

CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 109 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162759 19/3/25

Α

**B1** 

T0

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

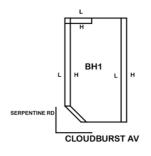
	No sand pad required structurally	
	Not in a Bushfire Prone Area (see NOTE 2.)	
١	R3	(Durability Class in accordance with AS3700)
	N1	(in accordance with AS4055)
/	2	

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone) - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

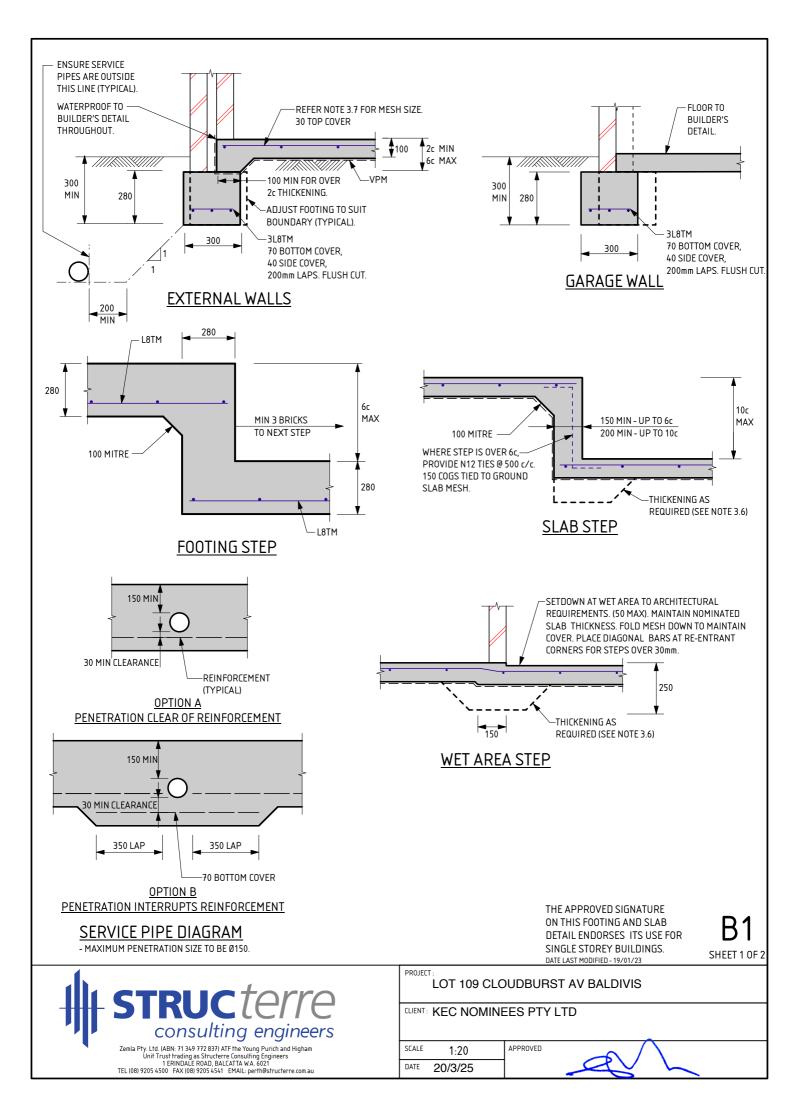
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620439
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING FOSTION UNDER BRICKMORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

#	<b>STRUC</b> <i>terre</i>
	consulting engineers
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#### PROJECT LOT 109 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.

PROJECT



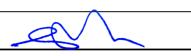
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### LOT 109 CLOUDBURST AV BALDIVIS

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 SCALE
 1:20
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#### 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.

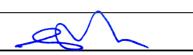


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JOB ADDRESS	LOT 110 CLOUDBURST AV BALDIVIS
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STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162760 19/3/25

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATI WIND CLASSIFICATION -TERRAIN CATEGO -TOPOGRAPHIC -SHIELDING

(in accordance with AS2870)

**B1** 

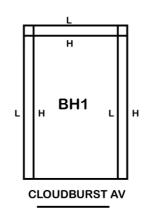
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	Not in a	a Bushfire Prone Area <i>(see NOTE 2.)</i>
ION	R3	(Durability Class in accordance with AS3700)
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### NOTE 2 Bushfire - Prone Area

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### **Site Condition**

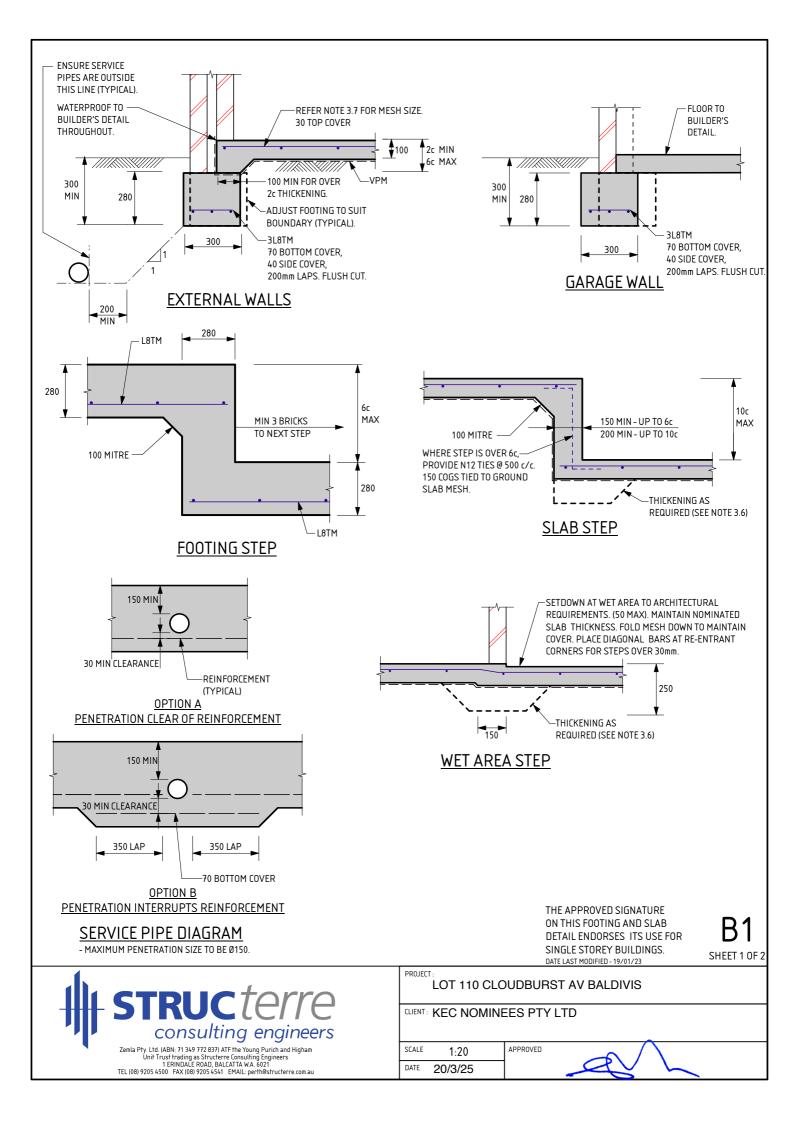
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CERTIFICATE	2620437
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
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- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

#	STRUCTERIE consulting engineers
	consulting engineers
	Zemla Ptv. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham

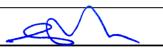
Zemia Pty. Ltd. (ABN: 71 349 772 357) AIF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 110 CLOUDBURST AV BALDIVIS

### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23



SHEET 2 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.
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  - 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.
- 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.



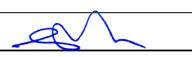
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#### PROJECT: LOT 110 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

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#### 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.



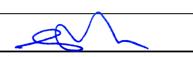
LOT 110 CLOUDBURST AV BALDIVIS

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PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 111 SERPENTINE RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162766 19/3/25

**B1** 

T0

**Full Shielding** 

### SITE RECORD



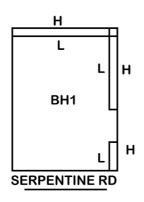
SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone) - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

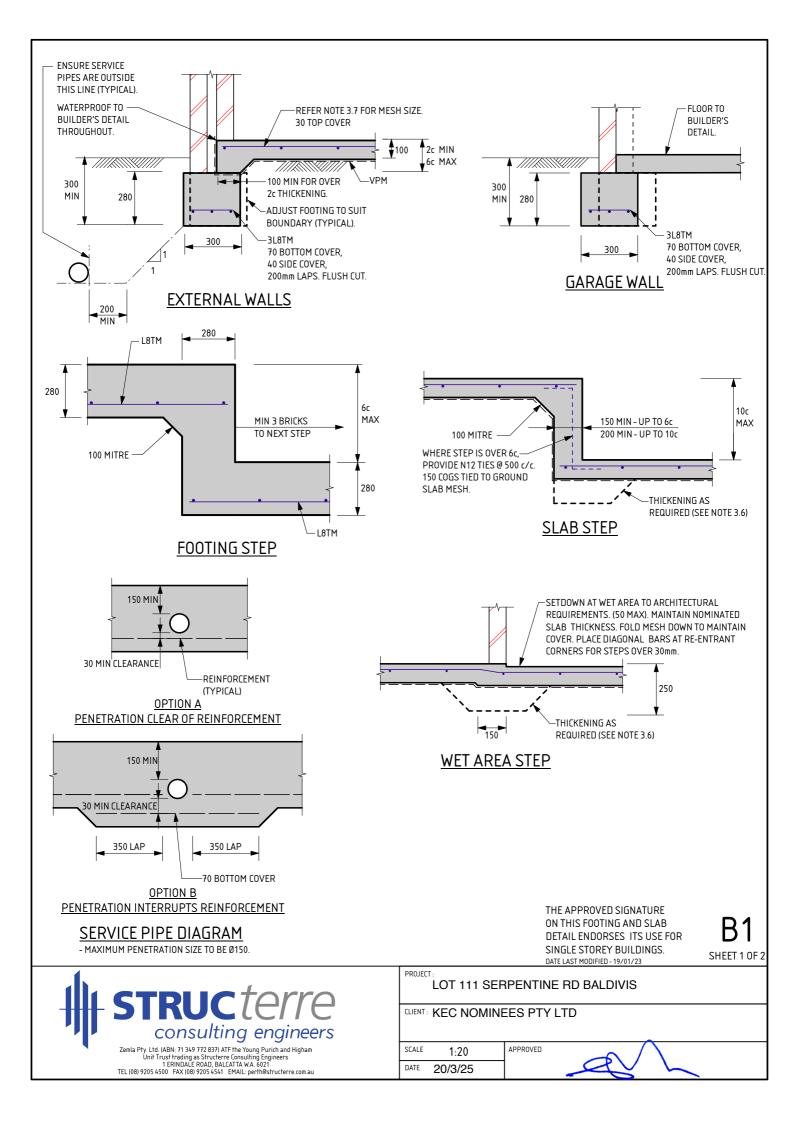
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620440
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
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rri i*c* terre consulting engineers

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## LOT 111 SERPENTINE RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

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- 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
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  - 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.



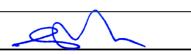
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# LOT 111 SERPENTINE RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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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LOT 111 SERPENTINE RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

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 1:20
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 DATE
 20/3/25
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PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 112 SERPENTINE RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162768 19/3/25

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

**B1** No sand pad required structurally Not in a Bushfire Prone Area (see NOTE 2.)

### (Durability Class in accordance with AS3700)

- (in accordance with AS4055)

### **Full Shielding**

R3

**N1** 

2

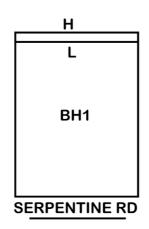
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1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@structerre.com.au | Web www.structerre.com.au ABN 71 349 772 837 Zemla Pty Ltd ACN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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone) - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

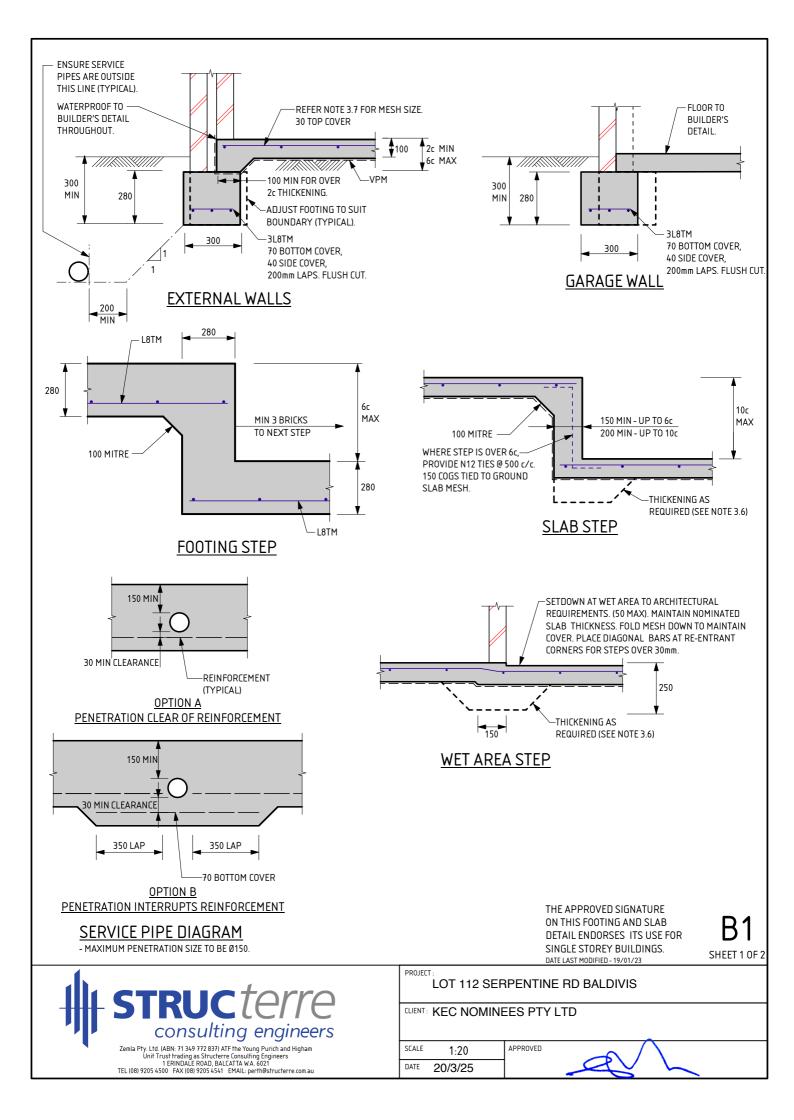
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

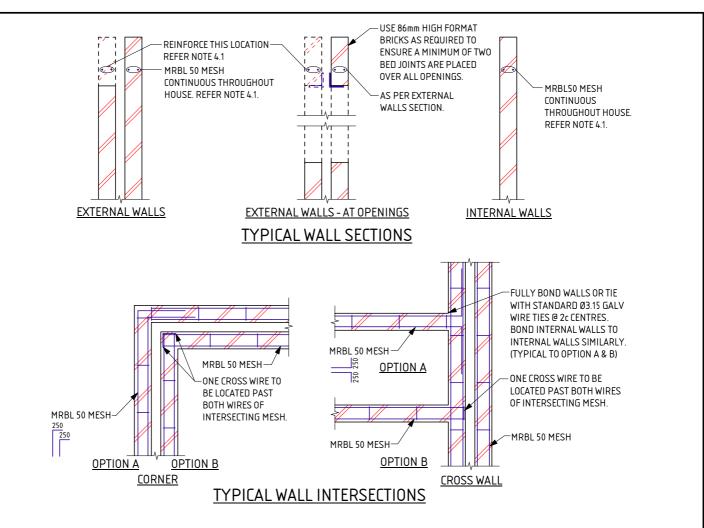
### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620441		
Issued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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
- EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR. CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING FOSTION UNDER BRICKMORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
- 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

#	structerre
	consulting engineers
	Zemla Ptv 1 td. (ABN: 71 349 772 837) ATE the Young Purish and Hinham

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#### DATE LAST MODIFIED - 19/01/23 PROJECT

#### SHEET 2 OF 2

#### LOT 112 SERPENTINE RD BALDIVIS

### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

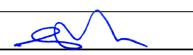


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# LOT 112 SERPENTINE RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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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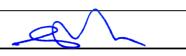
LOT 112 SERPENTINE RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

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 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 113 SERPENTINE RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162770 19/3/25

A B1

T0

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)
N1	(in accordance with AS4055)
2	

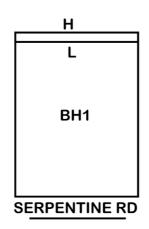
(in accordance with AS2870)

# WA | QLD | NSW | VIC

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BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone) - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

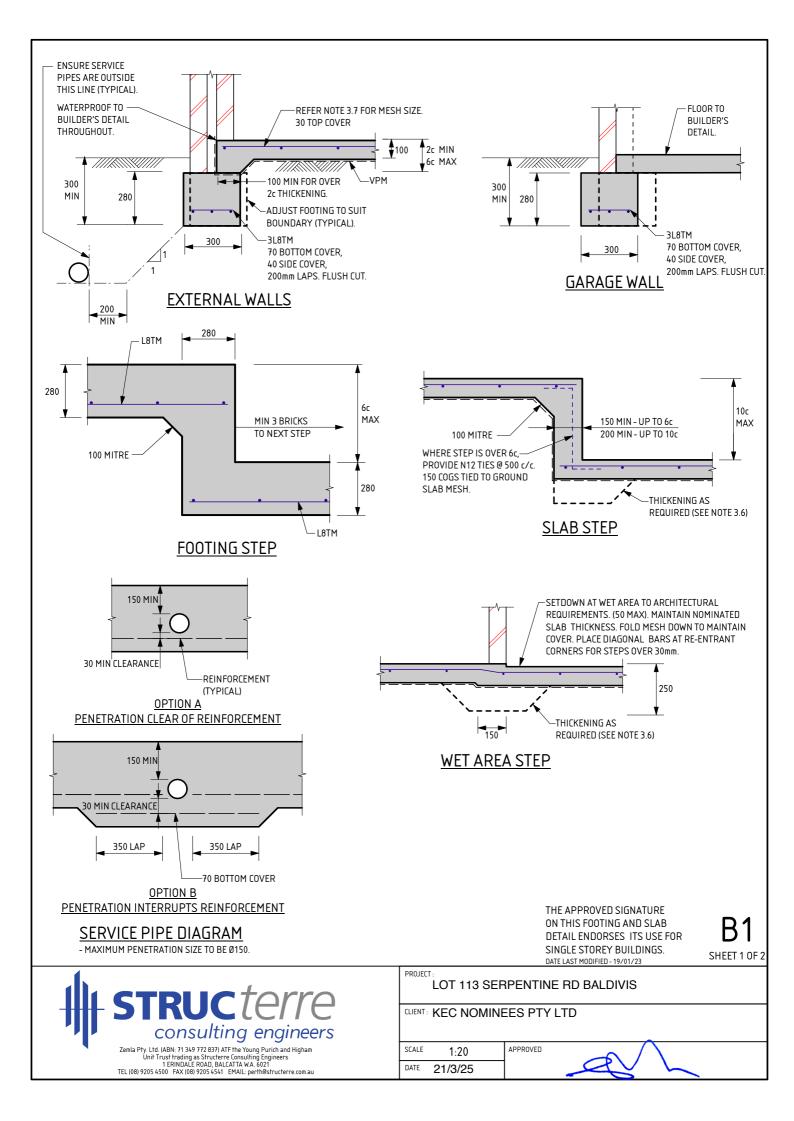
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

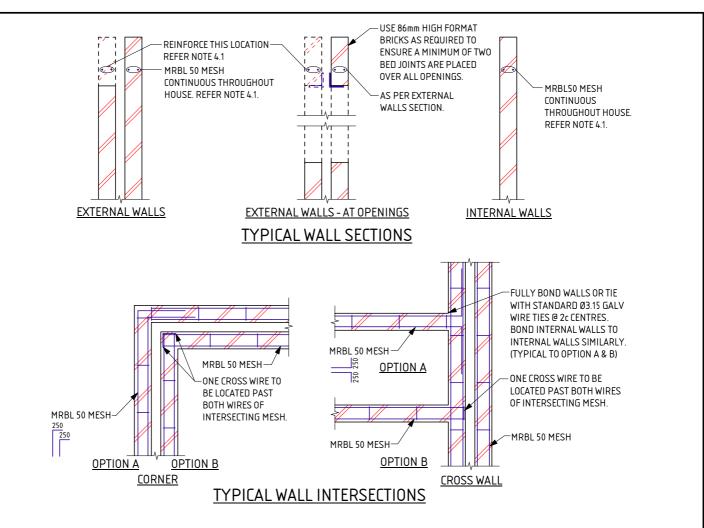
### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620511
Issued Date:	21 March 2025

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING FOSTION UNDER BRICKMORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
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- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

structerre
consulting engineers
Zamla Pty 1 td (ARN: 71 3/9 772 837) ATE the Young Purish and Higham

