

CERTIFICATE 2600441

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 928 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101300 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600441

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER. WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 928 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# \$\$001 - 1.1.3 V1.1 - AUGUST 202

PROJECT:

LOT 928 HASTIES RD YANCHEP

STRUC*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 CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 928 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

TALE 1:20 APPROVED

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PROJECT

TE 16/6/23





CERTIFICATE 2600429

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 936 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101285 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

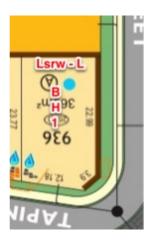
-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 900 FILL sand with gravel (limestone) - brown; 900 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600429

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
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- 12. CONCRETE TO CONFORM WITH AS 3600.
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- 15. CURE SLAB AS DETERMINED BY ENGINEER.
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- IT IS NOT THE INTENTION OF THESE DESIGNS FOR SUCH FINISHES. 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 936 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

- 1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
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 - 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,
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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.
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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.
- 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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 - 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
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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

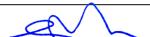
PROJECT:			
L	OT 936	TAPIN ST	YANCHER

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED



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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 936 TAPIN ST YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23





CERTIFICATE 2600430

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 937 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101287 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 900 FILL sand with gravel (limestone) - brown; 900 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600430 Issued Date: 16 June 2023 - 2 -

Gervase Purich Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE. 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 937 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

PROJECT

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 937 TAPIN ST YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23



CERTIFICATE 2600431

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 938 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101288 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING No Shielding

WA | QLD | NSW | VIC

SOIL PROFILE

BOREHOLE 1: 0 - 900 FILL sand with gravel (limestone) - brown; 900 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600431

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 938 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 51
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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 938 TAPIN	ST YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED

av L

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

LOT 938 TAPIN ST YANCHEP

APPROVED

1:20 DATE 16/6/23

PROJECT

SCALE



CERTIFICATE 2600432

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 939 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101289 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING No Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 900 FILL sand with gravel (limestone) - brown; 900 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600432

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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. 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

DATE LAST MODIFIED - 19/01/23

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 939 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 51
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 939 TAPIN ST YANCH	EF

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 APPROVED

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

1:20

LOT 939 TAPIN ST YANCHEP

DATE 16/6/23

PROJECT

SCALE

APPROVED



CERTIFICATE 2600433

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 940 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101290 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

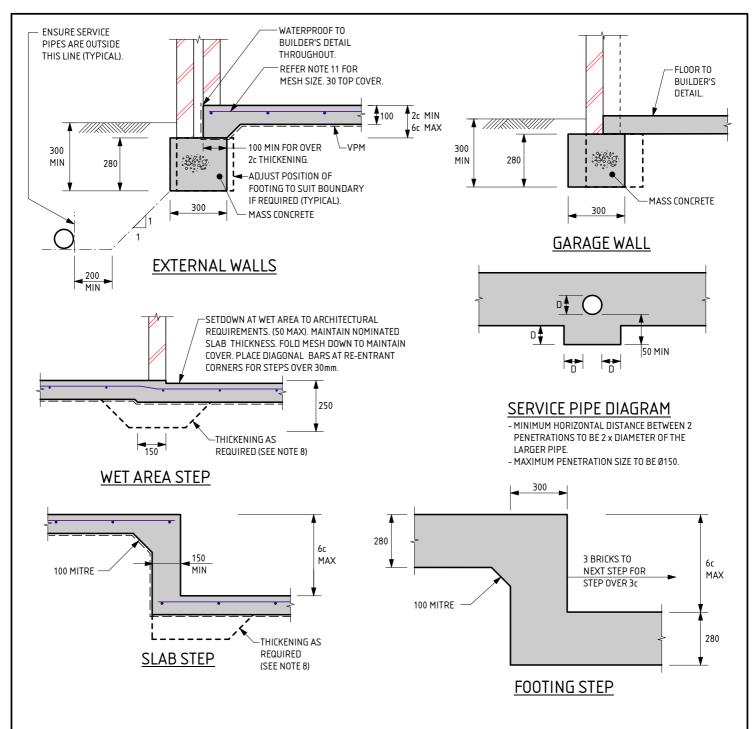
-- END OF REPORT --

CERTIFICATE 2600433

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
 - USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 940 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 51
- 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 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 REGULIRED.
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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 940 TAPIN ST YANCHI

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 APPROVED

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL SCALE 1:20 APPROVED

LOT 940 TAPIN ST YANCHEP

DATE 16/6/23

PROJECT





CERTIFICATE 2600435

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 941 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. S1101291

DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

SOIL PROFILE

BOREHOLE 1: 0 - 1400 FILL sand with gravel (limestone) - brown; 1400 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600435 Gervase Purich Issued Date: 16 June 2023 - 2 -

Chief Executive Officer



A FOOTING NOTES:

- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
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- 15. CURE SLAB AS DETERMINED BY ENGINEER.
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- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN
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- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 941 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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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,
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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.
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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.
- 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 51
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



Zemla Pty. Ltd. (ABN: 71349 772837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERNINALE ROAD, BALCATTA WA 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

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LOT 941	TAPIN	ST YA	NCHEF

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

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STRUCTE//E consulting engineers

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1:20

DATE 16/6/23

PROJECT

SCALE

APPROVED

LOT 941 TAPIN ST YANCHEP



CERTIFICATE 2600436

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 942 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101292 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600436

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 942 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 51
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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	942 TA	APIN ST	YANCH	HEF

