

SITE CLASSIFICATION REPORT
CERTIFICATE 2595137

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 227 TRANQUAIR PWY DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082647
DATE OF ASSESSMENT 14/11/22

SITE RECORD

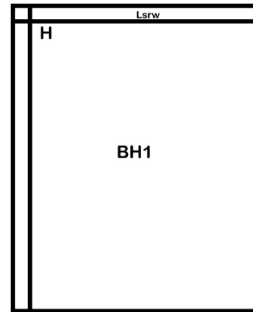


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Tranquair Pwy

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

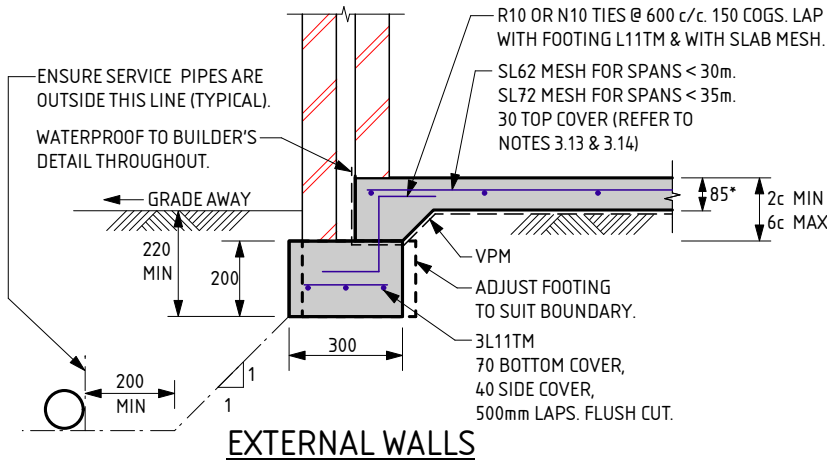
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

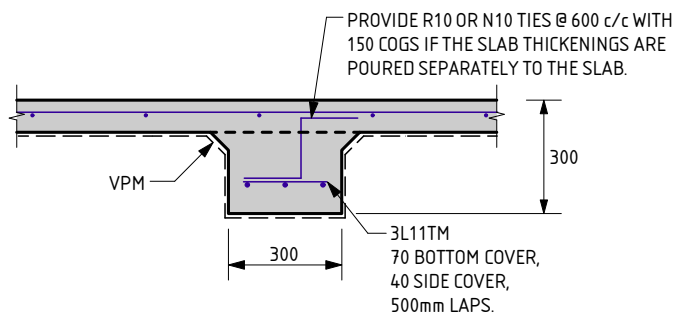
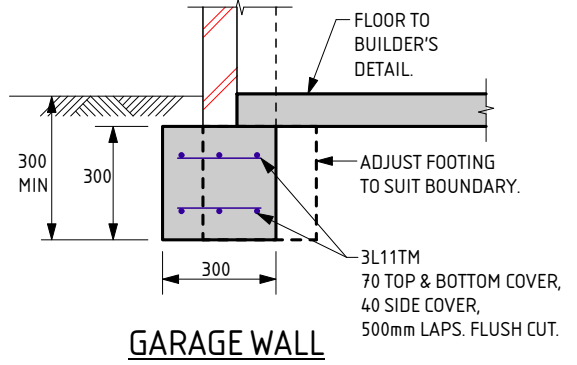
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

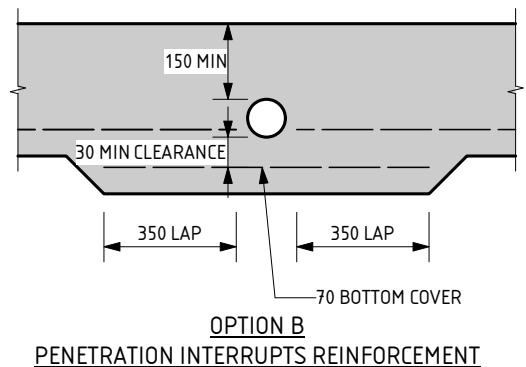
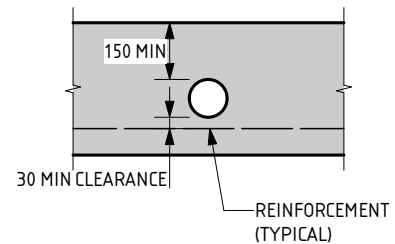
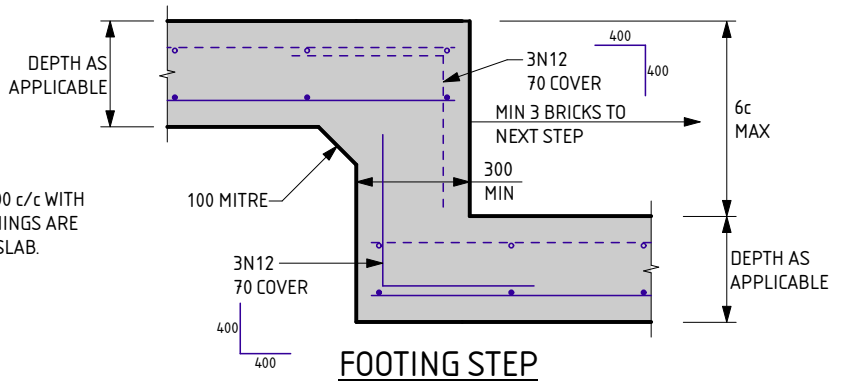
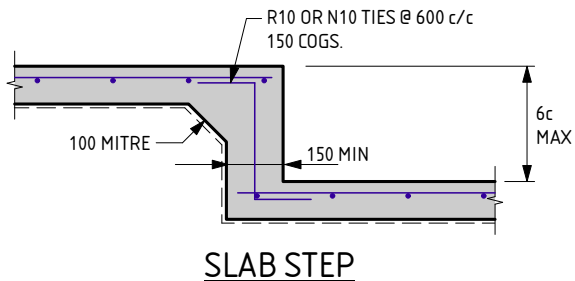
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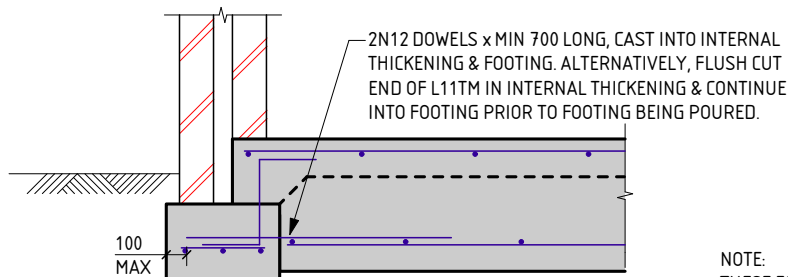
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
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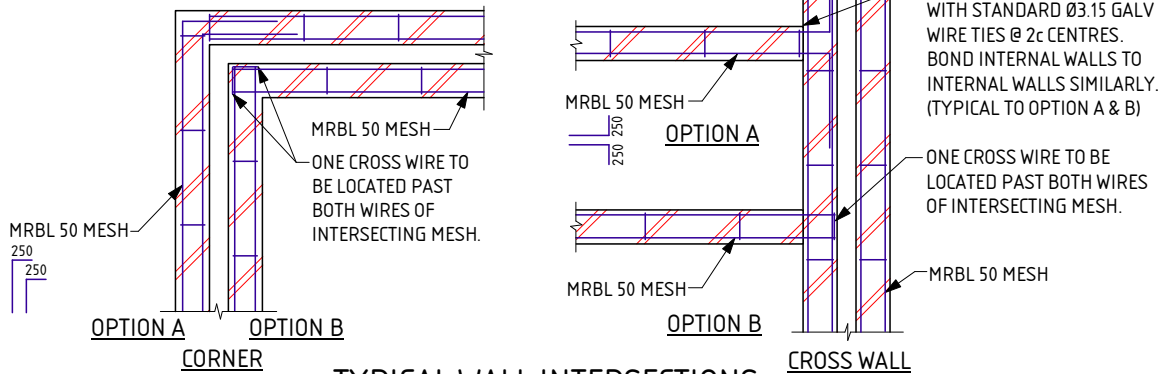
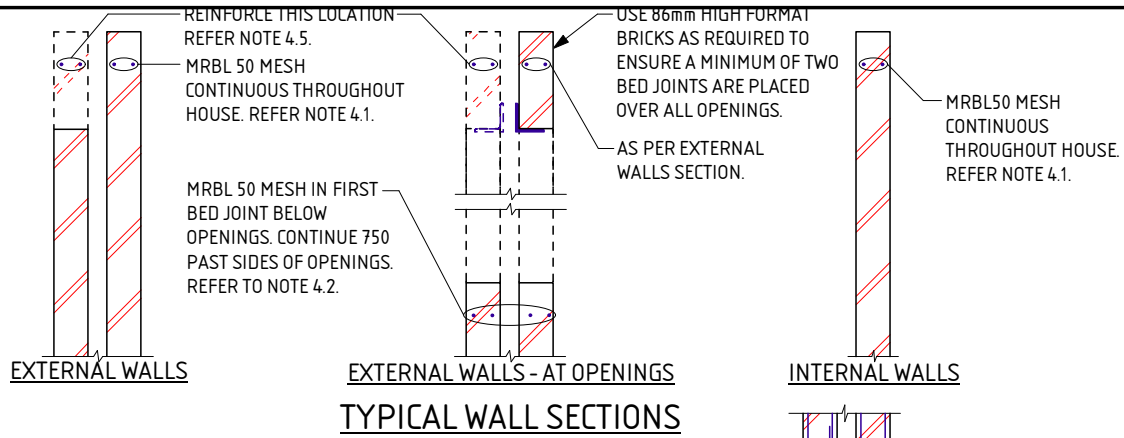
PROJECT:
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SCALE: 1:20

DATE: 16/11/22

APPROVED



REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 227 TRANQUAIR PWY DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

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APPROVED

A handwritten signature in blue ink, appearing to be 'M. Darch', is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595138

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 228 TRANQUAIR PWY DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082648
DATE OF ASSESSMENT 14/11/22

SITE RECORD

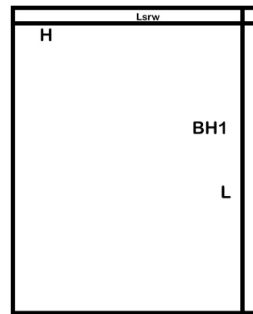


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1000 FILL sand with artificial material trace limestone - grey; 1000 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Tranquair Pwy

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.


-- END OF REPORT --

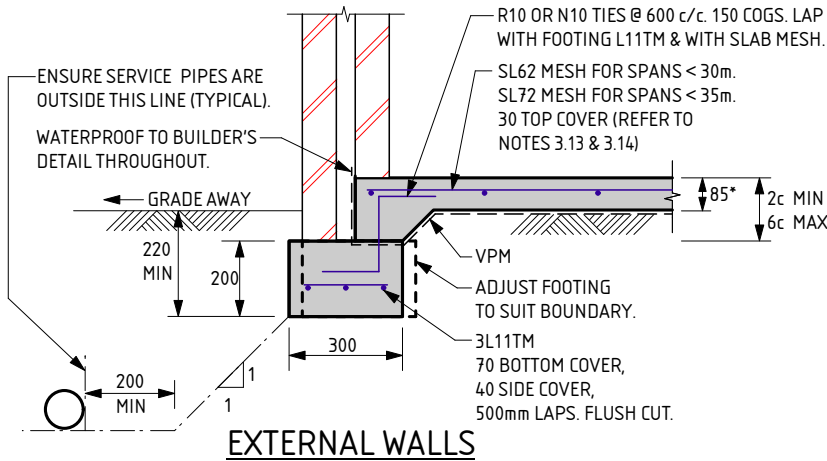
CERTIFICATE 2595138

Issued Date: 16 November 2022

- 3 -

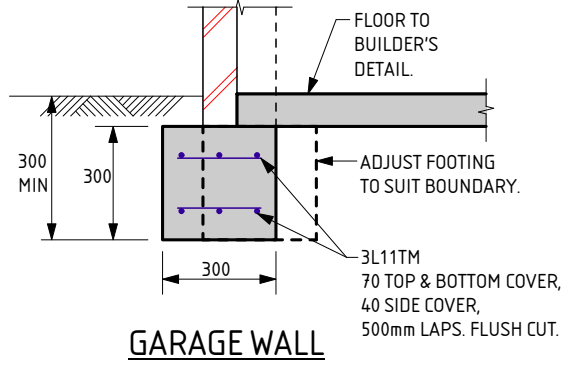
Signed:


Gervase Purich
Chief Executive Officer

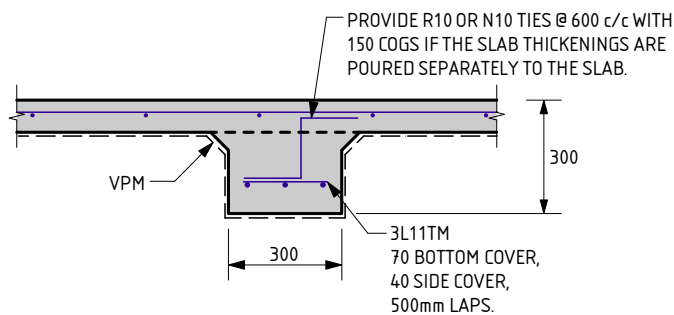


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
 IF 100mm SLAB USED, MESH TO BE:
 SL62 MESH FOR SPANS < 25m.
 SL72 MESH FOR SPANS < 30m.
 SL82 MESH FOR SPANS < 35m.

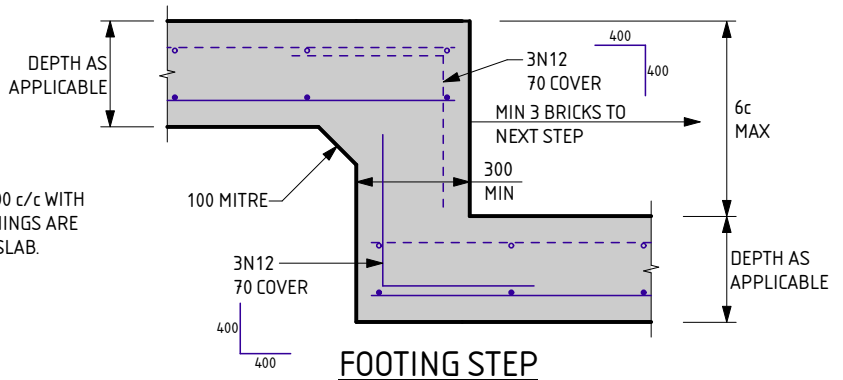


GARAGE WALL

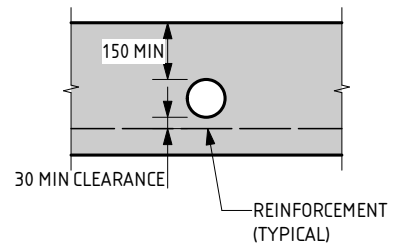


INTERNAL THICKENING

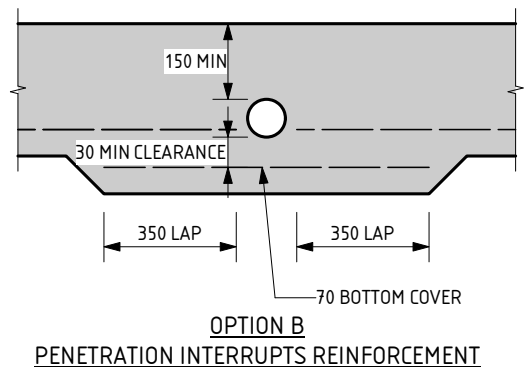
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



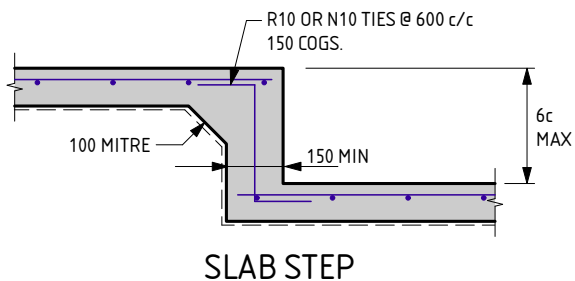
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



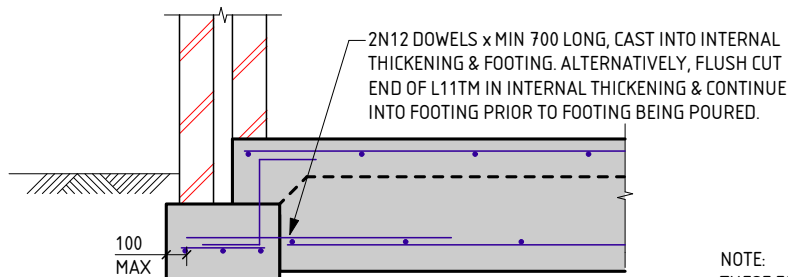
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham
 Unil Trust trading as StrucTerre Consulting Engineers
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TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@strucTerre.com.au

PROJECT: LOT 228 TRANQUAIR PWY DARCH

CLIENT: PARCEL DARCH PTY LTD

SCALE: 1:20

DATE: 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham
Unit 1 Trust Trading as StrucTerre Consulting Engineers
1 ERINDALE ROAD, BALEATTA W.A. 6021

TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@strucTerre.com.au

PROJECT :
LOT 228 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :

LOT 228 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595139

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 229 TRANQUAIR PWY DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082649
DATE OF ASSESSMENT 14/11/22

SITE RECORD

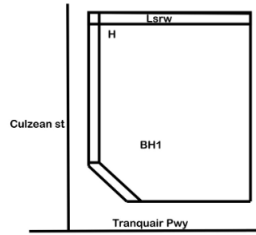


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

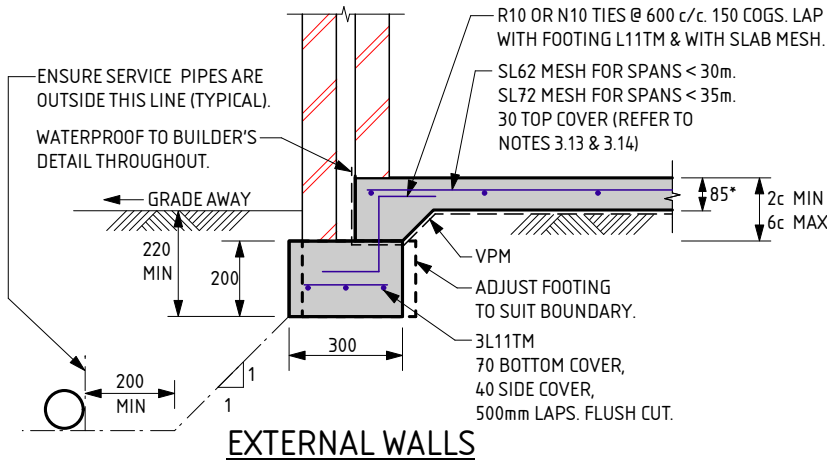
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

Structerre Geotech Reference

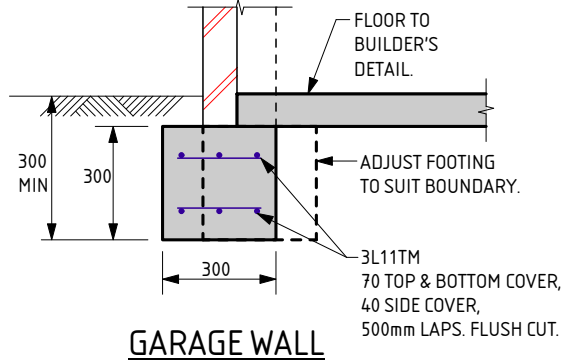
The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

-- END OF REPORT --

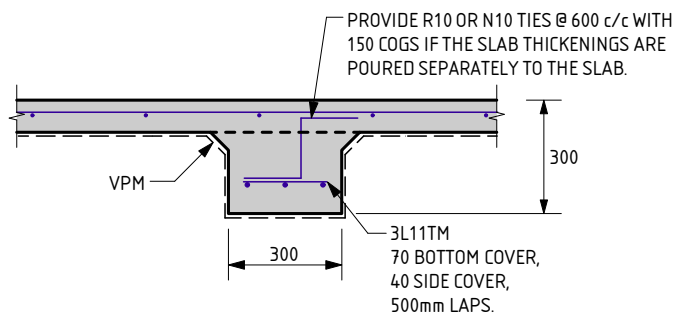


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.

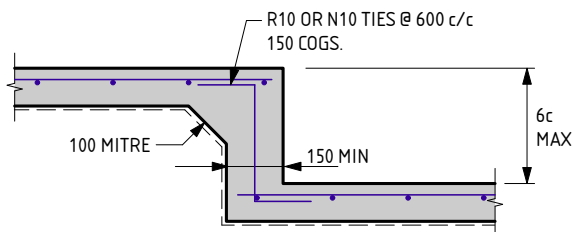


GARAGE WALL

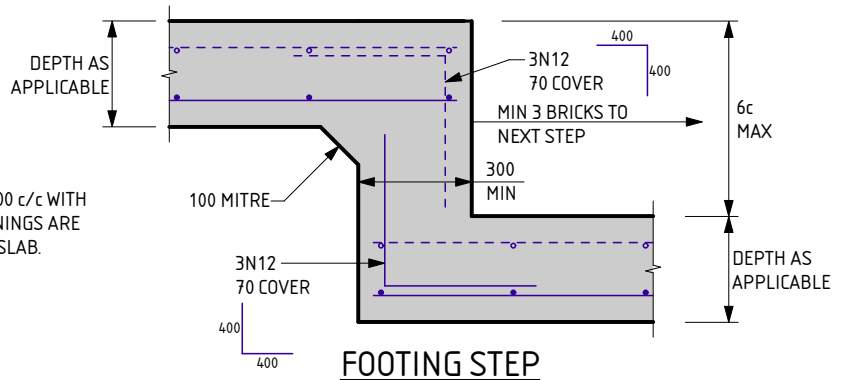


INTERNAL THICKENING

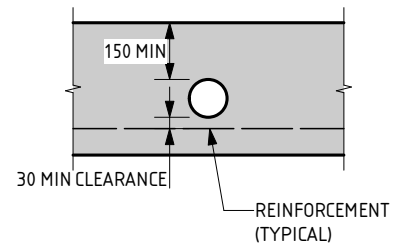
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



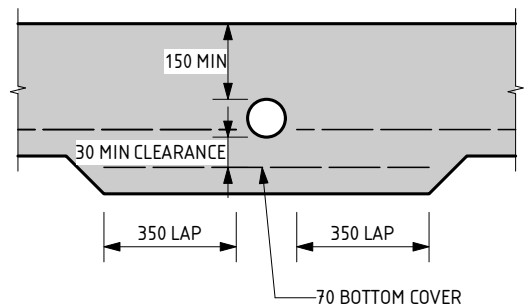
SLAB STEP



FOOTING STEP



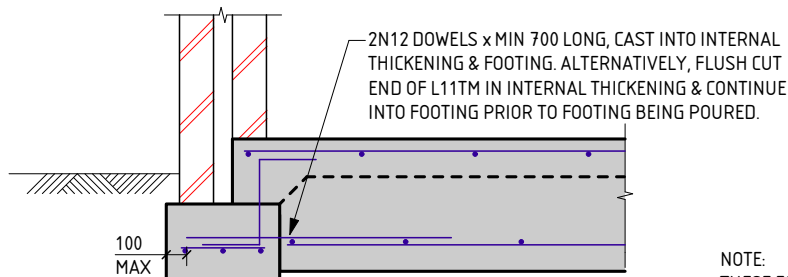
OPTION A PENETRATION CLEAR OF REINFORCEMENT



OPTION B PENETRATION INTERRUPTS REINFORCEMENT

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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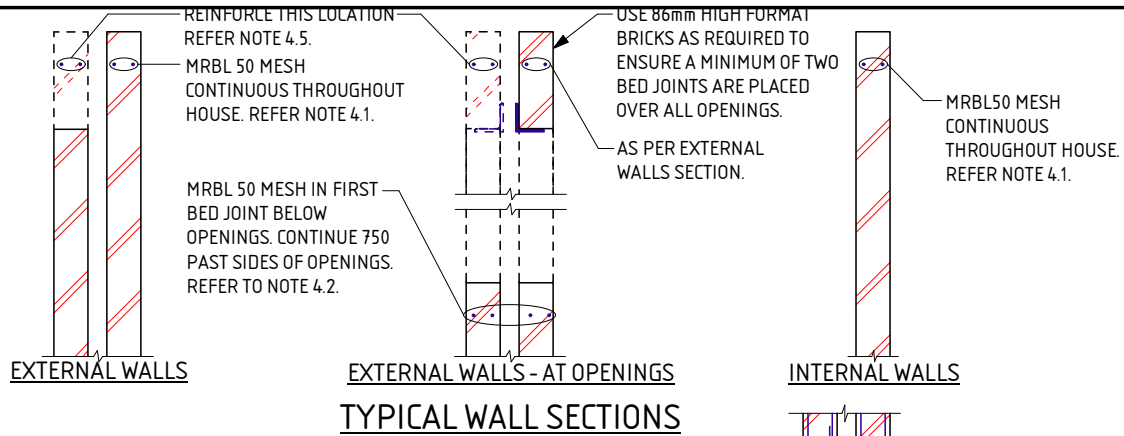
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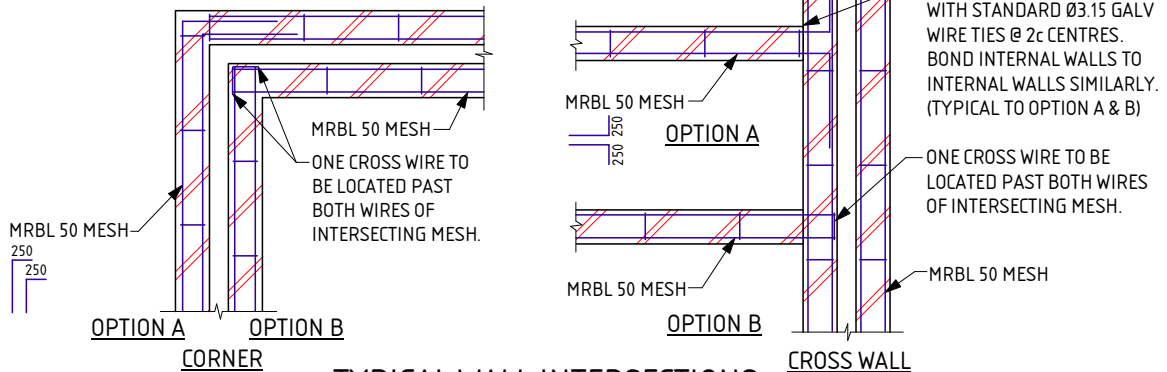
SCALE 1:20

DATE 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;
 - L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
 - SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
 - N INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
 - TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.
 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT : LOT 229 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 229 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 229 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595140

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 230 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082635
DATE OF ASSESSMENT 14/11/22

SITE RECORD

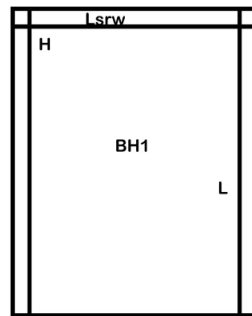


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Partial Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 800 FILL sand with artificial material trace limestone - grey; 800 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

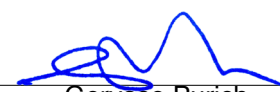
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

Structerre Geotech Reference

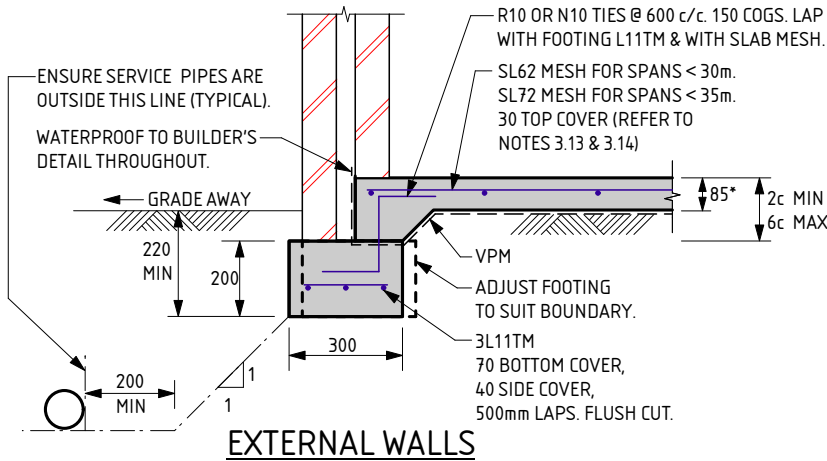
The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

-- END OF REPORT --

Signed:

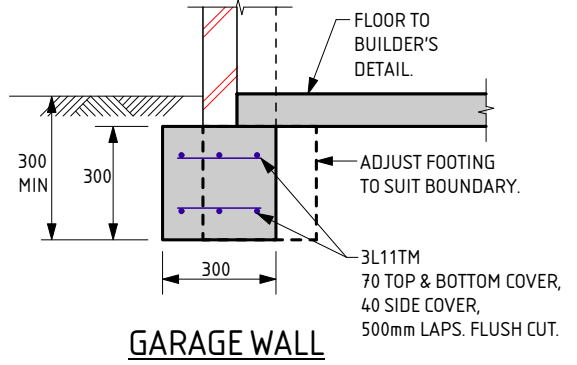


Gervase Purich
Chief Executive Officer

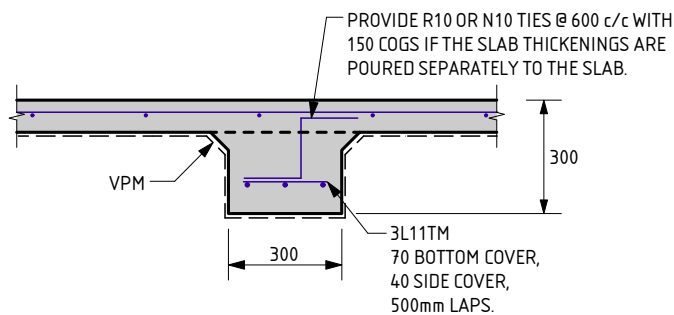


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
 IF 100mm SLAB USED, MESH TO BE:
 SL62 MESH FOR SPANS < 25m.
 SL72 MESH FOR SPANS < 30m.
 SL82 MESH FOR SPANS < 35m.

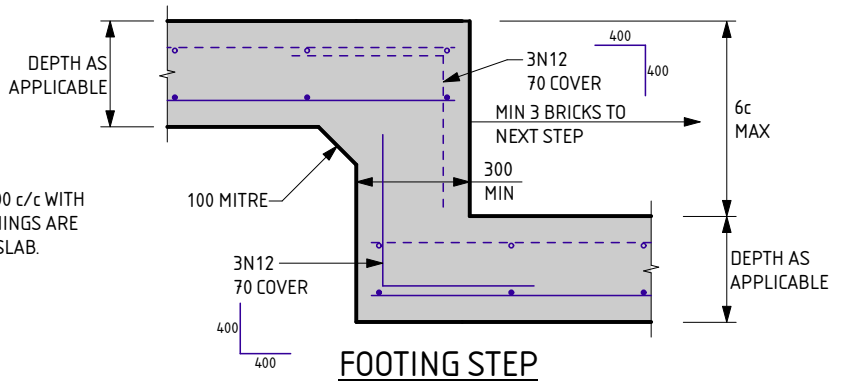


GARAGE WALL

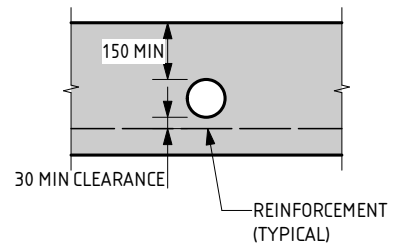


INTERNAL THICKENING

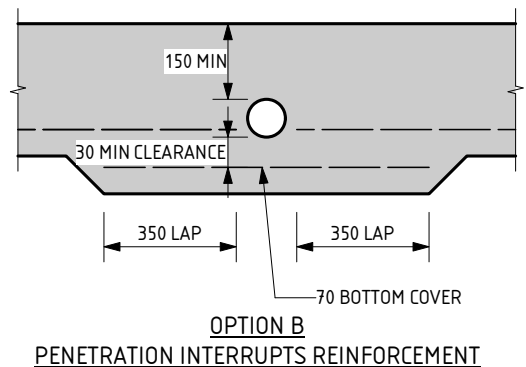
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



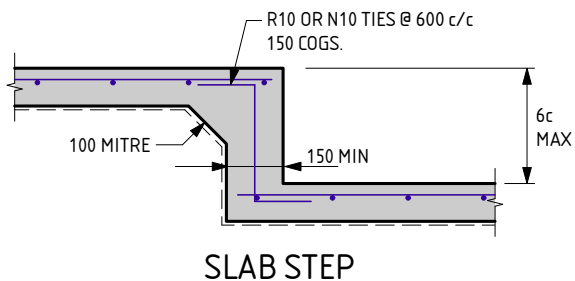
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



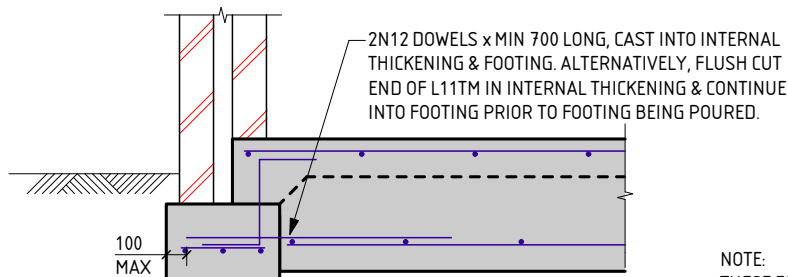
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



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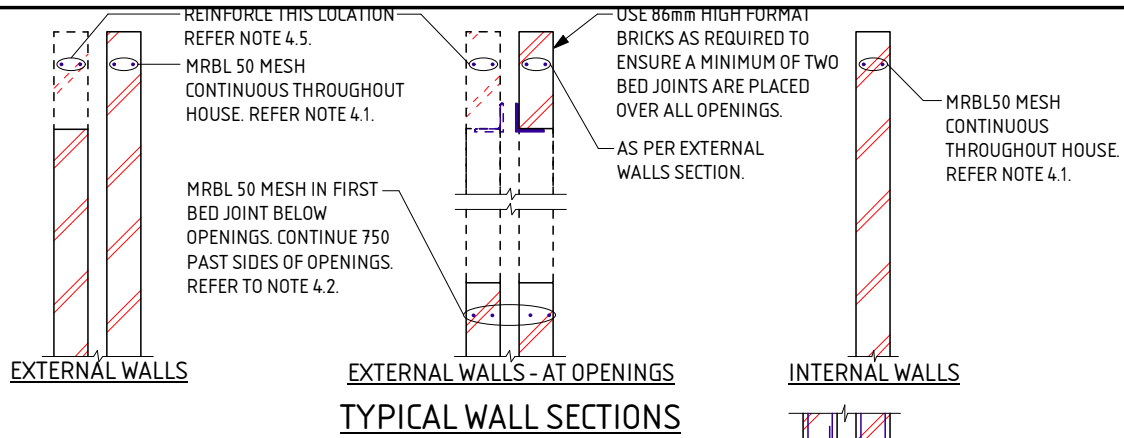
PROJECT: LOT 230 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

