Eden Street
Riverside Tasmania 7250
Telephone: (03) 6323 9300
Facsimile: (03) 6323 9349

West Tamar COUNCIL

PLANNING APPLICATION FORM | **Section 57 & 58**

OFFICE USE ONLY		
	Application Number	PA202415
	Assess No:	A7927
	PID No:	6092372

Applicant Name:	**ANDREW SMITH ARCHITECTS**					
Applicant Contact Name						
Postal Address:						
Contact Phone:	**Home**		**Work**		**Mobile**	
Email Address:						

Planning Application Lodgement Checklist

The following documents have been submitted to support the consideration of this application:

1. A current copy of the property title text, folio plan and schedule of easements ☐
2. A completed application form including a detailed description of the proposal ☐
3. A complete plan set: ☐
   - a) **Floor plans** ☐
   - b) **Elevations** (from all orientations/sides and showing natural ground level and finished surface level) ☐
   - c) **Site Plan** showing: ☐

- Orientation
- All title boundaries
- Location of buildings and structure (both existing and proposed)
- Setbacks from all boundaries
- Native vegetation to be removed
- Onsite services, connections and drainage details (including sewer, water and stormwater)
- Cut and/or Fill
- Car parking and access details (including construction material of all trafficable areas)
- Fence details
- Contours

4. Other:

If submitting plans in over the counter please ensure they are A3.
All plans must be to scale.

WEST TAMAR COUNCIL

Application Number: Application_Number

APPLICANT DETAILS

Applicant Name:	ANDREW SMITH ARCHITECTS

Note: *Full name(s) of person(s) or company making the application and postal address for correspondence.*

LAND DETAILS

Owner/Authority Name: *(as per certificate of title)*	**ALAN JOHN HUDSON, CHRISTINE CLARE HUDSON & KATE VICTORIA HUDSON**

Location / Address:	20 BEACH CRESCENT GREENS BEACH
Title Reference:	218000 / 48
Zone(s):	

Existing Development/Use:	DWELLING
Existing Developed Area:	135 SQM

Are any of the components in this Application seeking retrospective approval? **E.g. Use and/or development that has commenced without a Planning Permit.**	**YES** ☐ **NO** X
(If yes please specify the relevant components):	

DEVELOPMENT APPLICATION DETAILS

Proposed Use:	Residential: X	Visitor Accommodation: ☐	Commercial: ☐	Other: ☐
	Description of Use: ADDITIONS AND ALTERATIONS TO EXISTING DWELLING			

Development Type:	Building work: X	Demolition: ☐	Subdivision: ☐	Other: ☐
	Description of development: ADDITIONS AND ALTERATIONS TO EXISTING DWELLING			

WEST TAMAR COUNCIL

Application Number: Application_Number

New or Additional Area:	57 SQM	
Estimated construction cost of the proposed development:	$350,000	
Building Materials:	Wall Type: CLAD	Colour: OFF WHITE
	Roof Type: COLOURBOND	Colour: SURFMIST

VISITOR ACCOMMODATION ✠N/A

Gross Floor Area to be used per lot:		**Number of Bedrooms to be used:**	
Number of Carparking Spaces:		**Maximum Number of Visitors at a time:**	

SUBDIVISION ✠N/A

Subdivision creating additional lots ☐
Boundary adjustment with no additional lots created ☐

Number of Lots (existing) :		**Number of Lots (proposed) :**	
Description:			
If applying for a subdivision which creates a new road(s), please supply three proposed names for the road(s), in order of preference:			

COMMERCIAL, INDUSTRIAL OR OTHER NON-RESIDENTIAL DEVELOPMENT/USE ✠N/A

Hours of Operation:	Monday / Friday:		To	
	Saturday:		To	
	Sunday:		To	

Existing Car Parking:	
Proposed Car Parking:	

Number of Employees: ***(Existing)***	
Number of Employees: (***Proposed)***	

Type of Machinery installed:	
Details of trade waste and method of disposal:	

WEST TAMAR COUNCIL

Application Number: Application_Number

APPLICANT DECLARATION

Owner: *As the owner of the land, I declare that the information contained in this application is a true and accurate representation of the proposal and I consent to this application being submitted and for Council Officers to conduct inspections as required for the proposal,*

Name (print)	*Signed*	*Date*

Applicant: *(if not the owner)* *As the applicant, I declare that I have notified the owner of my intention to make this application* and that *the information contained in this application is a true and accurate representation of the proposal,*

ANDREW SMITH		**11.12.25**
Name (print)	*Signed*	*Date*

Please Note: If the application involves Crown Land you will need to provide a letter of consent and this form signed by the Minister, or a delegated officer of the Crown with a copy of the delegation.

Crown Consent *(if required)*

Name (print)	*Signed*	*Date*

Chief Executive Officer *(if required)*

Name (print)	*Signed*	*Date*

If the subject site is accessed via a right of way, the owner of the ROW must also be notified of the application.

Right of Way Owner:

As the applicant, I declare that I have notified the owner of the land encumbered by the Right Of Way, of my intent to lodge this application that will affect their land.

Name (print)	*Signed*	*Date*

ORIGINAL - NOT TO BE REMOVED FROM TITLES OFFICE

R.P. 1469
TASMANIA
REAL PROPERTY ACT, 1862, as amended

NOTE—REGISTERED FOR OFFICE CONVENIENCE TO REPLACE

CERTIFICATE OF TITLE

Register Book
Vol. 2641 Fol. 11

Cert. of Title. Vol. 579. Fol. 31.

I certify that the person described in the First Schedule is the registered proprietor of an estate in fee simple in the land within described together with such interests and subject to such encumbrances and interests as are shown in the Second Schedule. In witness whereof I have hereunto signed my name and affixed my seal.

Recorder of Titles.

RECORDER OF TITLES TASMANIA

DESCRIPTION OF LAND

PARISH OF STOCKPORT LAND DISTRICT OF DEVON
TWENTY FIVE PERCHES AND THREE TENTHS OF A PERCH on the Plan hereon

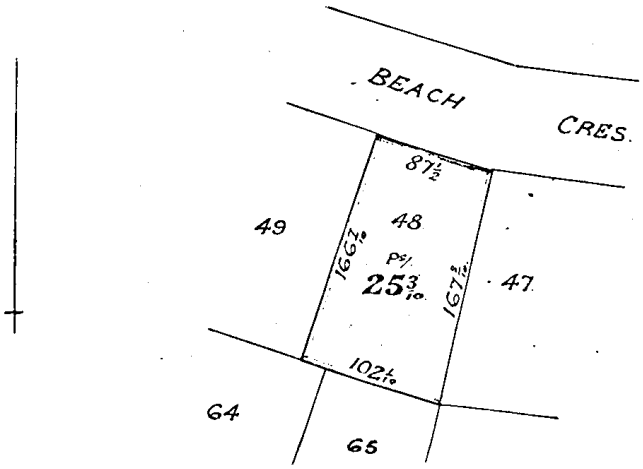
FIRST SCHEDULE (continued overleaf)

NELLIE THOMPSON of Launceston, Manageress.

SECOND SCHEDULE (continued overleaf)

TRANSFER NO. 124852 was made SUBJECT TO boundary fences condition and other conditions.

CANCELLED
-6 JAN 1995
RECORDER OF TITLES
NEW TITLE ISSUED



Part of Lot 22615 - Gtd. to J.T. Squires - Meas. in Links. P.1049.
FIRST Edition. Registered 28 APR 1970
Derived from C.T. Vol. 579. Fol. 31. Transfer 129477 W.J. Doe

REGISTERED NUMBER 218000

Lot 48 of this plan consists of all the land comprised in the above-mentioned cancelled folio of the Register.

THE RECORDER OF TITLES ARE NO LONGER SUBSISTING.

LAYOUT	DRAWING	SCALE
COVER		
	AREAS	1:1
	INDEX	1:1
	PROJECT INFORMATION	1:1
A.00 GENERAL NOTES 1		
	GENERAL NOTES	1:170
A.00 GENERAL NOTES 2		
	GENERAL NOTES	1:170
A.02 SITE PLAN		
	LOCATION	1:200
A.03 SITE PLAN		
	EXTERNAL WORKS & DRAINAGE…	1:100
A.04 SITE PLAN		
	EXTERNAL WORKS & DRAINAGE…	1:100
A.05 FLOOR PLAN		
	EXISTING / DEMOLITION FL-0	1:100
A.06 FLOOR PLAN		
	EXISTING / DEMOLITION FL-1	1:100
A.07 FLOOR PLAN		
	FOOTING SCHEDULE	1:1
	FOOTING SETOUT FL-0	1:100
A.08 FLOOR PLAN		
	FOUNDATION WALL SCHEDULE	1:1
	FOUNDATION WALL SETOUT FL-0	1:100
A.09 FLOOR PLAN		
	SLAB POD SCHEDULE	1:1
	SLAB POD SETOUT FL-0	1:100
A.10 FLOOR PLAN		
	SLAB SCHEDULE	1:1
	SLAB SETOUT FL-0	1:100
	WELD PLATE SCHEDULE	1:1
A.11 FLOOR PLAN		
	DECK FRAMING FL-0	1:100
	MEMBER SCHEDULE	1:1
A.12 FLOOR PLAN		
	PLATE SETOUT FL-0	1:100
	WALL SCHEDULE	1:1
A.13 FLOOR PLAN		
	MARKING PLAN FL-0	1:100
	MEMBER SCHEDULE	1:1
A.14 FLOOR PLAN		
	BRACING SCHEDULE	1:1
	BRACING SETOUT FL-0	1:100
A.15 FLOOR PLAN		
	NOTATION FL-0	1:100
A.16 FLOOR PLAN		
	FINISHES FL-0	1:100
A.17 FLOOR PLAN		
	FLOOR & DECK FRAMING FL-1	1:100
	MEMBER SCHEDULE	1:1
A.18 FLOOR PLAN		
	SLAB FORM SETOUT FL-1	1:100
A.19 FLOOR PLAN		
	FLOOR & SLAB SETOUT FL-1	1:100
	SLAB SCHEDULE	1:1
	WELD PLATE SCHEDULE	1:1
A.20 FLOOR PLAN		
	PLATE SETOUT FL-1	1:100
	WALL SCHEDULE	1:1
A.21 FLOOR PLAN		
	MARKING PLAN FL-1	1:100
	MEMBER SCHEDULE	1:1
A.22 FLOOR PLAN		
	BRACING SCHEDULE	1:1
	BRACING SETOUT FL-1	1:100
A.23 FLOOR PLAN		
	NOTATION FL-1	1:100
A.24 FLOOR PLAN		
	FINISHES FL-1	1:100
A.25 CEILING PLAN		
	CEILING SCHEDULE	1:1
	NOTATION FL-0	1:100
A.26 CEILING PLAN		
	CEILING SCHEDULE	1:1
	NOTATION FL-1	1:100
A.27 ROOF PLAN		
	FRAMING SETOUT	1:100
	MEMBER SCHEDULE	1:1
A.28 ROOF PLAN		
	NOTATION	1:100
	ROOF SCHEDULE	1:1
A.29 ROOF CALCULATIONS		
	NORTH ROOF	1:1
	SOUTH ROOF	1:1
A.30 SERVICES PLAN		
	POWER FL-0	1:100
A.31 SERVICES PLAN		
	POWER FL-1	1:100
A.32 SERVICES PLAN		
	LIGHTING FL-0	1:100
A.33 SERVICES PLAN		
	LIGHTING FL-1	1:100
A.34 ELEVATIONS		
	EAST	1:100
	NORTH	1:100
A.35 ELEVATIONS		
	SOUTH	1:100
	WEST	1:100
A.36 SCHEDULES		
	DOOR SCHEDULE	1:1
	DOOR SCHEDULE	1:1
	DOOR SCHEDULE	1:1
	WINDOW SCHEDULE	1:1
	WINDOW SCHEDULE	1:1
	WINDOW SCHEDULE	1:1
A.37 SECTIONS		
	SECTION A-A	1:50
A.38 SECTIONS		
	SECTION B-B	1:50
A.39 SECTIONS		
	SECTION C-C	1:50
A.40 SECTIONS		
	SECTION D-D	1:50
A.41 SECTIONS		
	SECTION E-E	1:50
A.42 SECTIONS		
	SECTION F-F	1:50
A.43 SECTIONS		
	SECTION G-G	1:50
A.44 SECTIONS		
	SECTION H-H	1:50
A.45 DETAILS		
	DETAIL 01	1:10
	DETAIL 02	1:10
	DETAIL 03	1:10
	DETAIL 04	1:10
A.46 DETAILS		
	DETAIL 05	1:10
	DETAIL 06	1:10
	DETAIL 07	1:10
A.47 DETAILS		
	DETAIL 08	1:10
	DETAIL 09	1:10
	DETAIL 10	1:20
	DETAIL 11	1:20
A.48 DETAILS		
	DETAIL 12	1:10
	DETAIL 13	1:10
	DETAIL 14	1:10
A.49 DETAILS		
	BRACING DETAILS	1:11…
	BRACING NOTES	1:125
A.50 FORM		
	VIEW FROM SE	1:200
A.51 FORM		
	VIEW FROM NE	1:200
A.52 FORM		
	VIEW FROM NW	1:200
A.53 FORM		
	VIEW FROM SW	1:200

PROJECT INFORMATION	
TITLE REF:	218000 / 48
SITE AREA:	639.47
SOIL RATING:	CLASS M (GEOTON GL25515Ab)
WIND RATING:	N2 (GEOTON GL25515Ab)
HAZARDS:	OCCUPIED PREMISES, ASBESTOS

BUILDING AREAS	
FLOOR LEVEL	AREA:
EXISTING	134.78
PROPOSED FL-0	57.09

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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

05.01.26

DA ISSUE

00752-C

NOTES

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS & SPECIFICATIONS AND OTHER WRITTEN INSTRUCTIONS ISSUED DURING THE COURSE OF THE CONTRACT. REFER ANY DISCREPANCY TO THE DESIGN ENGINEER BEFORE CONSTRUCTION COMMENCES.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL LEVELS ARE EXPRESSED IN METRES, A.H.D.
3. ALL DIMENSIONS RELEVANT TO THE SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION COMMENCES.
4. DO NOT SCALE OFF DRAWINGS - IF IN DOUBT - ASK.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURES IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED. SIDES OF EXCAVATIONS SHALL BE MAINTAINED IN A STABLE STATE DURING ALL PHASES OF CONSTRUCTION.
6. WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE RELEVANT CODES, INCLUDING ALL AMENDMENTS AND LOCAL STATUTORY AUTHORITIES' REGULATIONS.
7. REFERENCES TO PROPRIETARY PRODUCTS IN DRAWINGS INFERS THAT PRODUCT IS TO BE USED, APPLIED AND/OR INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATION.
8. THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE DESIGN ENGINEER, BUT IS NOT AN AUTHORISATION FOR A COST VARIATION. ANY COST VARIATION SHALL BE APPROVED BY THE SUPERINTENDENT BEFORE CONSTRUCTION COMMENCES.
9. DO NOT COMMENCE WORK ON SITE PRIOR TO OBTAINING ALL NECESSARY AUTHORITY FROM RELEVANT AUTHORITIES.
10. SERVICES SHOWN ARE APPROXIMATE ONLY. TAKE ALL PRECAUTIONS TO ESTABLISH EXACT LOCATIONS AND PROTECT SERVICES AS REQUIRED. NOT ALL SERVICES ARE NECESSARILY SHOWN ON PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR ANY DAMAGE TO ANY SERVICES.
11. WHERE WORKS ARE NOT COVERED BY THESE SPECIFICATIONS, REFER TO NATSPEC, COUNCIL STANDARD DRAWINGS, RELEVANT AUSTRALIAN STANDARDS AND RELEVANT DIER STANDARDS.
12. BRITTLE FLOOR COVERINGS SUCH AS CERAMIC TILES SHOULD BE LAID USING AN APPROVED FLEXIBLE ADHESIVE SYSTEM TO CONTROL THE EFFECT OF SHRINKAGE CRACKING. A MINIMUM PERIOD OF THREE MONTHS DRYING OF THE CONCRETE IS USUALLY REQUIRED BEFORE THE PLACEMENT OF BRITTLE FLOOR COVERINGS.
13. ENSURE ALL WET AREAS ARE WATERPROOFED IN ACCORDANCE WITH AS3740.
14. GRADE SURFACE AWAY FROM FOOTING EDGE, 1500 MIN TYPICAL.
15. ANY TREES LOCATED WITHIN 3/4 OF THEIR MATURE HEIGHT OF THE HOUSE SHALL BE REMOVED FROM THE SITE. ALL SOFT SPOTS CREATED BY THEIR REMOVAL SHALL HAVE ALL LOOSE MATERIAL REMOVED & BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED AS PER EARTHWORKS NOTES.

BASIS OF DESIGN

1. DEAD LOADS : IN ACCORDANCE WITH AS 1170.1
2. LIVE LOADS : IN ACCORDANCE WITH AS 1170.1
3. WIND LOADS : IN ACCORDANCE WITH AS 4055
   DESIGN VELOCITY : VP = 33 m/s, VU = 40 m/s, VS = 26 m/s

REGION A

WIND CLASSIFICATION : **N2**

INTERNAL PRESSURE COEFFICIENT = +0.2, -0.3 U.N.O.

GEOTECHNICAL SITE CLASSIFICATION : CLASS **M**

GEOTECHNICAL INVESTIGATION:

1. UNDERTAKE A GEOTECHNICAL INVESTIGATION TO VERIFY THAT THE FOUNDATION MATERIAL AT FOUNDING DEPTH HAS A SAFE BEARING CAPACITY EQUAL TO OR BETTER THAN THE BASIS OF DESIGN ALLOWABLE BEARING PRESSURE.
2. BACKFILL ANY OVER EXCAVATION WITH BLINDING CONCRETE OR APPROVED COMPACTED BASE MATERIAL.
3. ENSURE ALL FOOTINGS ARE CENTRAL TO WALLS AND COLUMNS ETC.

BLOCKWORK RETAINING WALLS :

BLOCKWORK : 200 SERIES U.N.O.

STRENGTH GRADE - 15 MPa IN ACCORDANCE WITH AS 3700

MORTAR TYPE - M3 (MIN COMPRESSIVE STRENGTH 12 MPa)

CONCRETE CORE FILL : S25/7, 230 SLUMP

REINFORCEMENT : HOT ROLLED GRADE 500 DEFORMED (RIBBED) BAR DUCTILITY CLASS N TO AS4671

GENERAL CONSTRUCTION NOTES :

1. FACE SHELLS AND PERPENDS ARE TO BE FULLY BEDDED IN MORTAR.
2. CLEANOUT BLOCKS ARE TO BE PLACES AT THE BOTTOM OF EACH CONCRETE FILLED CORE AND AT EACH LIFT.
3. MORTAR PROTRUDING INTO FILLED CORES IS TO BE REMOVED BEFORE CORE FILLING COMMENCES.
4. UNLESS NOTED OTHERWISE, VERTICAL REINFORCEMENT AND STARTER BARS ARE TO BE PLACED NEAR THE RETAINING FACE OF THE WALL WITH 15mm CLEAR CONCRETE COVER TO THE BLOCKWORK. THESE BARS MUST BE WIRED INTO POSITION BEFORE CORE FILLING COMMENCES.
5. CONCRETE FILL ALL BLOCK CORES
6. ALL FILLED CORES ARE TO BE PLACED BEHIND THE WALL UNTIL AT LEAST FOURTEEN (14) DAYS AFTER CONCRETING CORES. BACKFILL IS TO BE CLEAN, COARSE GRAINED, PERMEABLE SAND OR GRAVEL. THE DRAINAGE SYSTEM SHOULD BE INSTALLED PROGRESSIVELY AS THE BACKFILL RISES.

RETAINING WALL FOUNDATION :

FOUNDING LEVELS SHOWN ON DRAWINGS ARE ANTICIPATED ONLY AND SHALL BE DETERMINED ON SITE.

THE FOUNDATION SHALL BE EXCAVATED TO SUFFICIENT DEPTH TO EXPOSE UNDISTURBED MATERIAL WHICH IS CLEAN AND DRY.

IF THE FOUNDATION CONSISTS OF SOFTNESS, POOR DRAINAGE, FILLED GROUND, ORGANIC MATTER, VARIABLE CONDITIONS OR AGGRESSIVE SOILS, ENGINEERING ADVICE SHOULD BE OBTAINED.

BLOCKWORK NOTES :

BLOCKWORK - 200 SERIES U.N.O.

STRENGTH GRADE - 15 MPa

MORTAR TYPE - M3 IN ACCORDANCE WITH AS 3700-2001

CONCRETE CORE FILL - GENERAL - S20/7, 180+30-0 SLUMP

CORE REINFORCEMENT -

HOT ROLLED GRADE 500 DEFORMED (RIBBED) BAR DUCTILITY CLASS N TO AS4671

PROVIDE 55mm MINIMUM COVER FROM BLOCK FACE TO REINFORCEMENT UNLESS NOTED OTHERWISE ON THE DRAWING.

EXTERNAL WALLS:

N12 CORE REINFORCEMENT - 600 MAX CTS & ADJACENT WALL INTERSECTIONS U.N.O.

N16 CORE REINFORCEMENT AT CORNERS AND ADJACENT OPENINGS LESS THAN 1800 WIDE

2N16 REINFORCED CORES ADJACENT OVER 1800 TO MAX 3000 WIDE U.N.O.

BRACING WALLS -

N12 CORE REINFORCEMENT AT WALL ENDS AND MAX. 600 CTS BETWEEN U.N.O.

INTERNAL WALLS -

N12 CORE REINFORCEMENT AT WALL CORNERS, WALL ENDS, ADJACENT OPENINGS AND AT MAX 1000 CTS BETWEEN.

GENERAL NOTES :

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700-2001 AND THE SPECIFICATION.
2. ALL REINFORCED CORES SHALL BE CONCRETE FILLED.
3. ALL REINFORCED CORES SHALL HAVE A CLEANOUT BLOCK AT THE BOTTOM OF EACH FILLED CORE AND AT EACH LIFT.
4. ALL BLOCKWORK TO BE CONSTRUCTED AS STRETCHER BOND UNLESS NOTED OTHERWISE.
5. ALL WALL CORNERS AND PIER/WALL INTERSECTIONS SHALL BE FULLY BONDED IN ACCORDANCE WITH AS 3700 CLAUSE 4.11 - UNBONDED WALL INTERSECTIONS AS DETAILED ON THE DRAWING.
6. MASONRY CONTROL JOINTS SHALL BE AT 8.0m MAX CTS U.N.O.
7. BLOCKWORK SHALL NOT BE CHASED WITHOUT PRIOR WRITTEN APPROVAL FROM THE DESIGN ENGINEER.
8. WHERE CONCRETE SLABS ARE CAST OVER BLOCKWORK WALLS, FINISH CORE FILLING 40mm BELOW TOP OF WALLS.
9. BLOCKWORK SHALL NOT BE BUILT ON CONCRETE SLABS OR BEAMS UNTIL FALSEWORK HAS BEEN REMOVED.
10. BOLTS, ANCHORS AND FITMENTS BUILT INTO BLOCKWORK SHALL BE HOT DIPPED GALVANISED AND CAST INTO CONCRETE FILLED CORES ONLY.

ADDITIONAL REQUIREMENTS FOR CLASS M , H, P and E SITES

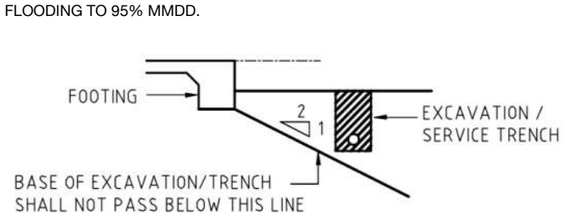
1. PLUMBING TRENCHES SHALL BE SLOPED AWAY FROM THE HOUSE AND SHALL BE BACKFILLED WITH CLAY IN THE TOP 30Omm WITHIN 1.5M OF THE HOUSE. THE CLAY USED FOR BACKFILLING SHALL BE COMPACTED. WHERE PIPES PASS UNDER THE FOOTING SYSTEM, THE TRENCH SHALL BE BACKFILLED WITH CLAY OR CONCRETE TO RESTRICT THE INGRESS OF WATER BENEATH THE FOOTING SYSTEM.
2. SUBSURFACE DRAINS SHALL BE FREE DRAINING AND SHALL BE ABLE TO BE INSPECTED AND MAINTAINED
3. CONNECTION OF STORMWATER DRAINS AND WASTE DRAINS SHALL INCLUDE FLEXIBLE CONNECTIONS
4. PENETRATIONS OF THE EDGE BEAMS OF RAFT AND PERITMETER STRIP FOOTINGS SHALL BE AVOIDED, BUT WHERE NECESSARY SHALL BE SLEEVED TO ALLOW FOR MOVEMENT.

   CLOSED CELL POLYETHYLENE LAGGING SHALL BE USED AROUND ALL STORMWATER AND SEWER PIPE PENETRATIONS THROUGH EXTERNAL FOOTINGS.

   THE LAGGING SHALL BE A MINIMUM OF 20MM THICK ON CLASS H SITES AND 40MM THICK ON CLASS E SITES. SLEEVES ALLOWING EQUIVALENT MOVEMENT MAY BE USED AS AN ALTERNATIVE.
5. PLUMBING AND DRAINAGE UNDER A SLAB SHALL BE AVOIDED WHERE PRACTICABLE. PIPES MAY BE ENCASED IN CONCRETE OR IN RECESSES IN THE SLAB WHEN PROVIDED WITH FLEXIBLE JOINTS AT THE EXTERIOR OF THE SLAB.

EARTHWORKS:

1. EARTHWORK CONSTRUCTION SHALL COMPLY WITH GUIDELINES SET OUT IN AS3798.
2. EXCAVATIONS AND SERVICE TRENCHES SHALL COMPLY WITH THE FOLLOWING GUIDELINES UNLESS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
3. THE AREA OF WORKS SHALL BE STRIPPED OF ALL TOPSOIL AND FILLED IN 150mm COMPACTED LAYERS TO 95%MMDD. SAND BLINDING LAYER DIRECTLY BELOW CONCRETE SHALL BE COMPACTED BY VIBRATING PLATE OR FLOODING TO 95% MMDD.



CONCRETE:

1. ALL CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3600 AND THE RELEVANT SPECIFICATIONS.
2. USE OF CALCIUM CHLORIDE IN CONCRETE IS NOT PERMITTED.
3. MIN CONCRETE GRADE N25
4. DURABILITY EXPOSURE CLASSIFICATIONS FOR SURFACES FOR MEMBERS ARE -
   (a) IN CONTACT WITH GROUND : A2
   (b) EXTERNAL ENVIRONMENT : B2
   (c) INTERNAL ENVIRONMENT : A1
5. CONCRETE COVER TO REINFORCEMENT AS NOTED ON THE DRAWING
6. REINFORCEMENT NOTATION :

   N DENOTES HOT ROLLED GRADE 500 DEFORMED (RIBBED) BAR DUCTILITY CLASS N TO AS 4671

   R DENOTES STRUCTURAL GRADE 250 PLAIN BAR TO AS 4671

   W DENOTES GRADE 500 HARD DRAWN WIRE TO AS 4671

   SL DENOTES HARD DRAWN WIRE GRADE 500 SQUARE REINFORCING WIRE MESH DUCTILITY CLASS L TO 4671.

   THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR DIAMETER IN MILLIMETERS.

   REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION

Project No: 00752

Drawing No: A.00 C

DO NOT SCALE
IF IN DOUBT ASK
SITE CHECK DIMENSIONS
REPORT DISCREPANCIES
REPORT OMISSIONS
COPYRIGHT 5/1/2026
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GENERAL NOTES 1

GENERAL NOTES

STATUS: DA ISSUE

SCALE (A3): 1:170
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

andrew smith architects
CC2762M
STUDIO, 78 WHITEHILLS RD, PENGUIN
T/F: 03 64370913 M:0410034501
E: asarchitects@bigpond.com

Member Australian Institute of Architects

7. REINFORCEMENT LAPS U.N.O.

   SQUARE FABRICS - 1 MESH SQUARE + 25

   RECTANGULAR FABRICS - 225 ENDS, 125 SIDES

   N12- 300 N16- 450 N20- 650 N24- 850 N28- 1050 N32- 1300 N36- 1550

8. REINFORCEMENT COGS :

   N12- 200 N16- 200 N20- 250 N24- 300 N28- 350 N32- 400

9. REINFORCEMENT CRANKS - NOT GREATER THAN 1 IN 6
10. DO NOT WELD OR SITE BEND REINFORCEMENT UNLESS SHOWN ON THE DRAWINGS OR OTHERWISE APPROVED BY THE DESIGN ENGINEER
11. REINFORCEMENT SHALL BE SUPPORTED ON APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS AT 800 MAX CTS EACH WAY FOR MESH AND 60 TIMES THE SMALLER BAR DIA. FOR BARS
12. LIGATURES OR BOGAR CLIPS MUST BE SELECTED TO SUIT FOOTING DEPTH AND TO PROVIDE ONLY 40mm TOP AND 60mm BOTTOM COVER TO TRENSHMESH. CLIPS LESS THAN THAT SPECIFIED WILL NOT CONFORM WITH THE CODE REQUIREMENTS. BAR CHAIRS IN SLABS MUST BE SELECTED TO PROVIDE THE COVER SPECIFIED.
13. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE APPLIED FINISHES. BEAM DEPTHS INCLUDE SLAB THICKNESS
14. PROVIDE DAMP PROOF MEMBRANE (0.2mm THICK APPROVED POLYTHENE MEMBRANE) TO UNDERSIDE OF SLABS ON GROUND IN ACCORDANCE WITH BCA F1.10.
    LAPS SHALL BE 300mm MIN AND TAPED WITH MIN 50mm WIDE PRESSURE SENSITIVE WATERPROOF PAINT.
15. FORM CONSTRUCTION JOINTS IN CONCRETE ELEMENTS ONLY WHERE SHOWN ON THE DRAWINGS OR AS OTHERWISE APPROVED BY THE DESIGN ENGINEER.
    ALL CONCRETE INTERFACES TO CONSTRUCTION JOINT SHALL BE SCABBLED, CLEANED AND COATED WITH A CEMENT SLURRY IMMEDIATELY PRIOR TO POURING CONCRETE
16. ALL CONCRETE SHALL BE COMPACTED USING MECHANICAL VIBRATORS
17. NO HOLES, CHASES OR EMBEDDED ITEMS OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT PRIOR APPROVAL OF THE DESIGN ENGINEER.
18. CURING OF CONCRETE SHALL COMMENCE A MIN. OF 2 HRS AFTER CONCRETING IS FINISHED. CURING METHOD SHALL BE APPROVED BY THE DESIGN ENGINEER.
19. FORMWORK SHALL COMPLY WITH AS 3610 AND RELEVANT CONSTRUCTION SAFETY CODES. STRIPPING TIMES SHALL BE IN ACCORDANCE WITH TABLE 5.4.1 AND SHALL BE APPROVED BY THE DESIGN ENGINEER BEFORE PROCEEDING WITH THE WORK.
20. FINISHES TO UNFORMED SURFACES SHALL BE STEEL TROWELLED FINISH U.N..O.
21. SLUMP IN CONCRETE SHOULD BE THE MINIMUM POSSIBLE, AND NOT MORE THAN 80MM.

FILL MATERIAL & COMPACTION:

1. SELECTED FILL SHALL BE GRAVEL, DECOMPOSED OR BROKEN ROCK FREE FROM CLAY LUMPS AND ORGANIC MATTER, CONFORMING TO THE FOLLOWING GRADING REQUIREMENTS -

A.S. METRIC SIEVE	% PASSING BY WEIGHT
75mm	100
9.5mm	30 - 100
2.36mm	20 - 60
0.075mm	5 - 25

   PRIOR TO PLACEMENT OF FILL (OR COMPACTION OF APPROVED MATERIAL) THE AREA OF THE WORKS SHALL BE STRIPPED OF ALL TOPSOIL AND DELETERIOUS MATERIAL.
2. THE SITE SHALL BE CUT AND FILLED TO FORM A LEVEL BUILDING PLATFORM. BATTERS AROUND THE HOUSE SHOULD BE DESIGNED TO WITHSTAND WEATHER EROSION.
3. THE OWNERS ATTENTION SHALL BE DRAWN TO APPENDIX B OF AS2870 "PERFORMANCE REQUIREMENTS AND FOUNDATION MAINTENANCE" ON COMPLETION OF THE JOB.
4. FILL MATERIAL BENEATH SLAB SHALL BE COMPACTED IN ACCORDANCE WITH AS2870. PIERING IS REQUIRED WHERE THIS MATERIAL EXCEEDS ALLOWABLE FILL DETPHS.
5. FILL SHALL NOT EXCEED 800mm FOR SAND MATERIALS PLACED AND COMPACTED IN 300mm LAYERS OR 400mm FOR NON SAND MATERIALS PLACED AND COMPACTED IN 150mm LAYERS.

TIMBER:

1. DESIGN, WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH AS1684, AS1720 AND AS1604, INCLUDING ALL TIE DOWNS, BLOCKING, BRACING ETC.
2. ALL TIMBER WALL FRAMING TO BE SEASONED MGP12 UNLESS NOTED OTHERWISE.
3. ALL FLOOR FRAMING, ROOF FRAMING AND LINTELS TO BE SEASONED F17 HARDWOOD UNLESS NOTED OTHERWISE.
4. ALL EXTERNAL EXPOSED TIMBER SHALL COMPLY WITH THE REQUIREMENTS OF APPENDIX C OF AS1684.2 (IE PROVIDE PRESERVATIVE TREATMENT).
5. TIMBER FLOORS IN WET AREAS SHALL BE PROTECTED FROM MOISTURE IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA.
6. HOLES FOR BOLTS, UNLESS OTHERWISE NOTED, SHALL BE MADE OVERSIZE AS FOLLOWS:
   BOLT DIAMETER 15mm OR LESS - 2mm OVERSIZE
   BOLT DIAMTER 16MM OR MORE - 3mm OVERSIZE
7. SHANK AND THREAD OF BOLTS SHALL BE THOROUGHLY COATED WITH A HEAVY WATERPROOF GREASE BEFORE INSERTING INTO THE TIMBER.

OWNER

THE OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE BUILDING AND THE SITE AND SHOULD BE FAMILIAR WITH THE PERFORMANCE AND MAINTENANCE REQUIREMENTS SET OUT IN THE CSRIO PAMPHLET, 10-91 "GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE".

WE WILL NOT BE RESPONSIBLE FOR ANY UNAUTHORISED CHANGES TO THE PLANS, SPECIFICATIONS, MATERIALS, ETC. UNLESS I FIRST GIVE WRITTEN APPROVAL.

BUILDER TO PROVIDE ARCHITECT / ENGINEER WITH 48HRS NOTICE FOR INSPECTIONS, (IF ENGAGED).

STEELWORK

1. FABRICATE AND ERECT ALL STEELWORK IN ACCORDANCE WITH AS4100, AS1538, AS4600 AND THE SPECIFICATION.
2. THE CONTRACTOR SHALL SUBMIT 3 COPIES OF ALL SHOP DETAIL DRAWINGS FOR REVIEW AND PERMISSION TO USE BEFORE COMMENCING FABRICATION. REVIEW DOES NOT INCLUDE CHECKING OF DIMENSIONS. DO NOT BEGIN FABRICATION WITHOUT PERMISSION TO USE.
3. ALL WELDING SHALL BE IN ACCORDANCE WITH AS1554.1 - 1991 BY A QUALIFIED AND EXPERIENCED OPERATOR. FILLET WELDS SHALL BE CATEGORY GP U.N.O. FULL PENETRATION BUTT WELDS SHALL BE CATEGORY SP U.N.O. E48XX ELECTRODES - TYPICAL
4. ALL CUT STEEL EDGES TO BE GROUND TO A RADIUS OF 2mm. DEFECTS SUCH AS PIN HOLES, BLOW HOLES, HAMMER MARKS ETC SHALL BE RECTIFIED TO THE SATISFACTION OF THE ENGINEER PRIOR TO GALVANIZING OR PAINTING.
5. DO NOT MAKE PENETRATIONS OR CUTOUTS OTHER THAN THOSE SHOWN ON THE DRAWINGS WITHOUT PRIOR APPROVAL OF THE DESIGN ENGINEER.
6. SURFACE PREPARATION PRIOR TO COATING SHALL BE ABRASIVE BLAST CLEANING TO AS1627.4 CLASS 2.5 U.N.O.
7. CORROSION PROTECTION
   1. SHOP APPLIED PAINTING - ALL STEELWORK U.N.O.
      (a) REMOVE ALL ARRISSES
      (b) SURFACES SHALL BE ABRASIVE BLAST CLEANED TO COMPLY WITH AS1627.4, CLASS 2.5
      (c) APPLY ONE COAT OF INORGANIC ZINC SILICATE TYPE 4 PAINT COMPLYING WITH AS2105 - 75 MICRON DRY FILM THICKNESS - WITHIN 4 HOURS OF CLEANING
   2. GALVANIZING SHALL BE HOT DIPPED IN ACCORDANCE WITH AS1650
      (a) MINIMUM COATING THICKNESS 500 GSM
      (b) PROVIDE DRAIN HOLES AND VENTS IN CLOSED SECTIONS
      (c) REMOVE ALL ARRISSES
8. FIELD TOUCH UP
   1. SHOP APPLIED COATINGS
      (a) THOROUGHLY DEGREASE DAMAGED AREA USING SOLVENT IN ACCORDANCE WITH AS1627.1, RINSE THOROUGHLY WITH CLEAN WATER AND LIGHTLY ABRADE.
      (b) APPLY ONE COAT OF INTERZINC 72 - 75 MICRON DRY FILM THICKNESS.
   2. GALVANIZED SURFACES
      (a) THOROUGHLY DEGREASE DAMAGED AREA USING SOLVENT IN ACCORDANCE WITH AS1627.1, THOROUGHLY RINSE WITH CLEAN WATER AND LIGHTLY ABRADE.
      (b) APPLY ONE COAT OF INTERZINC 352 - 50 MICRON DRY FILM THICKNESS.
9. TOP COAT - OPTIONAL
   1. PAINTED SURFACES

      APPLY TWO COATS INTERLAC 665 ALKYD GLOSS ENAMEL AT 35 MICRONS DRY FILM THICKNESS EACH COAT. COLOUR TO SUPERINTENDENT.
   2. GALVANIZED SURFACES

      ETCH PRIME THEN APPLY TWO COATS INTERLAC 665 ALKYD GLOSS ENAMEL AT 35 MICRONS DRY FILM THICKNESS EACH COAT. COLOUR TO SUPERINTENDENT.
10. CONCRETE ENCASE ALL STEELWORK BELOW GROUND, MIN 75 COVER TO ALL SURFACES. WRAP ENCASED MEMBERS WITH GGW41 - MIN 35 COVER U.N.O.
11. ALL HOLDING DOWN BOLTS, NUTS, WASHERS AND ALL FIXINGS TO BE CAST INTO CONCRETE SHALL BE HOT DIPPED GALVANISED. ALL HOLDING DOWN BOLTS SHALL BE HOT DIPPED GALVANIZED
12. UNLESS NOTED OTHERWISE.
    1. ALL CLEAT, GUSSET, END, FIN AND STIFFENER PLATES SHALL BE 10mm THICK TO AS3679-1990
    2. ALL BOLTS SHALL BE M20 4.6/S TO AS 1252-1983. MINIMUM CONNECTION 2M20 4.6/S BOLTS. BOLT HOLE CLEARANCE 2mm TYPICAL.
    3. WELDS SHALL BE 6mm CONTINUOUS FILLET TO AS1554 PART 1 - 1991. WELDS FULL PERIMETER OF CONTACT
    4. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANISED TO AS1214-1983
    5. MORTAR WHERE REQUIRED - A MINIMUM OF 25mm NON SHRINK GROUT - 40 MPa
    6. MASONRY ANCHORS TO BE HILTI HVU OR APPROVED EQUIVALENT (MIN SIZE M16) INSTALLED INTO CORE FILLED MASONRY OR CONCRETE
    7. BOLTS SHALL BE PROVIDED WITH THREADS EXCLUDED FROM THE SHEAR PLANE. PROVIDE A HARDENED WASHER UNDER ALL NUTS. WHERE TENSIONED USE LOAD INDICATING WASHERS AND TENSION TO AS1252

BRACING & TIE DOWN NOTES:

1. TIMBER FRAMING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS IN SECTIONS 1 TO 7 OF AS1684.2-2010, THE ARCHITECTURAL SPECIFICATION, THE ARCHITECTURAL / ENGINEERING CONSTRUCTION DRAWINGS DETAILS AND OR MANUFACTURERS / MATERIAL SUPPLIERS DETAILS.
2. BRACING OF THE TIMBER FRAME SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS PROVIDED IN SECTION 8 OF AS1684.2-2010, THE ARCHITECTURAL / ENGINEERING CONSTRUCTION DRAWINGS DETAILS AND OR MANUFACTURERS / MATERIAL SUPPLIERS DETAILS.
3. TIE DOWN OF THE TIMBER FRAME SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS PROVIDED IN SECTION 9 OF ADS1684.2-2010, THE ARCHITECTURAL / ENGINEERING CONSTRUCTION DRAWINGS DETAILS AND OR MANUFACTURERS / MATERIAL SUPPLIERS DETAILS.
   NOMINAL (MINIMUM) FIXINGS SHOWN IN TABLE 9.4 OF AS1684.2-2010, INCLUDED IN TYPICAL DETAIL DRAWINGS, SHALL APPLY, AND ARE NOT REPEATED THROUGHOUT THE DRAWINGS OR DETAILS.
4. ROOF TRUSS MANUFACTURER TO SUPPLY SIZES, LOCATIONS AND DETAILS OF AL ROOF BRACING PRIOR TO FABRICATION.
5. ALL INTERNAL BRACING WALLS SHALL BE FIXED TO THE FLOOR FOR THE LOWER STOREY BRACING WALLS, THE CEILING OR ROOF FRAME, AND/OR THE EXTERNAL WALL FRAME, WITH STRUCTURAL CONNECTIONS OF EQUIVALENT SHEAR CAPACITY TO THE BRACING CAPACITY OF THAT PARTICULAR BRACING WALL.
   NOMINAL AND OTHER BRACING WALLS WITH A BRACING CAPACITY OF UP TO 1.5kN/M REQUIRE NOMINAL FIXING ONLY, i.e. NO ADDITIONAL FIXING REQUIREMENTS.
6. BRACING CAPACITIES LISTED ARE SUITABLE FOR WALL HEIGHTS UP TO 2,700MM.
7. DIFFERENT BRACING TYPES HAVE DIFFERENT BRACING ROTATIONAL AND UPLIFT CAPACITIES.