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 APPROVED

av L

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

LOT 942 TAPIN ST YANCHEP

DATE 16/6/23

PROJECT

APPROVED





SITE CLASSIFICATION REPORT

CERTIFICATE 2600437

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 943 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101294 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600437 Gervase Purich Issued Date: 16 June 2023 - 2 -

Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED. PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 943 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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	943	TAPIN	ST	YANC	HEF

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 APPROVED

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

STRUCTE/Ce 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 CLIENT: DENSFORD CIVIL

LOT 943 TAPIN ST YANCHEP

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23



SITE CLASSIFICATION REPORT

CERTIFICATE 2600438

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 944 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101295 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600438

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 944 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

- 1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
- 2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
- 3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL
 - SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
- 4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION.
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING.
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
- 5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
- 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 OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 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
- . 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 FARTHWORKS 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. UNI ESS OTHERWISE SPECIFIED
- 15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

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

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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	944	TAPI	N ST	YAN	CHEF

CLIENT: DENSFORD CIVIL

DATE

SCALE 1:20

APPROVED 16/6/23

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600434

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 945 TAPIN ST YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101296 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J414449 dated 01/08/2022.

-- END OF REPORT --

CERTIFICATE 2600434

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15. CURE SLAB AS DETERMINED BY ENGINEER.
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.



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 945 TAPIN ST YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

PROJECT

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

1:20 APPROVED 16/6/23

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 945 TAPIN ST YANCHEP

SCALE 1:20 APPROVED

16/6/23

PROJECT

DATE

2



SITE CLASSIFICATION REPORT

CERTIFICATE 2600439

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 946 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101302 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J414449 dated 01/08/2022.

-- END OF REPORT --

CERTIFICATE 2600439

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 946 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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PROJECT:			
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CLIENT: DENSFORD CIVIL

16/6/23

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SCALE 1:20 APPROVED

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

LOT 946 HASTIES RD YANCHEP

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23



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SITE CLASSIFICATION REPORT

CERTIFICATE 2600440

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 947 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. S1101301

DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J414449 dated 01/08/2022.

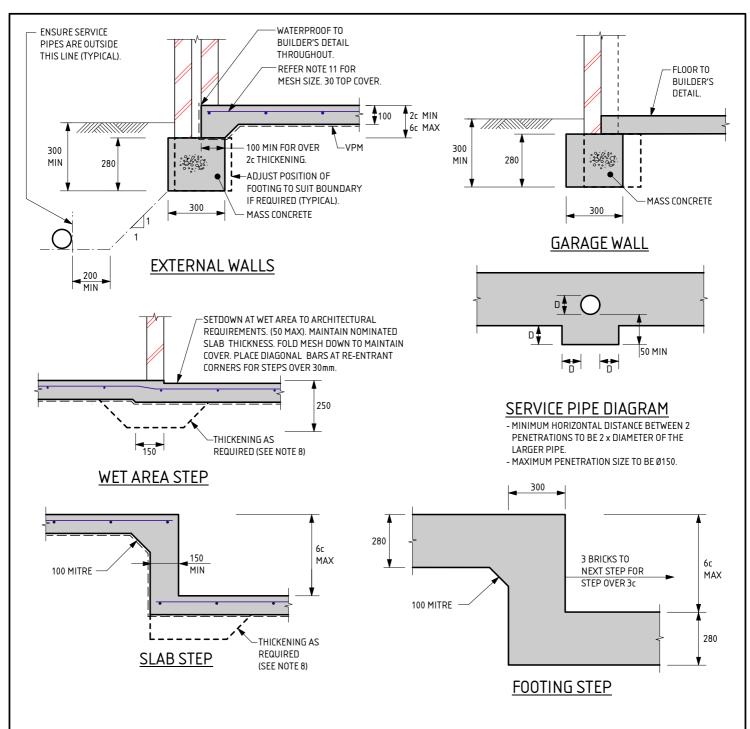
-- END OF REPORT --

CERTIFICATE 2600440

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 947 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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 947 HASTIES RD YANCHE	Ξ
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CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

PROJECT

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 947 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

PROJECT

DATE

SCALE 1:20 APPROVED

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600464

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 948 BIRIWAL WAY YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101325 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600464 Gervase Purich Issued Date: 16 June 2023 - 2 -

Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. IF POLISHED (OR HONED) CONCRETE FINISHES ARE DESIRED, THIS DESIGN
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- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

consulting engineers

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PROJECT LOT 948 BIRIWAL WAY YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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 - 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,
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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.
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SAND PAD

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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,
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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 REGULIRED.
- 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:
LOT 948 BIRIWAL WAY YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

16/6/23

DATE

CONSULTING ENGINEERS

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

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<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.

PROJECT:
LOT 948 BIRIWAL WAY YANCHEP

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600465

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 949 BIRIWAL WAY YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101326 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600465 Gervase Purich Issued Date: 16 June 2023 Chief Executive Officer

- 2 -



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
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- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
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- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 949 BIRIWAL WAY YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

- 1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
- 2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
- 3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL
 - SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
- 4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION.
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING.
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
- 5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
- 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 OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 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
- . 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 FARTHWORKS 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. UNI ESS OTHERWISE SPECIFIED
- 15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

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

RETAINING WALLS

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

STORMWATER DRAINAGE

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

> DOC# SS001 - 1.1.3 V1.1 - AUGUST 202 PROJECT LOT 949 BIRIWAL WAY YANCHEP

CLIENT: DENSFORD CIVIL

APPROVED SCALE

consulting engineers

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

1:20 DATE 16/6/23

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5 m.
 - 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.