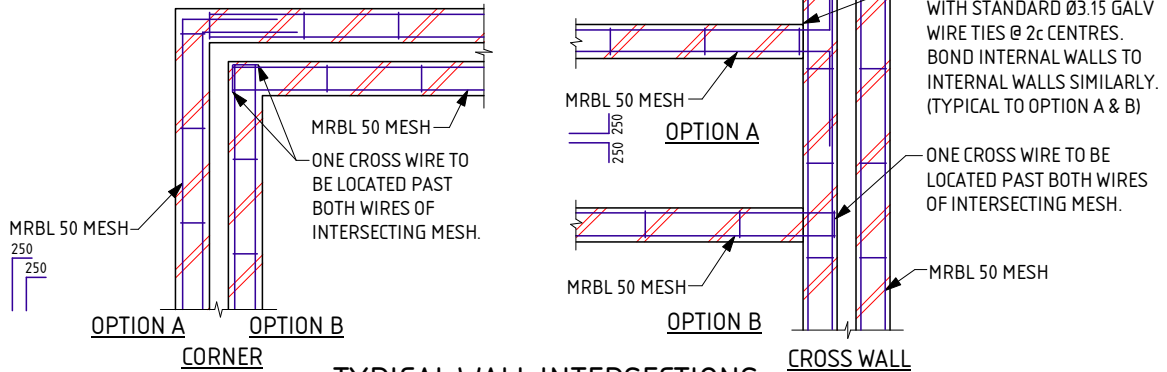
SCALE: 1:20

DATE: 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
 LOT 230 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 230 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 230 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue handwritten signature, likely of the engineer or consultant, written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595141

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 231 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082634
DATE OF ASSESSMENT 14/11/22

SITE RECORD

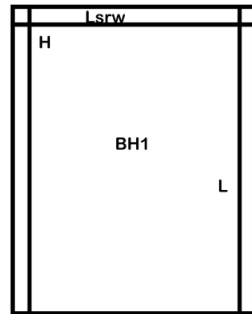


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

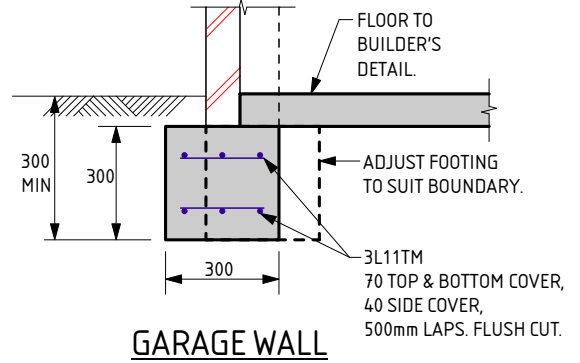
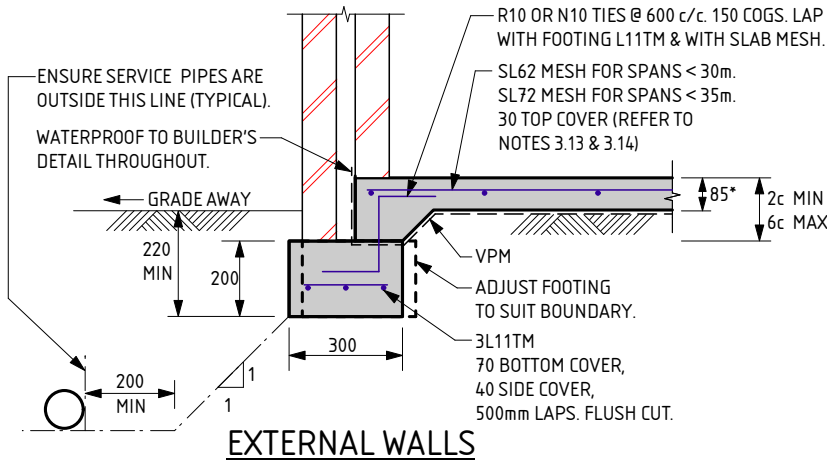
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

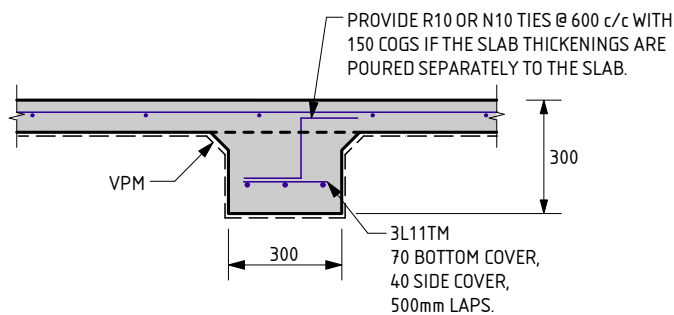
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

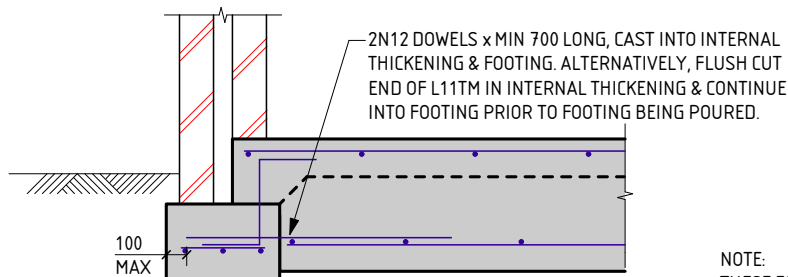
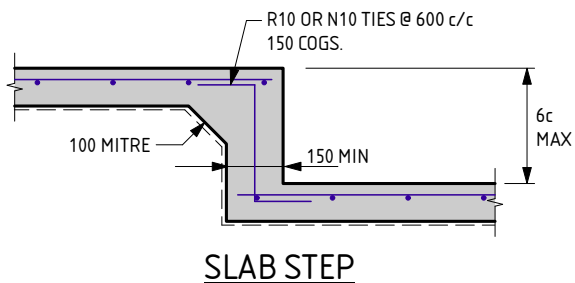
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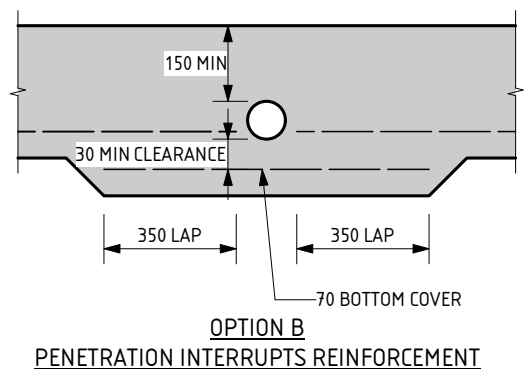
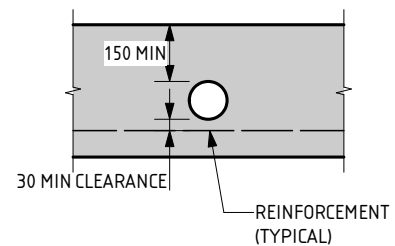
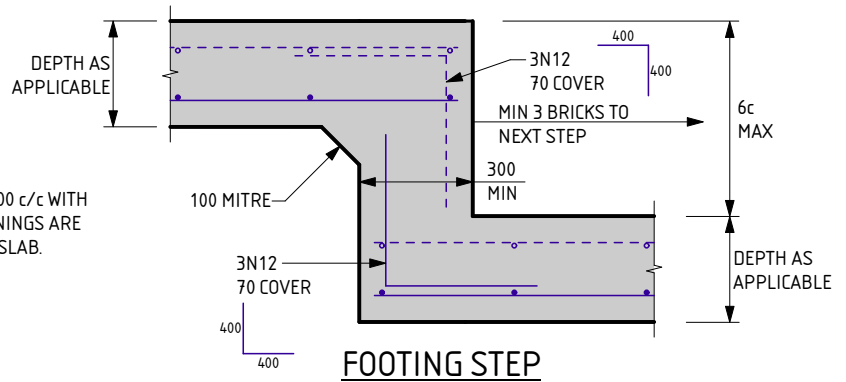
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0



SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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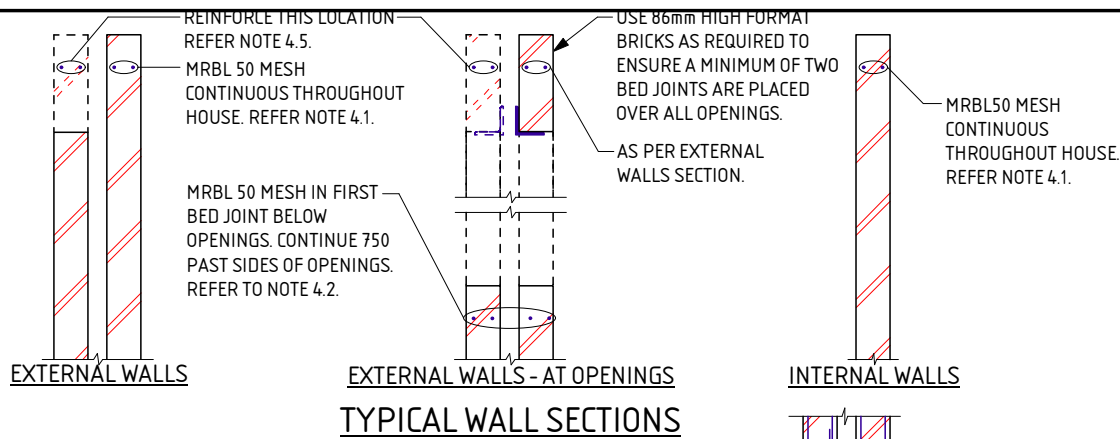
PROJECT:
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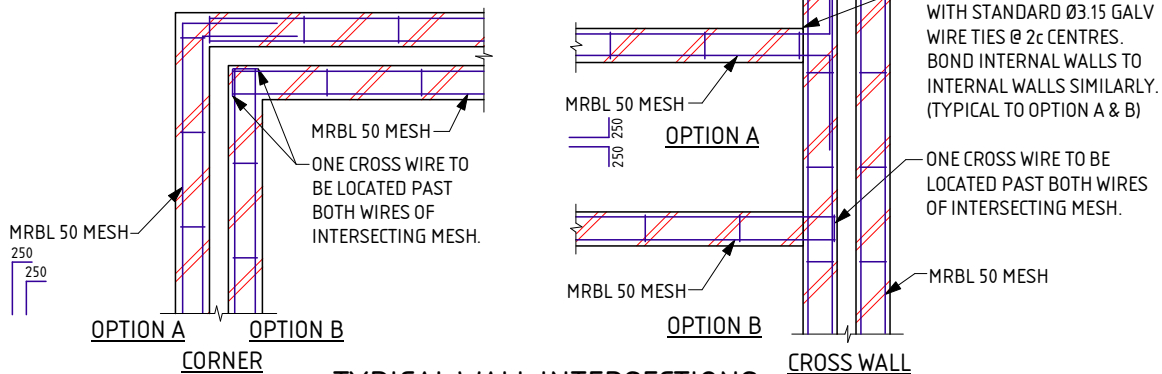
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DATE 16/11/22

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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 231 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595142

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 232 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082633
DATE OF ASSESSMENT 14/11/22

SITE RECORD

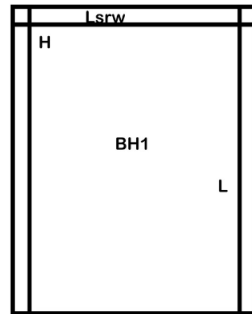


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

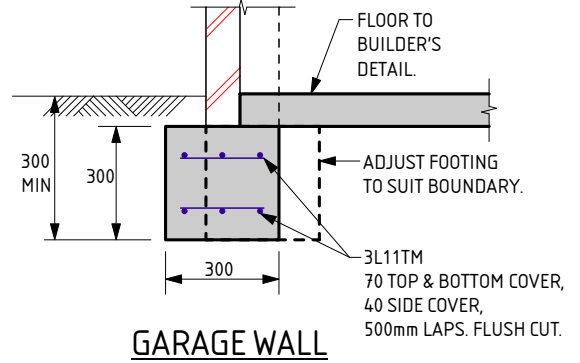
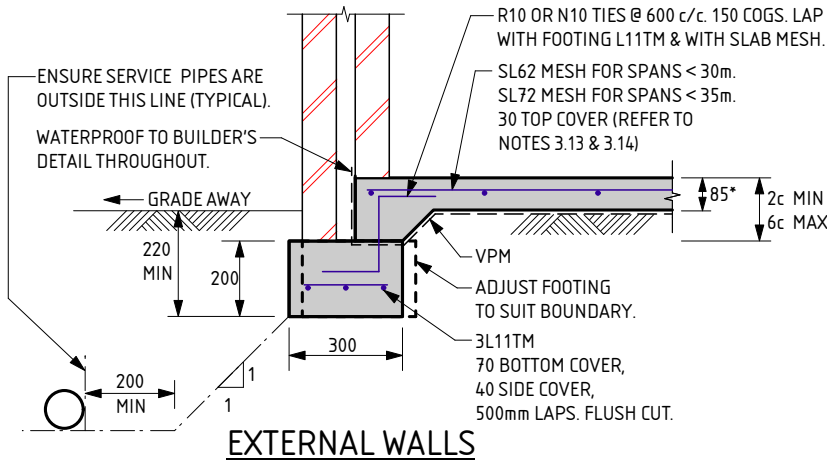
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

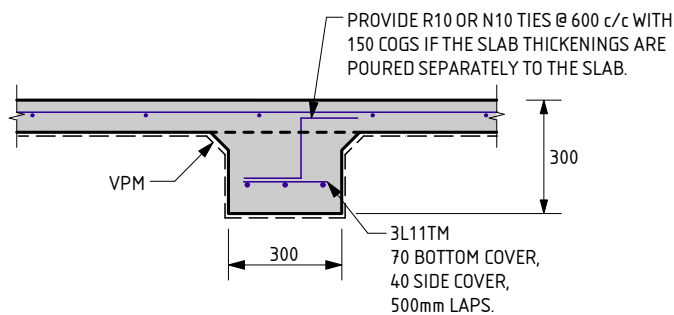
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

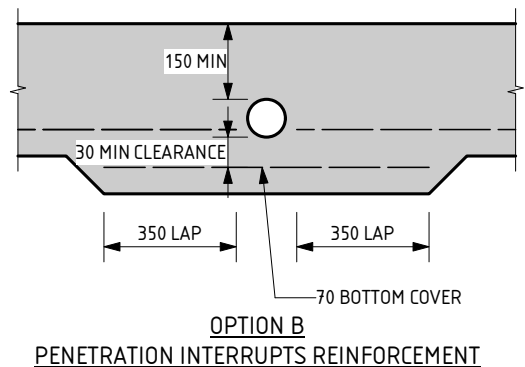
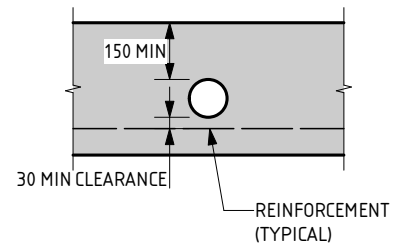
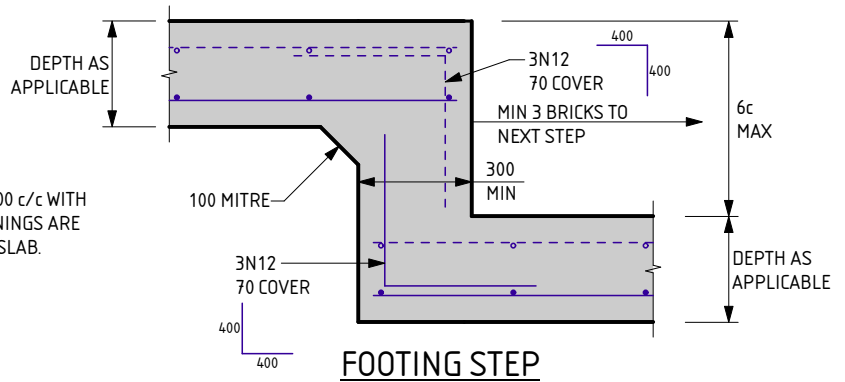
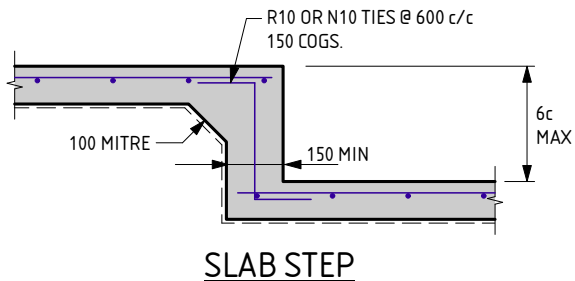
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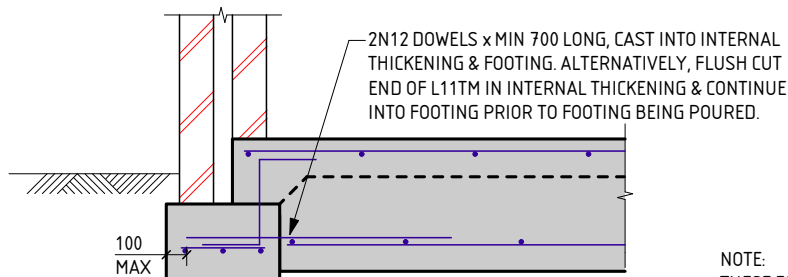
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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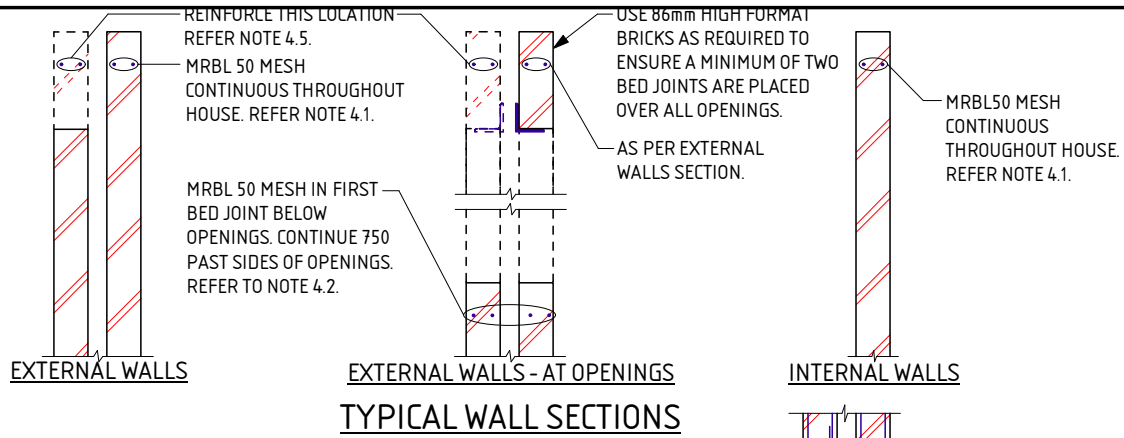
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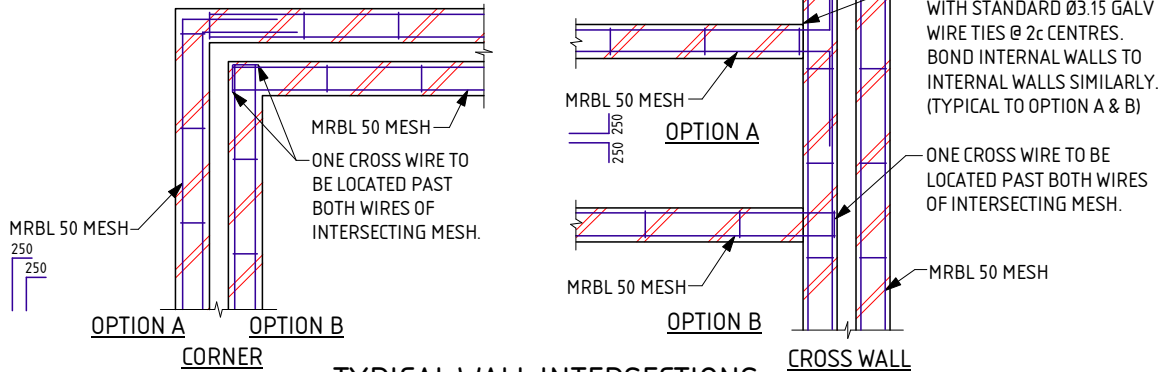
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DATE 16/11/22

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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 232 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 232 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 232 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595143

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 233 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082632
DATE OF ASSESSMENT 14/11/22

SITE RECORD

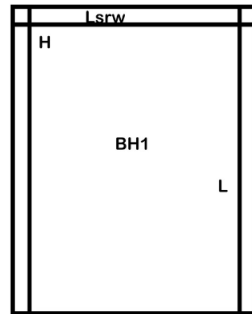


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

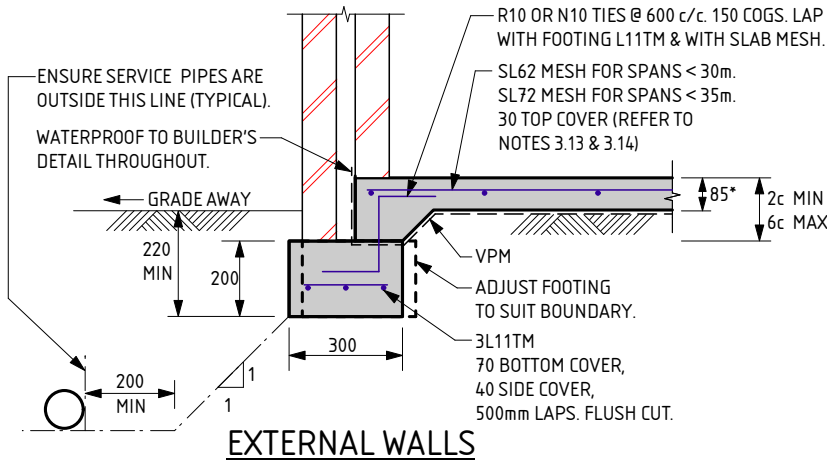
Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

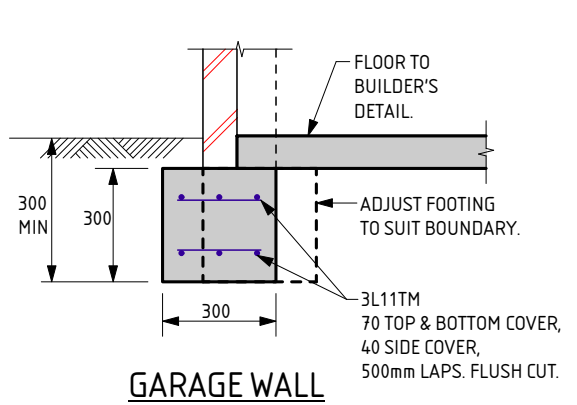
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

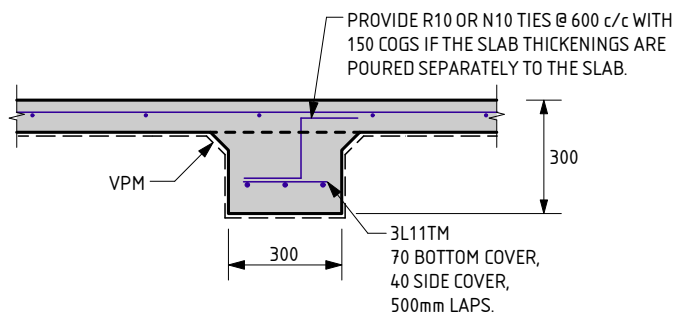


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
 IF 100mm SLAB USED, MESH TO BE:
 SL62 MESH FOR SPANS < 25m.
 SL72 MESH FOR SPANS < 30m.
 SL82 MESH FOR SPANS < 35m.

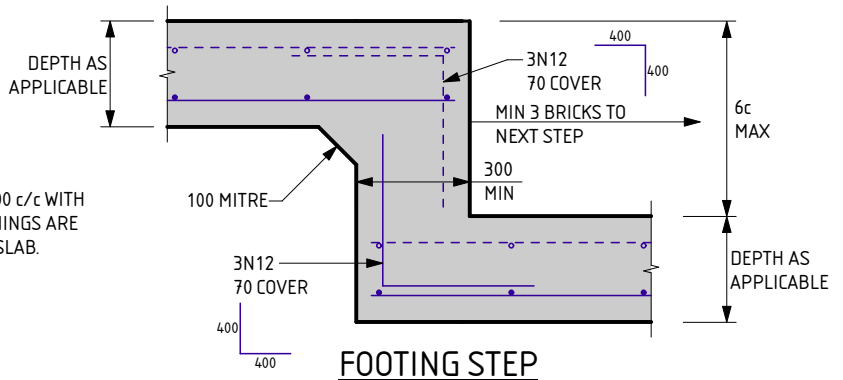


GARAGE WALL

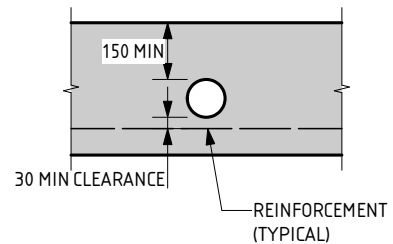


INTERNAL THICKENING

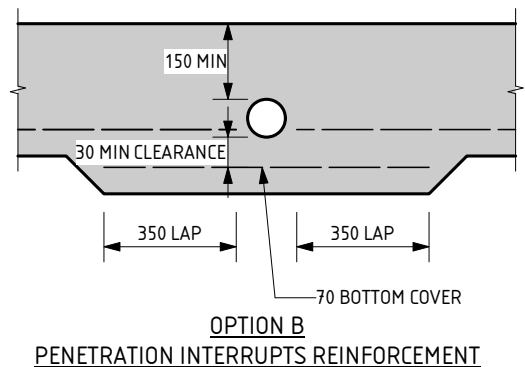
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



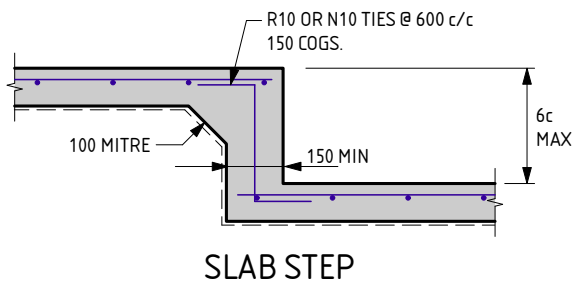
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



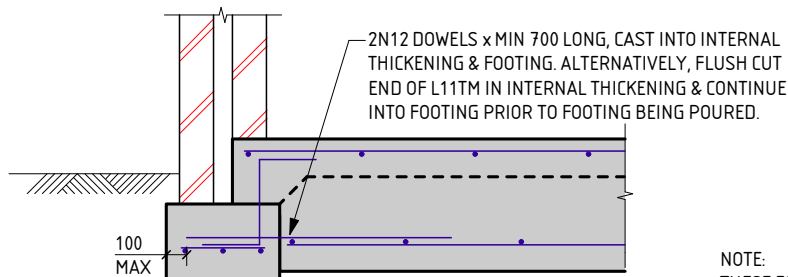
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



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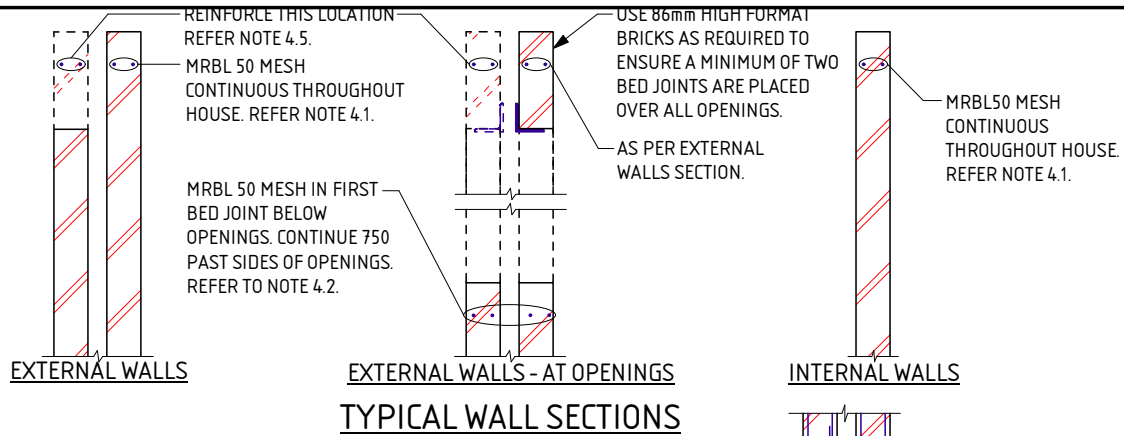
PROJECT: LOT 233 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

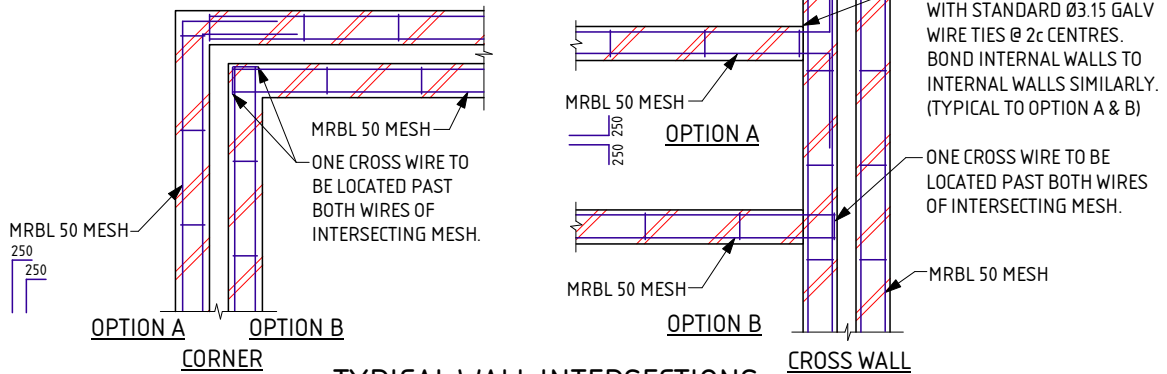
SCALE: 1:20

DATE: 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 233 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE : **1:20**

DATE : **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 233 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 233 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595144

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 234 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082631
DATE OF ASSESSMENT 14/11/22

SITE RECORD

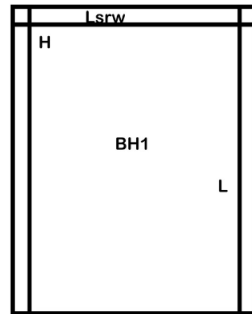


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

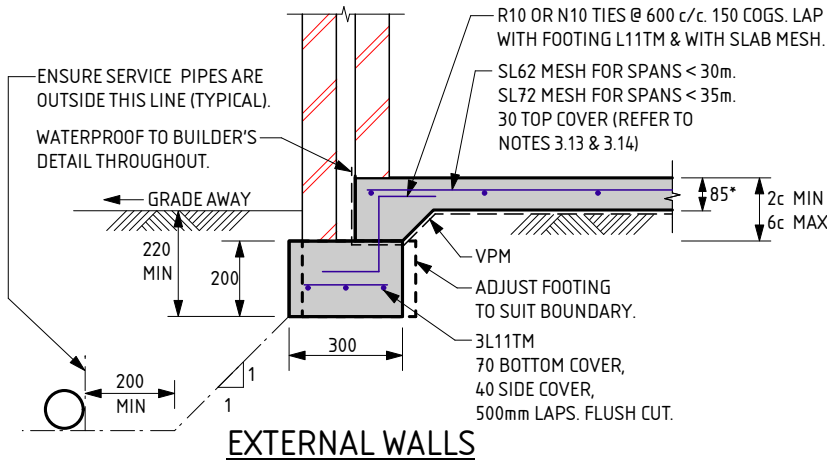
Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

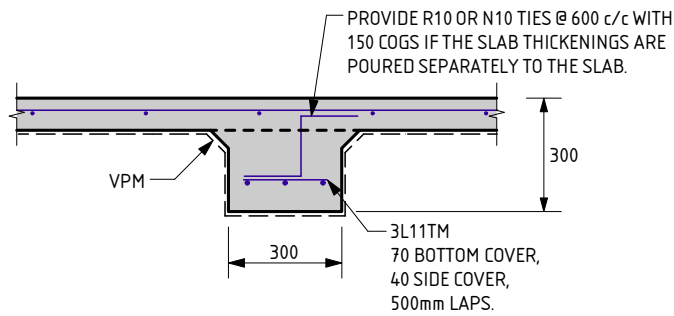
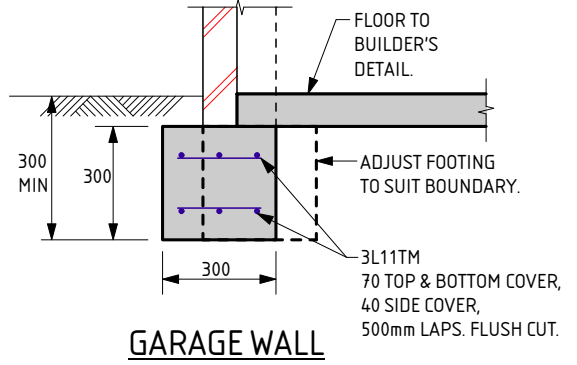
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

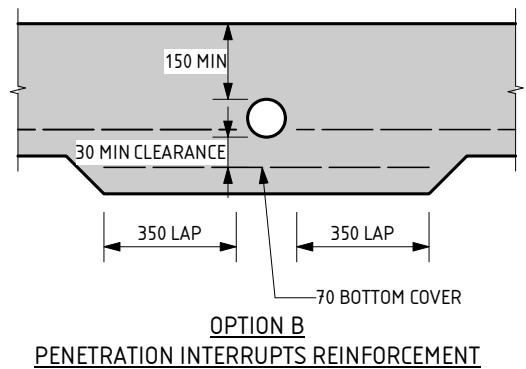
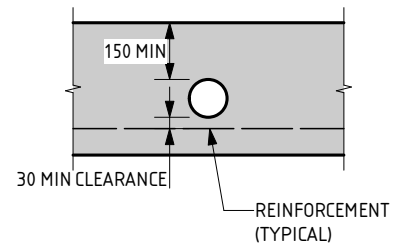
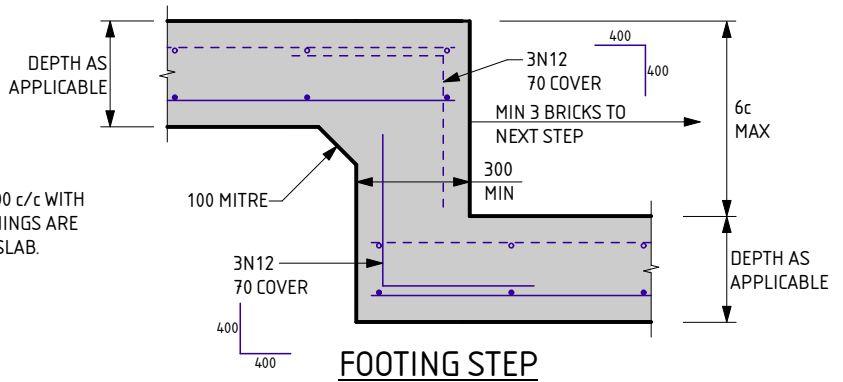
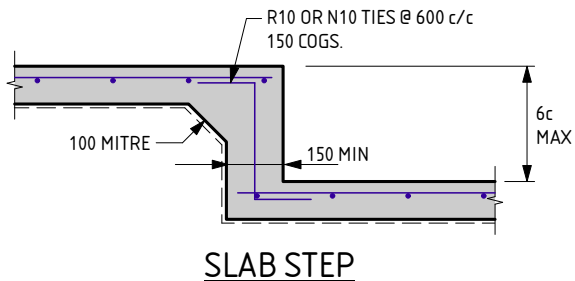
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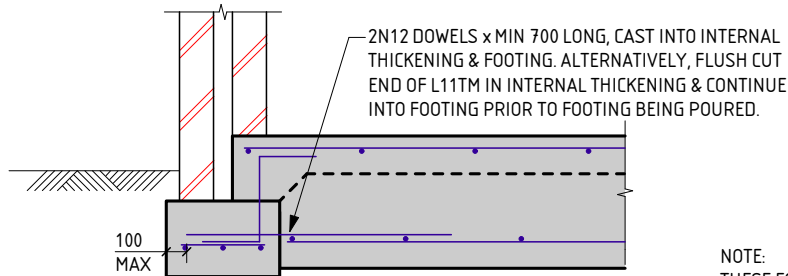
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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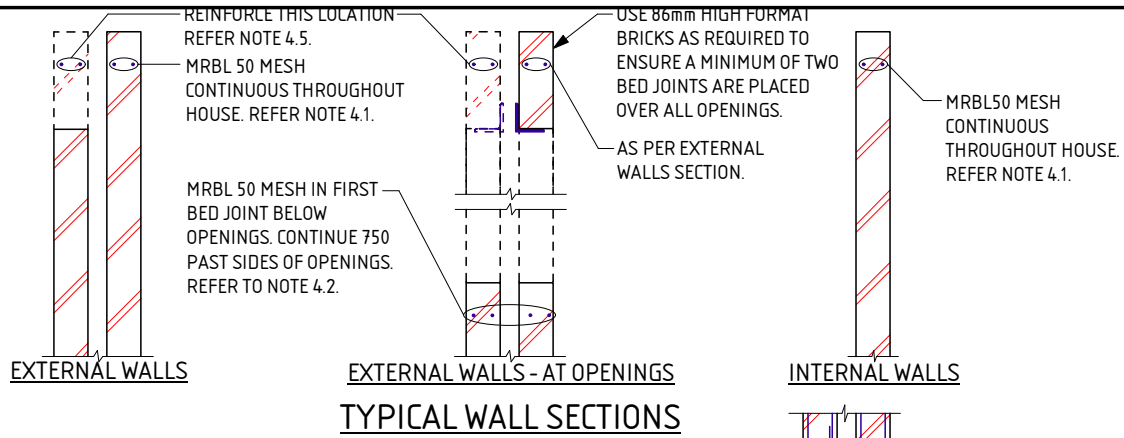
PROJECT:
LOT 234 CULZEAN ST DARCH