   ANY CHANGES TO THOSE SHOWN WILL REQUIRE A RE-DESIGN AND APPROVAL BY THE ENGINEER.

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GENERAL NOTES 2

GENERAL NOTES

STATUS: DA ISSUE

SCALE (A3): 1:170
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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

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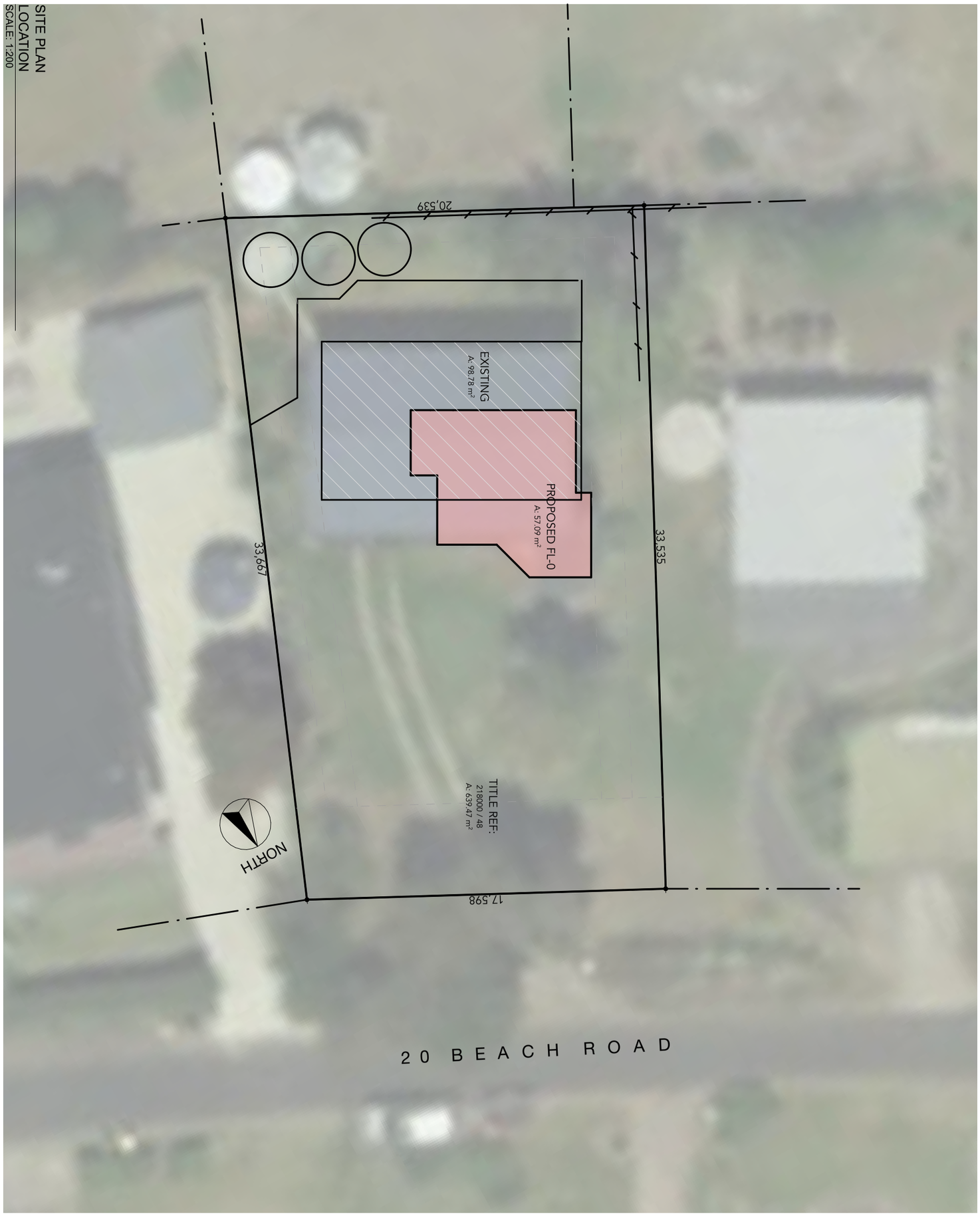

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SITE PLAN

LOCATION

STATUS: DA ISSUE

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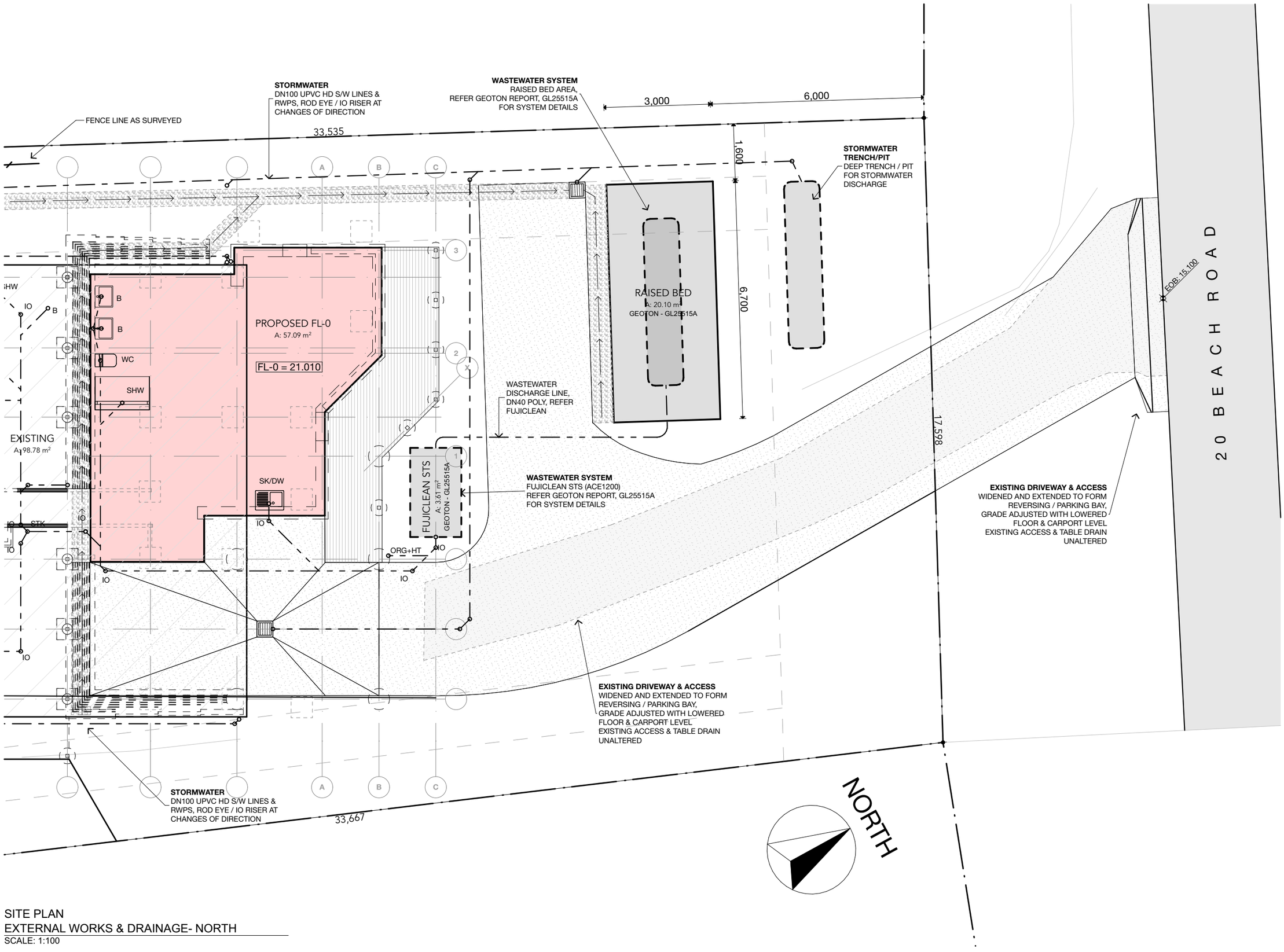

SITE PLAN
EXTERNAL WORKS & DRAINAGE- NORTH
SCALE: 1:100

Project No: 00752
Drawing No: A.03 C

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SITE PLAN
EXTERNAL WORKS & DRAINAGE- NORTH
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ADDITIONS & ALTERATIONS
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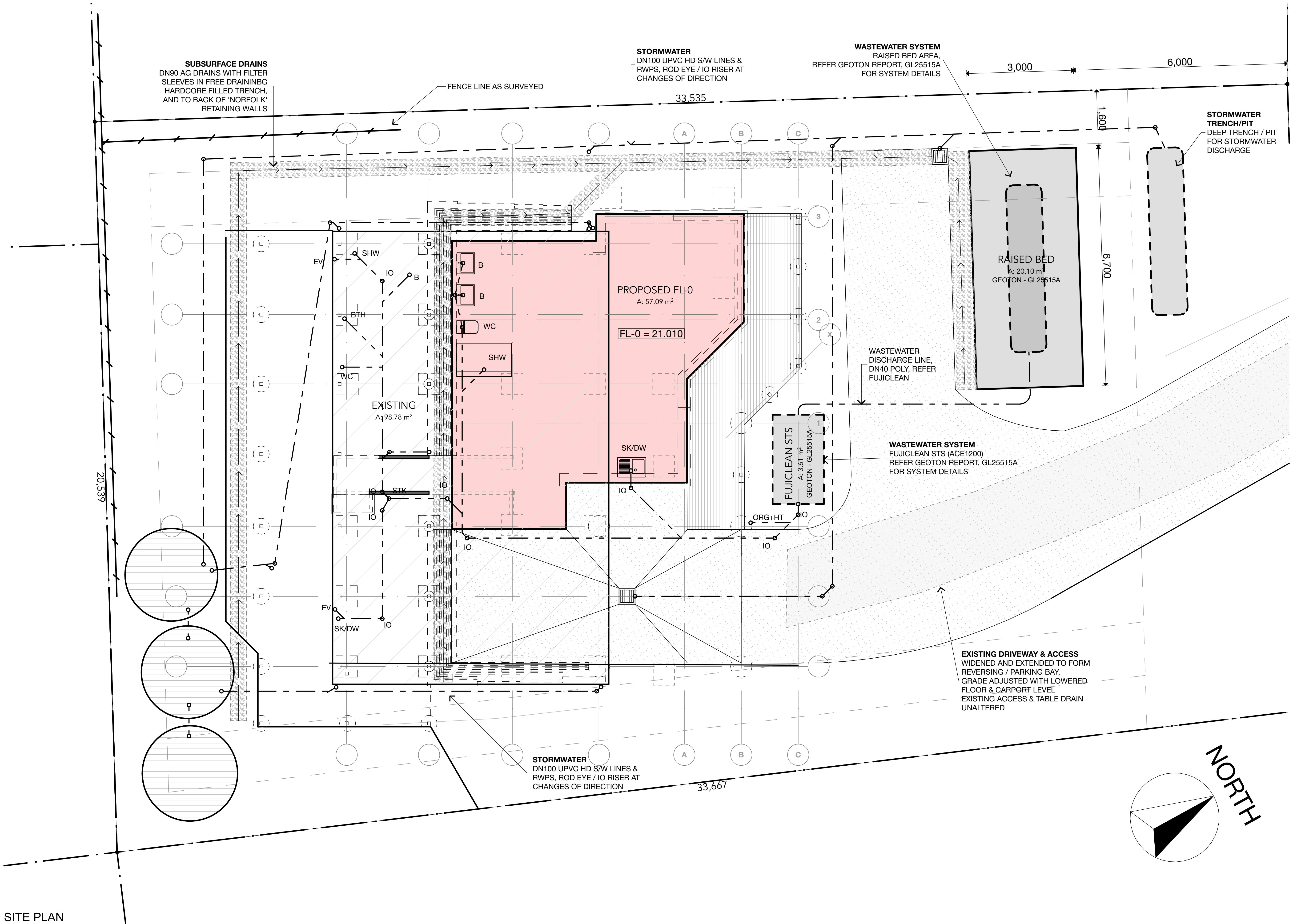
SUBSURFACE DRAINS
DN90 AG DRAINS WITH FILTER SLEEVES IN FREE DRAININBG HARDCORE FILLED TRENCH, AND TO BACK OF 'NORFOLK' RETAINING WALLS
FENCE LINE AS SURVEYED
STORMWATER
DN100 UPVC HD S/W LINES & RWPS, ROD EYE / IO RISER AT CHANGES OF DIRECTION
WASTEWATER SYSTEM
RAISED BED AREA, REFER GEOTON REPORT, GL25515A FOR SYSTEM DETAILS
3,000
6,000
33,535
1,600
STORMWATER TRENCH/PIT
DEEP TRENCH / PIT FOR STORMWATER DISCHARGE
RAISED BED
A: 20.10 m²
GEOTON - GL25515A
6,700
PROPOSED FL-0
A: 57.09 m²
FL-0 = 21.010
EXISTING
A: 98.78 m²
SHW
BTH
WC
EV
IO
B
SK/DW
STK
WASTEWATER DISCHARGE LINE, DN40 POLY, REFER FUJICLEAN
FUJICLEAN STS
A: 3.61 m²
GEOTON - GL25515A
WASTEWATER SYSTEM
FUJICLEAN STS (ACE1200) REFER GEOTON REPORT, GL25515A FOR SYSTEM DETAILS
ORG+HT
20,539
EXISTING DRIVEWAY & ACCESS
WIDENED AND EXTENDED TO FORM REVERSING / PARKING BAY, GRADE ADJUSTED WITH LOWERED FLOOR & CARPORT LEVEL
EXISTING ACCESS & TABLE DRAIN UNALTERED
STORMWATER
DN100 UPVC HD S/W LINES & RWPS, ROD EYE / IO RISER AT CHANGES OF DIRECTION
33,667
NORTH

SITE PLAN
EXTERNAL WORKS & DRAINAGE - SOUTH
SCALE: 1:100

Project No: 00752
Drawing No: A.04 C

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SITE PLAN
EXTERNAL WORKS & DRAINAGE - SOUTH
STATUS: DA ISSUE
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ADDITIONS & ALTERATIONS
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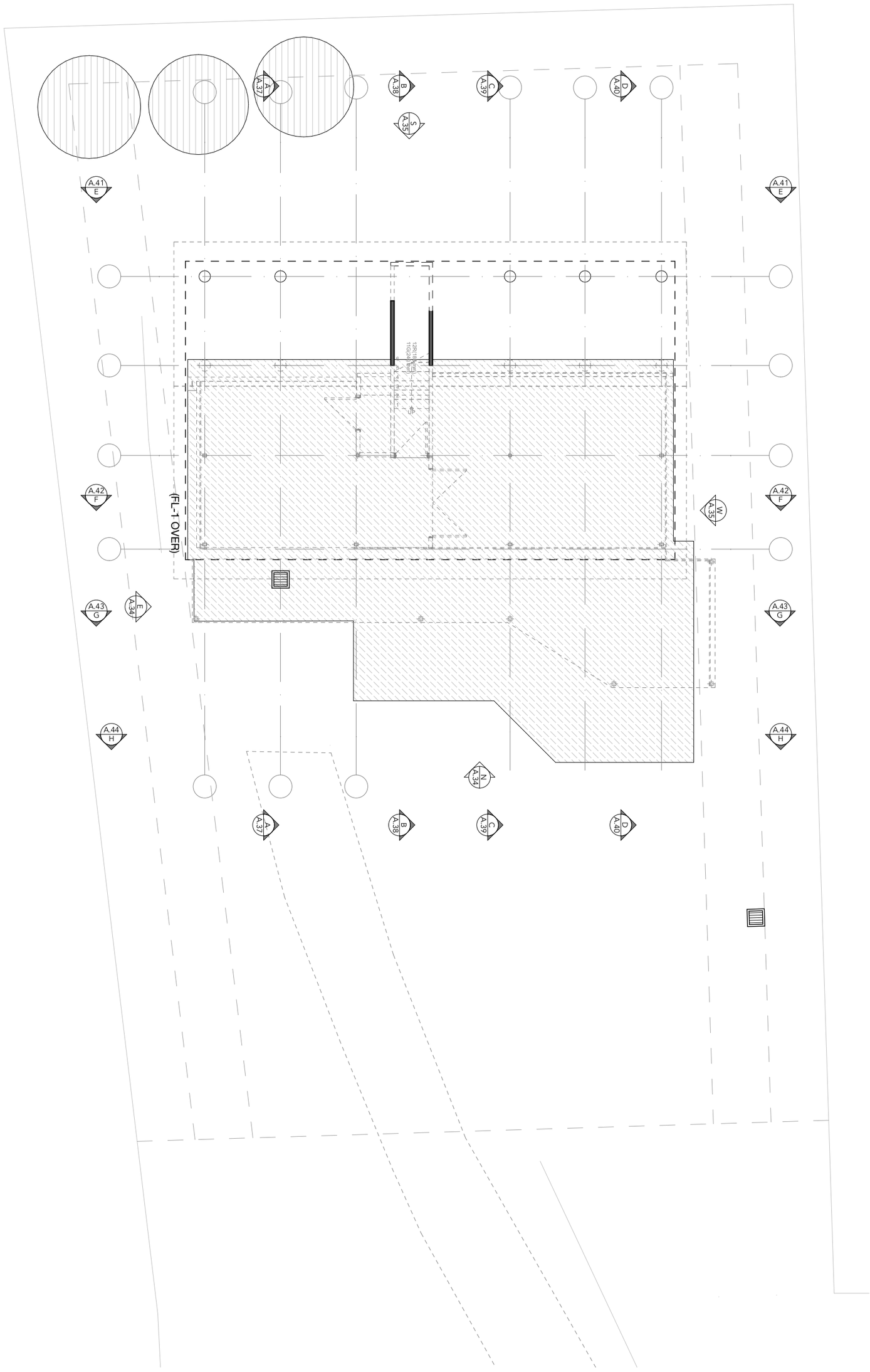
FLOOR PLAN

EXISTING / DEMOLITION FL-0

SCALE: 1:100



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FLOOR PLAN

EXISTING / DEMOLITION FL-0

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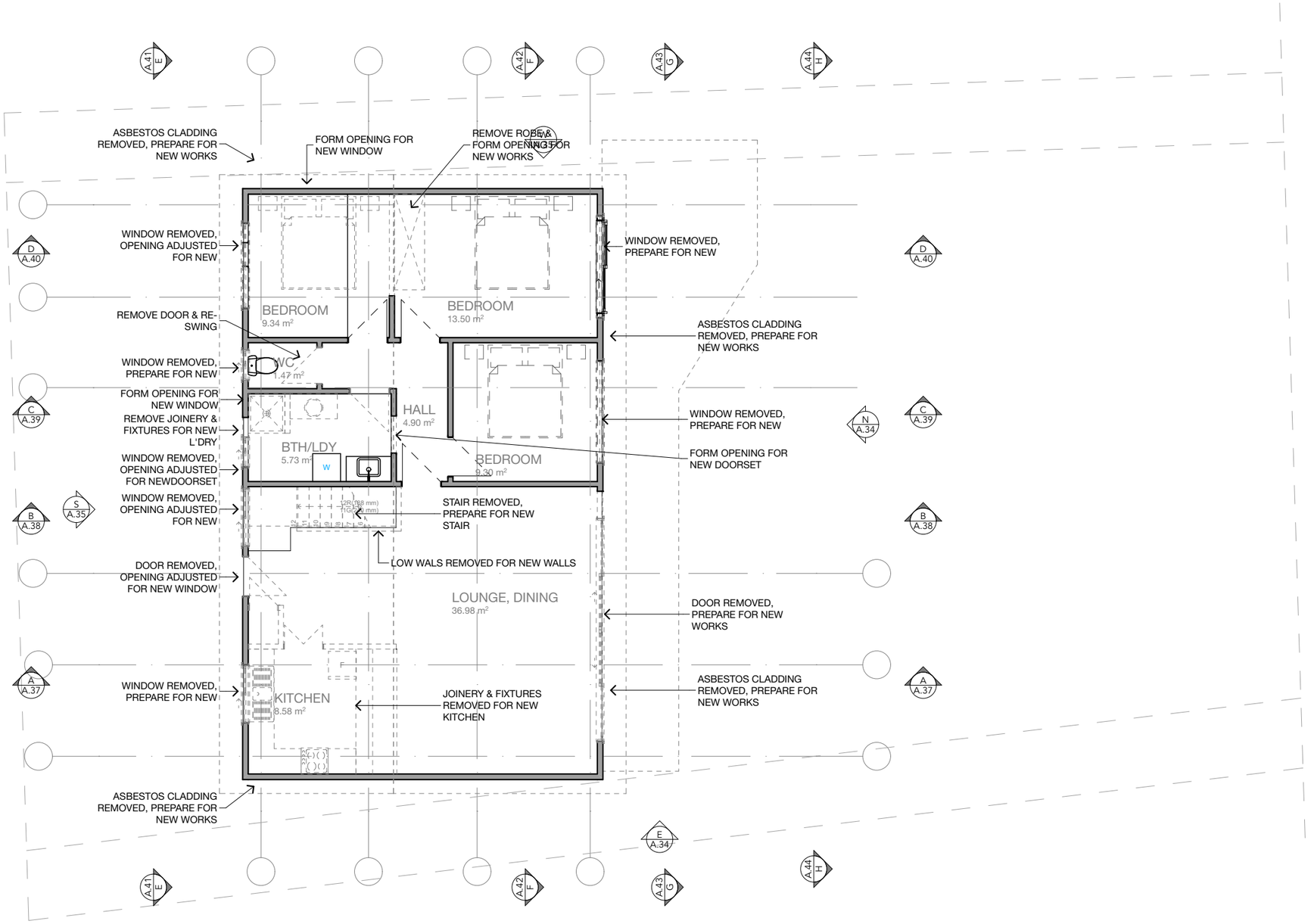

FLOOR PLAN
EXISTING / DEMOLITION FL-1
SCALE: 1:100

Project No: 00752
Drawing No: A.06 C

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FLOOR PLAN
EXISTING / DEMOLITION FL-1

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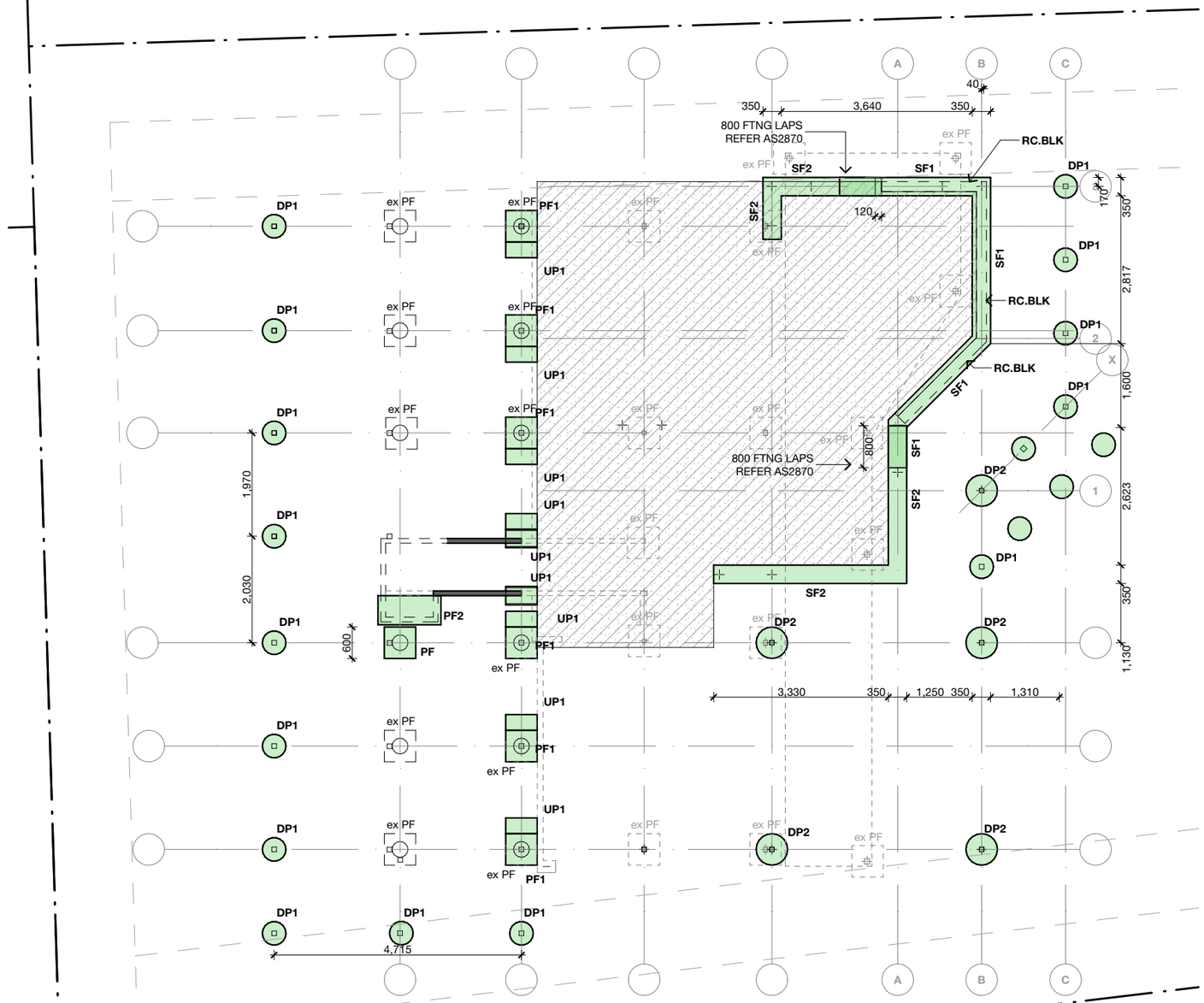

FOOTING SCHEDULE					
CODE	W	H	NOM VOL	NOTES	NOM TOP OF FOOTING
PF1	600	500	1.08	600SQ X MIN 500D PAD FOOTINGS, N25	20,810
PF2	1,200	300	0.20	1200W X MIN 300D PAD FOOTING TO TOP OF STAIR, DEEPEN AS REQUIRED FOR STAIR / FOUNDING MATERIAL TO ENGINEERS APPROVAL	23,365
SF1	350	500	1.53	MIN 350W X 500D STRIP FOOTING,3-L11TM BOT, 65 COVER, 3-L11TM T 50 COVER, LIGS / CLIPS @ MAX 800 CTRS, N12 STARTERS FOR FOUNDFATION WALLS WHERE REQUIRED, COG 300	20,110
SF2	350	500	1.63	MIN 350W X 500D STRIP FOOTING,3-L11TM BOT, 65 COVER, 3-L11TM T 50 COVER, LIGS / CLIPS @ MAX 800 CTRS, N12 STARTERS FOR FOUNDFATION WALLS WHERE REQUIRED, COG 300	20,610
UP1	300	300	0.45	MIN 300W X 300D X 600L MASS CONCRETE UNDERPIN FOOTINGS, CUT INTO EXISTING BANK FOR PROPPING UPPER FLOOR BEARER, PRIOR TO REMOVAL OF EX PADS & STUMPS, INSTALL IN STAGES TO ENGINEERS APPROVAL	20,610

FLOOR PLAN
FOOTING SETOUT FL-0
SCALE: 1:100

Project No: 00752
Drawing No: A.07 C

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FLOOR PLAN
FOOTING SETOUT FL-0, FOOTING SCHEDULE
STATUS: DA ISSUE
SCALE (A3): 1:100, 1:1
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ADDITIONS & ALTERATIONS
HUDSON FAMILY
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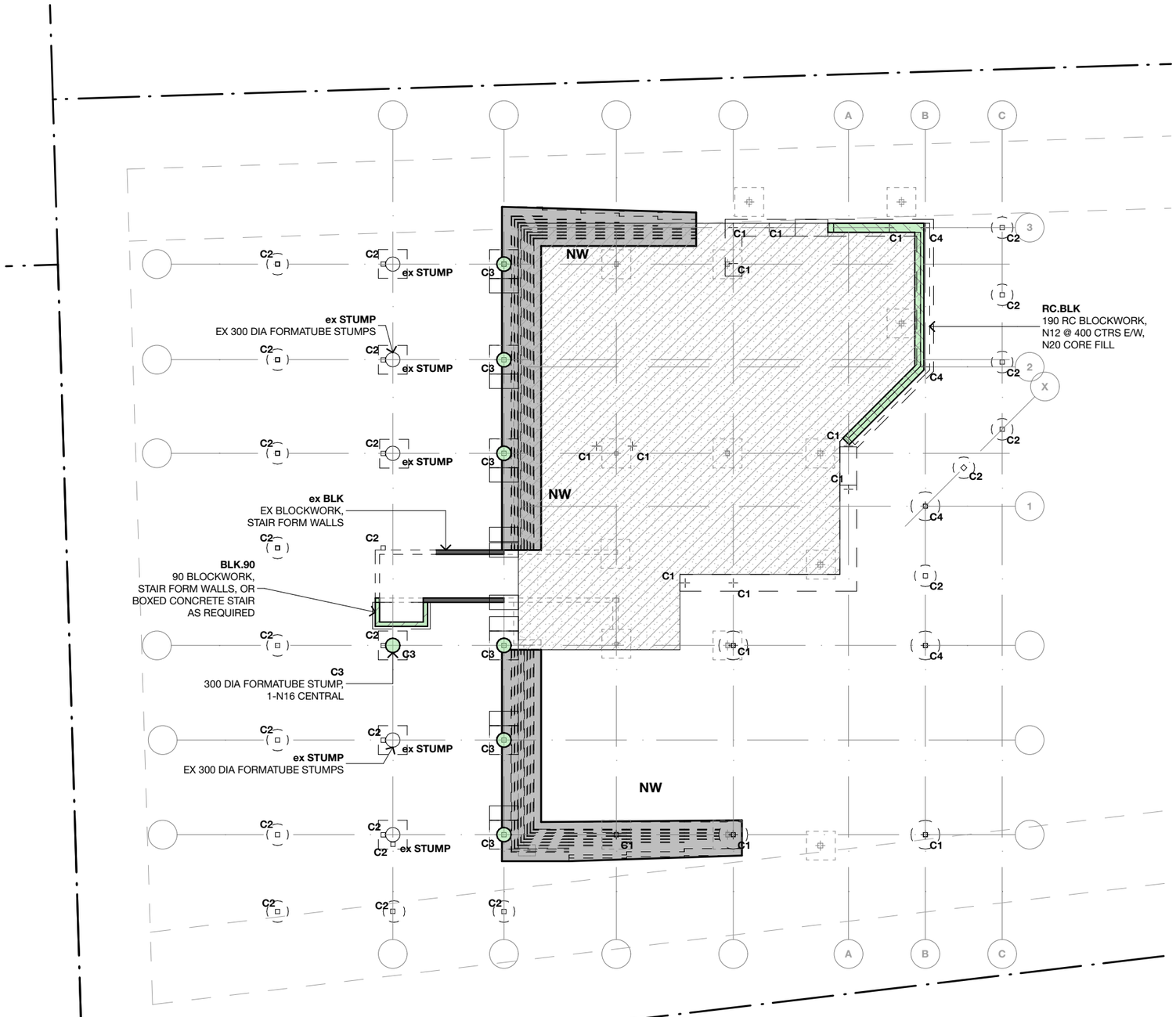

FOUNDATION WALL SCHEDULE		
CODE	NOM VOLUME	NOTES
BLK.90	0.08	10.01 BLOCKWORK TO MAKE GOOD STAIRWELL WALLS WHERE REQUIRED, CONFIRM ON SITE AND SEEK DIRECTION.
NW	9.72	ISLAND BLOCK & PAVING NORFOLK RETAINING WALL, HEIGHT TO SUIT EXISTING CONDITIONS
PANEL	2.96	
RC.BLK	0.80	20.01, 20.48 RC BLOCKWORK SLAB EDGE FOUNDATION WALLS, N12 @ 400 CTRS E/W, N20 CORE FILL
ex BLK	0.83	

FLOOR PLAN
FOUNDATION WALL SETOUT FL-0
SCALE: 1:100

Project No: 00752
Drawing No: A.08 C

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FLOOR PLAN
FOUNDATION WALL SETOUT FL-0,
FOUNDATION WALL SCHEDULE
STATUS: DA ISSUE
SCALE (A3): 1:100, 1:1
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
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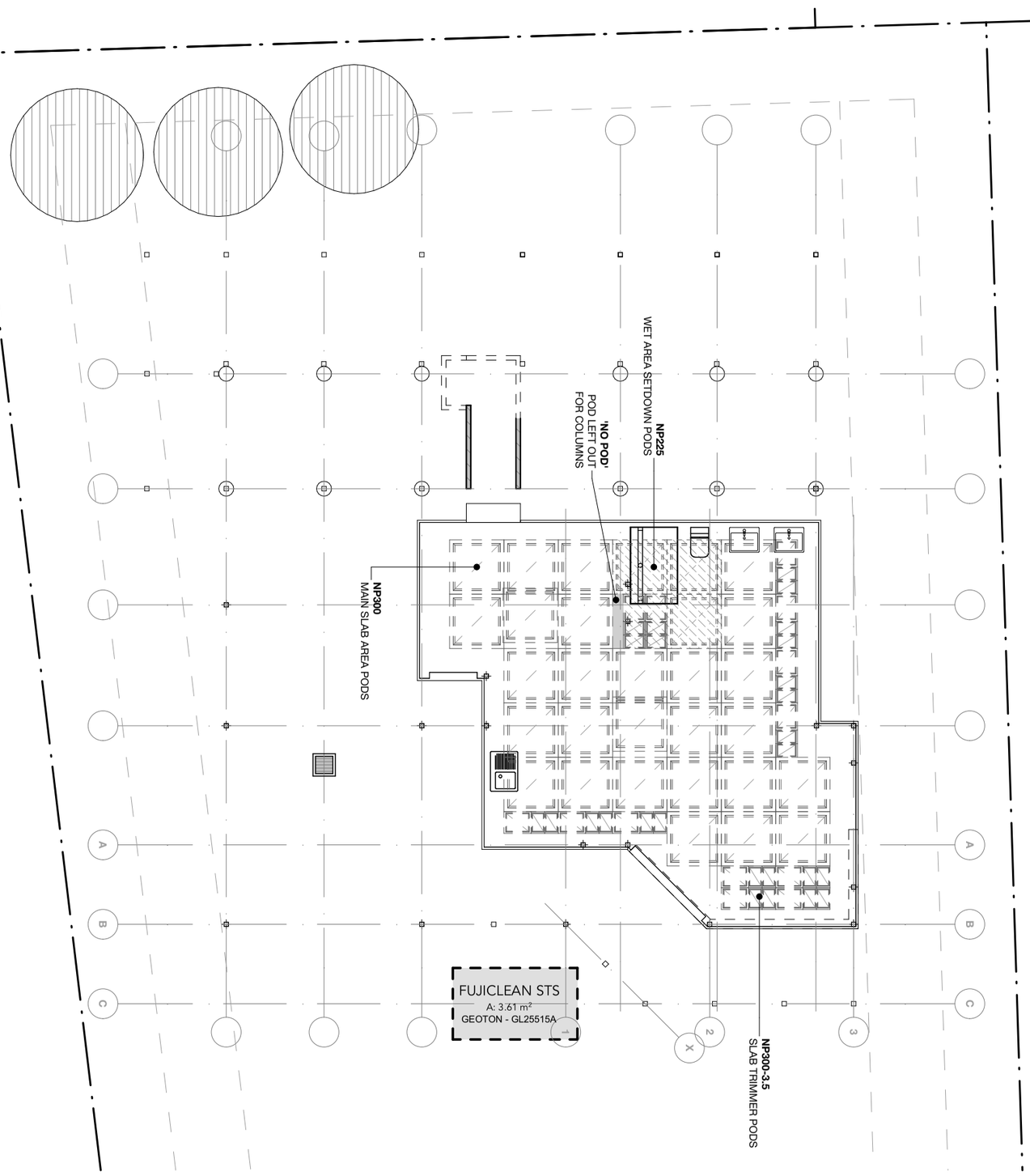
FLOOR PLAN
SLAB POD SETOUT FL-0
SCALE: 1:100



SLAB POD SCHEDULE

CODE	H	QTY	NOTES
NP225	225	3	NUPOD 225 HIGH PODS TO WET AREA SETDOWNS
NP300	300	27	NUPOD 300 HIGH MAIN SLAB AREA PODS
NP300-3.5	225	2	NUPOD 225 HIGH TRIMMER PODS
NP300-3.5	300	11	NUPOD 300 HIGH TRIMMER PODS

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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

FLOOR PLAN

SLAB POD SETOUT FL-0, SLAB POD SCHEDULE

STATUS: DA ISSUE

SCALE (A3): 1:100, 1:1
DRAWN: ACS
DATE: 05.01.26

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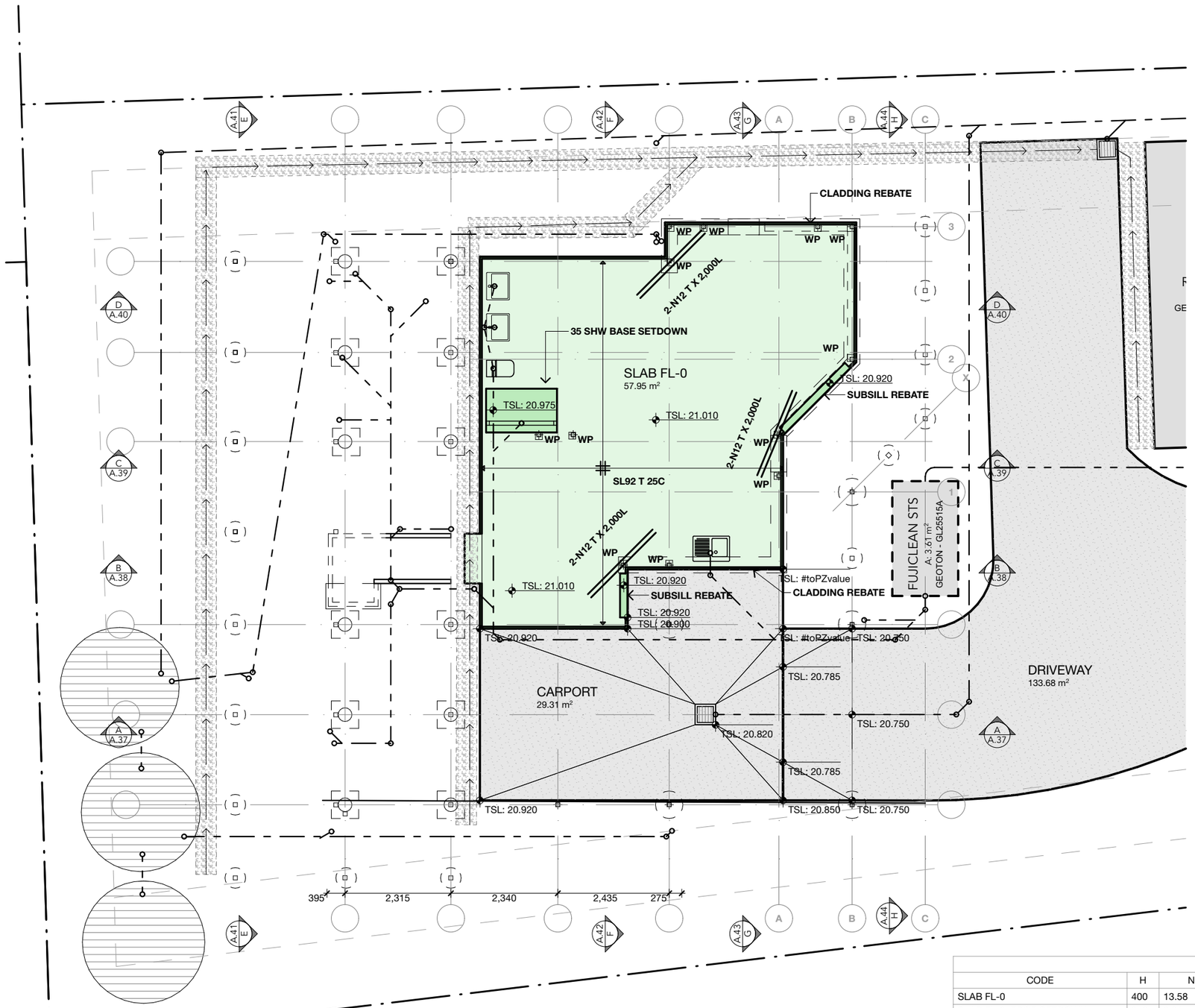
Project No: 00752