PROJECT:
LOT 949 BIRIWAL WAY YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600458

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 950 BIRIWAL WAY YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101327 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

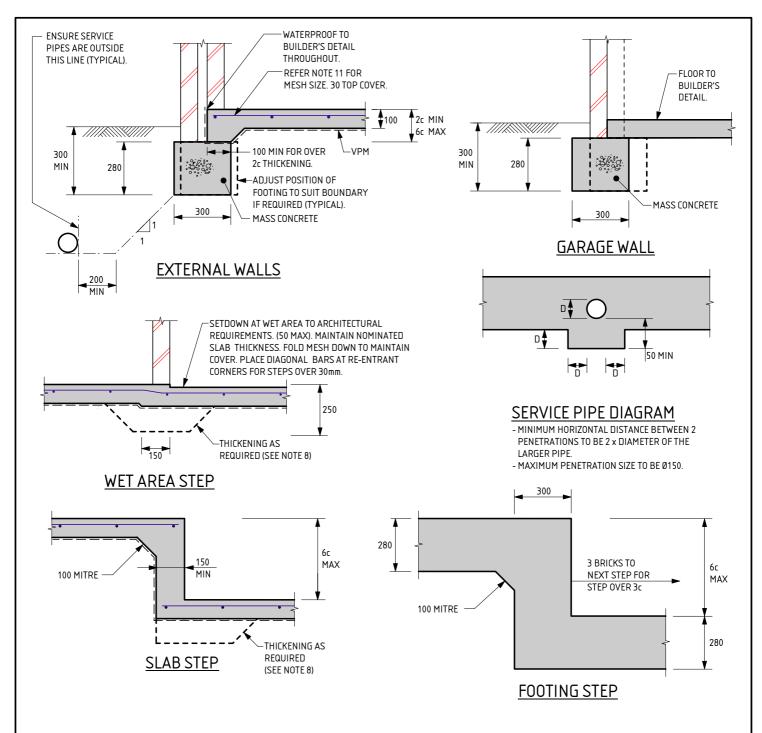
CERTIFICATE 2600458

Issued Date: 16 June 2023

- 2 - Signed:

Gervase Pi
Chief Executive

Gervase Purich
Chief Executive Officer



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- FILL MATERIAL FROM THE BUILDING AREA.
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DATE LAST MODIFIED - 19/01/23

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consulting engineers

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PROJECT LOT 950 BIRIWAL WAY YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

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SAND PAD

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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 51
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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	950 BIRIWAL	WAY	YANCHER

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 APPROVED

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<u>SEISMIC</u>

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



Zemla Pty. Ltd. (ABN: 71349 772837) 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 950 BIRIWAL WAY YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600457

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 951 BIRIWAL WAY YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101328 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600457 Gervase Purich Issued Date: 16 June 2023 - 2 -

Chief Executive Officer



- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER. WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

DATE LAST MODIFIED - 19/01/23

PROJECT LOT 951 BIRIWAL WAY YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23



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

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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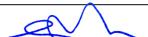
PROJECT:			
LOT 951	BIRIWAL	WAY	YANCHEF

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED



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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021 LOT 951 BIRIWAL WAY YANCHEP

CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED DATE 16/6/23

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consulting engineers



SITE CLASSIFICATION REPORT

CERTIFICATE 2600447

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 952 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101330 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with 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 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600447

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
 - USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

DATE LAST MODIFIED - 19/01/23 PROJECT

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LOT 952 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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 952	2 YABBRA	ENT Y	ANCHE

CLIENT: DENSFORD CIVIL

16/6/23

PROJECT

DATE

SCALE 1:20 APPROVED

av L

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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SCALE 1:20
DATE 16/6/23

PROJECT

APPROVED

LOT 952 YABBRA ENT YANCHEP





SITE CLASSIFICATION REPORT

CERTIFICATE 2600446

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 953 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. S1101331

DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with 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 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600446

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER. WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.



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PROJECT LOT 953 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

- 1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
- 2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
- 3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL
 - SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
- 4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION.
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING.
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
- 5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
- 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 OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 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
- . 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 FARTHWORKS 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. UNI ESS OTHERWISE SPECIFIED
- 15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

- 16 RECOMMENDED FARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON FARTHWORKS 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202 LOT 953 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

APPROVED SCALE 1:20

consulting engineers

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

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

LOT 953 YABBRA ENT YANCHEP

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600444

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 955 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101333 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600444

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

STABLE SITES. DATE LAST MODIFIED - 19/01/23

THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A

THE APPROVED SIGNATURE ON



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 955 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

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

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

PROJECT:
LOT 955 YABBRA ENT YANCHEP

STRUC*terre*consulting engineers

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED

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

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

PROJECT:
LOT 955 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600443

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 956 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101306 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600443

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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. 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 956 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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