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

### PROJECT

DATE LAST MODIFIED - 19/01/23

#### SHEET 2 OF 2

#### LOT 113 SERPENTINE RD BALDIVIS

### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 21/3/25

#### 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.
- 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.



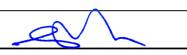
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

# LOT 113 SERPENTINE RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 21/3/25



#### 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.

#### <u>SEISMI</u>C

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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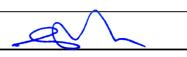
DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021

LOT 113 SERPENTINE RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED DATE 21/3/25

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 126 CUMULUS RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162773
DATE OF ASSESSMENT	18/3/25

**B1** 

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGOR -TOPOGRAPHIC -SHIELDING

(in accordance with AS2870)

	No sand pad required structurally		
	Not in a Bushfire Prone Area (see NOTE 2.)		
N	R3	(Durability Class in accordance with AS3700)	
	N1	(in accordance with AS4055)	
Y	2		
	Т0		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

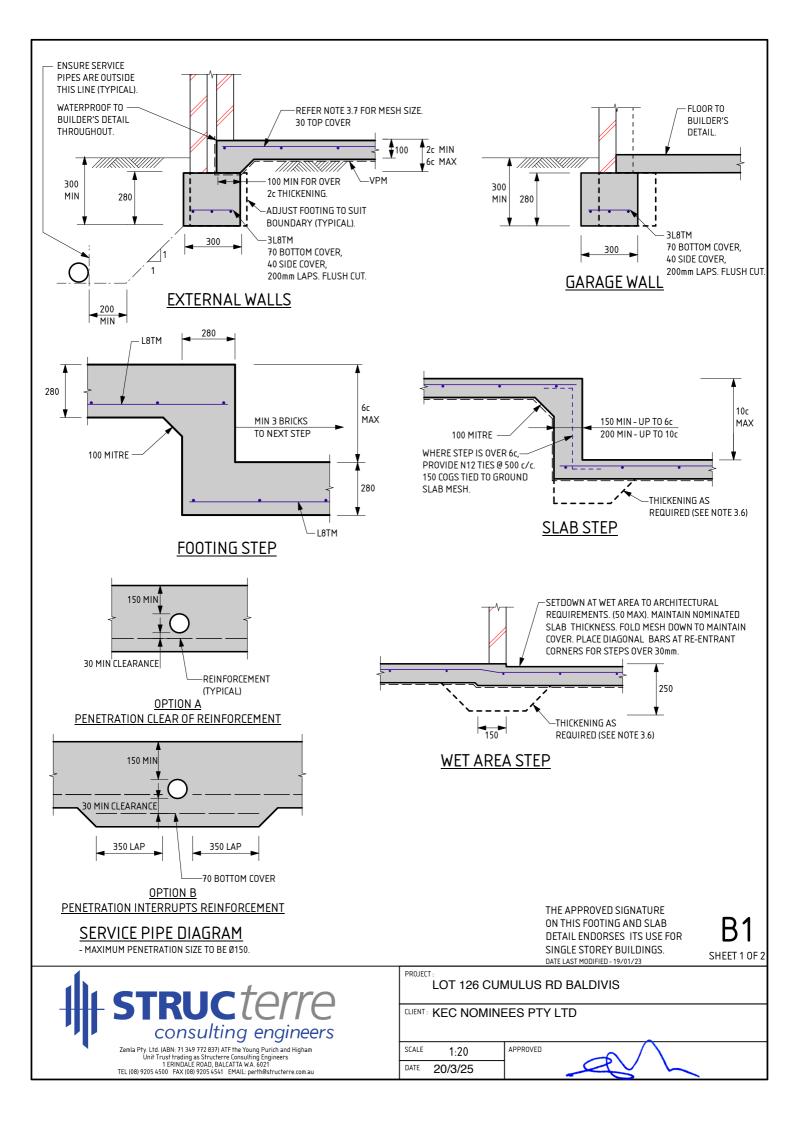
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CERTIFICATE 2620422		
Issued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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#### 1.0 SITE CLASSIFICATION

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rri i*c* terre consulting engineers

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# PROJECT

## LOT 126 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 OF 2

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- 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

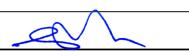


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### LOT 126 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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

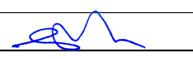
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



LOT 126 CUMULUS RD BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 127 CUMULUS RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162781
DATE OF ASSESSMENT	18/3/25

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)

- (in accordance with AS4055)
- **Full Shielding**

**B1** 

**N1** 

2

T0

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

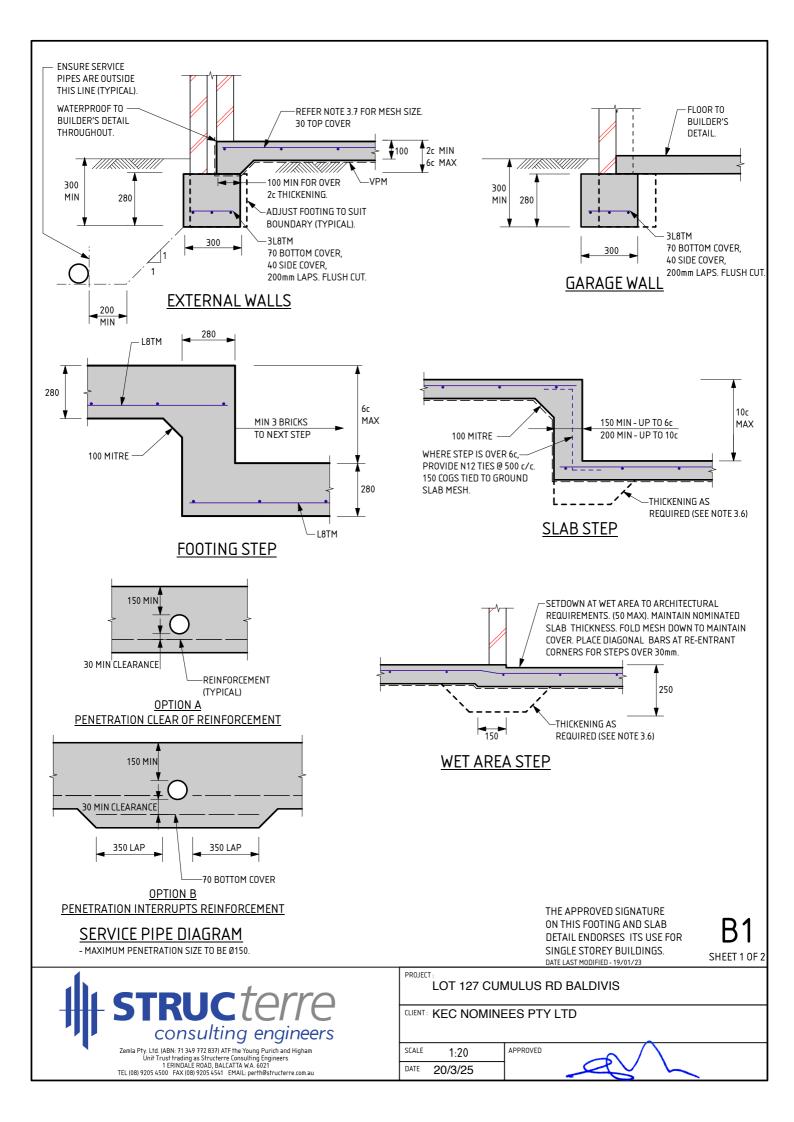
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620421		
ssued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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 PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
  - LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
  - ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
  - 4.4
  - 45
  - ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47
  - USED, ALL SPLICES AND COGS TO BE 500 LONG.

#	<b>STRUC</b> <i>terre</i>
	consulting engineers
	Zemla Ptv. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham

Zemia Pty. Ltd. (ABN: 71 349 772 357) AIF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### DATE LAST MODIFIED - 19/01/23 PROJECT

## LOT 127 CUMULUS RD BALDIVIS

## CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

SHEET 2 OF 2

#### <u>GENERAL</u>

- 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
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  - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION,
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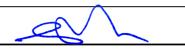


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### LOT 127 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
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- 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

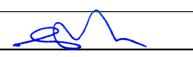
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



LOT 127 CUMULUS RD BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 128 CUMULUS RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162782
DATE OF ASSESSMENT	18/3/25

**B1** 

T0

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

(in accordance with AS2870)

	No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)		
I	R3	(Durability Class in accordance with AS3700)
	N1	(in accordance with AS4055)
,	2	

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

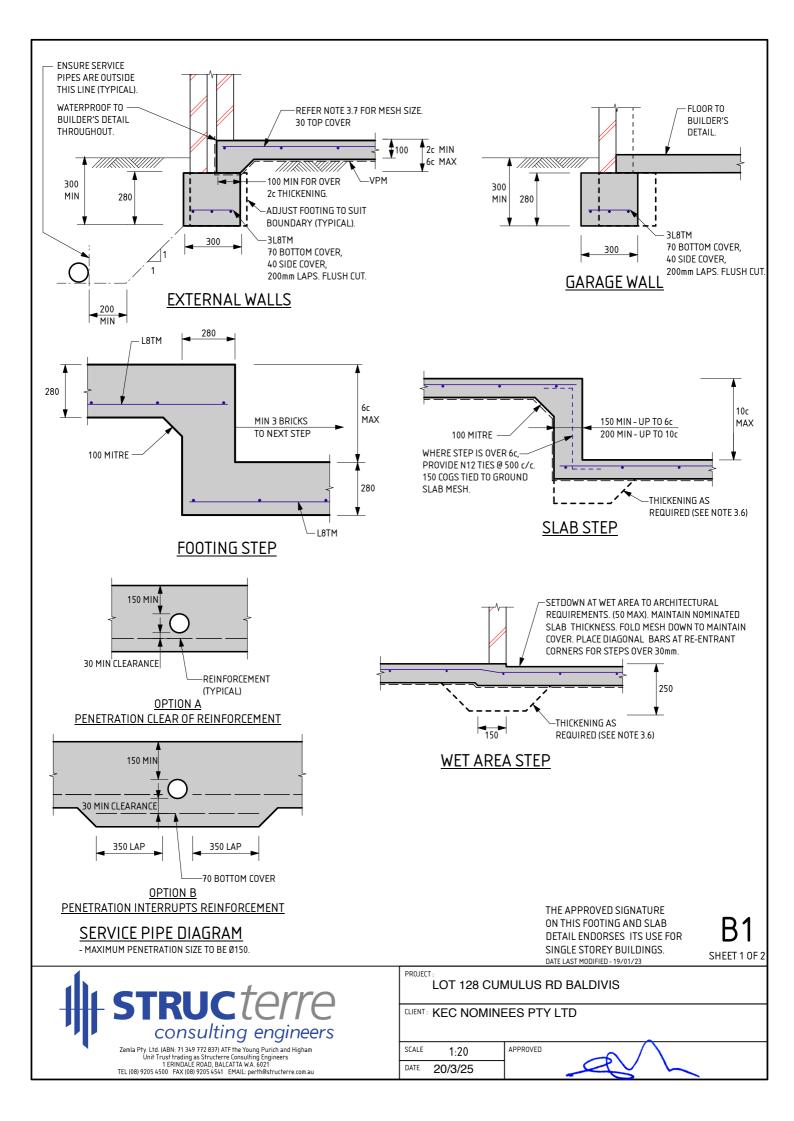
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620420		
ssued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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#### DATE LAST MODIFIED - 19/01/23 PROJECT

#### SHEET 2 OF 2

#### LOT 128 CUMULUS RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### <u>GENERAL</u>

- 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.

PROJECT



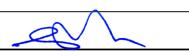
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 128 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.



LOT 128 CUMULUS RD BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD



CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 129 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162762 18/3/25

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

(in accordance with AS2870)

**B1** 

T0

**Full Shielding** 

No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)
N1	(in accordance with AS4055)
2	

# WA | QLD | NSW | VIC

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BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

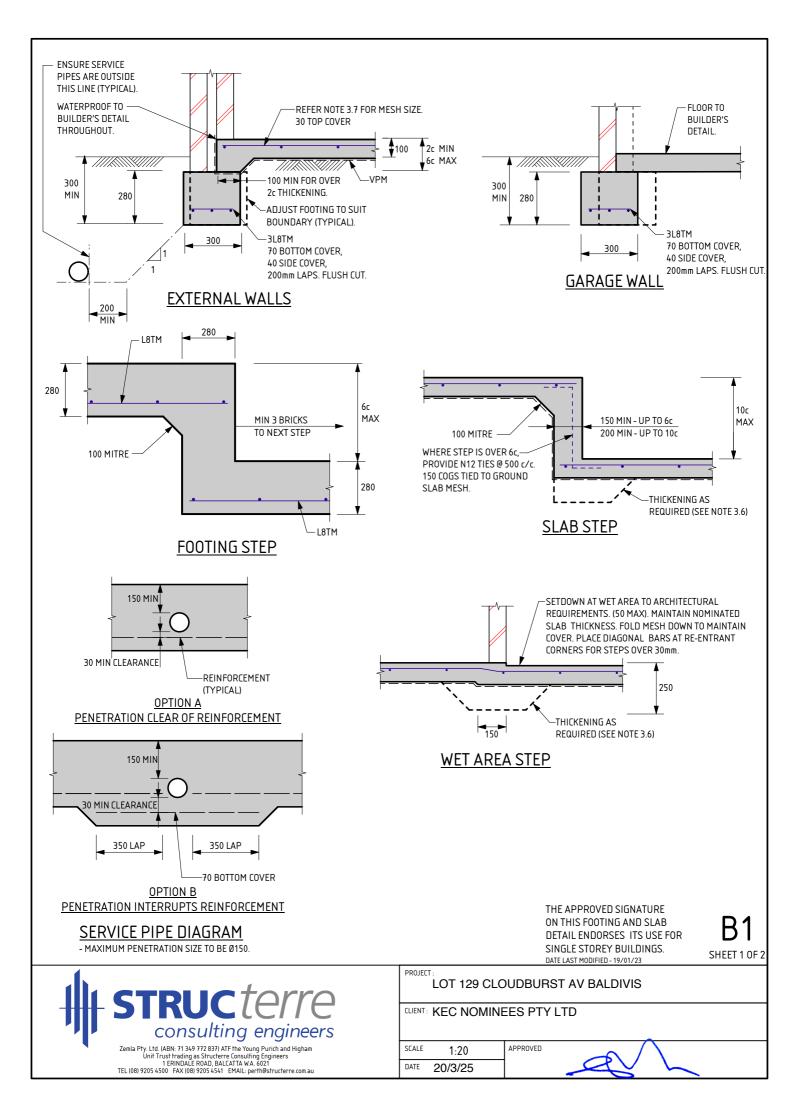
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620433		
ssued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
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- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

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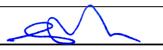
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#### DATE LAST MODIFIED - 19/01/23 PROJECT

# LOT 129 CLOUDBURST AV BALDIVIS

#### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25



SHEET 2 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:
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  - 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
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- 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.

PROJECT



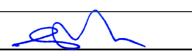
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### LOT 129 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

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 1:20
 APPROVED

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#### 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.

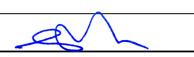


LOT 129 CLOUDBURST AV BALDIVIS

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CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 130 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162763 18/3/25

**B1** 

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

(in accordance with AS2870)	(in	accordance	with	AS2870
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No san	No sand pad required structurally		
Not in a	Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)		
N1	(in accordance with AS4055)		
2			
T0			

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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

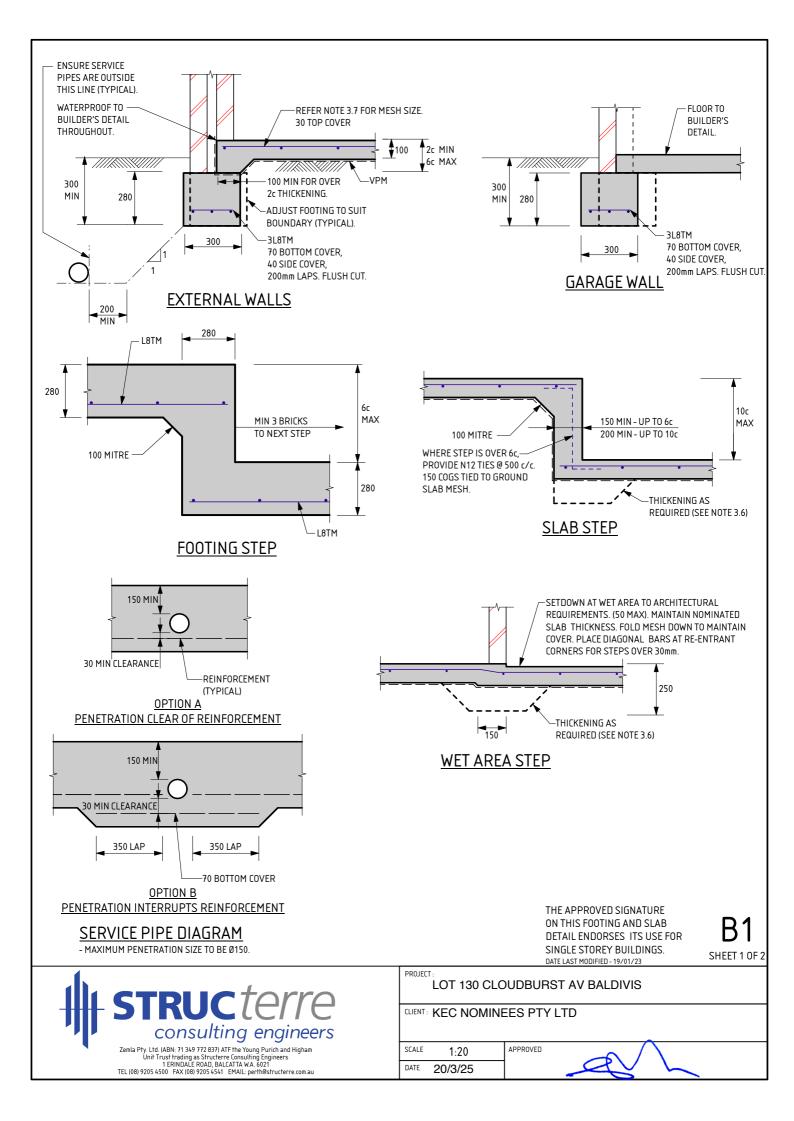
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620427
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
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#### PROJECT LOT 130 CLOUDBURST AV BALDIVIS

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APPROVED SCALE 1:20 DATE 20/3/25

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#### **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.

PROJECT



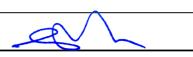
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 130 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

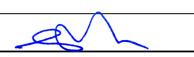


LOT 130 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 131 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162788
DATE OF ASSESSMENT	18/3/25

### SITE RECORD



SITE CLASSIFICATION
FOOTING DETAIL
SAND PAD
BUSHFIRE PRONE AREA
CORROSION CLASSIFICATION
WIND CLASSIFICATION
-TERRAIN CATEGORY
-TOPOGRAPHIC

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	

- (in accordance with AS4055)
- T0
- -SHIELDING

# **Full Shielding**

**B1** 

**N1** 2

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone) - yellow; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

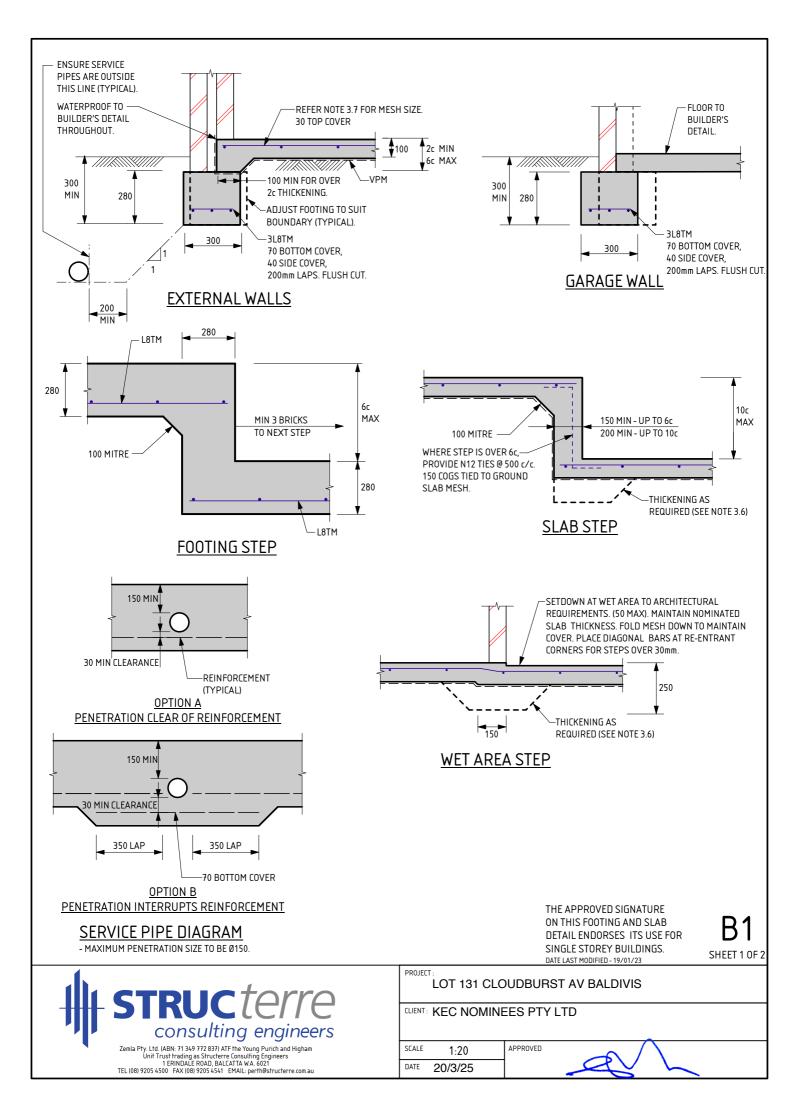
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620432		
Issued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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
- EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR. CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
- 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

<b>STRUC</b> <i>terre</i>
consulting engineers
Zemla Ptv 1 td. (ABN: 71 349 772 837) ATE the Young Purich and Hinham

Zemla Pty. Ltd. (ABN: 71 349 772 487) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 131 CLOUDBURST AV BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.