Drawing No: A.09 C



FLOOR PLAN
SLAB SETOUT FL-0
SCALE: 1:100

SLAB SCHEDULE			
CODE	H	NOM VOLUME	NOTES
SLAB FL-0	400	13.58	NUPOD SLAB, 100 SLAB, SL92 T 25 COVER
SLAB FL-0, EDGE SETDOWN	310	0.34	EDGE REBATES, REFER SLAB PLAN, N12 PERIMETER TOP 30 C
SLAB FL-0, SHW SETDOWN	365	0.54	35MM SETDOWNFOR SHW BASE, 225 NUPODS UNDER, SL92 T 30C
SLAB FL-1	140	8.19	140 BONDEK SLAB, 1.0 BONDEK II, SL81 TOP, 35 COVER
SLAB FL-1, KERB	93	0.08	UPSTAND KERB UNDER EXISTING WALL, REFER DETAILS
SLAB FL-1, STOOL TO STEEL BEAM	64	0.03	SLAB STOLL DOWN ONTO STEEL SUPPORT BEAMS, REFER DETAILS
		22.76 m³	

WELD PLATE SCHEDULE							
CODE	PLATE	NOM SIZE	TANGS	TANG WELD	FINISH	NOTES	QTY
WP	16	150SQ	2-N16, 100 DROP, 200 LEG	8CFW A/R	HOT DIP GALV	CAST IN PLATES, ADJUST PLATE SIZE/ ORIENTATION & TANG POSITIONS TO SUIT LOCATION WHERE REQUIRED	20

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Drawing No: A.10 C

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FLOOR PLAN
SLAB SETOUT FL-0, SLAB SCHEDULE, WELD PLATE SCHEDULE
STATUS: DA ISSUE
SCALE (A3): 1:100, 1:1
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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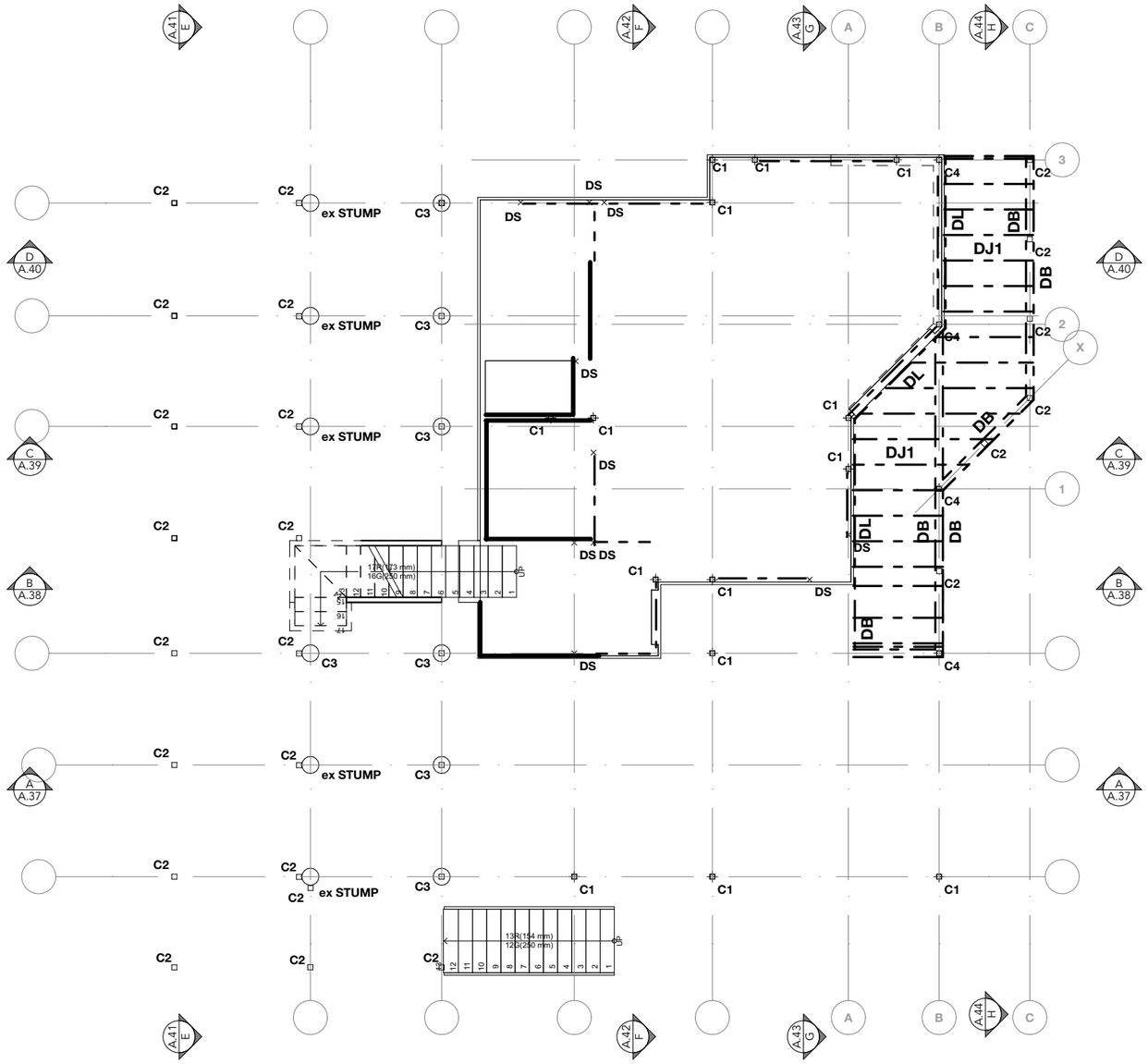

FLOOR PLAN
DECK FRAMING FL-0
SCALE: 1:100

MEMBER SCHEDULE			
MARK	MEMBER	NOTES	FINISH
B1	UC200X52	10PL CLEATS FOR B2/B3 CONNECTION, 2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B2	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B3	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B4	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B5	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B6	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B7	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B8	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
BLK.90	BLOCKWORK 200	10.01 BLOCKWORK	PAINTED WHERE VISIBLE
C1	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C2	LOSP GL8 H3	90SQ MIN STUMPS, MAX 1200 UNRESTAINED HEIGHT	PAINTED
C3	CONCRETE N32	300 DIA FORMA PIER, N32 CONC FILL, 1-N16 CENTRAL, STRIP FORM WRAP ONCE CURED	
C4	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C5	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR L2, 3-M16	HOT DIP GALV
C6	CHS76.1X5.9	STUB COLUMN WELDED TO TOP OF C5 CAP PLATE, 10PL CAP & CLEATS FOR RB1 OVER, DEKTIGHT FOR ROOF PENETRATION	HOT DIP GALV, PAINTED WHERE VISIBLE
DB	MGP12	2/190 X 45 MGP12 H3, NAIL LAMINATED BEARERS	PAINTED WHERE VISIBLE
DJ2	MGP12	140 X 45 MGP12 H3 DECK JOISTS & TRIMMERS @ MAX 450 CTRS	PAINTED WHERE VISIBLE
DS	MGP12	MIN DBL 90 X 35 MGP12 STUDS, JAMBS & CONCENTRATED LOADS	
FB	MGP12	190 X 45 MGP12 H3, NAIL LAMINATED TO SIDE OF EX BEARER	
KB	SHS89X89X5.0	'K' BRACE , FULLY WELDED FRAMES, REFER DETAILS	HOT DIP GALV
L1	MGP12	190 X 45 MGP12 LINTELS, DS / 450 END BEARING	PRIMED
L2	MEYSPAN 13	240 X 63 MEYSPAN 13 LINTEL, DS / C5 END BEARING,	PRIMED
RB1	RHS200X100X6.0	ROOF BEAMS, SUPPORTED ON C1 / C6	PROTECTIVE PAINT SYSTEM
RC.BLK	BLOCKWORK 200	190 RC BLOCKWORK, 20-01 / 20-48, N20 CORE FILED, N12 @ 400 CTRS E/W	ROLL ON ACRATEX SYSTEM WHERE EXPOSED TO VIEW
RF1	RHS150X50X5.0	FULLY WELDED RHS RAFTER FRAME, 600 CTRS FOR 'EZ-GLAZE' ROOFING OVER	PROTECTIVE PAINT SYSTEM

Project No: 00752
Drawing No: A.11 C

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FLOOR PLAN
DECK FRAMING FL-0, MEMBER SCHEDULE

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DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
HUDSON FAMILY
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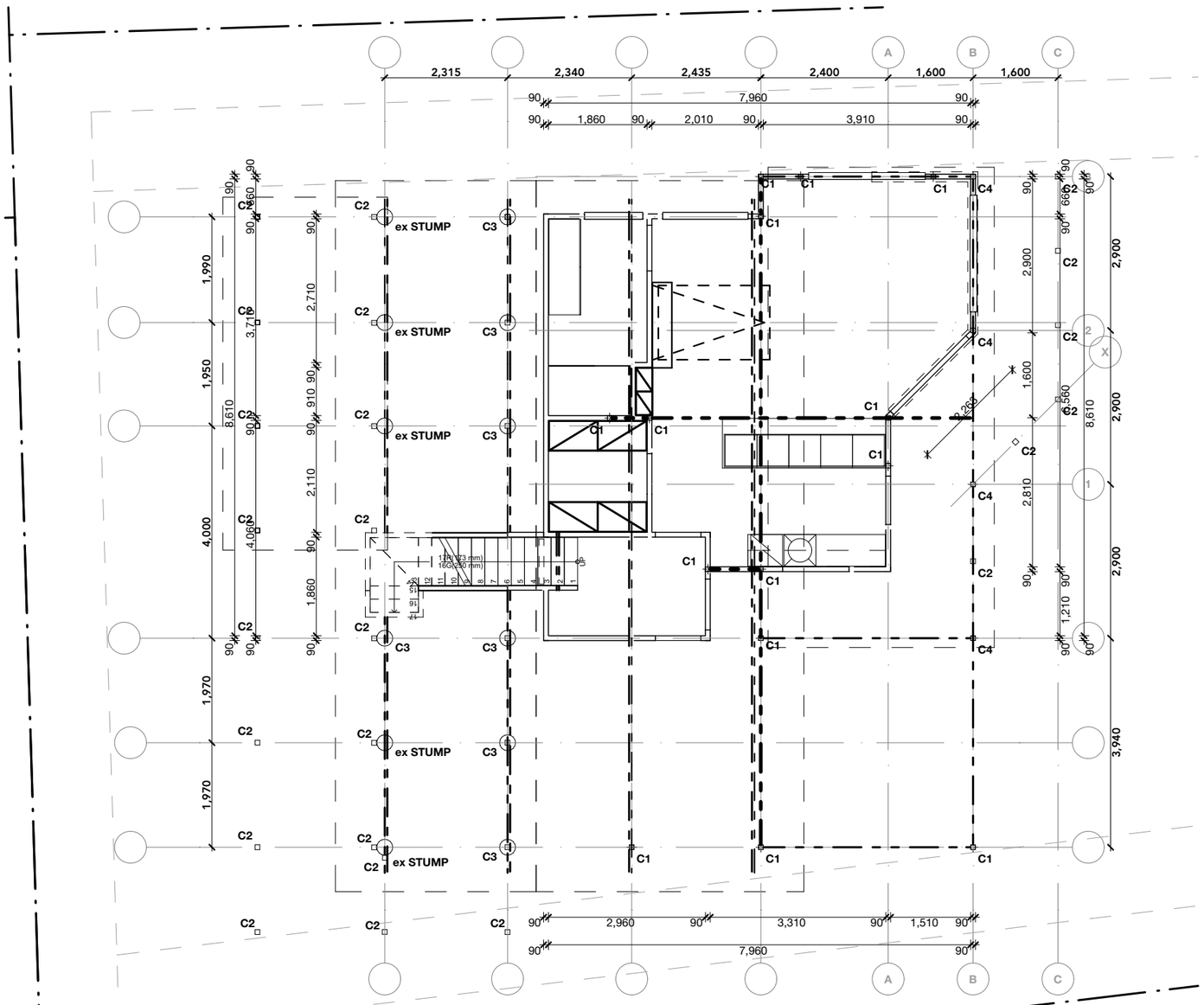

FLOOR PLAN
PLATE SETOUT FL-0
SCALE: 1:100

WALLS SCHEDULE

WALL TYPE	NOM SURFACE AREA	PLATES	STUDS	LOCATION	EXTERNAL FINISH	INTERNAL FINISH	SARKING	CAVITY BATTEN	INSULATION	NOTES
BALCONY EDGES & SOFFIT	4.75	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	STUD FRAMED CLAD EAVES / SOFFIT	EKODECK SHIPLAP CLADDING, F'C SOFFIT		ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EKODECK CLADDING COMPLETE WITH ALL ACCESSORIES & TRIMS
CLAD WALL	78.02	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	STUD FRAMED EXTERNAL CLAD WALLS	EKODECK SHIPLAP CLADDING	PB/PBW TO WET AREAS	ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EKODECK CLADDING COMPLETE WITH ALL ACCESSORIES & TRIMS
INT PARTITION	52.33	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	INTERNAL STUD FRANMED WALLS	PB/PBW TO WET AREAS	PB/PBW TO WET AREAS			R2.7 GOLD HI PERFORMANCE	SKIRTINGS & TRIMS TOI MATCH EXISTING
PANEL	208.03									
RE-CLADDING	104.06	35 X 90 MGP12 H3 BATTEN PLATES TOP & BOTTOM OF EX WALLS & OPENINGS	35 X 90 MGP12 H3 BATTEN STUDS TO EX WALL	EXISTING UPPER CLAD WALLS	EKODECK SHIPLAP CLADDING, F'C SOFFIT	EXISTING WALLS & LININGS	ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EXISTING CLADDING REMOVED, EX WALLS BTACES AND TIE-DOWN STRAPPING INSTALLED, INSULATION, SARKING & RE-CLAD
SOFFIT WALL	3.73	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	CARPORT EDGE SOFFIT	EKODECK SHIPLAP CLADDING, F'C SOFFIT		ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EKODECK CLADDING COMPLETE WITH ALL ACCESSORIES & TRIMS

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Drawing No: A.12 C

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FLOOR PLAN
PLATE SETOUT FL-0, WALL SCHEDULE

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ADDITIONS & ALTERATIONS
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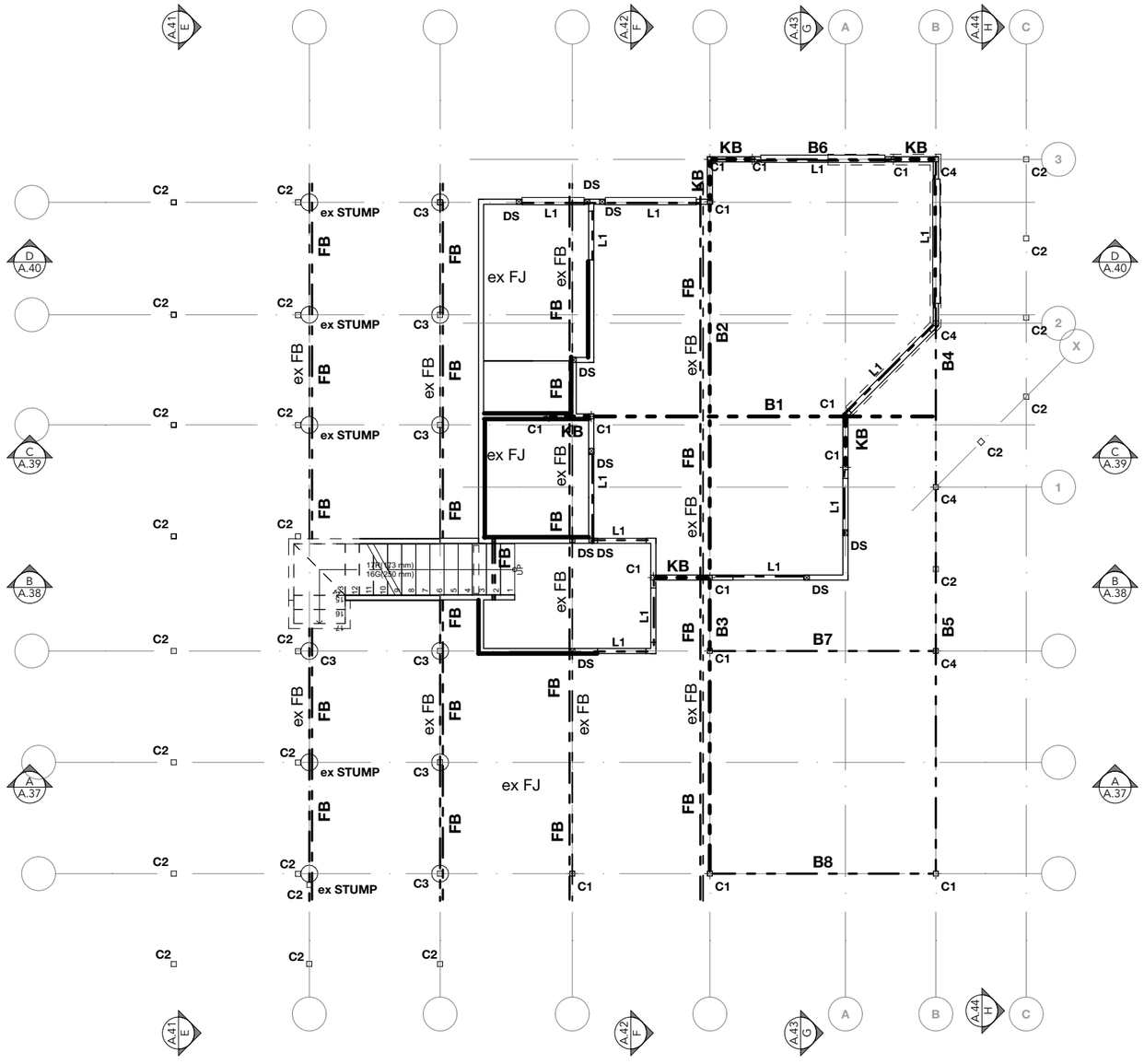

MEMBER SCHEDULE			
MARK	MEMBER	NOTES	FINISH
B1	UC200X52	10PL CLEATS FOR B2/B3 CONNECTION, 2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B2	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B3	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
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B6	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B7	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B8	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
BLK.90	BLOCKWORK 200	10.01 BLOCKWORK	PAINTED WHERE VISIBLE
C1	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C2	LOSP GL8 H3	90SQ MIN STUMPS, MAX 1200 UNRESTAINED HEIGHT	PAINTED
C3	CONCRETE N32	300 DIA FORMA PIER, N32 CONC FILL, 1-N16 CENTRAL, STRIP FORM WRAP ONCE CURED	
C4	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C5	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR L2, 3-M16	HOT DIP GALV
C6	CHS76.1X5.9	STUB COLUMN WELDED TO TOP OF C5 CAP PLATE, 10PL CAP & CLEATS FOR RB1 OVER, DEKTIGHT FOR ROOF PENETRATION	HOT DIP GALV, PAINTED WHERE VISIBLE
DB	MGP12	2/190 X 45 MGP12 H3, NAIL LAMINATED BEARERS	PAINTED WHERE VISIBLE
DJ2	MGP12	140 X 45 MGP12 H3 DECK JOISTS & TRIMMERS @ MAX 450 CTRS	PAINTED WHERE VISIBLE
DS	MGP12	MIN DBL 90 X 35 MGP12 STUDS, JAMBS & CONCENTRATED LOADS	
FB	MGP12	190 X 45 MGP12 H3, NAIL LAMINATED TO SIDE OF EX BEARER	
KB	SHS89X89X5.0	'K' BRACE , FULLY WELDED FRAMES, REFER DETAILS	HOT DIP GALV
L1	MGP12	190 X 45 MGP12 LINTELS, DS / 450 END BEARING	PRIMED
L2	MEYSPAN 13	240 X 63 MEYSPAN 13 LINTEL, DS / C5 END BEARING,	PRIMED
RB1	RHS200X100X6.0	ROOF BEAMS, SUPPORTED ON C1 / C6	PROTECTIVE PAINT SYSTEM
RC.BLK	BLOCKWORK 200	190 RC BLOCKWORK, 20-01 / 20-48, N20 CORE FILED, N12 @ 400 CTRS E/W	ROLL ON ACRATEX SYSTEM WHERE EXPOSED TO VIEW
RF1	RHS150X50X5.0	FULLY WELDED RHS RAFTER FRAME, 600 CTRS FOR 'EZ-GLAZE' ROOFING OVER	PROTECTIVE PAINT SYSTEM

FLOOR PLAN
MARKING PLAN FL-0
SCALE: 1:100

Project No: 00752
Drawing No: A.13 C

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FLOOR PLAN
MARKING PLAN FL-0, MEMBER SCHEDULE
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DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
HUDSON FAMILY
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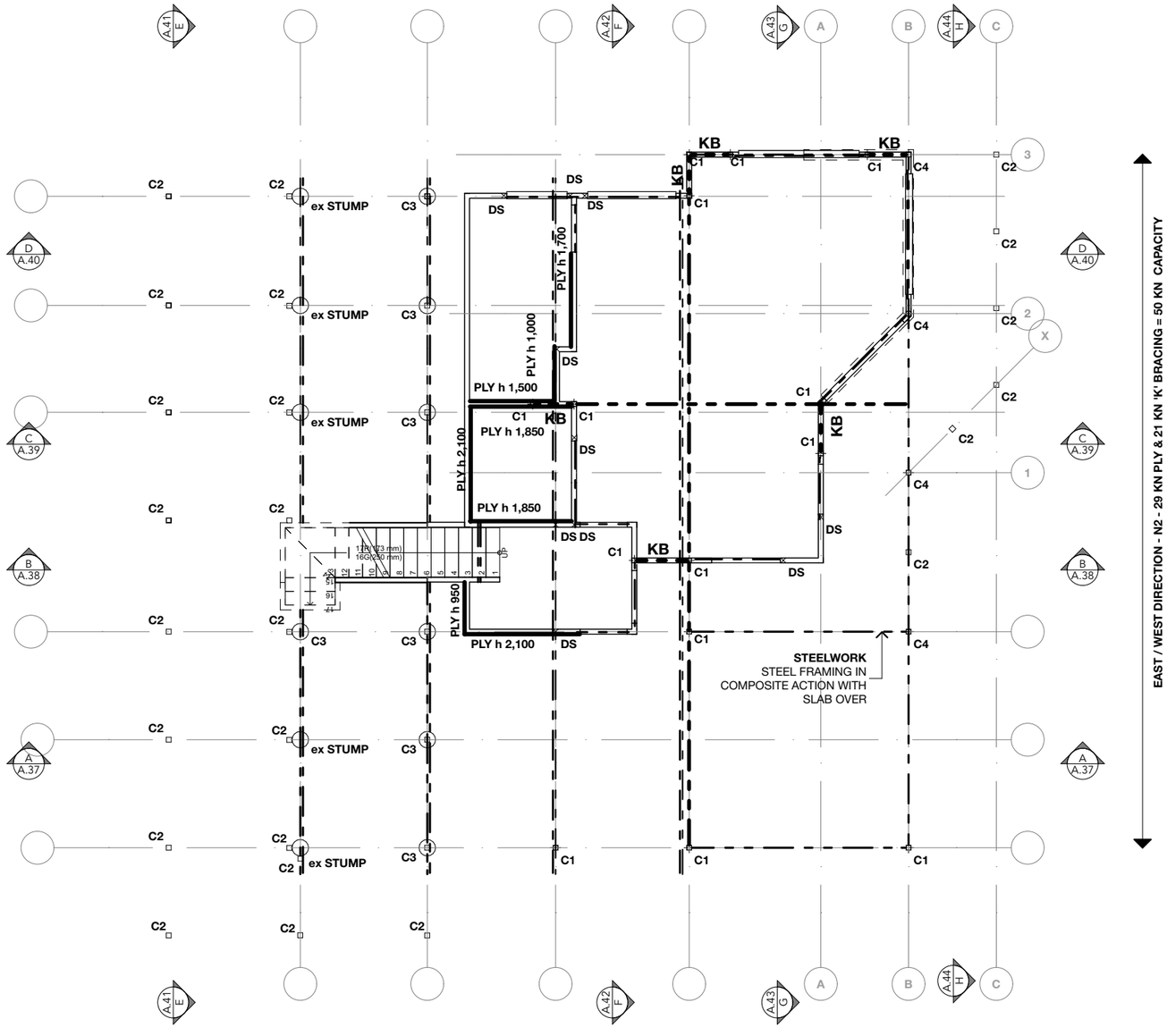

BRACING SCHEDULE												
FLOOR LEVEL	TYPE	ORIENTATION	MATERIAL	ELEVATION AREA	WIND PRESSURE kPa	MINIMUM REQUIRED kN	PLY BRACING CAPACITY KN/M	TOTAL LENGTH	BRACING CAPACITY PROVIDED kN	'K' BRACE LENGTH	'K' BRACE CAPACITY	TOTAL BRACING PROVIDED
FL-0	PLY h	EAST/WEST	4.5MM F27 BRACE PLY	35	0.92	33	5.2	5.75	29	1.65	21 KN	50 KN
FL-0	PLY h	NORTH/SOUTH	4.5MM F27 BRACE PLY	72	0.92	67	5.2	7.3	37	2.35	30 KN	67 KN
FL-1	PLY h	EAST/WEST	4.5MM F27 BRACE PLY	15	0.92	14	5.2	7.2	37	0	0	37 KN
FL-1	PLY h	NORTH/SOUTH	4.5MM F27 BRACE PLY	30	0.92	28	5.2	7.2	37	0	0	37 KN

FLOOR PLAN
BRACING SETOUT FL-0
SCALE: 1:100

ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

FLOOR PLAN
BRACING SETOUT FL-0, BRACING SCHEDULE
STATUS: DA ISSUE
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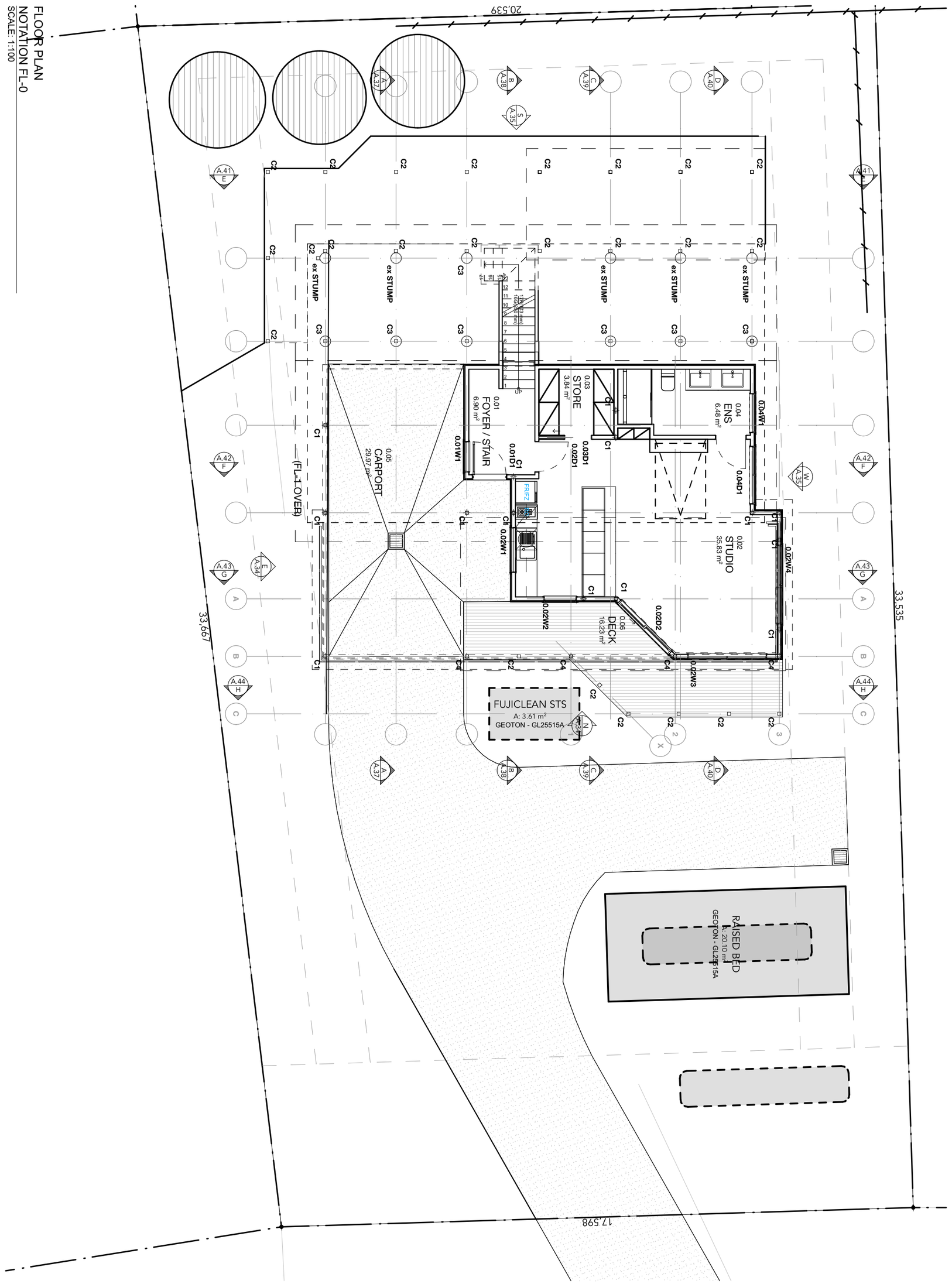
FLOOR PLAN
NOTATION FL-0
SCALE: 1:100



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

FLOOR PLAN
NOTATION FL-0

STATUS: DA ISSUE
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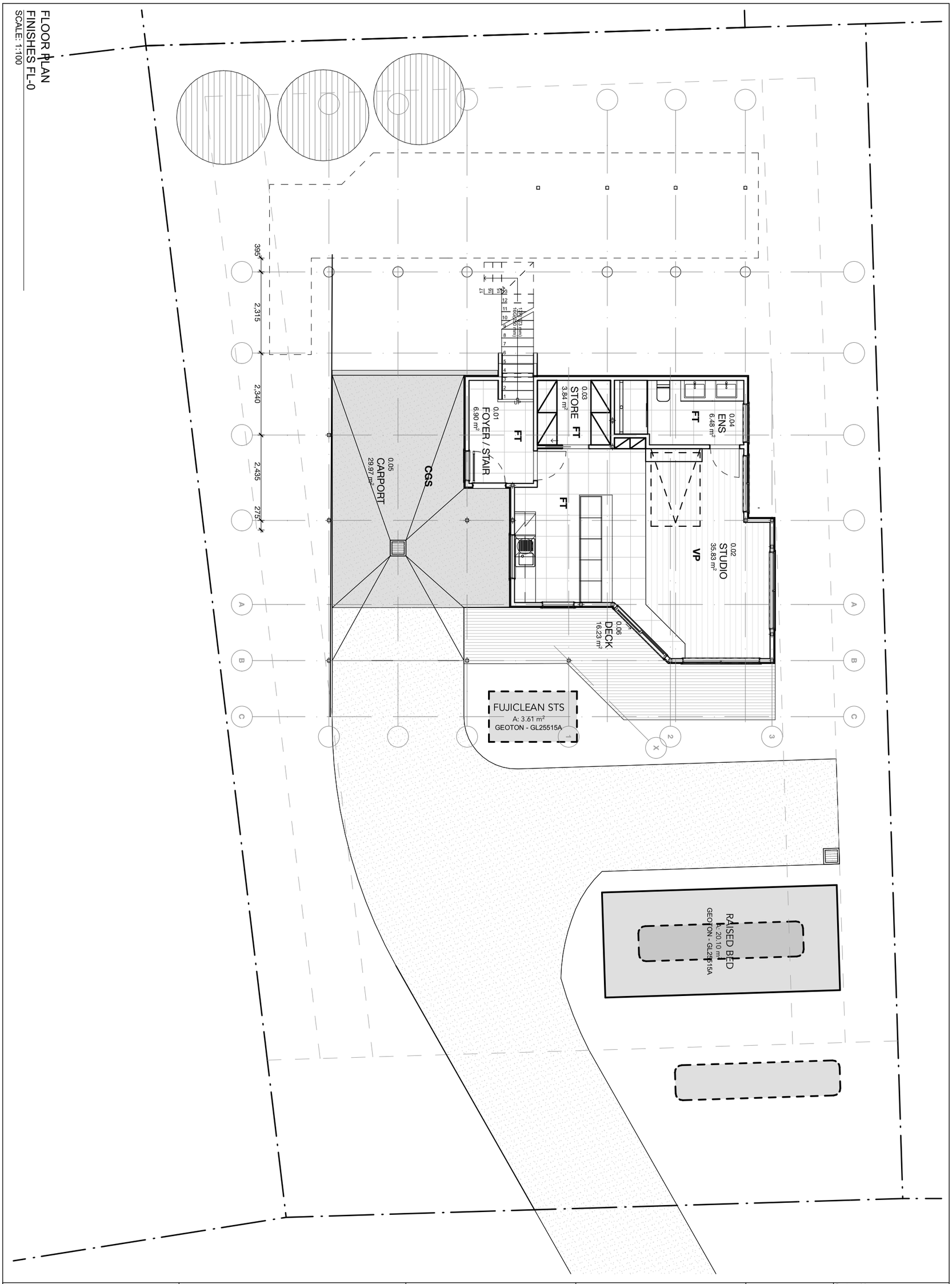
Drawing No: A.15 C

FLOOR PLAN
FINISHES FL-0
SCALE: 1:100



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FINISHES FL-0

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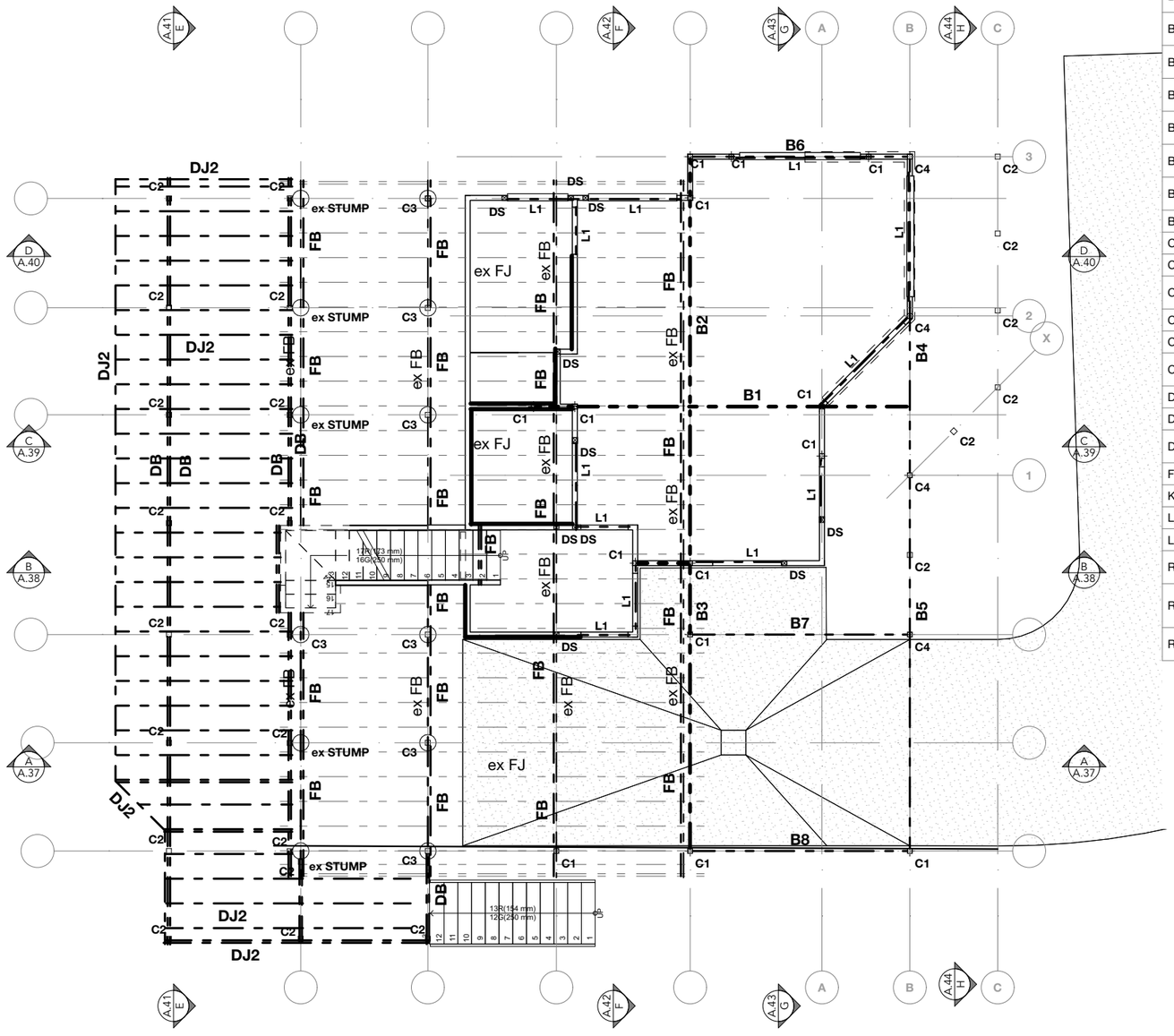
Drawing No: A.16 C



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FLOOR PLAN
FLOOR & DECK FRAMING FL-1
SCALE: 1:100

Project No: 00752
Drawing No: A.17 C

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FLOOR PLAN
FLOOR & DECK FRAMING FL-1, MEMBER SCHEDULE
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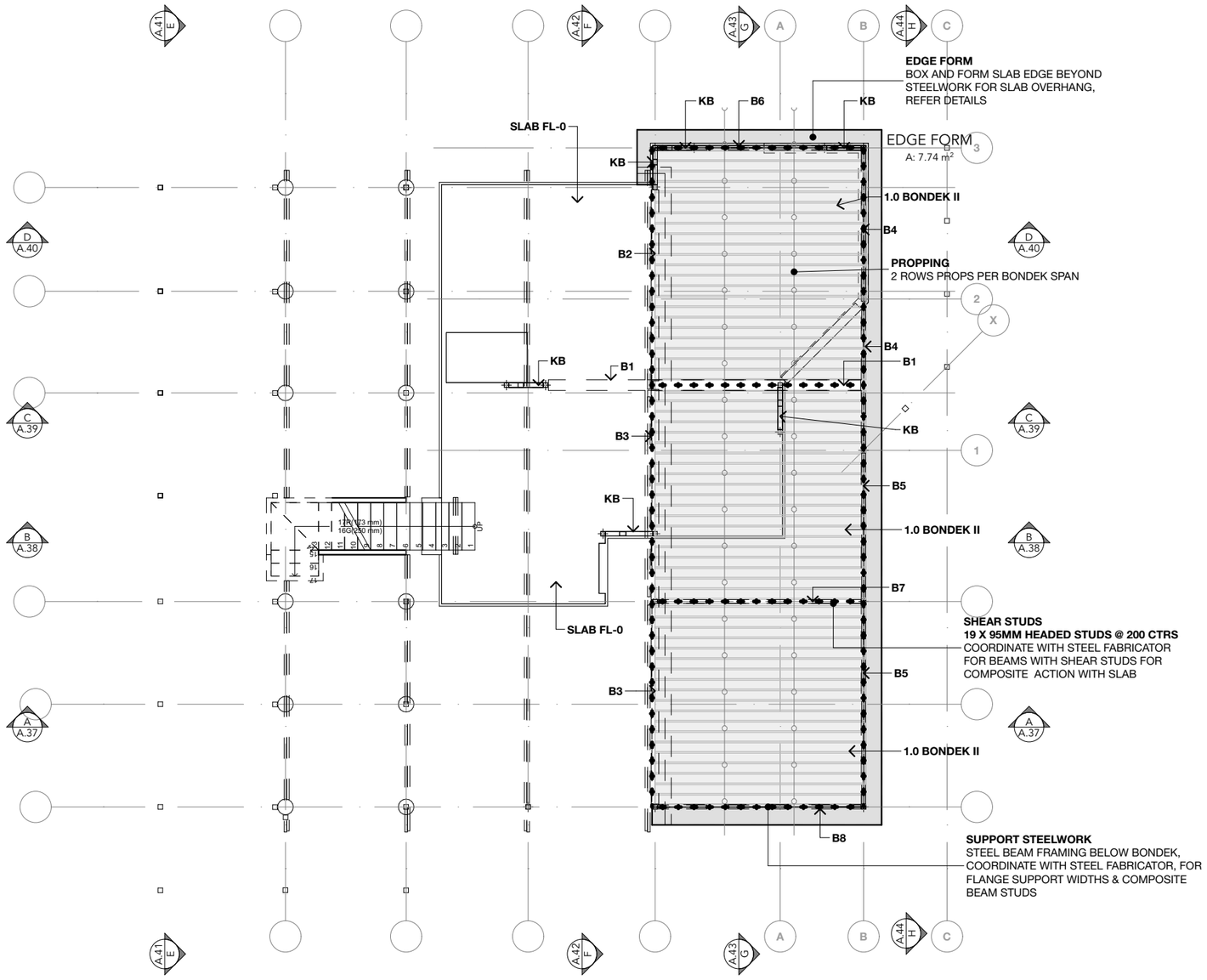