GENERAL

- 1. THE EXPLANATORY NOTES AND THE STANDARD RECOMMENDATIONS ARE TO BE READ IN CONJUNCTION WITH THE SITE CLASSIFICATION REPORT.
- 2. ALL REFERRED STANDARDS TO BE THE CURRENT VERSION AT THE TIME OF THE CONSTRUCTION.
- 3. THE PURPOSE OF THE SITE CLASSIFICATION REPORT IS TO CLASSIFY THE SITE IN ACCORDANCE WITH AS2870 "RESIDENTIAL
 - SLABS AND FOOTING". IT IS NOT INTENDED FOR ANY OTHER PURPOSE, INCLUDING SOLE INFORMATION IN THE PROVISION OF A QUOTATION FOR SITE WORKS BY EARTH WORKERS. IT IS RECOMMENDED EARTH WORKERS PERFORM THEIR OWN INVESTIGATION FOR QUOTATION PURPOSES.
- 4. THE SITE CLASSIFICATION REPORT WILL INCLUDE BUT IS NOT LIMITED TO:
 - a. THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 RESIDENTIAL SLABS AND FOOTING CONSTRUCTION.
 - b. A WIND RATING IN ACCORDANCE WITH AS 4055 WIND LOADS FOR HOUSING.
 - c. A COASTAL CORROSION CLASSIFICATION,
 - d. ADDITIONAL EARTHWORK RECOMMENDATION WHERE APPLICABLE,
 - e. STANDARD FOOTING DESIGN FOR SINGLE STOREY SLAB ON GROUND CONDITIONS.
- 5. THE SITE CLASSIFICATION REPORT IS BASED ON THE SITE AS PRESENTED AT THE TIME OF ASSESSMENT. IF FURTHER INFORMATION RELATING TO THE SITE OR DEVELOPMENT BECOMES AVAILABLE, THESE RECOMMENDATIONS ARE SUBJECT TO CHANGE.
- 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 OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 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
- . 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 FARTHWORKS 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. UNI ESS OTHERWISE SPECIFIED
- 15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

- 16 RECOMMENDED FARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON FARTHWORKS 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202 LOT 956 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

APPROVED SCALE 1:20

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

consulting engineers

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

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

PROJECT:
LOT 956 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600442

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 957 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101305 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 **Explanatory Notes & Standard Recommendations**

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

NOTE 2 **Bushfire - Prone Area**

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

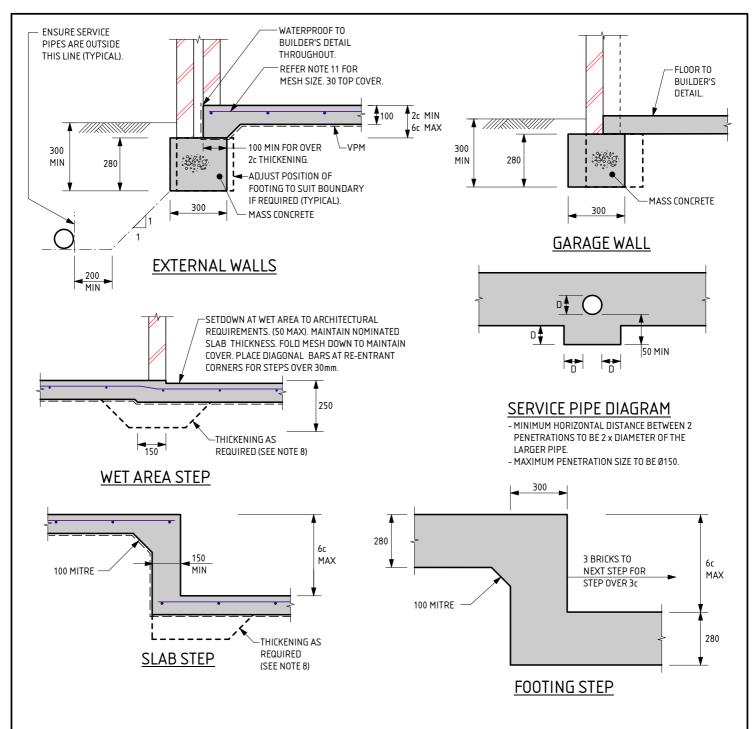
Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

Signed: CERTIFICATE 2600442 Gervase Purich Issued Date: 16 June 2023 - 2 -

Chief Executive Officer



- 1. REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
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- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.



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 957 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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 51
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

16/6/23

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 8.5 m.
 - 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.

PROJECT:
LOT 957 HASTIES RD YANCHEP

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

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SCALE 1:20 APPROVED

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STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600466

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 958 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101304 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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NOTE 2 Bushfire - Prone Area

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ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

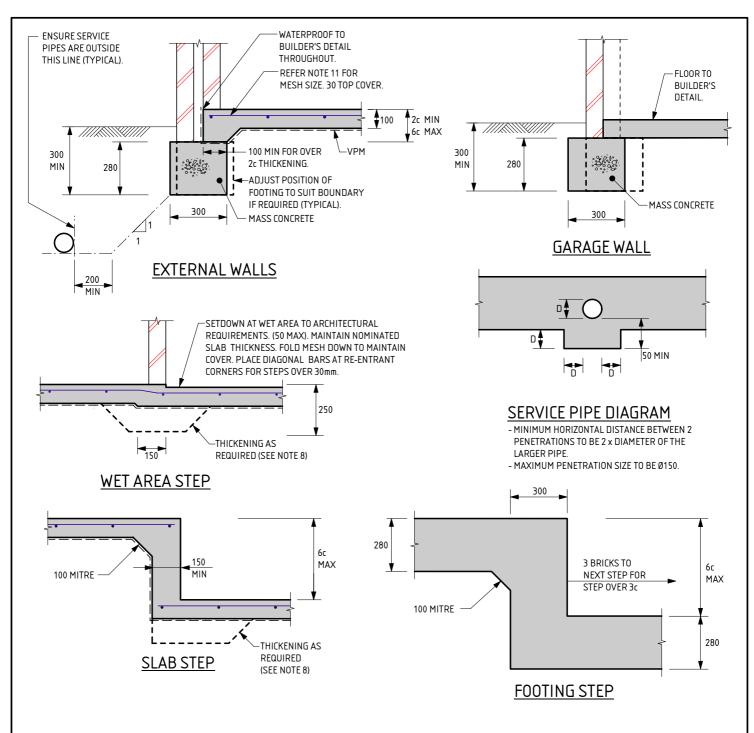
-- END OF REPORT --

CERTIFICATE 2600466

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

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- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
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 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
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- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
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- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
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DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 958 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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SAND PAD