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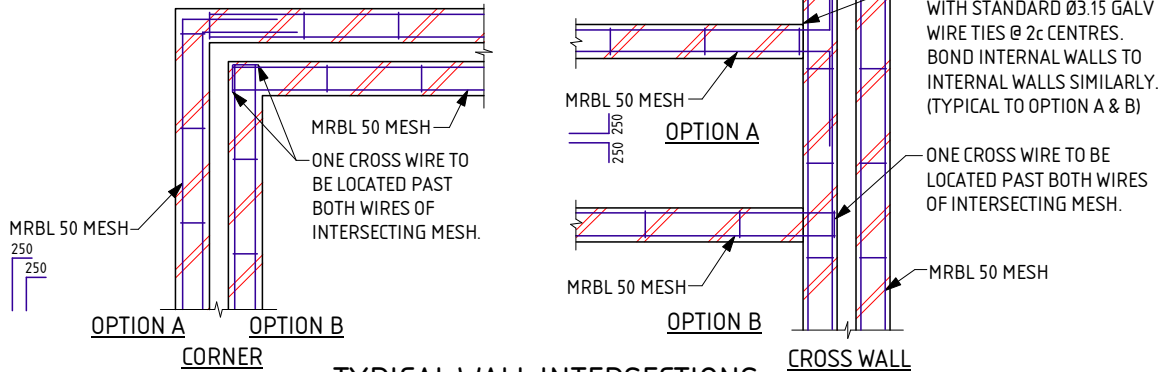
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DATE 16/11/22

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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 234 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 234 CULZEAN ST DARCH

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SCALE 1:20

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 234 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595145

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 235 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082630
DATE OF ASSESSMENT 14/11/22

SITE RECORD

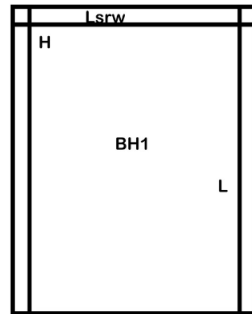


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

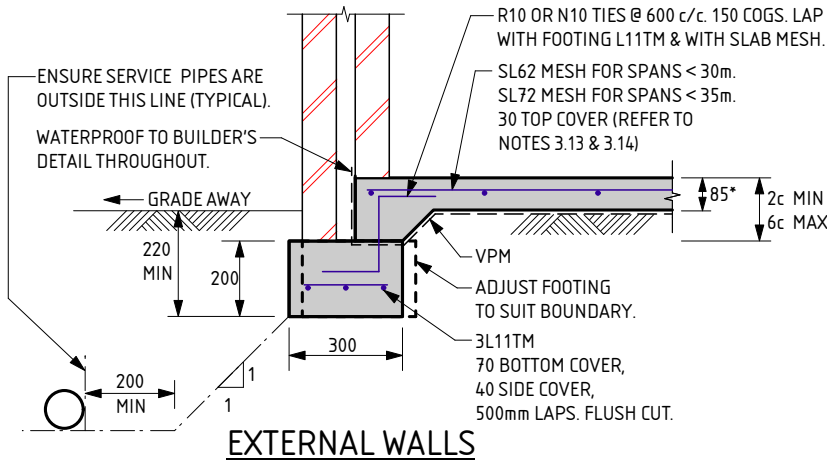
Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

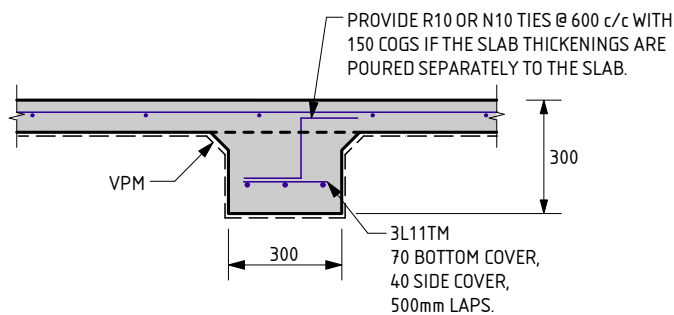
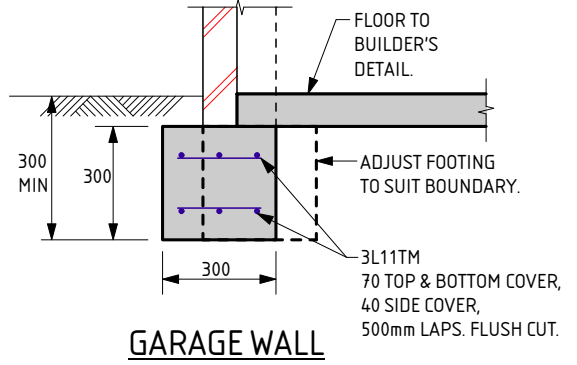
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

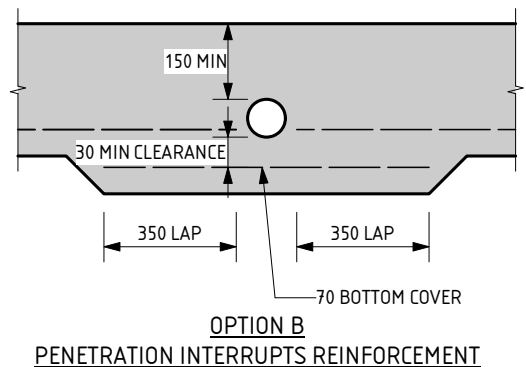
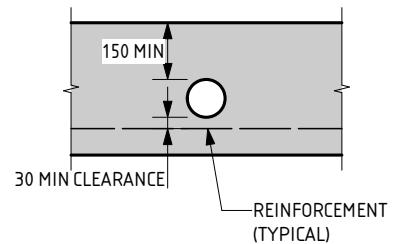
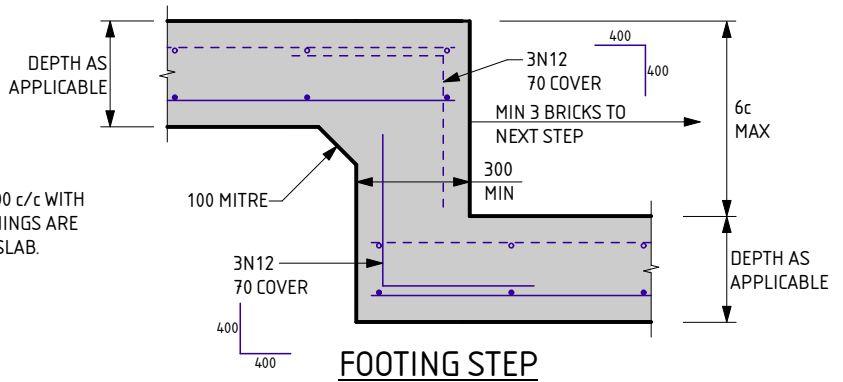
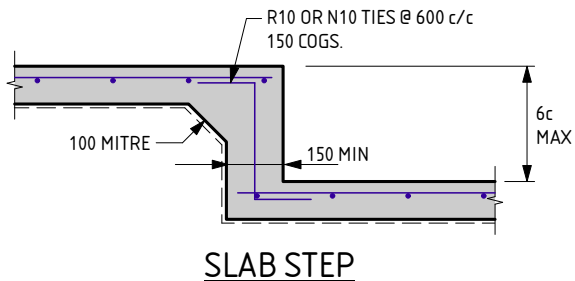
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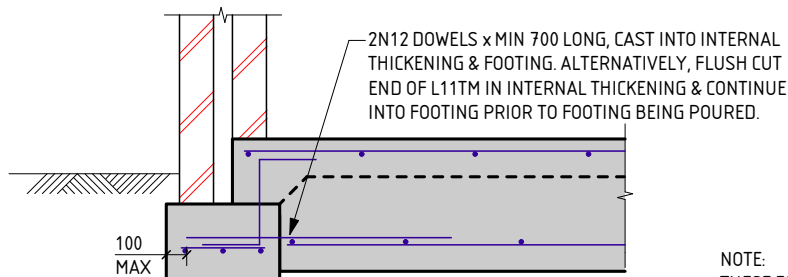
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

STRUCterre
consulting engineers

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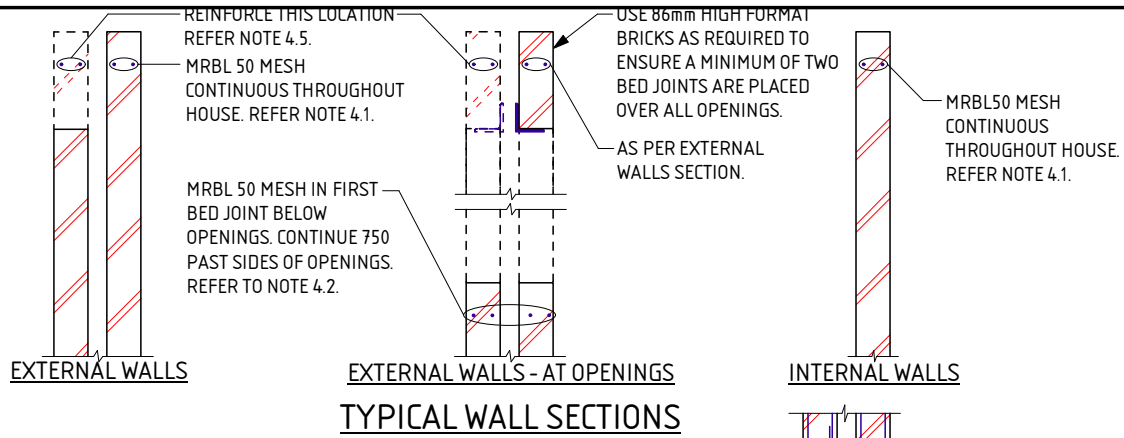
PROJECT:
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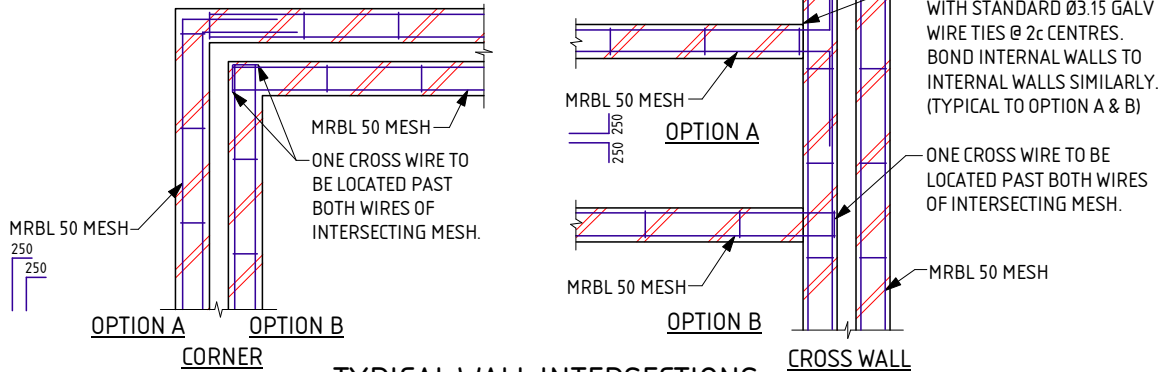
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DATE 16/11/22

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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 235 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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LOT 235 CULZEAN ST DARCH

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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DATE 16/11/22

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A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT

CERTIFICATE 2595146

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 236 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082629
DATE OF ASSESSMENT 14/11/22

SITE RECORD



SITE CLASSIFICATION	S - EQUIVALENT (in accordance with AS2870)
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 (Durability Class in accordance with AS3700)
WIND CLASSIFICATION	N1 (in accordance with AS4055)
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

WA | QLD | NSW | VIC

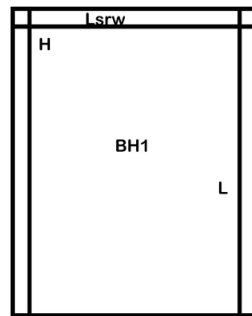
1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914
 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@strucsterre.com.au | Web www.strucsterre.com.au
 ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Strucsterre Consulting Engineers

Issued Date: 16 November 2022

SOIL PROFILE

BOREHOLE 1: 0 - 1300 FILL sand with artificial material trace limestone - grey; 1300 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings


Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

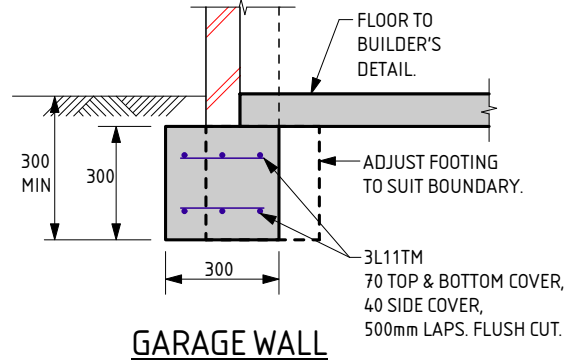
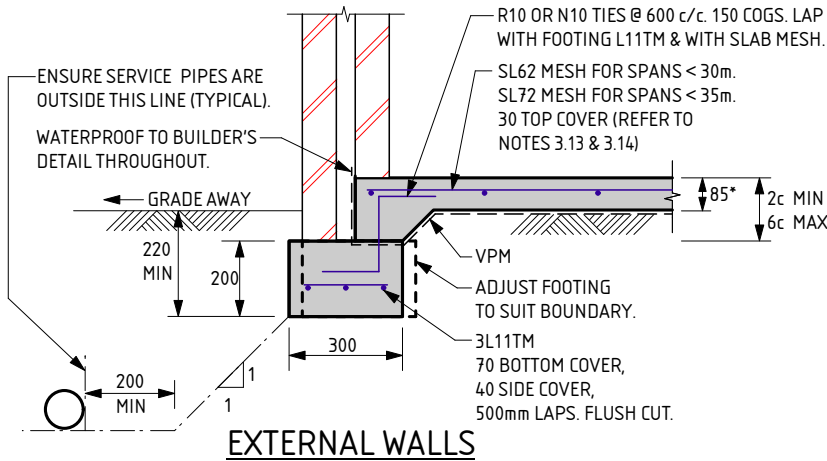
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

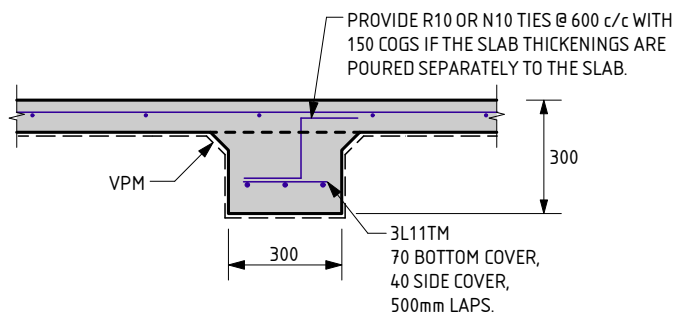
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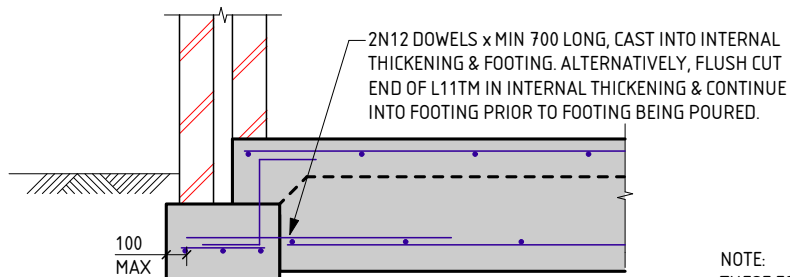
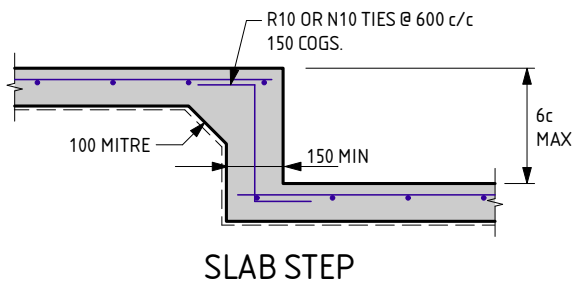
Gervase Purich
Chief Executive Officer



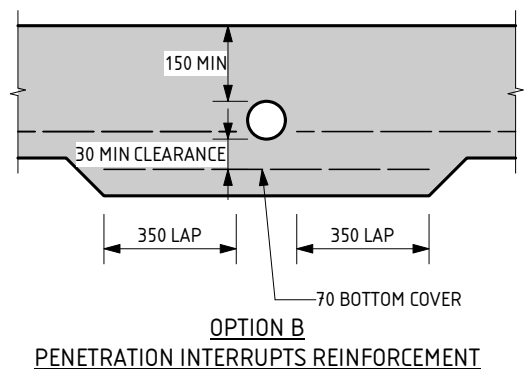
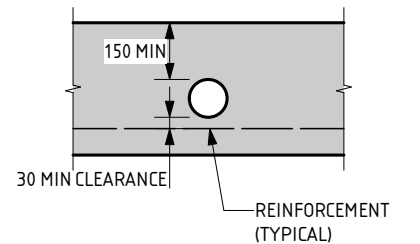
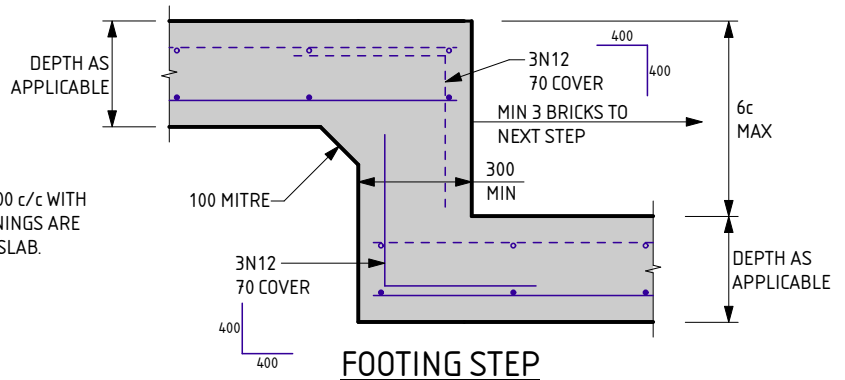
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCterre'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCterre PRIOR TO CONCRETE POUR.



THIS DETAIL IS EQUIVALENT TO
STRUCterre FOOTING DETAIL C4.0



SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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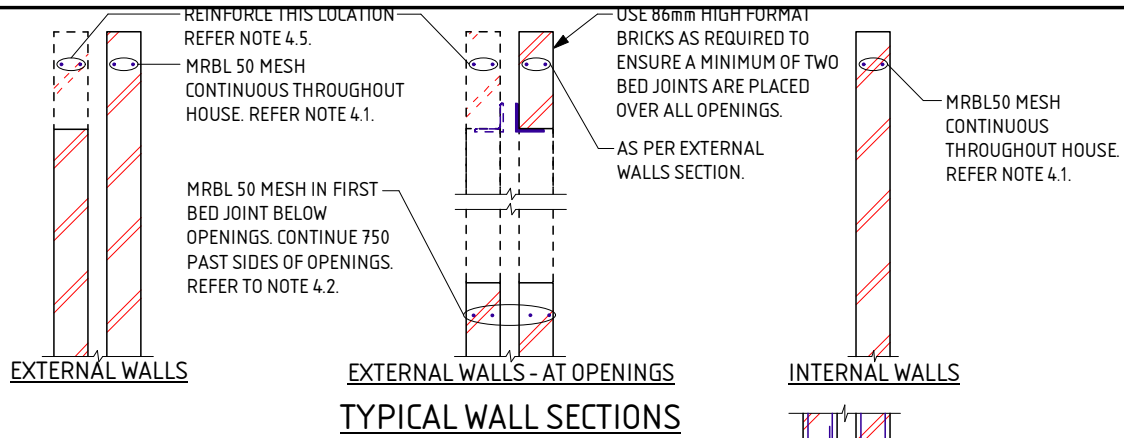
PROJECT:
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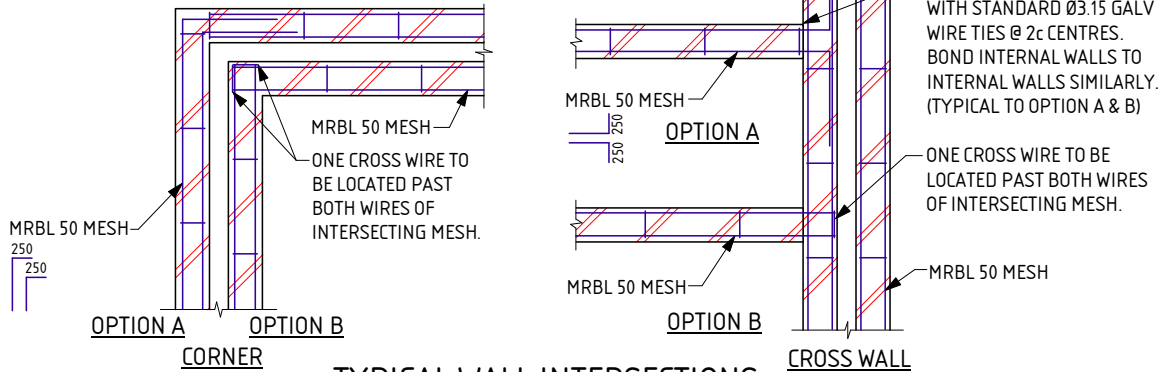
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DATE 16/11/22

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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 236 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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DATE 16/11/22

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A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595147

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 237 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082628
DATE OF ASSESSMENT 14/11/22

SITE RECORD



SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

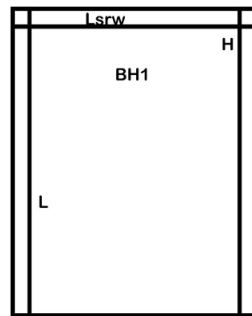
WA | QLD | NSW | VIC

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 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@strucsterre.com.au | Web www.strucsterre.com.au
 ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Strucsterre Consulting Engineers

SOIL PROFILE

BOREHOLE 1: 0 - 600 FILL sand with artificial material trace limestone - grey; 600 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

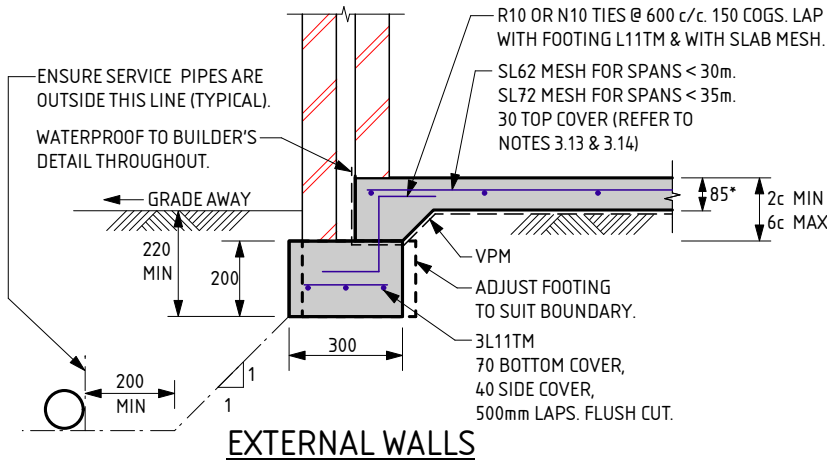
CERTIFICATE 2595147

Issued Date: 16 November 2022

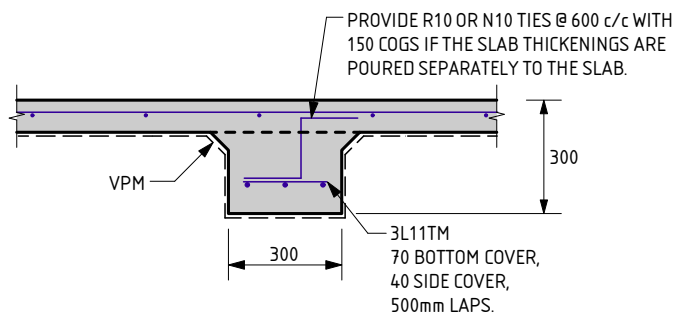
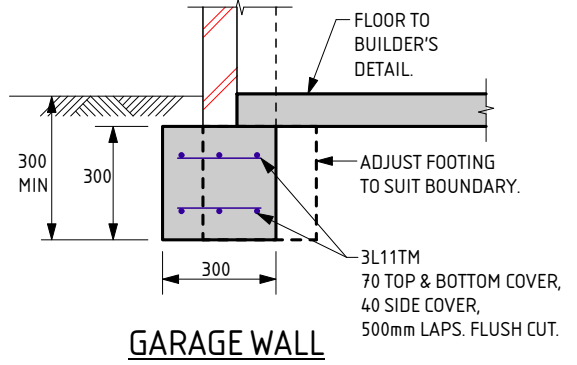
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Signed:

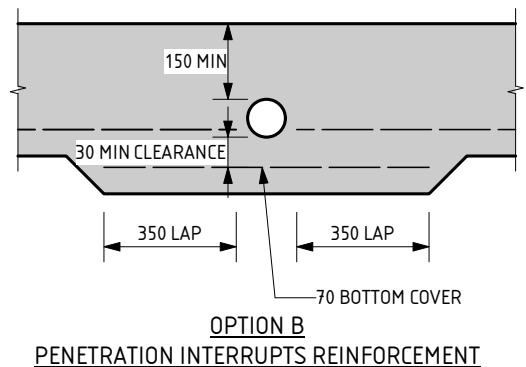
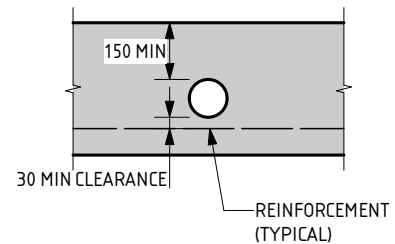
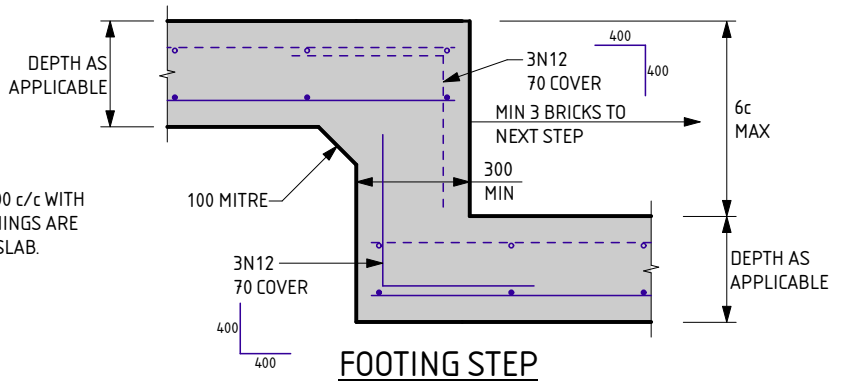
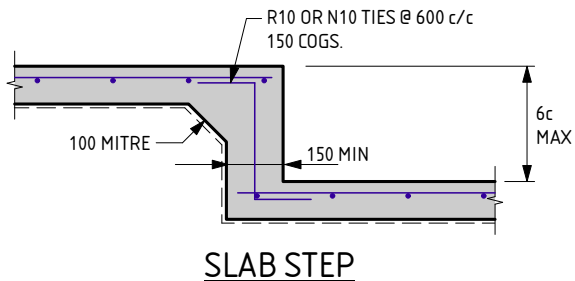

Gervase Purich
Chief Executive Officer



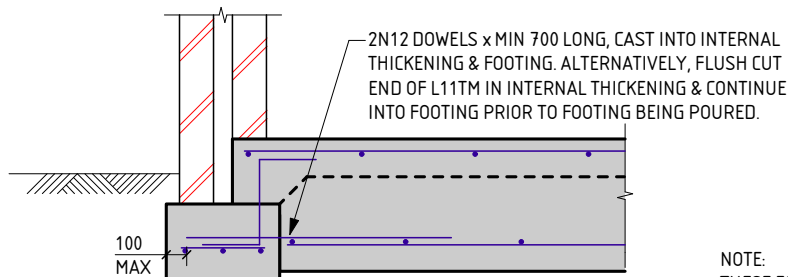
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCterre'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCterre PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCterre FOOTING DETAIL C4.0

STRUCterre
consulting engineers

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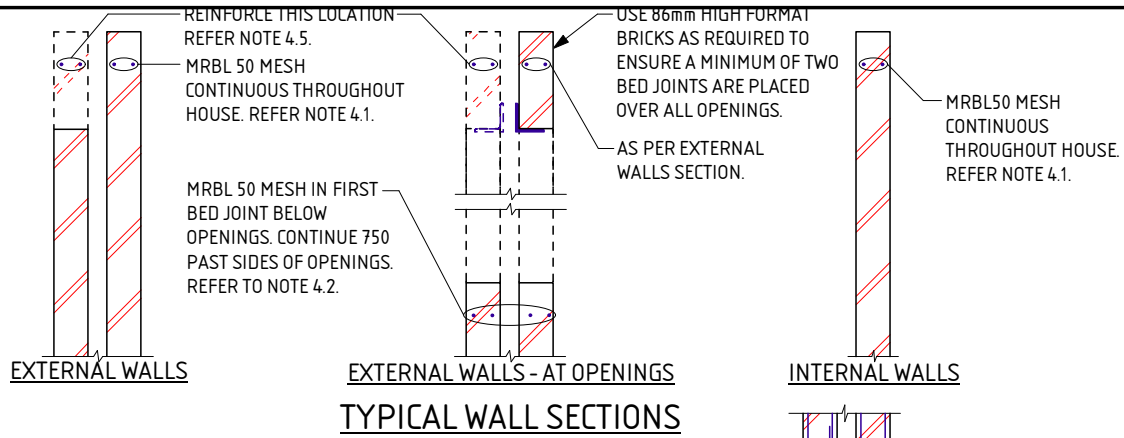
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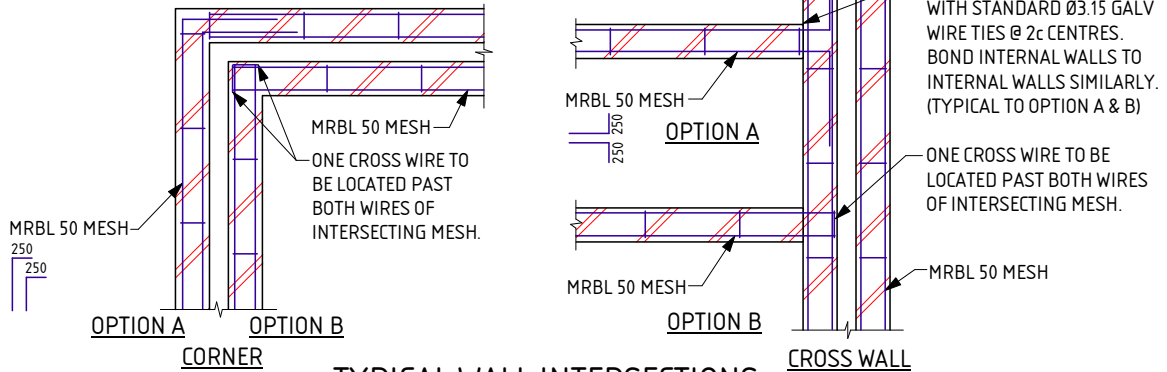
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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 237 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 237 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
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DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595148

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 238 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082626
DATE OF ASSESSMENT 14/11/22

SITE RECORD

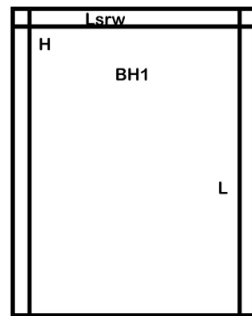


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 600 FILL sand with artificial material trace limestone - grey; 600 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

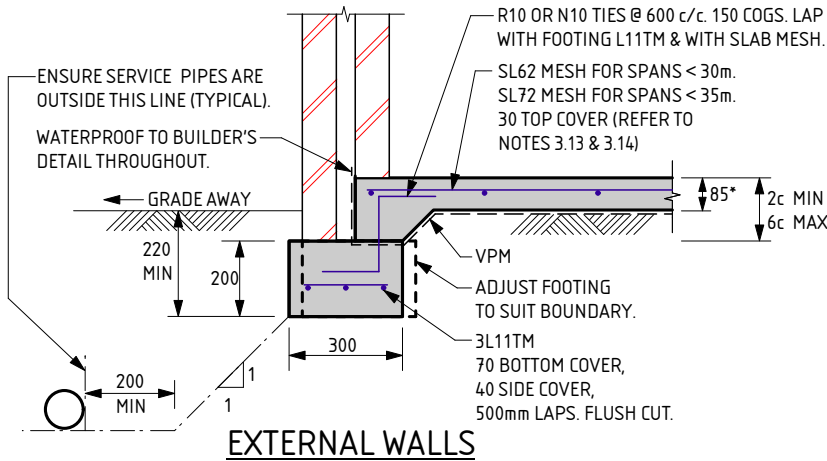
CERTIFICATE 2595148

Issued Date: 16 November 2022

- 3 -

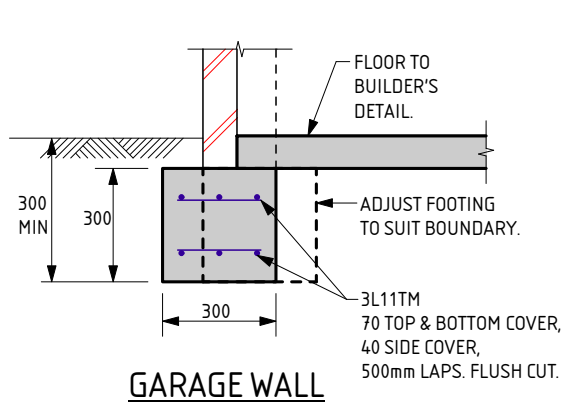
Signed:


Gervase Purich
Chief Executive Officer

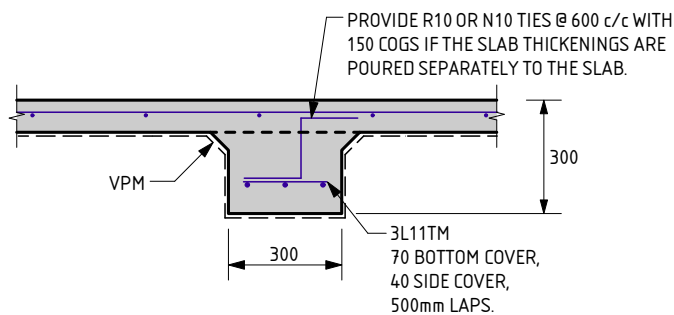


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
 IF 100mm SLAB USED, MESH TO BE:
 SL62 MESH FOR SPANS < 25m.
 SL72 MESH FOR SPANS < 30m.
 SL82 MESH FOR SPANS < 35m.