FLOOR PLAN
SLAB FORM SETOUT FL-1
SCALE: 1:100

Project No: 00752
Drawing No: A.18 C

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FLOOR PLAN
SLAB FORM SETOUT FL-1

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ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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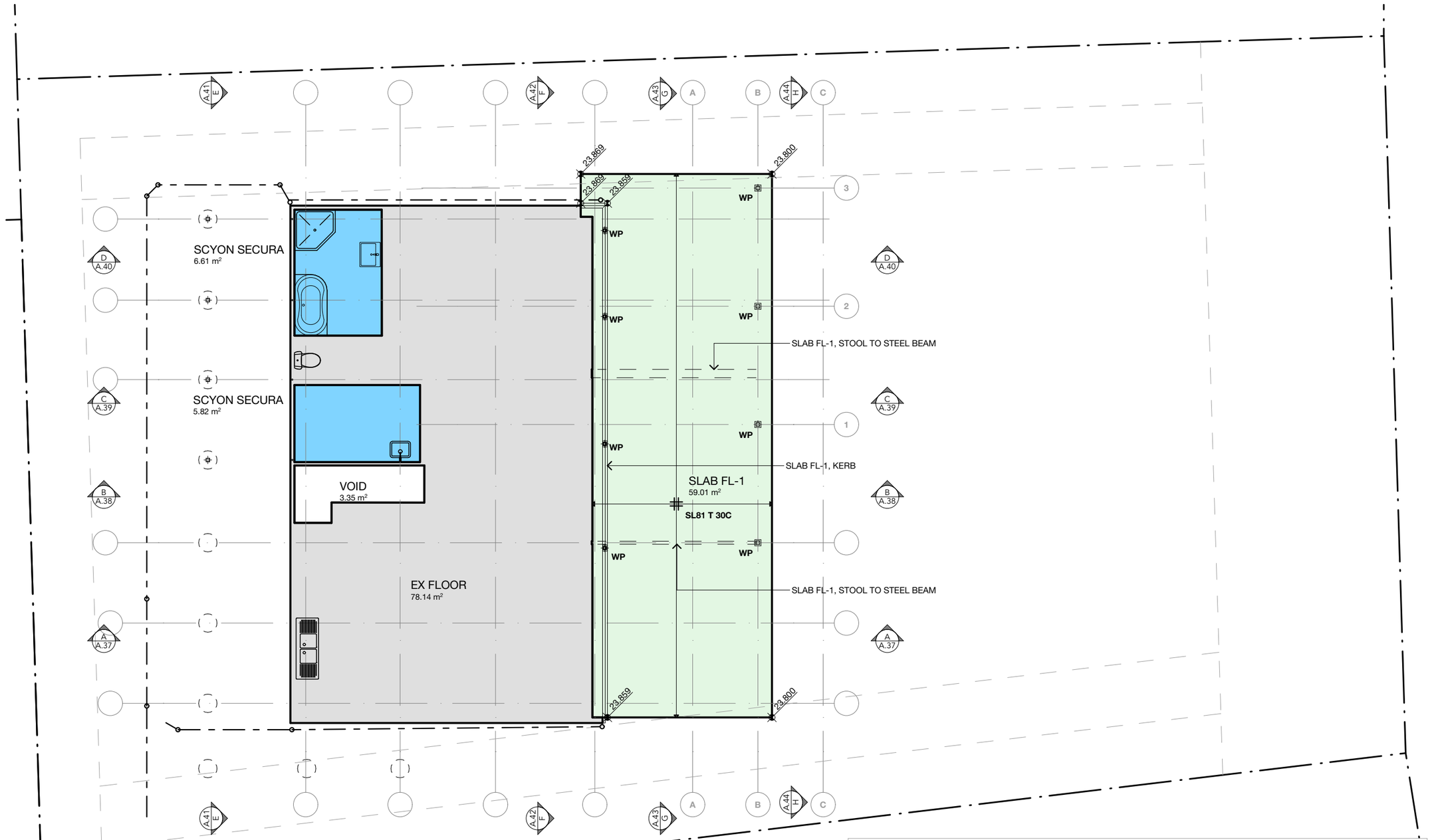

FLOOR PLAN
FLOOR & SLAB SETOUT FL-1
SCALE: 1:100

SLAB SCHEDULE			
CODE	H	NOM VOLUME	NOTES
SLAB FL-0	400	13.58	NUPOD SLAB, 100 SLAB, SL92 T 25 COVER
SLAB FL-0, EDGE SETDOWN	310	0.34	EDGE REBATES, REFER SLAB PLAN, N12 PERIMETER TOP 30 C
SLAB FL-0, SHW SETDOWN	365	0.54	35MM SETDOWNFOR SHW BASE, 225 NUPODS UNDER, SL92 T 30C
SLAB FL-1	140	8.19	140 BONDEK SLAB, 1.0 BONDEK II, SL81 TOP, 35 COVER
SLAB FL-1, KERB	93	0.08	UPSTAND KERB UNDER EXISTING WALL, REFER DETAILS
SLAB FL-1, STOOL TO STEEL BEAM	64	0.03	SLAB STOLL DOWN ONTO STEEL SUPPORT BEAMS, REFER DETAILS
		22.76 m³	

WELD PLATE SCHEDULE							
CODE	PLATE	NOM SIZE	TANGS	TANG WELD	FINISH	NOTES	QTY
WP	16	150SQ	2-N16, 100 DROP, 200 LEG	8CFW A/R	HOT DIP GALV	CAST IN PLATES, ADJUST PLATE SIZE/ ORIENTATION & TANG POSITIONS TO SUIT LOCATION WHERE REQUIRED	20

Project No: 00752
Drawing No: A.19 C

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FLOOR PLAN
FLOOR & SLAB SETOUT FL-1, SLAB SCHEDULE, WELD PLATE SCHEDULE
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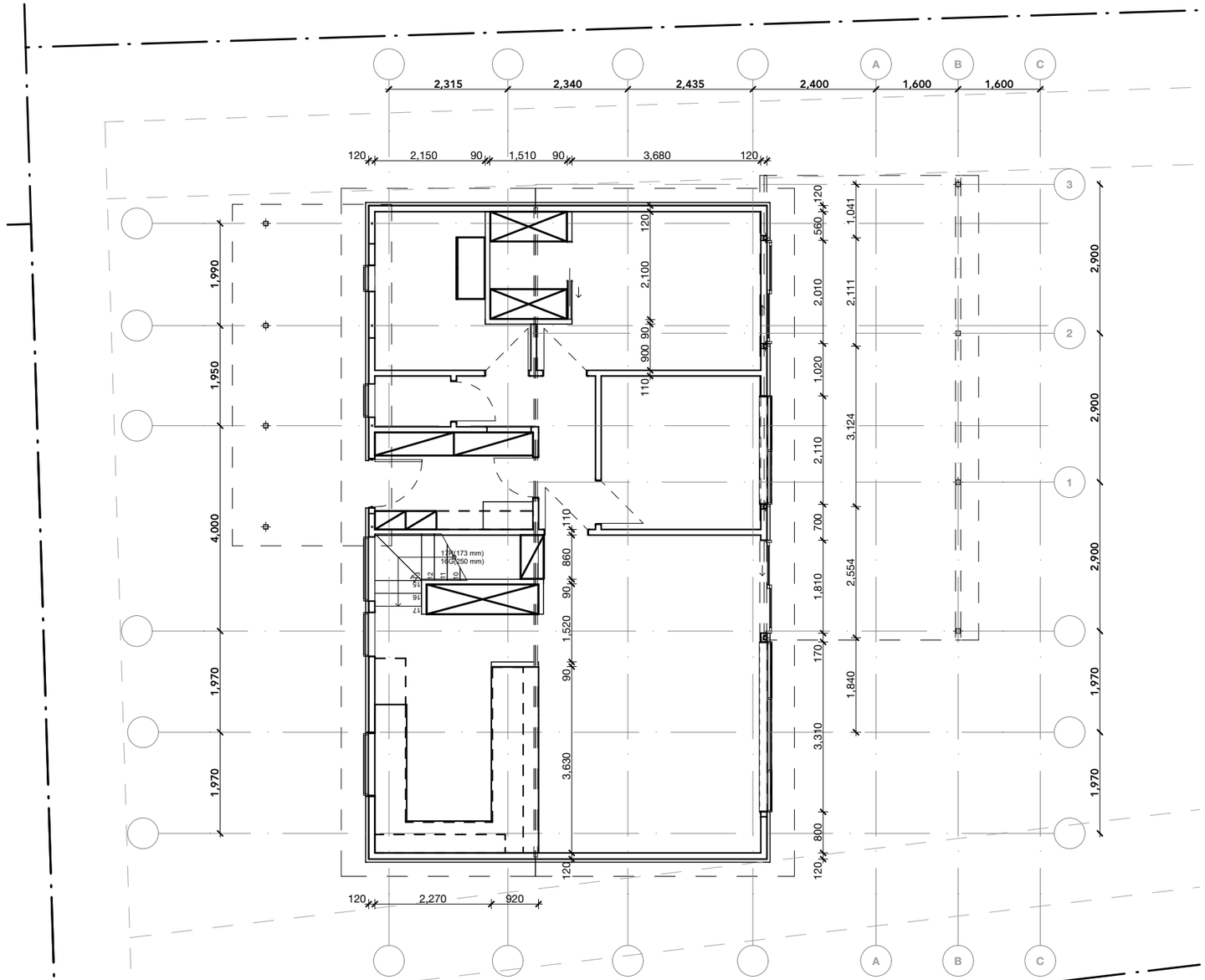

FLOOR PLAN
PLATE SETOUT FL-1
SCALE: 1:100

WALLS SCHEDULE

WALL TYPE	NOM SURFACE AREA	PLATES	STUDS	LOCATION	EXTERNAL FINISH	INTERNAL FINISH	SARKING	CAVITY BATTEN	INSULATION	NOTES
BALCONY EDGES & SOFFIT	4.75	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	STUD FRAMED CLAD EAVES / SOFFIT	EKODECK SHIPLAP CLADDING, F'C SOFFIT		ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EKODECK CLADDING COMPLETE WITH ALL ACCESSORIES & TRIMS
CLAD WALL	78.02	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	STUD FRAMED EXTERNAL CLAD WALLS	EKODECK SHIPLAP CLADDING	PB/PBW TO WET AREAS	ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EKODECK CLADDING COMPLETE WITH ALL ACCESSORIES & TRIMS
INT PARTITION	52.33	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	INTERNAL STUD FRANMED WALLS	PB/PBW TO WET AREAS	PB/PBW TO WET AREAS			R2.7 GOLD HI PERFORMANCE	SKIRTINGS & TRIMS TOI MATCH EXISTING
PANEL	208.03									
RE-CLADDING	104.06	35 X 90 MGP12 H3 BATTEN PLATES TOP & BOTTOM OF EX WALLS & OPENINGS	35 X 90 MGP12 H3 BATTEN STUDS TO EX WALL	EXISTING UPPER CLAD WALLS	EKODECK SHIPLAP CLADDING, F'C SOFFIT	EXISTING WALLS & LININGS	ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EXISTING CLADDING REMOVED, EX WALLS BTACES AND TIE-DOWN STRAPPING INSTALLED, INSULATION, SARKING & RE-CLAD
SOFFIT WALL	3.73	90 X 35 MGP12, DBL PLATES WHERE REQ'D	90 X 35 MGP12 @ MAX 450 CTRS	CARPORT EDGE SOFFIT	EKODECK SHIPLAP CLADDING, F'C SOFFIT		ENVIROSEAL RW PLUS	VB20 OR EQUIVALENT	R2.7 GOLD HI PERFORMANCE	EKODECK CLADDING COMPLETE WITH ALL ACCESSORIES & TRIMS

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Drawing No: A.20 C

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FLOOR PLAN
PLATE SETOUT FL-1, WALL SCHEDULE

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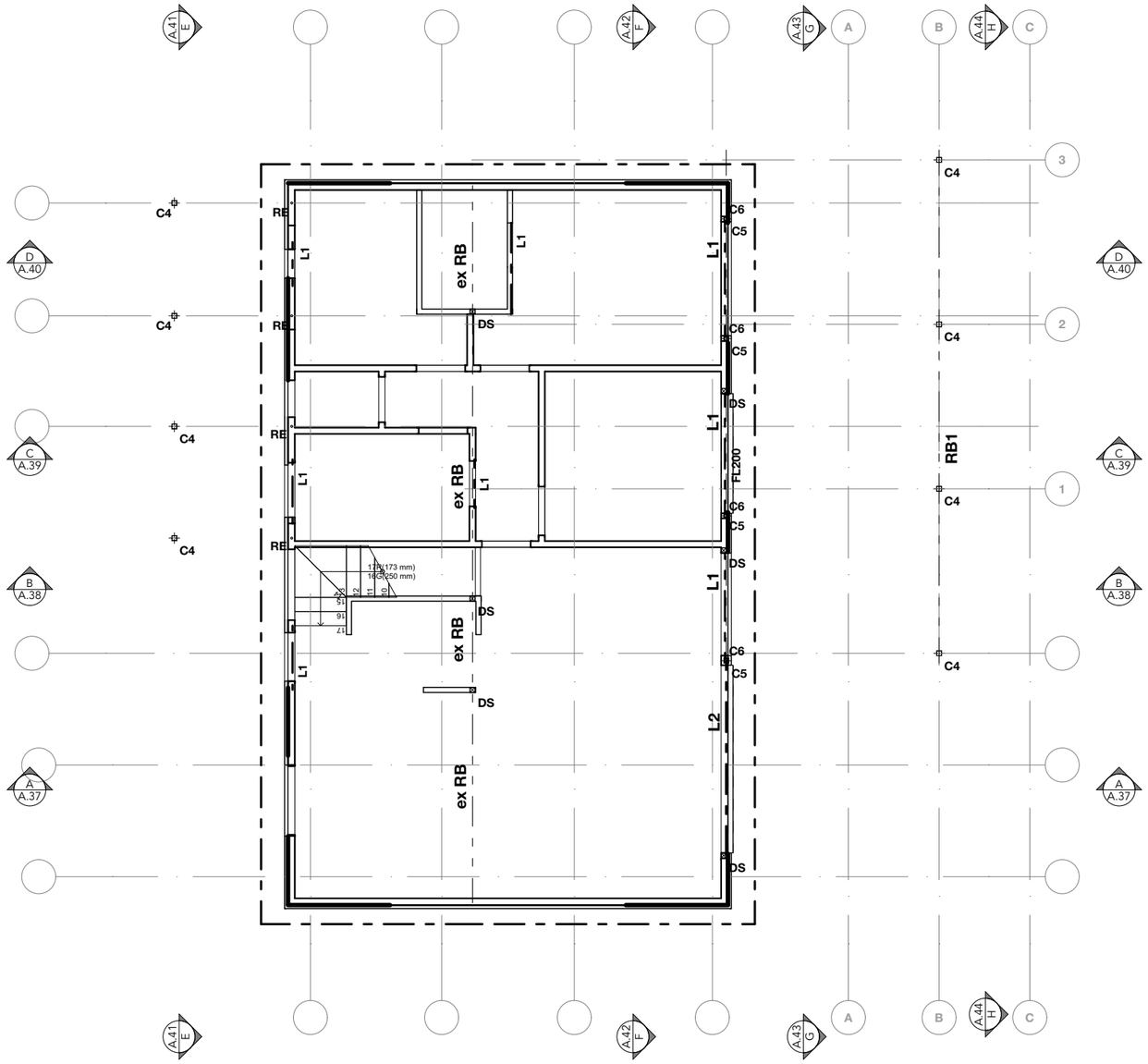

MEMBER SCHEDULE			
MARK	MEMBER	NOTES	FINISH
B1	UC200X52	10PL CLEATS FOR B2/B3 CONNECTION, 2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B2	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B3	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B4	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B5	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B6	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B7	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B8	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
BLK.90	BLOCKWORK 200	10.01 BLOCKWORK	PAINTED WHERE VISIBLE
C1	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C2	LOSP GL8 H3	90SQ MIN STUMPS, MAX 1200 UNRESTAINED HEIGHT	PAINTED
C3	CONCRETE N32	300 DIA FORMA PIER, N32 CONC FILL, 1-N16 CENTRAL, STRIP FORM WRAP ONCE CURED	
C4	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C5	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR L2, 3-M16	HOT DIP GALV
C6	CHS76.1X5.9	STUB COLUMN WELDED TO TOP OF C5 CAP PLATE, 10PL CAP & CLEATS FOR RB1 OVER, DEKTIGHT FOR ROOF PENETRATION	HOT DIP GALV, PAINTED WHERE VISIBLE
DB	MGP12	2/190 X 45 MGP12 H3, NAIL LAMINATED BEARERS	PAINTED WHERE VISIBLE
DJ2	MGP12	140 X 45 MGP12 H3 DECK JOISTS & TRIMMERS @ MAX 450 CTRS	PAINTED WHERE VISIBLE
DS	MGP12	MIN DBL 90 X 35 MGP12 STUDS, JAMBS & CONCENTRATED LOADS	
FB	MGP12	190 X 45 MGP12 H3, NAIL LAMINATED TO SIDE OF EX BEARER	
KB	SHS89X89X5.0	'K' BRACE , FULLY WELDED FRAMES, REFER DETAILS	HOT DIP GALV
L1	MGP12	190 X 45 MGP12 LINTELS, DS / 450 END BEARING	PRIMED
L2	MEYSPAN 13	240 X 63 MEYSPAN 13 LINTEL, DS / C5 END BEARING,	PRIMED
RB1	RHS200X100X6.0	ROOF BEAMS, SUPPORTED ON C1 / C6	PROTECTIVE PAINT SYSTEM
RC.BLK	BLOCKWORK 200	190 RC BLOCKWORK, 20-01 / 20-48, N20 CORE FILED, N12 @ 400 CTRS E/W	ROLL ON ACRATEX SYSTEM WHERE EXPOSED TO VIEW
RF1	RHS150X50X5.0	FULLY WELDED RHS RAFTER FRAME, 600 CTRS FOR 'EZ-GLAZE' ROOFING OVER	PROTECTIVE PAINT SYSTEM

FLOOR PLAN
MARKING PLAN FL-1

SCALE: 1:100

Project No: 00752

Drawing No: A.21 C

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FLOOR PLAN
MARKING PLAN FL-1, MEMBER SCHEDULE

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ADDITIONS & ALTERATIONS
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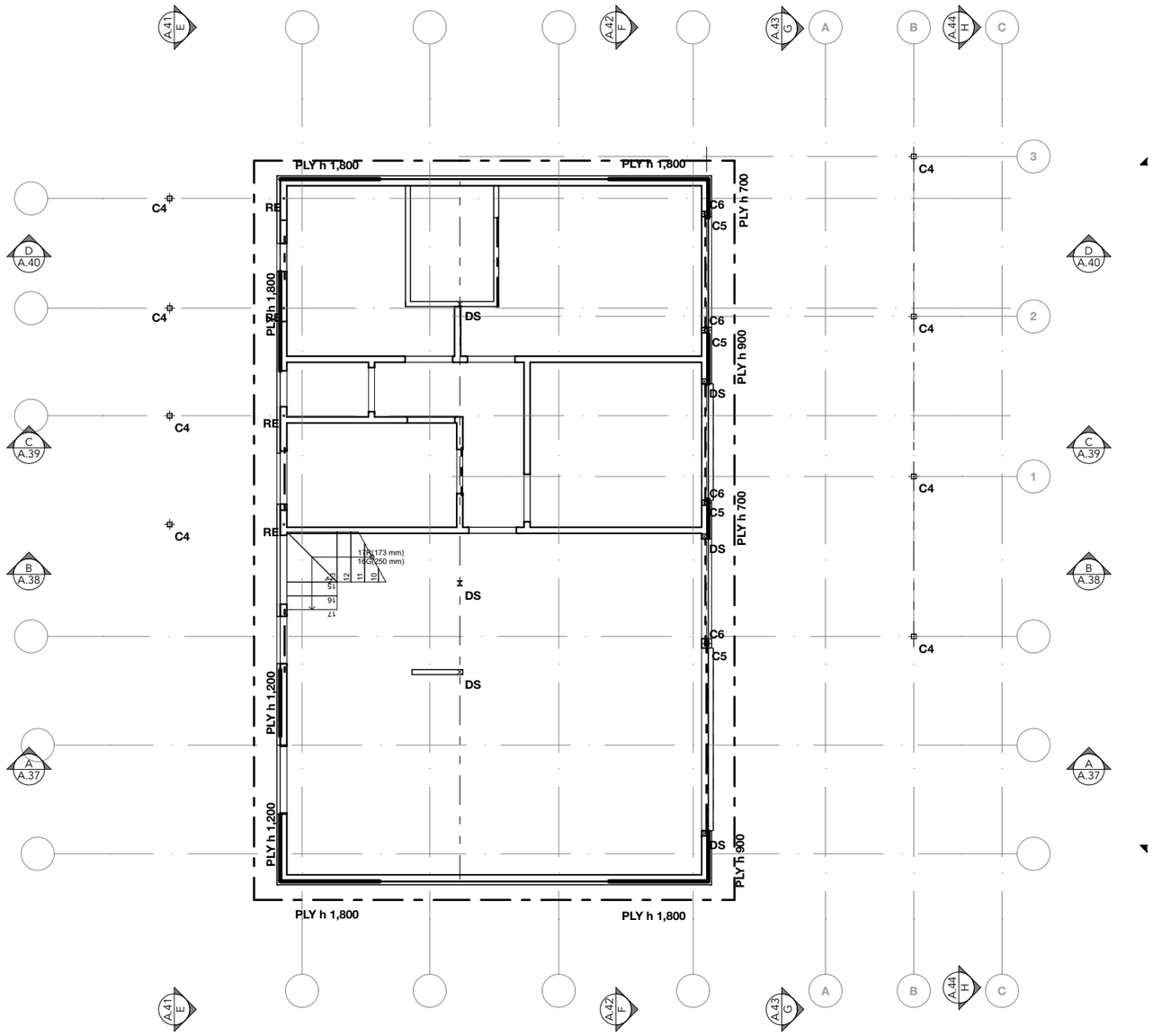

NORTH / SOUTH DIRECTION - N2 - 37 KN PLY CAPACITY
UPPER ELEVATION AREA = 30 SQM X 0.92 kPa = 28 KN REQUIRED

BRACING SCHEDULE												
FLOOR LEVEL	TYPE	ORIENTATION	MATERIAL	ELEVATION AREA	WIND PRESSURE kPa	MINIMUM REQUIRED kN	PLY BRACING CAPACITY KN/M	TOTAL LENGTH	BRACING CAPACITY PROVIDED kN	'K' BRACE LENGTH	'K' BRACE CAPACITY	TOTAL BRACING PROVIDED
FL-0	PLY h	EAST/WEST	4.5MM F27 BRACE PLY	35	0.92	33	5.2	5.75	29	1.65	21 KN	50 KN
FL-0	PLY h	NORTH/SOUTH	4.5MM F27 BRACE PLY	72	0.92	67	5.2	7.3	37	2.35	30 KN	67 KN
FL-1	PLY h	EAST/WEST	4.5MM F27 BRACE PLY	15	0.92	14	5.2	7.2	37	0	0	37 KN
FL-1	PLY h	NORTH/SOUTH	4.5MM F27 BRACE PLY	30	0.92	28	5.2	7.2	37	0	0	37 KN

FLOOR PLAN
BRACING SETOUT FL-1
SCALE: 1:100

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Drawing No: A.22 C

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FLOOR PLAN
BRACING SETOUT FL-1, BRACING SCHEDULE

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ADDITIONS & ALTERATIONS
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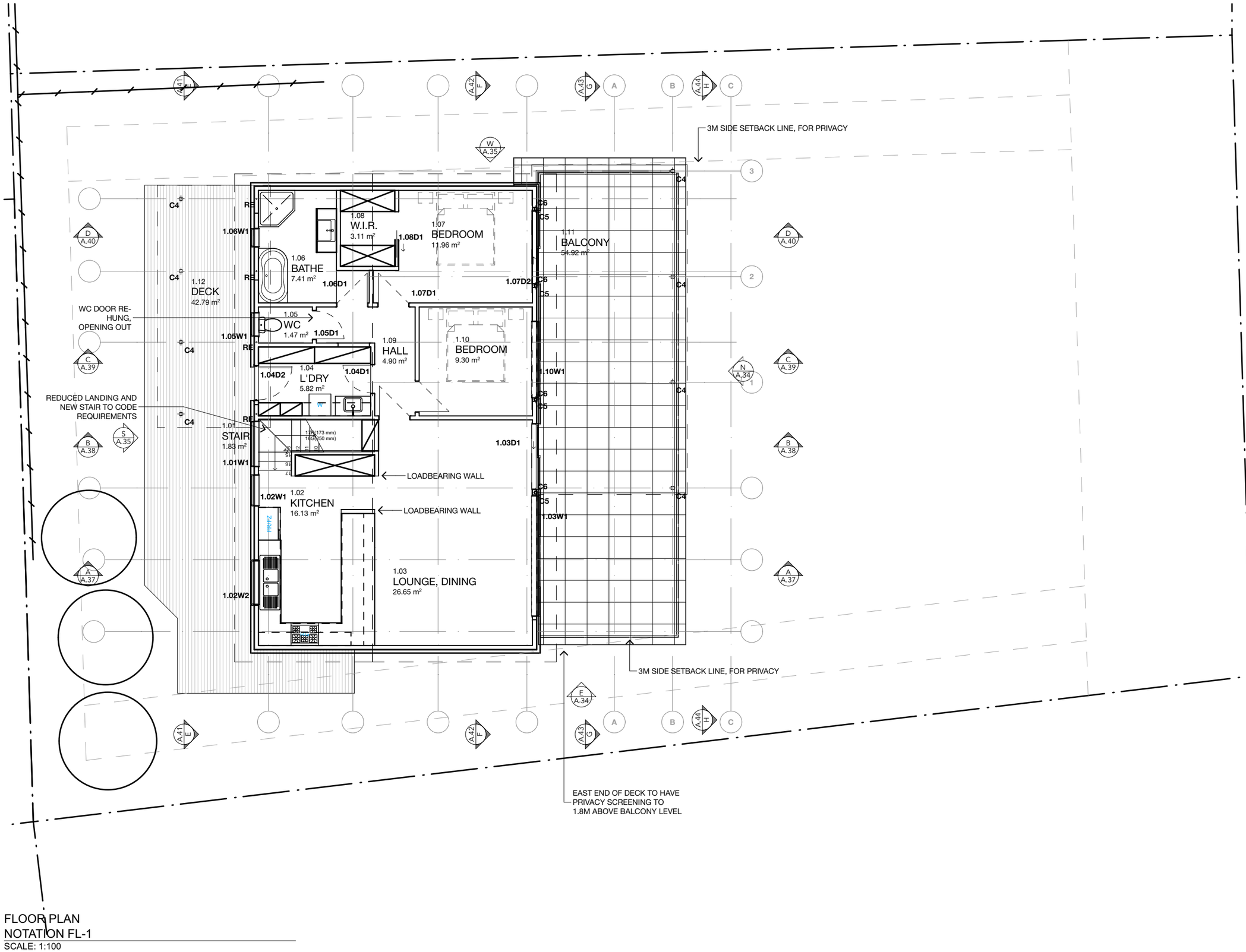

FLOOR PLAN
NOTATION FL-1
SCALE: 1:100

Project No: 00752
Drawing No: A.23 C

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FLOOR PLAN
NOTATION FL-1
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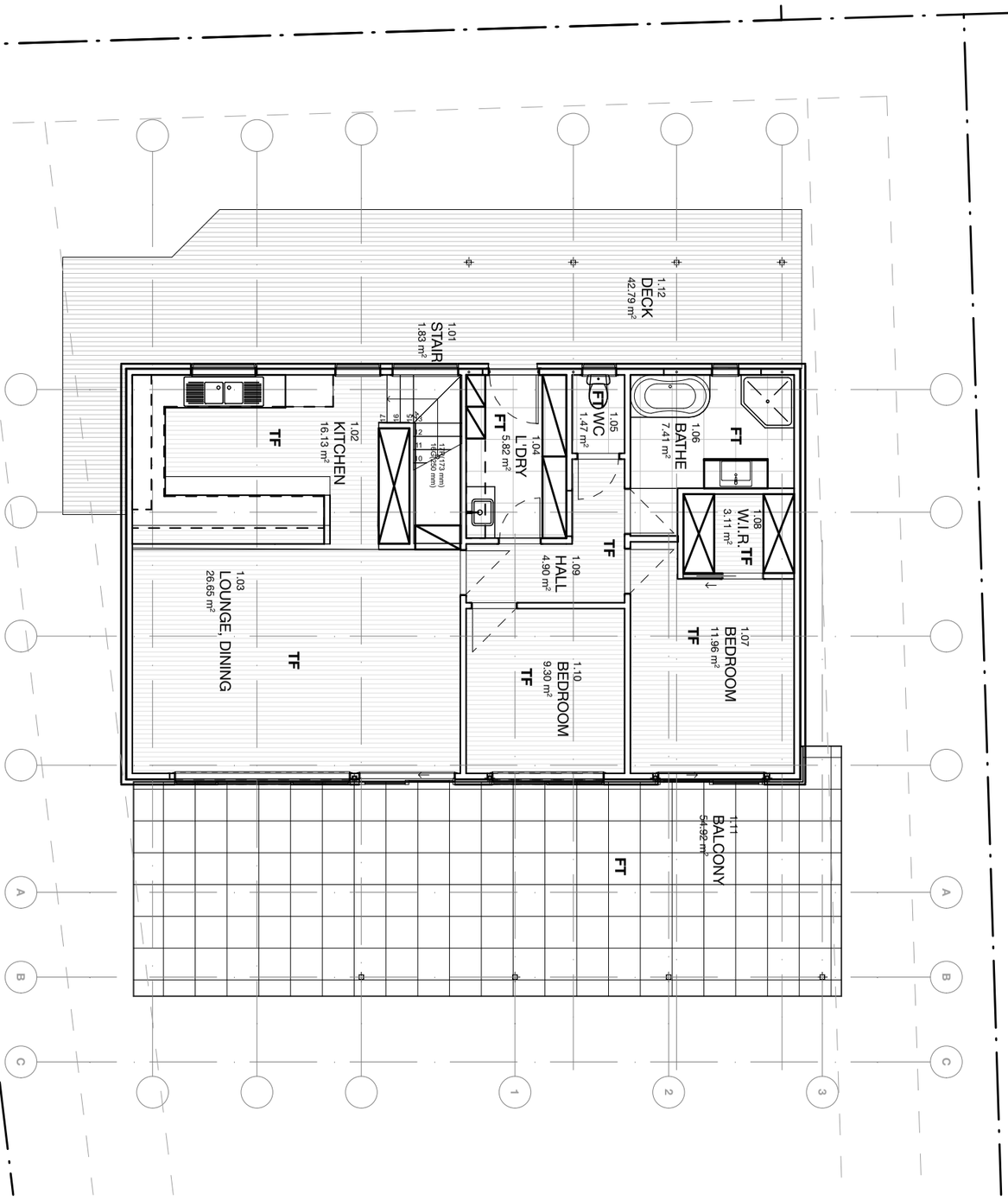
FLOOR PLAN
FINISHES FL-1
SCALE: 1:100



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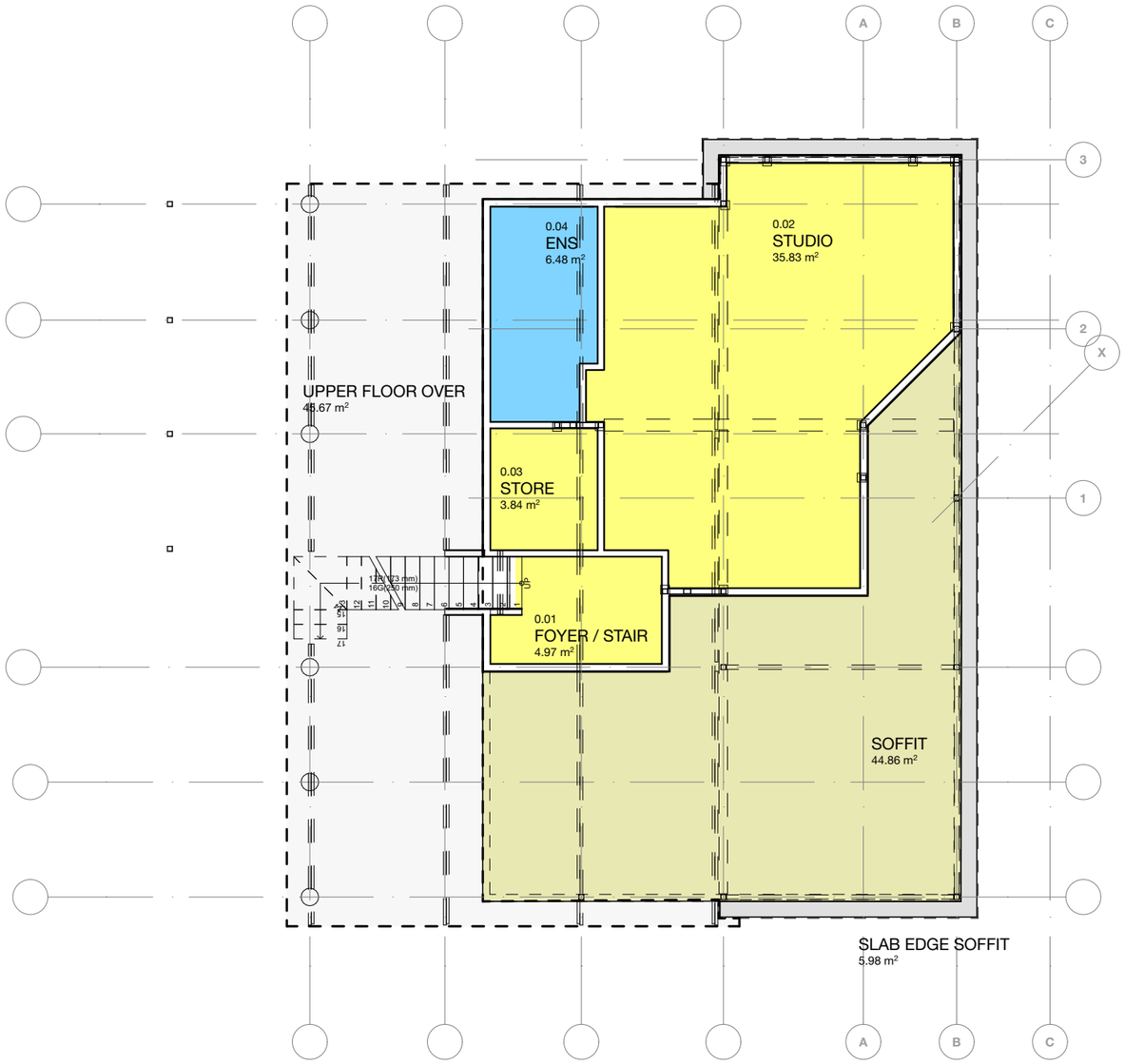

CEILING PLAN
NOTATION FL-0
SCALE: 1:100

CEILING SCHEDULE

ROOM #	ROOM	MIN HEIGHT	AREA	PERIMETER	CORNERS	LINING	THICKNESS	CORNICE/TRIM	INSULATION	NOTES
	SLAB EDGE SOFFIT	2,400	5.98	45,838	10	F'C	6	EXPRESS JOINTED	R2.7	FRAMED SOFFIT UNDER BALCONY EDGE
	SOFFIT	2,400	44.86	49,373	12	F'C	6	EXPRESS JOINTED	R2.7	SOFFIT UNDER EX FRAMING TO CARPORT
	SOFFIT FL-1	2,400	34.84	169,600	16	F'C	6	EXPRESS JOINTED	R2.7	FRAMED EAVES SOFFIT TO UPPER ROOF EDGES
0.01	FOYER / STAIR	2,400	4.97	9,780	8	PB	10	LINEAR	R5.0	FORM BULKHEAD & RAKING SECTION OVER BASE OF STAIR
0.02	STUDIO	2,400	35.83	26,243	14	PB	10	LINEAR	R5.0	SUSPENDED UNDER BONDEK // FRAMING
0.03	STORE	2,400	3.84	7,859	4	PB	10	LINEAR	R5.0	SUSPENDED UNDER BONDEK // FRAMING
0.04	ENS	2,400	6.48	11,061	6	PBW	10	SQ SET	R5.0	SUSPENDED UNDER BONDEK // FRAMING
1.01	STAIR	2,400	1.83	5,998	6	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.02	KITCHEN	2,400	16.13	18,988	12	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.03	LOUNGE, DINING	2,400	26.65	21,045	7	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.04	L'DRY	2,400	5.82	9,940	4	PBW	10	LINEAR	R5.0	NEW LINING UNDER EX RAFTERS
1.05	WC	2,400	1.47	4,940	4	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.06	BATHE	2,400	7.41	12,260	6	PBW	10	LINEAR	R5.0	NEW LINING UNDER EX RAFTERS
1.07	BEDROOM	2,400	11.96	14,920	6	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.08	W.I.R.	2,400	3.11	7,160	4	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.09	HALL	2,400	4.90	11,400	6	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.10	BEDROOM	2,400	9.30	12,200	4	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS

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Drawing No: A.25 C

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CEILING PLAN
NOTATION FL-0, CEILING SCHEDULE
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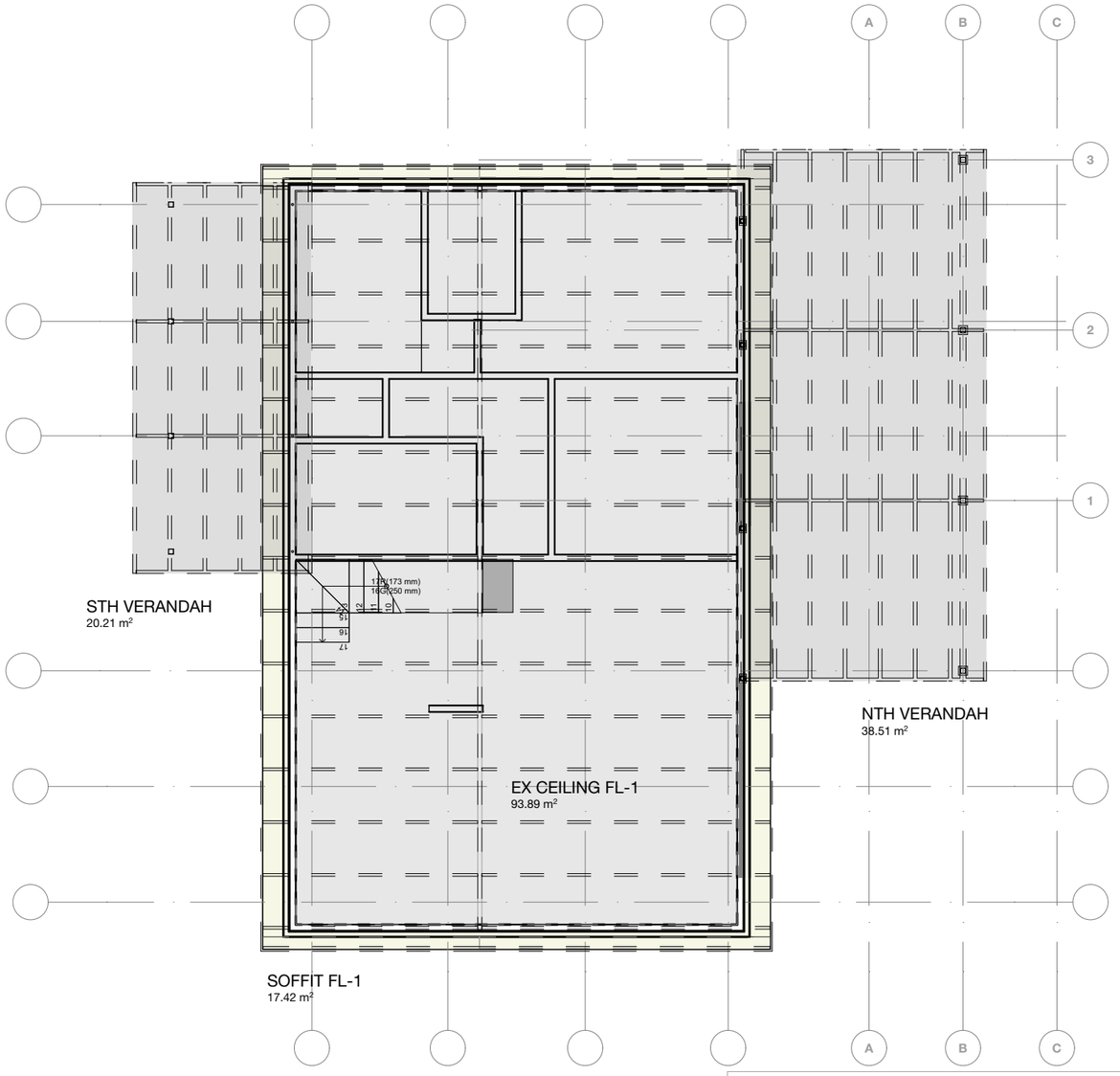

