lift to comply with the requirements of BCA Part E3- Lift installations.
  - All external lift control buttons to be located between 900-1100mm above FFL and not less than 500mm from internal corners

Slip resistance
- Slip resistance to be as per BCA Table D2.14 when tested in accordance with AS4586
  - All wet areas / outdoor areas associated with Adaptable units to be slip resistant as per AS3661/ AS4586
  - Refer to guide HB 197 for details in regards to compliance requirements.

Common use Accessible toilet
- The Accessible toilet to be constructed as per requirements of AS1428.1-2009
- Setout of pan to be 800+/-10mm from rear wall and the c/l of pan is to be 450-460mm from side wall. Top of seat of WC pan is to be 400-480mm above FFL
- The top of the washbasin is to be between 800-830mm above FFL. Water taps to be lever or sensor with 50mm clear from any surface
- Seat to be full round, take 150kg weight and provide 30% luminance contrast to the background
- Backrest to be 150-200mm height, 350-400mm width and 120-150mm above the seat at an angle of 95°-100° back from seat hinge
- Flushing control to be proud of surface and located between 600-1100mm above FFL at back or side wall, clear of grabrail area
- Top of toilet paper dispenser is to be located maximum of 700mm above FFL and maximum of 300mm from edge of pan
- Grabrails, 30-40mm diameter, placed 50-60mm clearance from wall, with no obstructions to top 270°arc, are to be provided to rear and side wall (90°or 30°- 45°) Horizontal component to be 800-810mm above FFL. Fastenings and construction of grabrails to be capable to withstand 1100N of force
- Mirror to start from 900mm above FFL, till minimum of 1850mm above FFL
- Clothes hanging device to be at height of 1200-1350mm above FFL and at least 500mm from any internal corner
- Shelf to be 300-400mm length and 120-150mm wide and located 900-1000mm above FFL
- Soap and paper towel dispensers where provided, to be installed with height of the operative component between 900-1100mm above FFL and no closer than 500mm from an internal corner.
- Door to the Accessible toilet requires AS1428.1 compliant door circulation spaces. When door swings next to the washbasin a clear 300mm is required between the door swing and the washbasin.

Adaptable units
- All adaptable units to be constructed as per requirements of AS4299 as listed in the Access report by Vista Access Architects Ref no :19037

GENERAL NOTES:

- All work to comply with Building Code of Australia, requirements of relevant Statutory Authorities/ Local Government & relevant Australian Building Standards
- Contractor to verify all dimensions on site before commencing work- should a discrepancy be identified please confirm with Architect prior to proceeding (DO NOT SCALE FROM DRAWINGS)
- Copyright of design shown hereon is retained by this office and authority is required for any reproduction
- When proprietary products are referred to, install in accordance with the manufacturers written instructions
- Architectural Plans to be read in conjunction with consultant's drawings, specifications & reports
- Area schedules supplied are approximate only- future allowance for vertical service ducts, structural wall systems and consultant input will be required
- Setback lines shown as per DA drawings and council requirements. Do not use for setout.
- Drawings for D&C used during CONSTRUCTION subject to receiving final conformation and drawings from services contractors

LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	DETAIL OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED
FH	FIRE HYDRANT		PLANTERBOX
FHR	FIRE HOSE REEL	PS	SLIDING PRIVACY SCREEN
FS	FIRE STAIRS	R	RECYCLING BIN
G	GARBAGE BIN	RCL	RETRACTABLE CLOTHES LINE
GC	GARBAGE CHUTE	SK	SKY LIGHT
HL	HIGHLIGHT WINDOW	ST	STORAGE
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — WINDOW NO. W 00

- REFER A6000 DRAWINGS SERIES – DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO. 8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
B	24.05.2019	ISSUED TO LORDS GROUP
A	12.04.2019	ISSUED FOR REVIEW
P2	05.02.2019	ISSUED FOR COORDINATION
P1	18.01.2019	ISSUED FOR COORDINATION
ISSUE	DATE	DESCRIPTION

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

ARCHITECT:
PBD | ARCHITECTS
ABN 36 147 035 550
P - 02 9698 8140 E - info@pbdarchitects.com.au W - www.pbdarchitects.com.au
Level 2, 52 Albion Street, Surry Hills NSW 2010

PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
COVER SHEET & BASIX COMMITMENTS

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN ISSUED FOR CONSTRUCTION

SCALE:	DRAWING NO:	ISSUE:
N/A	A0000	1
PROJECT NO: 1747		

BASIX Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 821564M_04

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 821564M lodged with the consent authority or certifier on 02 June 2017 with application DA17/0661.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Secretary
Date of issue: Monday, 24 September 2018
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW Planning & Environment

Certificate no.: 0003200790
Assessor Name: Victor Lin
Accreditation no.: VIC/BDAV/12/1454
Certificate date: 24 September 2018
Dwelling Address: 11-15 Mitchell Avenue Jannali, NSW 2226
NATIONWIDE HOUSE ENERGY RATING SCHEME 5.6
www.nathers.gov.au

Project summary	
Project name	4101A Jannali - PBD_04
Street address	13 Mitchell Avenue Jannali 2226
Local Government Area	Sutherland Shire Council
Plan type and plan number	deposited 415456
Lot no.	M
Section no.	-
No. of residential flat buildings	1
No. of units in residential flat buildings	31
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score		
Water	✔ 42	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 30	Target 30

Certificate Prepared by
Name / Company Name: Victor Lin & Associates Pty Ltd
ABN (if applicable): 34097383821

Description of project

Project address	
Project name	4101A Jannali - PBD_04
Street address	13 Mitchell Avenue Jannali 2226
Local Government Area	Sutherland Shire Council
Plan type and plan number	deposited 415456
Lot no.	M
Section no.	-
Project type	
No. of residential flat buildings	1
No. of units in residential flat buildings	31
No. of multi-dwelling houses	0
No. of single dwelling houses	0
Site details	
Site area (m²)	2132
Roof area (m²)	817
Non-residential floor area (m²)	-
Residential car spaces	47
Non-residential car spaces	8

Common area landscape	
Common area lawn (m²)	164.0
Common area garden (m²)	466.0
Area of indigenous or low water use species (m²)	250.0
Assessor details	
Assessor number	BDAV/12/1454
Certificate number	0003200790
Climate zone	56
Project score	
Water	✔ 42 Target 40
Thermal Comfort	✔ Pass Target Pass
Energy	✔ 30 Target 30