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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:

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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
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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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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PROJECT :							
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CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 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 958 HASTIES RD YANCHEP

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23



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



SITE CLASSIFICATION REPORT

CERTIFICATE 2600445

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 954 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101332 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with 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 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600445

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 954 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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 51
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



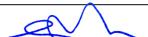
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

LOT 954 YABBRA ENT YANCHE	P

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 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 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 954 YABBRA ENT YANCHEP

STRUCTE/Ce consulting engineers

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PROJECT

DATE

SCALE 1:20 APPROVED

16/6/23

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600467

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 959 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101303 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600467

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 959 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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 51
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



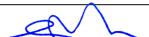
Zemla Pty. Ltd. (ABN. 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

LOT 959 HASTIES RD YANCHER

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 959 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*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



SITE CLASSIFICATION REPORT

CERTIFICATE 2600456

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 962 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101334 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N2 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Partial Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600456

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 962 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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

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LOT	962 Y	ABBRA	ENT	YANCH	HEF

CLIENT: DENSFORD CIVIL

16/6/23

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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 962 YABBRA ENT YANCHEP

SCALE 1:20 APPROVED

DATE 16/6/23

PROJECT



SITE CLASSIFICATION REPORT

CERTIFICATE 2600455

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 963 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101335 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600455

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED. PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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. 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER

AGAINST INGRESS OF TERMITES. DATE LAST MODIFIED - 19/01/23 THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 963 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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

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CLIENT: DENSFORD CIVIL

16/6/23

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.

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202 LOT 963 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL consulting engineers

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SCALE APPROVED 1:20

PROJECT

DATE

16/6/23



SITE CLASSIFICATION REPORT

CERTIFICATE 2600454

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 964 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101336 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600454

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 964 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
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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.

PROJECT

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

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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 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

LOT 964 YABBRA ENT YANCHEP

- STRUCTERS

consulting engineers

Zemia Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600453

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 965 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. S1101337

DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600453

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STABLE SITES. DATE LAST MODIFIED - 19/01/23

PROJECT

STOREY BUILDINGS ON CLASS A

THE APPROVED SIGNATURE ON



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 965 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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 965 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 APPROVED

av L

WIND CLASSIFICATION

- 22. WIND CLASSIFICATION IS GIVEN FOR THE EXPECTED CONDITION 5 YEARS HENCE. THIS CLASSIFICATION IS LIMITED TO BUILDINGS CLASSES 1 AND 10, WHICH HAVE THE FOLLOWING LIMITATION (AS PER AS4055):
 - a. MAXIMUM DISTANCE FROM THE GROUND LEVEL TO THE UNDERSIDE OF EAVES SHALL NOT EXCEED 6.0m.
 - b. MAXIMUM DISTANCE FROM GROUND LEVEL TO THE HIGHEST POINT OF THE ROOF, EXCLUDING CHIMNEYS, SHALL NOT EXCEED 8.5m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 965 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600452

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 966 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101339 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600452

Issued Date: 16 June 2023

- 2 - Signed:

Gervase Pi
Chief Executive

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED. PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 966 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

GENERAL

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- 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,
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SAND PAD

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- 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 51
- 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
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 966 YABBRA ENT YANCHEP

STRUC*terre*consulting engineers

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SCALE 1.20 APPROVED

CLIENT: DENSFORD CIVIL

DATE 16/6/23

PROJECT

ROVED

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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202 LOT 966 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL

PROJECT

SCALE APPROVED 1:20 DATE 16/6/23

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



SITE CLASSIFICATION REPORT

CERTIFICATE 2600451

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 967 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101340 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600451

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 967 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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	967	YABBRA	ENT	YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 967 YABBRA ENT YANCHEP

CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

STRUC*terre*consulting engineers

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600450

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 968 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. S1101341

DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

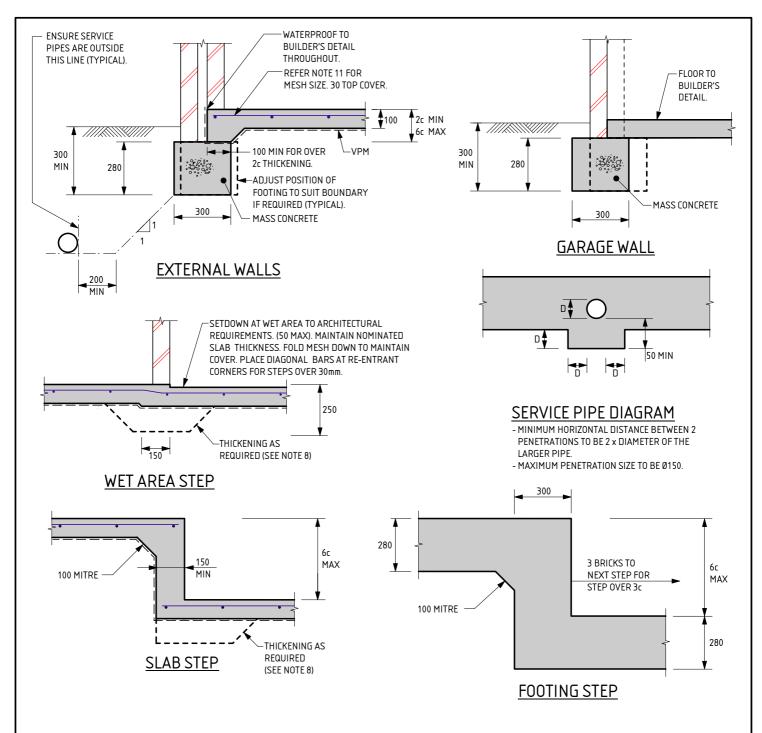
-- END OF REPORT --

CERTIFICATE 2600450

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED. PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 968 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



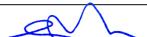
Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

NOSECT.			
LOT 96	8 YABBRA	ENT	YANCHEF

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 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 8.5 m.
 - c. THE ROOF PITCH SHALL NOT EXCEED 35°.
 - d. THE WIDTH, EXCLUDING EAVES, SHALL NOT EXCEED 16.0m AND THE LENGTH SHALL NOT EXCEED 5x THE WIDTH.