CEILING SCHEDULE

ROOM #	ROOM	MIN HEIGHT	AREA	PERIMETER	CORNERS	LINING	THICKNESS	CORNICE/TRIM	INSULATION	NOTES
	SLAB EDGE SOFFIT	2,400	5.98	45,838	10	F'C	6	EXPRESS JOINTED	R2.7	FRAMED SOFFIT UNDER BALCONY EDGE
	SOFFIT	2,400	44.86	49,373	12	F'C	6	EXPRESS JOINTED	R2.7	SOFFIT UNDER EX FRAMING TO CARPORT
	SOFFIT FL-1	2,400	34.84	169,600	16	F'C	6	EXPRESS JOINTED	R2.7	FRAMED EAVES SOFFIT TO UPPER ROOF EDGES
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1.01	STAIR	2,400	1.83	5,998	6	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.02	KITCHEN	2,400	16.13	18,988	12	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.03	LOUNGE, DINING	2,400	26.65	21,045	7	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.04	L'DRY	2,400	5.82	9,940	4	PBW	10	LINEAR	R5.0	NEW LINING UNDER EX RAFTERS
1.05	WC	2,400	1.47	4,940	4	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.06	BATHE	2,400	7.41	12,260	6	PBW	10	LINEAR	R5.0	NEW LINING UNDER EX RAFTERS
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1.08	W.I.R.	2,400	3.11	7,160	4	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.09	HALL	2,400	4.90	11,400	6	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS
1.10	BEDROOM	2,400	9.30	12,200	4	EX		EX		EXISTING, MAKE GOOD TO NEW WORKS

CEILING PLAN
NOTATION FL-1
SCALE: 1:100

Project No: 00752
Drawing No: A.26 C

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CEILING PLAN
NOTATION FL-1, CEILING SCHEDULE
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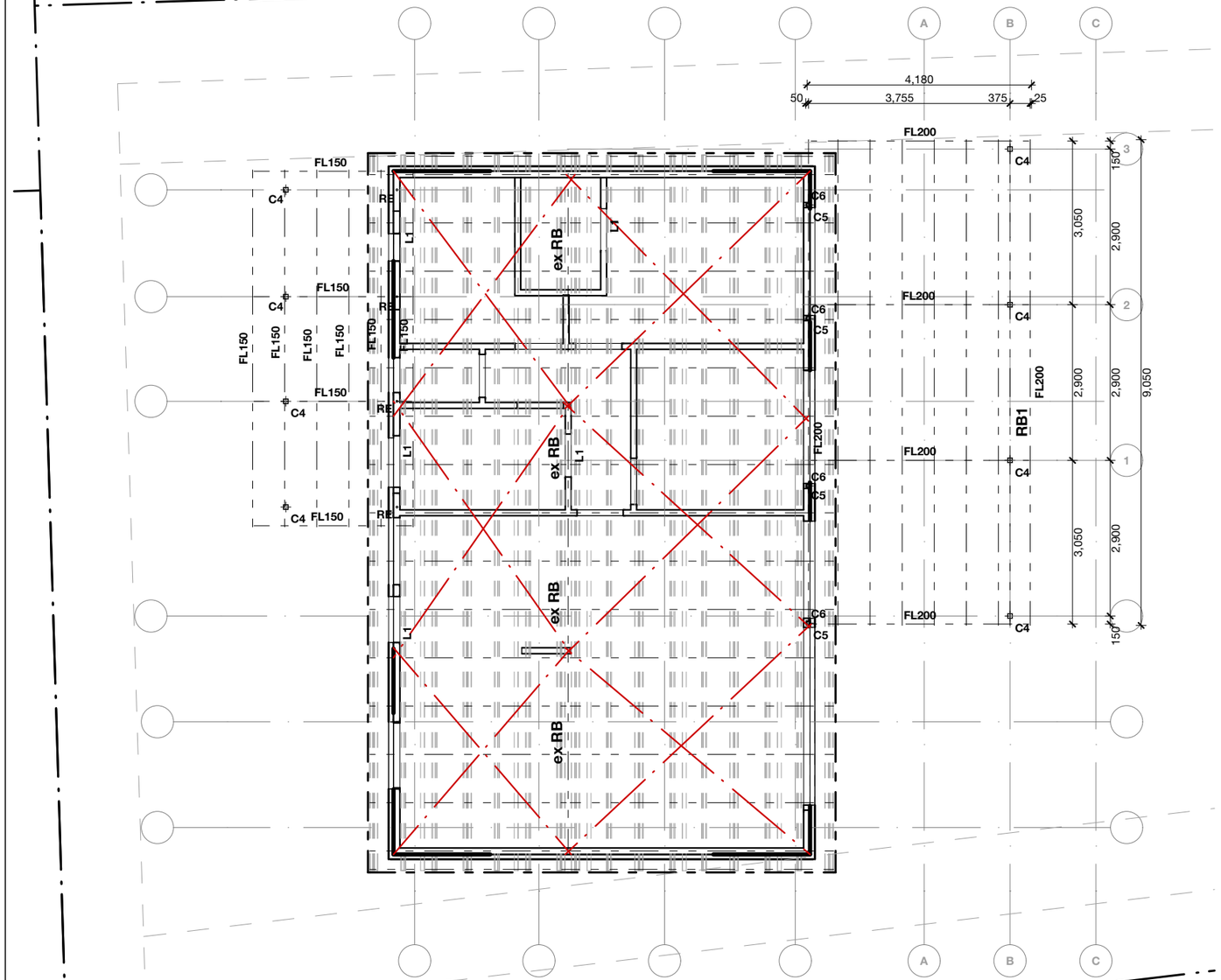

ROOF PLAN
FRAMING SETOUT
SCALE: 1:100

MEMBER SCHEDULE			
MARK	MEMBER	NOTES	FINISH
B1	UC200X52	10PL CLEATS FOR B2/B3 CONNECTION, 2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B2	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B3	UB250X37	3-M20 8.8/S TO C1/B1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B4	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B5	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B6	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B7	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
B8	PFC200X75	2-M20 8.8/S TO C1, 19 X 95 SHEAR STUDS @ 200 CTRS WELDED TO TOP	HOT DIP GALV
BLK.90	BLOCKWORK 200	10.01 BLOCKWORK	PAINTED WHERE VISIBLE
C1	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C2	LOSP GL8 H3	90SQ MIN STUMPS, MAX 1200 UNRESTAINED HEIGHT	PAINTED
C3	CONCRETE N32	300 DIA FORMA PIER, N32 CONC FILL, 1-N16 CENTRAL, STRIP FORM WRAP ONCE CURED	
C4	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR BEAMS	HOT DIP GALV
C5	SHS89X89X5.0	10PL CAP PLATE, 10PL CLEATS FOR L2, 3-M16	HOT DIP GALV
C6	CHS76.1X5.9	STUB COLUMN WELDED TO TOP OF C5 CAP PLATE, 10PL CAP & CLEATS FOR RB1 OVER, DEKTIGHT FOR ROOF PENETRATION	HOT DIP GALV, PAINTED WHERE VISIBLE
DB	MGP12	2/190 X 45 MGP12 H3, NAIL LAMINATED BEARERS	PAINTED WHERE VISIBLE
DJ2	MGP12	140 X 45 MGP12 H3 DECK JOISTS & TRIMMERS @ MAX 450 CTRS	PAINTED WHERE VISIBLE
DS	MGP12	MIN DBL 90 X 35 MGP12 STUDS, JAMBS & CONCENTRATED LOADS	
FB	MGP12	190 X 45 MGP12 H3, NAIL LAMINATED TO SIDE OF EX BEARER	
KB	SHS89X89X5.0	'K' BRACE , FULLY WELDED FRAMES, REFER DETAILS	HOT DIP GALV
L1	MGP12	190 X 45 MGP12 LINTELS, DS / 450 END BEARING	PRIMED
L2	MEYSPAN 13	240 X 63 MEYSPAN 13 LINTEL, DS / C5 END BEARING,	PRIMED
RB1	RHS200X100X6.0	ROOF BEAMS, SUPPORTED ON C1 / C6	PROTECTIVE PAINT SYSTEM
RC.BLK	BLOCKWORK 200	190 RC BLOCKWORK, 20-01 / 20-48, N20 CORE FILED, N12 @ 400 CTRS E/W	ROLL ON ACRATEX SYSTEM WHERE EXPOSED TO VIEW
RF1	RHS150X50X5.0	FULLY WELDED RHS RAFTER FRAME, 600 CTRS FOR 'EZ-GLAZE' ROOFING OVER	PROTECTIVE PAINT SYSTEM

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Drawing No: A.27 C

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ROOF PLAN
FRAMING SETOUT, MEMBER SCHEDULE

STATUS: DA ISSUE
SCALE (A3): 1:100, 1:1
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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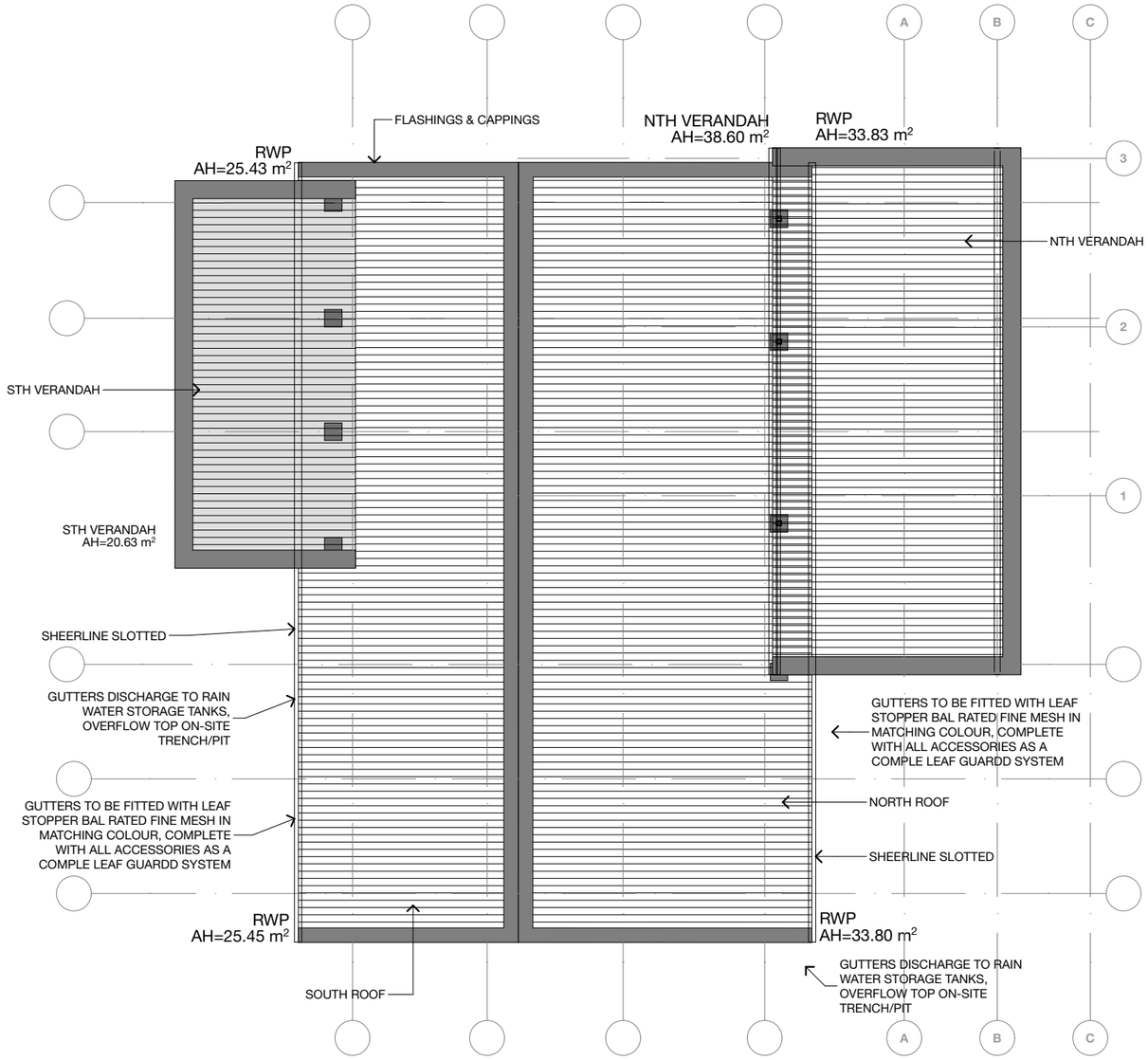

Location

Label: 20 BEACH CRESCENT, GREENS BEACH
Latitude: -41.0875 [Nearest grid cell: 41.0875 (S)]
Longitude: 146.7375 [Nearest grid cell: 146.7375 (E)]

IFD Design Rainfall Intensity (mm/h)

Issued: 10 December 2025

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).
FAQ for New ARR probability terminology

Table | Chart — Unit: mm/h

	Annual Exceedance Probability (AEP)						
Duration	**63.2%**	**50%#**	**20%***	**10%**	**5%**	**2%**	**1%**
1 min	81.0	90.8	124	148	174	210	241
2 min	72.8	81.7	110	129	147	170	187
3 min	63.9	71.7	96.7	114	131	153	170
4 min	57.1	64.1	86.7	103	119	141	158
5 min	51.9	58.1	78.9	93.9	109	131	148

EAVES GUTTER ARI

ROOF SCHEDULE						
MATERIAL	NOM AREA	PITCH	DETAILS	SARKING	VENT BATTEN	RIDGE VENT
FLASHINGS & CAPPINGS	9.09	5° 0' 0"				
FLASHINGS & CAPPINGS	5.28	14° 12' 36"	0.55BMT COLORBOND FLASHINGS & CAPPINGS AS REQUIRED	ENVIROSEAL HTS-IT	VB20 OR EQUIVALENT	LYSAGHT VENT-A-RIDGE SYSTEM
FLASHINGS & CAPPINGS	5.85	10° 13' 48"	0.55BMT COLORBOND FLASHINGS & CAPPINGS AS REQUIRED	ENVIROSEAL HTS-IT	VB20 OR EQUIVALENT	LYSAGHT VENT-A-RIDGE SYSTEM
NORTH ROOF	69.08	10° 13' 48"	0.42 BMT COLORBOND CUSTOM ORB ROOFING	ENVIROSEAL HTS-IT	VB20 OR EQUIVALENT	LYSAGHT VENT-A-RIDGE SYSTEM
NORTH ROOF	0.36	14° 12' 36"	0.42 BMT COLORBOND CUSTOM ORB ROOFING	ENVIROSEAL HTS-IT	VB20 OR EQUIVALENT	LYSAGHT VENT-A-RIDGE SYSTEM
NTH VERANDAH	38.75	5° 0' 0"	0.42 BMT COLORBOND CUSTOM ORB ROOFING	ENVIROSEAL HTS-IT	VB20 OR EQUIVALENT	LYSAGHT VENT-A-RIDGE SYSTEM
SOUTH ROOF	52.30	14° 12' 36"	0.42 BMT COLORBOND CUSTOM ORB ROOFING	ENVIROSEAL HTS-IT	VB20 OR EQUIVALENT	LYSAGHT VENT-A-RIDGE SYSTEM
STH VERANDAH	20.71	5° 0' 0"	0.42 BMT COLORBOND CUSTOM ORB ROOFING			

ROOF PLAN
NOTATION
SCALE: 1:100

Project No: 00752
Drawing No: A.28 C

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ROOF PLAN
NOTATION, ROOF SCHEDULE

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ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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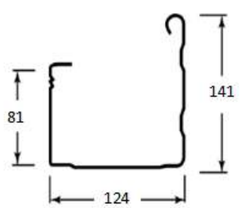
EAVES GUTTER AND DOWN PIPE DESIGN TO AS/NZS 3500.3: 2021
HUDSON ADDITIONS & ALTERATIONS
20 BEACH CRESCENT, GREENS BEACH

Horizontal catchment area	Ah	= 53	sq.m
Roof Average slope	S	= 14	degrees
Intensity	I	= 109	mm/hr
From AS3500 Table 3.4.5.2, C'ment Area Multiplier	f	= 1.125	
Roof Area allowing for slope	Ac	= Ah*f	
		= 59.6	sq.m
Total runoff from roof	q	= I*A/3600	litres/sec
		= **1.8**	litres/sec
Is Gutter slope steeper than 1:500 ?		No	
Down pipe size selected	Dia.	= 100	mm
From Table 3.5.2 find the gutter area that has a similar flow to this DP.			
Matching gutter area for DP		= 10907	sq.mm
x-sect Area of gutter selected		= 7600	sq.mm
Worst case (smallest area ie smallest capacity)		= Selected gutter	
From 3.5.2(C) using xsect area as 7600 Flow to DP	qDP	= 1.77	L/s
Therefore theoretical number of DP's req'd	tDP	= q/qDP	litres/sec
		= 1.02	
round up to nearest whole number	numDP	= 2	
Roof catchment area for this gutter and DP combination	ca	= Ah/tDP	sqm
		= 51.86	sqm

Summary

This catchment requires :- min number of DP's	= 2	
Downpipe size	= 100	mm
Eaves gutter cross sectional Area	= 7600	sq.mm.
Max C'ment Area per DP for this combination	= 51.86	sq.m.

GUTTER SELECTED: Lysaght Sheerline with return Slotted; Area = 7600
(note assuming the catchment area of each DP is roughly similar)



ROOF CALCULATIONS
SOUTH ROOF
SCALE: 1:1

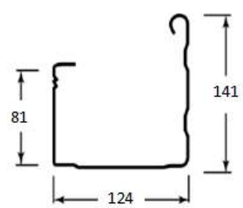
EAVES GUTTER AND DOWN PIPE DESIGN TO AS/NZS 3500.3: 2021
HUDSON ADDITIONS & ALTERATIONS
20 BEACH CRESCENT, GREENS BEACH

Horizontal catchment area	Ah	= 70	sq.m
Roof Average slope	S	= 10	degrees
Intensity	I	= 109	mm/hr
From AS3500 Table 3.4.5.2, C'ment Area Multiplier	f	= 1.088	
Roof Area allowing for slope	Ac	= Ah*f	
		= 76.2	sq.m
Total runoff from roof	q	= I*A/3600	litres/sec
		= **2.31**	litres/sec
Is Gutter slope steeper than 1:500 ?		No	
Down pipe size selected	Dia.	= 100	mm
From Table 3.5.2 find the gutter area that has a similar flow to this DP.			
Matching gutter area for DP		= 10907	sq.mm
x-sect Area of gutter selected		= 7600	sq.mm
Worst case (smallest area ie smallest capacity)		= Selected gutter	
From 3.5.2(C) using xsect area as 7600 Flow to DP	qDP	= 1.77	L/s
Therefore theoretical number of DP's req'd	tDP	= q/qDP	litres/sec
		= 1.31	
round up to nearest whole number	numDP	= 2	
Roof catchment area for this gutter and DP combination	ca	= Ah/tDP	sqm
		= 53.6	sqm

Summary

This catchment requires :- min number of DP's	= 2	
Downpipe size	= 100	mm
Eaves gutter cross sectional Area	= 7600	sq.mm.
Max C'ment Area per DP for this combination	= 53.6	sq.m.

GUTTER SELECTED: Lysaght Sheerline with return Slotted; Area = 7600
(note assuming the catchment area of each DP is roughly similar)



ROOF CALCULATIONS
NORTH ROOF
SCALE: 1:1

Project No: 00752
Drawing No: A.29 C

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ROOF CALCULATIONS
NORTH ROOF; SOUTH ROOF
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ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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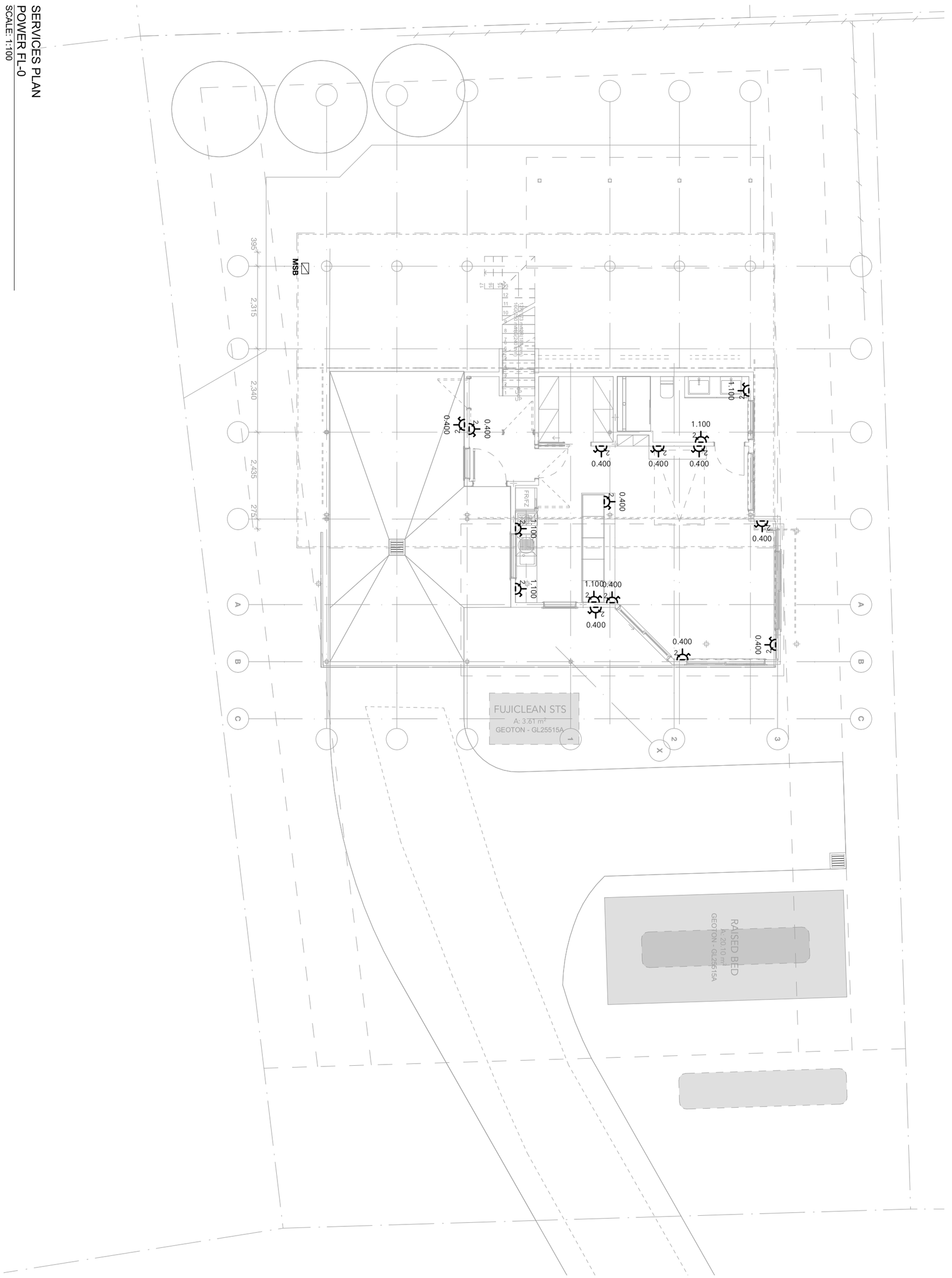
SERVICES PLAN
POWER FL-0
SCALE: 1:100



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SERVICES PLAN

POWER FL-0

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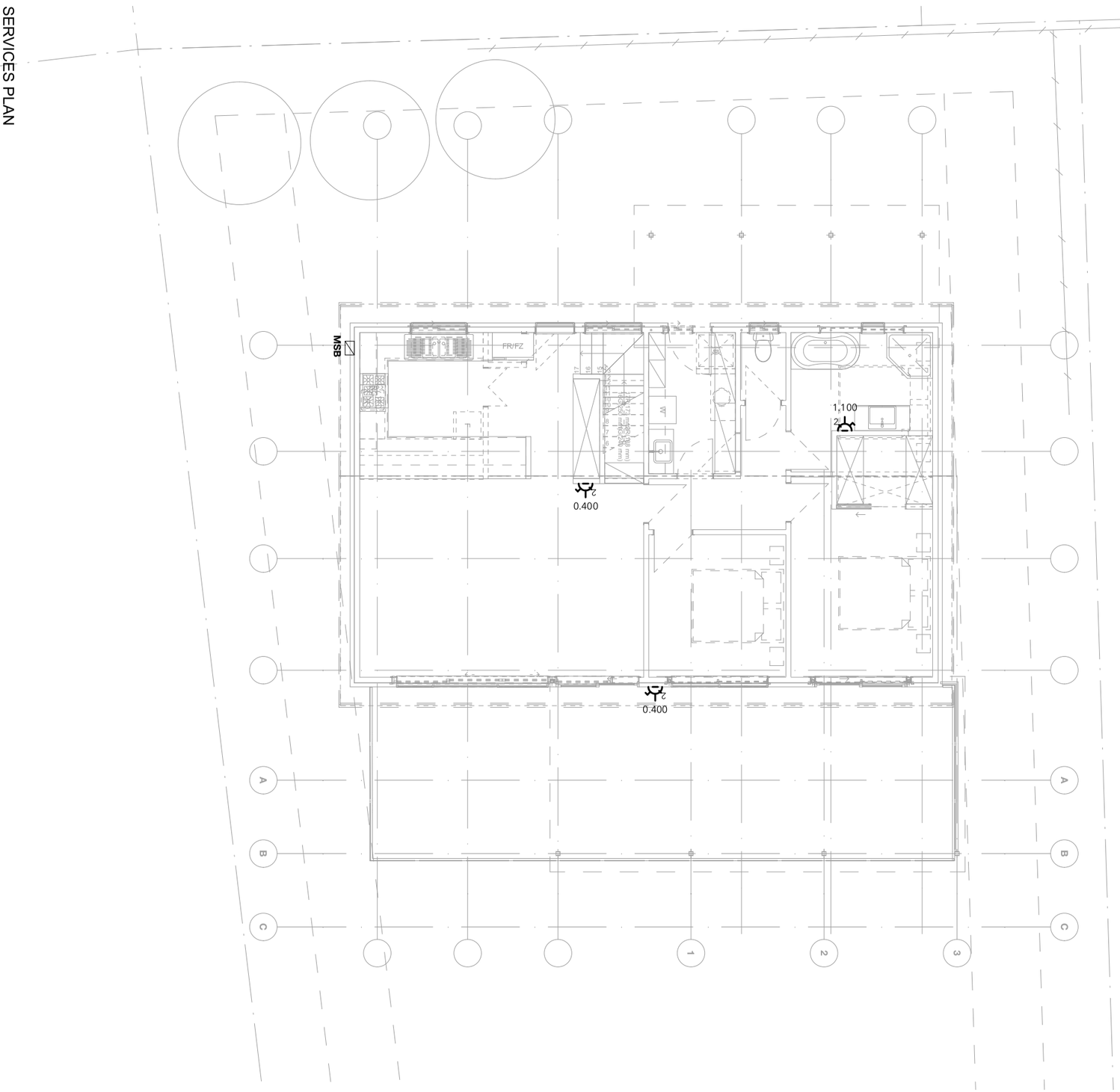
Drawing No: A.30 C

SERVICES PLAN
POWER FL-1
SCALE: 1:100



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SERVICES PLAN

POWER FL-1

STATUS: DA ISSUE

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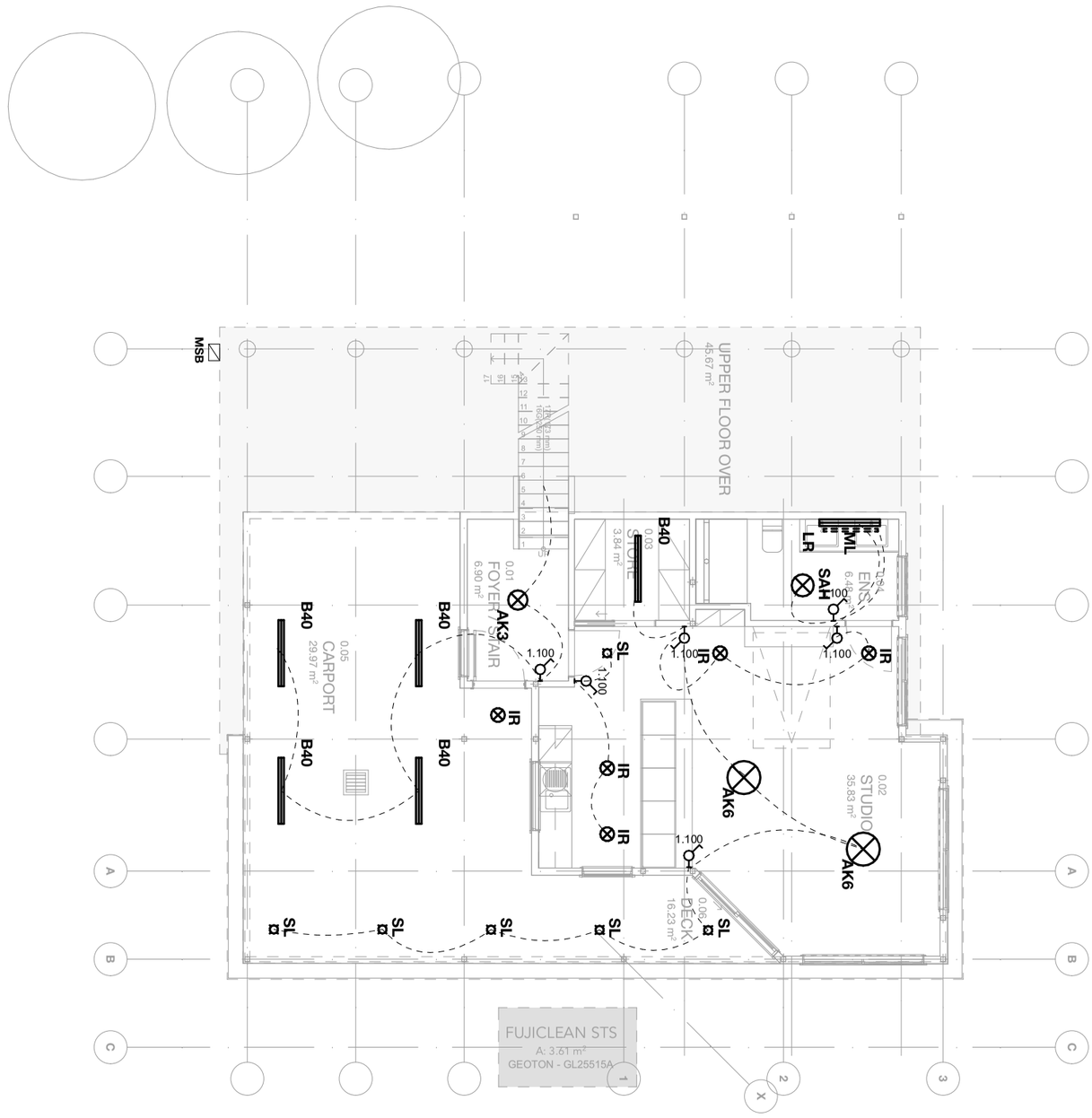
Project No: 00752

Drawing No: A.31 C

SERVICES PLAN

LIGHTING FL-0

SCALE: 1:100



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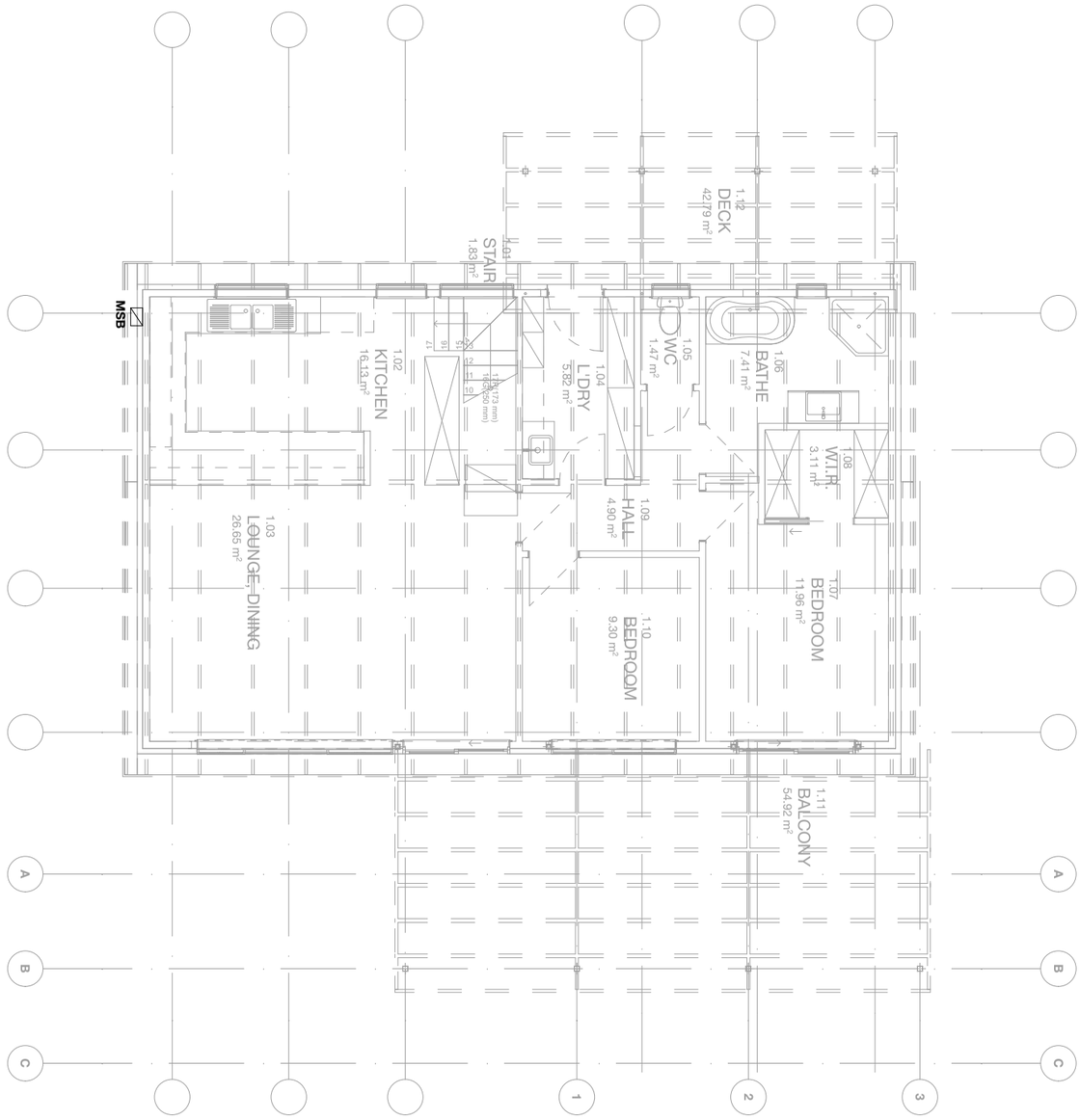
SERVICES PLAN
LIGHTING FL-1
SCALE: 1:100



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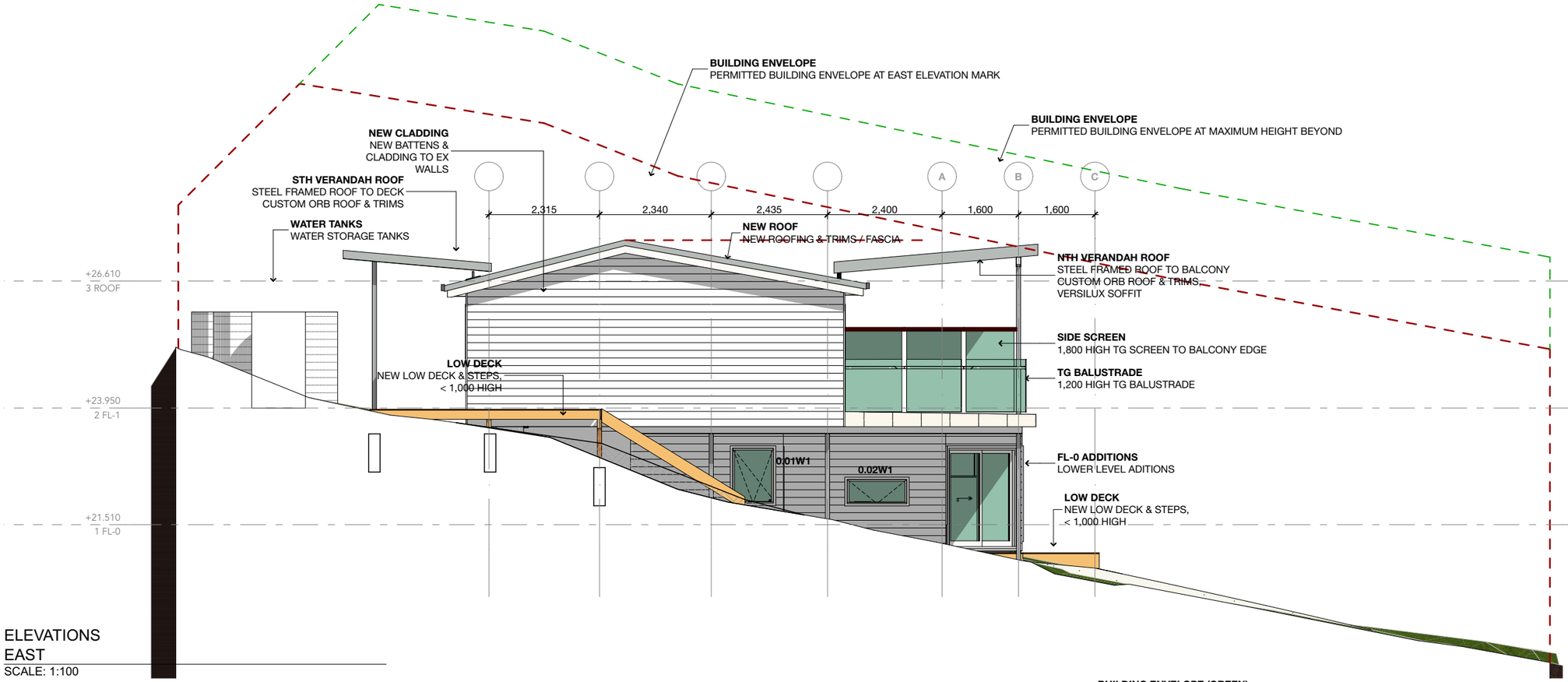