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - Building1, 31 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
101	2	73.0	0.0	0.0	0.0
105	2	79.0	0.0	0.0	0.0
202	2	93.0	0.0	0.0	0.0
206	3	96.0	0.0	0.0	0.0
303	2	74.0	0.0	0.0	0.0
307	1	51.0	0.0	0.0	0.0
G01	1	59.0	0.0	0.0	0.0
G05	2	75.0	0.0	66.0	42.0
102	2	83.0	0.0	0.0	0.0
106	3	96.0	0.0	0.0	0.0
203	2	74.0	0.0	0.0	0.0
207	1	51.0	0.0	0.0	0.0
304	2	82.0	0.0	0.0	0.0
401	2	81.0	0.0	0.0	0.0
G02	2	83.0	0.0	14.0	14.0
G06	3	98.0	0.0	50.0	35.0
103	2	74.0	0.0	0.0	0.0
107	1	51.0	0.0	0.0	0.0
204	2	82.0	0.0	0.0	0.0
301	2	73.0	0.0	0.0	0.0
305	2	75.0	0.0	0.0	0.0
402	2	81.0	0.0	0.0	0.0
G03	2	74.0	0.0	21.0	21.0
G07	1	51.0	0.0	0.0	0.0
104	2	82.0	0.0	0.0	0.0
201	2	73.0	0.0	0.0	0.0
205	2	75.0	0.0	0.0	0.0
302	2	83.0	0.0	0.0	0.0
306	3	94.0	0.0	0.0	0.0
403	3	96.0	0.0	0.0	0.0
G04	2	82.0	0.0	66.0	54.0

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building1

Common area	Floor area (m²)
Car park (All)	1673.0
Garbage room	22.0
service	11.0
Ground floor lobby	47.0
Lift car (No.1)	-
switch room	12.0
Garbage chute (All)	19.0
Hallway/lobby (All)	169.0
Lift motor room	5.0
HYD Booster Pump room	15.0
Fire Stair (All)	154.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1
   (a) Dwellings
      (i) Water
      (ii) Energy
      (iii) Thermal Comfort
   (b) Common areas and central systems/facilities
      (i) Water
      (ii) Energy
2. Commitments for multi-dwelling houses
3. Commitments for single dwelling houses
4. Commitments for common areas and central systems/facilities for the development (non-building specific)
      (i) Water
      (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install: (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

Dwelling no.	Fixtures: All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	Appliances: All clothes washers	All dish-washers	Individual pool: Volume (max volume)	Pool cover	Pool location	Pool shaded	Individual spa: Volume (max volume)	Spa cover	Spa shaded
403	3 star (> 6 but <= 7.5 L/min)	4 star	4 star	5 star	no	2 star	2 star	-	-	-	-	0.7	yes	no
All other dwellings	3 star (> 6 but <= 7.5 L/min)	4 star	4 star	5 star	no	2 star	2 star	-	-	-	-	-	-	-

Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (s)	Laundry connection	Pool top-up	Spa top-up
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	

Dwelling no.	Hot water: Hot water system	Bathroom ventilation system: Each bathroom	Operation control	Kitchen ventilation system: Each kitchen	Operation control	Laundry ventilation system: Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light

Dwelling no.	Cooling: living areas	Cooling: bedroom areas	Heating: living areas	Heating: bedroom areas	Artificial lighting: No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	Natural lighting: No. of bathrooms &/or toilets	Main kitchen
All dwellings	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 2.5 - 3.0 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1	1	no	yes	yes	yes	0	no

Dwelling no.	Individual pool: Pool heating system	Timer	Individual spa: Spa heating system	Timer	Appliances & other efficiency measures: Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
403	-	-	gas	yes	gas cooktop & electric oven	-	no	2.5 star	2.5 star	2 star	no	no
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	no	2.5 star	2.5 star	2 star	no	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✔		

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✔	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔

Dwelling no.	Thermal loads: Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
101	27.3	16.0
102	29.3	19.8
103	29.7	25.6
104	60.0	28.2
105	64.7	34.5
106	32.7	16.6
107	14.5	12.6
201	21.8	16.8
202	18.4	19.4
203	30.4	24.8
204	61.3	27.2
205	65.7	34.1
206	32.8	17.7
207	14.8	12.9
301	23.2	11.5
302	23.6	13.8
303	40.2	20.2
304	65.9	24.4
305	66.0	28.4
306	38.2	19.2
307	31.9	17.3
401	43.1	20.9
402	61.2	29.4
403	62.5	19.6
G01	39.6	14.1
G02	33.5	20.9
G03	34.2	25.2
G04	58.9	26.3
G05	65.6	35.6
G06	33.4	15.7
All other dwellings	16.8	15.9

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 1)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

Common area	Common area ventilation system: Ventilation system type	Ventilation efficiency measure	Common area lighting: Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park (All)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	time clock and motion sensors	No
Lift car (No.1)	-	-	compact fluorescent	connected to lift call button	No
Lift motor room	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Garbage room	ventilation exhaust only	-	fluorescent	motion sensors	No
switch room	ventilation supply only	thermostatically controlled	fluorescent	manual on / manual off	No
HYD Booster Pump room	ventilation supply only	thermostatically controlled	fluorescent	manual on / manual off	No
service	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Garbage chute (All)	no mechanical ventilation	-	fluorescent	motion sensors	No
Fire Stair (All)	no mechanical ventilation	-	fluorescent	time clock and motion sensors	No
Ground floor lobby	no mechanical ventilation	-	fluorescent	time clock and motion sensors	No
Hallway/lobby (All)	no mechanical ventilation	-	fluorescent	time clock and motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	electric heat pump - gas boosted	Piping insulation (ringmain & supply risers): (b) Piping internal to building: R0.6 (~25 mm)

Central energy systems	Type	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 7

4. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	no common facility	no common facility	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

GENERAL NOTES:

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- Setback lines shown as per DA drawings and council requirements. Do not use for setout.
- Drawings for D&C used during CONSTRUCTION subject to receiving final confirmation and drawings from services contractors

LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE DETAIL
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED PLANTERBOX
FH	FIRE HYDRANT	PS	SLIDING PRIVACY SCREEN
FHR	FIRE HOSE REEL	R	RECYCLING BIN
FS	FIRE STAIRS	RCL	RETRACTABLE CLOTHES LINE
G	GARBAGE BIN	SK	SKY LIGHT
GC	GARBAGE CHUTE	ST	STORAGE
HL	HIGHLIGHT WINDOW		
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — W 00 WINDOW NO.