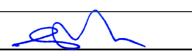
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 131 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

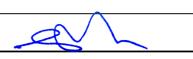


LOT 131 CLOUDBURST AV BALDIVIS

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 132 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162789
DATE OF ASSESSMENT	18/3/25

Α

**B1** 

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		
Т0		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

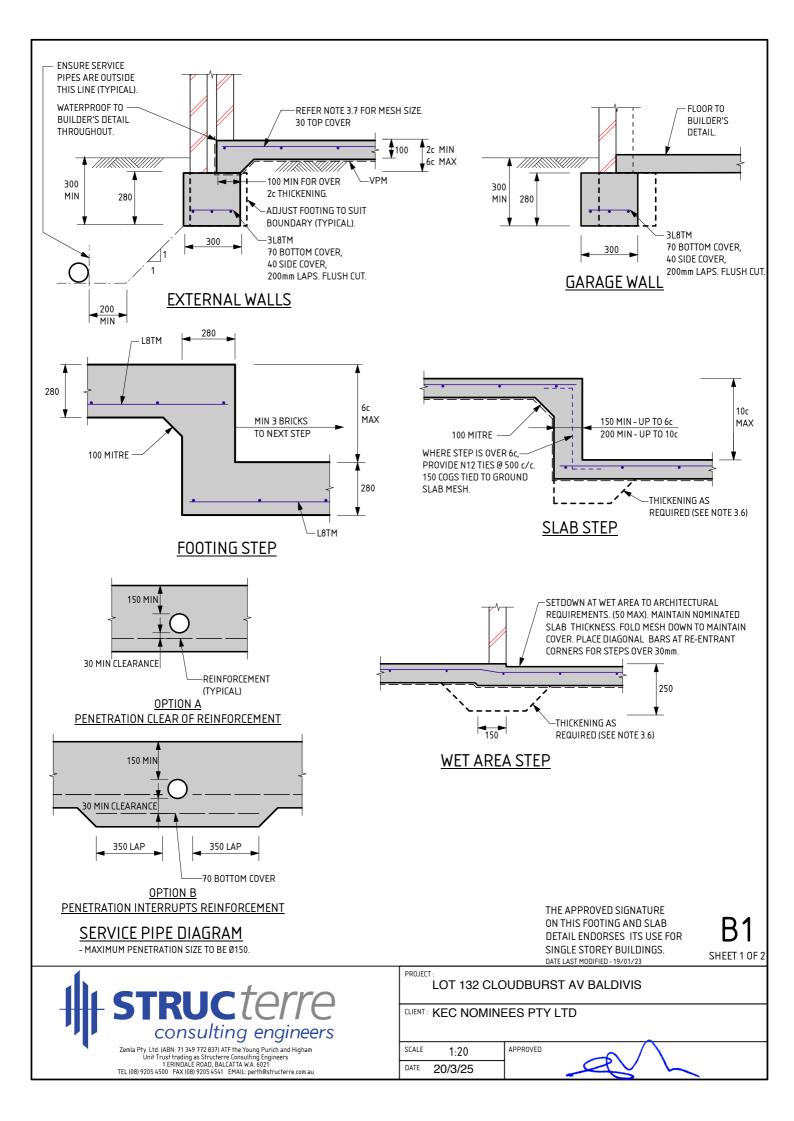
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620429
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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
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#### 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.
- 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.

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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
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	Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham

2emia Pry. Lto. (Abir: 71.549 77.2037) Arr Fildung Purital and Pignain Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### PROJECT

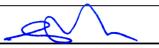
DATE LAST MODIFIED - 19/01/23

SHEET 2 OF 2

### LOT 132 CLOUDBURST AV BALDIVIS

#### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25



#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



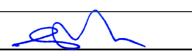
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 132 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

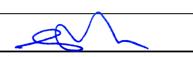


LOT 132 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 133 CUMULUS RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162778
DATE OF ASSESSMENT	18/3/25

Α

**B1** 

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		
Т0		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone) - yellow; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

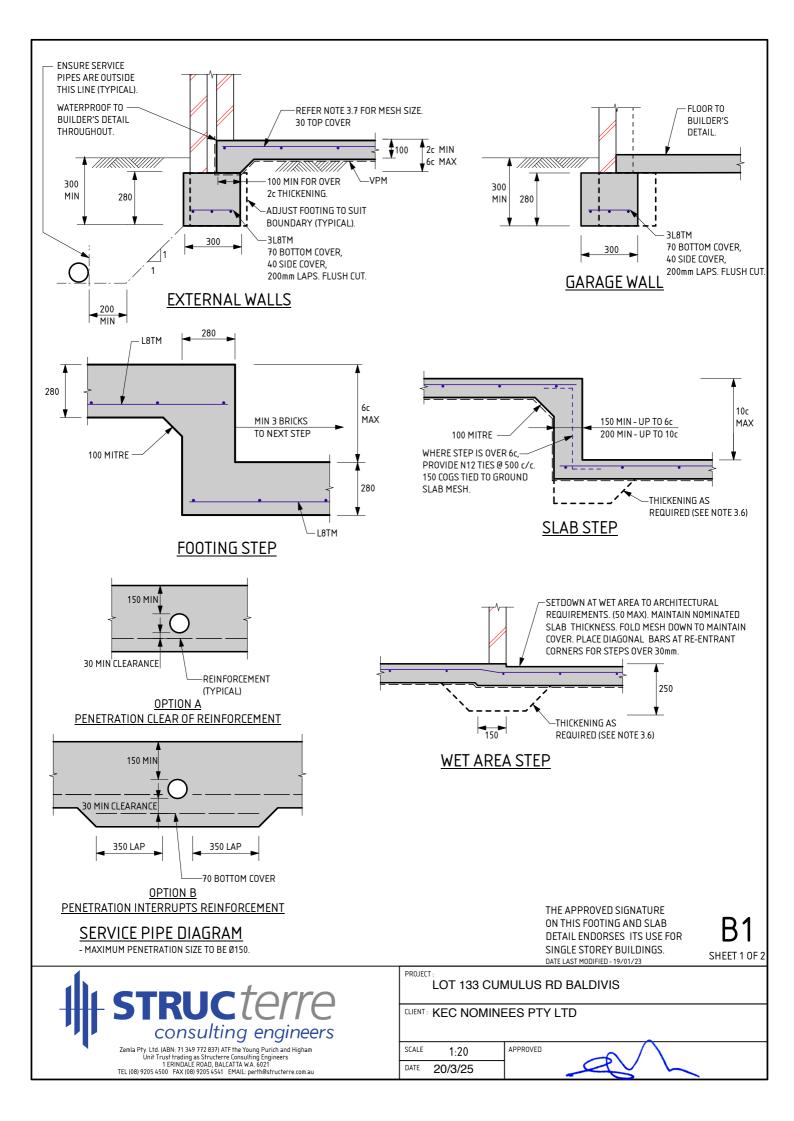
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CERTIFICATE	2620425
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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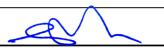
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#### DATE LAST MODIFIED - 19/01/23 PROJECT

### LOT 133 CUMULUS RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25



SHEET 2 OF 2

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- 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.

PROJECT



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

# LOT 133 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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

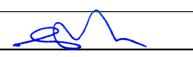
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



LOT 133 CUMULUS RD BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 134 CUMULUS RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162785
DATE OF ASSESSMENT	18/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC

No sand pad required structurally

# Not in a Bushfire Prone Area (see NOTE 2.)

(Durability Class in accordance with AS3700)

(in accordance with AS4055)

-SHIELDING

Full Shielding

**B1** 

R3

**N1** 

2

T0

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

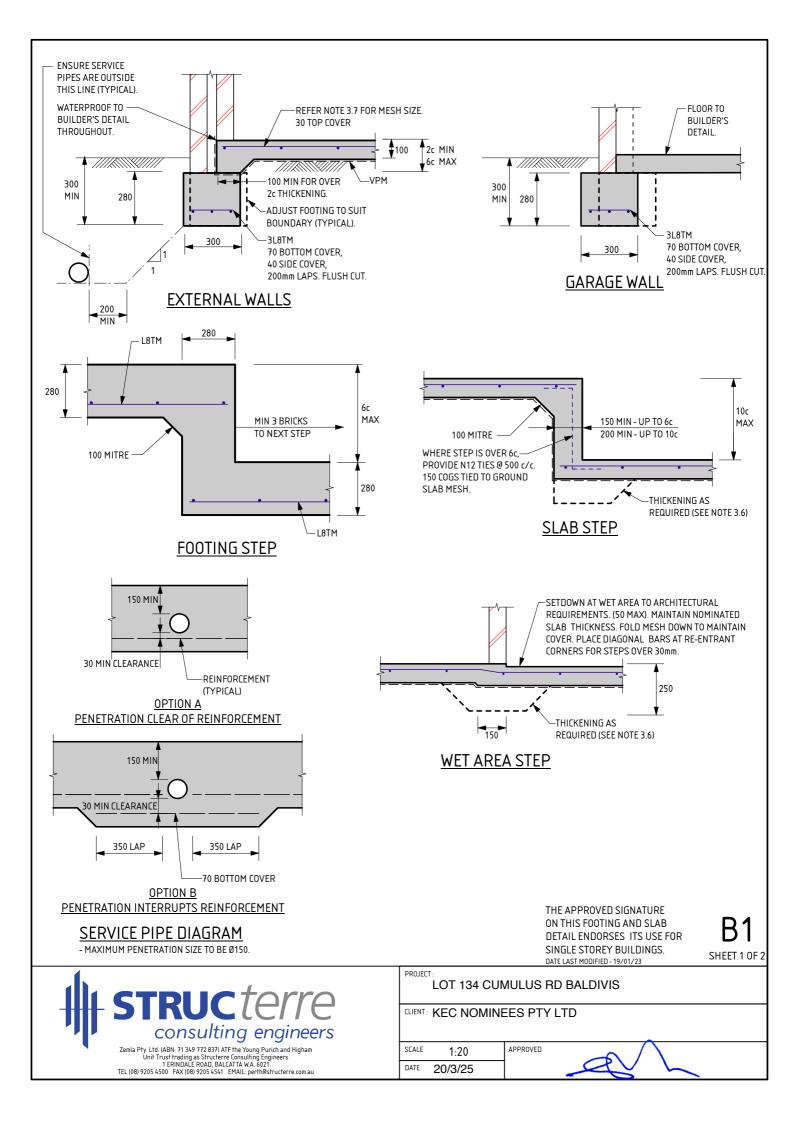
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620424
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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#### PROJECT LOT 134 CUMULUS RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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,
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- 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.

PROJECT



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# LOT 134 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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

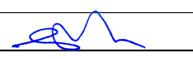
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



LOT 134 CUMULUS RD BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 135 CUMULUS RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162786 18/3/25

**B1** 

T0

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

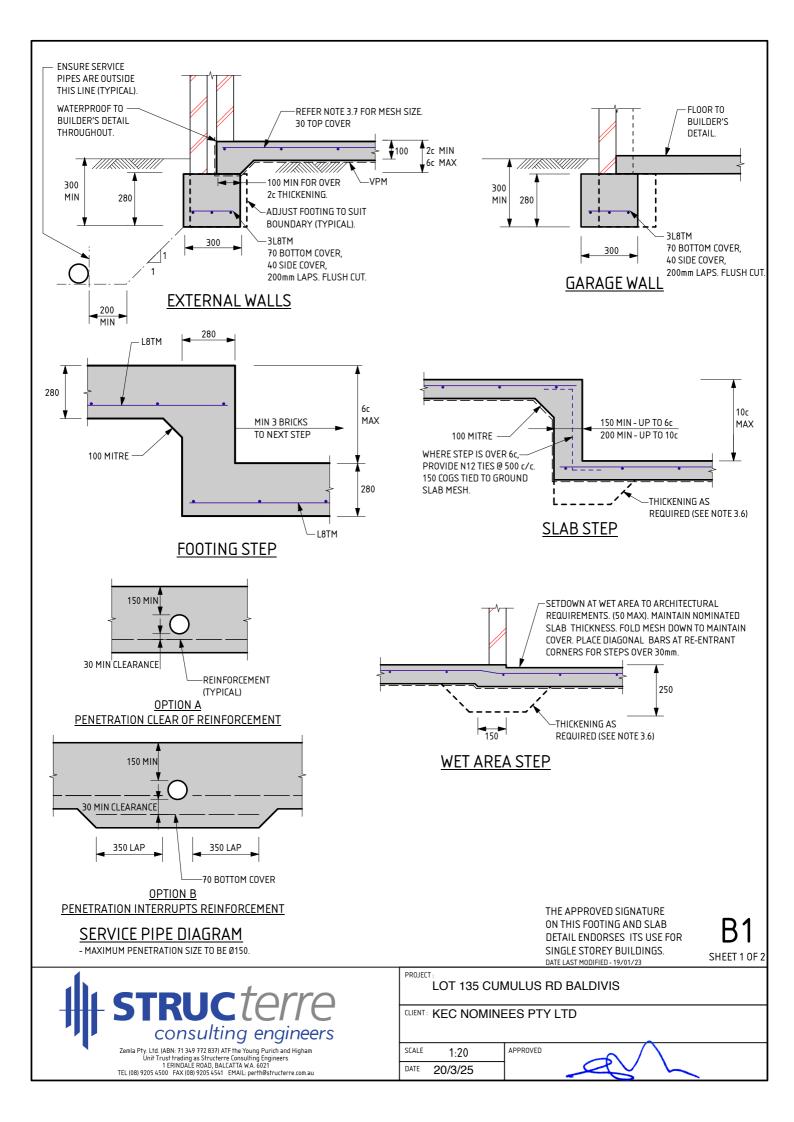
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

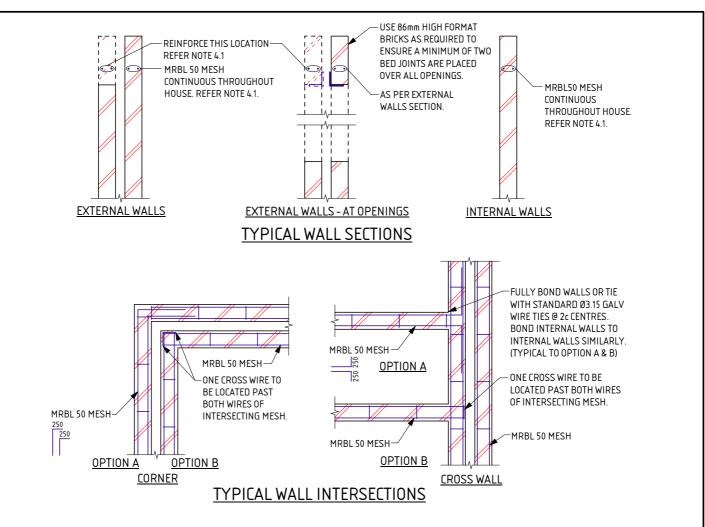
# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620423
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
- 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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 WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### PROJECT

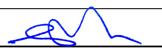
DATE LAST MODIFIED - 19/01/23

#### SHEET 2 OF 2

#### LOT 135 CUMULUS RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25



#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



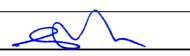
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

# LOT 135 CUMULUS RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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

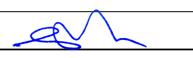
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



LOT 135 CUMULUS RD BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 148 PREVAILING RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162971 19/3/25

Α

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATIO WIND CLASSIFICATION -TERRAIN CATEGOR -TOPOGRAPHIC

-SHIELDING

(in accordance with AS2870)

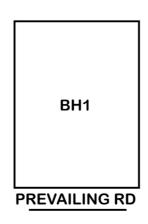
	B1	
	No sand pad required structurally	
	Not in a Bushfire Prone Area (see NOTE 2.)	
ON	R3	(Durability Class in accordance with AS3700)
	N1	(in accordance with AS4055)
RΥ	2	
	Т0	
	Full Shie	lding

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

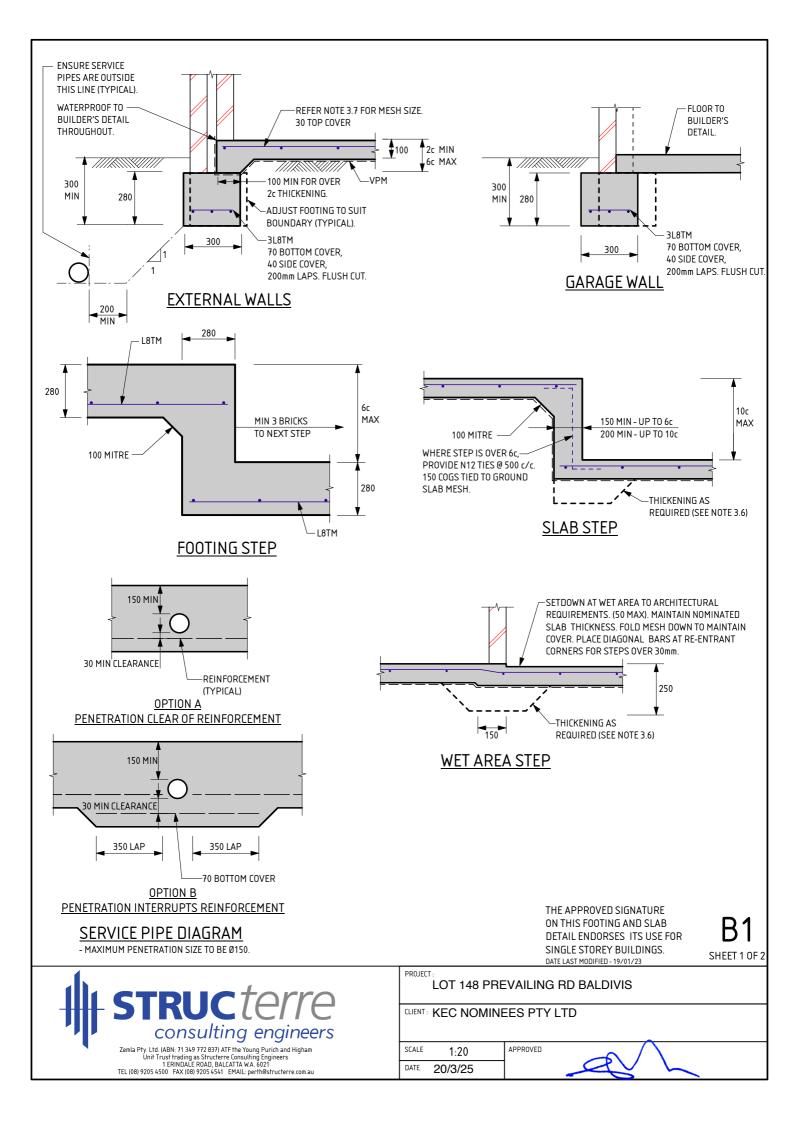
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620451
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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
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  - 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 0.07mm) 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.
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- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 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
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
- 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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#### PROJECT LOT 148 PREVAILING RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

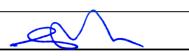


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# LOT 148 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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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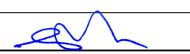
LOT 148 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 149 PREVAILING RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162969
DATE OF ASSESSMENT	19/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC

-SHIELDING

(in accordance with AS2870)

B1		
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# Full Shielding

Α

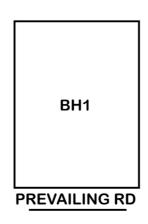
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# WA | QLD | NSW | VIC

1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

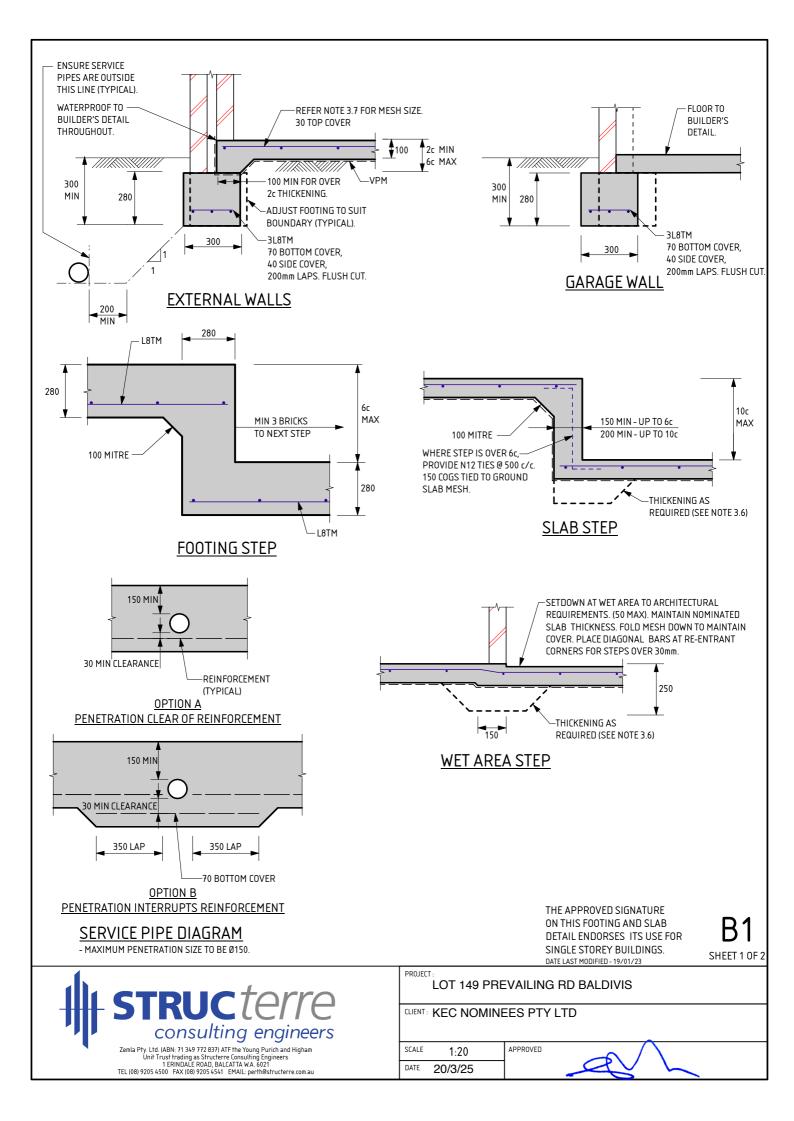
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620452			
Issued Date:	20 March 2025		

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

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  - TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE
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- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 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
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN SHOULD BE REFERRED BACK
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- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
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#### PROJECT LOT 149 PREVAILING RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 OF 2

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- 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.