ELEVATIONS
EAST
SCALE: 1:100

ELEVATIONS
NORTH
SCALE: 1:100

Project No: 00752
Drawing No: A.34 C

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ELEVATIONS
EAST, NORTH
STATUS: DA ISSUE
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ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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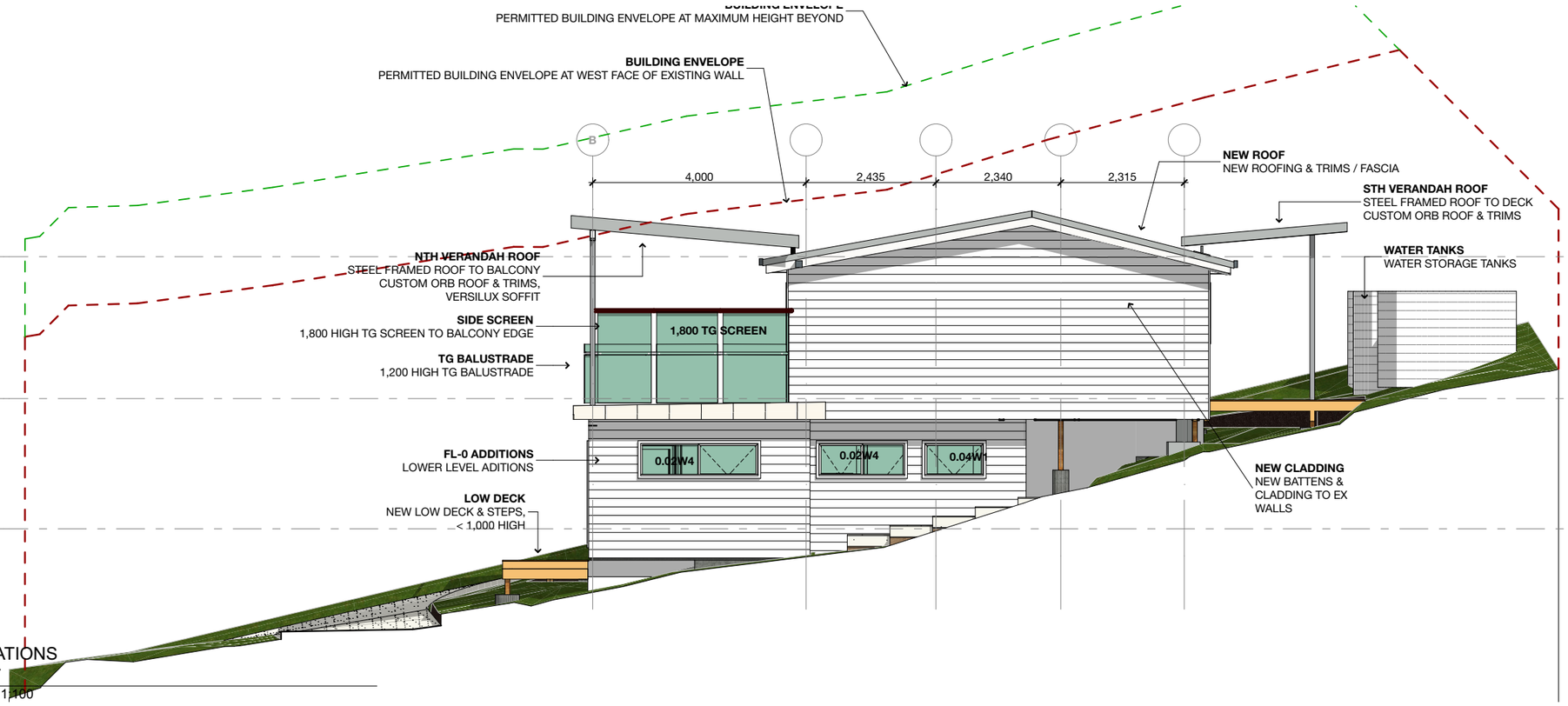
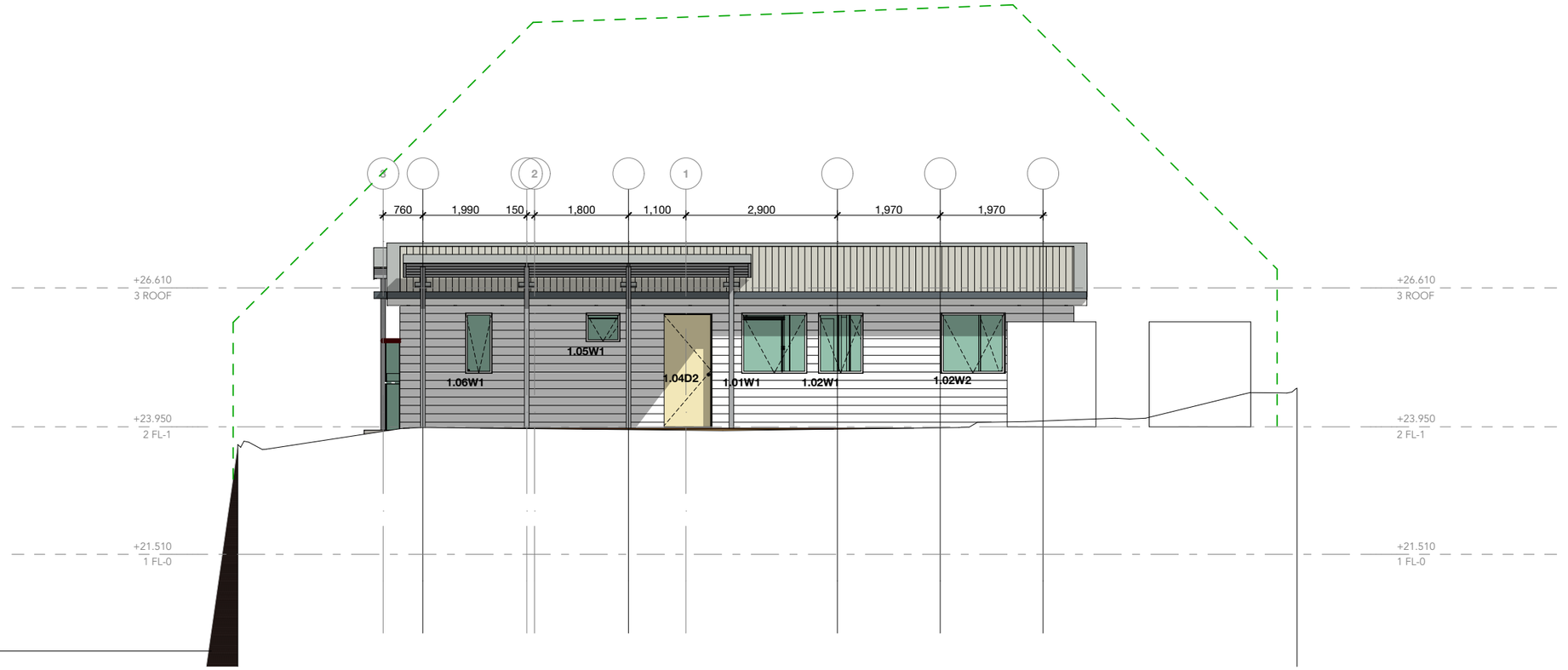


ELEVATIONS
WEST
SCALE: 1:100



ELEVATIONS
SOUTH
SCALE: 1:100

Project No: 00752
Drawing No: A.35 C

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ELEVATIONS
WEST, SOUTH

STATUS: DA ISSUE
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DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

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DOOR #	0.01D1	0.02D1	0.02D2	0.03D1	0.04D1	1.03D1	1.03D1	1.04D1	1.04D2	1.04D2
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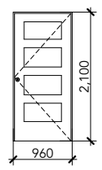
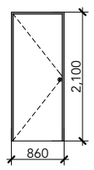
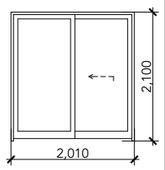
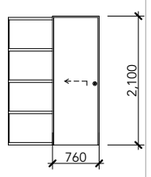
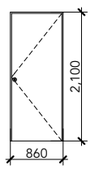
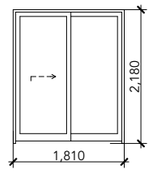
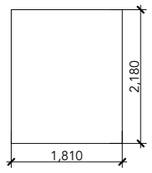
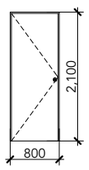
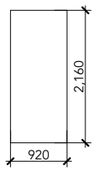
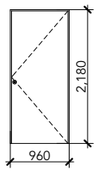
ELEVATION										
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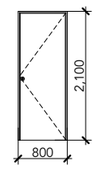
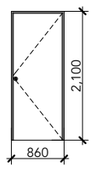
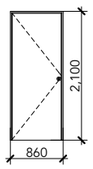
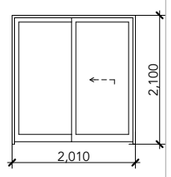
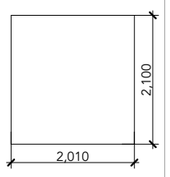
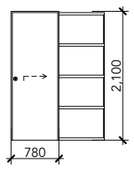
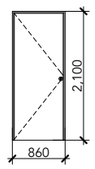
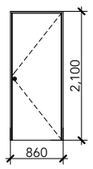
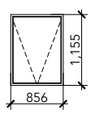
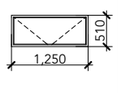
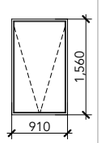
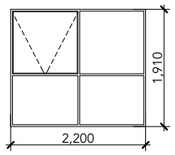
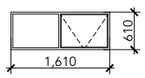
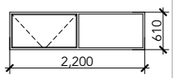
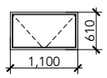
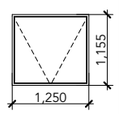
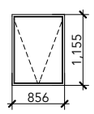
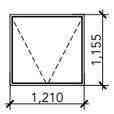
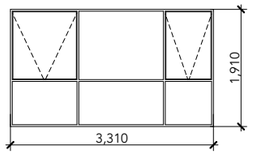
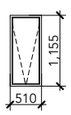
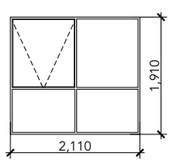
U VALUE										
SHGC										
TYPE / FINISH										
REVEAL TYPE										

DOOR #	1.05D1	1.06D1	1.07D1	1.07D2	1.08D1	EX
WALL OPENING	800×2,100	860×2,100	860×2,100	2,010×2,100	780×2,100	860×2,100
ELEVATION								
AREA	1.68	1.81	1.81	4.22	4.22	1.64	1.81	1.81		
U VALUE										
SHGC										
TYPE / FINISH										
REVEAL TYPE										

WINDOW #	0.01W1	0.02W1	0.02W2	0.02W3	0.02W4	0.04W1	1.01W1	1.02W1	1.02W2	1.03W1
WALL OPENING	856×1,155	1,250×510	910×1,560	2,200×1,910	1,610×610	2,200×610	1,100×610	1,250×1,155	856×1,155	1,210×1,155	3,310×1,910
	856×1,155	1,250×510	910×1,560	2,200×1,910	1,610×610	2,200×610	1,100×610	1,250×1,155	856×1,155	1,210×1,155	3,310×1,910
ELEVATION											
AREA	0.99	0.64	1.42	4.20	0.98	1.34	0.67	1.44	0.99	1.40	6.32
U VALUE											
SHGC											
TYPE / FINISH											
REVEAL TYPE											

WINDOW #	1.05W1	1.06W1	1.10W1
WALL OPENING	650×550	510×1,155	2,110×1,910
	650×550	510×1,155	2,110×1,910
ELEVATION			
AREA	0.36	0.59	4.03
U VALUE			
SHGC			
TYPE / FINISH			
REVEAL TYPE			

Project No: 00752

Drawing No: A.36 C

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SCHEDULES

DOOR SCHEDULE, WINDOW SCHEDULE

STATUS: DA ISSUE

SCALE (A3): 1:1
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

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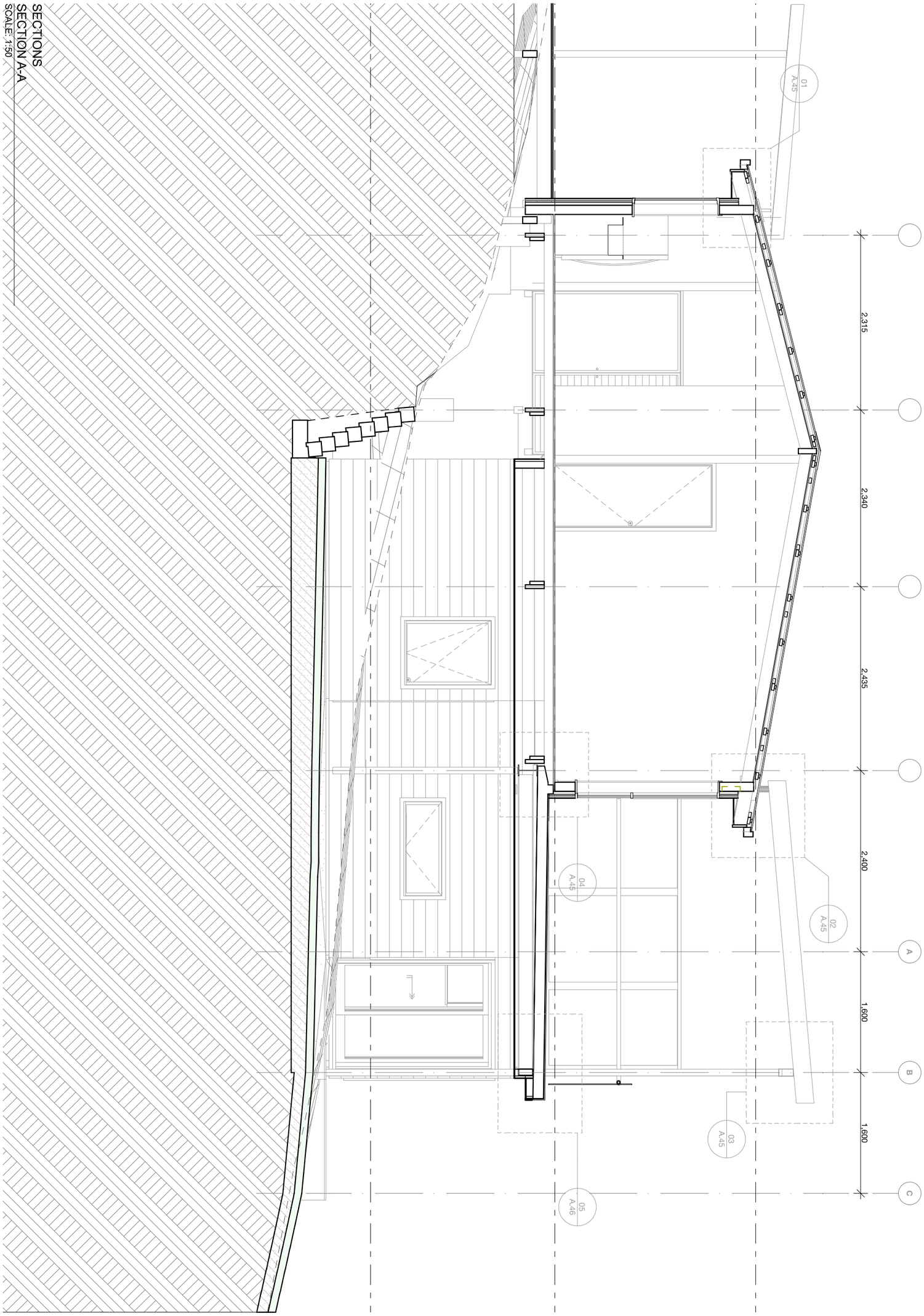
SECTIONS
SECTION A-A
SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SECTIONS

SECTION A-A

STATUS: DA ISSUE

SCALE (A3): 1:50
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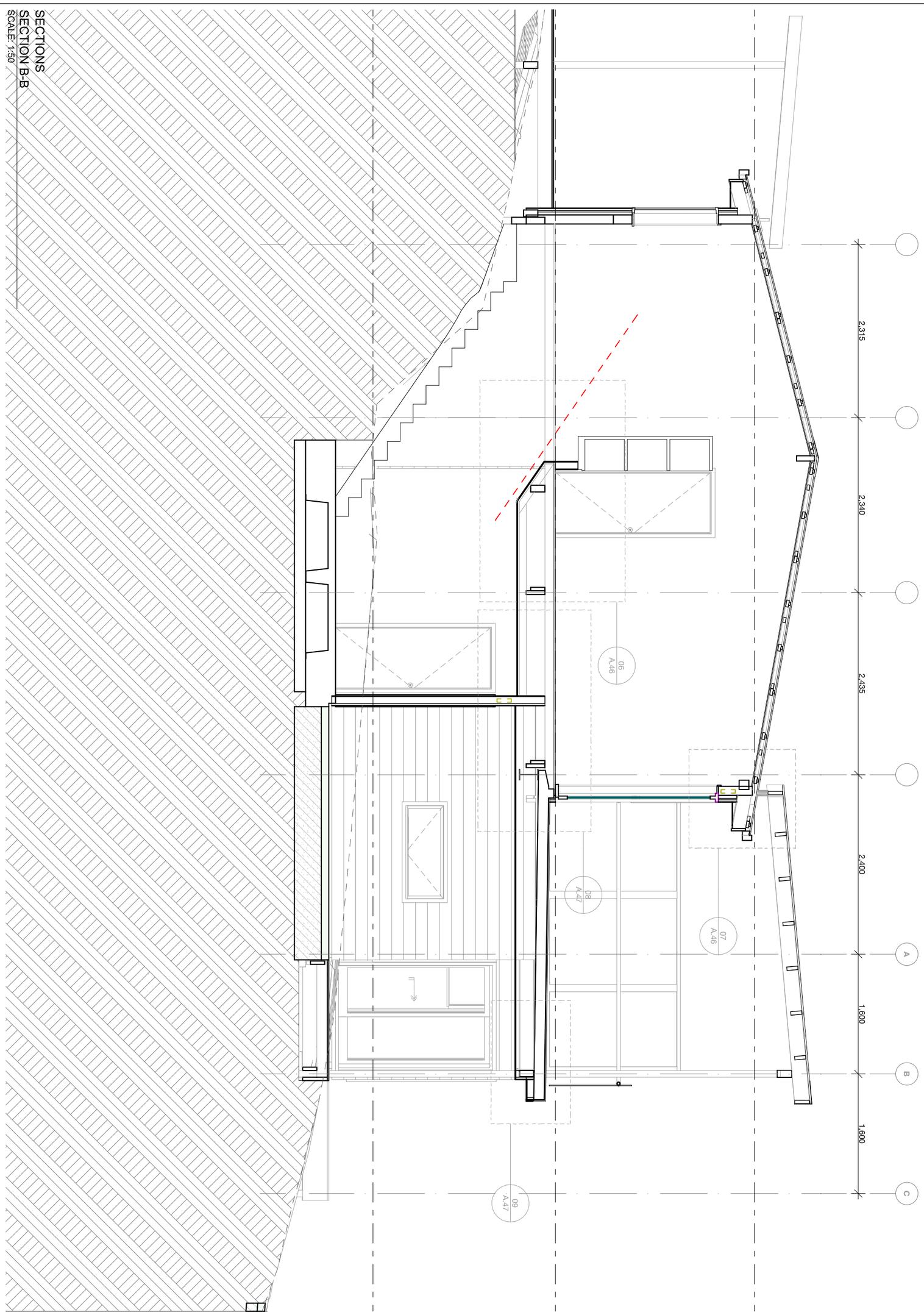
Drawing No: A.37 C

SECTIONS

SECTION B-B

SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SECTIONS

SECTION B-B

STATUS: DA ISSUE

SCALE (A3): 1:50

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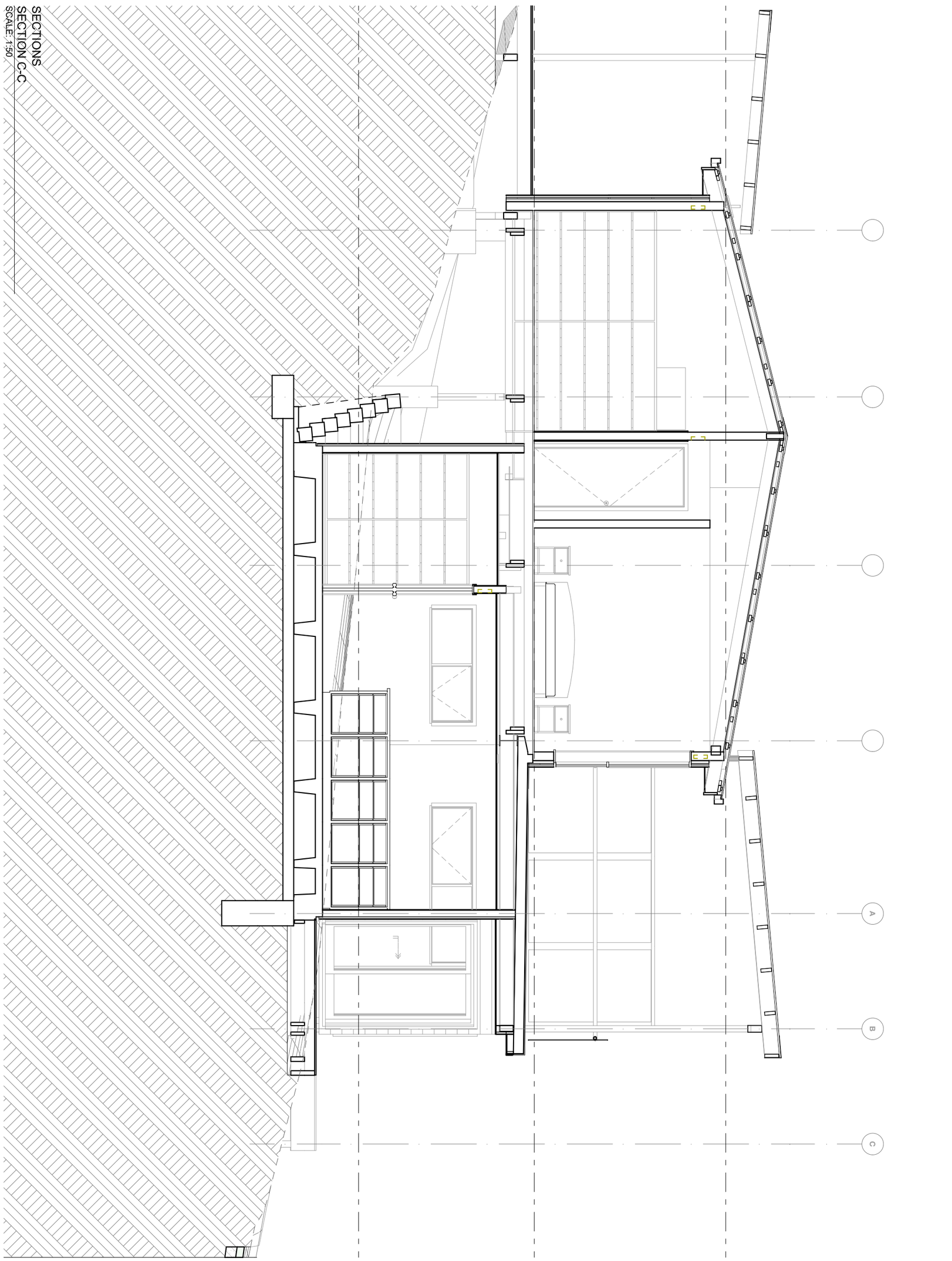
Drawing No: A.38 C

SECTIONS
SECTION C-C
SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SECTIONS

SECTION C-C

STATUS: DA ISSUE

SCALE (A3): 1:50
DRAWN: ACS
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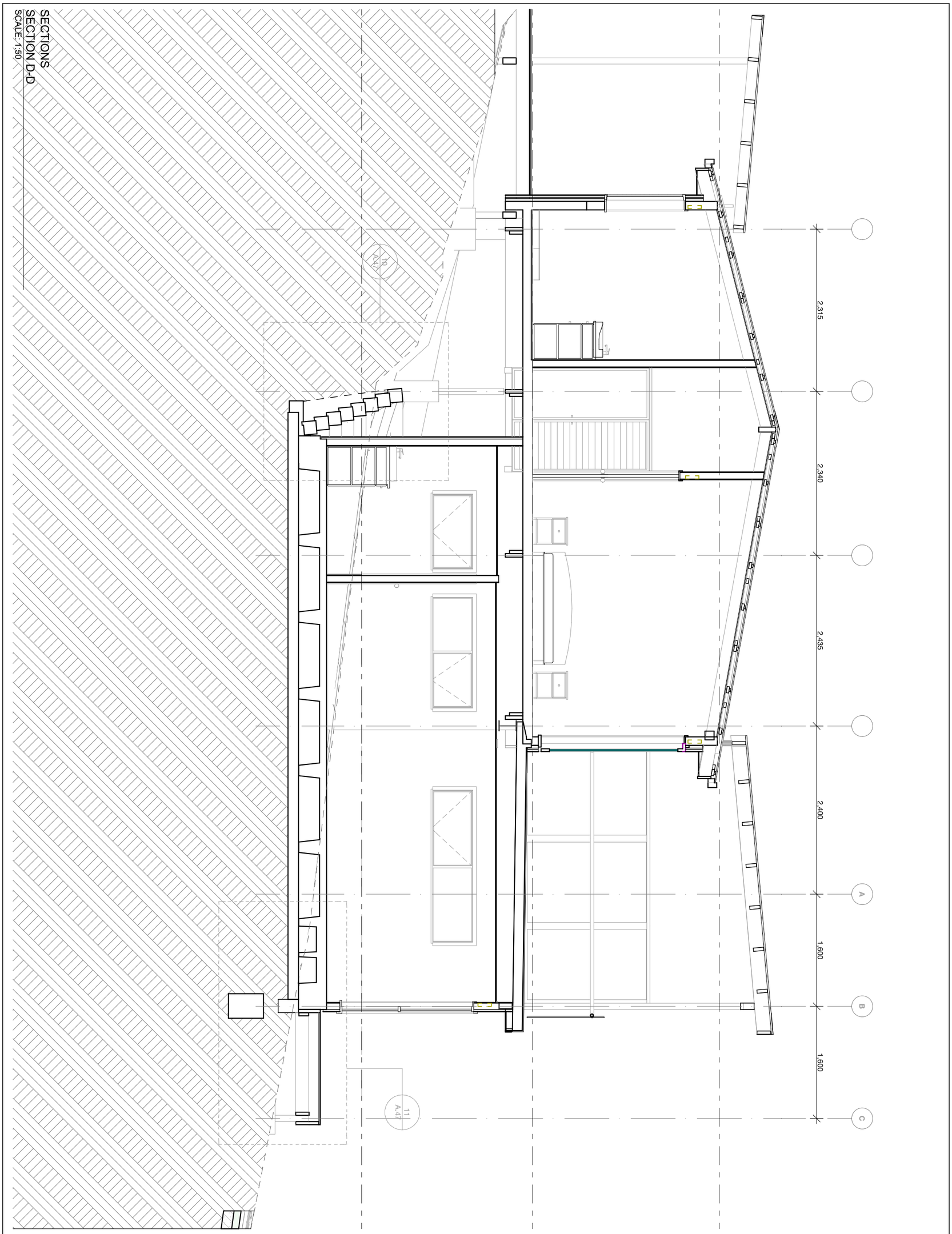
Project No: 00752

Drawing No: A.39 C

SECTIONS
SECTION D-D
SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SECTIONS
SECTION D-D

STATUS: DA ISSUE
SCALE (A3): 1:50
DRAWN: ACS
DATE: 05.01.26

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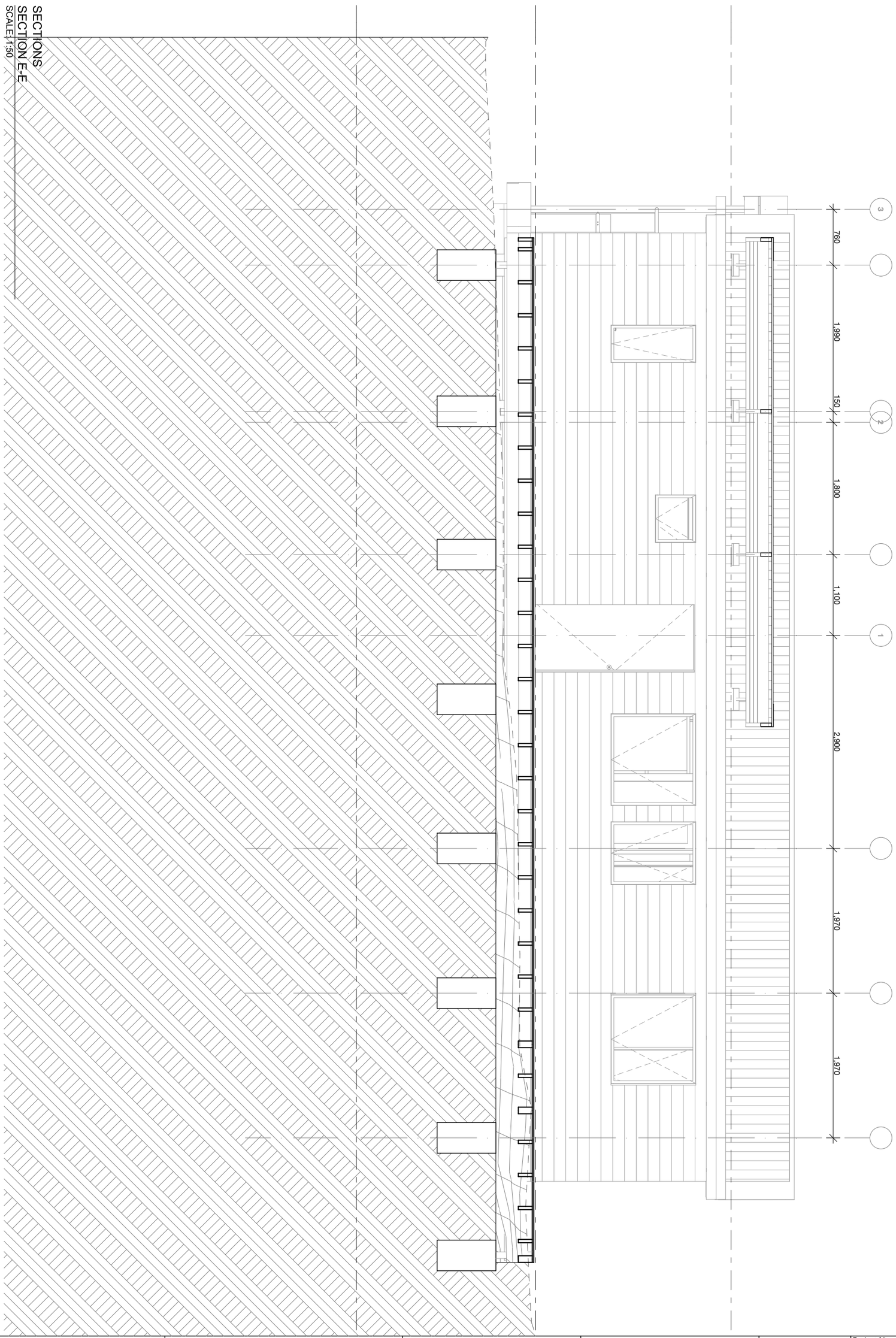
Project No: 00752

Drawing No: A.40 C

SECTIONS
SECTION E-E
SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

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SECTIONS

SECTION E-E

STATUS: DA ISSUE

SCALE (A3): 1:50
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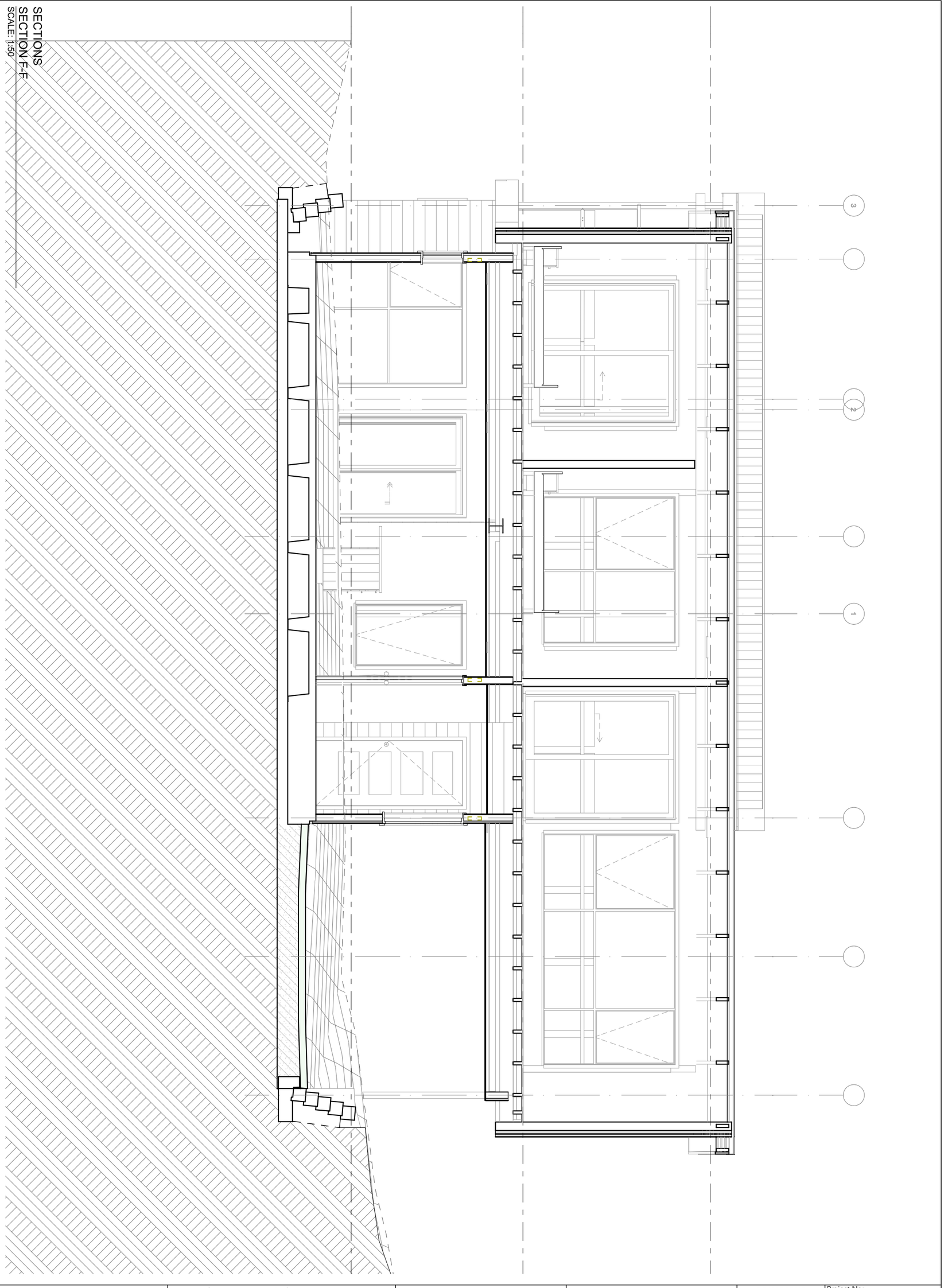
Project No: 00752

Drawing No: A.41 C

SECTIONS
SECTION F-F
SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

SECTIONS

SECTION F-F

STATUS: DA ISSUE

SCALE (A3): 1:50
DRAWN: ACS
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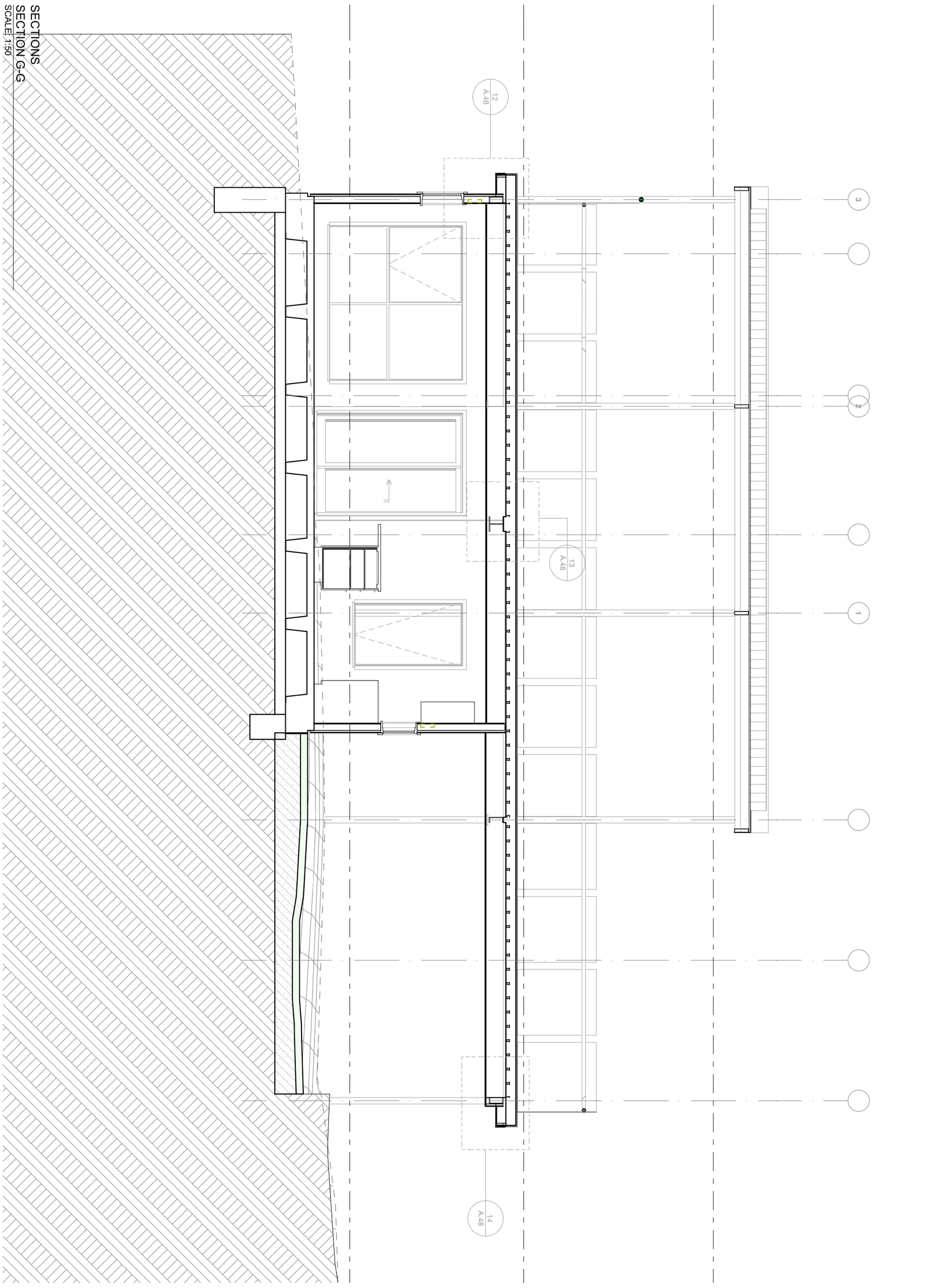
Project No: 00752

Drawing No: A.42 C

SECTIONS
SECTION G-G
SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

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SECTIONS

SECTION G-G

STATUS: DA ISSUE

SCALE (A3): 1:50
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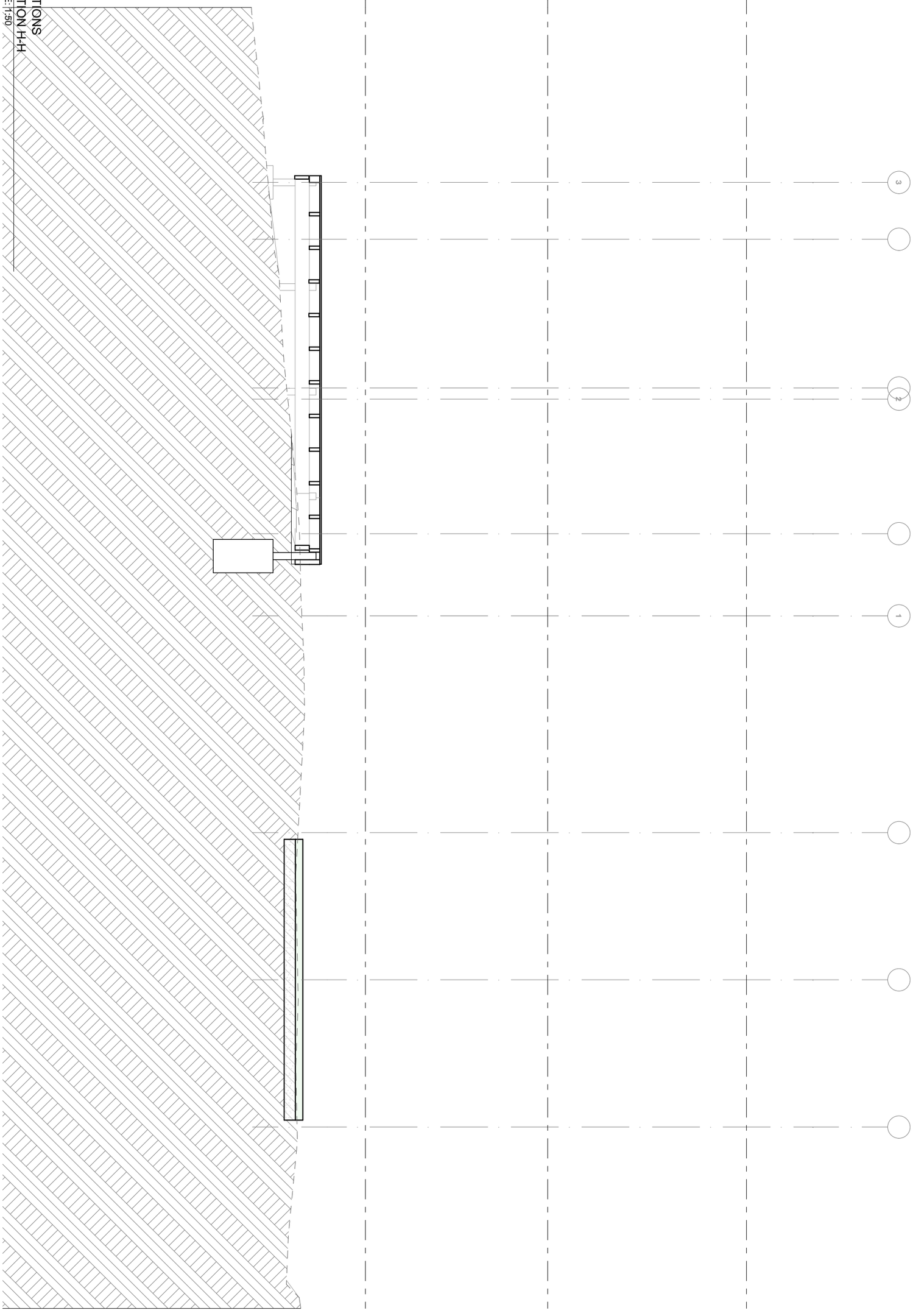
Project No: 00752