- REFER A6000 DRAWINGS SERIES - DOOR & WINDOW SCHEDULES FOR DETAILS

AE&D BCA / Certifiers

CONSTRUCTION CERTIFICATE NO. 8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
A	24.05.2019	ISSUED TO LORDS GROUP

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

ARCHITECT:
PBD | ARCHITECTS
ABN 36 147 035 550
P - 02 9698 8140 E - info@pbdarchitects.com.au W - www.pbdarchitects.com.au
Level 2, 52 Albion Street, Surry Hills NSW 2010

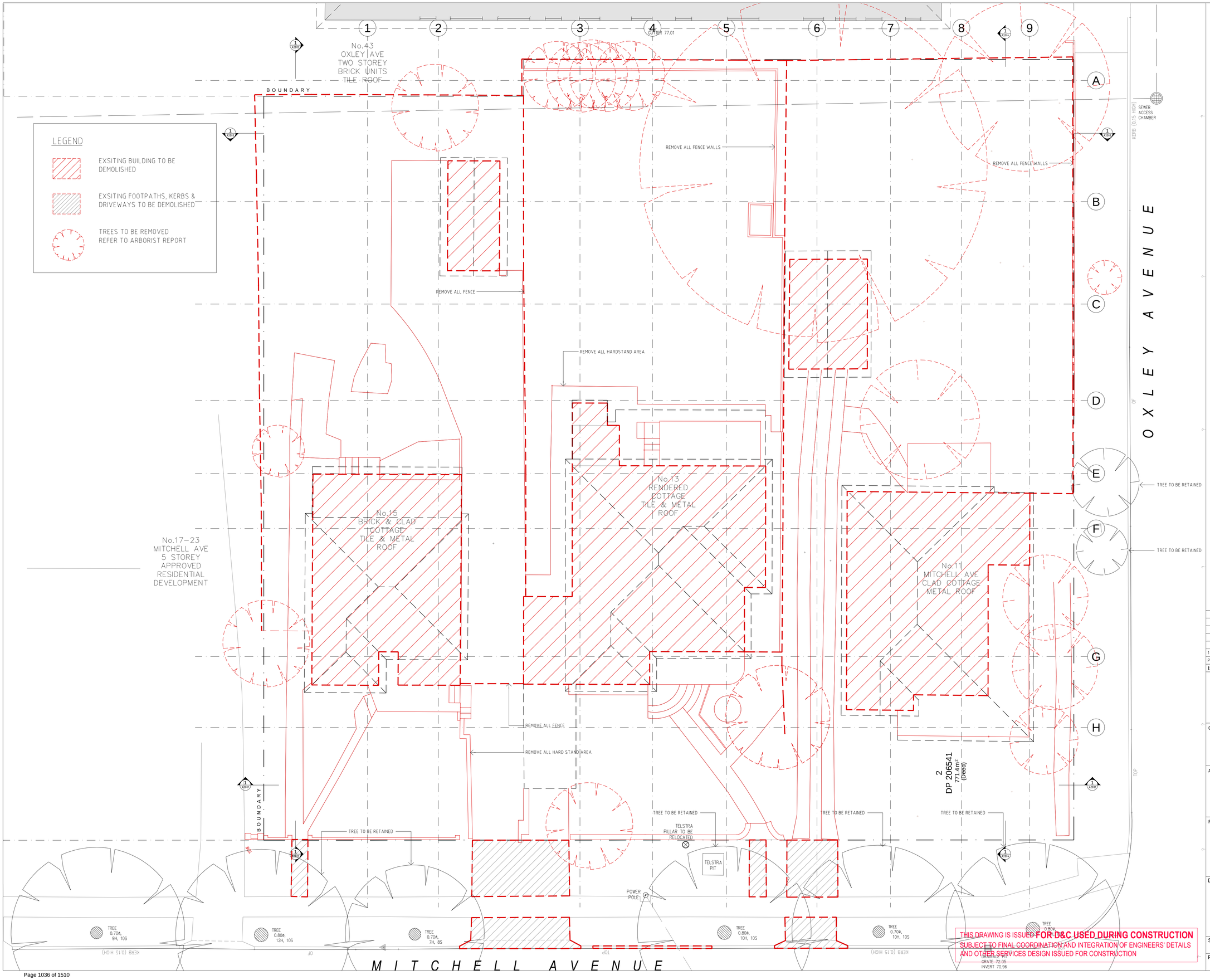
PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
BASIX COMMITMENTS

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN ISSUED FOR CONSTRUCTION

SCALE: N/A
PROJECT NO: 1747
DRAWING NO: A0001
ISSUE: 1



GENERAL NOTES:

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LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	DETAIL OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED
FH	FIRE HYDRANT		PLANTERBOX
FHR	FIRE HOSE REEL	PS	SLIDING PRIVACY SCREEN
FS	FIRE STAIRS	R	RECYCLING BIN
G	GARBAGE BIN	RCL	RETRACTABLE CLOTHES LINE
GC	GARBAGE CHUTE	SK	SKY LIGHT
HL	HIGHLIGHT WINDOW	ST	STORAGE
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — WINDOW NO. W 00

- REFER A6000 DRAWINGS SERIES - DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO.
8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
P1	05.02.2019	ISSUED FOR COORDINATION

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

ARCHITECT:
PBD | ARCHITECTS
ABN 36 147 035 550
P - 02 9698 8140 E - info@pbdarchitects.com.au W - www.pbdarchitects.com.au
Level 2, 52 Albion Street, Surry Hills NSW 2010

PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
DEMOLITION PLAN

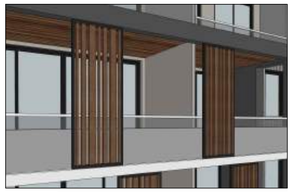
SCALE:	DRAWING NO:	ISSUE:
1:100 @ A1 / 1:200 @ A3	A0002	1
PROJECT NO: 1747		

1 SOUTH ELEVATION
SCALE 1:100 @ A1

2 WEST ELEVATION
SCALE 1:100 @ A1

TS — TIMBER / TIMBER LOOK SOFFIT

WOODFORM - Spotted Gum in Clear Cutek Oil or approved equal
(to units 303, 304, 305, 401 and 402, ONLY)



PS — PRIVACY SCREEN

Timber look
Sliding Privacy Screens

TW — TEXTURED WALL

Textured and rendered Facade
Colour - DULUX Milton Moon

SC — SANDSTONE CLADDING

To street facing planter walls

GB — GLASS BALUSTRADE

BS — BATTEN SCREEN

WOODFORM Concept Click Battern or similar

MF — METAL FENCE

RW — RENDERED WALL

P1	DULUX NATURAL WHITE (SW1F4) OR EQUAL	
P2	DULUX WESTERN MYALL (PG1F7) OR EQUAL	
P3	DULUX MILTON MOON (PN2G5) OR EQUAL	
P4	DULUX LINSEED (S15B3) OR EQUAL	
P5	DULUX POWDERCOAT DARK GREY MATT (90051275)	

Aluminium Extrusions, Awnings, Door and WIndow frames

NOTE:

ALL EXTERNAL MATERIAL AND FINISHES TO BE CONSISTENT WITH THE DA APPROVED DRAWING DA401 AND 502 (Rev B)

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN ISSUED FOR CONSTRUCTION

GENERAL NOTES:

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LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE DETAIL
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED PLANTERBOX
FH	FIRE HYDRANT		
FHR	FIRE HOSE REEL	PS	SLIDING PRIVACY SCREEN
FS	FIRE STAIRS	R	RECYCLING BIN
G	GARBAGE BIN	RCL	RETRACTABLE CLOTHES LINE
GC	GARBAGE CHUTE	SK	SKY LIGHT
HL	HIGHLIGHT WINDOW	ST	STORAGE
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — W 00 WINDOW NO.