PROJECT

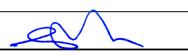


Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

# LOT 149 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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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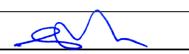
LOT 149 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 150 PREVAILING RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162968 19/3/25

Α

**B1** 

T0

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

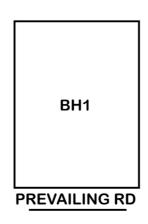
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
(Durability Class in accordance with AS3700)		
(in accordance with AS4055)		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

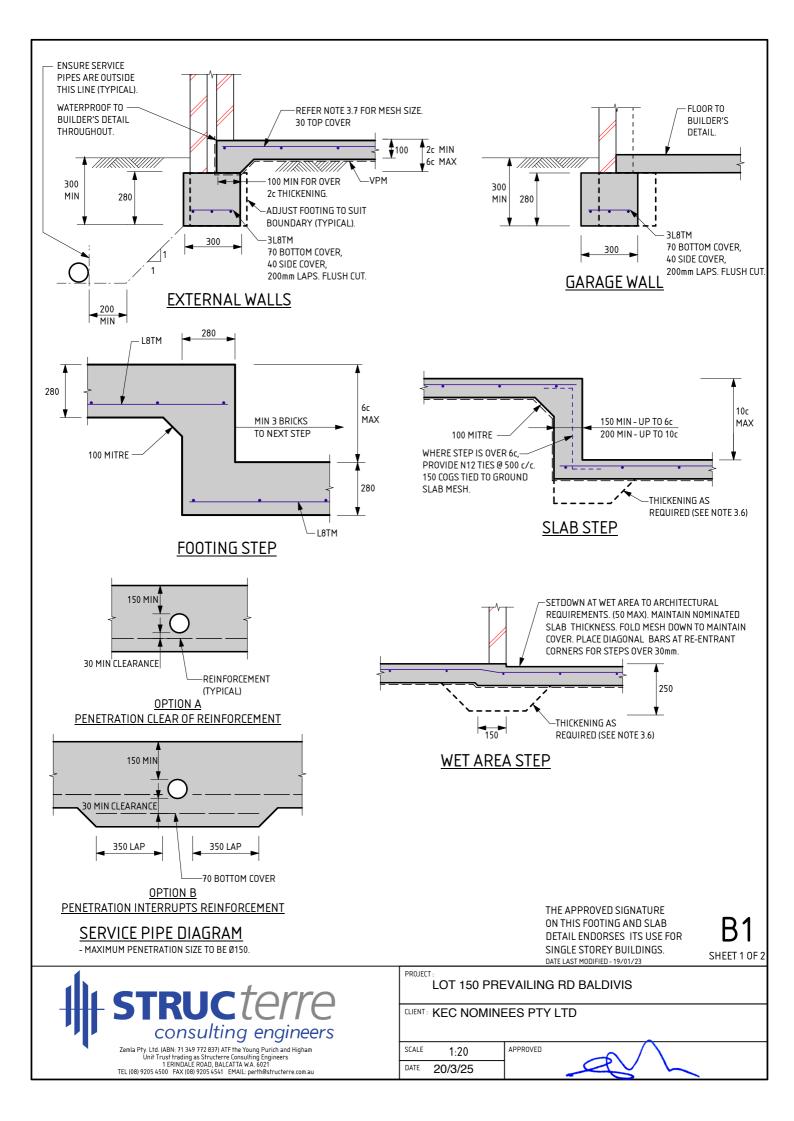
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

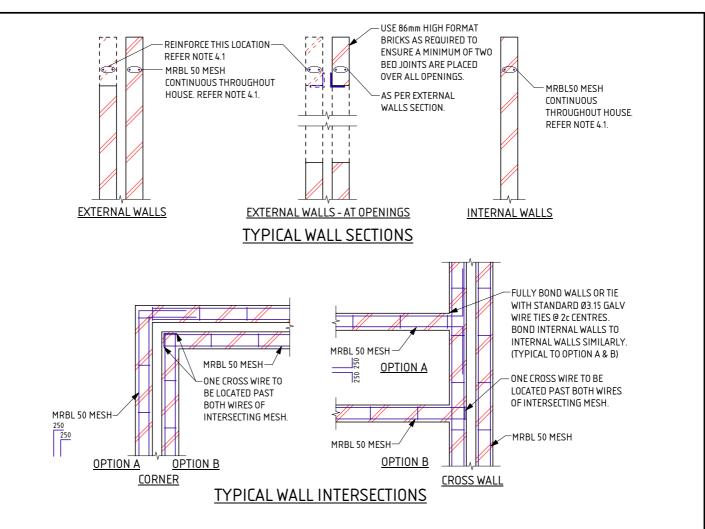
# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620453
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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
- EXCAVATIONS FOR ALL SERVICE PIPES NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR. CONTACT THE ENGINEER PRIOR TO PROCEEDING.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

structerre
consulting engineers
Zemla Pty 1 td. (ABN: 71 349 772 837) ATE the Young Purish and Hinham

Zemla Pty. Ltd. (ABN: 71 349 772 487) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 150 PREVAILING RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

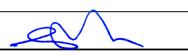


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# LOT 150 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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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LOT 150 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 151 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162791
DATE OF ASSESSMENT	18/3/25

Α

**B1** 

T0

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)
N1	(in accordance with AS4055)
2	

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

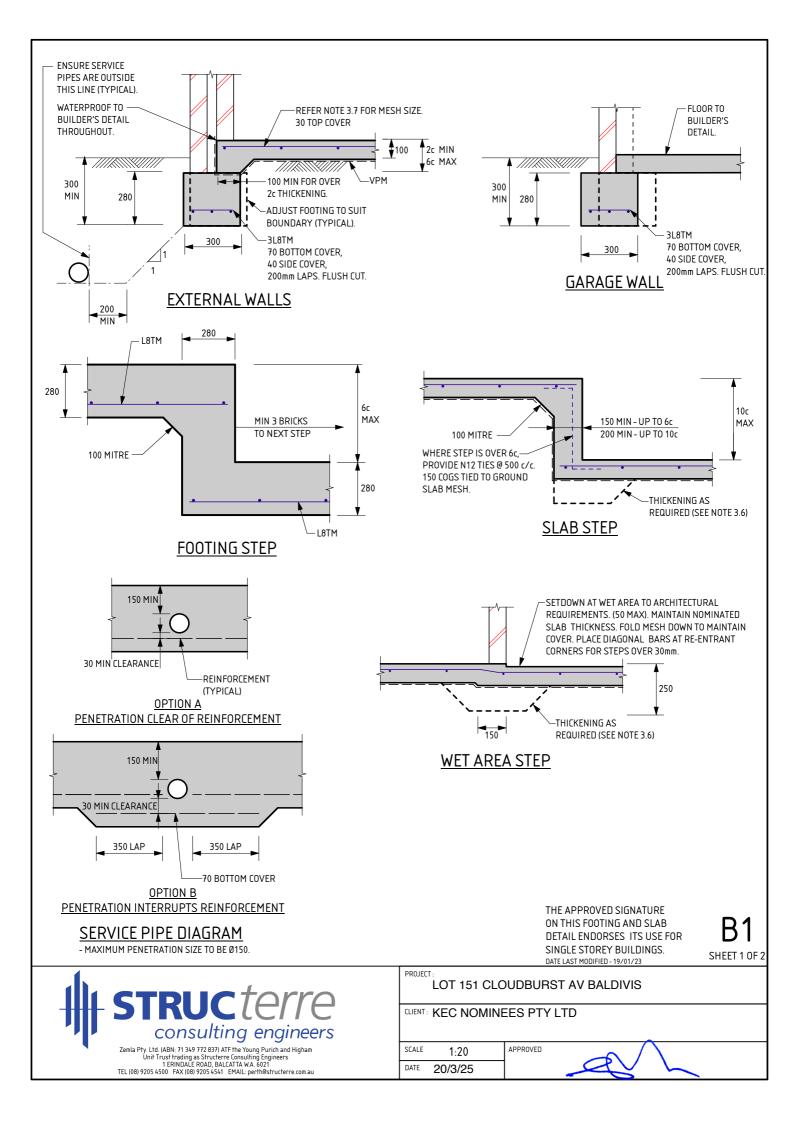
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620430
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

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    - Ν
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  - NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
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- 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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 WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 151 CLOUDBURST AV BALDIVIS

### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.



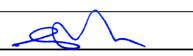
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#### PROJECT: LOT 151 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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

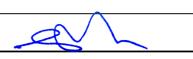
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



LOT 151 CLOUDBURST AV BALDIVIS

SCALE 1:20 APPROVED
DATE 20/3/25

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 152 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162792 18/3/25

**B1** 

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

(in accordance	with AS2870)
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No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)
N1	(in accordance with AS4055)
2	
Т0	

# WA | QLD | NSW | VIC

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BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 1800 end of hole.

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(Reference:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

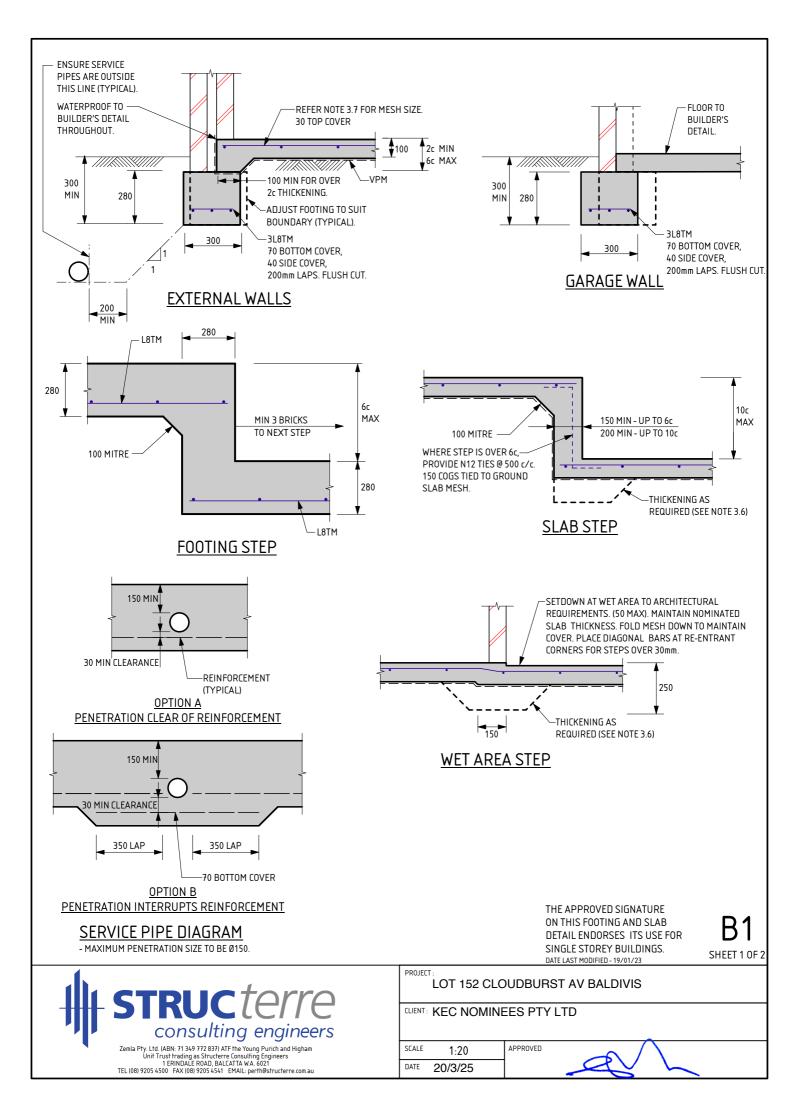
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CERTIFICATE	2620431
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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

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- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

#	structerre
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#### PROJECT

DATE LAST MODIFIED - 19/01/23

### LOT 152 CLOUDBURST AV BALDIVIS

#### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

SHEET 2 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.

PROJECT



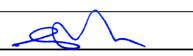
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### LOT 152 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

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#### 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.



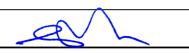
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CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 153 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163023 19/3/25

**B1** 

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

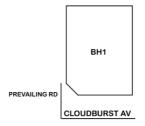
	No sand pad required structurally	
	Not in a Bushfire Prone Area (see NOTE 2.)	
I	R3	(Durability Class in accordance with AS3700)
	N1	(in accordance with AS4055)
	2	
	Т0	

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

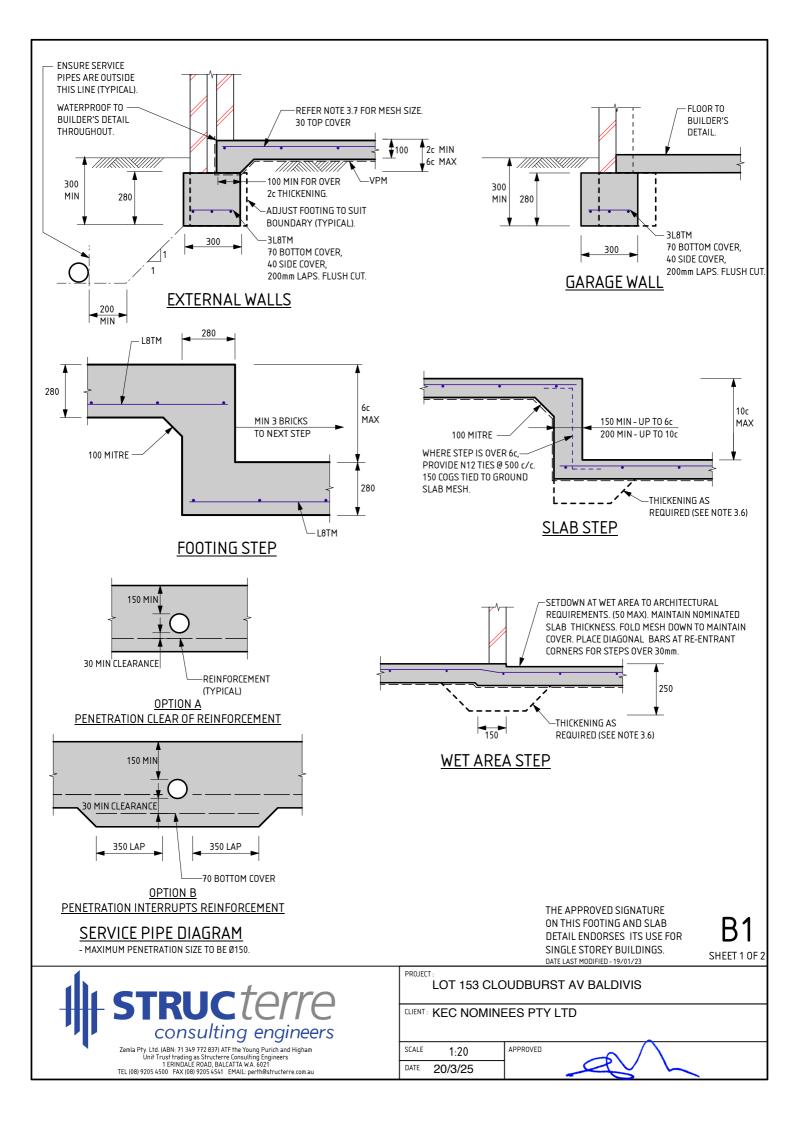
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620418
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
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SHEET 2 OF 2

### LOT 153 CLOUDBURST AV BALDIVIS

#### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25



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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.

PROJECT



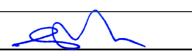
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 153 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.



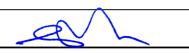
LOT 153 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 154 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163024 19/3/25

**B1** 

T0

**Full Shielding** 

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

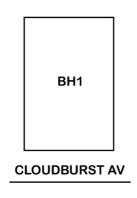
No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)
N1	(in accordance with AS4055)
2	

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

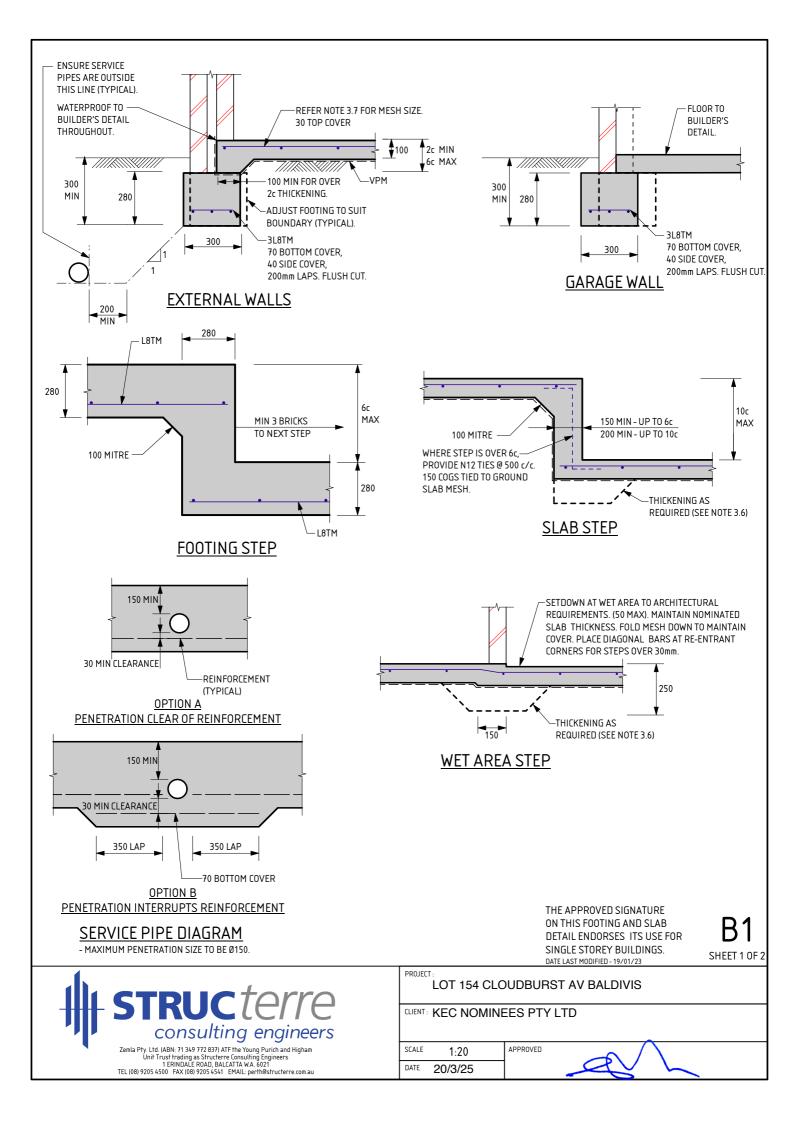
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620434	
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 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
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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 WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 154 CLOUDBURST AV BALDIVIS

### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.