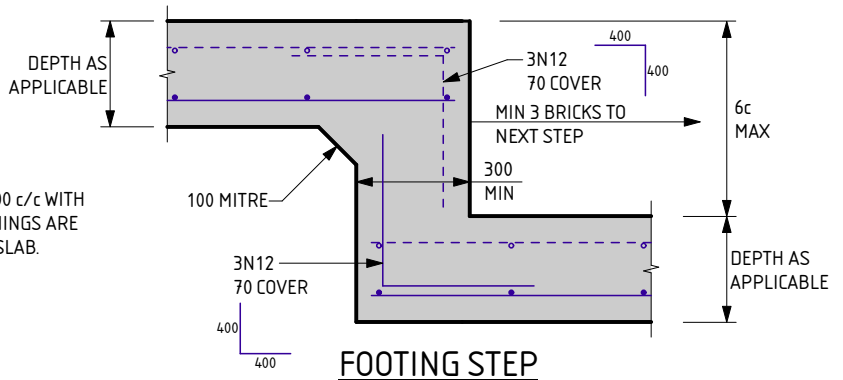


GARAGE WALL

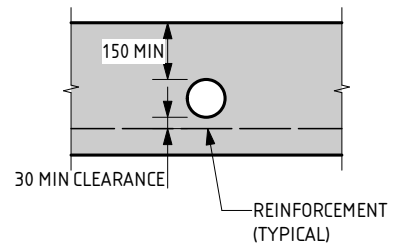


INTERNAL THICKENING

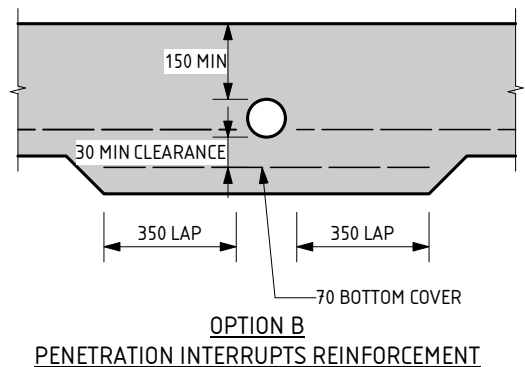
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



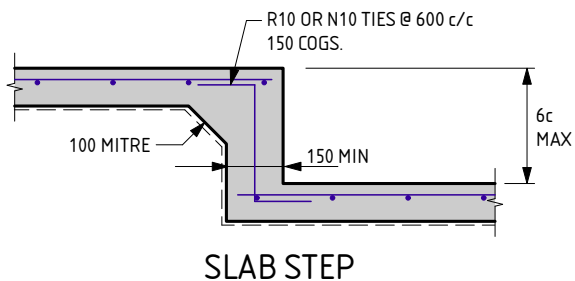
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



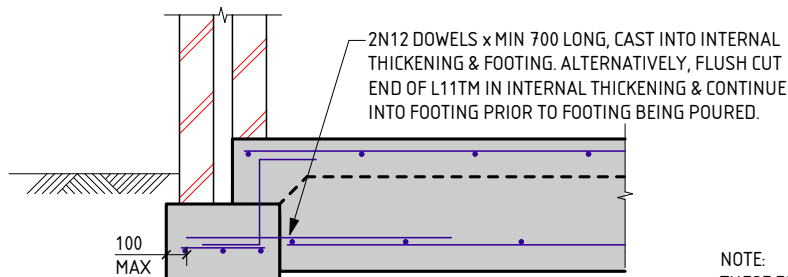
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



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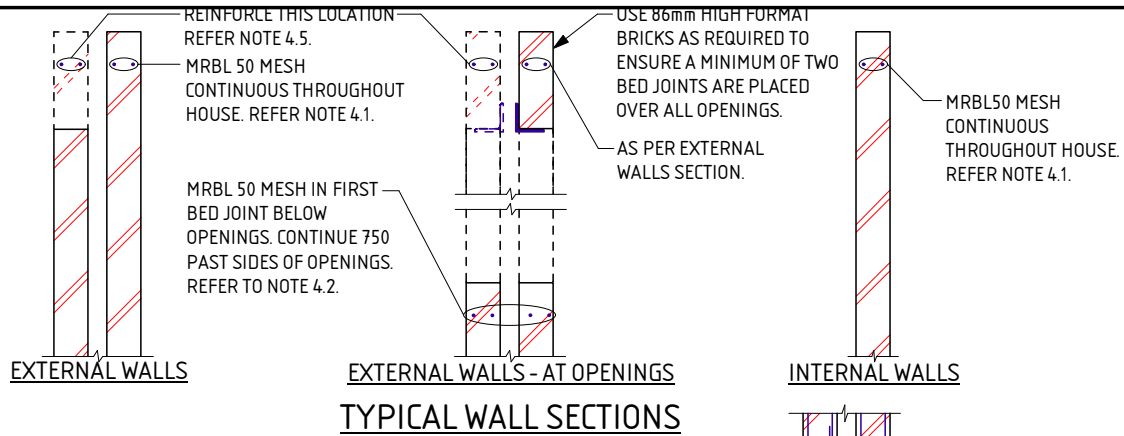
PROJECT: LOT 238 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

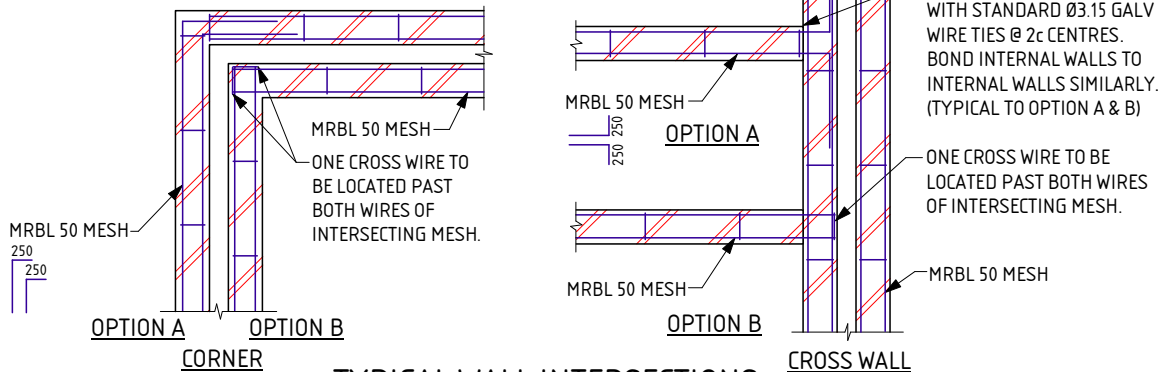
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APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 238 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 238 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 238 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595149

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 239 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082625
DATE OF ASSESSMENT 14/11/22

SITE RECORD

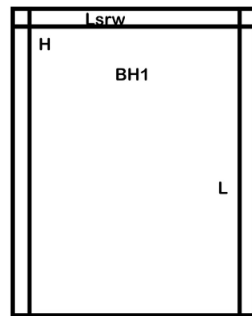


SITE CLASSIFICATION	A	<i>(in accordance with AS2870)</i>
FOOTING DETAIL	B1	
SAND PAD	No sand pad required structurally	
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)	
CORROSION CLASSIFICATION	R1	<i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1	<i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3	
-TOPOGRAPHIC	T0	
-SHIELDING	Full Shielding	

SOIL PROFILE

BOREHOLE 1: 0 - 600 FILL sand with artificial material trace limestone - grey; 600 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

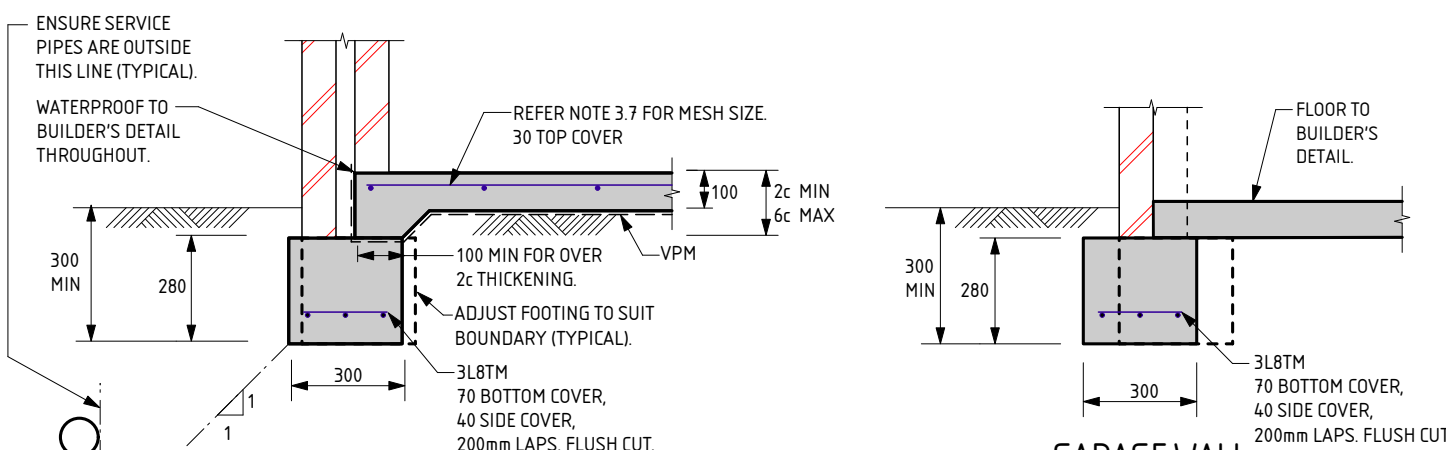
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Superseded

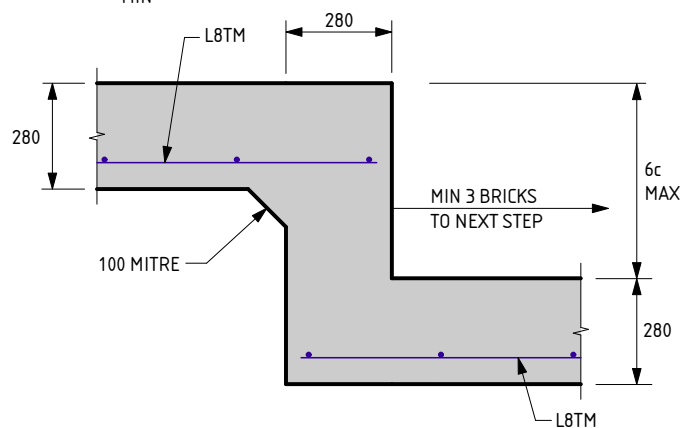
This report supersedes certification number 2595149, issued 16/11/2022.

-- END OF REPORT --

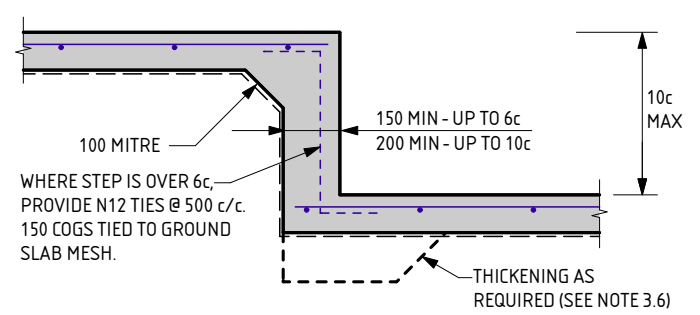


EXTERNAL WALLS

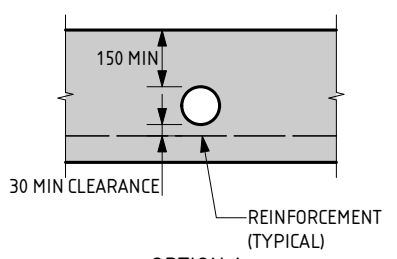
GARAGE WALL



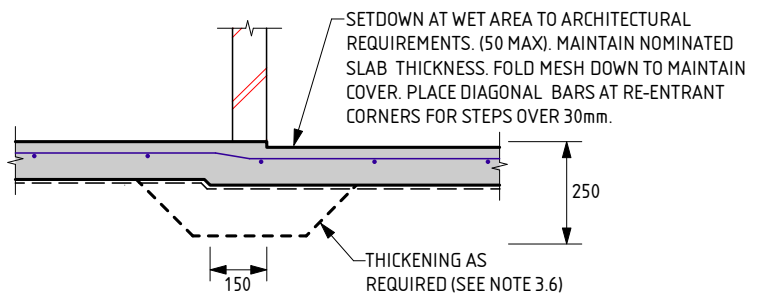
FOOTING STEP



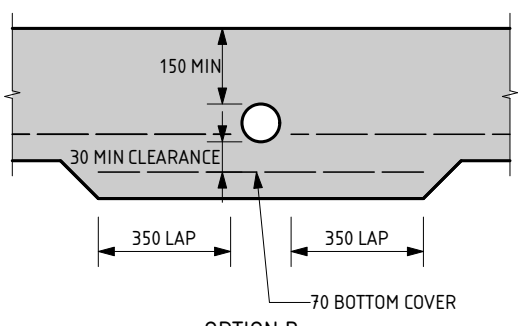
SLAB STEP



**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



WET AREA STEP



**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS.
 DATE LAST MODIFIED - 19/01/23

B1
 SHEET 1 OF 2



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PROJECT: LOT 239 CULZEAN ST DARCH	
CLIENT: PARCEL DARCH PTY LTD	
SCALE: 1:20	APPROVED
DATE: 3/5/23	

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION,
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING,
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
6. CLASS A SITES ARE STABLE SITES, GENERALLY SAND, LIMESTONE, GRAVEL OR A COMBINATION. CLASS P ARE PARTICULAR CLASSIFICATIONS SUCH AN UNUSUAL SITES OR SITES REQUIRING ADDITIONAL INVESTIGATION PRIOR TO PROVIDING DETAILS.
7. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITION OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
8. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
9. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

10. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
11. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS, OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
12. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS – PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
13. ON CLASS A SITES, A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 450mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
14. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
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 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
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 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE- COMPACTING TO A MINIMUM.

RETAINING WALLS

19. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
20. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER TO THE RETAINING WALL THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.

STORMWATER DRAINAGE

21. ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF SOAKWELL AWAY FROM THE BUILDING AND SETBACK MINIMUM OF 1200mm, WHICHEVER IS GREATER. PLEASE REFER BACK TO THIS OFFICE IF REQUIRED THE SET-BACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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PROJECT :
LOT 239 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 3/5/23

APPROVED

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION,
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING,
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
6. CLASS A SITES ARE STABLE SITES, GENERALLY SAND, LIMESTONE, GRAVEL OR A COMBINATION. CLASS P ARE PARTICULAR CLASSIFICATIONS SUCH AN UNUSUAL SITES OR SITES REQUIRING ADDITIONAL INVESTIGATION PRIOR TO PROVIDING DETAILS.
7. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITION OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
8. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
9. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

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PROJECT :
LOT 239 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 3/5/23

APPROVED

SITE CLASSIFICATION REPORT
CERTIFICATE 2595150

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 240 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082622
DATE OF ASSESSMENT 14/11/22

SITE RECORD

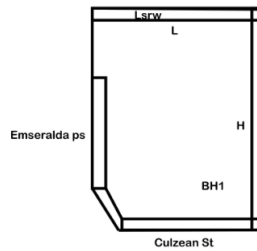


SITE CLASSIFICATION	A	<i>(in accordance with AS2870)</i>
FOOTING DETAIL	B1	
SAND PAD	No sand pad required structurally	
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)	
CORROSION CLASSIFICATION	R1	<i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1	<i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3	
-TOPOGRAPHIC	T0	
-SHIELDING	Full Shielding	

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

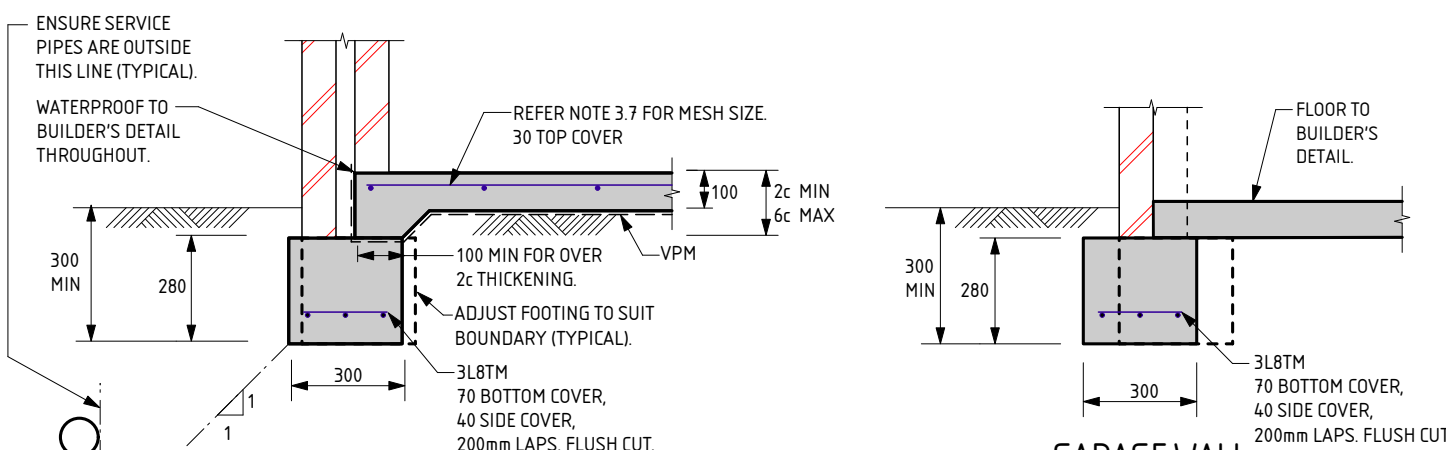
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Superseded

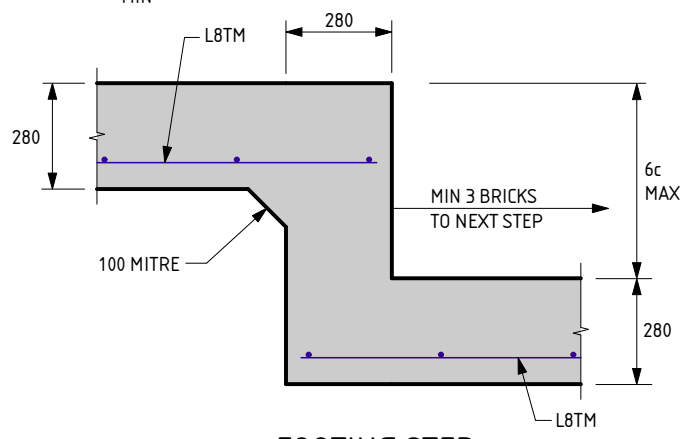
This report supersedes certification number 2595150, issued 16/11/2022.

-- END OF REPORT --

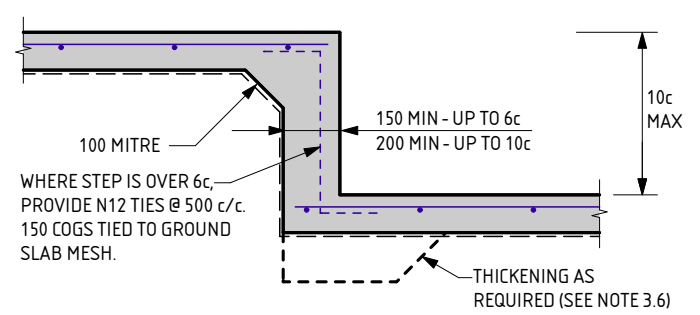


EXTERNAL WALLS

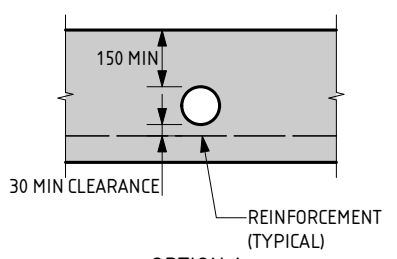
GARAGE WALL



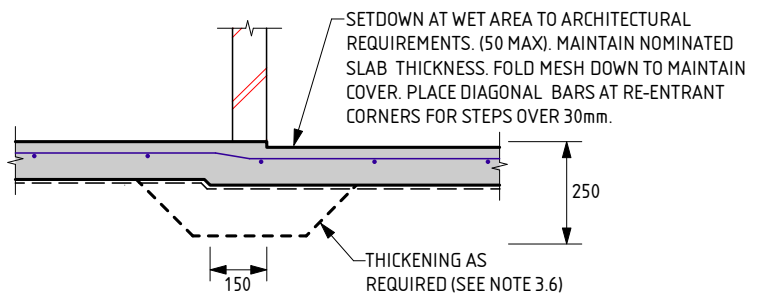
FOOTING STEP



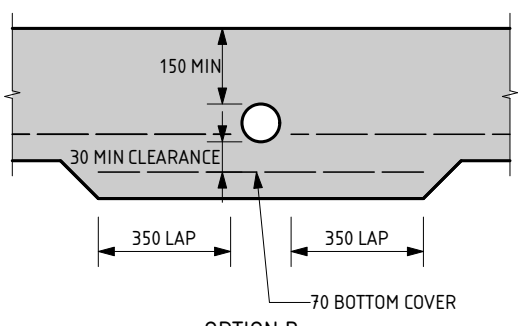
SLAB STEP



**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



WET AREA STEP



**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS.
 DATE LAST MODIFIED - 19/01/23

B1
 SHEET 1 OF 2

STRUCterre
 consulting engineers
 Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham
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PROJECT: LOT 240 CULZEAN ST DARCH	
CLIENT: PARCEL DARCH PTY LTD	
SCALE: 1:20	APPROVED
DATE: 3/5/23	

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

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PROJECT :
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SCALE 1:20

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APPROVED

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 2 of 2)

WIND CLASSIFICATION

22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
- c. THE ROOF PITCH SHALL NOT EXCEED 35°.
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

23. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, IT IS RECOMMENDED THAT AN ENVIRONMENTAL ENGINEER BE ENGAGED.

SEISMIC

24. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS RECOMMENDED REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

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CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 3/5/23

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595151

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 241 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082636
DATE OF ASSESSMENT 14/11/22

SITE RECORD

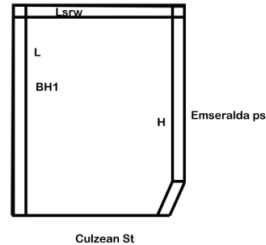


SITE CLASSIFICATION	A	<i>(in accordance with AS2870)</i>
FOOTING DETAIL	B1	
SAND PAD	No sand pad required structurally	
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)	
CORROSION CLASSIFICATION	R1	<i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1	<i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3	
-TOPOGRAPHIC	T0	
-SHIELDING	Full Shielding	

SOIL PROFILE

BOREHOLE 1: 0 - 1100 FILL sand with artificial material trace limestone - grey; 1100 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

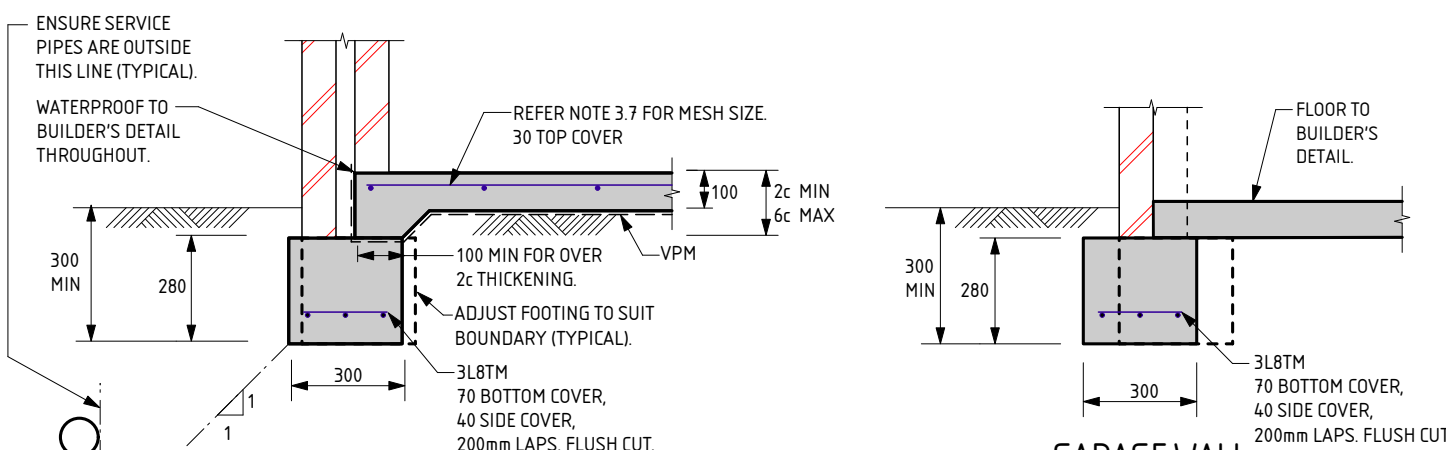
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Superseded

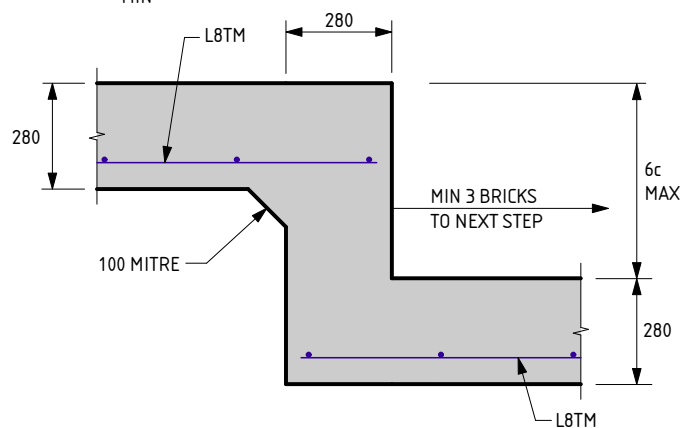
This report supersedes certification number 2595151, issued 16/11/2022.

-- END OF REPORT --

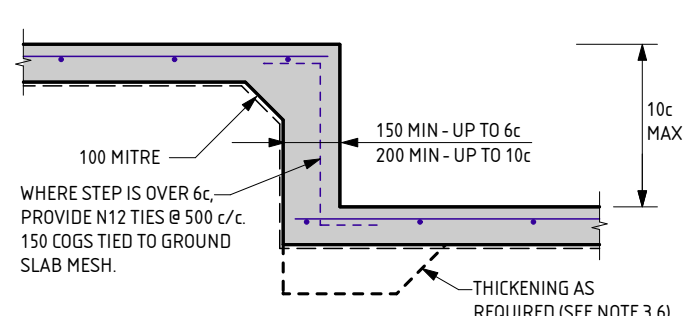


EXTERNAL WALLS

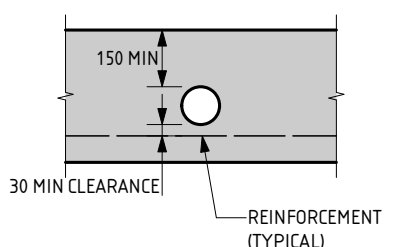
GARAGE WALL



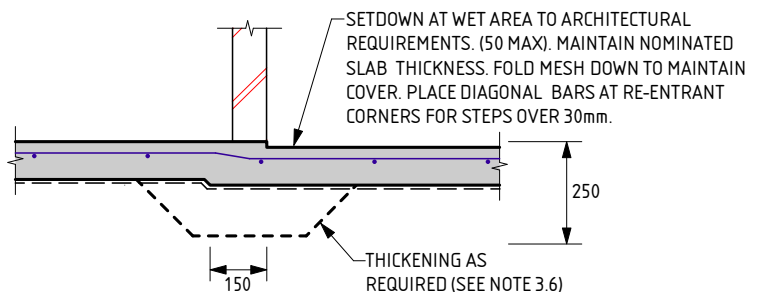
FOOTING STEP



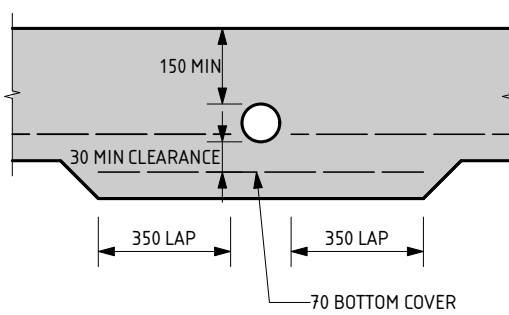
SLAB STEP



**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



WET AREA STEP



**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS.
DATE LAST MODIFIED - 19/01/23

B1

SHEET 1 OF 2



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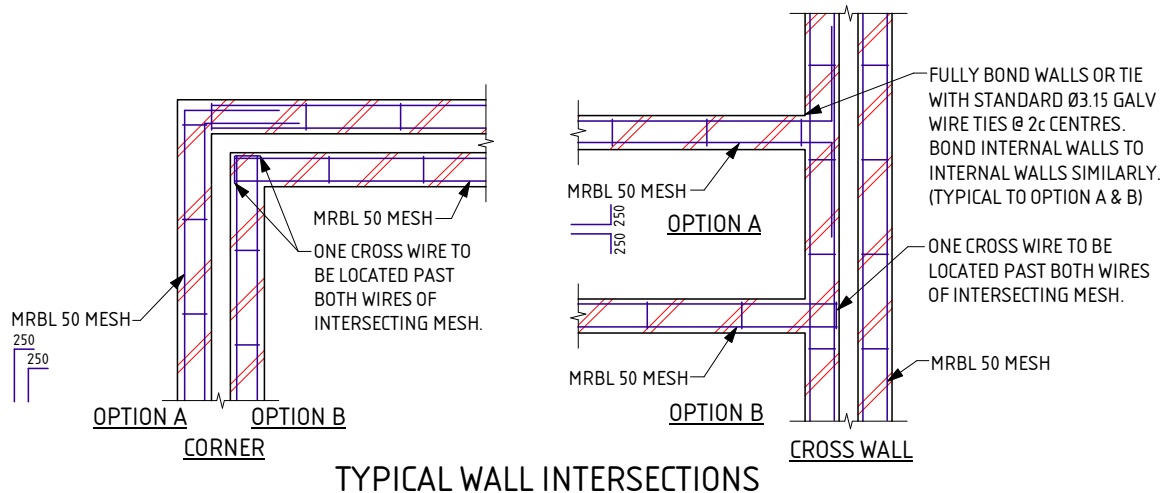
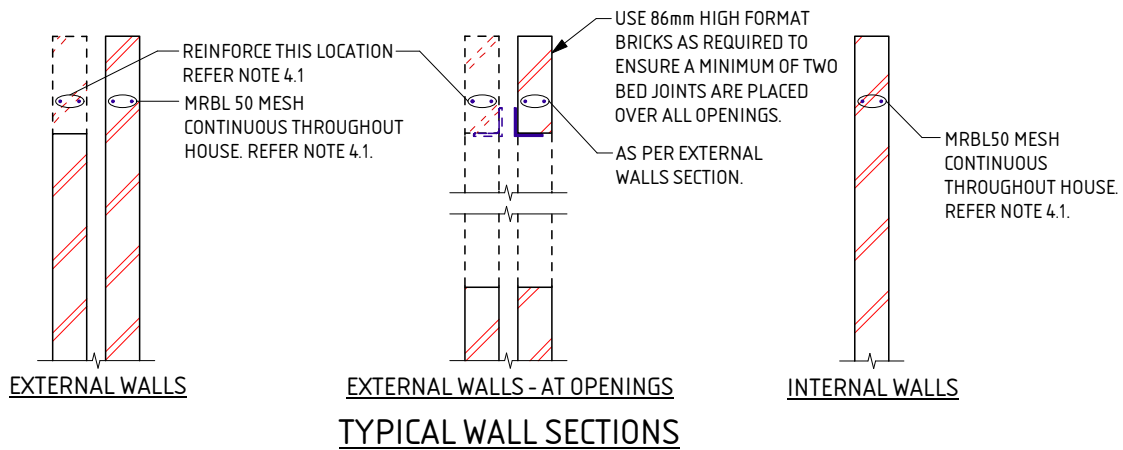
PROJECT: LOT 241 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

SCALE: 1:20

DATE: 3/5/23

APPROVED



NOTES FOR B1 FOOTING

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE SITE. REFER TO THE ATTACHED REPORT FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD, IF APPLICABLE, TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE BUILDING AREA
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 IF CLAY ON SITE, AN ENGINEER TO BE CONSULTED.
- 2.5 SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR 750mm OR THE DEPTH OF THE PAD.

3.0 FOOTINGS & SLABS

- 3.1 A MINIMUM OF 150mm OF SAND REQUIRED UNDER FOOTINGS.
- 3.2 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 100mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12 x 1200 LONG.
- 3.6 PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m.
- 3.7 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1. REFER BACK TO THIS OFFICE FOR MESH SIZE. IF THE LENGTH TO WIDTH RATIO IS LESS THAN 1:3. USE THE FOLLOWING:
 - USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m.
 - USE SL62 MESH FOR SLAB SPAN UP TO 26m.
 - USE SL72 MESH FOR SLAB SPAN UP TO 30m.
 - USE SL82 MESH FOR SLAB SPAN UP TO 32m.

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE.

- 3.9 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

- L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
- SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- N INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
- TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.

- 3.10 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 3.11 CONCRETE TO CONFORM WITH AS 3600.

- 3.12 BLENDED CEMENT TO CONFORM WITH AS 3972.

- 3.13 ALL CONCRETE TO BE N20/20/100.

- 3.14 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.

- 3.15 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.

- 3.16 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.

- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

- 3.18 REFER BACK TO THE ENGINEER IF AGGRESSIVE SOILS ARE ENCOUNTERED (IN ACCORDANCE WITH AS2870).

- 3.19 CURE SLAB AS DETERMINED BY ENGINEER.

- 3.20 THIS DESIGN IS IN ACCORDANCE WITH AS2870 SECTIONS 4.4 AND 4.6, AND THE EXPECTED PERFORMANCE IS AS PER CLAUSE 1.3 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS THROUGHOUT THE BUILDING IN BOTH INTERNAL AND EXTERNAL WALLS. MESH MAY STEP BED JOINTS UP TO A HEIGHT OF 1c. 500 LAP IS REQUIRED AT EACH STEP.

- 4.2 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.

- 4.3 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.

- 4.4 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1.

- 4.5 ALL PERPENDS TO BE FULLY MORTARED.

- 4.6 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.