- REFER A6000 DRAWINGS SERIES – DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO.
8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

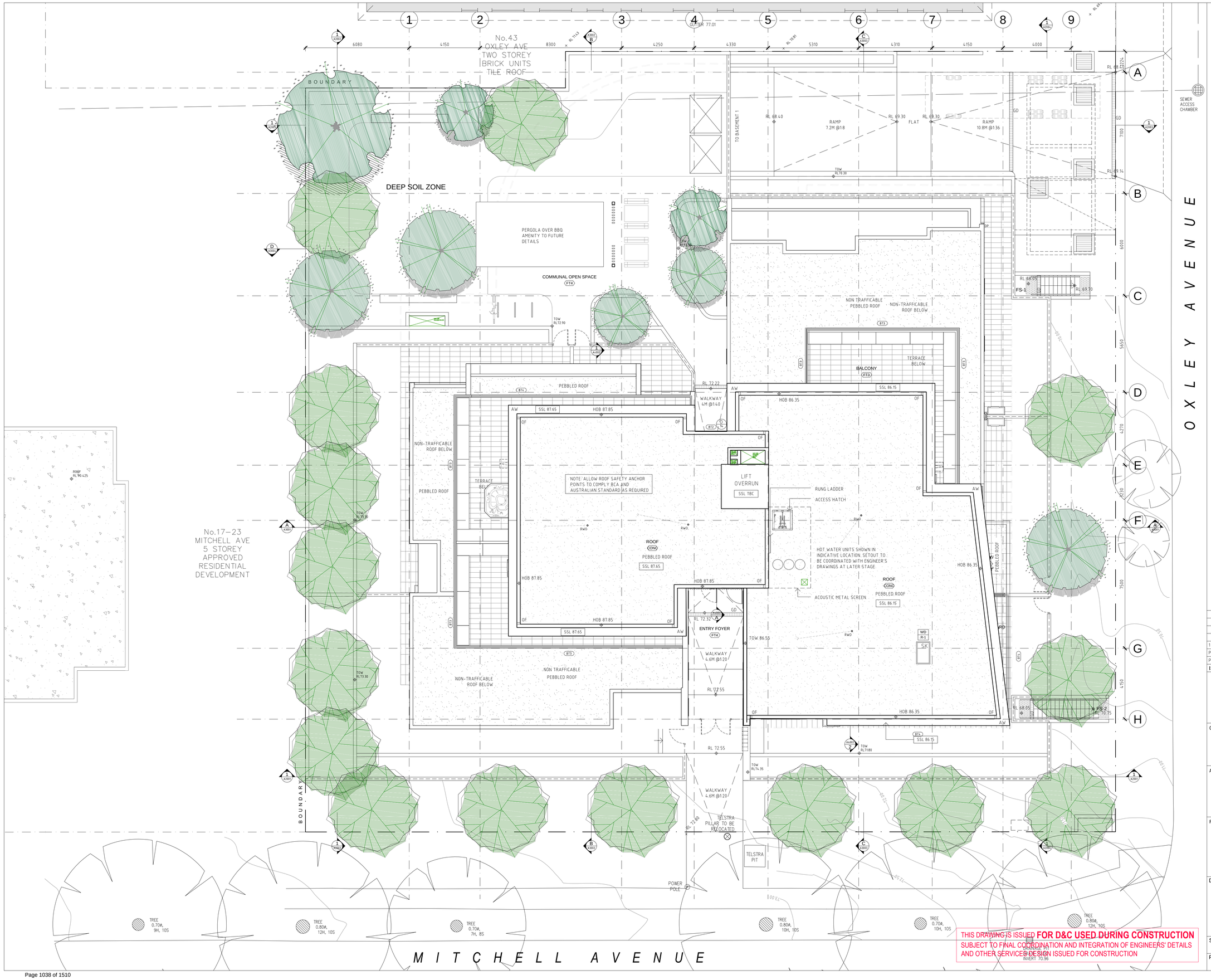
ARCHITECT:
PBD ARCHITECTS
ABN 36 147 035 550
P - 02 9698 8140 E - info@pbdarchitects.com.au W - www.pbdarchitects.com.au
Level 2, 52 Albion Street, Surry Hills NSW 2010

PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
MATERIALS SCHEDULE

SCALE:	DRAWING NO:	ISSUE:
1:100 @ A1 / 1:200 @ A3	A0003	1
PROJECT NO: 1747		



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BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	DETAIL OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED
FH	FIRE HYDRANT		PLANTERBOX
FHR	FIRE HOSE REEL	PS	SLIDING PRIVACY SCREEN
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GC	GARBAGE CHUTE	SK	SKY LIGHT
HL	HIGHLIGHT WINDOW	ST	STORAGE
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — WINDOW NO. W 00

- REFER A6000 DRAWINGS SERIES – DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO.
8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
P2	05.02.2019	ISSUED FOR COORDINATION
P1	18.01.2019	ISSUED FOR COORDINATION

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

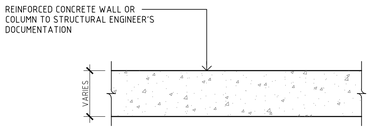
ARCHITECT:
PBD | ARCHITECTS
ABN 36 147 035 550
P - 02 9698 8140 E - info@pbdarchitects.com.au W - www.pbdarchitects.com.au
Level 2, 52 Albion Street, Surry Hills NSW 2010

PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
SITE PLAN

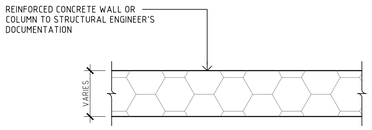
SCALE:	DRAWING NO:	ISSUE:
1:100 @ A1 / 1:200 @ A3	A0004	1
PROJECT NO: 1747		



1 WALL TYPE 1 - REINFORCED CONCRETE

CONCRETE WALL TYPE 1 AND 2 SELECTION TO BE CONFIRMED BY LORDS GROUP

SKIM COAT AND PAINTED FINISH / RENDER AND PAINTED FINISH WHERE VISIBLE

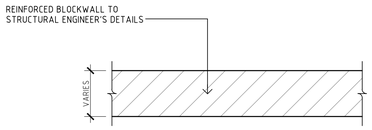


2A WALL TYPE 2A - RW 200 DINCEL

2B WALL TYPE 2B - RW 155 DINCEL

CONCRETE WALL TYPE 1 AND 2 SELECTION TO BE CONFIRMED BY LORDS GROUP

REINFORCED AFS. REFER STRUCTURAL ENGINEERS DETAILS. WHERE APPLICABLE SKIM COAT AND PAINTED FINISH / RENDER AND PAINTED FINISH WHERE VISIBLE