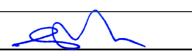
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#### PROJECT: LOT 154 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

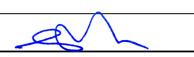


LOT 154 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 155 PREVAILING RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162976 19/3/25

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC

**B1** No sand pad required structurally Not in a Bushfire Prone Area (see NOTE 2.)

### (Durability Class in accordance with AS3700)

(in accordance with AS4055)

R3

**N1** 

2

T0

**Full Shielding** 

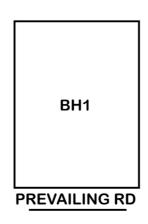
-SHIELDING

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

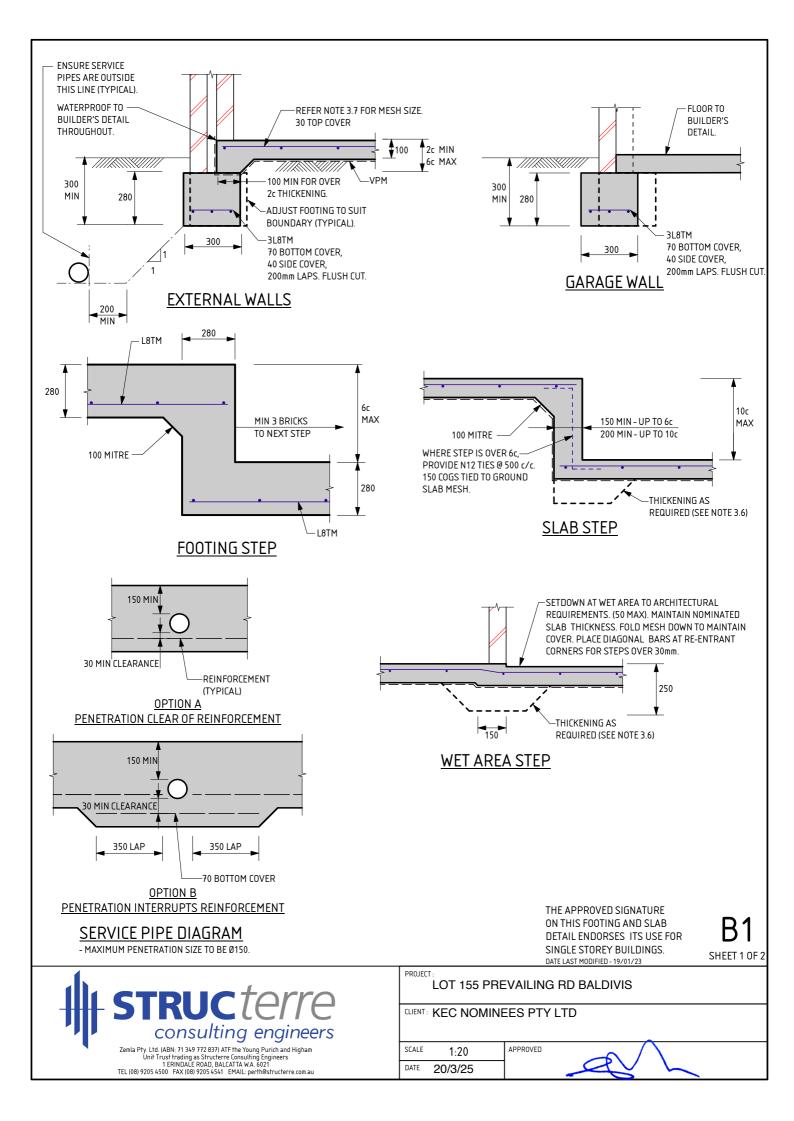
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620442	
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 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
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

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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 WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### DATE LAST MODIFIED - 19/01/23 PROJECT

#### SHEET 2 OF 2

#### LOT 155 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

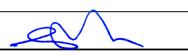


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### LOT 155 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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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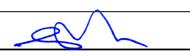
LOT 155 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 156 PREVAILING RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162973 19/3/25

### SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		
Т0		

### Full Shielding

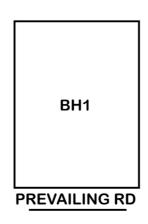
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# WA | QLD | NSW | VIC

1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email Wageotechsite@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

### 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

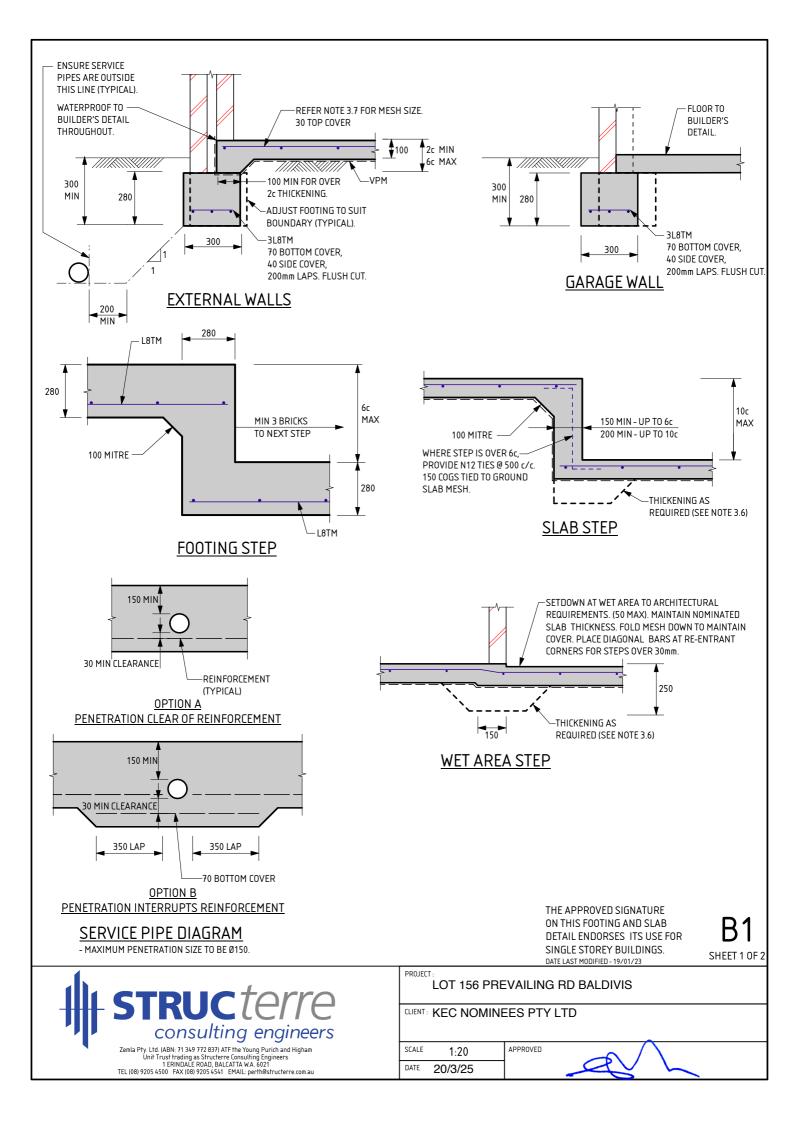
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620455	
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

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  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

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  - TM SUFFIX INDICATES TRENCH MESH USING DEFORMED BARS D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE
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- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 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
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- 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 PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
  - LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
  - ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
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  - ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

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#### PROJECT LOT 156 PREVAILING RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

SHEET 2 OF 2

DATE LAST MODIFIED - 19/01/23

#### GENERAL

- 1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
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- 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.
- 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.

PROJECT

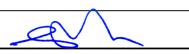


Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 156 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALLENTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021

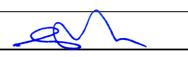
LOT 156 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 157 PREVAILING RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162972 19/3/25

**B1** 

T0

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

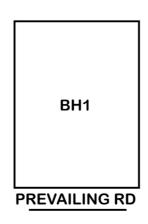
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

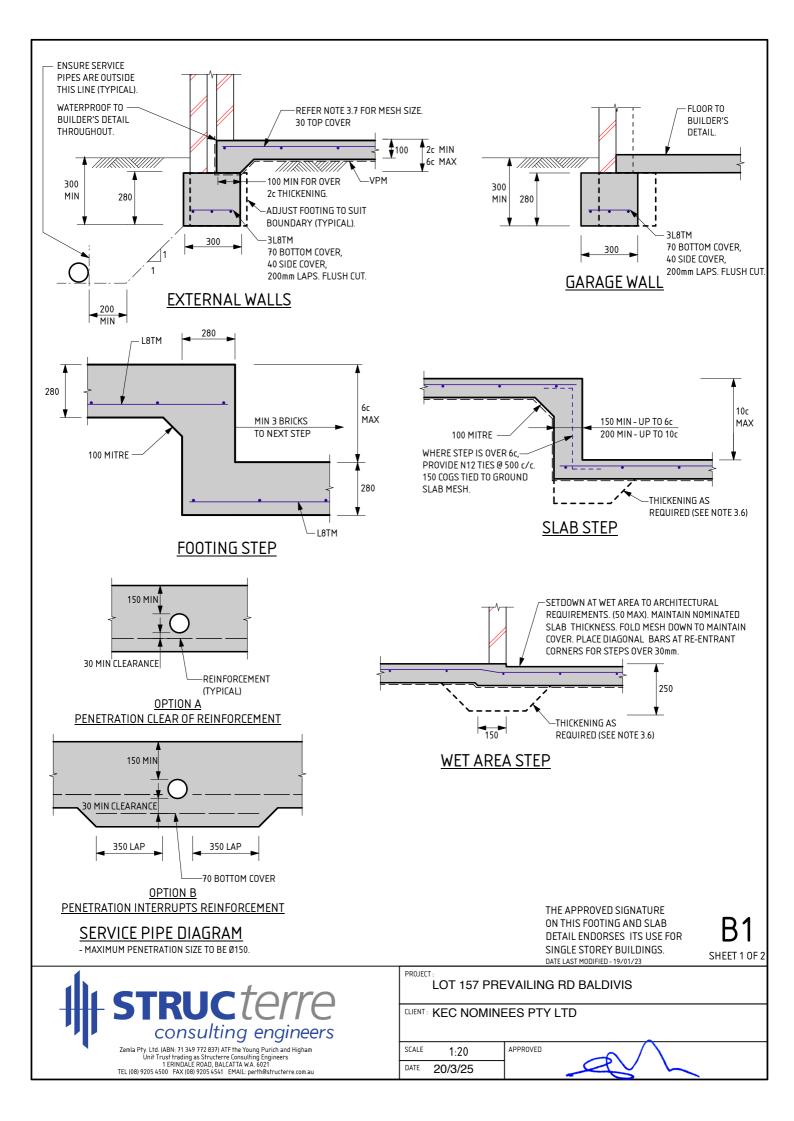
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

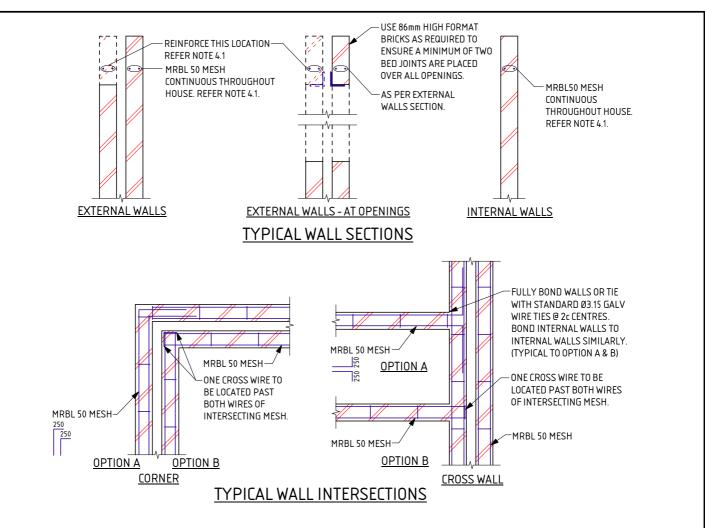
### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620454
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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#### DATE LAST MODIFIED - 19/01/23 PROJECT

#### LOT 157 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

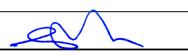


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### LOT 157 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCHTAT WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021

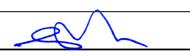
LOT 157 PREVAILING RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 172 GUSTANO RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163013 19/3/25
DATE OF ACCECOMENT	19/3/23

Α

**B1** 

T0

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC

-SHIELDING

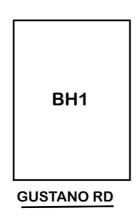
(in accordance with AS2870)

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

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@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 Structere Consulting Engineers

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

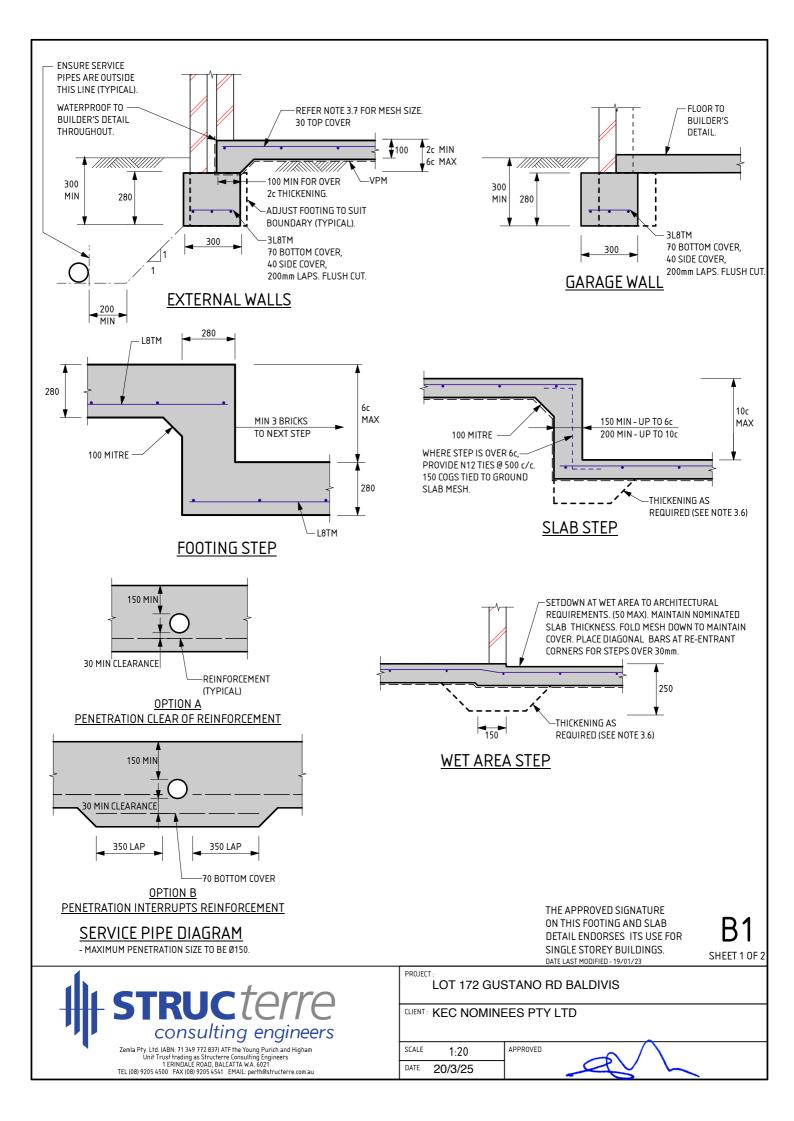
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620445
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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 WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### DATE LAST MODIFIED - 19/01/23 PROJECT

#### LOT 172 GUSTANO RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



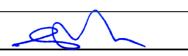
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 172 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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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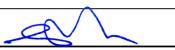
SCALE 1:20 APPROVED

CLIENT: KEC NOMINEES PTY LTD

PROJECT

DATE

20/3/25





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 173 GUSTANO RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163014
DATE OF ASSESSMENT	19/3/25

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC

-SHIELDING

(in accordance with AS2870)

No sand pad required structurally		
No salid pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R1	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		
Т0		

# Full Shielding

Α

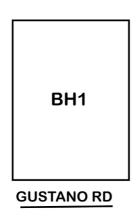
**B1** 

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

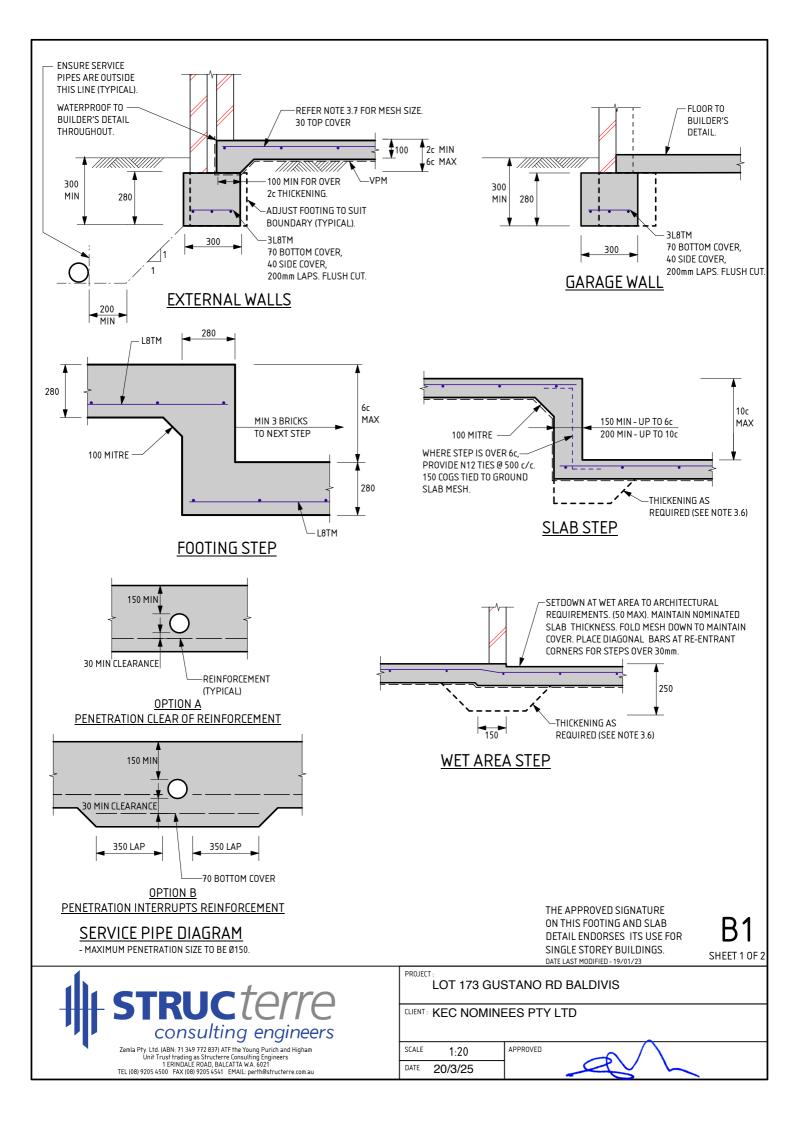
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620444
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

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#### DATE LAST MODIFIED - 19/01/23 PROJECT

## LOT 173 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

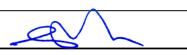


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### LOT 173 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



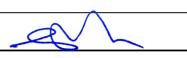
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 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

CLIENT: KEC NOMINEES PTY LTD

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 174 GUSTANO RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163015 19/3/25

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY (in accordance with AS2870)

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R1	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# -TOPOGRAPHIC

-SHIELDING

# Full Shielding

Α

**B1** 

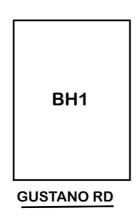
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# WA | QLD | NSW | VIC

1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email Wageotechsite@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

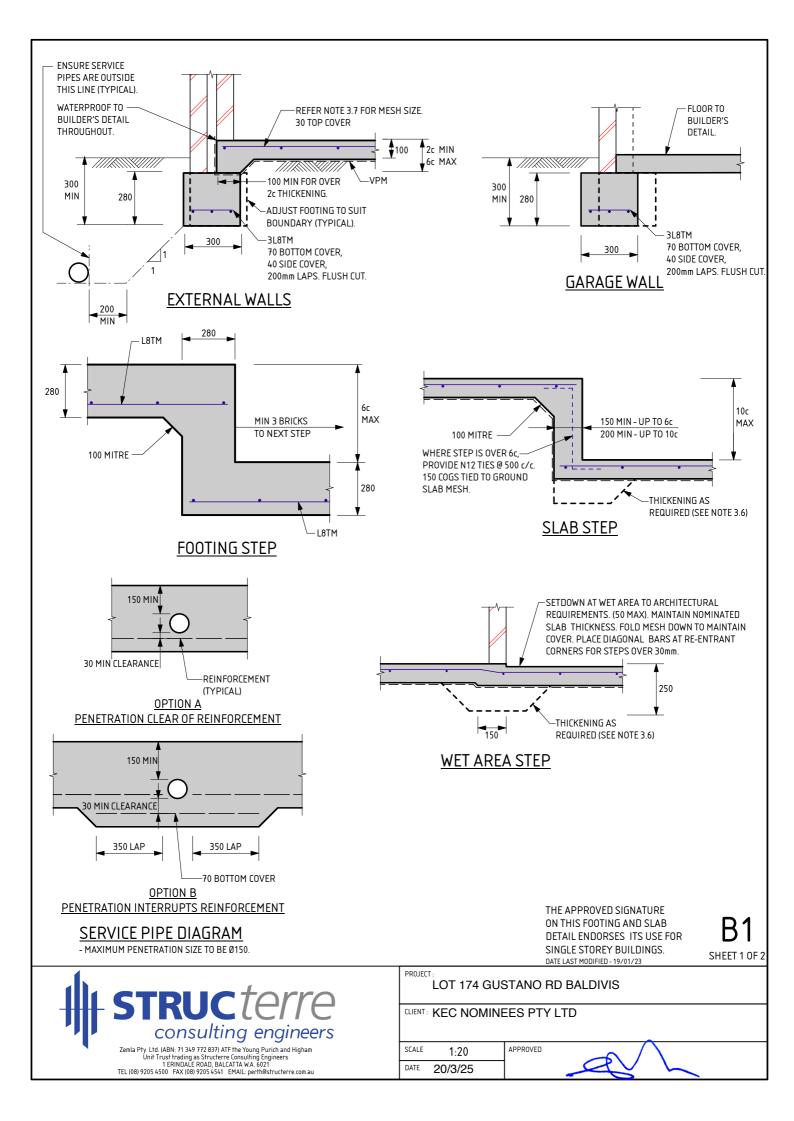
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620443
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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:
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#### DATE LAST MODIFIED - 19/01/23 PROJECT

#### LOT 174 GUSTANO RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

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- 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.