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

ENVIRONMENTAL

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

SEISMIC

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

CORROSION CLASSIFICATION

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202

STRUC*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 CLIENT: DENSFORD CIVIL

16/6/23

PROJECT

DATE

SCALE 1:20 APPROVED

LOT 968 YABBRA ENT YANCHEP

2



SITE CLASSIFICATION REPORT

CERTIFICATE 2600449

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 969 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101342 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600449

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

© COPYRIGHT STRUCTERRE CONSULTING GROUP - JAN'06

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 969 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 7. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITION OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- 8. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 9. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE. STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d. COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1.
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 969 YABBRA ENT YANCHEP								
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CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

PROJECT:

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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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202:

LOT 969 YABBRA ENT YANCHEP

STRUCTE/S

consulting engineers

Zemla Pty. Ltd. (ABN: 71 349 772 837) ATF the Young Purich and Higham
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1 ERINDALE ROAD, BALCATTA WA. 6021
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CLIENT: DENSFORD CIVIL

PROJECT

SCALE 1:20 APPROVED

DATE 16/6/23

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SITE CLASSIFICATION REPORT

CERTIFICATE 2600448

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 970 YABBRA ENT YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101344 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 1800 FILL sand with 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 1.0 July 2018. For S, M, H1, H2 & E Class sites, refer to the Explanatory Notes and Standard Recommendations for Reactive (S, M, H1, H2 & E Class) Sites version 1.0 July 2018. For Equivalent Class sites, refer to the Explanatory Notes and Standard Recommendations for Equivalent Class Sites, version 1.0 July 2018.

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600448

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32m
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 970 YABBRA ENT YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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 OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 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
- . 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 FARTHWORKS 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. UNI ESS OTHERWISE SPECIFIED
- 15. IT IS REQUIRED THAT EARTHWORKS CONFIRM THAT THE MINIMUM DEPTH OF RECOMMENDED SAND PAD IS ACHIEVED.

EARTHWORKS

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

RETAINING WALLS

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

STORMWATER DRAINAGE

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

> DOC# SS001 - 1.1.3 V1.1 - AUGUST 202 LOT 970 YABBRA ENT YANCHEP

consulting engineers

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

APPROVED

1:20

CLIENT: DENSFORD CIVIL

DATE

PROJECT

SCALE

16/6/23

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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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

CLIENT: DENSFORD CIVIL

1:20 DATE 16/6/23

PROJECT

SCALE

APPROVED

LOT 970 YABBRA ENT YANCHEP



SITE CLASSIFICATION REPORT

CERTIFICATE 2600469

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1081 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101307 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600469

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
 - USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 1081 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 7. BOREHOLES EXCAVATED REVEAL THE SOIL PROFILE AT THE BOREHOLE LOCATION ONLY. FROM THIS, IT IS INFERRED THAT THESE ARE THE SOIL CONDITION OVER THE SITE. VARIATIONS CAN OCCUR WHICH MAY NOT HAVE BEEN DETECTED AT THE INVESTIGATION STAGE. ANY ANOMALIES SHOULD BE REFERRED BACK TO THIS OFFICE FOR REASSESSMENT.
- 8. A NUMBER OF BOREHOLES ARE CONDUCTED ACROSS THE SITE IN ORDER TO DETERMINE THE SOIL PROFILES AND PROVIDE A REPRESENTATION OF THE GROUND CONDITIONS.
- 9. THIS REPORT IS FOR STRUCTERRE ONLY TO USE IN DESIGN. ANY DESIGN BY ANYONE ELSE FOR ANY STRUCTURE MUST BE SPECIFICALLY APPROVED BY STRUCTERRE. IF USED BY ANYONE ELSE FOR ANYTHING OTHER THAN A STRUCTERRE DESIGN OR STRUCTURE. STRUCTERRE TAKES NO RESPONSIBILITY.

SAND PAD

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

EARTHWORKS

- 16. RECOMMENDED EARTHWORKS TO BE CONDUCTED IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS", AND TO INCLUDE BUT NOT BE LIMITED TO:
 - a. REMOVAL OF ALL VEGETATION, TOPSOILS, UNCONTROLLED FILLS AND OTHER DELETERIOUS MATERIALS FROM THE BUILDING AREA,
 - b. GRUBBING OUT OF ANY TREES ENSURING THE REMAINING HOLES ARE BACKFILLED WITH CLEAN COMPACTED SAND,
 - c. NOTIFYING THE ENGINEER OF ANY UNUSUAL FEATURE OR DISCREPANCY THAT MAY BECOME EVIDENT DURING EARTHWORKS, PRIOR TO PROCEEDING,
 - d COMPACTING TO MEET THE REQUIREMENTS AS OUTLINED IN AS 3798 TABLE 5.1
- 17. FILL MATERIAL (WHICH IS NOT ALWAYS APPARENT AT THE INITIAL INVESTIGATION STAGE) IS TO BE DEALT WITH AS FOLLOWS:

 a. IF IT IS CERTIFIED BY OTHERS IT CAN REMAIN.
 - b. IF IT IS NOT CERTIFIED WILL REQUIRE REMOVAL DOWN TO NATURAL GROUND OR VERIFIED. ANY SAND CAN BE REUSED.
 - c. IF A PAD HAS ALREADY BEEN CONSTRUCTED, THE SITE CLASSIFICATION IS NOT CERTIFICATION OF THE PAD. CONTACT THIS OFFICE SHOULD A SAND PAD CERTIFICATION BE REQUIRED.
- 18. ANY ORGANIC MATTER OR ROOTS ENCOUNTERED, WHICH IS BEYOND WHAT IS NORMALLY CONSIDERED ACCEPTABLE IS TO BE REMOVED. THIS WILL NECESSITATE RAKING THE SITE TO REMOVE ORGANIC MATERIAL, TURNING THE SITE OVER AND RE-COMPACTING TO A MINIMUM.

RETAINING WALLS

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

STORMWATER DRAINAGE

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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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

ROJECT :		
LOT 1081	HASTIES RD	YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

DATE

SCALE 1:20 APPROVED

av L

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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021 LOT 1081 HASTIES RD YANCHEP

consulting engineers

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CLIENT: DENSFORD CIVIL

1:20 DATE 16/6/23

PROJECT

SCALE

APPROVED



SITE CLASSIFICATION REPORT

CERTIFICATE 2600470

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1082 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101308 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

Issued Date: 16 June 2023 - 1 -

SOIL PROFILE

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structure Geotechnical Report J416979 dated 12/09/2022.

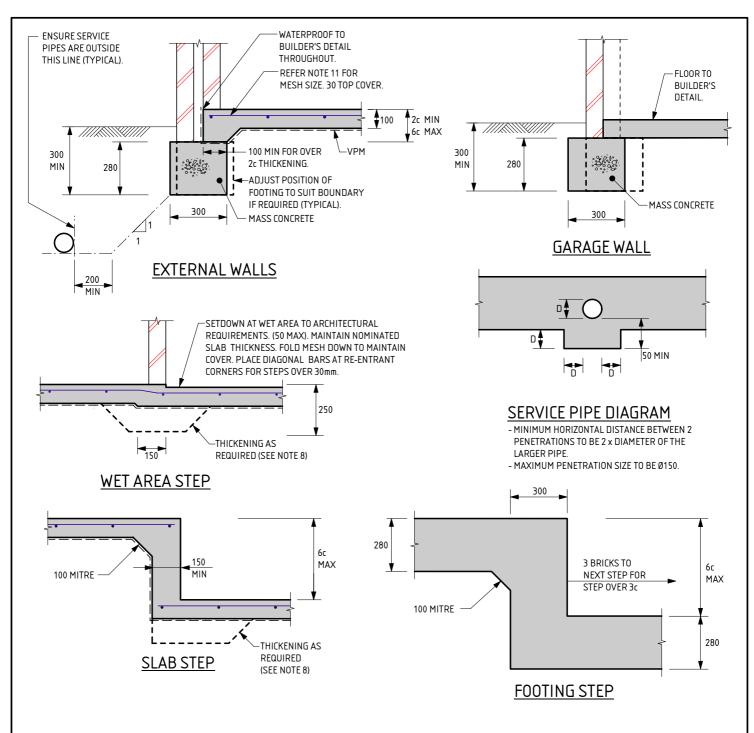
-- END OF REPORT --

CERTIFICATE 2600470

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



A FOOTING NOTES:

- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 1082 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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 51
- 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
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



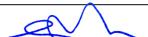
Zemla Pty. Ltd. (ABN. 71 349 772 837) ATF the Young Purich and Higham Unit Trust trading as Structerre Consulting Engineers 1 ERINDALE ROAD, BALCATTA WA. 6021 TEL (08) 9205 4500 FAX (08) 9205 4541 EMAIL: perth@structerre.com.au

LOT	1082	HAST	ΓIES	RD	YAN	CHEF

CLIENT: DENSFORD CIVIL

16/6/23

SCALE 1:20 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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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LOT 1082 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

PROJECT

DATE

SCALE 1:20 APPROVED



CERTIFICATE 2600471

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1083 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101310 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600471

Issued Date: 16 June 2023

- 2 - Signed:

Gervase Purich
Chief Executive Officer



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- IF CLAY ON SITE AN ENGINEER TO BE CONSULTED.
- ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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. 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.



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PROJECT LOT 1083 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
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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 51
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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LOT 1083 HASTIES RD YANCHE	EΡ

CLIENT: DENSFORD CIVIL

16/6/23

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.

<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.

PROJECT:
LOT 1083 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

SIRUCLE Consulting engineers

Zemla Pty. Ltd. (ABN: 71349 772 837) ATF the Young Purich and Higham

Jipit Trust trading as Structures 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



CERTIFICATE 2600472

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1084 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. S1101311

DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600472

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 1084 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

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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.

<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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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SCALE 1:20 16/6/23

CLIENT: DENSFORD CIVIL

PROJECT

DATE

APPROVED

LOT 1084 HASTIES RD YANCHEP



CERTIFICATE 2600473

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1085 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101313 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600473

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 1085 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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
- 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

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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

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CLIENT: DENSFORD CIVIL

SCALE 1:20 APPROVED

DATE 16/6/23

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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.