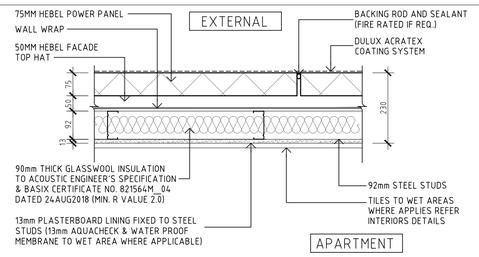
3A WALL TYPE 3A - 190mm REINFORCED BLOCK WALL

3B WALL TYPE 3B - 140mm REINFORCED BLOCK WALL

3C WALL TYPE 3C - 90mm REINFORCED BLOCK WALL

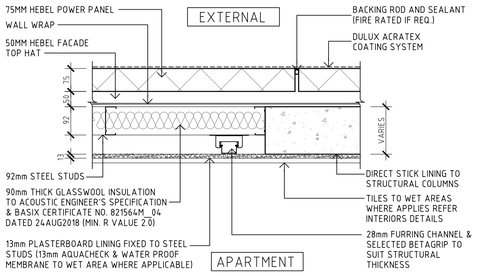
SKIM COAT AND PAINTED FINISH / RENDER AND PAINTED FINISH WHERE VISIBLE

NOTE: SUBJECT TO STRUCTURAL ENGINEER'S DETAILS



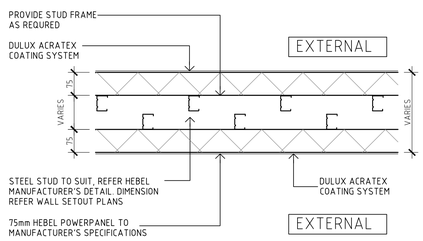
4A WALL TYPE 4A - HEBEL EXTERNAL WALL

FRL: -/120/120
ACOUSTIC: Rw+Ctr 36, RW 45

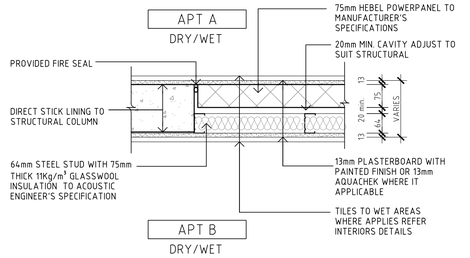


4B WALL TYPE 4B - HEBEL EXTERNAL WALL

FRL: -/120/120
ACOUSTIC: Rw+Ctr 36, RW 45

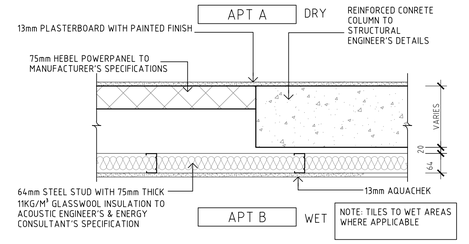


5 WALL TYPE 5 - HEBEL EXTERNAL BLADE WALLS



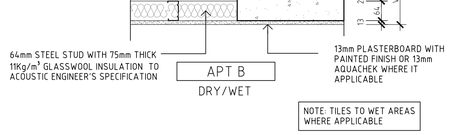
6A TYPE 6A - INTERTENANCY WALL

DIS-CONTINUOUS CONSTRUCTION
Rw + Ctr 50dB
FRL -/90/90



6B TYPE 6B - INTERTENANCY WALL (WITH COLUMN)

DIS-CONTINUOUS CONSTRUCTION
Rw + Ctr 50dB
FRL -/90/90

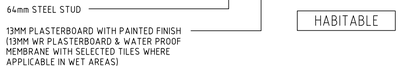


6C TYPE 6C - INTERTENANCY WALL (WITH COLUMN)

DIS-CONTINUOUS CONSTRUCTION
Rw + Ctr 50dB
FRL -/90/90

HEB 2002 SYSTEM

HEB 1072/1073 SYSTEM

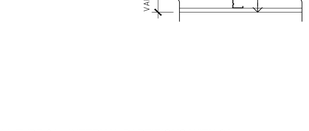


7A WALL TYPE 7A - NON FRL SHAFT WALL
NON-HABITABLE AREA

Rw + Ctr 25dB

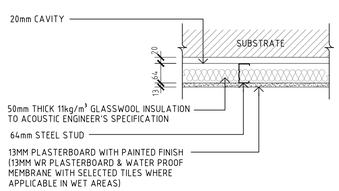
7B WALL TYPE 7B - NON FRL SHAFT WALL
HABITABLE AREA

Rw + Ctr 40dB



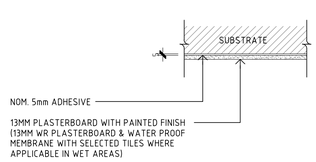
8A WALL TYPE 8A - INTERNAL PARTITIONS WITH 64mm METAL STUD (90mm THICK WALL)

8B WALL TYPE 8B - INTERNAL PARTITIONS WITH 92mm METAL STUD (118mm THICK WALL)



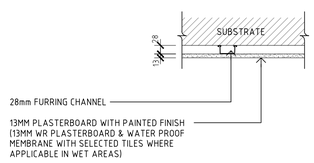
9 WALL TYPE 9 - INTERNAL DISCONTINUOUS CONSTRUCTION WALL

DISCONTINUOUS CONSTRUCTION WITH 13mm PLASTERBOARD



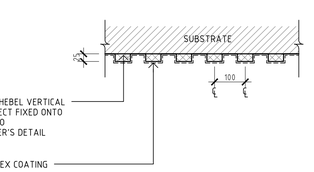
10A WALL TYPE 10A - 13mm PLASTERBOARD LINING

CONTINUOUS CONSTRUCTION WITH 13mm PLASTERBOARD

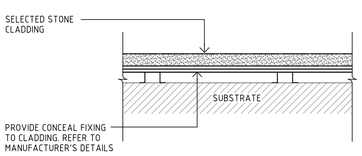


10B WALL TYPE 10B - 13mm PLASTERBOARD LINING

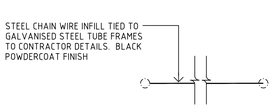
CONTINUOUS CONSTRUCTION WITH 13mm PLASTERBOARD



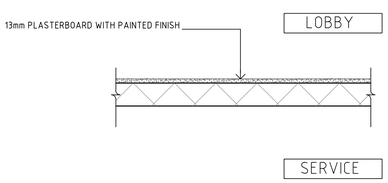
11 WALL TYPE 11 - HEBEL VERTICAL MOULDING