Drawing No: A.43 C

SECTIONS

SECTION H-H

SCALE: 1:50



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

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SECTIONS

SECTION H-H

STATUS: DA ISSUE

SCALE (A3): 1:50
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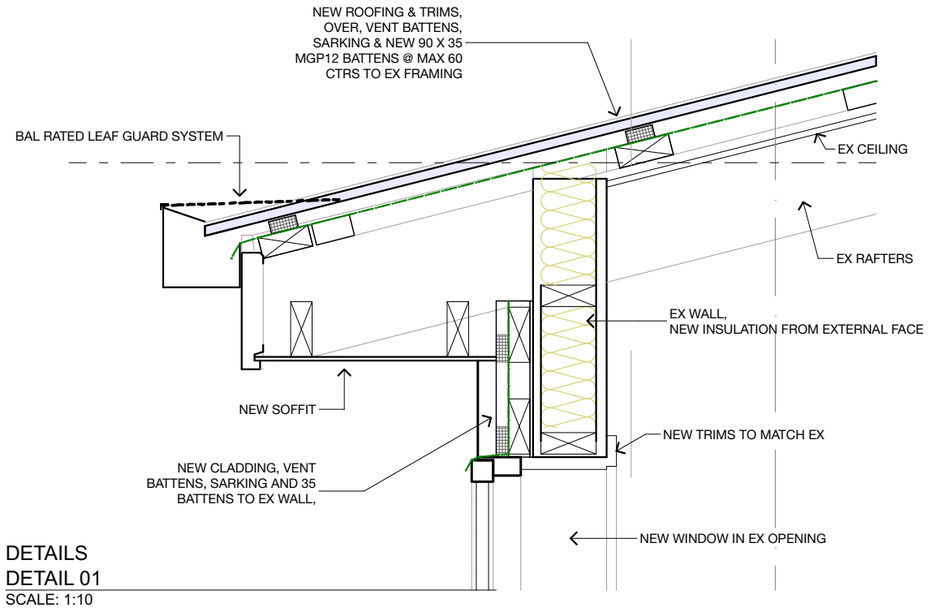
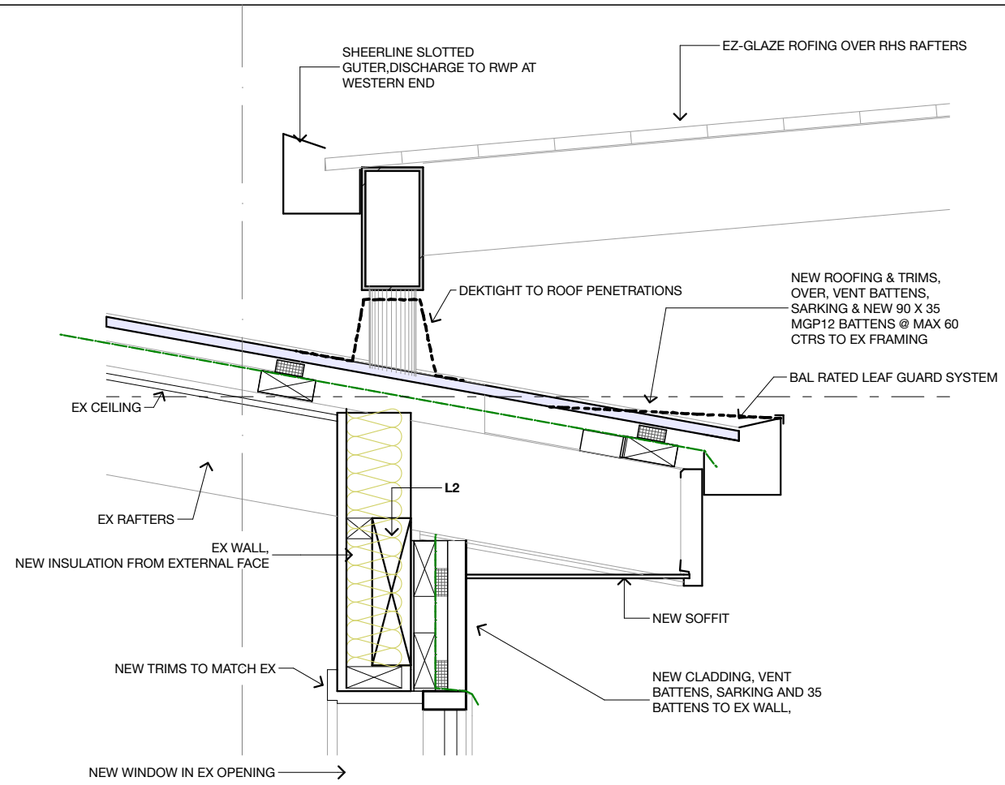
Project No: 00752

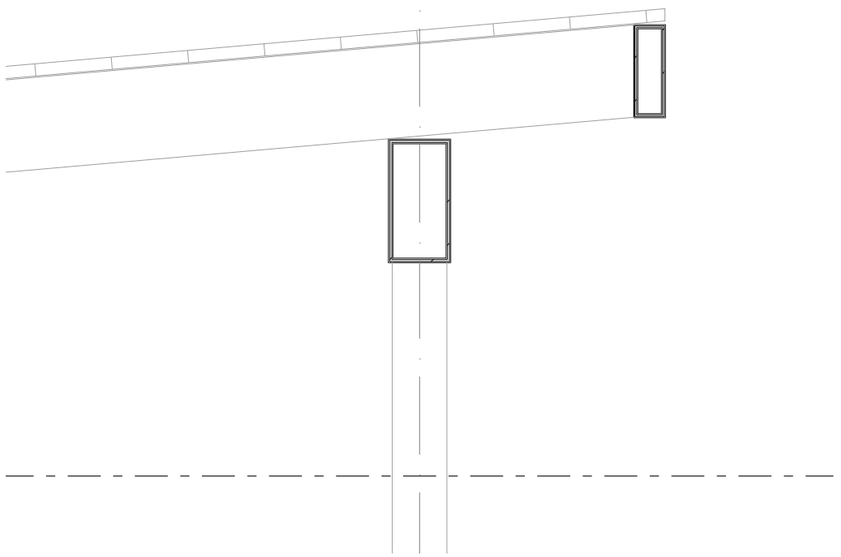
Drawing No: A.44 C



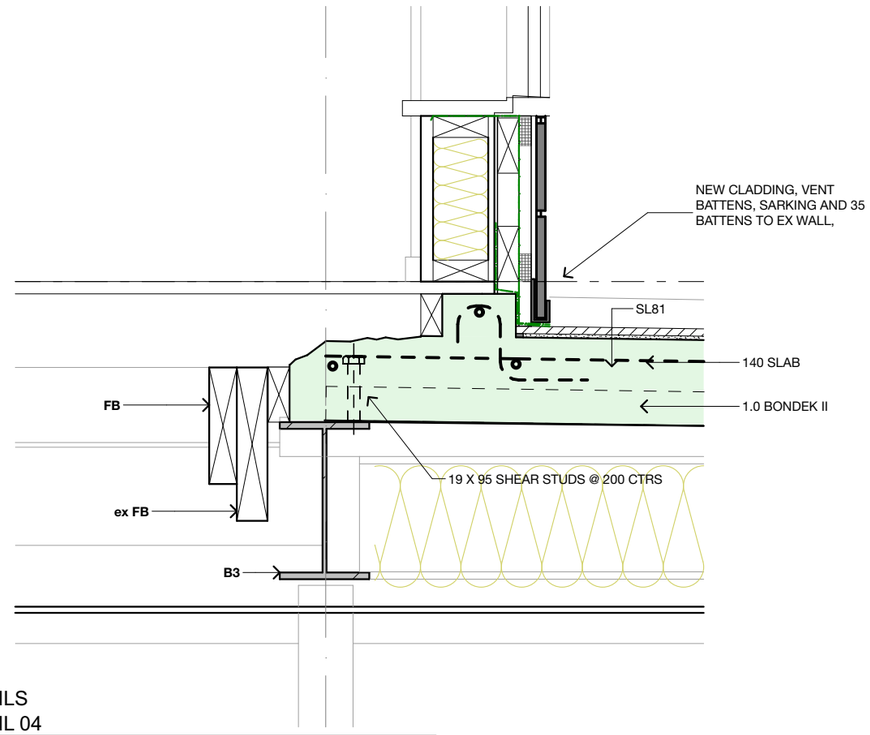
DETAILS
DETAIL 01
SCALE: 1:10



DETAILS
DETAIL 02
SCALE: 1:10



DETAILS
DETAIL 03
SCALE: 1:10



DETAILS
DETAIL 04
SCALE: 1:10

Project No: 00752
Drawing No: A.45 C

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DETAILS
DETAIL 01, DETAIL 02, DETAIL 03, DETAIL 04

STATUS: DA ISSUE
SCALE (A3): 1:10
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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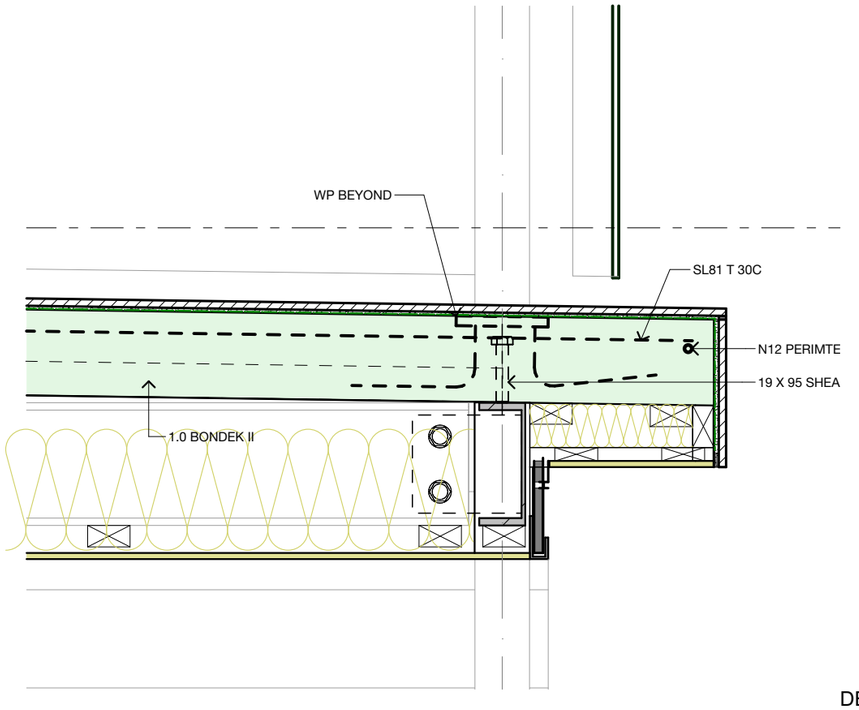
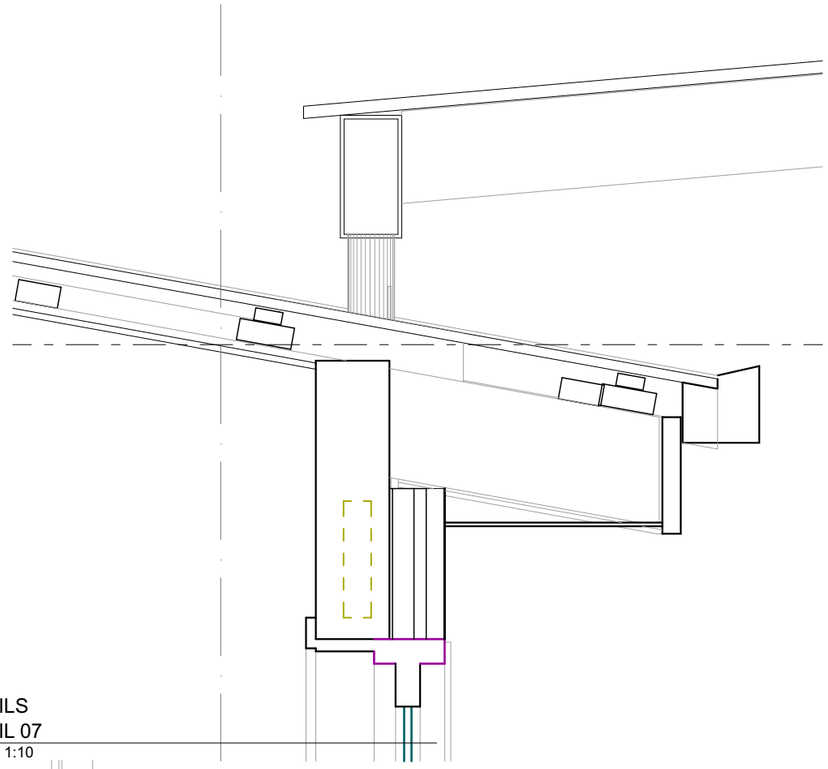
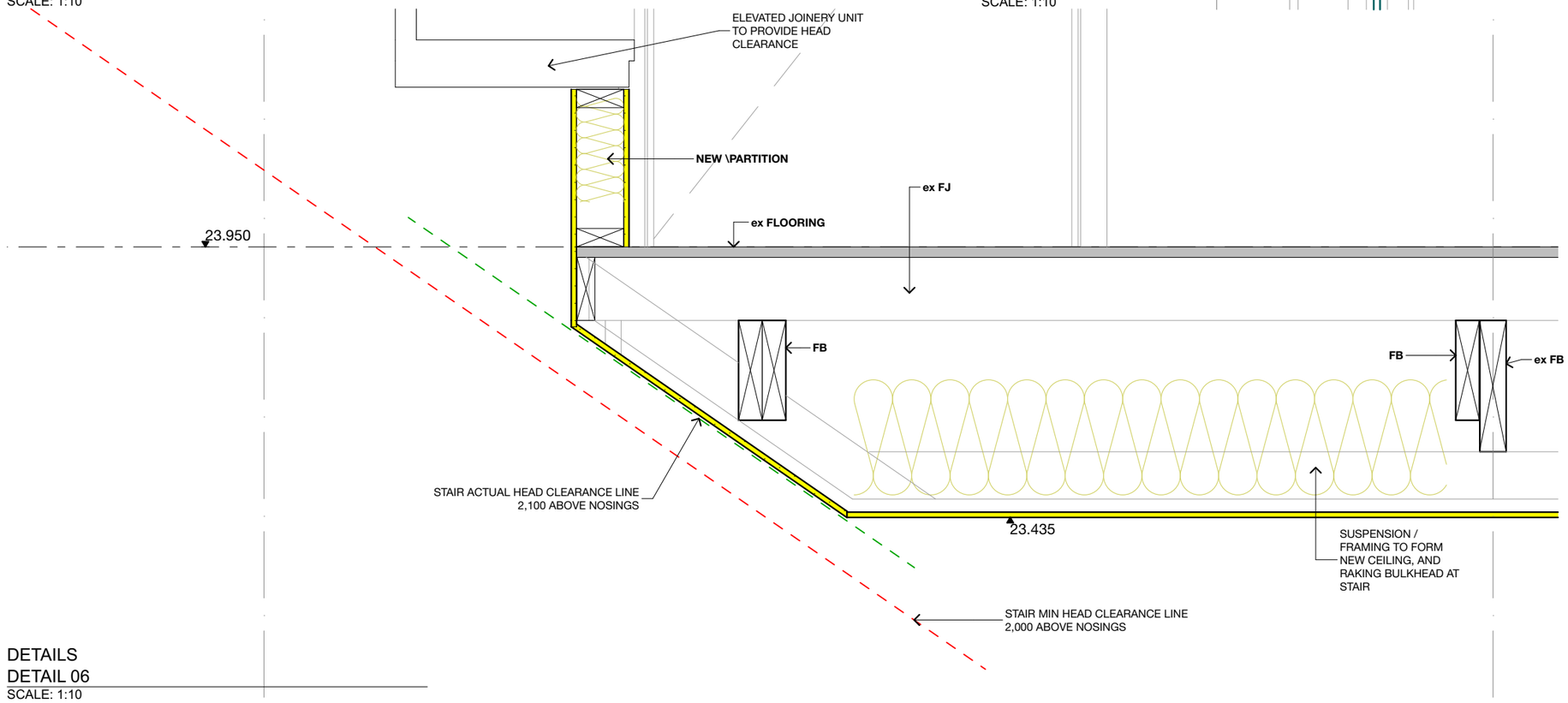


DETAILS
DETAIL 05
SCALE: 1:10



DETAILS
DETAIL 07
SCALE: 1:10



DETAILS
DETAIL 06
SCALE: 1:10

Project No: 00752
Drawing No: A.46 C

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DETAILS
DETAIL 05, DETAIL 06, DETAIL 07

STATUS: DA ISSUE
SCALE (A3): 1:10
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS
HUDSON FAMILY
20 BEACH CRESCENT GREENS BEACH

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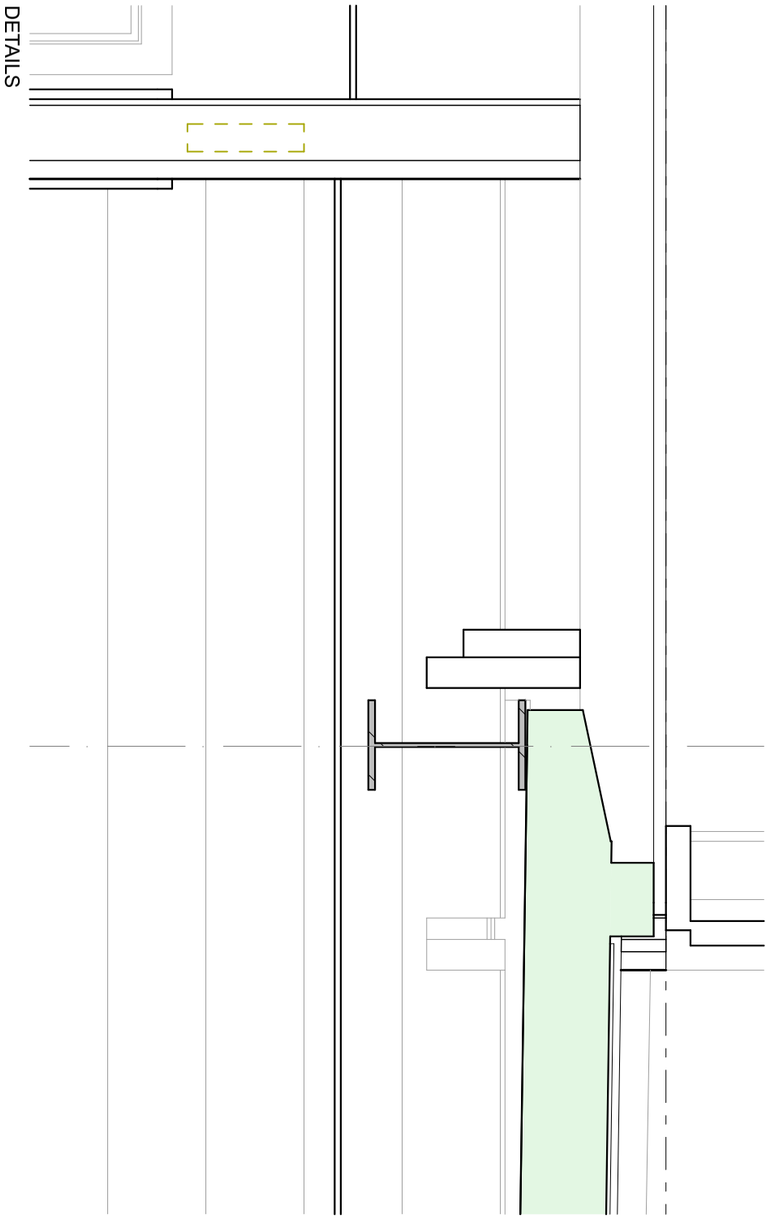
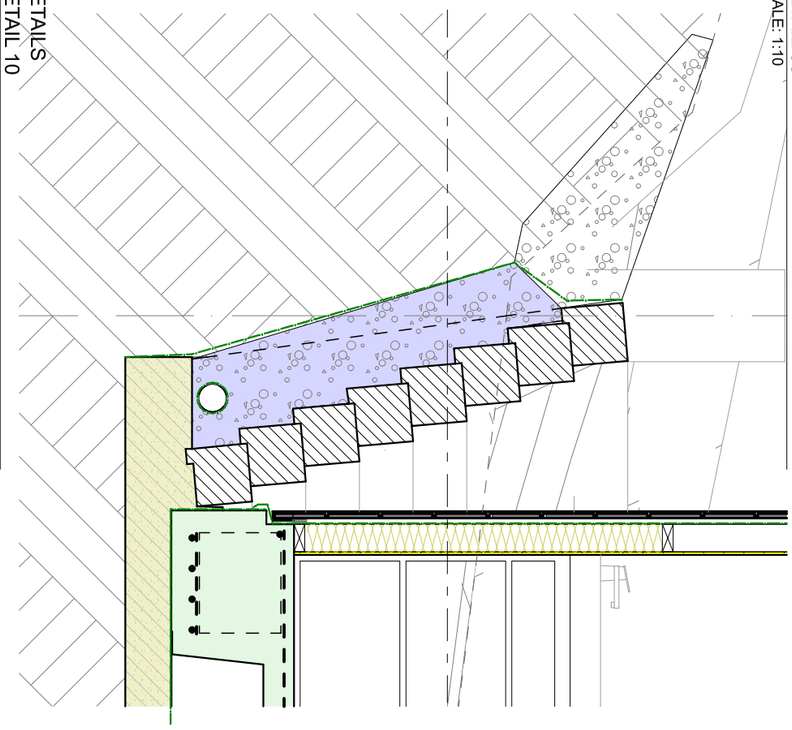
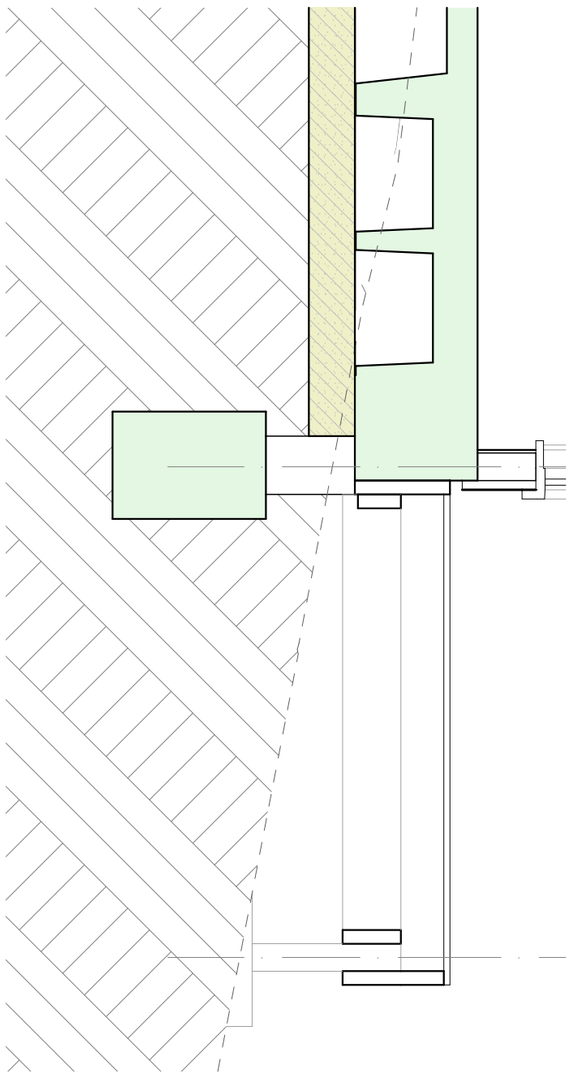
DETAILS
DETAIL 08
SCALE: 1:10



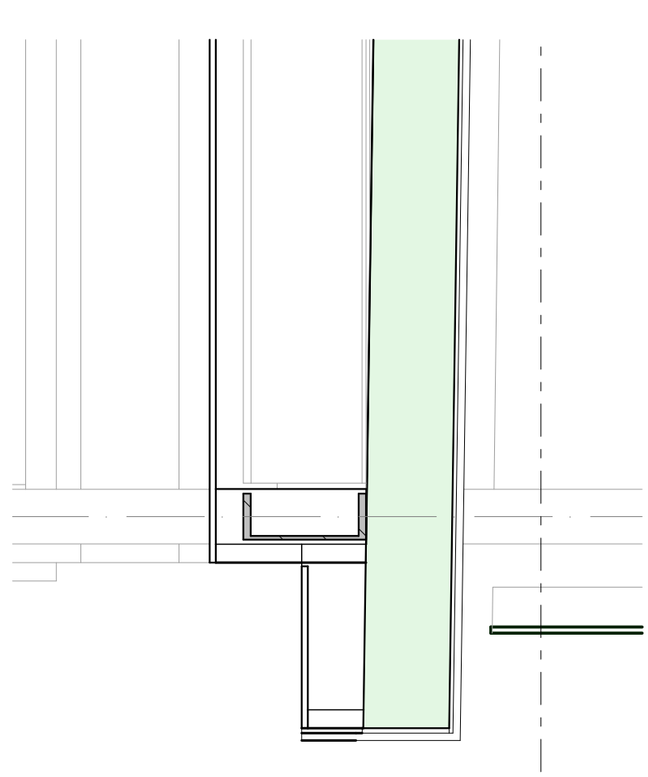
DETAILS
DETAIL 10
SCALE: 1:20



DETAILS
DETAIL 11
SCALE: 1:20



DETAILS
DETAIL 09
SCALE: 1:10



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

DETAILS

DETAIL 08, DETAIL 09, DETAIL 10, DETAIL 11

STATUS: DA ISSUE
SCALE (A3): 1:10, 1:20
DRAWN: ACS
DATE: 05.01.26

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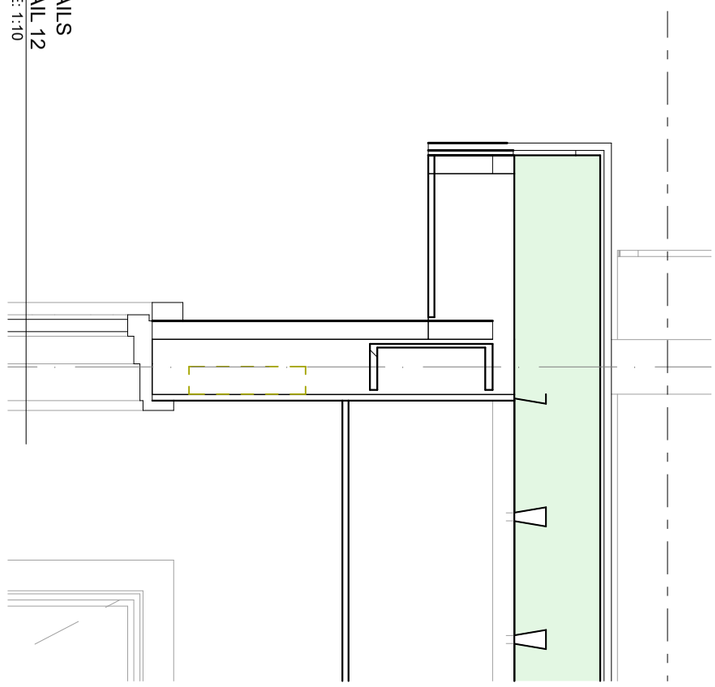
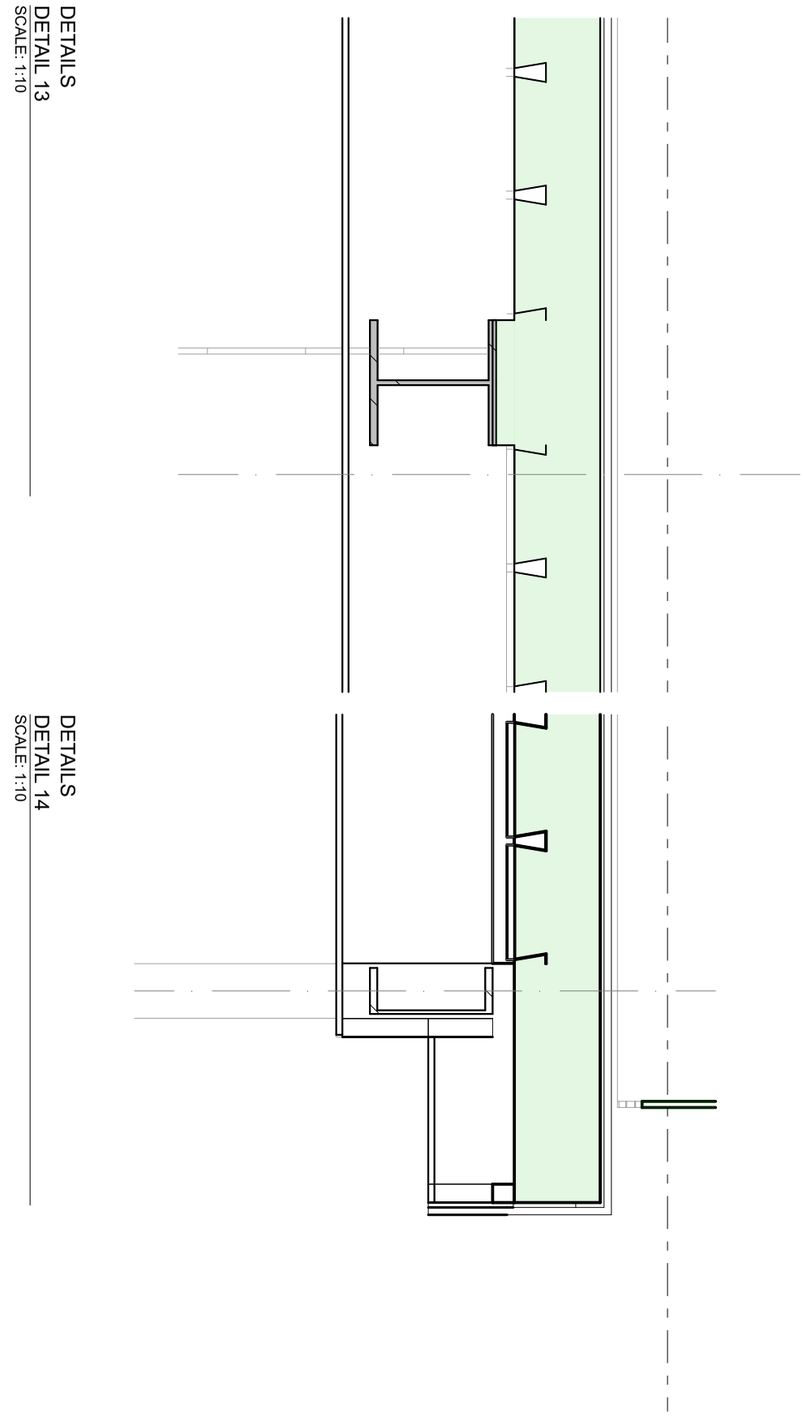
Drawing No: A.47 C

DETAILS
DETAIL 12
SCALE: 1:10



DETAILS
DETAIL 13
SCALE: 1:10



DETAILS
DETAIL 14
SCALE: 1:10

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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

DETAILS

DETAIL 12, DETAIL 13, DETAIL 14

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SCALE (A3): 1:10
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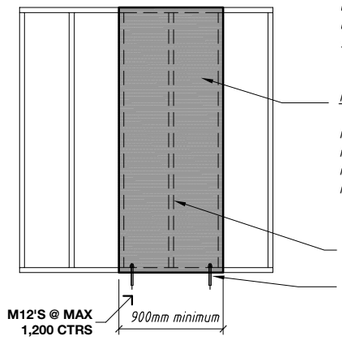
Project No: 00752

Drawing No: A.48 C

Plywood Bracing Panel

Fix plywood panels with galv flathead nails 2.8Ø x 30mm long or equivalent at 50mm centres along top & bottom plates, 150mm centres along vertical edges and 300mm centres along intermediate studs. Nails to be a minimum of 7mm from panel edges.



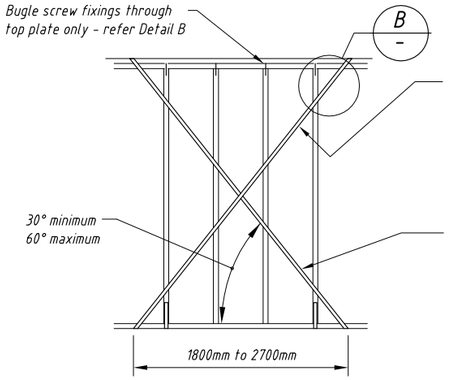
Plywood grades & thicknesses :

F8	7mm
F11	6mm
F14	4mm
F27	4mm

Timber studs at 450mm max centres

1 no. M12 'Dyna' bolt into concrete each end. M12 coach bolt each end of panel through floor joist as shown (nominal bracing only) Provide cross member between floor joists if bolt position is offset from joist.

Type 'h' bracing unit - plywood panel

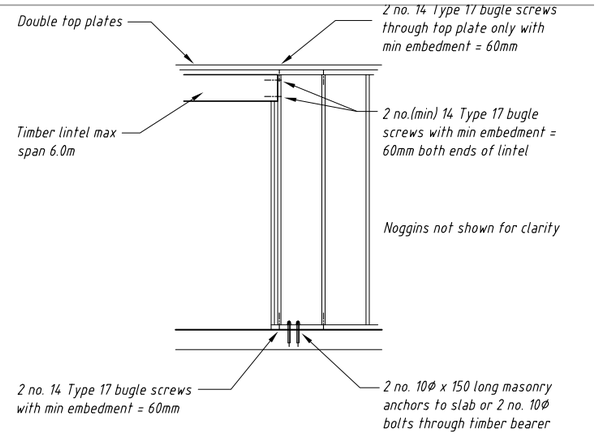


Metal Tension Strap Bracing Panel

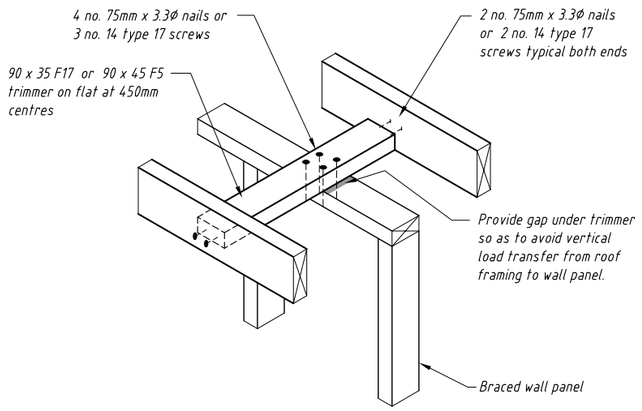
Corrosion protected flat metal tension strapping fixed with 2 no. galv flathead nails 3.15Ø x 30mm long, to each stud and the face of the top and bottom plate, and 4 no. galv nails 3.15Ø x 30mm long to the strap return over the top plate.

Galv metal strap 30 x 0.8mm as per Detail 'B', or single strap both sides with 4no. nails each end of straps, or equivalent proprietary framing anchors or nail plate fasteners.

Type 'd' bracing unit
Pair diagonal metal tension straps

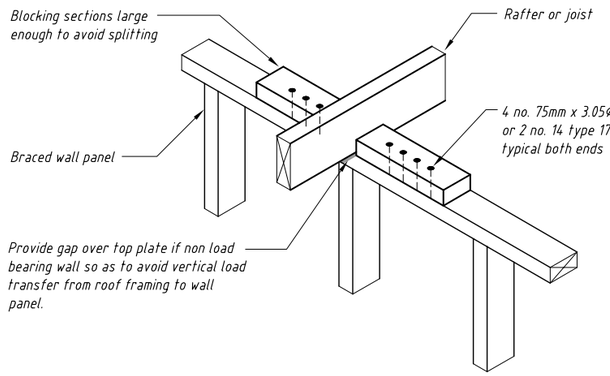


Connection of Lintel to Timber Wall



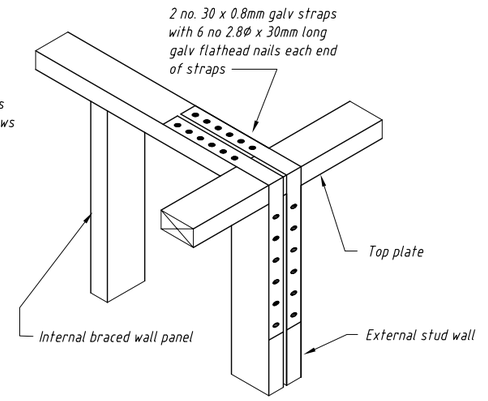
Fixing detail - Top plate of braced wall panel

These details apply to all braced wall panels - fix to roof truss or floor joists

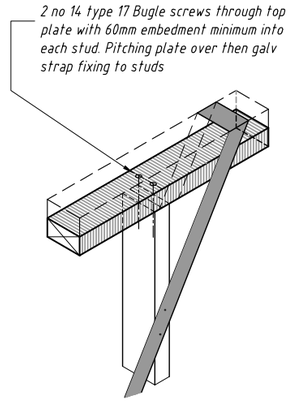


Note :

Alternative fixing details for top of bracing walls from AS1684.2-2010 Table 8.22 to be used subject to equivalent load capacity.



Fixing detail - Internal braced wall to exterior wall



Stud to Plate Detail 'B'

(h) 1200

Indicates bracing units type "h" with a capacity of **5.2** kN/m in accordance with AS 1684.2-2010 with length of plywood bracing panel.

(d) 2700

Indicates bracing units type "d" with a capacity of 3.0 kN/m in accordance with AS 1684.2-2010 with length of diagonal strap bracing panel.

Lengths shown are indicative only - do not scale.

Ensure all internal wall bracing is positively connected to the bottom chords of roof trusses.

The maximum distance between braced walls at right angles to the building length or width shall not exceed 9000mm for Wind Classification 'N3' (for this building) - refer AS1684.2-2010 Table 8.20. Evenly space wall bracing in accordance with Sections 8.3.6.5, 8.3.6.6 and 8.3.6.7 AS1684.2-2010.

1. Timber framing shall be constructed in accordance with the details in Sections 1 to 7 of AS1684.2-2010, the Architectural specification, the details shown on the Engineering drawings and Material Suppliers details.
2. Bracing of the timber frame shall be constructed in accordance with the details provided in Section 8 of AS1684.2-2010, the details shown on the Engineering drawings and Material Suppliers details.
3. Tie down of the timber frame shall be constructed in accordance with the details provided in Section 9 of AS1684.2-2010, and the details shown in the Material Suppliers details. Nominal fixings as shown in Table 9.3 shall apply and are not repeated in these drawings.
4. Roof truss manufacturer to supply sizes, locations and details of all roof bracing prior to fabrication.
5. All internal bracing walls shall be fixed to the floor for lower storey bracing walls, the ceiling or roof frame, and/or the external wall frame, with structural connections of equivalent shear capacity to the bracing capacity of that particular bracing wall. Nominal and other bracing walls with bracing capacity up to 1.5kN/m require nominal fixing only i.e. no additiona fixing requirements.
6. Bracing capacities listed are suitable for wall heights up to 2700mm.
7. Different bracing types have different bracing rotational and uplift capacities. Any changes to those shown, will require a re-design by the Engineer.