- 4.7 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

DATE LAST MODIFIED - 19/01/23

SHEET 2 OF 2



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PROJECT :

LOT 241 CULZEAN ST DARCH

CLIENT :

PARCEL DARCH PTY LTD

SCALE

1:20

APPROVED

DATE

3/5/23

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
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4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
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 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
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RETAINING WALLS

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STORMWATER DRAINAGE

21. ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF SOAKWELL AWAY FROM THE BUILDING AND SETBACK MINIMUM OF 1200mm, WHICHEVER IS GREATER. PLEASE REFER BACK TO THIS OFFICE IF REQUIRED THE SET-BACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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PROJECT :
LOT 241 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 3/5/23

APPROVED

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

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DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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LOT 241 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 3/5/23

APPROVED

SITE CLASSIFICATION REPORT
CERTIFICATE 2595152

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 242 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082637
DATE OF ASSESSMENT 14/11/22

SITE RECORD

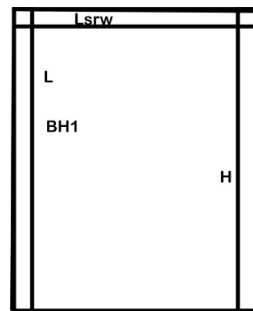


SITE CLASSIFICATION	A	<i>(in accordance with AS2870)</i>
FOOTING DETAIL	B1	
SAND PAD	No sand pad required structurally	
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)	
CORROSION CLASSIFICATION	R1	<i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1	<i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3	
-TOPOGRAPHIC	T0	
-SHIELDING	Full Shielding	

SOIL PROFILE

BOREHOLE 1: 0 - 1200 FILL sand with artificial material trace limestone - grey; 1200 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

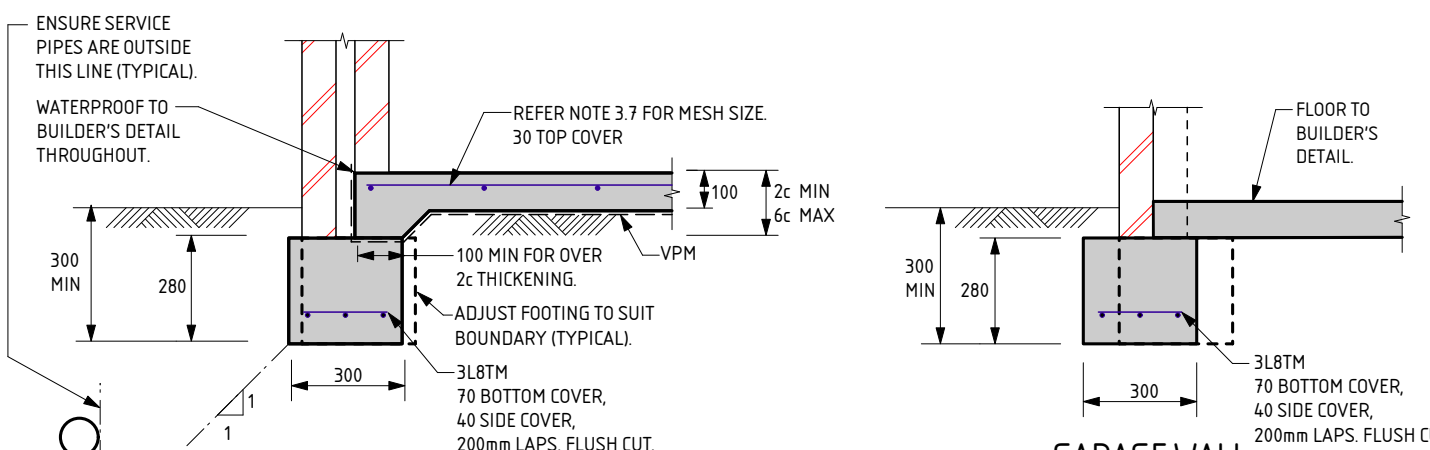
Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Superseded

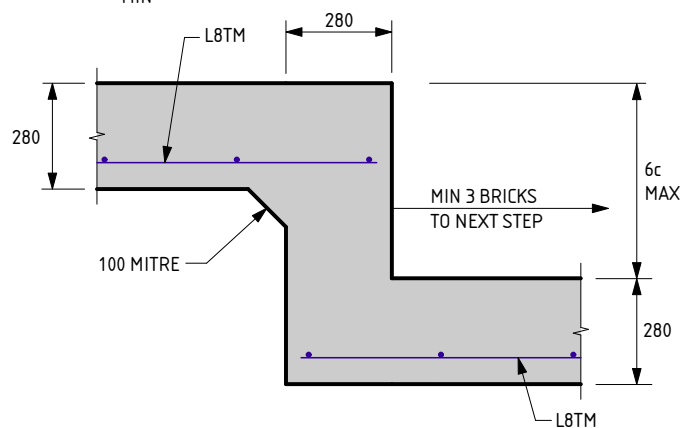
This report supersedes certification number 2595152, issued 16/11/2022.

-- END OF REPORT --

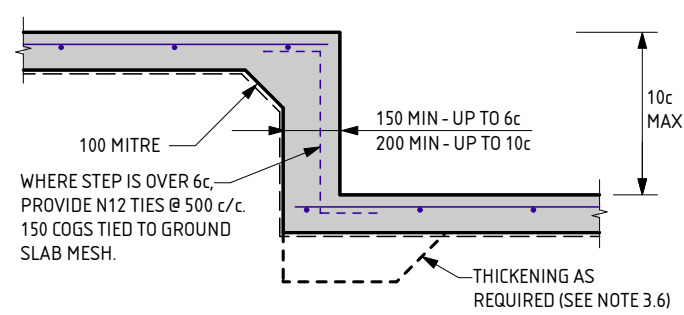


EXTERNAL WALLS

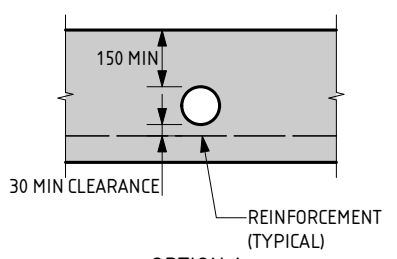
GARAGE WALL



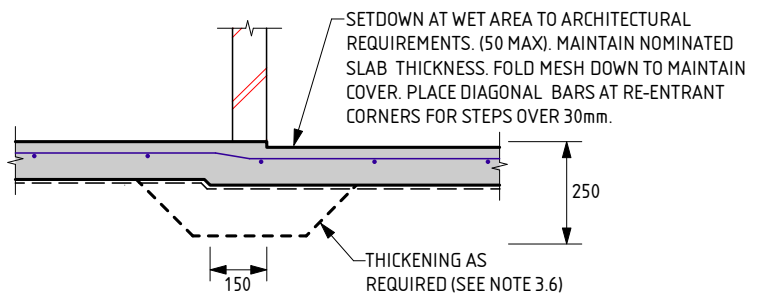
FOOTING STEP



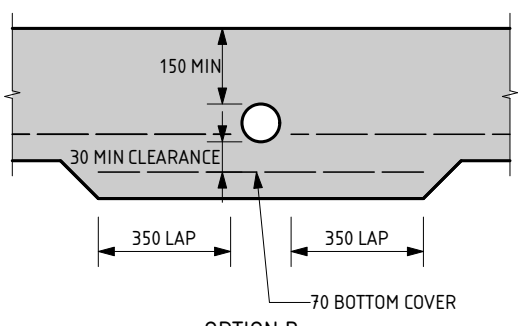
SLAB STEP



**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



WET AREA STEP



**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS.
 DATE LAST MODIFIED - 19/01/23

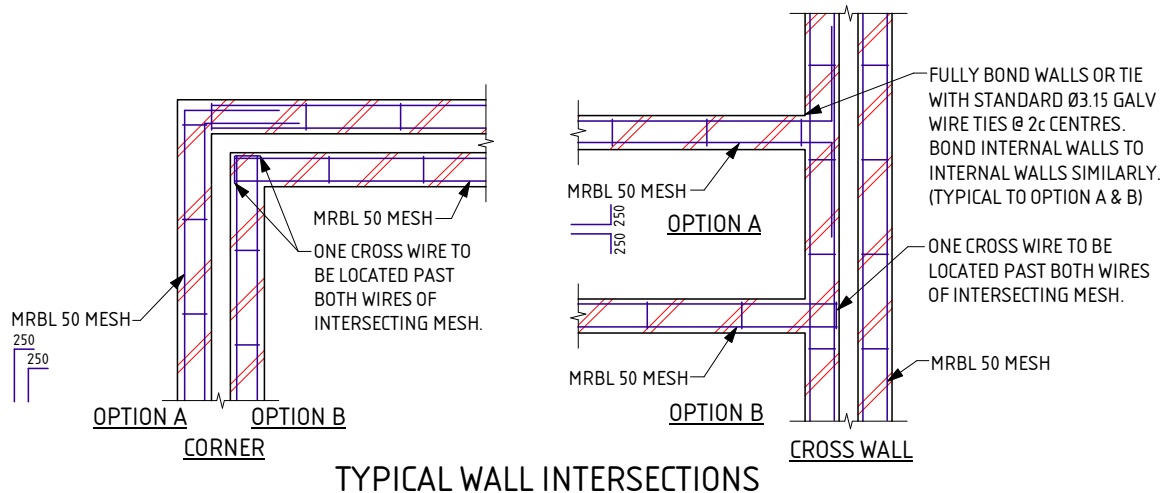
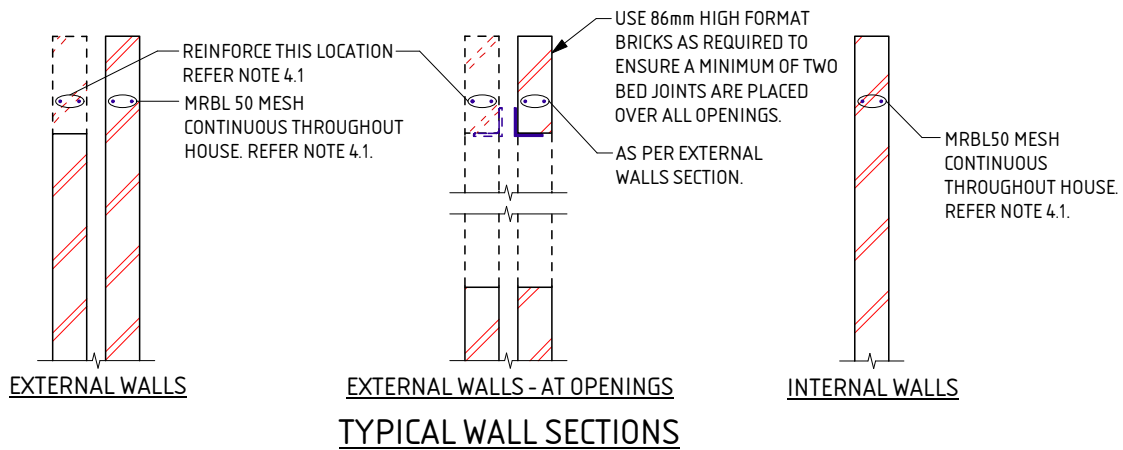
B1

SHEET 1 OF 2



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as StrucTerre Consulting Engineers
 1 ERINDALE ROAD, BALCATTA W.A. 6021
 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@strucTerre.com.au

PROJECT: LOT 242 CULZEAN ST DARCH	
CLIENT: PARCEL DARCH PTY LTD	
SCALE: 1:20	APPROVED
DATE: 3/5/23	



NOTES FOR B1 FOOTING

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE SITE. REFER TO THE ATTACHED REPORT FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD, IF APPLICABLE, TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE BUILDING AREA
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 IF CLAY ON SITE, AN ENGINEER TO BE CONSULTED.
- 2.5 SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR 750mm OR THE DEPTH OF THE PAD.

3.0 FOOTINGS & SLABS

- 3.1 A MINIMUM OF 150mm OF SAND REQUIRED UNDER FOOTINGS.
- 3.2 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 100mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12 x 1200 LONG.
- 3.6 PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m.
- 3.7 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1. REFER BACK TO THIS OFFICE FOR MESH SIZE. IF THE LENGTH TO WIDTH RATIO IS LESS THAN 1:3. USE THE FOLLOWING:
 - USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m.
 - USE SL62 MESH FOR SLAB SPAN UP TO 26m.
 - USE SL72 MESH FOR SLAB SPAN UP TO 30m.
 - USE SL82 MESH FOR SLAB SPAN UP TO 32m.

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE.

- 3.9 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

- L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
- SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- N INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
- TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.

- 3.10 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 3.11 CONCRETE TO CONFORM WITH AS 3600.

- 3.12 BLENDED CEMENT TO CONFORM WITH AS 3972.

- 3.13 ALL CONCRETE TO BE N20/20/100.

- 3.14 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.

- 3.15 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.

- 3.16 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.

- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

- 3.18 REFER BACK TO THE ENGINEER IF AGGRESSIVE SOILS ARE ENCOUNTERED (IN ACCORDANCE WITH AS2870).

- 3.19 CURE SLAB AS DETERMINED BY ENGINEER.

- 3.20 THIS DESIGN IS IN ACCORDANCE WITH AS2870 SECTIONS 4.4 AND 4.6, AND THE EXPECTED PERFORMANCE IS AS PER CLAUSE 1.3 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS THROUGHOUT THE BUILDING IN BOTH INTERNAL AND EXTERNAL WALLS. MESH MAY STEP BED JOINTS UP TO A HEIGHT OF 1c. 500 LAP IS REQUIRED AT EACH STEP.

- 4.2 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.

- 4.3 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.

- 4.4 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1.

- 4.5 ALL PERPENDS TO BE FULLY MORTARED.

- 4.6 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.

- 4.7 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

DATE LAST MODIFIED - 19/01/23

SHEET 2 OF 2



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PROJECT :

LOT 242 CULZEAN ST DARCH

CLIENT :

PARCEL DARCH PTY LTD

SCALE

1:20

APPROVED

DATE

3/5/23

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION,
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING,
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
6. CLASS A SITES ARE STABLE SITES, GENERALLY SAND, LIMESTONE, GRAVEL OR A COMBINATION. CLASS P ARE PARTICULAR CLASSIFICATIONS SUCH AN UNUSUAL SITES OR SITES REQUIRING ADDITIONAL INVESTIGATION PRIOR TO PROVIDING DETAILS.
7. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITION OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
8. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
9. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

10. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
11. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS, OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
12. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS – PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
13. ON CLASS A SITES, A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 450mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
14. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE- COMPACTING TO A MINIMUM.

RETAINING WALLS

19. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
20. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER TO THE RETAINING WALL THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.

STORMWATER DRAINAGE

21. ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF SOAKWELL AWAY FROM THE BUILDING AND SETBACK MINIMUM OF 1200mm, WHICHEVER IS GREATER. PLEASE REFER BACK TO THIS OFFICE IF REQUIRED THE SET-BACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham
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PROJECT :
LOT 242 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 3/5/23

APPROVED

EXPLANATORY NOTES AND STANDARD RECOMMENDATIONS – STABLE (A CLASS) SITES (Sheet 2 of 2)

WIND CLASSIFICATION

22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
- c. THE ROOF PITCH SHALL NOT EXCEED 35°.
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

23. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, IT IS RECOMMENDED THAT AN ENVIRONMENTAL ENGINEER BE ENGAGED.

SEISMIC

24. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS RECOMMENDED REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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DATE 3/5/23

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595153

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 243 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082638
DATE OF ASSESSMENT 14/11/22

SITE RECORD

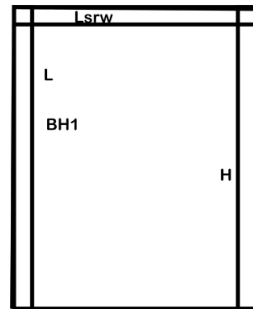


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

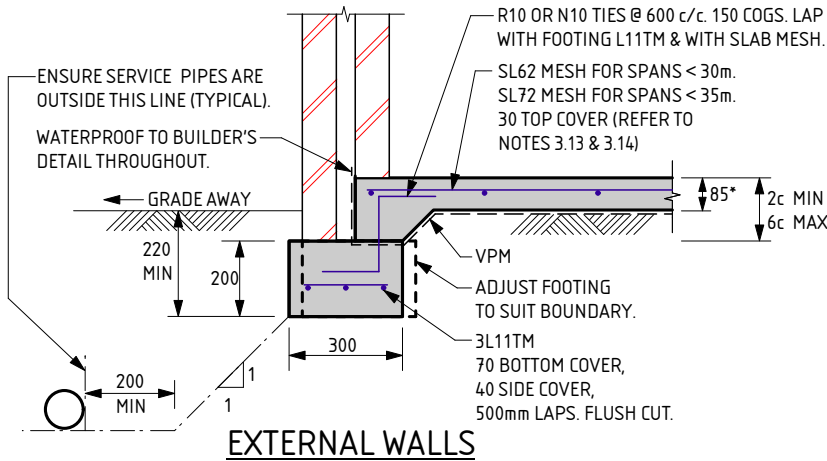
Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

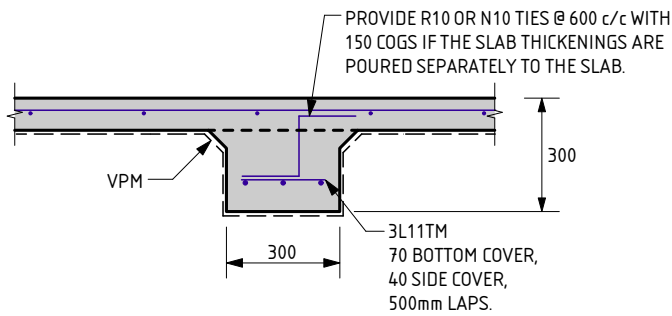
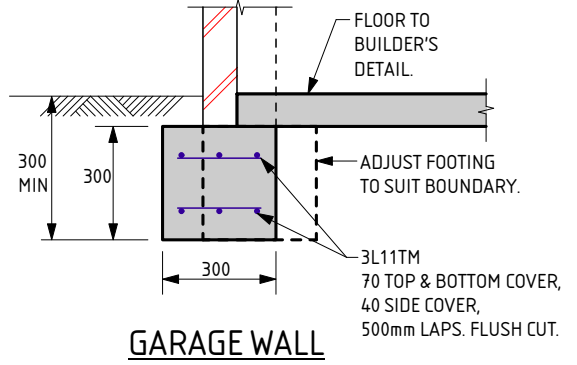
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

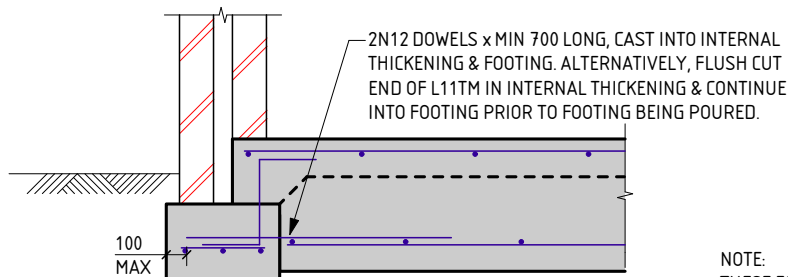
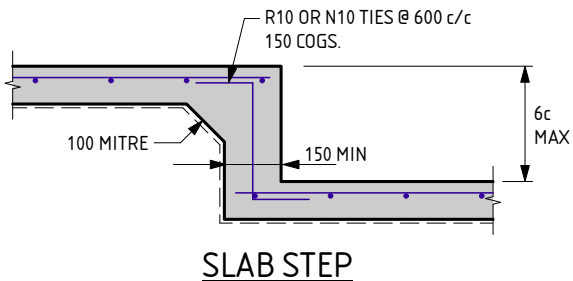
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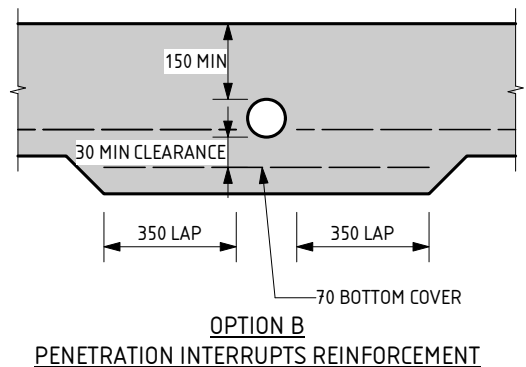
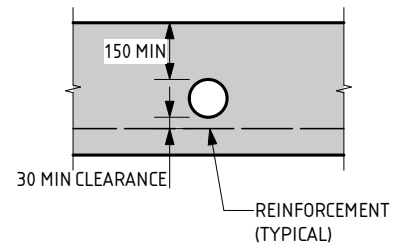
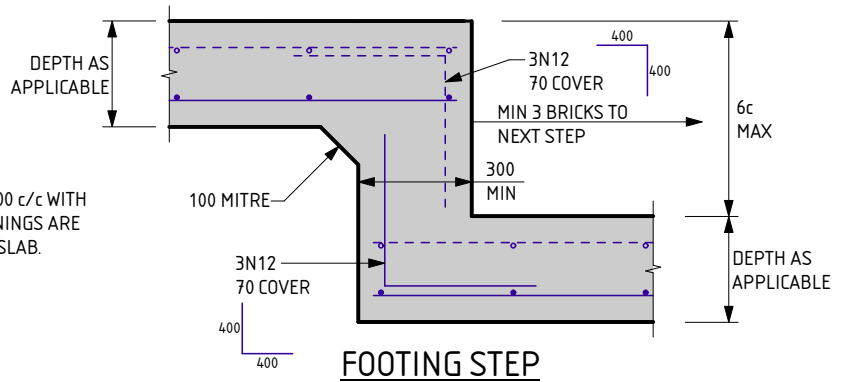
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0



SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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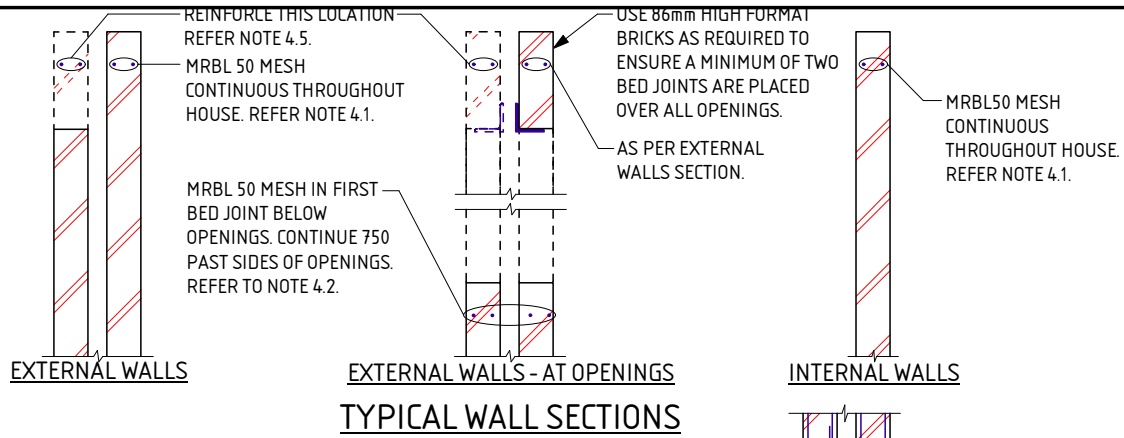
PROJECT:
LOT 243 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

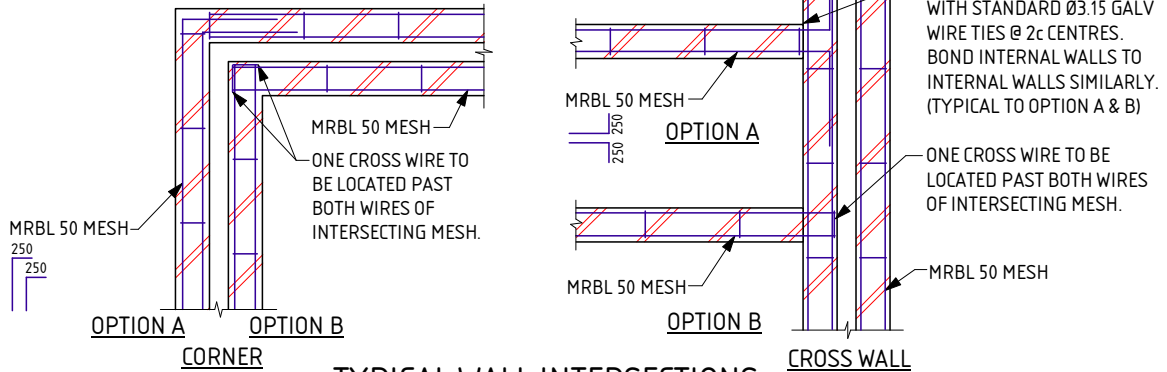
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DATE 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;
 - L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
 - SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
 - N INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
 - TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.
 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 243 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 243 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595154

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 244 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082639
DATE OF ASSESSMENT 14/11/22

SITE RECORD

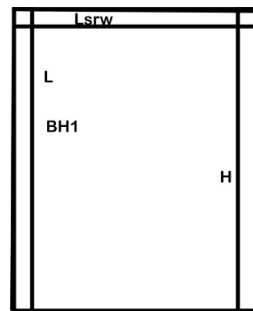


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1100 FILL sand with artificial material trace limestone - grey; 1100 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings


Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

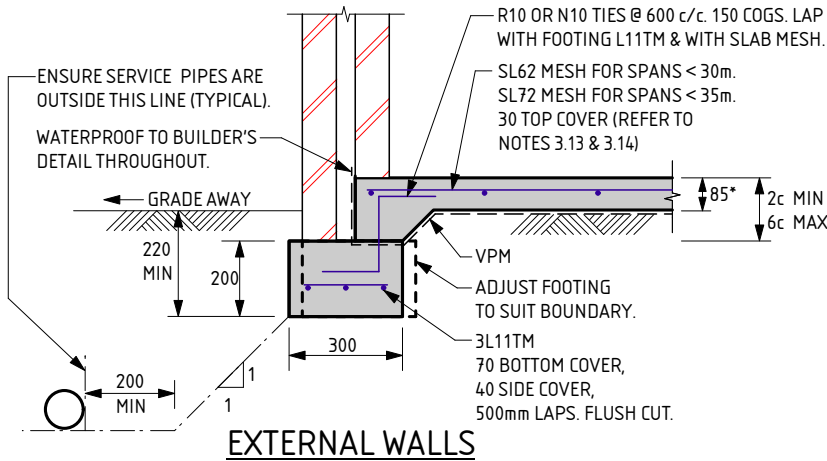
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

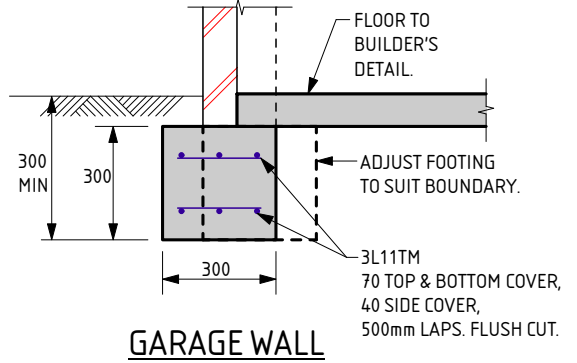
Signed:


Gervase Purich
Chief Executive Officer

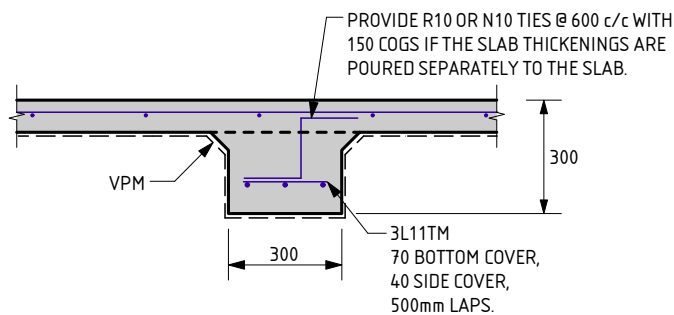


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.

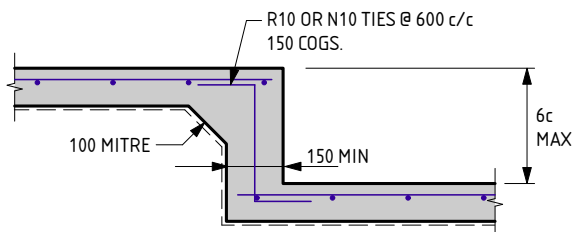


GARAGE WALL

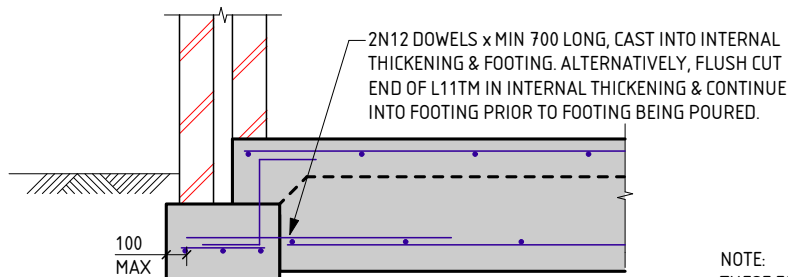


INTERNAL THICKENING

REFER TO STRUCterre'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCterre PRIOR TO CONCRETE POUR.

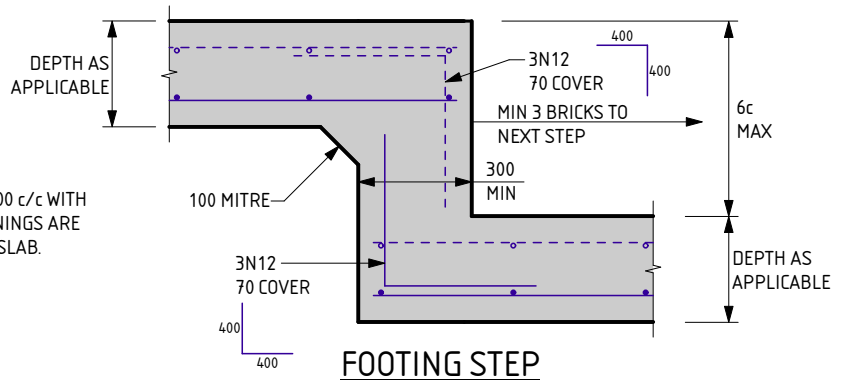


SLAB STEP

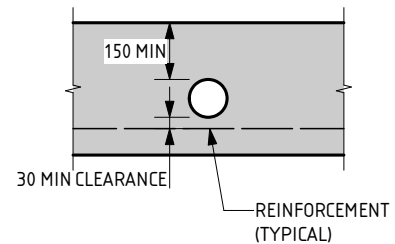


EXTERNAL FOOTING TO INTERNAL THICKENING

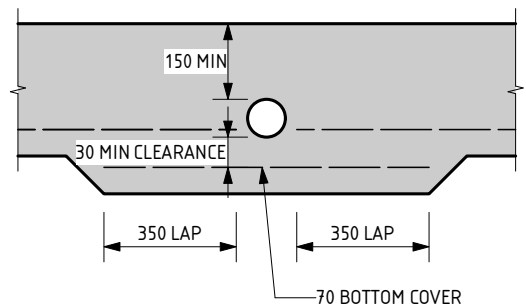
THIS DETAIL IS EQUIVALENT TO
STRUCterre FOOTING DETAIL C4.0



FOOTING STEP



OPTION A PENETRATION CLEAR OF REINFORCEMENT



OPTION B PENETRATION INTERRUPTS REINFORCEMENT

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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PROJECT:
LOT 244 CULZEAN ST DARCH

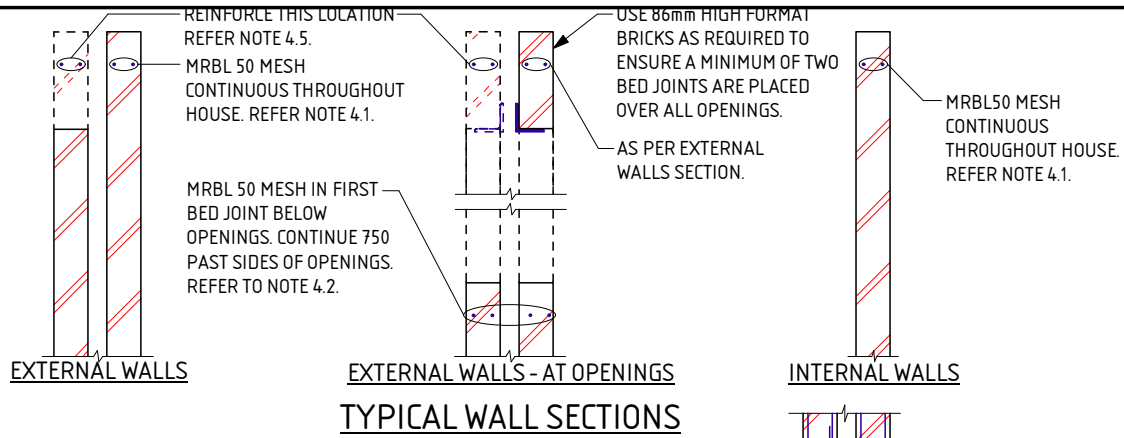
CLIENT: PARCEL DARCH PTY LTD

SCALE 1:20

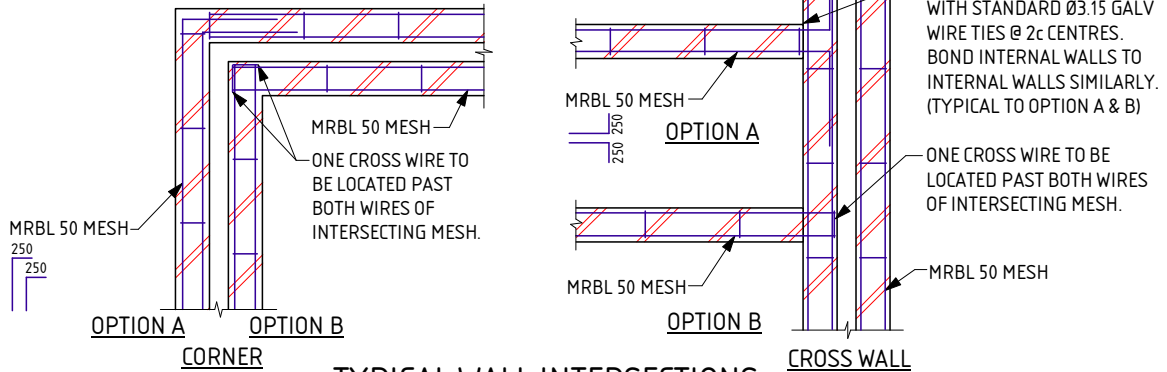
DATE 16/11/22

APPROVED

[Signature]



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE Poured MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 244 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 244 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595155

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 245 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082640
DATE OF ASSESSMENT 14/11/22

SITE RECORD



SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Full Shielding

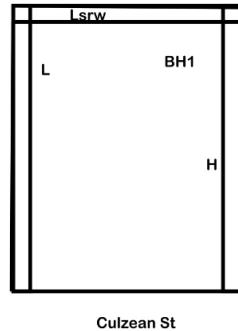
WA | QLD | NSW | VIC

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 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@strucsterre.com.au | Web www.strucsterre.com.au
 ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Strucsterre Consulting Engineers

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

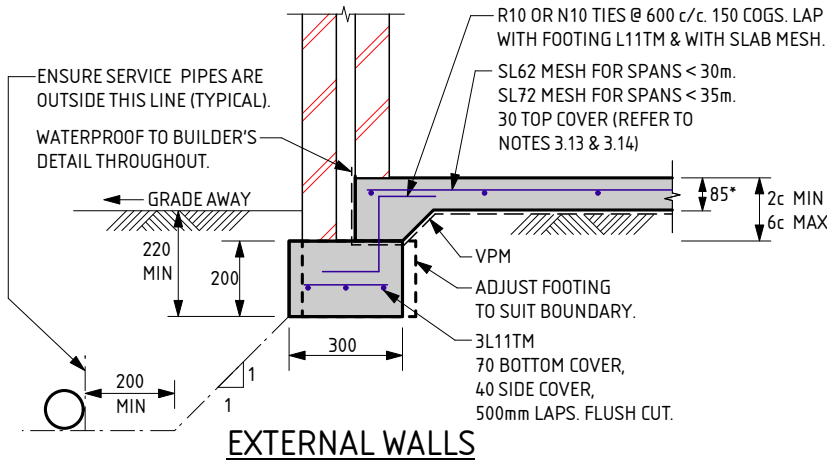
Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

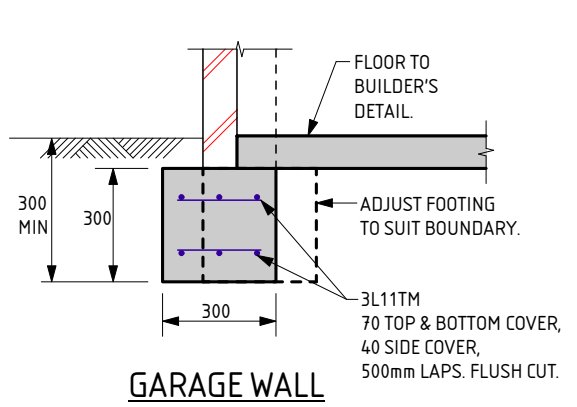
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

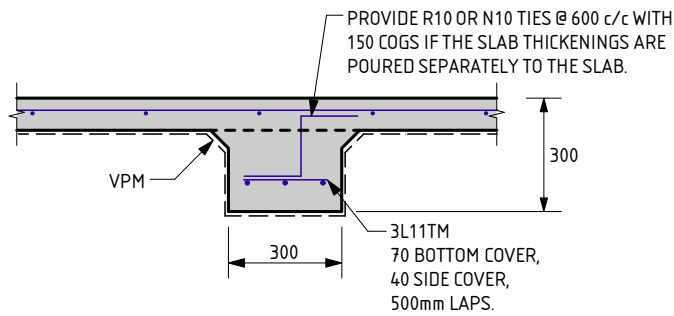


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
 IF 100mm SLAB USED, MESH TO BE:
 SL62 MESH FOR SPANS < 25m.
 SL72 MESH FOR SPANS < 30m.
 SL82 MESH FOR SPANS < 35m.