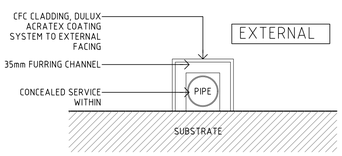
12 WALL TYPE 12 - STONE CLADDING WALLS



13 WALL TYPE 13 - CHAIN WIRE FENCING & GATE



14 WALL TYPE 14 - HEBEL SHAFT WALLS



15 WALL TYPE 15 - LIGHT WEIGHT NON-LOAD BEARING WALL

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN ISSUED FOR CONSTRUCTION

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LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE DETAIL
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED PLANTERBOX
FH	FIRE HYDRANT	PS	SLIDING PRIVACY SCREEN
FHR	FIRE HOSE REEL	R	RECYCLING BIN
FS	FIRE STAIRS	RCL	RETRACTABLE CLOTHES LINE
G	GARBAGE BIN	SK	SKY LIGHT
GC	GARBAGE CHUTE	ST	STORAGE
HL	HIGHLIGHT WINDOW		
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 W 00 WINDOW NO.

- REFER A6000 DRAWINGS SERIES - DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO. 8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
P2	26.03.2019	ISSUED FOR COORDINATION
P1	05.02.2019	ISSUED FOR COORDINATION

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

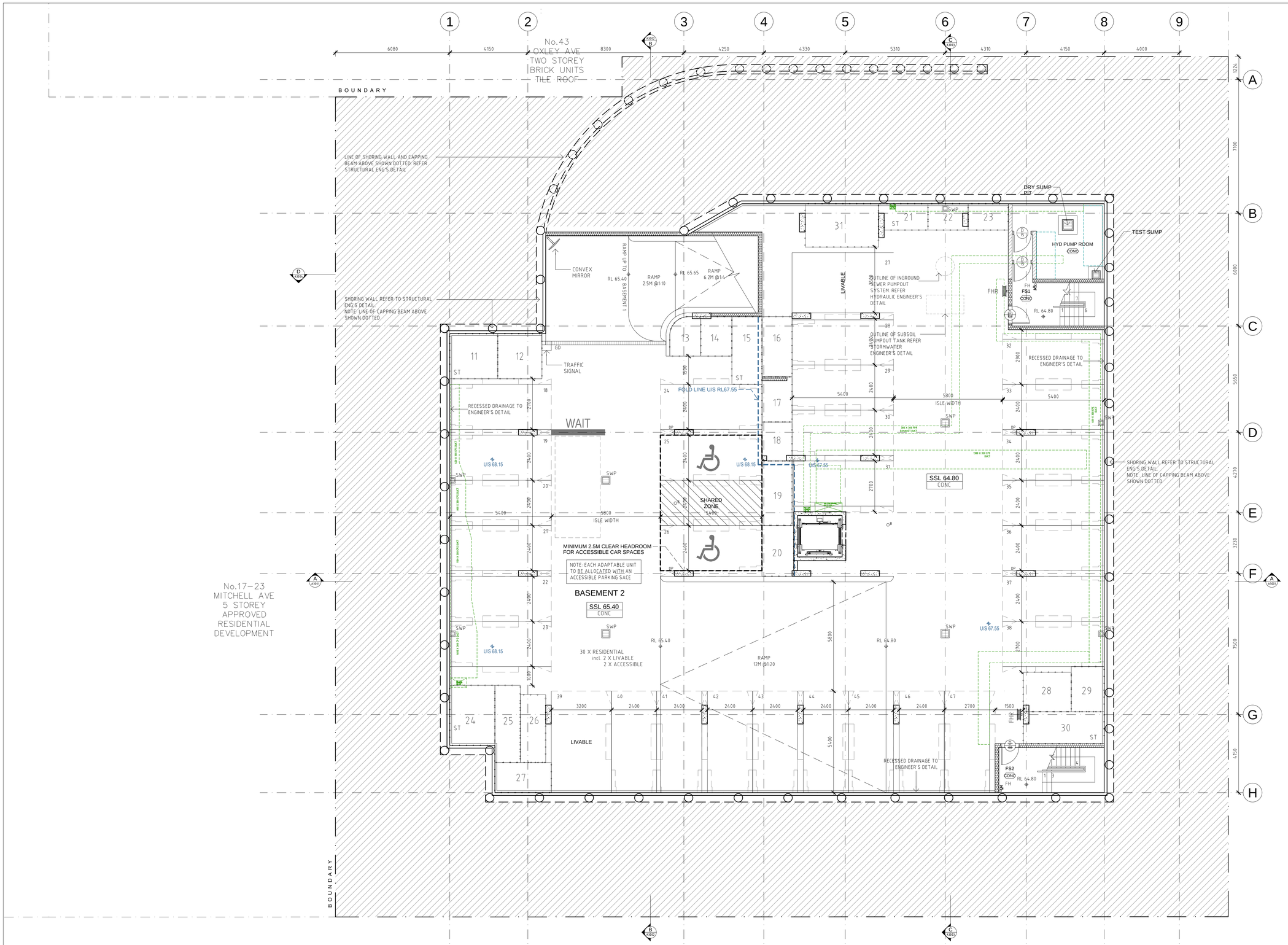
ARCHITECT:
PBD | ARCHITECTS
ABN 36 147 035 550
P - 02 9698 8140 E - info@pbdarchitects.com.au W - www.pbdarchitects.com.au
Level 2, 52 Albion Street, Surry Hills NSW 2010

PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
WALL TYPE DETAIL 01

SCALE: 1:10 @ A1 / 1:20 @ A3
PROJECT NO: 1747
DRAWING NO: A0201
ISSUE: 1



GENERAL NOTES:

- All work to comply with Building Code of Australia, requirements of relevant Statutory Authorities/ Local Government & relevant Australian Building Standards
- Contractor to verify all dimensions on site before commencing work- should a discrepancy be identified please confirm with Architect prior to proceeding (DO NOT SCALE FROM DRAWINGS)
- Copyright of design shown hereon is retained by this office and authority is required for any reproduction
- When proprietary products are referred to, install in accordance with the manufacturers written instructions
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- Area schedules supplied are approximate only- future allowance for vertical service ducts, structural wall systems and consultant input will be required
- Setback lines shown as per DA drawings and council requirements. Do not use for setout
- Drawings for D&C used during CONSTRUCTION subject to receiving final conformation and drawings from services contractors

LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE DETAIL
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED PLANTERBOX
FH	FIRE HYDRANT	PS	SLIDING PRIVACY SCREEN
FHR	FIRE HOSE REEL	R	RECYCLING BIN
FS	FIRE STAIRS	RCL	RETRACTABLE CLOTHES LINE
G	GARBAGE BIN	SK	SKY LIGHT
GC	GARBAGE CHUTE	ST	STORAGE
HL	HIGHLIGHT WINDOW		
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — W 00 WINDOW NO.