PROJECT

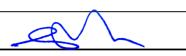


Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 174 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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

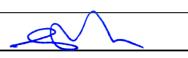
25. THE CORROSION CLASSIFICATION HAS BEEN ASSESSED IN ACCORDANCE WITH AS3700.



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SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 175 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163025 19/3/25
	10/0/20

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC

-SHIELDING

(in accordance with AS2870)

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		
TO		

### **Full Shielding**

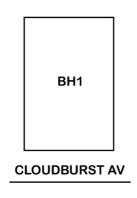
**B1** 

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

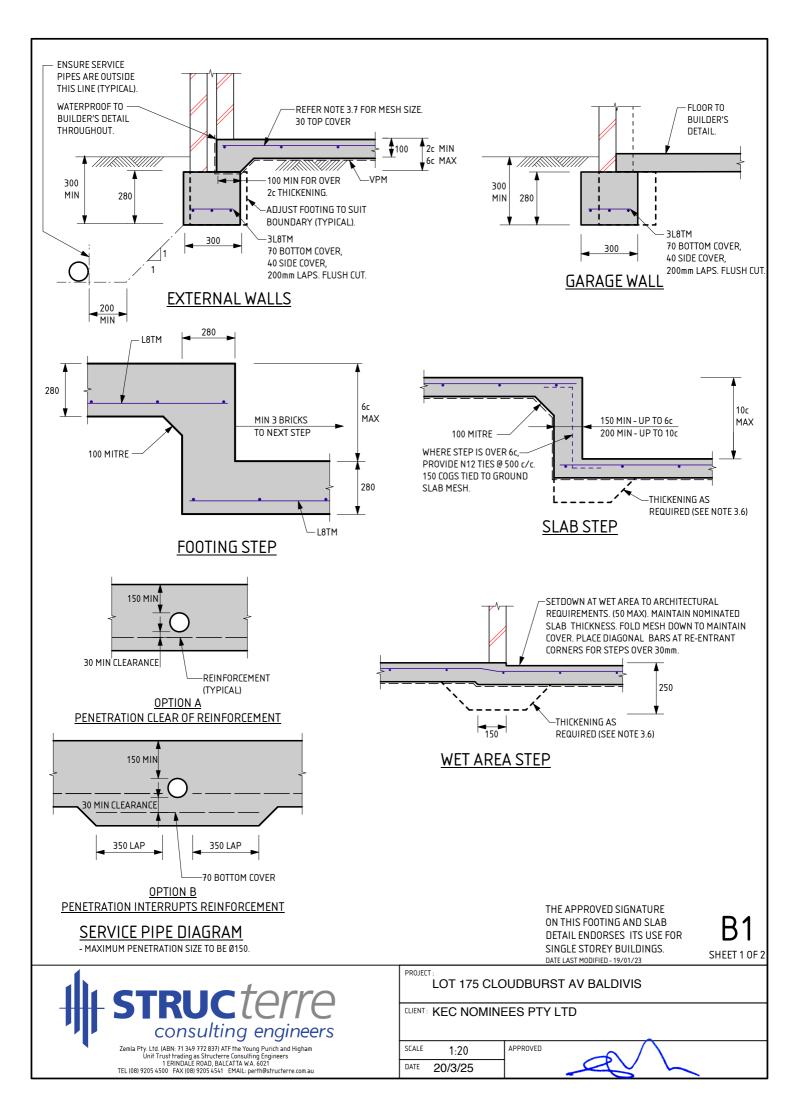
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620435		
Issued Date:	20 March 2025	

Signed: Gervase Purich Chief Executive Officer





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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3 4.4
- 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

#	structerre
	consulting engineers
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#### PROJECT LOT 175 CLOUDBURST AV BALDIVIS

### CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



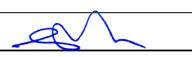
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### LOT 175 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

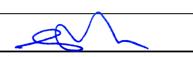


LOT 175 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 176 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1163026
DATE OF ASSESSMENT	19/3/25

Α

**Full Shielding** 

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

B1		
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		
то		

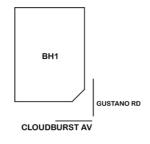
(in accordance with AS2870)

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

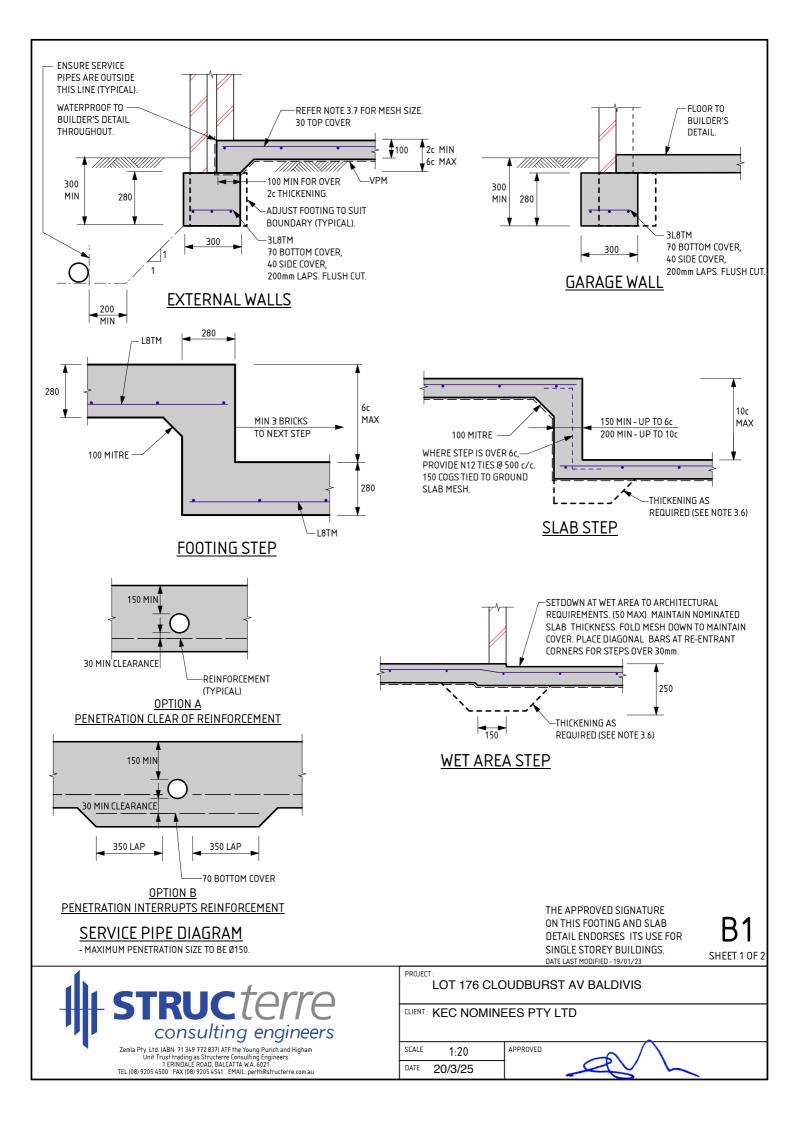
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620436	
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

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    - Ν
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  - NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 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
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

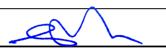
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 176 CLOUDBURST AV BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23



#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



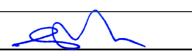
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### LOT 176 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

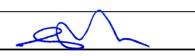


LOT 176 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 177 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163027 19/3/25

**B1** 

T0

**Full Shielding** 

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
(Durability Class in accordance with AS3700)		
(in accordance with AS4055)		

# WA | QLD | NSW | VIC

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BOREHOLE 1: 0 - 1800 FILL sand - brown; 1800 end of hole.

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## **ADDITIONAL NOTES / REQUIREMENTS**

### **Site Condition**

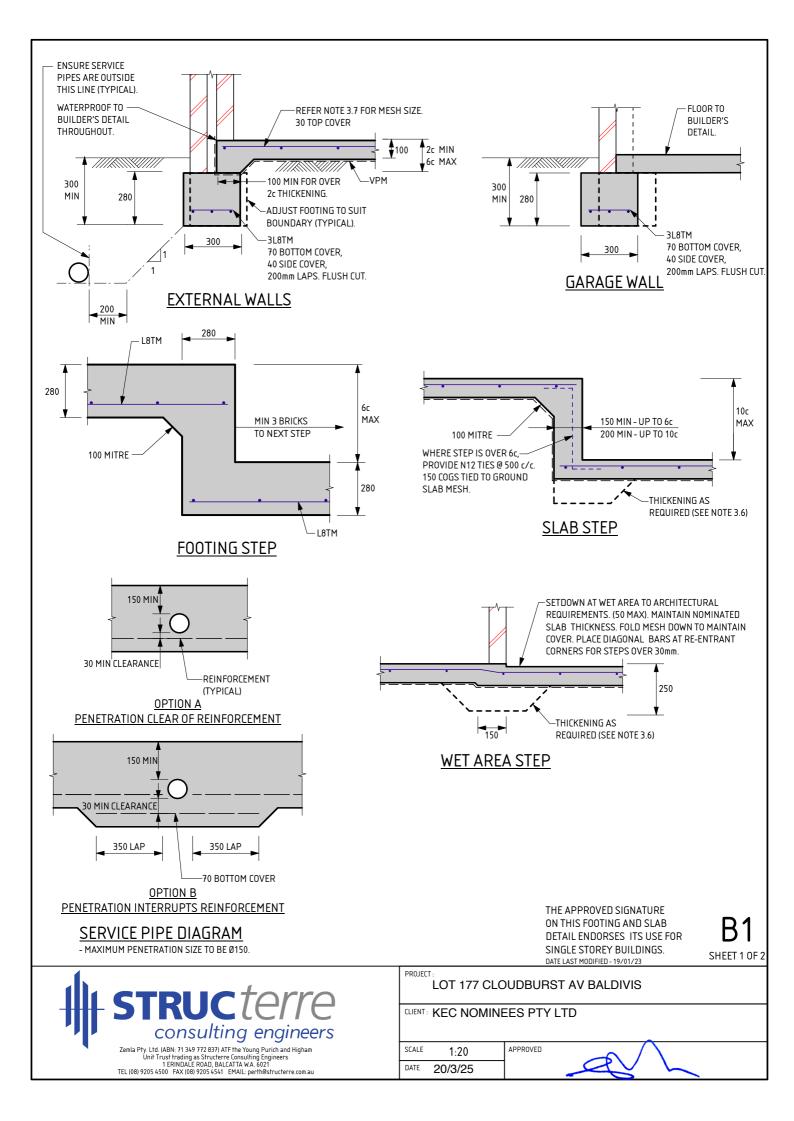
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CERTIFICATE	2620446
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





#### NOTES FOR B1 FOOTING

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

#### 1.0 SITE CLASSIFICATION

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- 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
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- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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#### PROJECT LOT 177 CLOUDBURST AV BALDIVIS

## CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

DATE LAST MODIFIED - 19/01/23

SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
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- 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.

PROJECT



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### LOT 177 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

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#### 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.



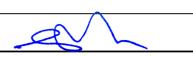
LOT 177 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 178 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163028 19/3/25

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurallyNot in a Bushfire Prone Area (see NOTE 2.)R3(Durability Class in accordance with AS3700)N1(in accordance with AS4055)

### Full Shielding

**B1** 

2

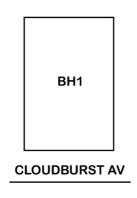
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# WA | QLD | NSW | VIC

1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email wageotechsite@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

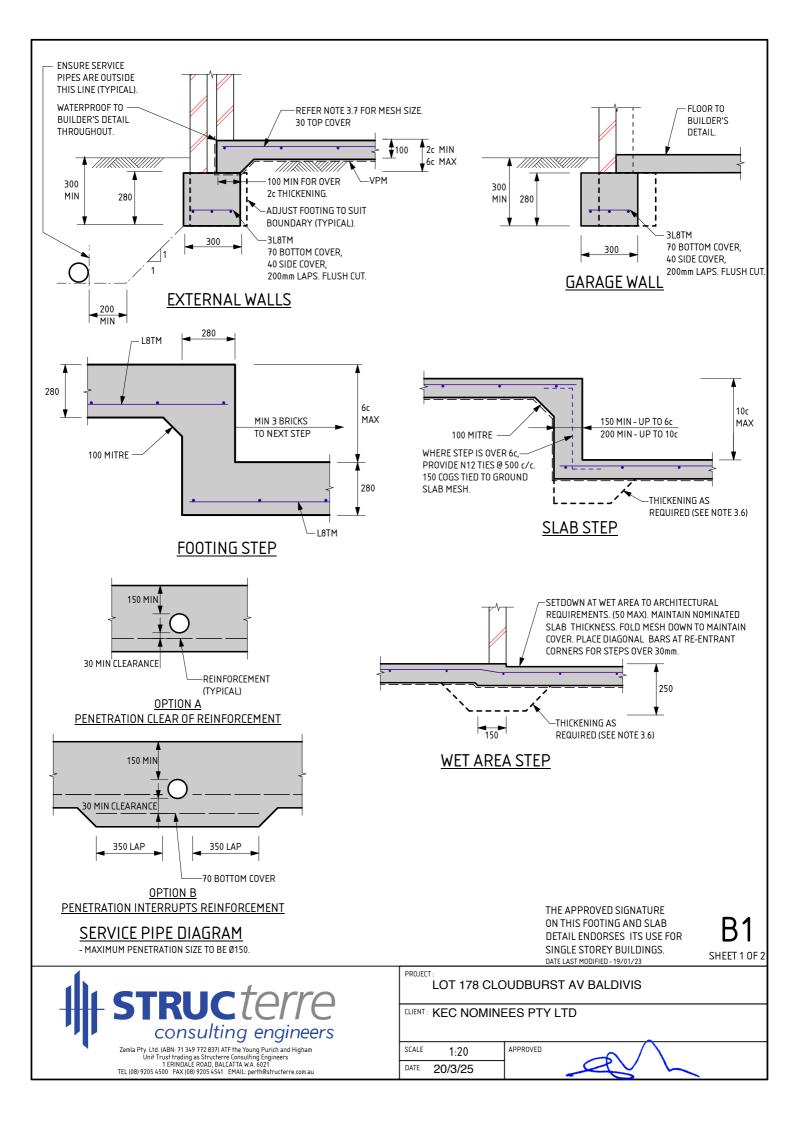
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620447
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





#### NOTES FOR B1 FOOTING

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

#### 1.0 SITE CLASSIFICATION

- THE SITE CLASSIFICATION NOTED IN THE SITE CLASSIFICATION REPORT IS AS DEFINED IN AS2870 RESIDENTIAL SLABS & FOOTINGS AS DETERMINED BY AN ASSESSMENT OF THE 1.1 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

  - JA IFCLAY ON SITE, AN ENGINEER TO BE CONSULTED.
     SAND FILL TO BE CLEAN WELL DRAINED, WITH MAX FINES (PARTICLES UP TO 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - L INDICATES PLAIN OF CONTRACT WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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.
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2emia Pry. Lto. (Abir: 71.549 77.2037) Arr Fildung Purital and Pignain Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT LOT 178 CLOUDBURST AV BALDIVIS

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APPROVED SCALE 1:20 DATE 20/3/25

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SHEET 2 OF 2

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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.



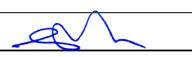
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 178 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.



LOT 178 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 179 GUSTANO RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1163018
DATE OF ASSESSMENT	19/3/25

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATIO WIND CLASSIFICATION -TERRAIN CATEGOR -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

	No sand pad required structurally Not in a Bushfire Prone Area <i>(see NOTE 2.)</i>	
N	R3	(Durability Class in accordance with AS3700)
	N1	(in accordance with AS4055)
Y	2	
	то	

### Full Shielding

Α

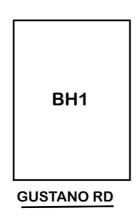
**B1** 

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

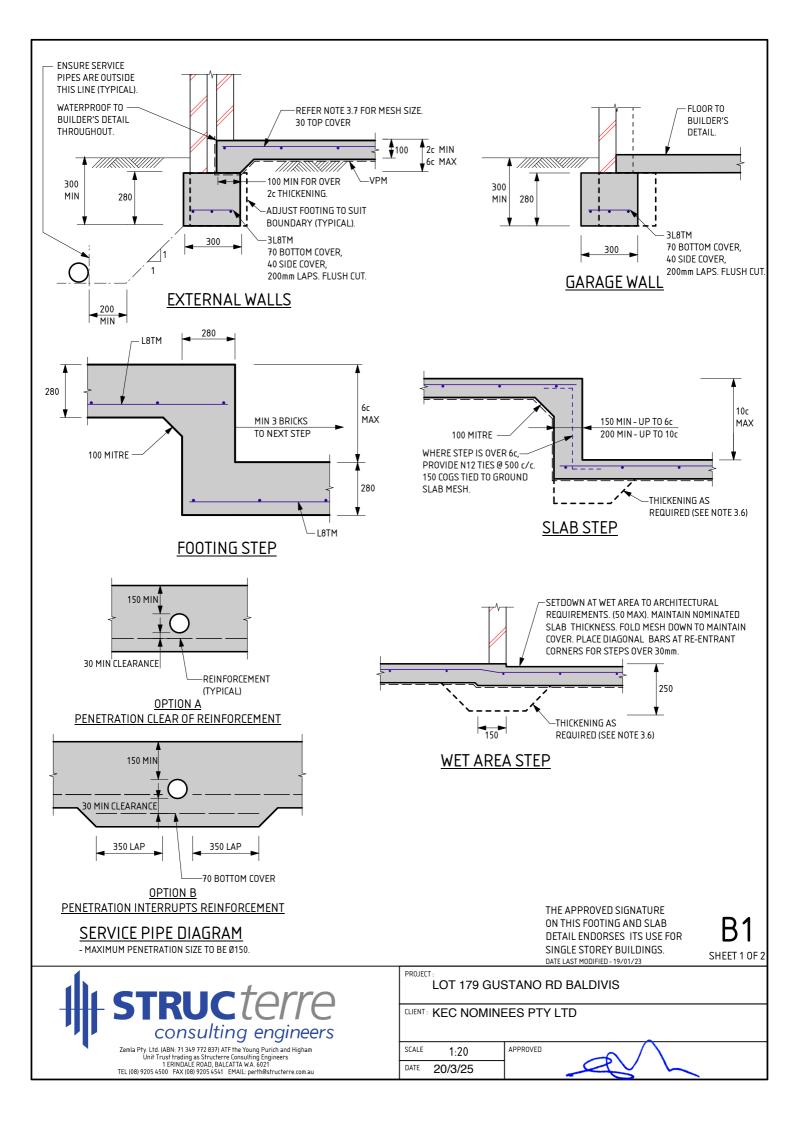
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620448
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





#### 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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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
  - PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
  - LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
  - ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
  - 4.4 45
  - ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
  - 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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 WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

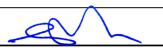
## LOT 179 GUSTANO RD BALDIVIS

DATE LAST MODIFIED - 19/01/23

PROJECT

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25



SHEET 2 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



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

### LOT 179 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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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SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD

PROJECT

A



CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 180 GUSTANO RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1163017
DATE OF ASSESSMENT	19/3/25

Α

**B1** 

T0

**Full Shielding** 

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

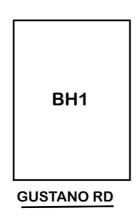
No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	
R3	(Durability Class in accordance with AS3700)
N1	(in accordance with AS4055)
2	