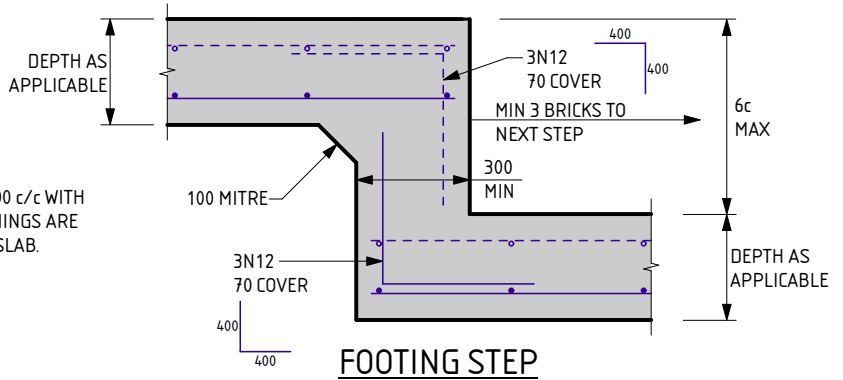


GARAGE WALL

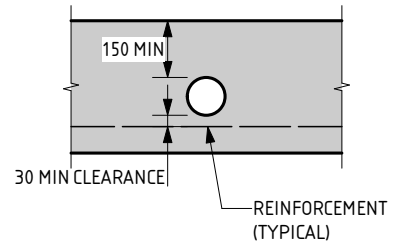


INTERNAL THICKENING

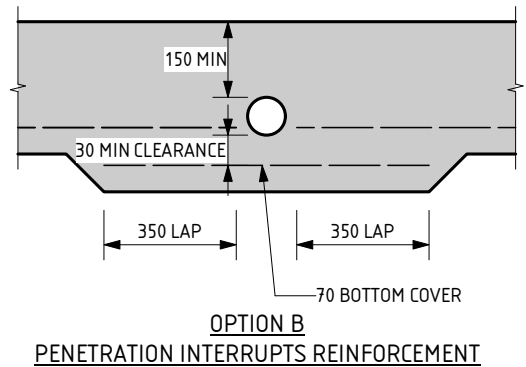
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



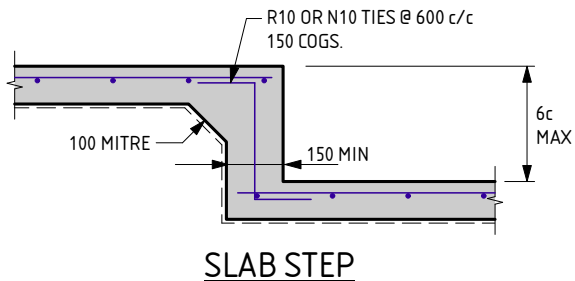
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



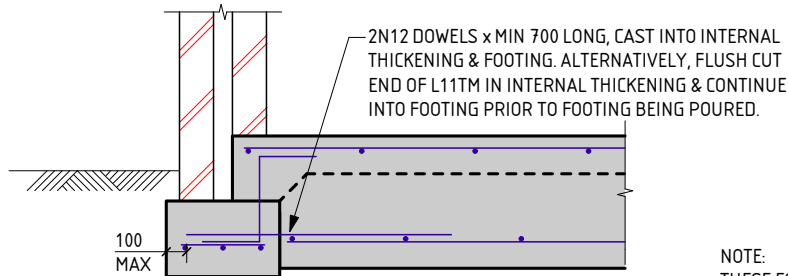
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



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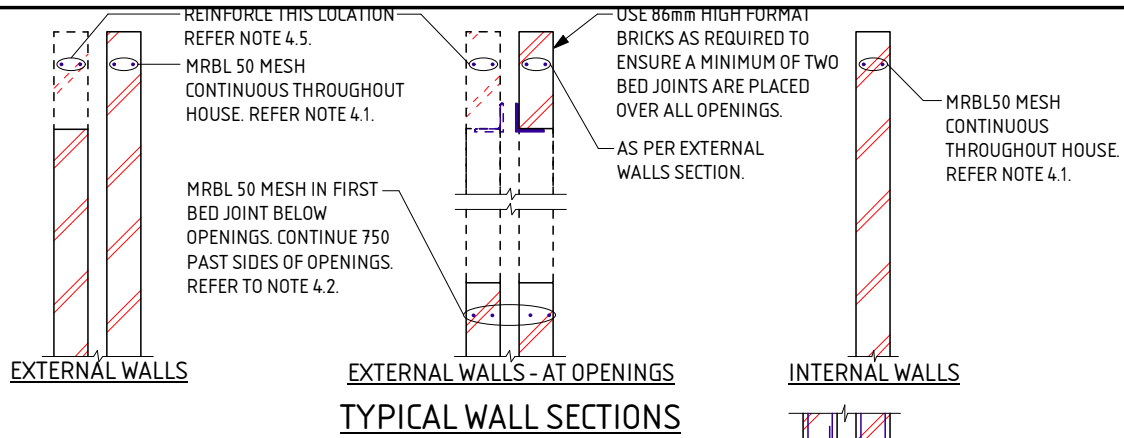
PROJECT: LOT 245 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

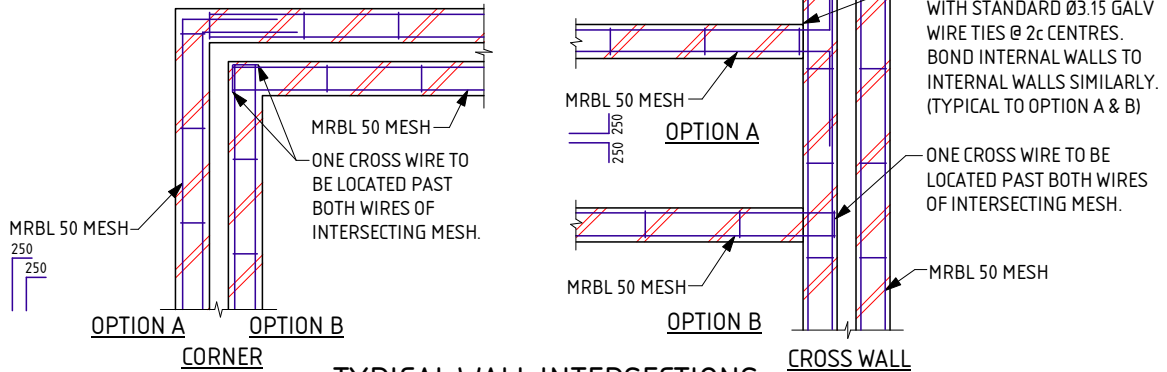
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DATE: 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 245 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 245 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

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DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

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A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595156

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 246 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082641
DATE OF ASSESSMENT 15/11/22

SITE RECORD



SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Partial Shielding

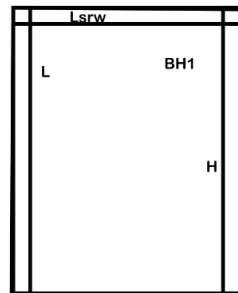
WA | QLD | NSW | VIC

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 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@structerre.com.au | Web www.structerre.com.au
 ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings


Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

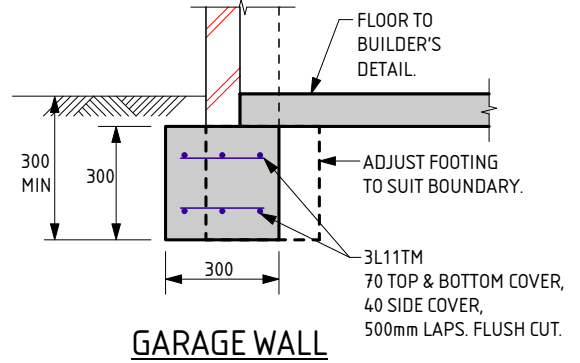
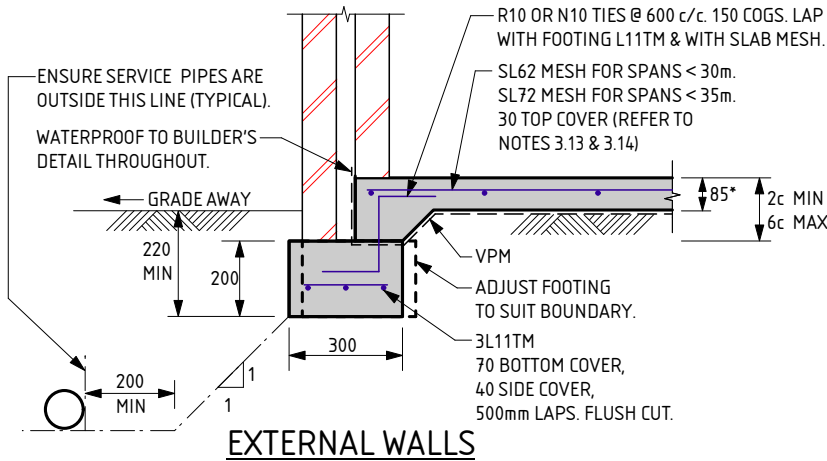
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

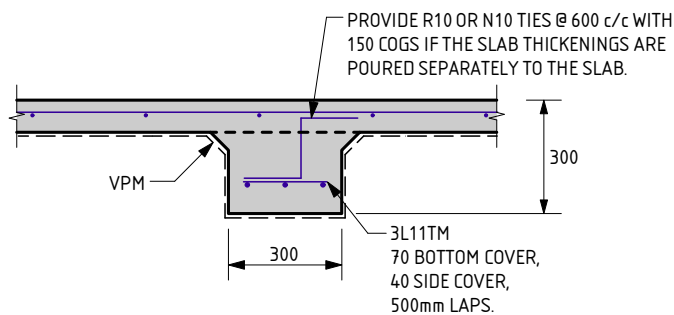
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Signed:

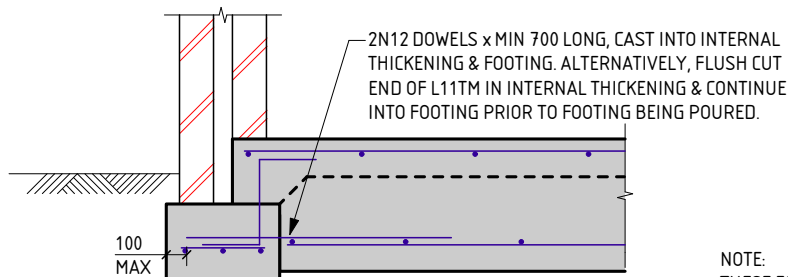
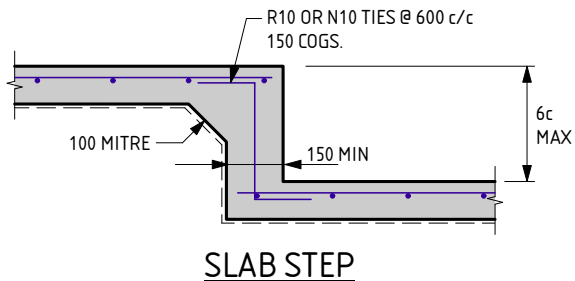

Gervase Purich
Chief Executive Officer



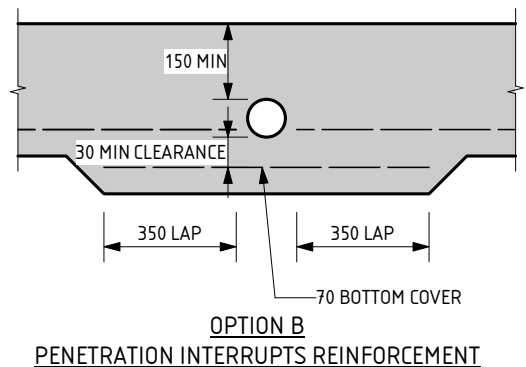
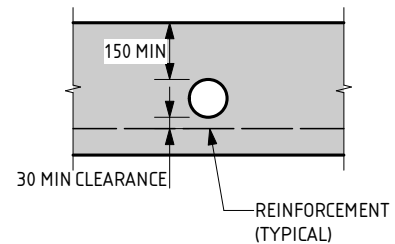
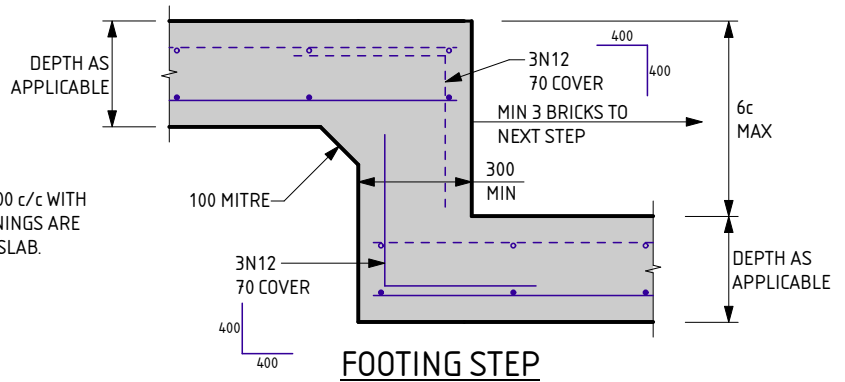
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0



SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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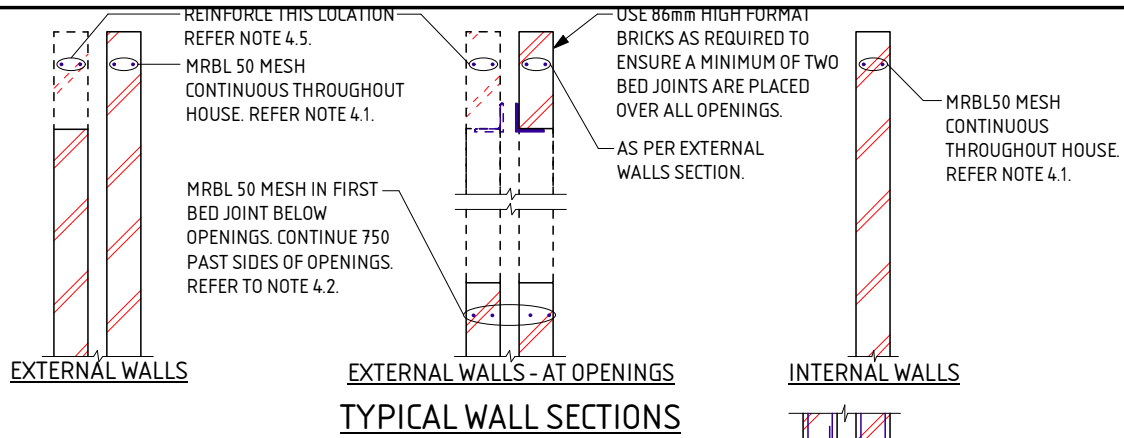
PROJECT:
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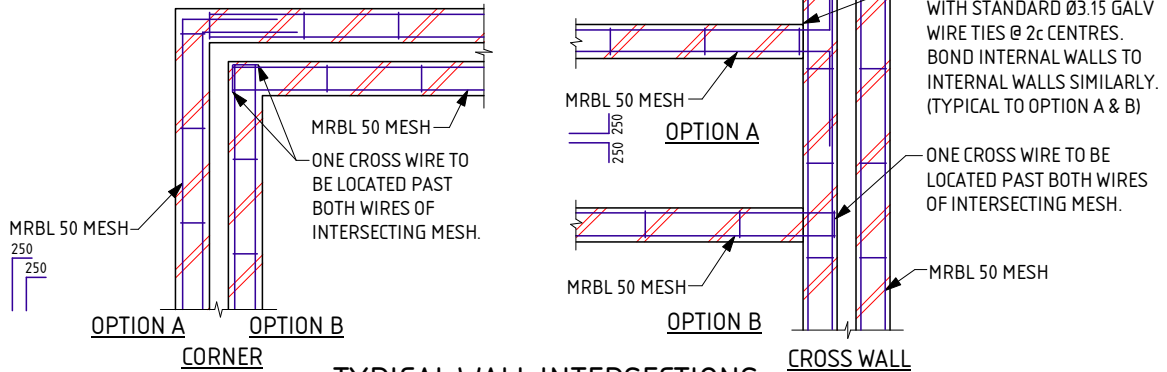
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DATE 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE Poured MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
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CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595157

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 247 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082642
DATE OF ASSESSMENT 15/11/22

SITE RECORD

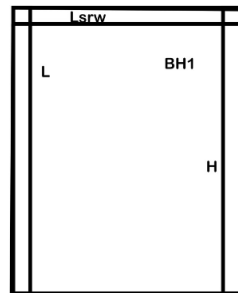


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Partial Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

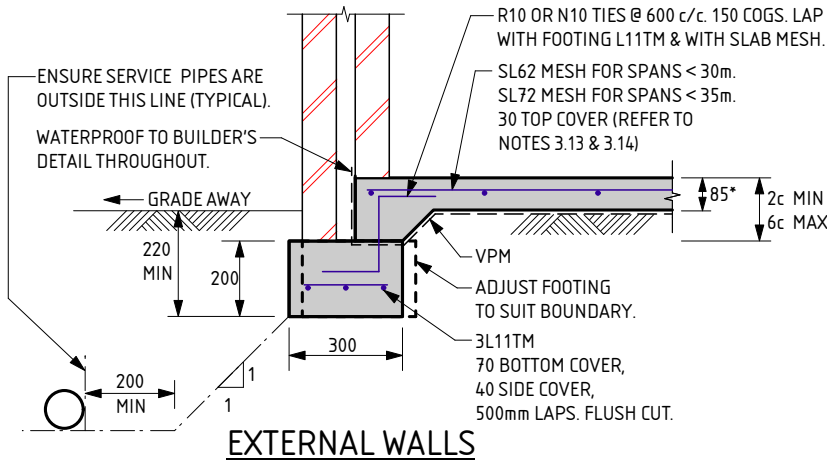
CERTIFICATE 2595157

Issued Date: 16 November 2022

Signed:

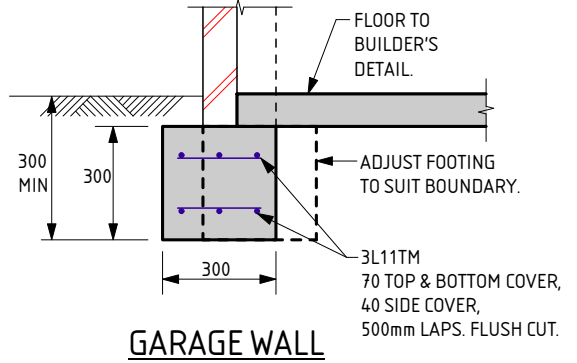


Gervase Purich
Chief Executive Officer

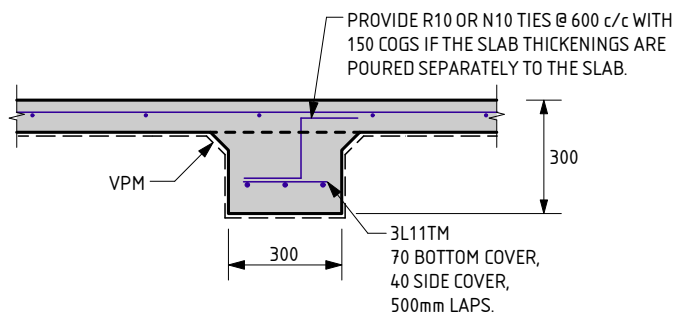


EXTERNAL WALLS

* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
 IF 100mm SLAB USED, MESH TO BE:
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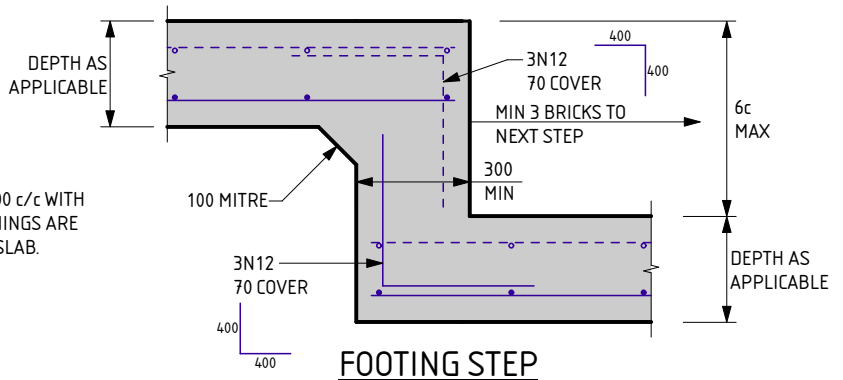


GARAGE WALL

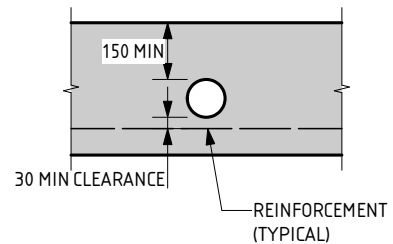


INTERNAL THICKENING

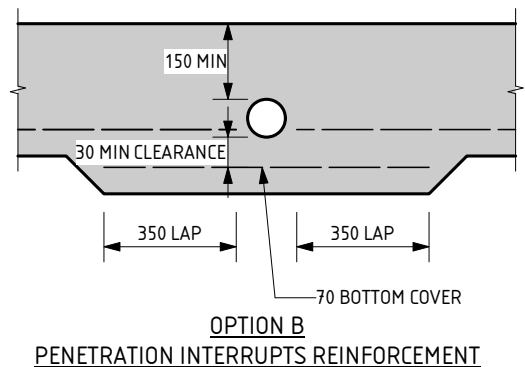
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



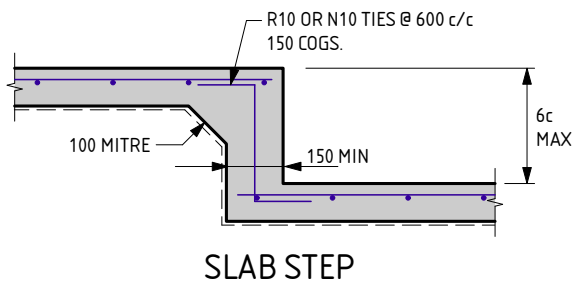
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



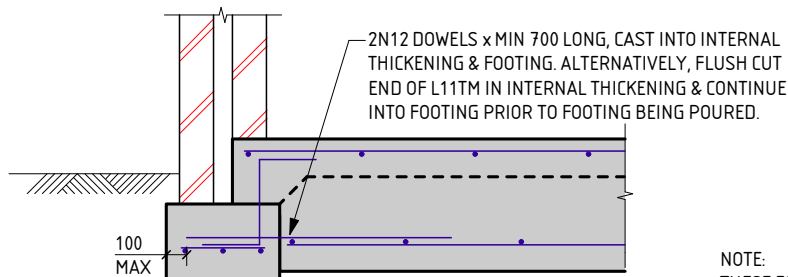
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



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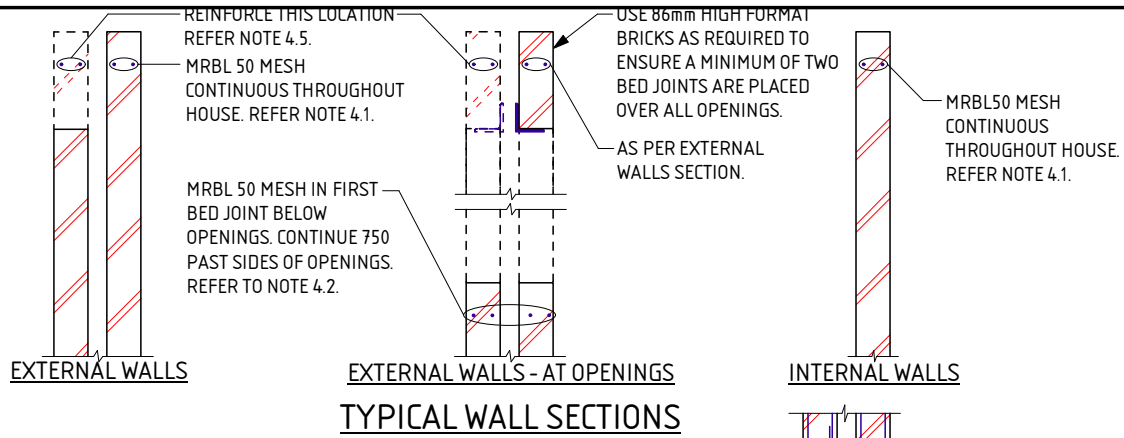
PROJECT: LOT 247 CULZEAN ST DARCH

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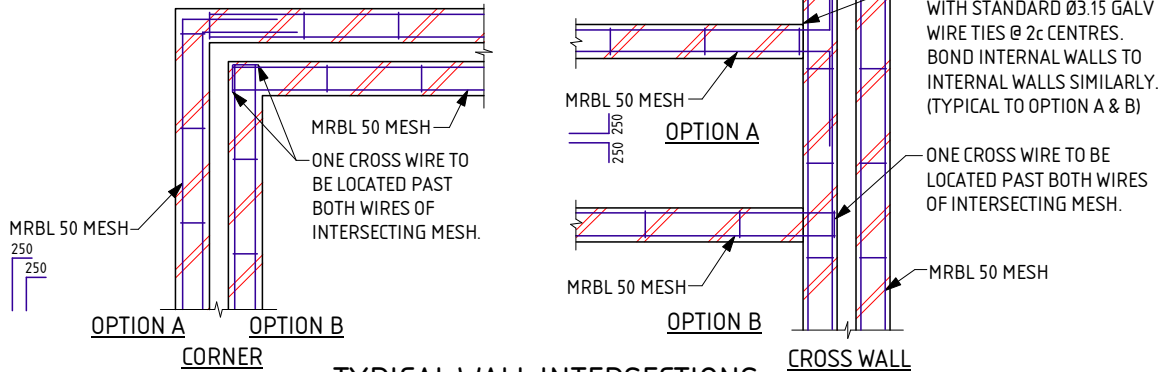
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DATE: 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE Poured MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
 LOT 247 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 247 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595158

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 248 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082643
DATE OF ASSESSMENT 15/11/22

SITE RECORD

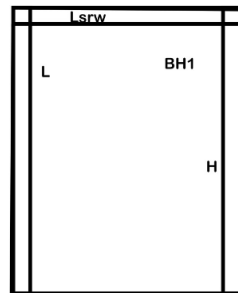


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings


Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

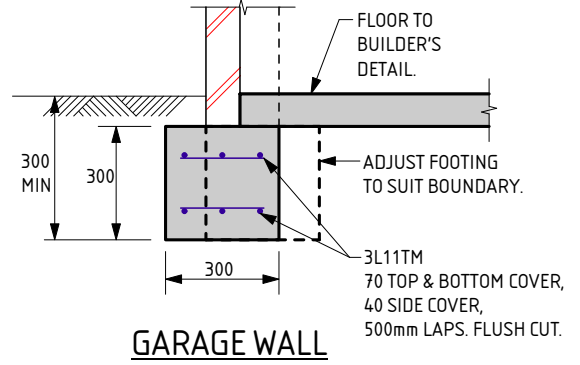
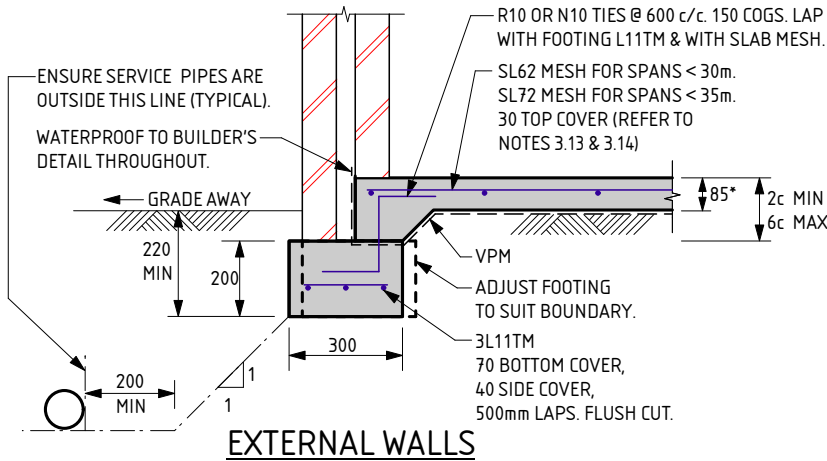
Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

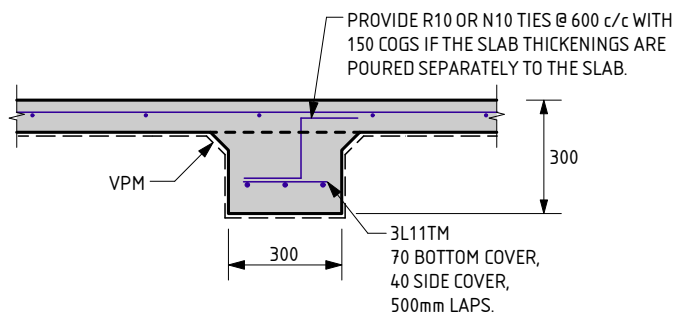
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Signed:

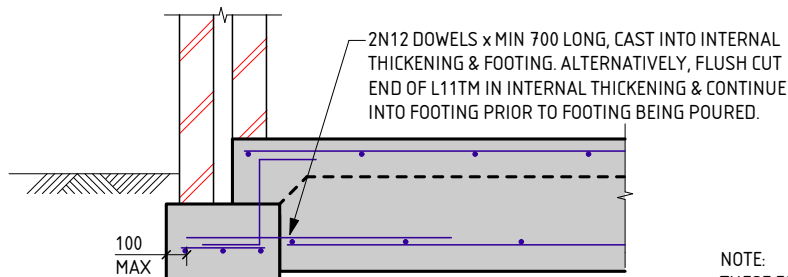
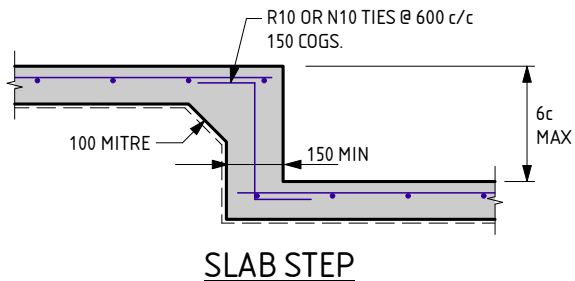

Gervase Purich
Chief Executive Officer



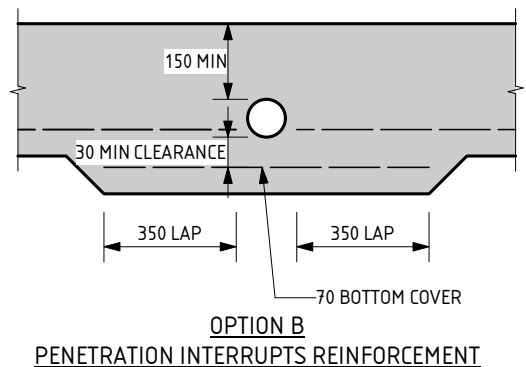
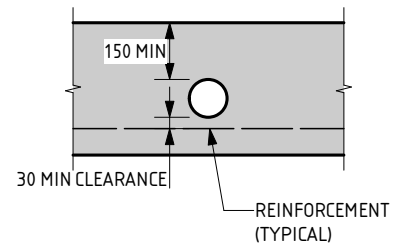
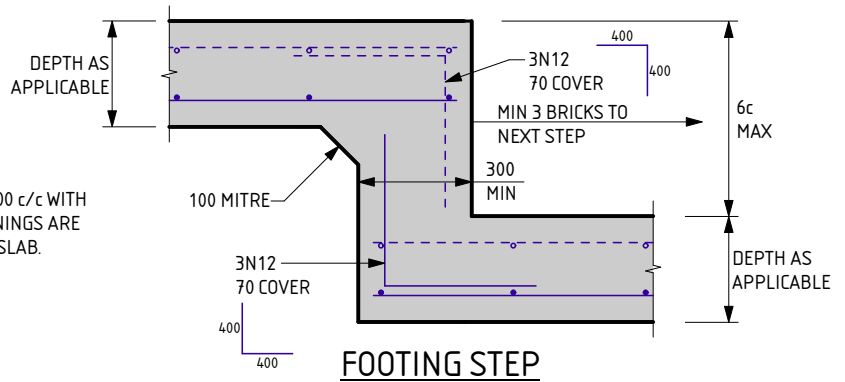
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0



SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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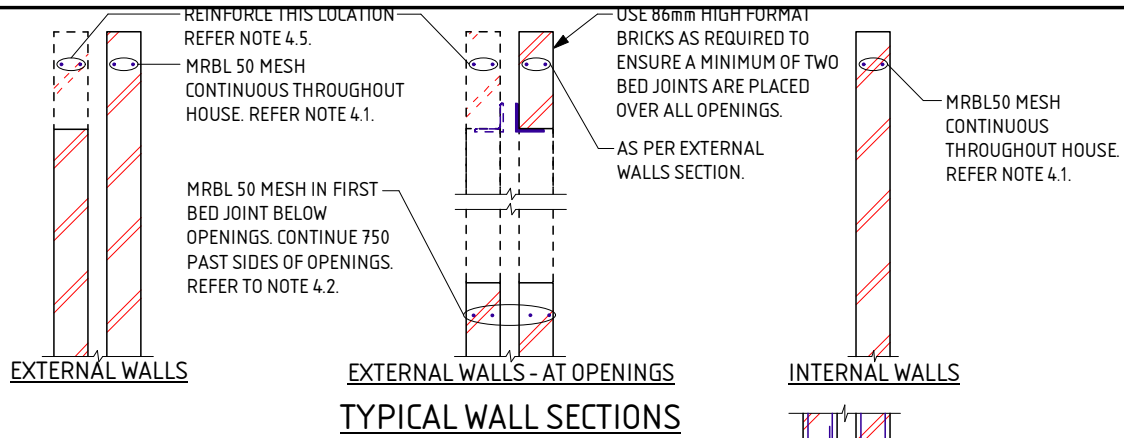
PROJECT:
LOT 248 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