- REFER A6000 DRAWINGS SERIES – DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO. 8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
B	08.04.2019	TRAFFIC SIGNAL ADDED
A	05.04.2019	UPDATE AS PER ACCESS COMMENTS

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

ARCHITECT:
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Level 2, 52 Albion Street, Surry Hills NSW 2010

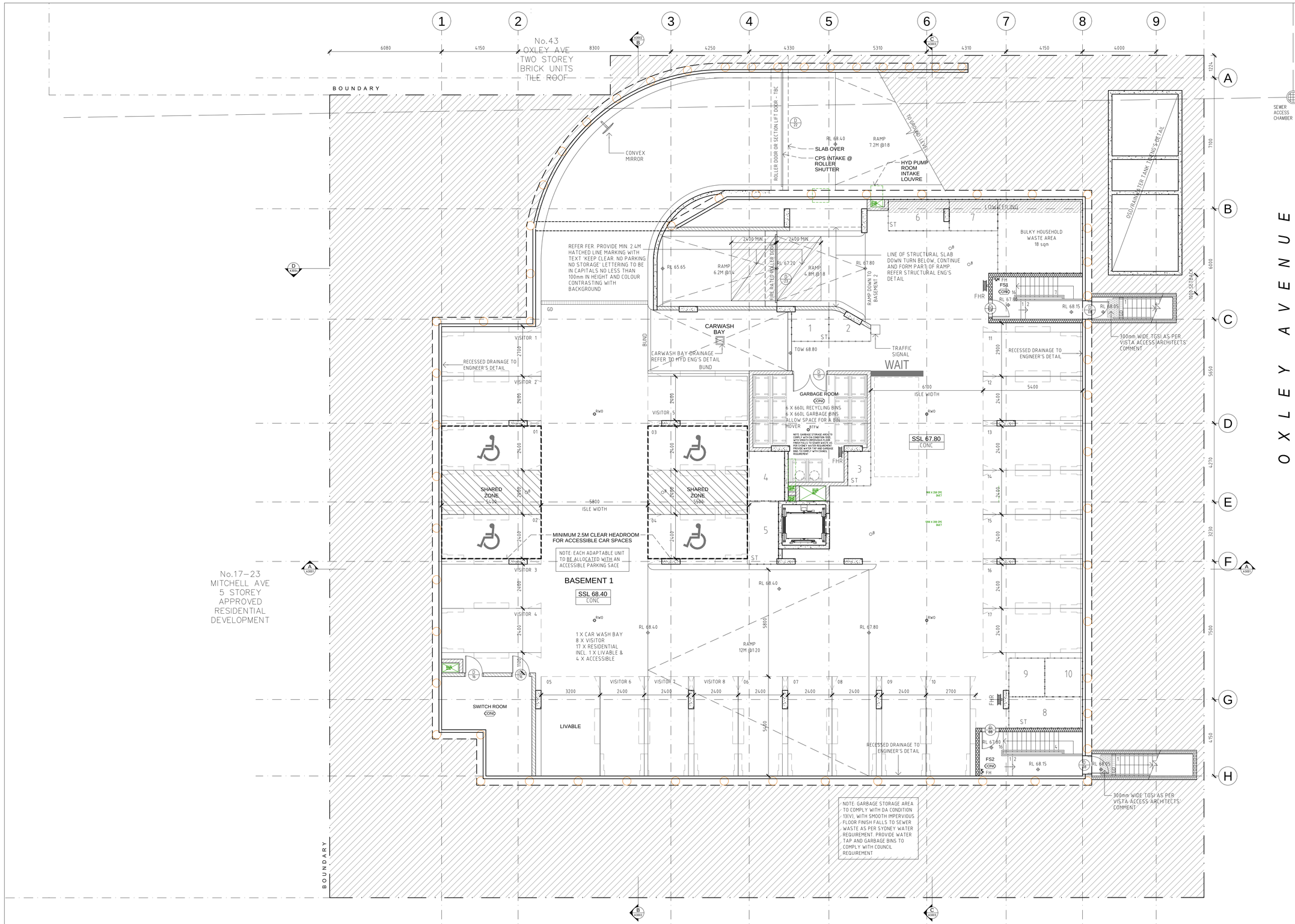
PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
BASEMENT LEVEL 2 PLAN

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN ISSUED FOR CONSTRUCTION

SCALE:	DRAWING NO:	ISSUE:
1:100 @ A1 / 1:200 @ A3	A1001	1
PROJECT NO: 1747		



GENERAL NOTES:

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- Setback lines shown as per DA drawings and council requirements. Do not use for setout
- Drawings for D&C used during CONSTRUCTION subject to receiving final conformation and drawings from services contractors

LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED
FH	FIRE HYDRANT		PLANTERBOX
FHR	FIRE HOSE REEL	PS	SLIDING PRIVACY SCREEN
FS	FIRE STAIRS	R	RECYCLING BIN
G	GARBAGE BIN	RCL	RETRACTABLE CLOTHES LINE
GC	GARBAGE CHUTE	SK	SKY LIGHT
HL	HIGHLIGHT WINDOW	ST	STORAGE
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — WINDOW NO. W 00

- REFER A6000 DRAWINGS SERIES – DOOR & WINDOW SCHEDULES FOR DETAILS

BCA / Certifiers

CONSTRUCTION CERTIFICATE NO. 8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
B	26.04.2019	GARBAGE ROOM NOTE ADDED
A	05.04.2019	UPDATE AS PER ACCESS COMMENTS
P5	04.03.2019	ISSUED FOR COORDINATION
P4	27.02.2019	ISSUED FOR COORDINATION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
D	08.05.2019	UPDATE WALL ALONG RAMP
C	02.05.2019	UPDATE AS PER FER

CLIENT:
LORDS GROUP
P - 02 9191 0622
Level 7/80 George St, Parramatta NSW 2150

ARCHITECT:
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Level 2, 52 Albion Street, Surry Hills NSW 2010