DOC# SS001 - 1.1.3 V1.1 - AUGUST 2021



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 1085 HASTIES RD YANCHEP

CLIENT: DENSFORD CIVIL

16/6/23

PROJECT

DATE

SCALE 1:20 APPROVED



CERTIFICATE 2600474

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1086 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101315 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600474

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB
- SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600.
- 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

DATE LAST MODIFIED - 19/01/23 PROJECT

CLIENT: DENSFORD CIVIL



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 SCALE APPROVED 1:20 DATE 16/6/23

LOT 1086 HASTIES RD YANCHEP

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 51
- 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

DATE

DOC# SS001 - 1.1.3 V1.1 - AUGUST 202



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

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CLIENT: DENSFORD CIVIL

16/6/23

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.

DOE# SS001 - 1.1.3 V1.1 - AUGUST 2021



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 CLIENT: DENSFORD CIVIL

LOT 1086 HASTIES RD YANCHEP

PROJECT

DATE

SCALE 1:20 APPROVED

16/6/23

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CERTIFICATE 2600475

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1087 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101316 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600475

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671. ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER
- AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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 1087 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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
- 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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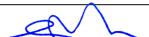
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WIND CLASSIFICATION

- 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: DENSFORD CIVIL

LOT 1087 HASTIES RD YANCHEP

DATE 16/6/23

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CERTIFICATE 2600468

CLIENT DENSFORD CIVIL

JOB ADDRESS LOT 1088 HASTIES RD YANCHEP

CLIENT JOB NO.

OWNER

STRUCTERRE JOB NO. \$1101317 DATE OF ASSESSMENT 15/6/23

SITE RECORD



SITE CLASSIFICATION **A** (in accordance with AS2870)

FOOTING DETAIL A

SAND PAD No sand pad required structurally

BUSHFIRE PRONE AREA Yes (see NOTE 2.)

CORROSION CLASSIFICATION R3 (Durability Class in accordance with AS3700)

WIND CLASSIFICATION N1 (in accordance with AS4055)

-TERRAIN CATEGORY 2 -TOPOGRAPHIC T0

-SHIELDING Full Shielding

WA | QLD | NSW | VIC

BOREHOLE 1: 0 - 750 FILL sand with gravel (limestone) - brown; 750 GRAVEL (limestone) refusal.

APPROXIMATE BOREHOLE LOCATIONS



NOTE 1 Explanatory Notes & Standard Recommendations

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

NOTE 2 Bushfire - Prone Area

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

ADDITIONAL NOTES / REQUIREMENTS

Site Condition

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

Structerre Geotech Reference #2

The Site Classification is based on the Structerre Geotechnical Report J416979 dated 12/09/2022.

-- END OF REPORT --

CERTIFICATE 2600468

Issued Date: 16 June 2023

Signed:

Gervase Purich
Chief Executive Officer



- REMOVE ALL TOPSOIL, VEGETATION AND DELETERIOUS
- FILL MATERIAL FROM THE BUILDING AREA.
 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 DEPTH OF PAD.
- A MIN OF 150mm OF SAND REQUIRED UNDER FOOTINGS
- ROOF AND SURFACE WATER TO BE CONSULTED.

 ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- EXCAVATIONS FOR PLUMBING NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- WHERE PLUMBING PIPES PASS THROUGH FOOTINGS OR SLAB SPECIFIED DEPTH OF ALL CONCRETE IS ALWAYS TO BE MAINTAINED.
- PLACE SLAB THICKENINGS (300 WIDE x 250 DEEP)
- UNDER INTERNAL WALLS (90 OR 110) HIGHER THAN 3.7m REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE
- FOLLOWING STANDARDS; SL INDICATES DEFORMED SQUARE MESH D500L TO AS/NZS 4671.
- ALL STEELWORK TO BE TREATED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OR TO AS 3700, AS APPLICABLE.
- 10. LAP ALL MESH TWO TRANSVERSE WIRES PLUS 25mm OR TO MANUFACTURER'S SPECIFICATIONS.

- 11. 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 3:1, USE THE FOLLOWING: USE SL52/SL63 MESH FOR SLAB SPAN UP TO 22m
- USE SL62 MESH FOR SLAB SPAN UP TO 26m USE SL72 MESH FOR SLAB SPAN UP TO 30m
- USE SL82 MESH FOR SLAB SPAN UP TO 32n
- 12. CONCRETE TO CONFORM WITH AS 3600. 13. BLENDED CEMENT TO CONFORM WITH AS 3972 14. ALL CONCRETE TO BE N20/20/100.
- 15 CURE SLAB AS DETERMINED BY ENGINEER
- 15. 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.
- 17. A BRICK COURSE, AS REFERRED TO IN THIS DOCUMENT IS STANDARD 86mm HIGH. 18. 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.
- 19. PIERCING THE VAPOUR BARRIER (VPM) USING LEVELLING PINS
- ON FREE DRAINING SAND PADS IS ALLOWABLE.

 20. THE SLAB DESIGN IS CONSIDERED SUITABLE AS A PHYSICAL BARRIER AGAINST INGRESS OF TERMITES.

DATE LAST MODIFIED - 19/01/23

THE APPROVED SIGNATURE ON THIS FOOTING AND SLAB DETAIL ENDORSES ITS USE FOR SINGLE STOREY BUILDINGS ON CLASS A STABLE SITES.

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PROJECT LOT 1088 HASTIES RD YANCHEP CLIENT: DENSFORD CIVIL SCALE APPROVED 1:20 DATE 16/6/23

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.
- 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

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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 REGULIRED.
- 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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CLIENT: DENSFORD CIVIL

16/6/23

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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 8.5 m.
 - 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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