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

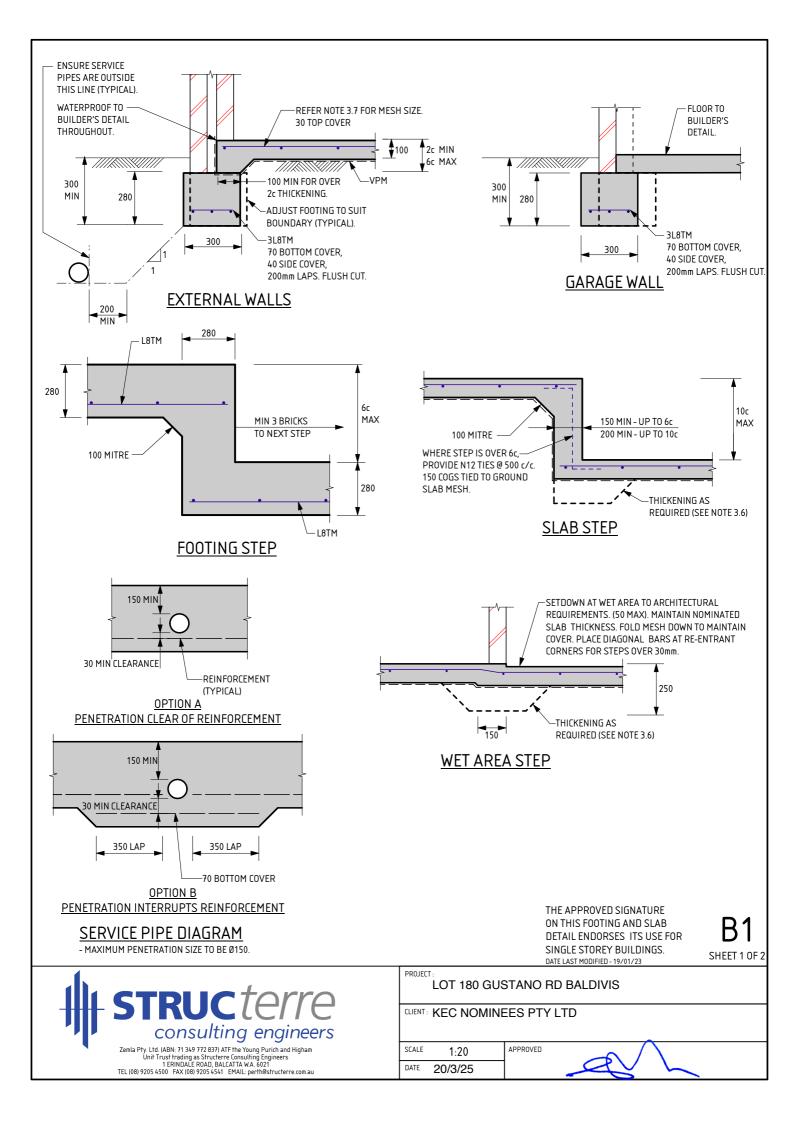
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620449
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





#### 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 0.07mm) 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.
- 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 SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 30m USE SLO2 MESH FOR SLAB SPAN UP TO 32m

- 3.8 FOR SLAB SPANS > 32m REFER TO ENGINEER FOR MESH SIZE
  - REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; L INDICATES PLAIN OR DEFORMED WIRE R500L OR D500L TO AS/NZS 4671.

    - INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. INDICATES DEFORMED BARS D500N TO AS/NZS 4671. SL
    - Ν
  - 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.
- 310 LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS. 311 CONCRETE TO CONFORM WITH AS 3600.

- BLENDED CEMENT TO CONFORM WITH AS 3972.
   ALL CONCRETE TO BE N20/20/100.
   FOR ISOLATED PAD FOOTINGS, REFER BACK TO ENGINEER.
- 315 FOOTING POSITION UNDER BRICKWORK CAN BE ADJUSTED TO SUIT PARAPET WALLS.
   316 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

- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
- ALL MESH IN EXTERNAL FACE OF EXTERNAL LEAF TO BE GALVANIZED TO AS / NZS 4680. WHEN BRICKWORK EXTENDS ABOVE OPENINGS TO EXTERNAL LEAF REINFORCE AS PER CLAUSE 4.1 4.3
- 4.4 45
- ALL PERPENDS TO BE FULLY MORTARED. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH.
- 2L6 WIRES MAY BE USED AS AN ALTERNATIVE TO THE MRBL50 MESH. WHERE L6 WIRES ARE 47 USED, ALL SPLICES AND COGS TO BE 500 LONG.

rri i*c* terre consulting engineers

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## PROJECT

DATE LAST MODIFIED - 19/01/23

#### SHEET 2 OF 2

#### LOT 180 GUSTANO RD BALDIVIS

# CLIENT: KEC NOMINEES PTY LTD

APPROVED SCALE 1:20 DATE 20/3/25

#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT



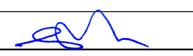
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 180 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.

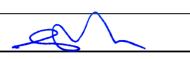


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SCALE 1:20 APPROVED
DATE 20/3/25

CLIENT: KEC NOMINEES PTY LTD

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 181 GUSTANO RD BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1163016
DATE OF ASSESSMENT	19/3/25

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurallyNot in a Bushfire Prone Area (see NOTE 2.)R3(Durability Class in accordance with AS3700)N1(in accordance with AS4055)2

### Full Shielding

**B1** 

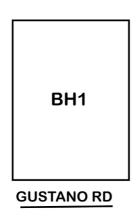
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# WA | QLD | NSW | VIC

1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email Wageotechsite@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

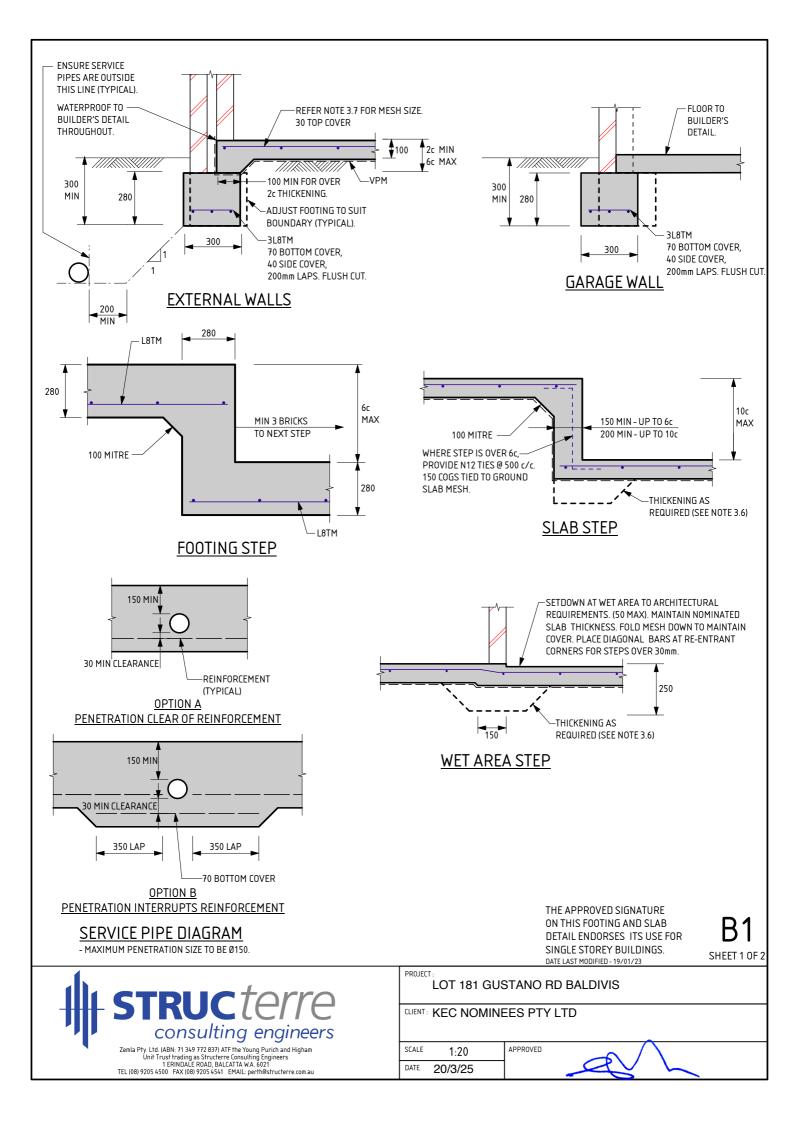
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620450
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer





#### NOTES FOR B1 FOOTING

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

#### 1.0 SITE CLASSIFICATION

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  - 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 0.07mm) CONTENT OF 5%. SAND TO BE COMPACTED TO A MIN 6 BLOWS/300mm FOR 750mm OR THE DEPTH OF THE PAD

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- 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.

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- PLACE MRBL50 MESH IN THE BED JOINT IMMEDIATELY OVER DOOR AND WINDOW HEAD LEVEL CONTINUOUS 4.1 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
- LAP 250 AT SPLICES AND AROUND CORNERS AND COG 250 INTO INTERSECTING WALLS. 20mm COVER TO ALL WIRES. 42
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#### PROJECT LOT 181 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

DATE LAST MODIFIED - 19/01/23

APPROVED SCALE 1:20 DATE 20/3/25

SHEET 2 OF 2

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  - 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.

PROJECT

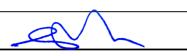


Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

### LOT 181 GUSTANO RD BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



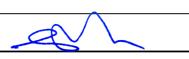
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au LOT 181 GUSTANO RD BALDIVIS

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

CLIENT: KEC NOMINEES PTY LTD

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 10 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162748
DATE OF ASSESSMENT	19/3/25

D10

T0

**Full Shielding** 

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

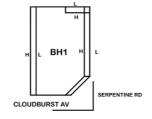
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

## 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

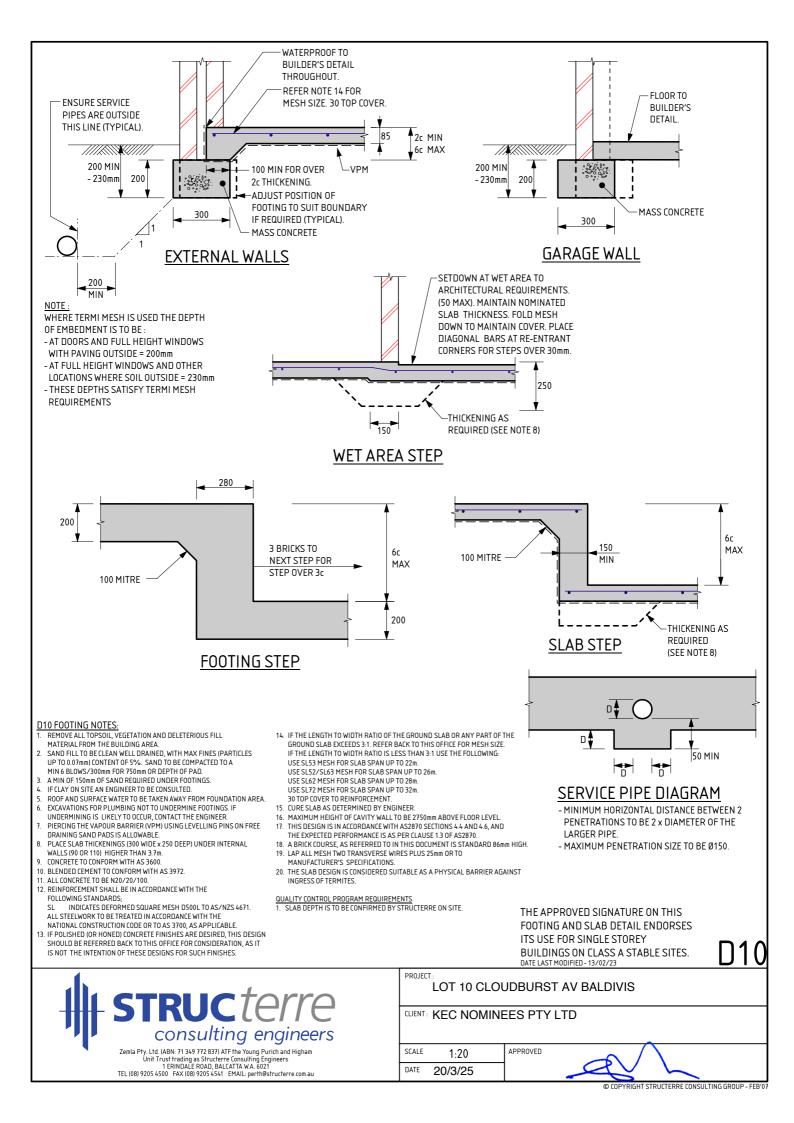
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620438
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer



#### <u>GENERAL</u>

- 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.
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   CAN OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.
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- 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:
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- 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.



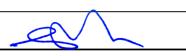
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 10 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.



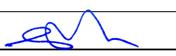
LOT 10 CLOUDBURST AV BALDIVIS

SCALE 1.20 APPROVED

 SCALE
 1:20
 APPROVE

 DATE
 20/3/25
 APPROVE

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 11 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162752 18/3/25

## SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# T0

**Full Shielding** 

D10

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

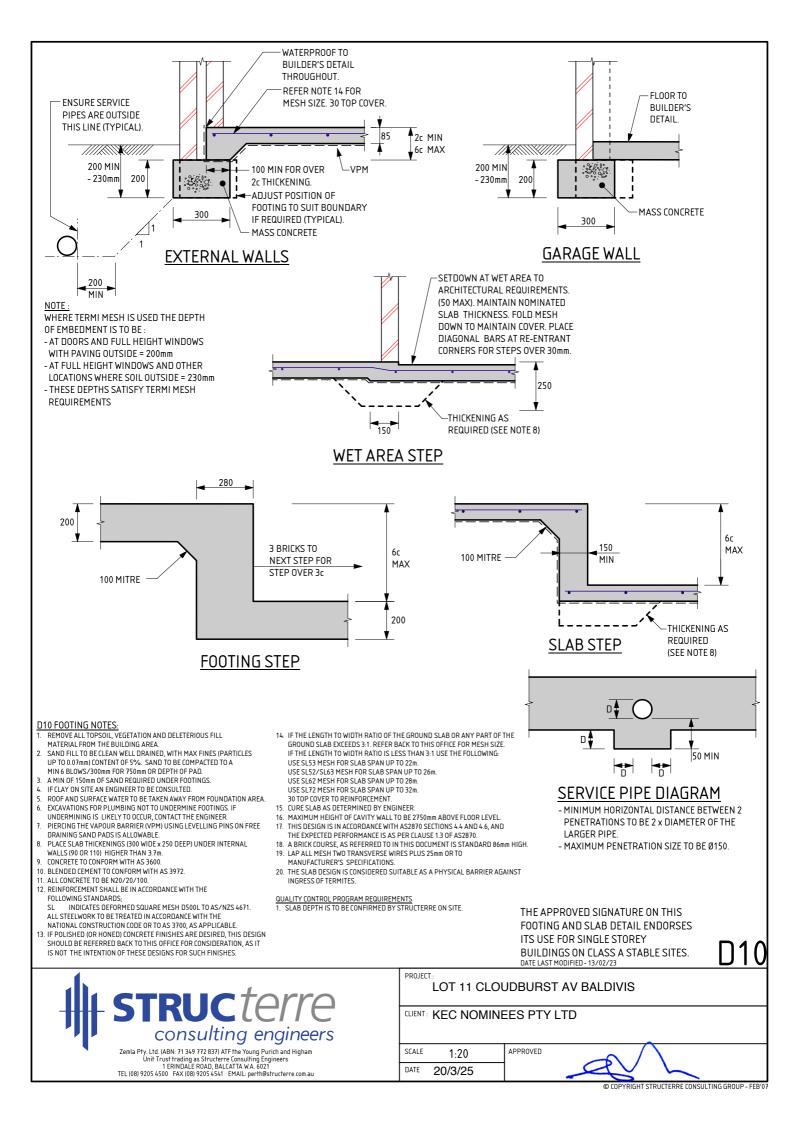
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620467	
Issued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer



#### 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,
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- 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.



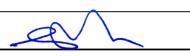
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 11 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au LOT 11 CLOUDBURST AV BALDIVIS

EOT IT CEOUDBUIGT AV BAEDIV

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT

A



CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 12 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1162753 18/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

(in accordance	with AS2870)
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D10		
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

T0

**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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

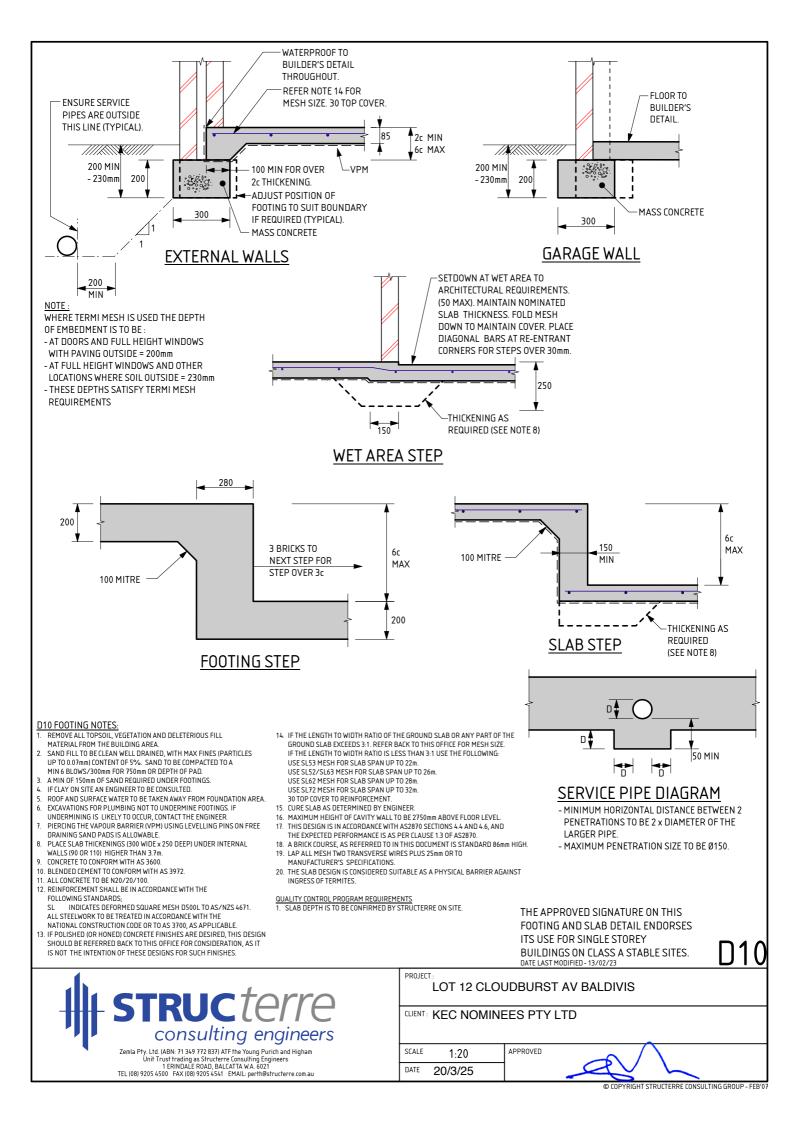
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620466
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer



#### 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.
- 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
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#### 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.
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- 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.
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### **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.
- 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.
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  - 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.

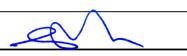


Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 12 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



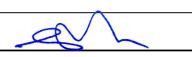
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au LOT 12 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 13 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162755
DATE OF ASSESSMENT	18/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

D10		
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# 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@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

T0

**Full Shielding** 

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

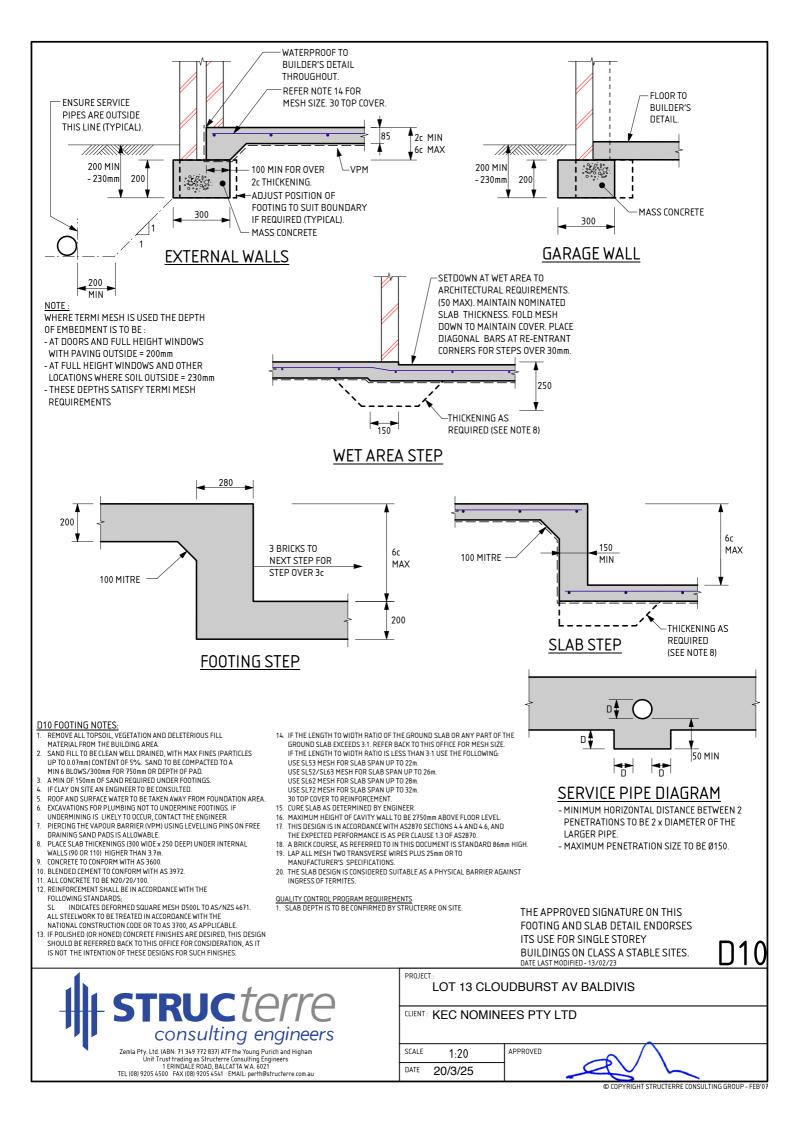
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620426
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer



#### <u>GENERAL</u>

- 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
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- 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.
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- 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.
- 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.