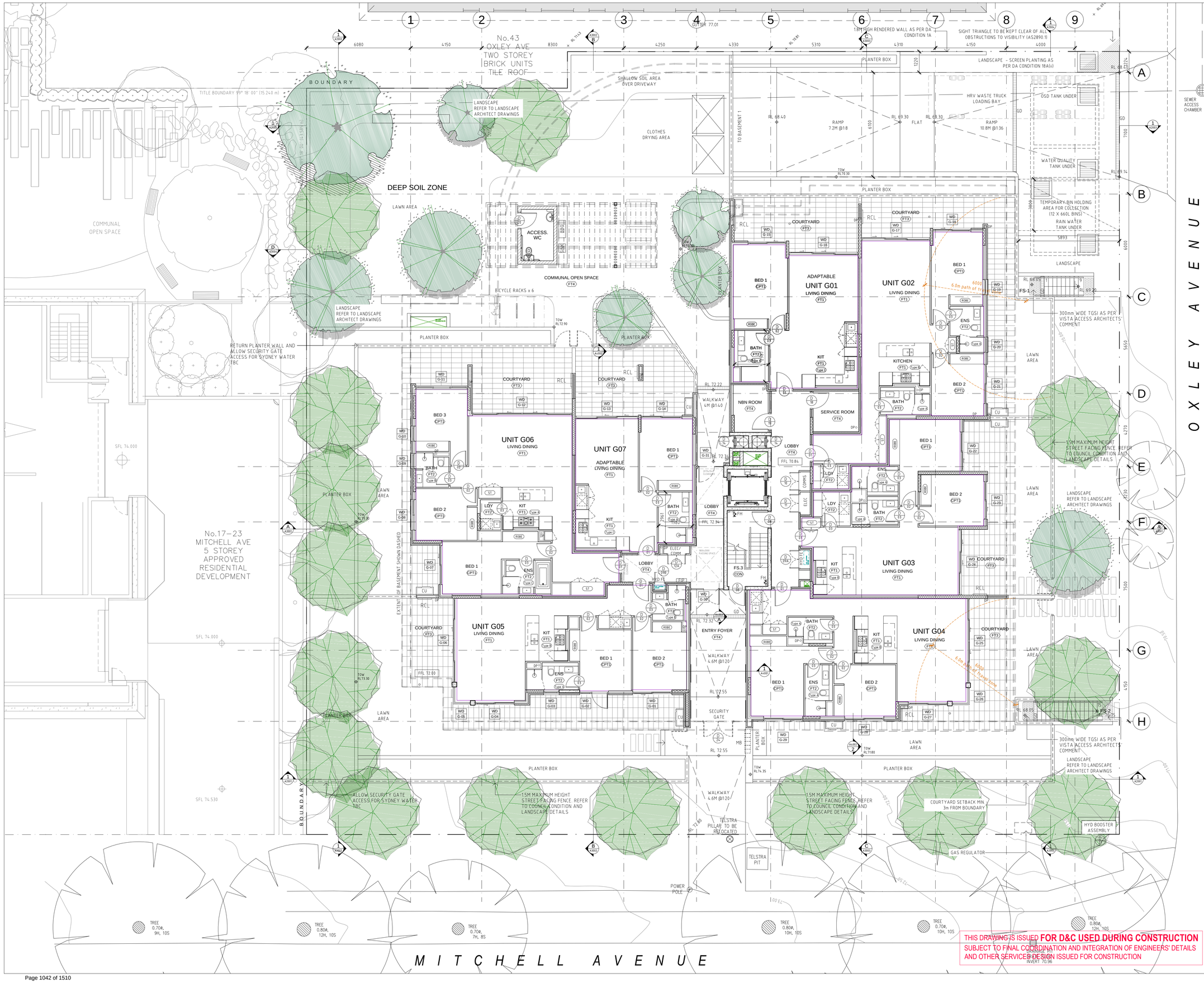
PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
BASEMENT LEVEL 1 PLAN

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN ISSUED FOR CONSTRUCTION

SCALE:	DRAWING NO:	ISSUE:
1:100 @ A1 / 1:200 @ A3	A1002	1
PROJECT NO: 1747		



GENERAL NOTES:

- All work to comply with Building Code of Australia, requirements of relevant Statutory Authorities/ Local Government & relevant Australian Building Standards
- Contractor to verify all dimensions on site before commencing work- should a discrepancy be identified please confirm with Architect prior to proceeding (DO NOT SCALE FROM DRAWINGS)
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- Area schedules supplied are approximate only- future allowance for vertical service ducts, structural wall systems and consultant input will be required
- Setback lines shown as per DA drawings and council requirements. Do not use for setout
- Drawings for D&C used during CONSTRUCTION subject to receiving final confirmation and drawings from services contractors

LEGEND:

AW	AWNING	MB	MAILBOX TO FUTURE DETAIL
BS	BATTEN SCREEN	MV	MECHANICAL RISER TO FUTURE DETAIL
CL	WALL MOUNTED FOLDING CLOTHES LINE	OP	OPAQUE WINDOW
CU	A/C CONDENSER UNITS	PB	PRE-FABRICATED PLANTERBOX
FH	FIRE HYDRANT	PS	SLIDING PRIVACY SCREEN
FHR	FIRE HOSE REEL	R	RECYCLING BIN
FS	FIRE STAIRS	RCL	RETRACTABLE CLOTHES LINE
G	GARBAGE BIN	SK	SKY LIGHT
GC	GARBAGE CHUTE	ST	STORAGE
HL	HIGHLIGHT WINDOW		
MA	ROOF HATCH ACCESS		

DOOR / WINDOW LEGEND:

DOOR TYPE NO. D 00 — WINDOW NO. W 00

- REFER A6000 DRAWINGS SERIES - DOOR & WINDOW SCHEDULES FOR DETAILS

CONSTRUCTION CERTIFICATE NO. 8899-02-2019-CC

DATE ISSUED: 25/06/2019

I certify that work completed in accordance with these plans and specification will comply with the regulations referred to in section 81A(5) of the Environmental Planning and Assessment Act 1979.

TRENTON JONES FOR AE&D
ACCREDITATION NO. BPB0203

ISSUE	DATE	DESCRIPTION
A	04.04.2019	ISSUED FOR REVIEW
P6	28.03.2019	ISSUED FOR COORDINATION
P5	04.03.2019	ISSUED FOR COORDINATION
P4	27.02.2019	ISSUED FOR COORDINATION
1	07.06.2019	ISSUED FOR D&C USED DURING CONSTRUCTION
C	08.05.2019	UPDATE BOUNDARY FENCE
B	05.04.2019	UPDATE AS PER ACCESS COMMENTS

CLIENT:
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ARCHITECT:
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Level 2, 52 Albion Street, Surry Hills NSW 2010

PROJECT:
11-15 MITCHELL AVENUE, JANNALI

JANUARY 2019

DRAWING TITLE:
GROUND FLOOR PLAN

SCALE:	DRAWING NO:	ISSUE:
1:100 @ A1 / 1:200 @ A3	A1003	1
PROJECT NO: 1747		

THIS DRAWING IS ISSUED **FOR D&C USED DURING CONSTRUCTION**
SUBJECT TO FINAL COORDINATION AND INTEGRATION OF ENGINEERS' DETAILS AND OTHER SERVICES DESIGN
ISSUED FOR CONSTRUCTION