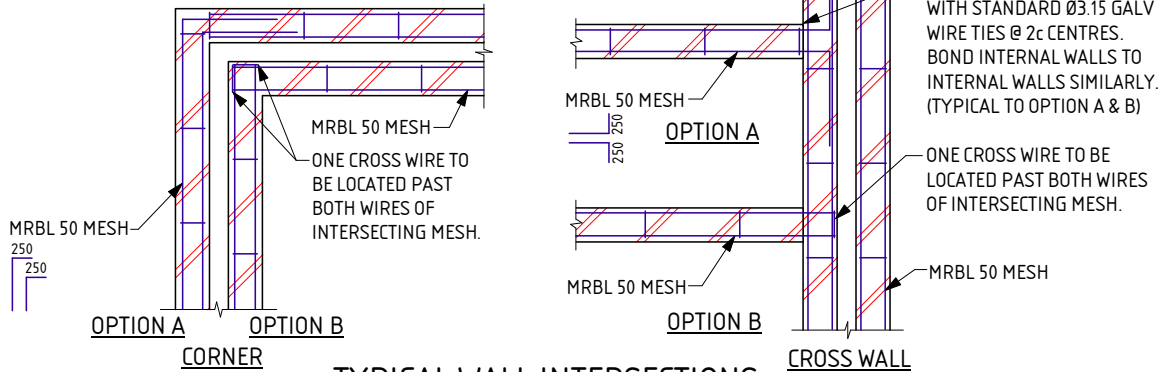
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DATE 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 248 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 248 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

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DATE 16/11/22

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A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595159

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 249 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082644
DATE OF ASSESSMENT 15/11/22

SITE RECORD

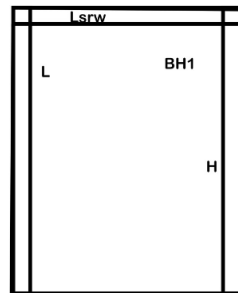


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

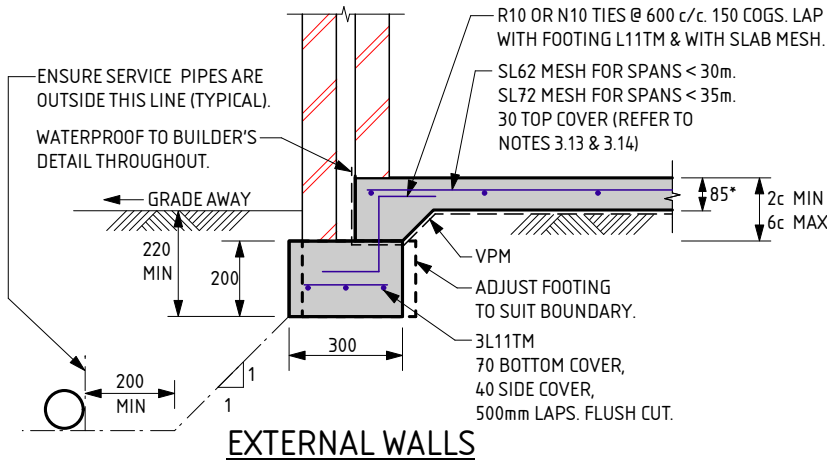
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

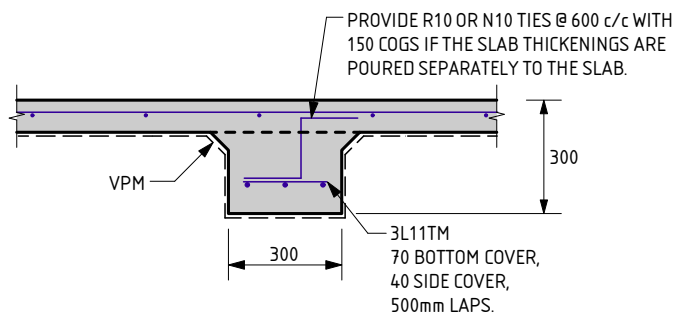
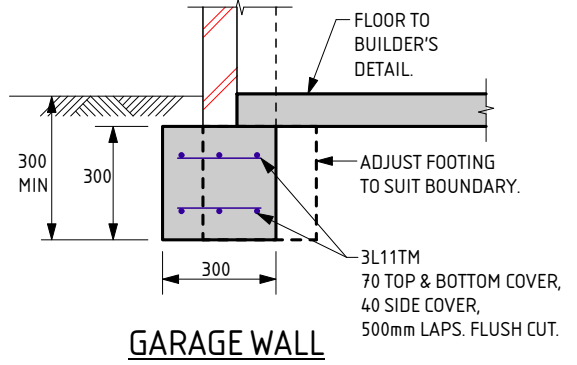
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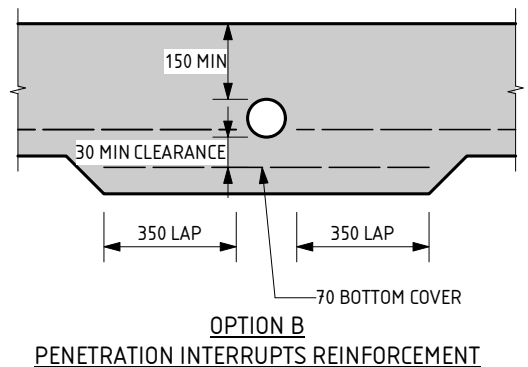
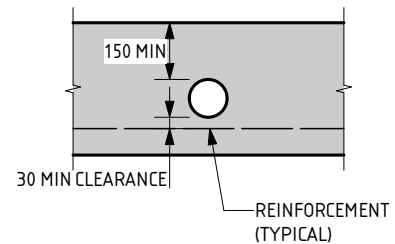
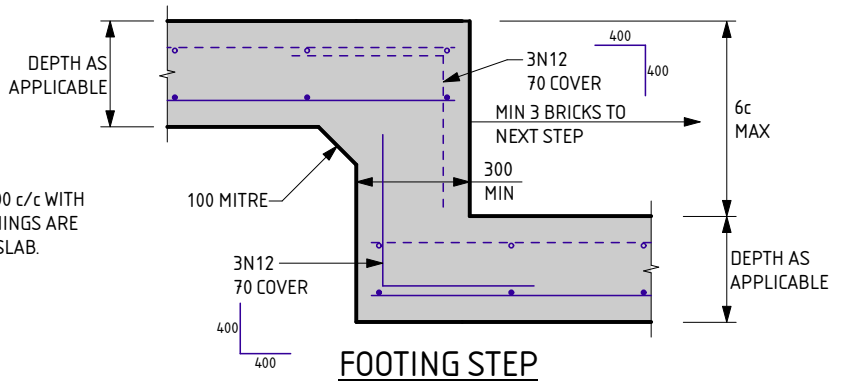
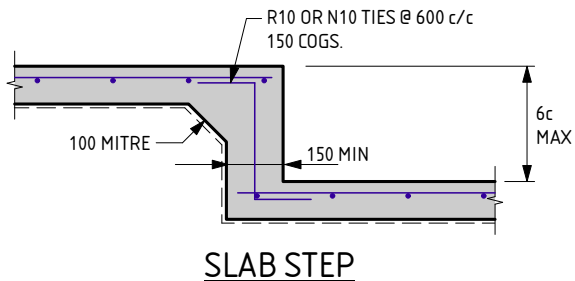
Gervase Purich
Chief Executive Officer



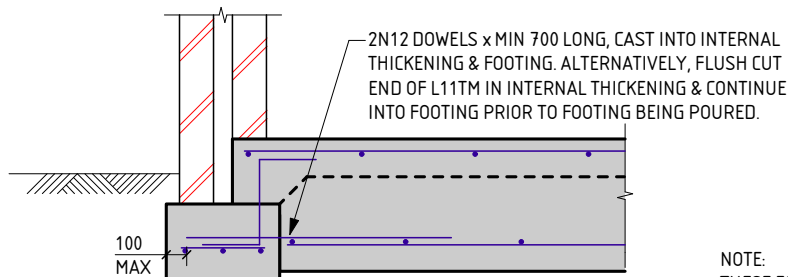
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

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consulting engineers

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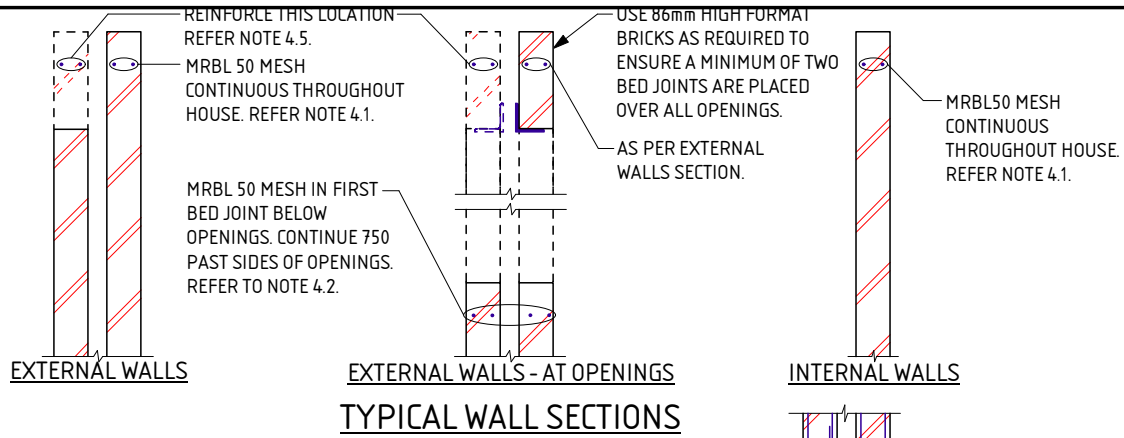
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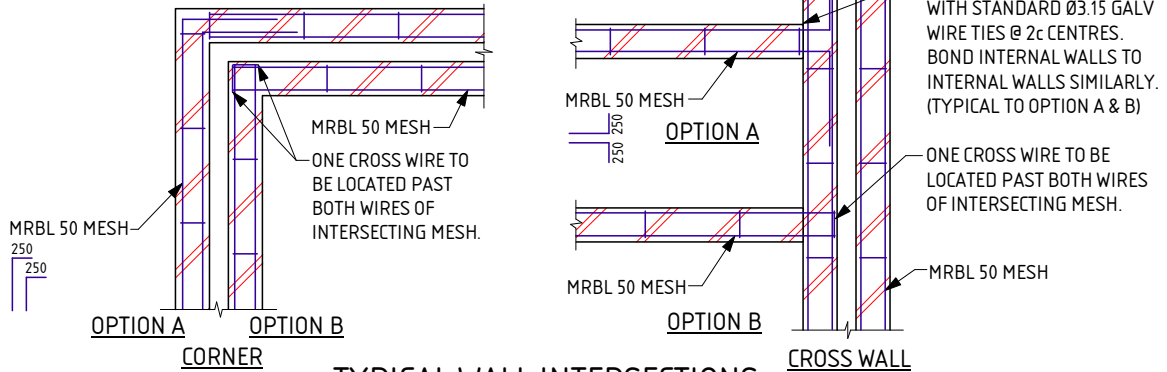
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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 249 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

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SITE CLASSIFICATION REPORT
CERTIFICATE 2595160

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 250 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082645
DATE OF ASSESSMENT 15/11/22

SITE RECORD



SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING Full Shielding

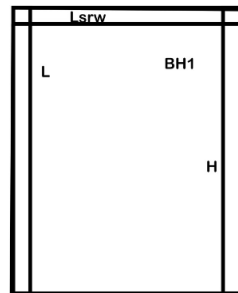
WA | QLD | NSW | VIC

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 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@structerre.com.au | Web www.structerre.com.au
 ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

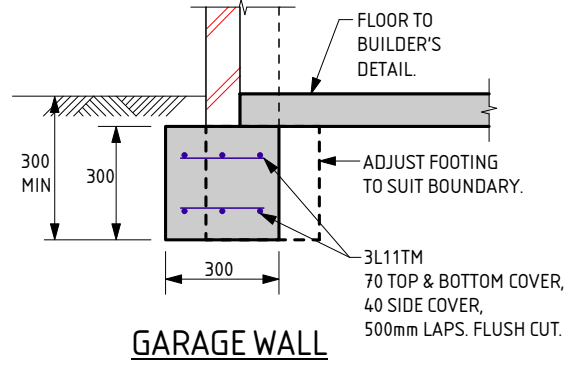
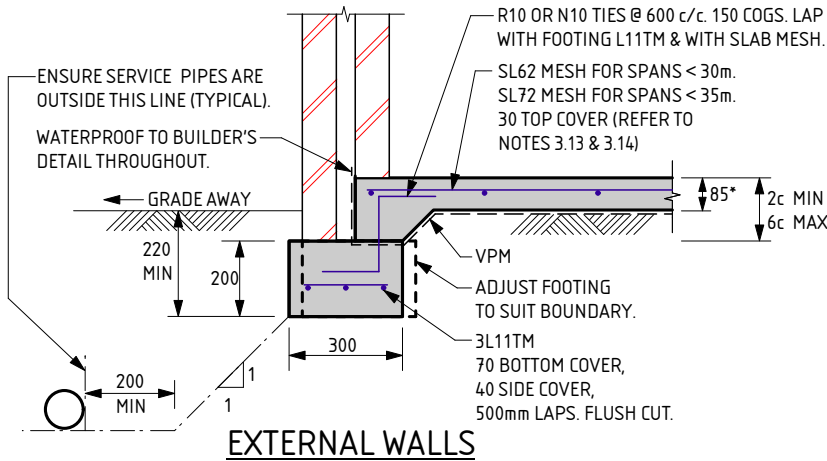
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CERTIFICATE 2595160

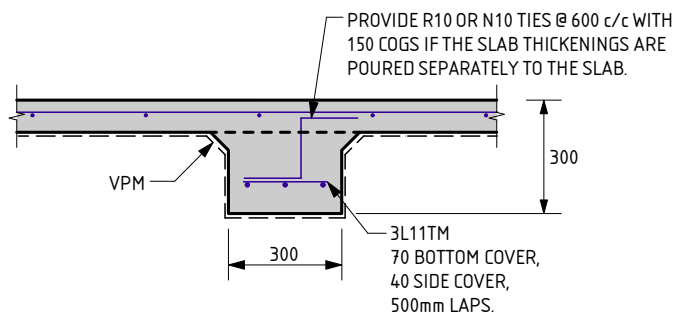
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Signed:

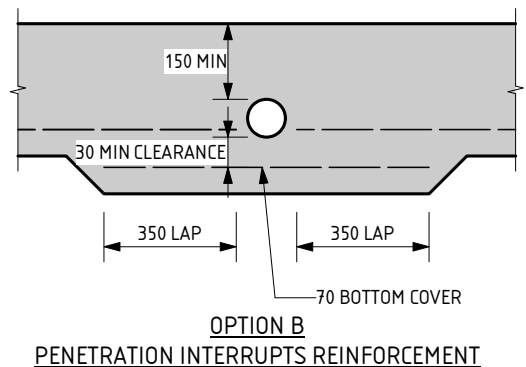
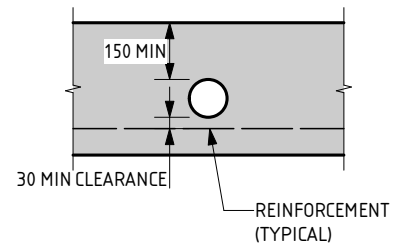
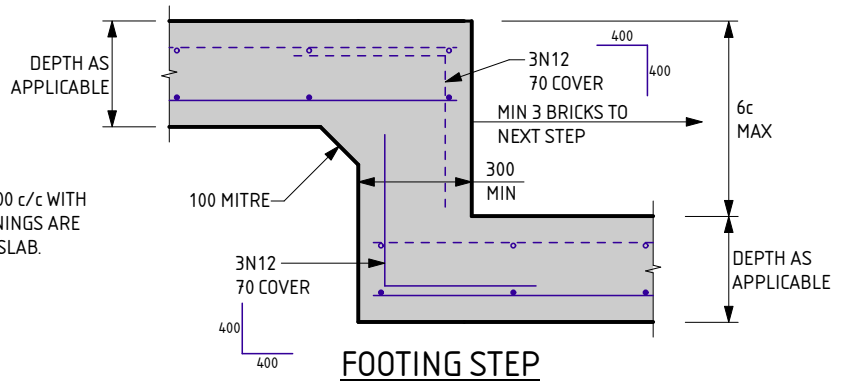
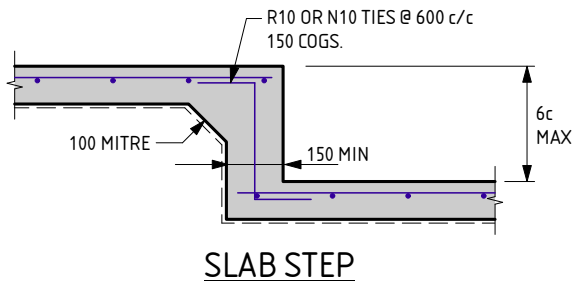

Gervase Purich
Chief Executive Officer



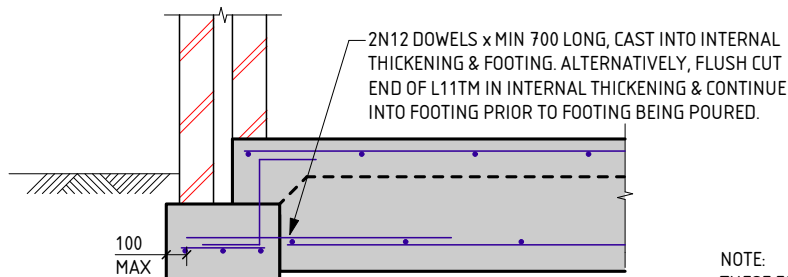
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
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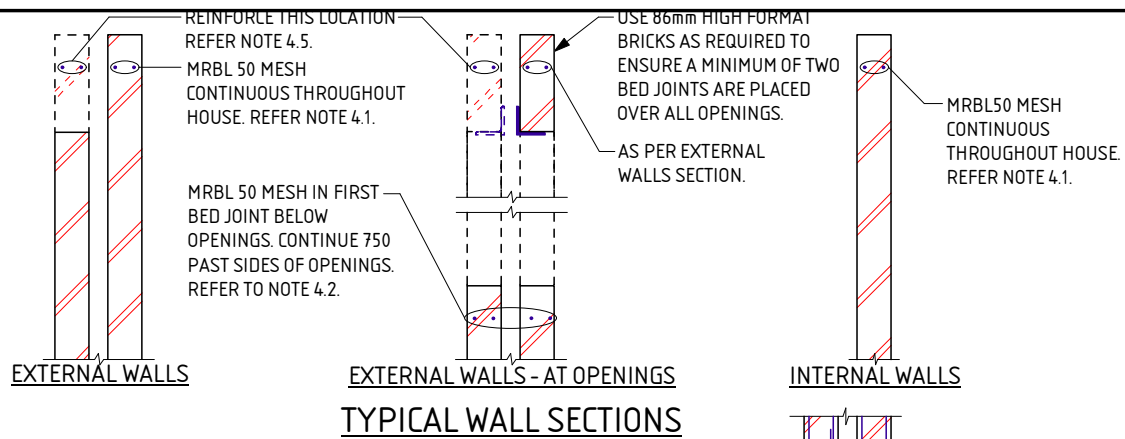
PROJECT:
LOT 250 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

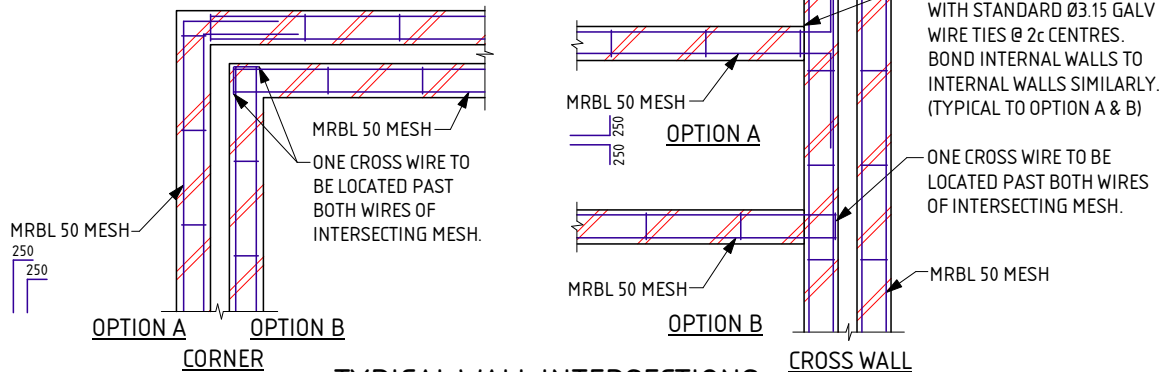
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DATE 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 250 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 250 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT : LOT 250 CULZEAN ST DARCH	
CLIENT : PARCEL DARCH PTY LTD	
SCALE 1:20	APPROVED 
DATE 16/11/22	

SITE CLASSIFICATION REPORT
CERTIFICATE 2595161

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 251 CULZEAN ST DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082646
DATE OF ASSESSMENT 15/11/22

SITE RECORD

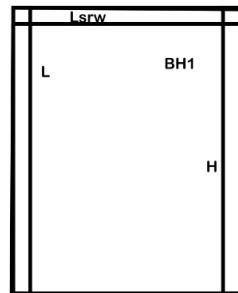


SITE CLASSIFICATION	S - EQUIVALENT <i>(in accordance with AS2870)</i>
FOOTING DETAIL	CM3
SAND PAD	No sand pad required structurally
BUSHFIRE PRONE AREA	Not in a Bushfire Prone Area (see NOTE 2.)
CORROSION CLASSIFICATION	R1 <i>(Durability Class in accordance with AS3700)</i>
WIND CLASSIFICATION	N1 <i>(in accordance with AS4055)</i>
-TERRAIN CATEGORY	3
-TOPOGRAPHIC	T0
-SHIELDING	Partial Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Culzean St

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 2 April 2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings


Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

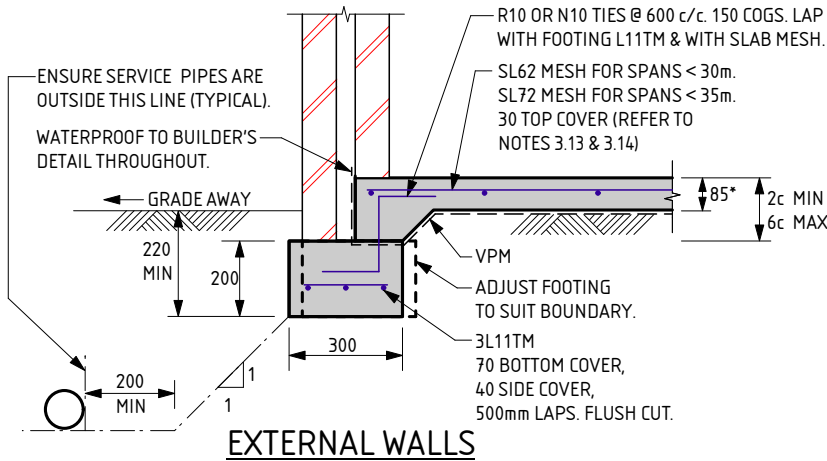
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

Signed:

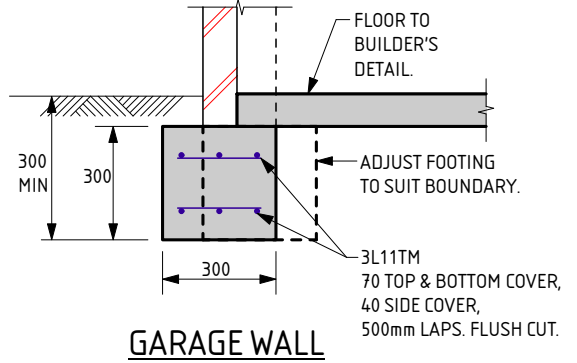


Gervase Purich
Chief Executive Officer

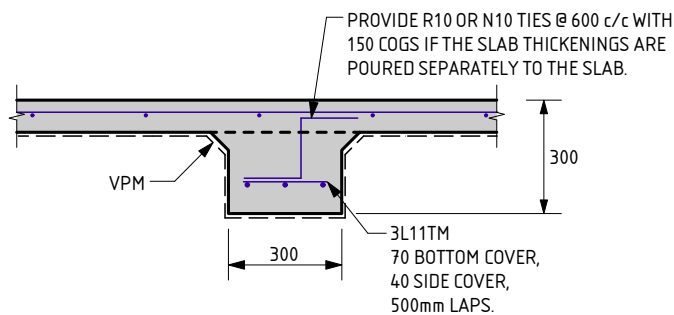


EXTERNAL WALLS

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 IF 100mm SLAB USED, MESH TO BE:
 SL62 MESH FOR SPANS < 25m.
 SL72 MESH FOR SPANS < 30m.
 SL82 MESH FOR SPANS < 35m.

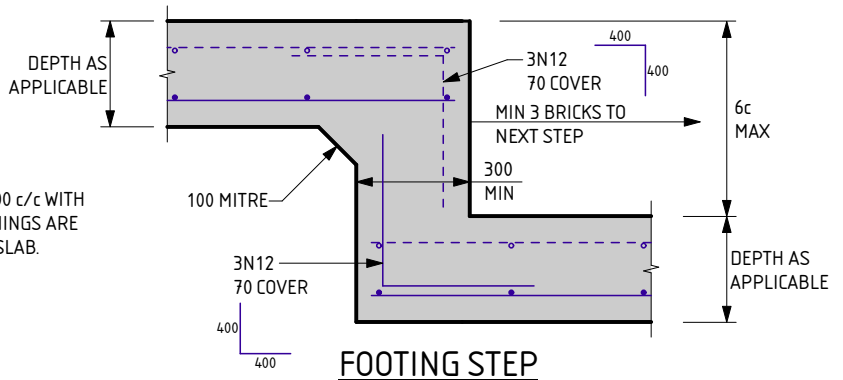


GARAGE WALL

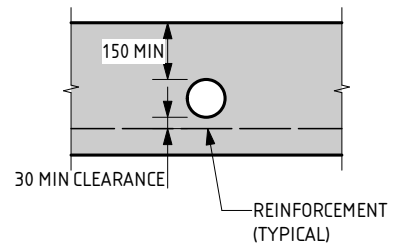


INTERNAL THICKENING

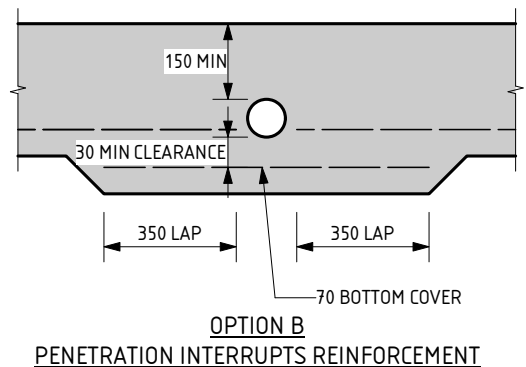
REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



FOOTING STEP



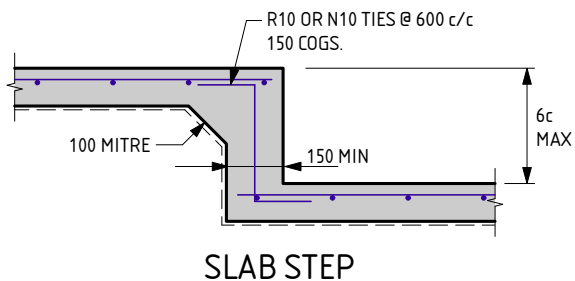
**OPTION A
PENETRATION CLEAR OF REINFORCEMENT**



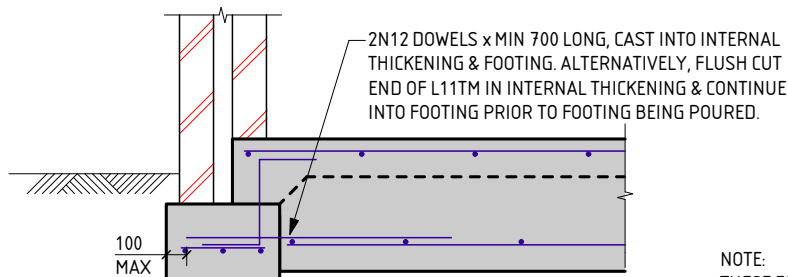
**OPTION B
PENETRATION INTERRUPTS REINFORCEMENT**

SERVICE PIPE DIAGRAM

- MAXIMUM PENETRATION SIZE TO BE Ø150.



SLAB STEP



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
 STRUCTERRE FOOTING DETAIL C4.0

NOTE:
 THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
 DATE LAST MODIFIED - 20/09/18

CM3
 CAVITY MASONRY



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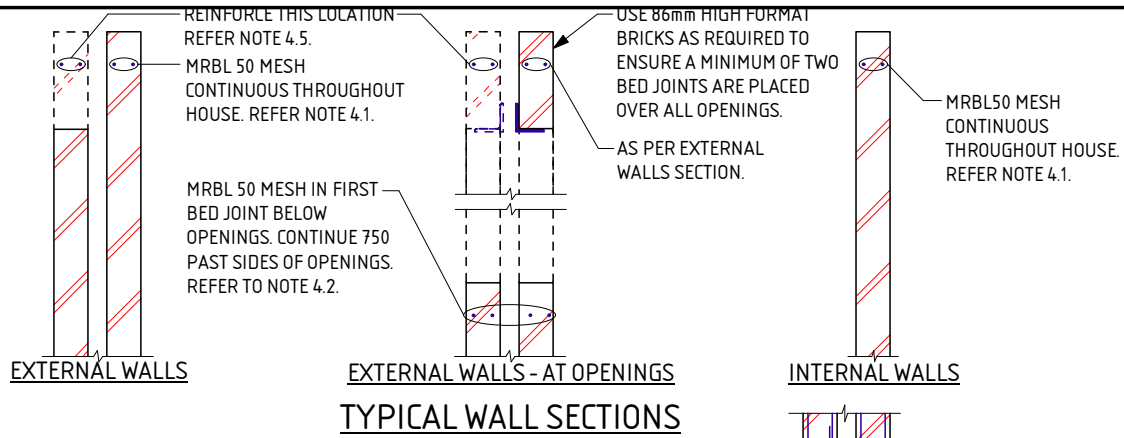
PROJECT: LOT 251 CULZEAN ST DARCH

CLIENT: PARCEL DARCH PTY LTD

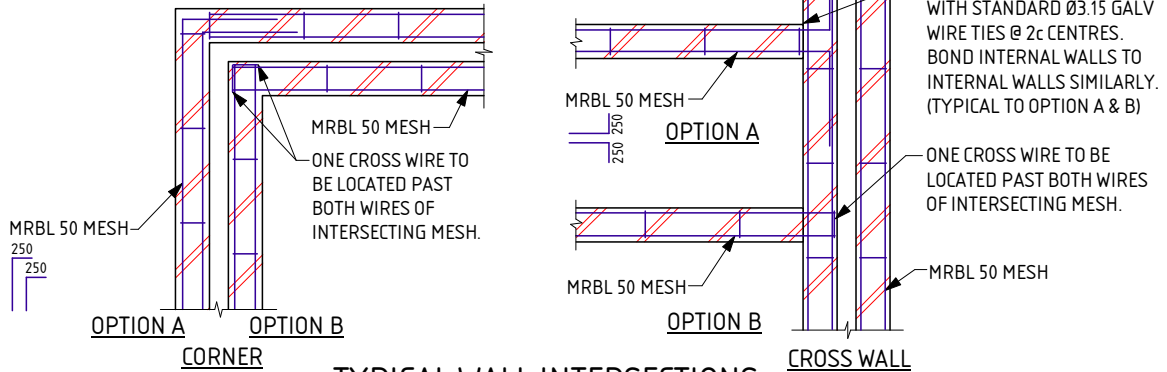
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DATE: 16/11/22

APPROVED



TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 251 CULZEAN ST DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 251 CULZEAN ST DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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SCALE 1:20

DATE 16/11/22

APPROVED

A blue ink handwritten signature is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595162

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 252 TRANQUAIR PWY DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082650
DATE OF ASSESSMENT 15/11/22

SITE RECORD



SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING No Shielding

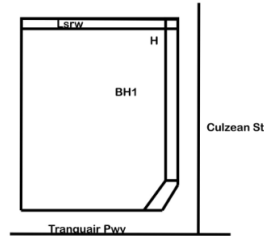
WA | QLD | NSW | VIC

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 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@structerre.com.au | Web www.structerre.com.au
 ABN 71 349 772 837 Zemla Pty Ltd ACN 008 966 283 as trustee for the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers

SOIL PROFILE

BOREHOLE 1: 0 - 1000 FILL sand with artificial material trace limestone gravel - grey; 1000 hard ground refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

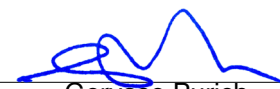
Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

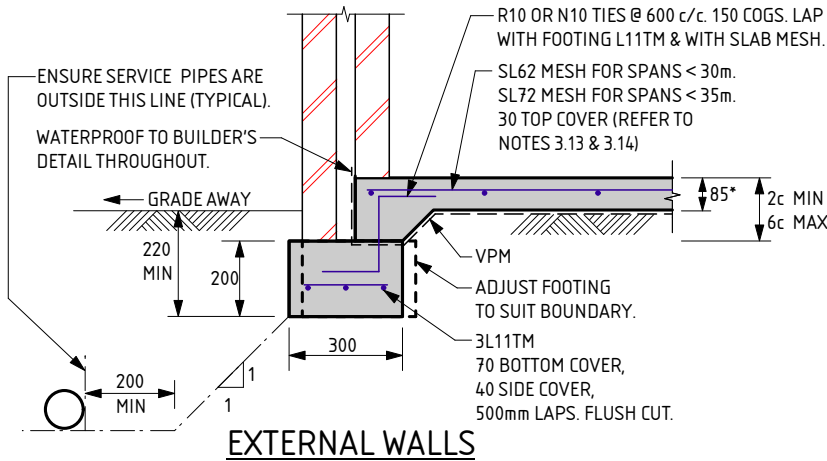
This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

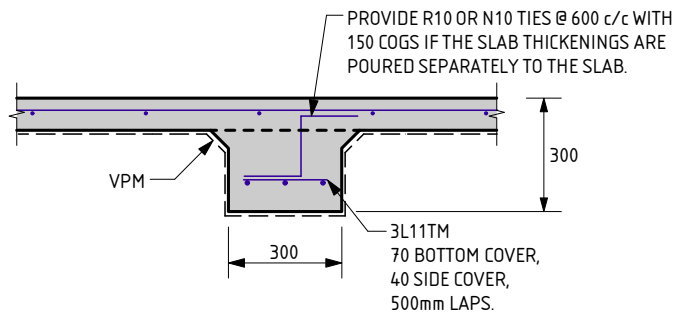
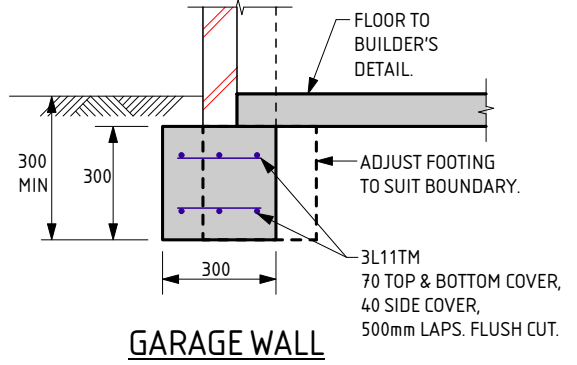
Signed:



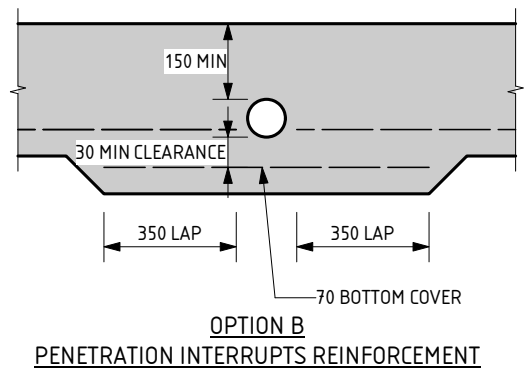
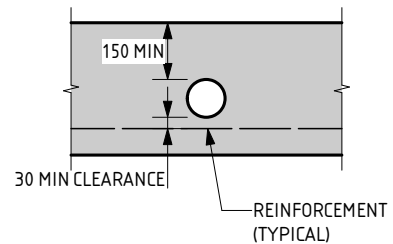
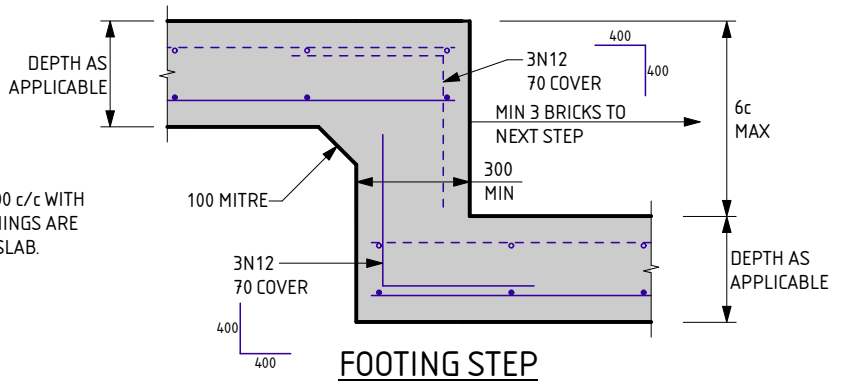
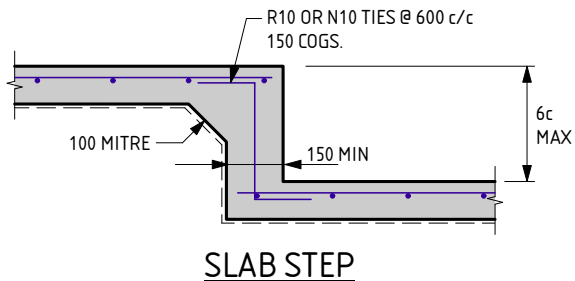
Gervase Purich
Chief Executive Officer



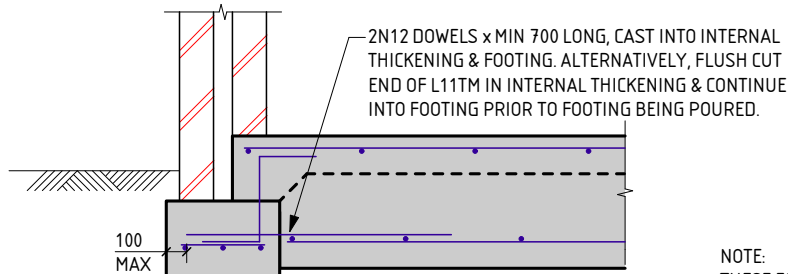
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

STRUCterre
consulting engineers

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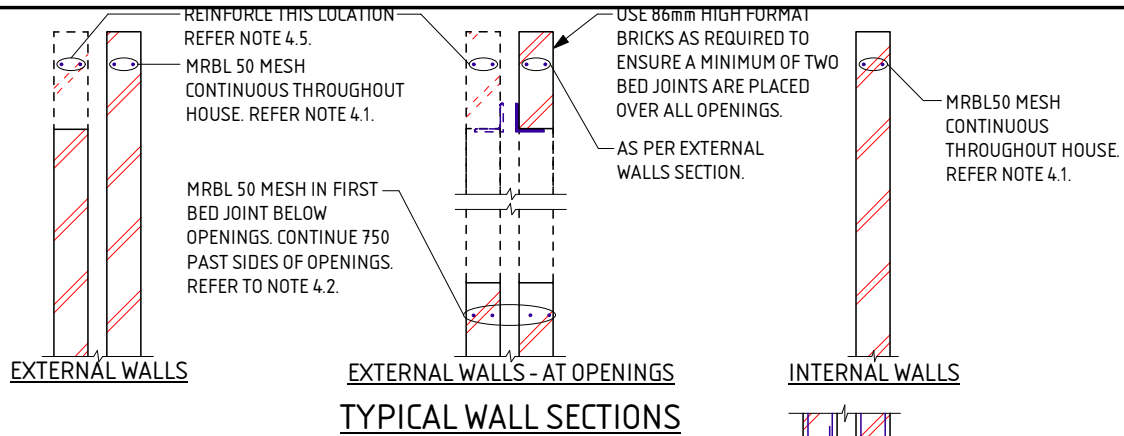
PROJECT:
LOT 252 TRANQUAIR PWY DARCH

CLIENT: PARCEL DARCH PTY LTD

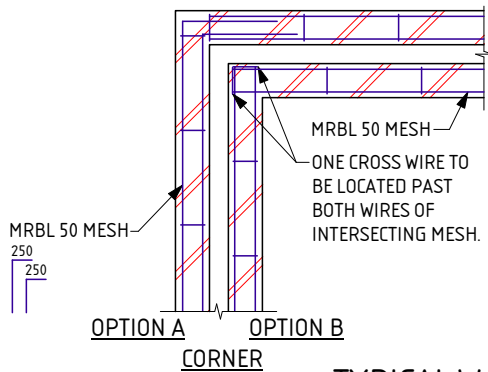
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DATE 16/11/22

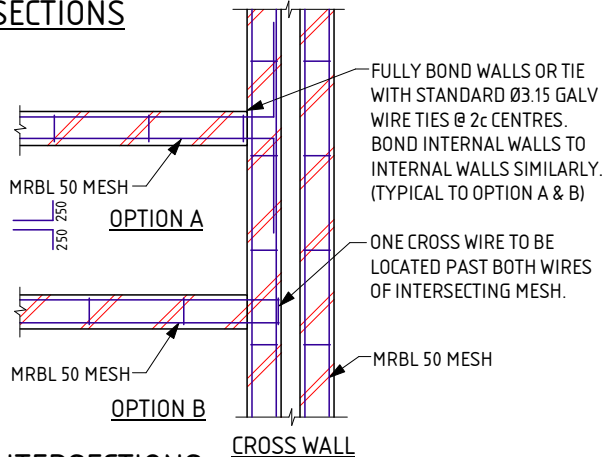
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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS



REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINTING.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE POURED MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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PROJECT :
LOT 252 TRANQUAIR PWY DARCH

CLIENT : **PARCEL DARCH PTY LTD**

SCALE **1:20**

DATE **16/11/22**

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 252 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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PROJECT :
LOT 252 TRANQUAIR PWY DARCH

CLIENT : PARCEL DARCH PTY LTD

SCALE 1:20

DATE 16/11/22

APPROVED

A handwritten signature in blue ink, appearing to be 'M. Darch', is written over the 'APPROVED' field.

SITE CLASSIFICATION REPORT
CERTIFICATE 2595163

CLIENT PARCEL DARCH PTY LTD
JOB ADDRESS LOT 253 TRANQUAIR PWY DARCH
CLIENT JOB NO.
OWNER
STRUCTERRE JOB NO. S1082651
DATE OF ASSESSMENT 15/11/22

SITE RECORD

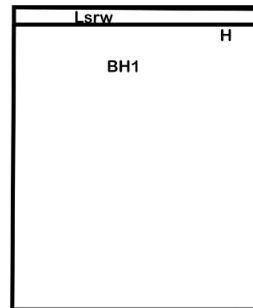


SITE CLASSIFICATION **S - EQUIVALENT** *(in accordance with AS2870)*
FOOTING DETAIL **CM3**
SAND PAD **No sand pad required structurally**
BUSHFIRE PRONE AREA **Not in a Bushfire Prone Area (see NOTE 2.)**
CORROSION CLASSIFICATION **R1** *(Durability Class in accordance with AS3700)*
WIND CLASSIFICATION **N1** *(in accordance with AS4055)*
-TERRAIN CATEGORY 3
-TOPOGRAPHIC T0
-SHIELDING No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with artificial material trace limestone gravel - grey; 1800 end of hole.

APPROXIMATE BOREHOLE LOCATIONS



Tranquair Pwy

NOTE 1 Explanatory Notes & Standard Recommendations

This site classification report must be read in conjunction with the applicable Explanatory Notes & Standard Recommendations. For A Class sites, refer to the Explanatory Notes and Standard Recommendations for Stable (A Class) Sites, version 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

The Site may be situated in a bush fire prone area in accordance with the Department of Fire and Emergency Services (DFES) Bushfire Prone Area Map (Reference: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/>) the current version at the time of this assessment. A Bushfire Attack Level (BAL) assessment may be required for this site, please confirm with the local authority. Should you require an assessment, please contact this Office.

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

Structerre Geotech Reference

The Site Classification is based on any remedial works being successfully completed as outlined in the Structerre Geotechnical Report J380185 dated 02/04/2021. The footing details are subject to the recommendations being completed to an acceptable level as outlined in this report, if applicable.

Internal Thickenings

Internal thickenings are required for the proposed residence as specified on the recommended footing detail. Please provide a copy of the architectural drawings to this Office, so that the internal thickenings can be designed and drawn in accordance with AS2870.

Internal Thickening Inspection

This detail is subject to a internal thickening layout inspection. It is recommended that an inspection be conducted by a representative from this Office prior to concrete pour.

-- END OF REPORT --

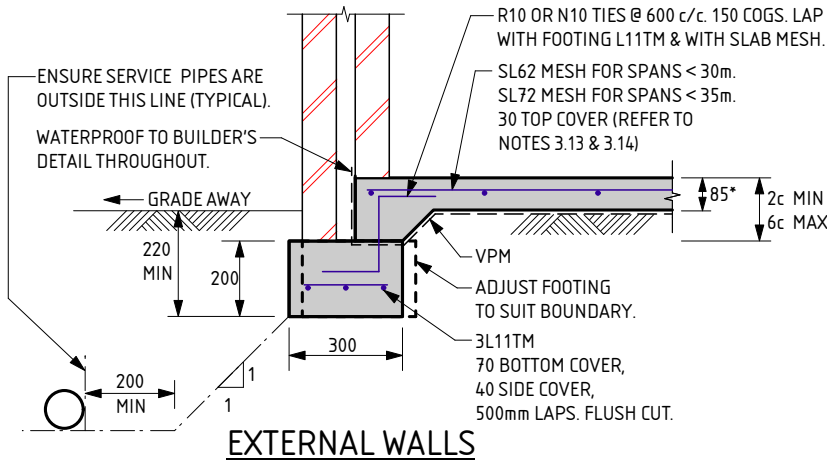
CERTIFICATE 2595163

Issued Date: 16 November 2022

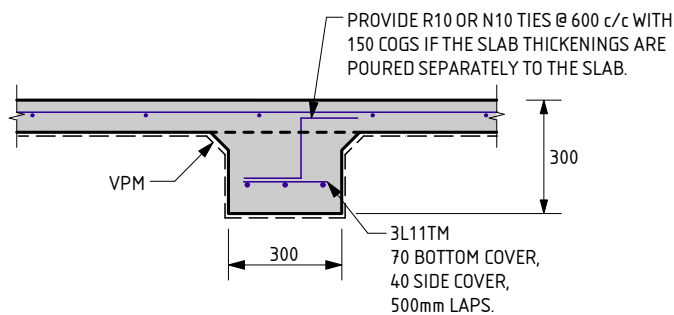
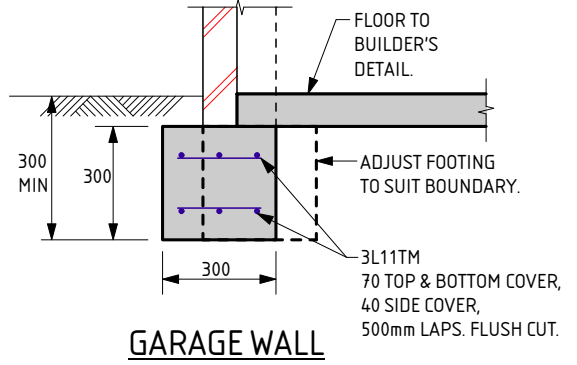
Signed:



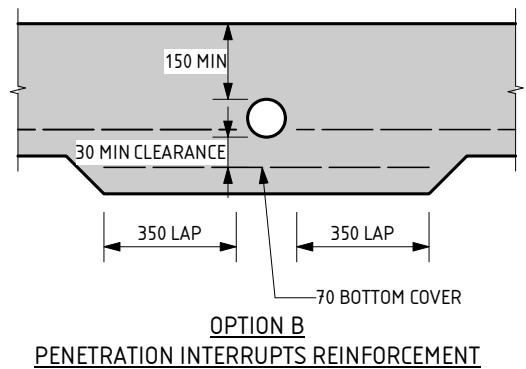
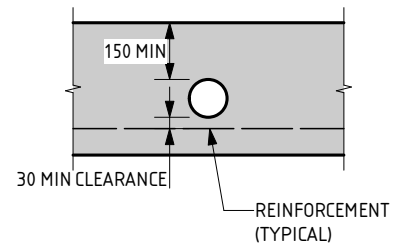
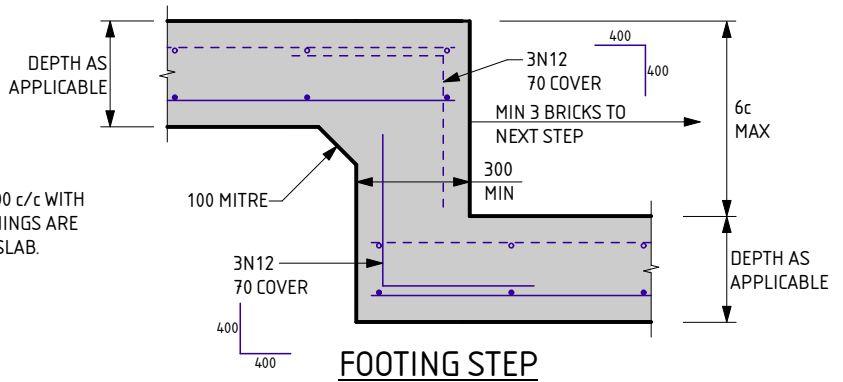
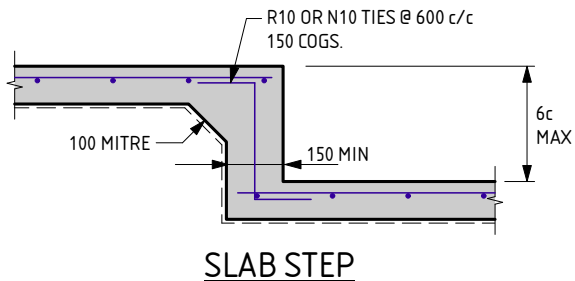
Gervase Purich
Chief Executive Officer



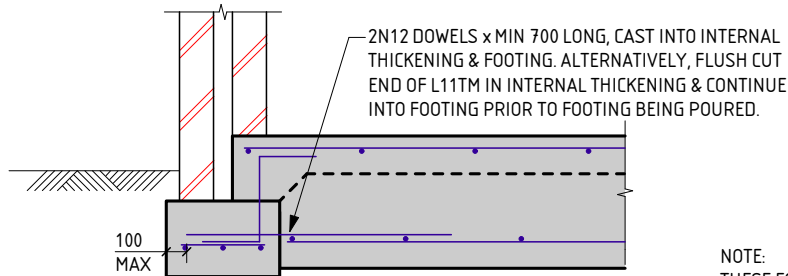
* 100mm SLAB MAY BE INSTALLED INSTEAD OF 85mm.
IF 100mm SLAB USED, MESH TO BE:
SL62 MESH FOR SPANS < 25m.
SL72 MESH FOR SPANS < 30m.
SL82 MESH FOR SPANS < 35m.



REFER TO STRUCTERRE'S DRAWINGS FOR PLACEMENT OF INTERNAL THICKENINGS. LOCATIONS TO BE CONFIRMED ON SITE BY STRUCTERRE PRIOR TO CONCRETE POUR.



SERVICE PIPE DIAGRAM
- MAXIMUM PENETRATION SIZE TO BE Ø150.



EXTERNAL FOOTING TO INTERNAL THICKENING

THIS DETAIL IS EQUIVALENT TO
STRUCTERRE FOOTING DETAIL C4.0

NOTE:
THESE FOOTING DETAILS ARE TO BE READ IN CONJUNCTION WITH THE REACTIVE SITE NOTES.

THE APPROVED SIGNATURE ON THIS DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON BUILDING PLATFORMS WITH UP TO 11mm OF SURFACE MOVEMENT.
DATE LAST MODIFIED - 20/09/18

CM3
CAVITY MASONRY

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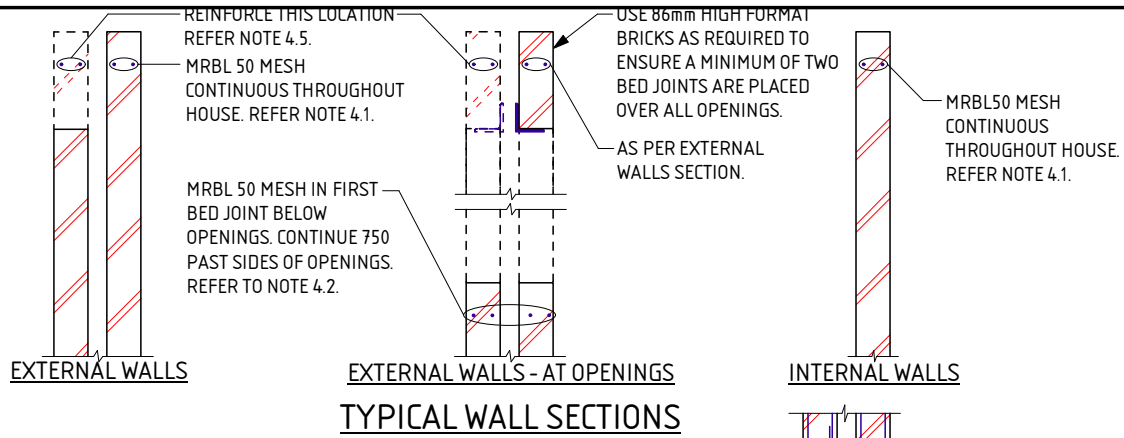
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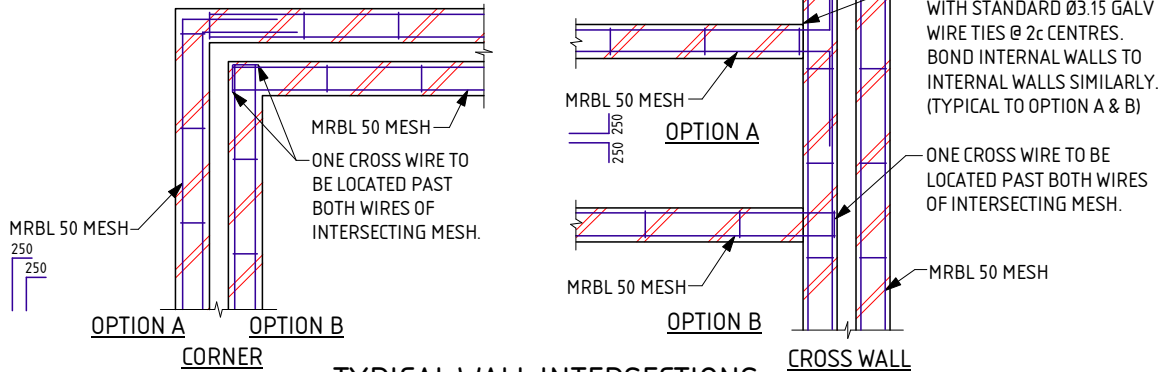
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TYPICAL WALL SECTIONS



TYPICAL WALL INTERSECTIONS

REACTIVE SITE NOTES FOR CM1 - CM7

THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE ATTACHED FOOTING DETAILS.

1.0 SITE CLASSIFICATION

- 1.1 REFER TO ATTACHED CERTIFICATE OF INSPECTION FOR SITE CLASSIFICATION. THE SITE CLASSIFICATION NOTED, IS AS DEFINED IN AS2870 - RESIDENTIAL SLABS & FOOTINGS.
- 1.2 THE SITE CLASSIFICATION HAS BEEN DETERMINED BY INVESTIGATION OF THE SITE, AS PER THE ATTACHED CERTIFICATE OF INSPECTION. REFER TO THE ATTACHED CERTIFICATE FOR ANY SPECIAL REQUIREMENTS.

2.0 EARTHWORKS

- 2.1 SAND PAD IF APPLICABLE TO BE AS PER SITE INSPECTION REPORT.
- 2.2 EARTHWORKS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a) REMOVE ALL ORGANIC MATERIAL FROM THE PAD AREA.
 - b) REMOVE ALL RUBBISH AND DELETERIOUS FILL (SUCH AS CLAY FILL) FROM THE PAD AREA.
 - c) GRUB OUT ANY TREES WHERE NECESSARY AND ENSURE THE REMAINING HOLES ARE FILLED AND COMPACTED SATISFACTORILY WITH SAND.
 - d) NOTIFY THE ENGINEER OF ANY UNUSUAL FEATURES OR DISCREPANCIES WHICH MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING.
- 2.3 ANY PREDOMINANT ROCK IN THE HOUSE PAD AREAS IS TO BE INSPECTED BY THE ENGINEER.
- 2.4 ANY CUT TO THE SITE, OTHER THAN TOPSOIL STRIPPING, WILL REQUIRE THE PREPARED CUT BASE TO BE INSPECTED AND APPROVED BY THE ENGINEER.
- 2.5 MAXIMUM SAND PAD DEPTH NOT TO EXCEED 150% OF MINIMUM PAD DEPTH OR 2000mm WITHOUT THE ENGINEER'S APPROVAL.
- 2.6 IF APPLICABLE SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.075mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR THE DEPTH OF THE PAD OR TO DISCRETION OF ENGINEER.
- 2.7 COMPACTION TESTING TO BE PERFORMED BY STRUCTERRE.

3.0 FOOTINGS & SLABS

- 3.1 FOOTINGS ARE TO BE PLACED DIRECTLY INTO SAND PAD OF SPECIFIED THICKNESS.
- 3.2 ALL STORMWATER MUST BE DISCHARGED INTO COUNCIL DRAINS OR A MINIMUM OF 3m FOR S CLASS SITES, 4m FOR M CLASS SITES AND 5m FOR H1 & H2 CLASS SITES, AWAY FROM THE RESIDENCE AND/OR ADJACENT BUILDINGS INTO SOAKWELLS. IF THIS RESTRICTION CANNOT BE ACHIEVED REFER BACK TO THIS OFFICE FOR AN ALTERNATIVE DESIGN. WHERE THE SITE HAS BEEN CLASSIFIED AS AN 'EQUIVALENT' SITE CLASSIFICATION, REFER TO 'EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES' FOR STORMWATER DRAINAGE REQUIREMENTS UNLESS SPECIFIED OTHERWISE.
- 3.3 EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 3.4 WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB, SPECIFIED TOTAL THICKNESS OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- 3.5 SETDOWN AT WET AREA TO ARCHITECTURAL REQUIREMENT (50mm MAX). MAINTAIN 85mm SLAB THICKNESS. FOLD MESH DOWN TO MAINTAIN COVER, PLACE DIAGONAL BARS AT RE-ENTRANT CORNER FOR STEPS OVER 30mm. BARS TO BE N12x 1200 LONG.
- 3.6 REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS;

L	INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.
SL	INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
N	INDICATES DEFORMED BARS D500N TO AS/NZS 4671.
TM SUFFIX	INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671.

 ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH TABLE 3.4.4.4 "CORROSION PROTECTION" OF THE BUILDING CODE OF AUSTRALIA.
- 3.7 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

3.8 CONCRETE TO CONFORM WITH AS 3600.

- 3.9 BLENDED CEMENT TO CONFORM WITH AS1317.
- 3.10 ALL CONCRETE TO BE N20/20/100.
- 3.11 FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 3.12 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
- 3.13 FOR SLAB SPANS > 35m REFER TO ENGINEER FOR MESH SIZE.
- 3.14 IF THE LENGTH TO WIDTH RATIO OF THE GROUND SLAB OR ANY PART OF THE GROUND SLAB EXCEEDS 3:1, REFER BACK TO THIS OFFICE FOR MESH SIZE.
- 3.15 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK TO THIS OFFICE FOR CONSIDERATION, AS IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES.
- 3.16 PLACE SLAB THICKENING (300 WIDE x 250 DEEP) UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m WHERE GREATER THAN 1m FROM INTERNAL THICKENING. PROVIDE SAME TRENCH MESH AS INTERNAL THICKENING DETAIL, WHERE REQUIRED.
- 3.17 PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.
- 3.18 CURE SLAB AS DETERMINED BY ENGINEER.
- 3.19 THE SLAB IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES. IF THE FOOTING AND SLAB IS PLACED IN 2 POURS, THE PHYSICAL BARRIER ALSO INCLUDES THE FOOTING AND SLAB JOINT.
- 3.20 THE FOOTING DETAILS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS3600 AND SECTION 4 OF AS2870.

4.0 MASONRY

- 4.1 PLACE MRBL50 MESH IN TOP BED JOINT CONTINUOUS THROUGHOUT ALL BRICKWORK.
- 4.2 REINFORCE BED JOINT BELOW WINDOW SILLS WITH MRBL50 MESH. CONTINUE 750 PAST SIDES OF OPENING.
- 4.3 LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES.
- 4.4 ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS/NZS 4680.
- 4.5 WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1, 4.2 & 4.3.
- 4.6 TYPICAL WALL SECTIONS ARE SHOWN FOR 28C INTERNAL CEILINGS. WHERE THERE ARE 3 OR MORE BED JOINTS OVER THE OPENING, REINFORCE BED JOINT OVER OPENING WITH MRBL50 MESH. CONTINUE 750 PAST SIDE OF OPENING.
- 4.7 ALL PERPENDS TO BE FULLY MORTARED.
- 4.8 A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 4.9 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE USED, ALL SPLICES AND COGS TO BE 500 LONG.

5.0 MAINTENANCE

- 5.1 IT IS CONSIDERED THAT THIS DESIGN IS SUITABLE FOR THE FOUNDATION CONDITIONS TO BE ENCOUNTERED AND WILL ADEQUATELY CONTROL ANY CRACKING OF BRICKWORK AND CONCRETE, SUBJECT TO THE MAINTENANCE PROCEDURES BELOW BEING SATISFIED.
- 5.2 BUILDER TO ENSURE THAT CLIENT BE INFORMED OF NECESSITY TO MAINTAIN DRAINS IN GOOD WORKING ORDER AT ALL TIMES.
- 5.3 BUILDER TO ADVISE CLIENT TO CONSULT AN ENGINEER BEFORE PLANTING TREES OR SHRUBS WITHIN 2.5m, OR A DISTANCE EQUAL TO THE ANTICIPATED MAXIMUM HEIGHT OF THE TREE, OF THE BUILDING.
- 5.4 SITE TO BE MAINTAINED AS PER CSIRO INFORMATION PAMPHLET BTF 18 & STRUCTERRE'S CLAY FACT SHEET.
- 5.5 AS2870 AND 'CSIRO PAMPHLET BTF 18' COVER THE EXPECTED PERFORMANCE AND RESPONSIBILITIES OF ALL PARTIES WITH THE USE OF THESE DETAILS.

6.0 QUALITY CONTROL PROGRAM REQUIREMENTS

- 6.1 WORKING SLAB DEPTH AS INDICATED ON THE DETAIL. SLAB DEPTH TOLERANCE ALLOWABLE -10mm, +15mm.
- 6.2 WHERE DEPTH IS BELOW NOMINATED DEPTH, MAX AREA ALLOWED TO BE ≤ 5% OF THE TOTAL AREA.
- 6.3 DEPTH TESTING LOCATIONS TO BE NO CLOSER THAN 1000mm APART.
- 6.4 SLAB DEPTH IS TO BE PART OF A QUALITY CONTROL INSPECTION REGIME.
- 6.5 SLAB AND FOOTING CAN BE Poured MONOLITHICALLY IF DESIRED.

DATE LAST MODIFIED - 21/09/21



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CLIENT : PARCEL DARCH PTY LTD

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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 1 of 2)

GENERAL

1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS. IT IS RECOMMENDED OTHER PARTIES TO PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 "RESIDENTIAL SLABS AND FOOTING",
 - b. A WIND CLASSIFICATION IN ACCORDANCE WITH AS4055 "WIND LOADS FOR HOUSING",
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATIONS WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONSTRUCTION.
5. THE SITE CLASSIFICATION IS BASED ON THE SITE AS PRESENTED AT THE TIME OF THE ASSESSMENT. THE SITE CLASSIFICATION AND RECOMMENDATIONS INCLUDED IN THE REPORT ARE SUBJECT TO SATISFACTORY COMPLETION OF RECOMMENDED EARTHWORKS, (REFER NOTE 17) AS A MINIMUM. SHOULD CHANGES TO THE SITE OCCUR, OTHER THAN THE RECOMMENDATIONS INCLUDED IN THE SITE CLASSIFICATION REPORT, REFER BACK TO THIS OFFICE FOR REVIEW OF CLASSIFICATION AND FOOTING DESIGN.
6. ALL RECOMMENDATIONS GIVEN IN THE SITE CLASSIFICATION REPORT HAVE BEEN DETERMINED FROM THE INFORMATION THAT WAS AVAILABLE TO THIS OFFICE AT THE TIME OF INVESTIGATION. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
7. EQUIVALENT CLASS SITES ARE BASED ON DIFFERENTIAL SURFACE MOVEMENT ARISING FROM ISSUE OTHER THAN SHRINK-SWELL (REACTIVITY) ONLY. THESE MAY INCLUDE SETTLEMENT AND/OR CONSOLIDATION THAT MAY OCCUR AS A RESULT OF THE UNDERLYING GROUND CONDITIONS.
8. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITIONS OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR A REASSESSMENT.
9. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
10. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE, STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

11. THE RECOMMENDED FOOTING DESIGN IS ONLY TO BE USED IN CONJUNCTION WITH THE RECOMMENDED SAND PAD AND EARTHWORKS AS OUTLINED IN THE SITE CLASSIFICATION REPORT.
12. THE RECOMMENDATIONS FOR THE SAND PAD IS FOR STRUCTURAL PURPOSES ONLY, AND DOES NOT PROVIDE THE MINIMUM FINISHED PAD LEVEL IN RELATION TO FLOOD LEVELS OR DEPTH TO GROUNDWATER. SHOULD THE TEST BE LOCATED IN A LOW LYING OR FLOOD PRONE AREA, REFER TO THE LOCAL AUTHORITY FOR MINIMUM BUILDING HEIGHT.
13. IMPORTED FILL FOR USE AS A SAND PAD TO BE IN ACCORDANCE TO AS 3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" WHICH INCLUDES BUT IS NOT LIMITED TO: BE FREE FROM ANY DELETERIOUS MATERIALS INCLUDING ORGANICS, (ROOTS, STUMPS, GRASSES, DECOMPOSED ORGANICS - PEAT, TIMBER, ETC), BUILDING RUBBLE, GLASS, PLASTICS OR WASTE MATERIAL. THE FINES CONTENT, (PERCENTAGE PASSING THE 0.075mm SIEVE) TO BE LESS THAN 5% BY MASS.
14. ON SAND SITES A SAND PAD IS NOT REQUIRED STRUCTURALLY, HOWEVER IF ROCK IS ENCOUNTERED, A MINIMUM 200mm SAND PAD BEYOND THE BASE OF FOOTING IS RECOMMENDED.
15. SAND PAD TO EXTEND BEYOND BUILDING AREA A MINIMUM OF 1.5 TIMES THE PAD DEPTH.
16. RECOMMENDED SAND PAD DEPTH IS ABOVE THE HIGHEST POINT, UNLESS OTHERWISE SPECIFIED.
17. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

18. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
19. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:
 - a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
20. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

21. AN ASSESSMENT OF ANY EXISTING OR PROPOSED RETAINING WALLS HAS NOT BEEN CONDUCTED AS PART OF THIS SITE CLASSIFICATION REPORT.
22. IF THE PROPOSED BUILDING IS TO BE LOCATED CLOSER THAN THE HEIGHT OF THE RETAINING WALL, THIS MAY PLACE ADDITIONAL LOADS ON THE WALL THAT WERE NOT INITIALLY DESIGNED FOR. AN INSPECTION OF THE STRUCTURAL INTEGRITY OF THE RETAINING WALL WILL BE REQUIRED TO PROVIDE CERTIFICATION AND/OR RECOMMENDATIONS PRIOR TO ANY CONSTRUCTION. PLEASE REFER BACK TO THIS OFFICE FOR ASSISTANCE.
STORMWATER DRAINAGE
23. UNLESS OTHERWISE SPECIFIED, ALL SOAKWELLS ARE TO BE LOCATED THE DEPTH OF THE SOAKWELL AWAY FROM THE BUILDING OR SETBACK A MINIMUM OF 1200mm, WHICHEVER IS GREATER, UNLESS SPECIFIED OTHERWISE. PLEASE REFER BACK TO THIS OFFICE IF THE SETBACK CANNOT BE ACHIEVED.

DOC# SS001 - 1.1.10 SCR EQUIVALENT V1.1 - AUGUST 2021



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EXPLANATORY NOTES & STANDARD RECOMMENDATIONS - EQUIVALENT CLASS SITES (Sheet 2 of 2)

WIND CLASSIFICATION

24. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):

- a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m,
- b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m,
- c. THE ROOF PITCH SHALL NOT EXCEED 35 °,
- d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

IF THE BUILDING FALLS OUTSIDE OF THESE LIMITATIONS, THE STATED WIND CLASSIFICATION DOES NOT APPLY. REFER BACK TO THIS OFFICE FOR A REVISED WIND CLASSIFICATION.

ENVIRONMENTAL

25. NO ENVIRONMENTAL ASSESSMENT OF THIS SITE HAS BEEN UNDERTAKEN. SHOULD AN ENVIRONMENTAL ASSESSMENT BE REQUIRED, PLEASE CONTACT THIS OFFICE.

SEISMIC

26. RECOMMENDED FOOTING DETAILS ARE SUITABLE FOR SEISMIC CONDITIONS WITH AN EARTHQUAKE HAZARD FACTOR OF ≤ 0.11 . RECOMMENDED FOOTING DETAILS PROVIDED FOR SITES WITH AN EARTHQUAKE HAZARD FACTOR OF > 0.11 , ARE NOT FOR CONSTRUCTION, BUT FOR COSTING PURPOSES ONLY. IT IS REQUIRED THAT A FULL SEISMIC DESIGN IS CONDUCTED.

CORROSION CLASSIFICATION

27. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.

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A handwritten signature in blue ink, appearing to be 'M. Darch', is written over the 'APPROVED' field.