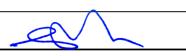
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 13 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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.



Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au LOT 13 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 14 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO.	S1162756
DATE OF ASSESSMENT	18/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TOPOGRAPHIC

D10	
No sand pad required structurally	
Not in a Bushfire Prone Area (see NOTE 2.)	

# (Durability Class in accordance with AS3700)

- (in accordance with AS4055)
- -TERRAIN CATEGORY
- -SHIELDING
- **Full Shielding**

R3

**N1** 

2

Т0

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand trace gravel (limestone); 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

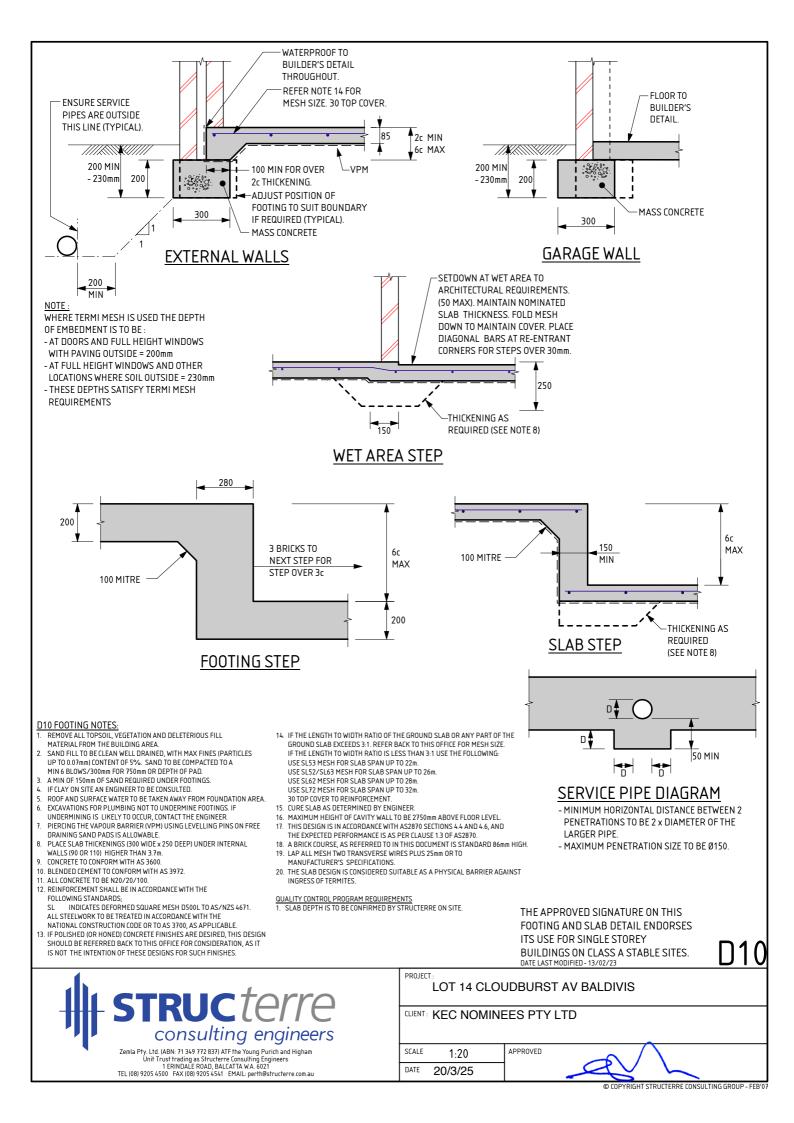
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE	2620428
ssued Date:	20 March 2025

Signed: Gervase Purich Chief Executive Officer



#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.
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### **EARTHWORKS**

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  - 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:
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### **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.

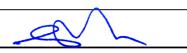


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#### PROJECT: LOT 14 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



LOT 14 CLOUDBURST AV BALDIVIS

PROJECT

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 33 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163019 19/3/25

D10

Т0

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

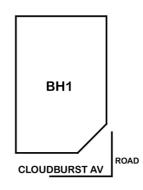
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

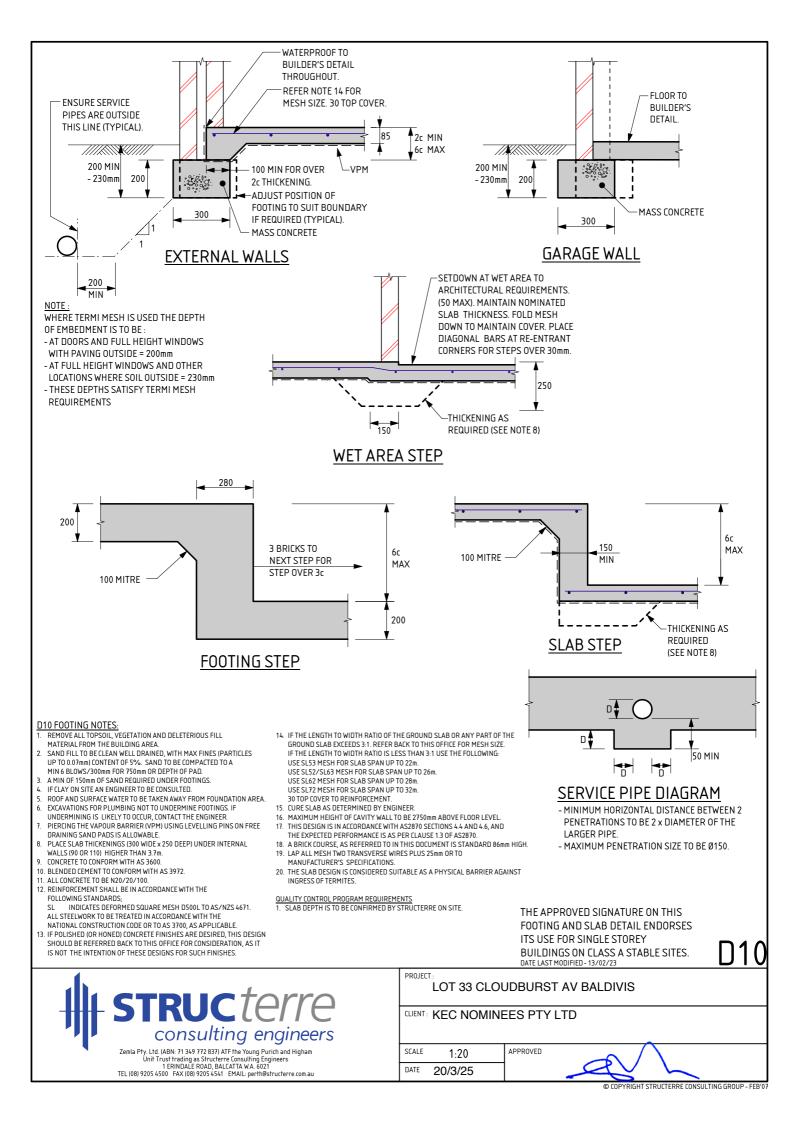
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

### **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620456			
Issued Date:	20 March 2025		

Signed: Gervase Purich Chief Executive Officer



#### 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:
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  - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
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   CAN OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.
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#### 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.
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- 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.

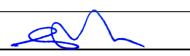


Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 33 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

SCALE 1:20 APPROVED
DATE 20/3/25



#### 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.



Zenla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust reading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALLATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perifl@structerre.com.au DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021

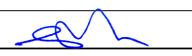
LOT 33 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 34 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163020 19/3/25

A D10

Т0

**Full Shielding** 

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING (in accordance with AS2870)

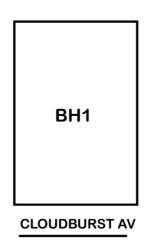
No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

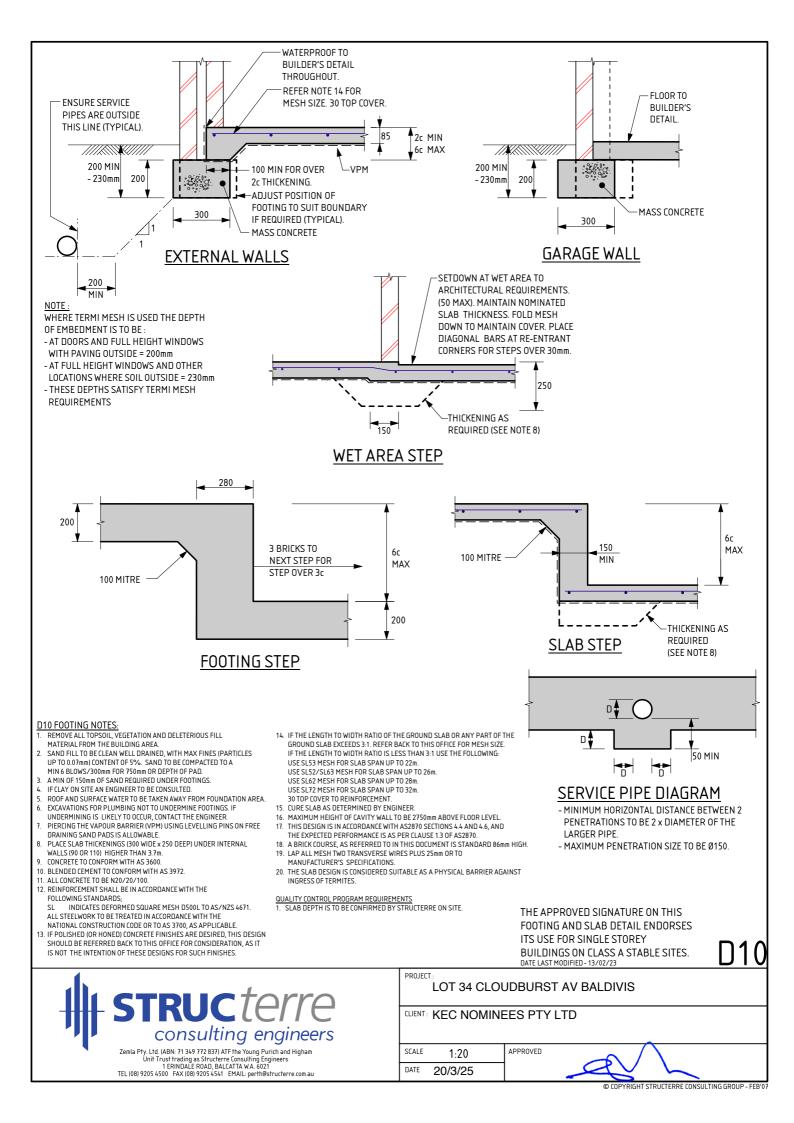
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620457			
ssued Date:	20 March 2025		

Signed: Gervase Purich Chief Executive Officer



#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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.



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

#### PROJECT: LOT 34 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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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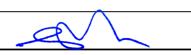
LOT 34 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 35 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163021 19/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD **BUSHFIRE PRONE AREA** CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

(	In	accoro	ance	with	ASZ	28

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
(Durability Class in accordance with AS3700)		
(in accordance with AS4055)		

D10

Т0

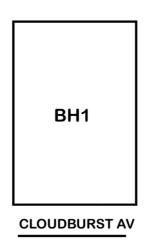
**Full Shielding** 

# 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@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

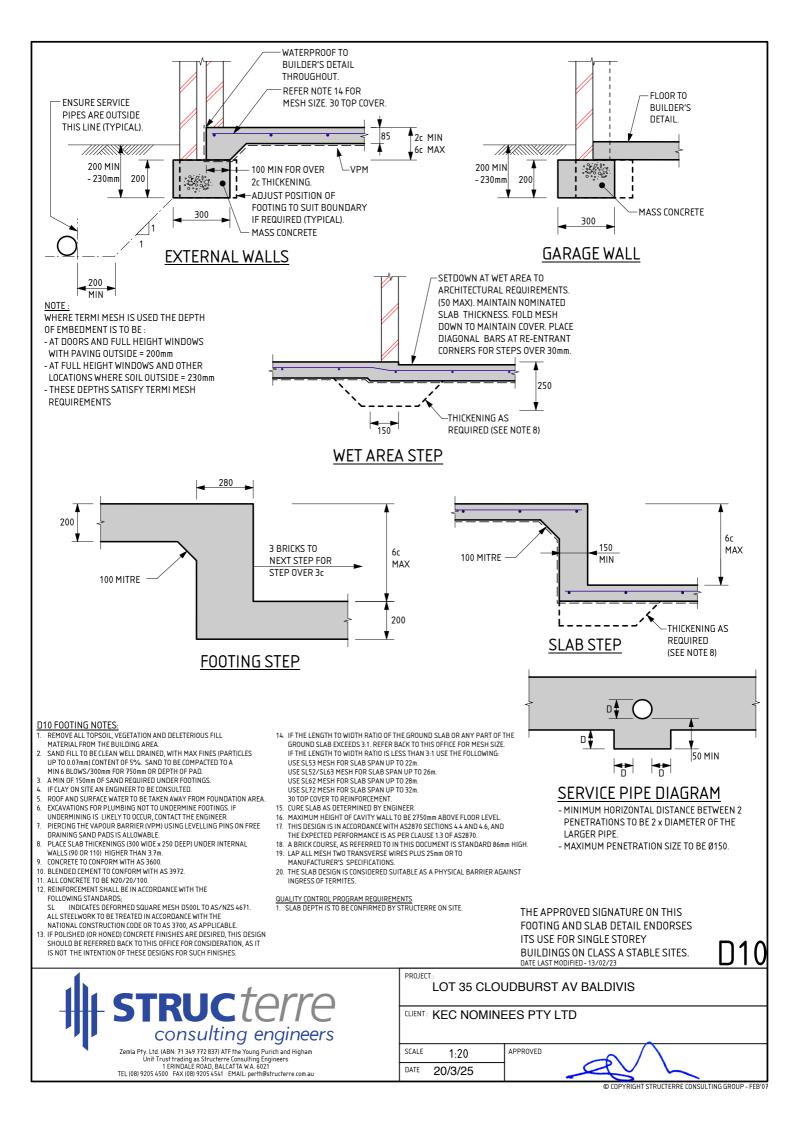
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620458			
Issued Date:	20 March 2025		

Signed: Gervase Purich Chief Executive Officer



#### 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.
- 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.



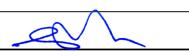
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structere Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA, 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

#### PROJECT: LOT 35 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED



#### 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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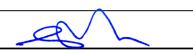
LOT 35 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

 DATE
 20/3/25
 APPROVED

PROJECT





CLIENT	KEC NOMINEES PTY LTD
JOB ADDRESS	LOT 36 CLOUDBURST AV BALDIVIS
CLIENT JOB NO. OWNER	
STRUCTERRE JOB NO. DATE OF ASSESSMENT	S1163022 19/3/25

# SITE RECORD



SITE CLASSIFICATION FOOTING DETAIL SAND PAD BUSHFIRE PRONE AREA CORROSION CLASSIFICATION WIND CLASSIFICATION -TERRAIN CATEGORY -TOPOGRAPHIC -SHIELDING

No sand pad required structurally		
Not in a Bushfire Prone Area (see NOTE 2.)		
R3	(Durability Class in accordance with AS3700)	
N1	(in accordance with AS4055)	
2		

(in accordance with AS2870)

# Full Shielding

Т0

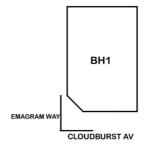
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# WA | QLD | NSW | VIC

1 Erindale Road, Balcatta, Western Australia 6021 | PO Box 792, Balcatta, Western Australia 6914 Phone (+618) 9205 4500 | Fax (+618) 9205 4501 | Email Wageotechsite@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

BOREHOLE 1: 0 - 1800 FILL sand - brown; 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 1.1 August 2021. 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 1.1 August 2021. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.1 August 2021.

# 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:<u>http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/</u>) 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**

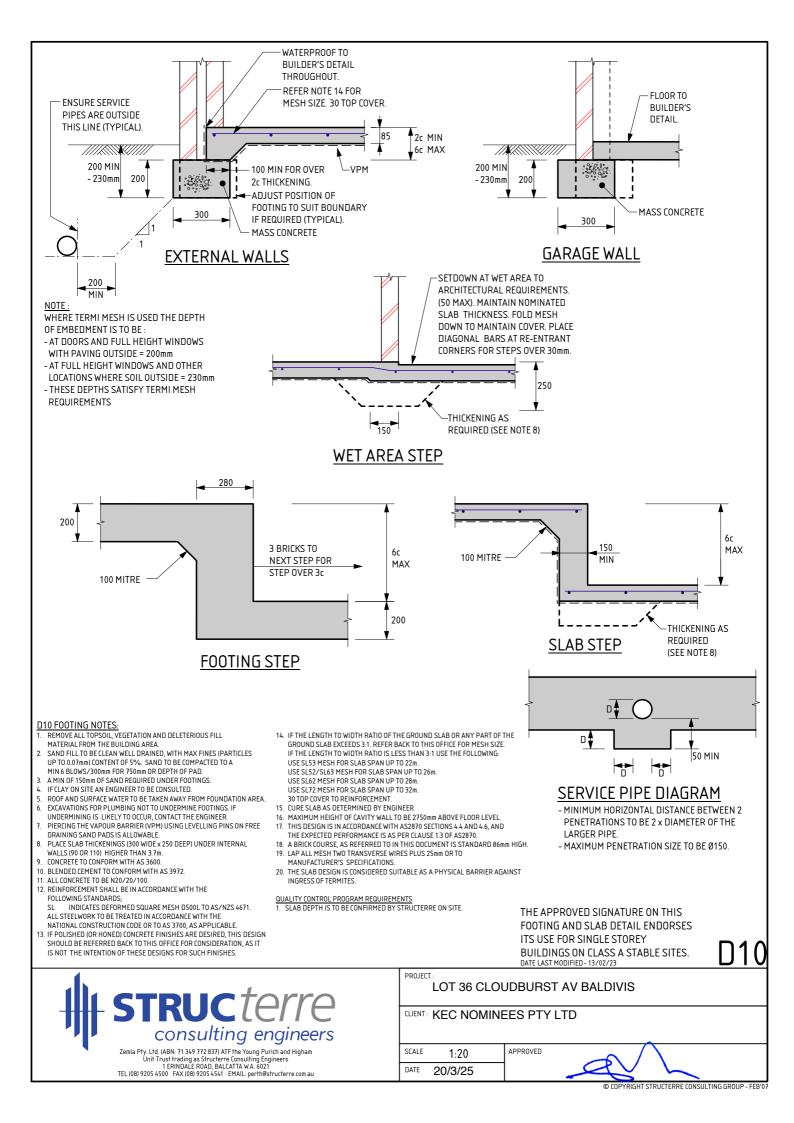
At the time of inspection the site was considered to be level and cleared. For specific levels of this site or topographical features, please refer to a professional site survey.

# **Sample Retrieval Probe**

This report has been prepared using the Sample Retrieval Probe. A number of boreholes are conducted across the site or building area, in order to determine the soil profiles and provide a representation of the ground conditions. Where reactive material is encountered within the zone of influence, laboratory analysis is conducted in accordance with AS1289 3.1.2, 3.2.1, 3.3.1, 3.4.1 and 3.6.1.

CERTIFICATE 2620459			
Issued Date:	20 March 2025		

Signed: Gervase Purich Chief Executive Officer



#### 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.
- 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 OCCUP WHICH MAX NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE DEFEDDED BACK TO THIS OFFICE FOR DEASESSMENT.
- 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,
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PROJECT



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### LOT 36 CLOUDBURST AV BALDIVIS

CLIENT: KEC NOMINEES PTY LTD

 SCALE
 1:20
 APPROVED

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 APPROVED



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### SEISMIC

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#### CORROSION CLASSIFICATION

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LOT 36 CLOUDBURST AV BALDIVIS

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