Project No: 00752

Drawing No: A.49 C

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DETAILS

BRACING DETAILS, BRACING NOTES

STATUS: DA ISSUE

SCALE (A3): 1:125
1:111.11,
DRAWN: ACS
DATE: 05.01.26

ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

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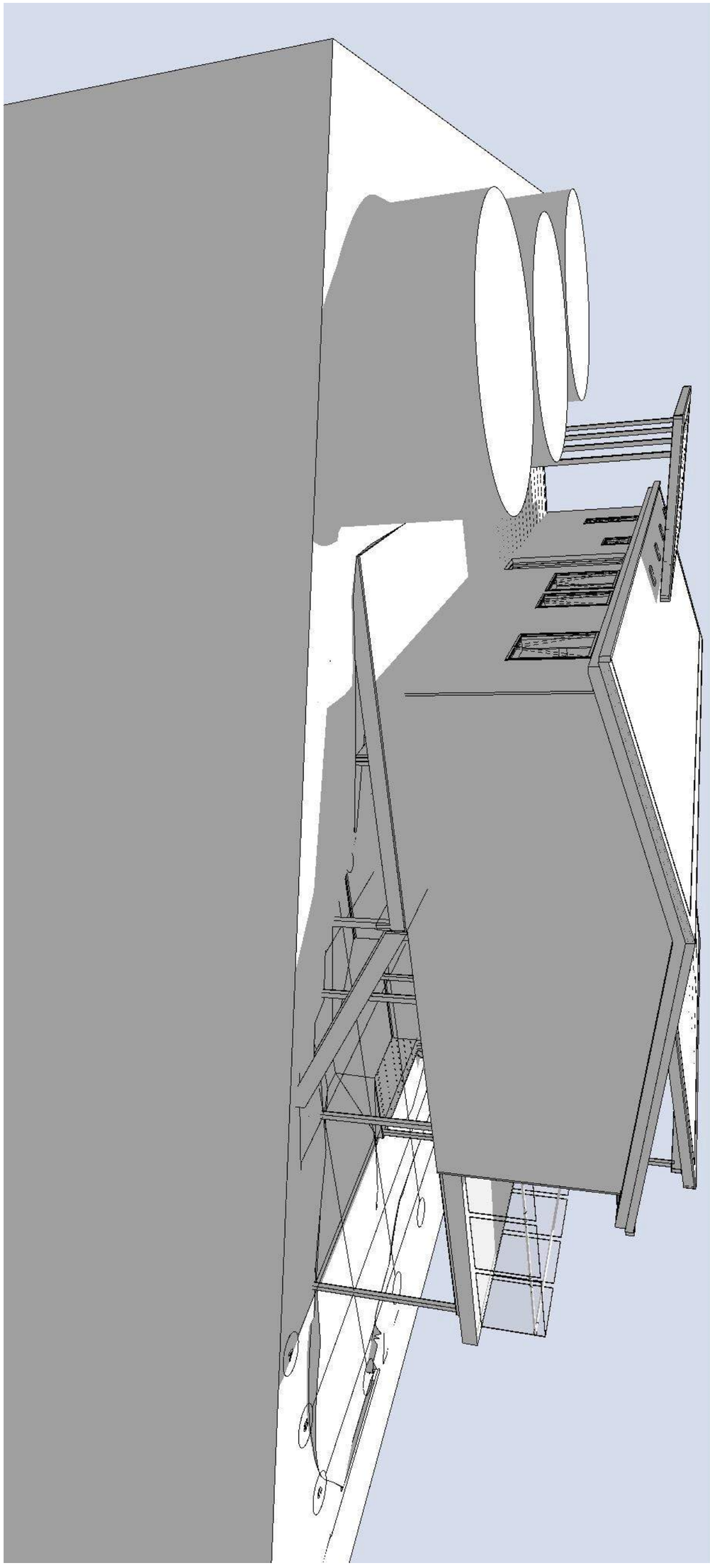
FORM
VIEW FROM SE
SCALE: 1:200



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

FORM

VIEW FROM SE

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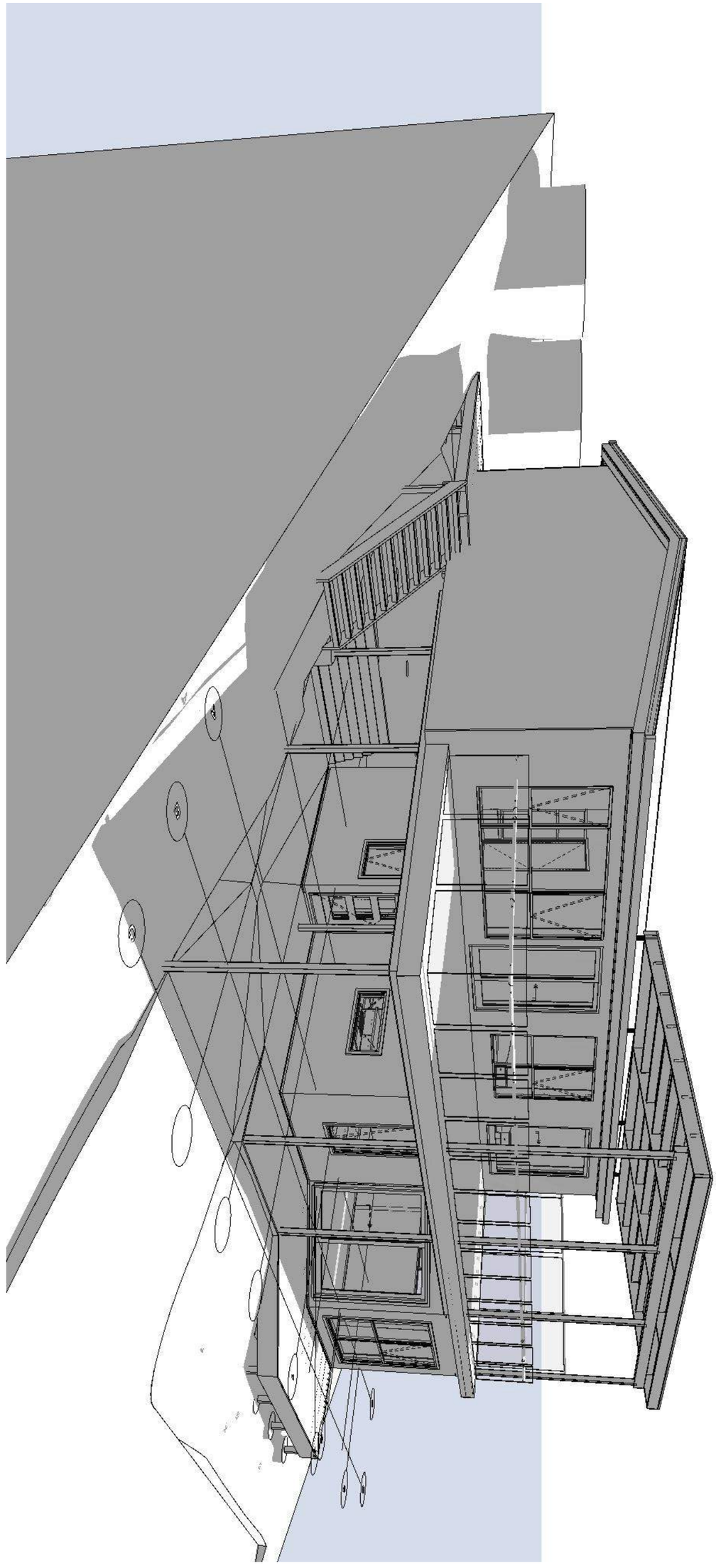
Project No: 00752

Drawing No: A.50 C

FORM
VIEW FROM NE
SCALE: 1:200



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

FORM

VIEW FROM NE

STATUS: DA ISSUE

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Project No: 00752

Drawing No: A.51 C

FORM
VIEW FROM NW
SCALE: 1:200

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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

FORM

VIEW FROM NW

STATUS: DA ISSUE

SCALE (A3): 1:200
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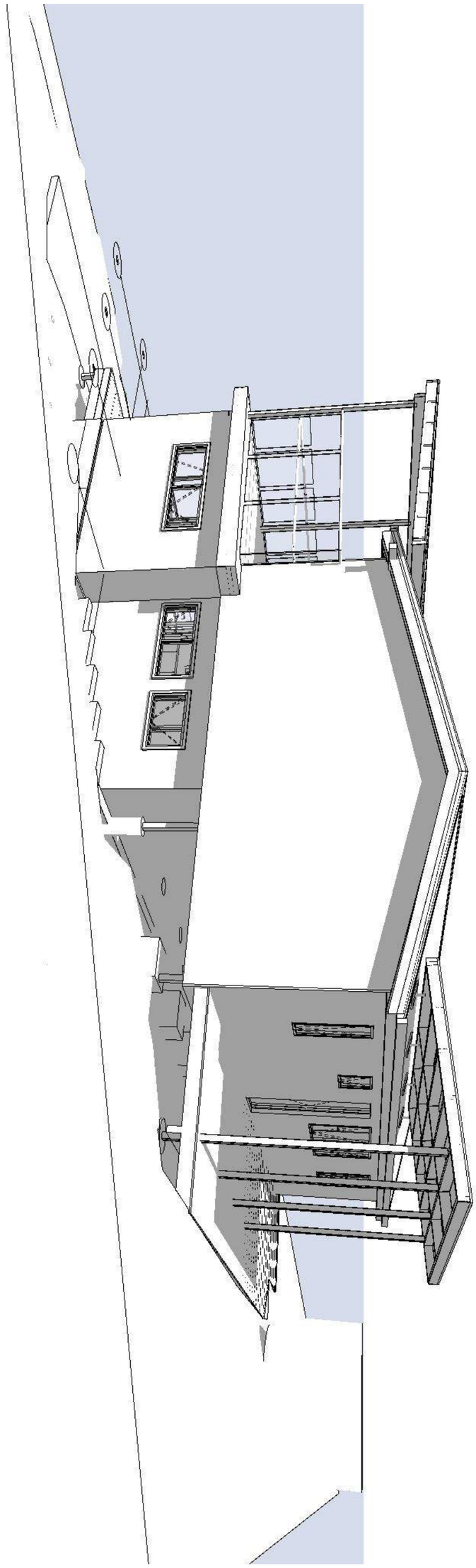
Project No: 00752

Drawing No: A.52 C

FORM
VIEW FROM SW
SCALE: 1:200



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ADDITIONS & ALTERATIONS

HUDSON FAMILY

20 BEACH CRESCENT GREENS BEACH

FORM
VIEW FROM SW

STATUS: DA ISSUE
SCALE (A3): 1:200
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DATE: 05.01.26

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Project No: 00752

Drawing No: A.53 C

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Geotechnical Consultants

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Invermay TAS 7248
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07 November 2025

Reference No. GL25515Ab

Mr Alan Hudson
17 Paraka Street
PARKLANDS TAS 7320

Dear Sir

RE: Site Classification & On-site Wastewater Disposal Assessment and Design 20 Beach Crescent, Greens Beach

We have pleasure in submitting herein our report detailing the results of the geotechnical investigation conducted at the above site.

Should you require clarification of any aspect of this report, please contact Michael Goss on 03 6326 5001.

For and on behalf of

Geoton Pty Ltd

Tony Barriera

Director – Principal Geotechnical Engineer

Rev No.	Date	Written By	Reviewed By	Description
Ab	07/11/2025	M Goss	S Shahandeh	Original

1 INTRODUCTION

A limited scope investigation has been conducted for Mr Alan Hudson at the site of a proposed residential development at 20 Beach Crescent, Greens Beach.

The investigation has been conducted to assess the following:

- The general subsurface conditions at the site and consequently assign a Site Classification in accordance with AS 2870 – 2011 “Residential Slabs and Footings”;
- Review the topographical setting and provide a Wind Classification in accordance with AS 4055 – 2021 “Wind Loads for Housing”; and
- The suitability of the site for disposal of domestic wastewater and the design of an on-site wastewater disposal system in accordance with AS/NZS 1547:2012 “On-site Domestic Wastewater Management”.

Plans of the proposed development were provided, prepared by Andrew Smith Architects, project No. 00752, drawing No. s A.01 C to A.36 C, dated 06.08.2025.

We understand that the proposed development will comprise redeveloping the existing three-bedroom dwelling to a two-bedroom dwelling with an additional habitable room.

2 FIELD INVESTIGATION

The field investigation was conducted on 26 August 2025 and involved the drilling of 3 boreholes by 4WD mounted auger rig to the investigated depths of 2.0m.

Dynamic Cone Penetration (DCP) tests were conducted in the granular soils encountered in the investigation and insitu vane shear strength tests were conducted in the encountered clay layers.

The results of the field tests are shown on the borehole logs.

The logs of the boreholes are included in Appendix A and their locations are shown in Drawing 1, attached.

3 SITE CONDITIONS

The site falls towards the north with moderate slopes of approximately 8° to 10° and is currently developed with an existing dwelling (Plate 1). Site vegetation comprises a general low cover of grass with scattered trees and shrubs. A 400mm high rock retaining wall is located within the northern portion of the site.

Plate 1: View of the site looking to the south 26/08/2025.

The MRT Digital Geological Atlas, 1: 25,000 Series, indicates that the site is mapped as Cretaceous-Quaternary period sediments, with this being generally confirmed by our field investigation.

Examination of the LIST Landslide Planning Map – Landslide Hazard Bands Overlay indicates that the site is not within a mapped landslide hazard band.

The investigation indicated that the soil profile varies over the site. The boreholes encountered topsoil comprising sand, underlain by clayey sand to sandy clay to the investigated depths of 2.0m.

The boreholes did not encounter any signs of groundwater seepage over the investigated depths.

An assessment of the plasticity characteristics of the materials encountered indicates that the clay soils at this site possess a moderate shrink/swell potential.

Full details of soil conditions encountered are presented on the borehole logs.

4 SITE CLASSIFICATION

After allowing due consideration of the site geology, drainage and soil conditions, the site has been classified as follows:

CLASS M (AS 2870)

Foundation designs in accordance with this classification are to be subject to the overriding conditions of the Foundations section below.

This classification is applicable only for ground conditions encountered at the time of this investigation. If cut or fill earthworks are carried out, then the site classification will need to be re-assessed, and possibly changed.

5 FOUNDATIONS

Particular attention should be paid to the design of footings as required by AS 2870 – 2011.

In addition to normal founding requirements arising from the above classification, particular conditions at this site dictate that the founding medium for all footings would be as follows:

Clayey SAND (SC) – fine to medium grained, dark brown mottled grey, medium dense or better

encountered below <u>at least 0.4m</u> from the existing ground surface

An allowable bearing pressure of **<u>100 kPa</u>** is available for edge beams, strips and pads founded as above, provided the site is prepared as follows:

- Earthworks should be carried out in accordance with AS3798-2007, Guidelines on Earthworks for Commercial and Residential Developments.
- All topsoil should be removed from the building footprint.
- The natural sand foundation should be proof rolled prior to slab on ground construction.
- All sands disturbed in the base of footing excavations should be compacted.

No structure should be founded on fill without the footings extending through the fill to the natural soils.

If groundwater is encountered in site or footing excavations, it is recommended that subsoil drains are installed discharging to the stormwater system.

The site classification presented assumes that the current natural drainage and infiltration conditions at the site will not be markedly affected by the proposed site development work. Care should therefore be taken to ensure that surface water is not permitted to collect adjacent to the structure and that significant changes to seasonal soil moisture equilibria do not develop as a result of service trench construction or tree root action.

Attention is drawn to Appendix B of AS 2870 and CSIRO Building Technical File BTF18 “Foundation Maintenance and Footing Performance: A Homeowner’s Guide” as a guide to maintenance requirements for the proposed structure.

Although the borehole data provides an indication of subsurface conditions at the site, variations in soil conditions may occur in areas of the site not specifically covered by the field investigation. The base of all footing or beam excavations should therefore be inspected to ensure that the founding medium meets the requirements referenced herein with respect to type and strength of founding material.

The boreholes were backfilled shortly after being drilled, not allowing time for groundwater seepage flows to develop. Groundwater seepages or higher groundwater levels can occur during and/or after a prolonged period of wet weather or a heavy rainfall event.

6 WIND CLASSIFICATION

After allowing due consideration of the region, terrain, shielding and topography, the site has been classified as follows:

WIND CLASSIFICATION N2 (AS 4055)

REGION	TERRAIN CATEGORY	SHIELDING	TOPOGRAPHY
A	TC2	PS	T1

7 EFFLUENT DISPOSAL

The AS/NZS 1547:2012 and *Building Act 2016:* Director's Guidelines for On-site Wastewater Management Systems provide guidelines for typical wastewater flow allowances under a range of circumstances. The documents recommend a typical wastewater flow of 120L/person/day for households on reticulated water. As the proposed development is to be a two-bedroom dwelling with a studio with a population equivalent of 5 persons, a wastewater design flow rate of **600L/day** has been adopted.

7.1 Permeability of Soil and Soil Category

As a result of the borehole investigation, the soil has been classified as follows:

- Texture – Loams (Table E1 from AS/NZS 1547);
- Structure – Massive (Table E4 from AS/NZS 1547); and
- Category – 3 (Table E1 from AS/NZS 1547).

For massive Category 3 soils the indicative K_{sat} from AS/NZS1547 Table 5.1 is 0.5-1.5m/day.

- Adopted Permeability – 0.5m/day.

7.2 Disposal and Treatment Method

The soils within the proposed effluent disposal area are assessed as having sufficient depth and clay content to provide an adequate attenuation period for the breakdown of pathogens within the treated effluent.

Due to the presence of groundwater and the site having limited available area for the disposal of on-site wastewater, the site is not considered suitable for a conventional trench or bed system.

As such, the site assessment indicates that the site is suitable for the disposal of domestic effluent by way of a Secondary Treatment System (STS) and a conventional distribution bed raised above the natural ground surface to allow the aerobic process and attenuation period to further treat the effluent in a sand and gravel filter bed and reduce the size of the disposal system.

7.3 Tank Installation

As the site may be subject to high groundwater levels, care must be taken when installing the STS unit. "AS/NZS 1546.1:2008 Section 3.2.2 – Anchorage," provides guidance on the installation of in-ground tanks, and the specific STS unit manufacturer's installation instructions should be adhered to.

7.4 Design Loading Rate

According to AS/NZS 1547 Table L1 and based on the importation of 350mm depth of clean sand and 100mm aggregate to raise the distribution bed above the natural surface, the adopted DLR has been modified and set at **30mm/day**.

7.5 Raised Bed System

Guidelines for the design of the conventional bed systems are outlined in AS/NZS 1547:2012 Appendix L. The method of determining the dimensions for the bed is outlined in AS/NZS 1547:2012 Section L4 and is as follows:

$$L = \frac{Q}{DLR \times W}$$

Where L = Length in metres

Q = Design daily flow in L/day

DLR = Design Loading Rate in mm/day

W = Bed width in metres

As the DLR has been set at 30mm/day and the daily flow (Q) has been set at 600L/day, when the parameters are inserted in the above equation, the bed dimensions required are as follows:

- Bed length = 6.7m
- Bed width = 3.0m
- Bed depth = 0.6m

This would give a disposal area of approximately 20.1m^2. Due to the limited available space on site, no additional reserve area is available. In the event of a disposal area failure, the existing raised bed would need to be removed, and a new wastewater disposal area constructed in its place.

The raised bed is to be located in the area shown on the site plan.

The bed is to be constructed as per the layout and cross section provided on Drawing 2, attached.

Guidelines for the design of sub-surface irrigation are outlined in AS/NZS 1547 Appendix M.

The bed shall be constructed by persons suitably qualified or experienced in the construction of timber retaining walls.

All topsoil and organics shall be removed from the footprint of the bed before backfilling.

The area of the disposal field shall be vegetated with grasses or other suitable vegetation. A list of Tasmanian plants suitable for treated wastewater from STS units is attached as Appendix B.

The risk management process is an inherent part of the on-site wastewater disposal design. The on-site wastewater disposal system has been designed by considering the site characteristics and with risk identification in accordance with AS1547:2012. The risk reduction measures are detailed in the report and form the basis of the system selection and design.

The client has opted to install a FujiClean STS unit, the Certificate of Accreditation for which is provided in Appendix C.

7.6 Setbacks

The minimum separation distances between the disposal area and downslope features are based on Appendix R from AS/NZS 1547 “Recommended Setback Distances for Land Application Systems” and Section 3.1 from the *Building Act 2016:* Director’s Guidelines for On-site Wastewater Management Systems. The following minimum setbacks are required:

- 33.0m from downslope sensitive features such as watercourses;
- 1.5m from upslope and cross-slope property boundaries;
- 10.5m from downslope property boundaries;
- 3.0m from upslope and cross-slope buildings;
- 5.3m from downslope buildings; and
- 3.0m from downslope cut and fill batters.

The minimum separation distances between the disposal area and downslope features are based on Appendix R from AS/NZS 1547 “Recommended Setback Distances for Land Application Systems” and the Directors Guidelines for On-site Wastewater Management (2016). The Directors Guidelines state that setbacks to downslope property boundaries for secondary treated wastewater is 1.5m plus 1m for every degree of average gradient. As such, the setback for the site on the natural slopes would be approximately 10.5m, consequently making wastewater disposal difficult. However, in order to reduce the setback distance, the raised conventional bed is to be placed on a terraced bench in the northeastern portion of the site. The bench is near level and therefore the downslope travel distances of the effluent would be significantly

reduced. **As such, we consider a reduced setback of 5.3m from the property boundary would be appropriate.**

7.7 Wastewater Recommendations

It is recommended that the following actions are undertaken in looking after your system:

- Minimise domestic water use;
- Minimise the use of non-biodegradable detergents;
- Minimise the use of detergents containing phosphorous (e.g. Calgon or similar);
- Avoid discharging polluting chemicals into wastewater systems; and
- Monitor quality of groundwater.

8 REFERENCES

Department of Justice. (2017). *Building Act 2016 Director's Guidelines for On-site Wastewater Management Systems v2.0.* Consumer, Building and Occupational Services.

Standards Australia Limited. (2011). *AS 2870: Residential Slabs and Footings Construction.* Sydney: SAI Global Limited.

Standards Australia Limited. (2012). *AS/NZS 1547 On-site Domestic Wastewater Management.* Sydney: SAI Global Limited.

Standards Australia Limited. (2017). *AS 1726: Geotechnical Site Investigation.* Sydney: SAI Global Limited.

Standards Australia Limited. (2021). *AS 4055: Wind Loads for Housing.* Sydney: SAI Global Limited.

Attachments:

Limitations of report

Drawing 1: Site Plan

Drawing 2: Conventional Bed Plan and Section

Drawing 3: Wastewater Cross-Section

Appendix A: Borehole Logs & Explanation Sheets

Appendix B: List of STS Example Plants

Appendix C: Certificate Forms

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Geotechnical Consultants - Limitations of report

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

Project specific criteria

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

Subsurface variations with time

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

Report Recommendations

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

Specific purposes

This report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by others

Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

Report integrity

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

Geoenvironmental issues

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.

NOTES

PLUMBING CONNECTIONS TO BE CARRIED OUT IN ACCORDANCE WITH PLUMBING CODES AND REGULATIONS

VENTS, OVERFLOW RELIEF GULLY AND INSPECTION OPENINGS TO BE PROVIDED AS PER THE PLUMBING CODES AND REGULATIONS

THE RAISED BED IS TO BE SET BACK:
33.0m FROM DOWNSLOPE SENSITIVE FEATURES SUCH AS WATER COURSES,
5.3m FROM DOWNSLOPE PROPERTY BOUNDARIES (REFER TO SECTION 7.6 FOR REDUCTION),
1.5m FROM UPSLOPE AND CROSS-SLOPE PROPERTY BOUNDARIES,
5.3m FROM DOWNSLOPE BUILDINGS,
3.0m FROM UPSLOPE AND CROSS-SLOPE BUILDINGS, AND
3.0m FROM DOWNSLOPE CUT BATTERS

Approximate Scale

0 5 10 15 20

Legend

BH 1 — Approximate Borehole Location

5° — Approximate Slope angle in Degrees

Contour in Metres (LiDAR Derived)

Cadastral Parcels

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Date	07/11/2025	Drawn	MG
Scale	1:200	Approved	TB
Original size	A3	Rev	

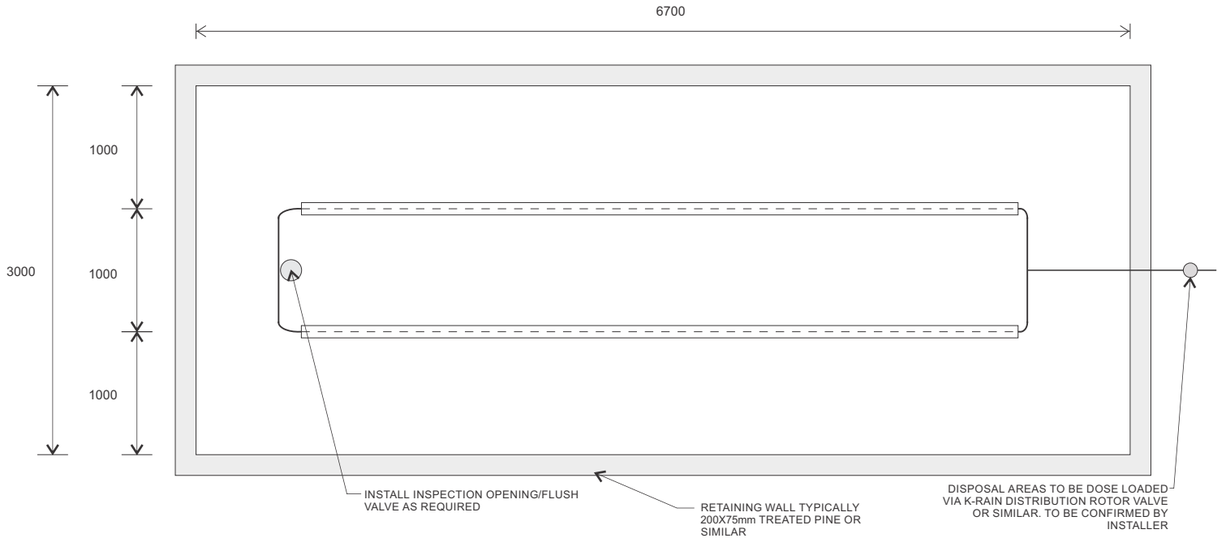
Client: MR ALAN HUDSON

Project: 20 BEACH CRESCENT GREENS BEACH

Title: SITE PLAN

Project no: GL25515A

Drawing no. 1



PLAN
SCALE 1:50 @ A3

CONSTRUCTION NOTES:

a) Pine sleepers to be a minimum 75mm and a minimum rating of H4.

b) Posts are recommended to be anchored a minimum ratio of 1:1 height to depth cemented into natural ground.

c) Maximum height of timber retaining wall should not exceed 1m (bed can be cut into slope to achieve lower bed height).

d) Posts are recommended to be of steel construction or 75mm treated pine sleeper.

e) Posts are to be installed on the outside of bed.

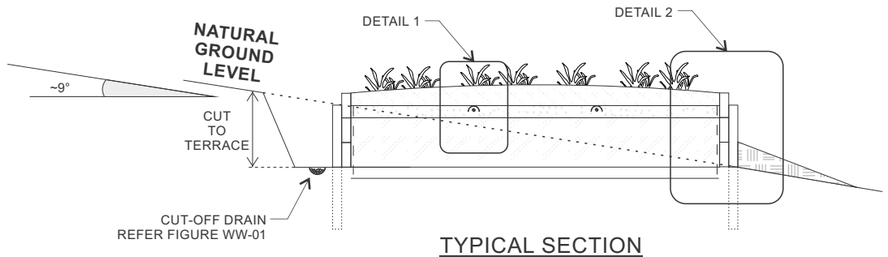
f) Maximum post spacing is to be no more than 2400mm.

g) Polyethylene Lining LDPE 200um.

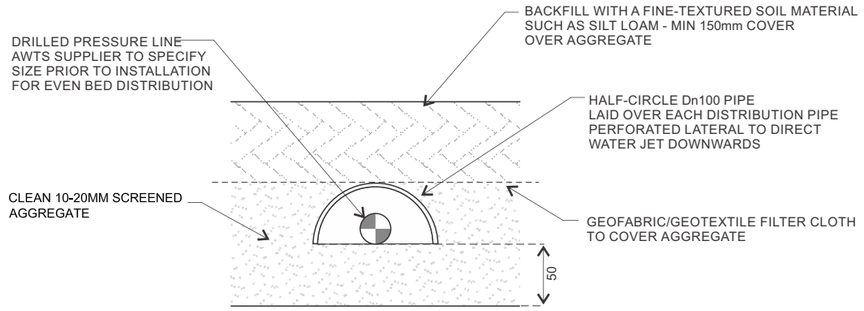
h) Polyethylene liner to be extended into natural ground by a minimum 200mm prior to backfilling.

i) Timber sleepers to be treated with a bitumen waterproofing on the exterior if backfilled around.

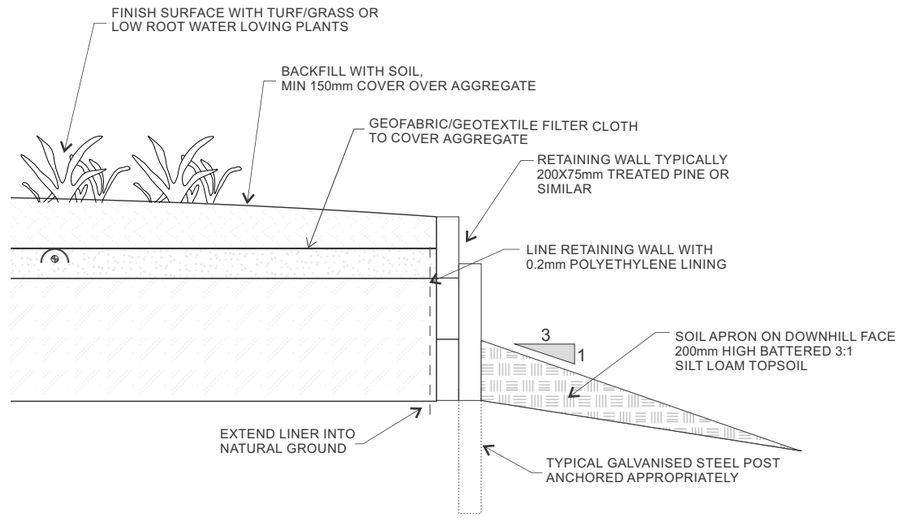
j) Bed distribution lines MUST enter the beds from the top (pipe work to be attached to the exterior of bed).



TYPICAL SECTION
SCALE 1:50 @ A3



DETAIL 1
SCALE 1:5 @ A3



DETAIL 2
SCALE 1:20 @ A3

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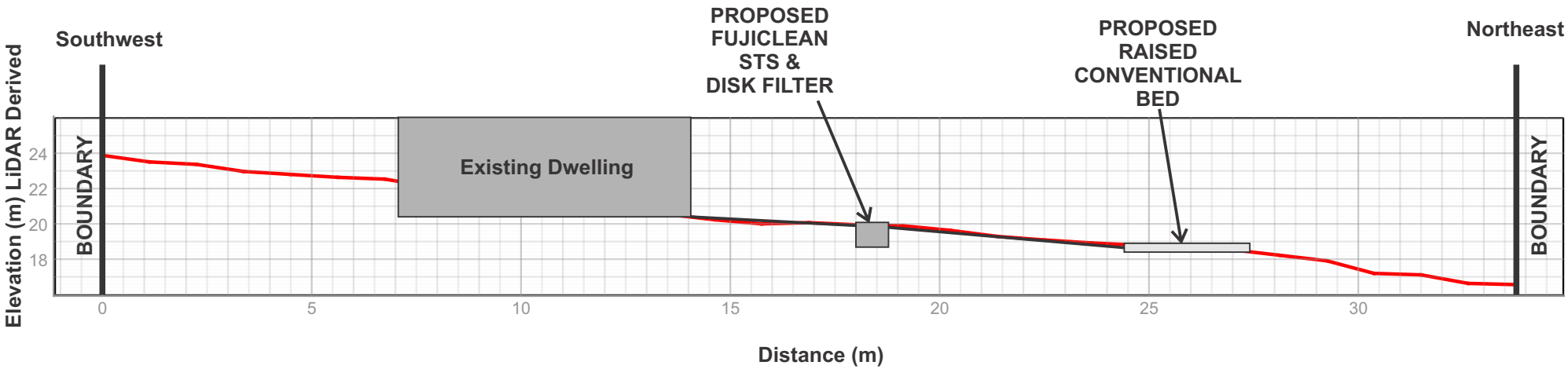
IT SHOULD NOT BE USED WITHOUT PRIOR CONSENT

BED CONSTRUCTION TO BE UNDERTAKEN BY SUITABLY QUALIFIED PERSONS OR HAVE EXPERIENCE WITH RETAINING WALLS

GEOTON Pty Ltd				client:	MR ALAN HUDSON
				project:	20 BEACH CRESCENT GREENS BEACH
date	07/11/2025	drawn	MG		
scale	As Shown	approved	TB	title:	RAISED BED PLAN AND SECTION
original size	A3	rev		project no: GL25515A	figure no. 2



GEOTON Pty Ltd

Date	07/11/2025	Drawn	MG
Scale	As Shown	Approved	TB
Original size	A4	Rev	1

Client: MR ALAN HUDSON

Project: 20 BEACH CRESCENT GREENS BEACH

Title: WASTEWATER CROSS SECTION

Project no: GL25515A

Drawing no. 3

Appendix A

Borehole Logs

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ENGINEERING BOREHOLE LOG: BH1

Client : Alan Hudson
Project : Site Classification & On-site Wastewater Assessment
Location : 20 Beach Road, Greens Beach

Easting : 0.00
Northing : 0.00
Inclination : N/A
Azimuth :

Sheet : 1 OF 1
Job No : GL25515A
Logged : MG
Logged Date : 26/08/2025
Drill Rig : Honey Badger - 95mm

Method	Drilling	Water	Samples	Testing: DCP	Testing: V (kPa)	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture condition	Consistency density, index	Structure, Additional Observations
ADT		▼		1 2 1 1 2 2 3 4 4	110	0.25 0.50 0.75 1.00 1.25 1.50 1.75		SW SC CI	TOPSOIL - SAND - fine to medium grained, dark grey, trace low plasticity silt, Clayey SAND - fine to medium grained, dark brown, trace fine gravel, with low plasticity silt, Sandy CLAY - medium plasticity to high plasticity, brown mottled grey, fine to medium grained sand, with low plasticity silt,	M W-M M	L-MD L-MD VSt	W~PL
									BH1 Terminated at 2 m			

GEOTON
Geotechnical Consultants

ENGINEERING BOREHOLE LOG: BH2

Client : Alan Hudson
Project : Site Classification & On-site Wastewater Assessment
Location : 20 Beach Road, Greens Beach

Easting : 0.00
Northing : 0.00
Inclination : N/A
Azimuth :

Sheet : 1 OF 1
Job No : GL25515A
Logged : MG
Logged Date : 26/08/2025
Drill Rig : Honey Badger - 95mm

Method	Drilling	Water	Samples	Testing V (kPa)	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture condition	Consistency density, index	Structure, Additional Observations
ADT					0.3		SW	TOPSOIL - SAND - fine to medium grained, dark grey, trace low plasticity silt,	M	L-MD	
					0.5		SC	Clayey SAND - fine to medium grained, dark brown mottled grey, with low plasticity silt,	M	L-MD	
					1.0		CH	Sandy CLAY - high plasticity, pale brown mottled grey, fine to medium grained sand, with low plasticity silt,	M	St-VSt	W~PL
					1.3						
					1.5						
					1.8						
				80							
								BH2 Terminated at 2 m			

GEOTON
Geotechnical Consultants

ENGINEERING BOREHOLE LOG: BH3

Client : Alan Hudson
Project : Site Classification & On-site Wastewater Assessment
Location : 20 Beach Road, Greens Beach

Easting : 0.00
Northing : 0.00
Inclination : N/A
Azimuth :

Sheet : 1 OF 1
Job No : GL25515A
Logged : MG
Logged Date : 26/08/2025
Drill Rig : Honey Badger - 95mm

Method	Drilling	Water	Samples	Testing	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture condition	Consistency density, index	Structure, Additional Observations
ADT					0.3		SP	TOPSOIL - SAND - fine grained, brown, trace low plasticity silt,	M	L-MD	
					0.5		SC	Clayey SAND - fine to medium grained, dark brown mottled grey, trace low plasticity silt,	M	L-MD	
					0.8						
					1.0						
					1.3						
					1.5						
					1.8						
								BH3 Terminated at 2 m			

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Investigation Log Explanation Sheet

METHOD – BOREHOLE

TERM	Description
AS	Auger Screwing*
AD	Auger Drilling*
RR	Roller / Tricone
W	Washbore
CT	Cable Tool
HA	Hand Auger
DT	Diatube
B	Blank Bit
V	V Bit
T	TC Bit

* Bit shown by suffix e.g. ADT

METHOD – EXCAVATION

TERM	Description
N	Natural exposure
X	Existing excavation
H	Backhoe bucket
B	Bulldozer blade
R	Ripper
E	Excavator
HT	Hand Tools

SUPPORT

TERM	Description
M	Mud
N	Nil
C	Casing
S	Shoring

PENETRATION

1	2	3	4	
				No resistance ranging to Refusal

WATER

Symbol	Description
	Water inflow
	Water outflow
	17/3/08 water on date shown

NOTES, SAMPLES, TESTS

TERM	Description
U_{50}	Undisturbed sample 50 mm diameter
U_{63}	Undisturbed sample 63 mm diameter
U_{81}	Undisturbed sample 81 mm diameter
D	Disturbed sample
N	Standard Penetration Test (SPT)
N*	SPT – sample recovered
N_C	SPT with solid cone
V	Vane Shear
PP	Pocket Penetrometer
P	Pressumeter
B_S	Bulk sample
E	Environmental Sample
R	Refusal – Material cannot be penetrated
DCP	Dynamic Cone Penetrometer (blows/100mm)
PL	Plastic Limit
LL	Liquid Limit
LS	Linear Shrinkage

CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

Based on AS 1726:2017

MOISTURE

TERM	Description
D	Dry
M	Moist
W	Wet

CONSISTENCY/DENSITY INDEX

TERM	Description
VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fr	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	Very dense

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Soil Description Explanation Sheet (1of 2)

DEFINITION

In engineering terms, soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

CLASSIFICATION SYMBOL AND SOIL NAME

Soils are described in accordance with the AS 1726: 2017 as shown in the table on Sheet 2.

PARTICLE SIZE DEFINITIONS

NAME	SUBDIVISION	SIZE (mm)
BOULDERS		>200
COBBLES		63 to 200
GRAVEL	Coarse	19 to 63
	Medium	6.7 to 19
	Fine	2.36 to 6.7
SAND	Coarse	0.6 to 2.36
	Medium	0.21 to 0.6
	Fine	0.075 to 0.21
SILT		0.002 to 0.075
CLAY		<0.002

MOISTURE CONDITION

Coarse Grained Soils

Dry Non-cohesive and free running.

Moist Soil feels cool, darkened in colour. Soil tends to stick together.

Wet As for moist but with free water forming when handling.

Fine Grained Soils

Moist, dry of Plastic Limited – w < PL
Hard and friable or powdery.

Moist, near Plastic Limit – w ≈ PL
Soils can be moulded at a moisture content approximately equal to the plastic limit.

Moist, wet of Plastic Limit – w > PL
Soils usually weakened and free water forms on hands when handling.

Wet, near Liquid Limit - w ≈ LL

Wet, wet of Liquid Limit - w > LL

CONSISTENCY TERMS FOR COHESIVE SOILS

TERM	UNDRAINED STRENGTH s_u (kPa)	FIELD GUIDE
Very Soft	≤12	Exudes between the fingers when squeezed in hand
Soft	12 to 25	Can be moulded by light finger pressure
Firm	25 to 50	Can be moulded by strong finger pressure
Stiff	50 to 100	Cannot be moulded by fingers
Very Stiff	100 to 200	Can be indented by thumb nail
Hard	>200	Can be indented with difficulty by thumb nail
Friable	–	Can be easily crumbled or broken into small pieces by hand

RELATIVE DENSITY OF NON-COHESIVE SOILS

TERM	DENSITY INDEX (%)
Very Loose	≤15
Loose	15 to 35
Medium Dense	35 to 65
Dense	65 to 85
Very Dense	> 85

DESCRIPTIVE TERMS FOR ACCESSORY SOIL COMPONENTS

DESIGNATION OF COMPONENT	IN COARSE GRAINED SOILS		IN FINE GRAINED SOILS	TERM
	% Fines	% Accessory coarse fraction	% Sand/ gravel	
Minor	≤5	≤15	≤15	Trace
	>5, ≤12	>15, ≤30	>15, ≤30	With
Secondary	>12	>30	>30	Prefix

SOIL STRUCTURE

ZONING		CEMENTING	
Layer	Continuous across the exposure or sample.	Weakly cemented	Easily disaggregated by hand in air or water.
Lens	Discontinuous layer of different material, with lenticular shape.	Moderately cemented	Effort is required to disaggregate the soil by hand in air or water.
Pocket	An irregular inclusion of different material.		

GEOLOGICAL ORIGIN

WEATHERED IN PLACE SOILS

Extremely Weathered material	Material is weathered to such an extent that it has soil properties. Structure and/or fabric of parent rock material retained and visible.
Residual soil	Structure and/or fabric of parent rock material not retained and visible.

TRANSPORTED SOILS

Aeolian soil	Carried and deposited by wind.
Alluvial soil	Deposited by streams and rivers.
Colluvial soil	Soil and rock debris transported downslope by gravity.
Estuarine soil	Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents.
Fill	Man-made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.
Lacustrine soil	Deposited in freshwater lakes.
Marine soil	Deposited in a marine environment.

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Soil Description Explanation Sheet (2 of 2)

SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 63 mm and basing fractions on estimated mass)						**GROUP SYMBOL**	**PRIMARY NAME**
COARSE GRAINED SOIL More than 65% of soil excluding oversize fraction is larger than 0.075 mm	(A 0.075 mm particle is about the smallest particle visible to naked eyes)	GRAVEL More than half of coarse fraction is larger than 2.36 mm	CLEAN GRAVEL (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes		GW	GRAVEL
				Predominantly one size or a range of sizes with some intermediate sizes missing		GP	GRAVEL
			GRAVEL WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML and MH below)		GM	Silty GRAVEL
				Plastic fines (for identification procedures see CL, CI and CH below)		GC	Clayey GRAVEL
		SAND More than half of coarse fraction is smaller than 2.36 mm	CLEAN SAND (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate sizes		SW	SAND
				Predominantly one size or a range of sizes with some intermediate sizes missing		SP	SAND
			SAND WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML and MH below)		SM	Silty SAND
				Plastic fines (for identification procedures see CL, CI and CH below)		SC	Clayey SAND
FINE GRAINED SOIL More than 35% of soil excluding oversize fraction is smaller than 0.075 mm		IDENTIFICATION PROCEDURES ON FRACTIONS <0.075 mm					
			DRY STRENGTH	**DILATANCY**	**TOUGHNESS**		
		SILT & CLAY (low to medium plasticity, LL ≤ 50)	None to Low	Slow to Rapid	Low	ML	SILT
			Medium to High	None to Slow	Medium	CL, CI	CLAY
			Low to Medium	Slow	Low	OL	ORGANIC SILT
		SILT & CLAY (high plasticity, LL > 50)	Low to Medium	None to Slow	Low to Medium	MH	SILT
			High to Very High	None	High	CH	CLAY
			Medium to High	None to Very Slow	Low to Medium	OH	ORGANIC CLAY
		Highly Organic Soil	Readily identified by colour, odour, spongy feel and frequently by fibrous texture.			Pt	PEAT

● LL – Liquid Limit.

COMMON DEFECTS IN SOILS

TERM	**DEFINITION**	**DIAGRAM**
PARTING	A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (e.g. bedding). May be open or closed.	
FISSURE	A surface or crack across which the soil has little or no tensile strength, but which is not parallel or sub parallel to layering. May be open or closed. May include desiccation cracks.	
SHEARED SEAM	Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting fissures which divide the mass into lenticular or wedge-shaped blocks.	
SHEARED SURFACE	A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect.	

TERM	**DEFINITION**	**DIAGRAM**
SOFTENED ZONE	A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.	
TUBE	Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter.	
TUBE CAST	An infilled tube. The infill may be uncemented or weakly cemented soil or have rock properties.	
INFILLED SEAM	Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open defects.	

Appendix B

STS Example Plants

Taz Wild Plants

Phone: (03) 6384 2165
Fax: (03) 6384 2165
Web site: www.tazwild.com

Wastewater Treatment Units

Tasmanian Plants suitable for Water from Wastewater Treatment Units

Water from septic tanks and aerated wastewater treatment units such as Biocycle, Envirocycle or other may contain salts, boron and disease bearing microbes. The major ingredients of most cleaning fluids are various salts, of which common kitchen salt (sodium chloride) is the least common. These salts may have large concentrations in wastewater, which can have a detrimental effect on plants. The survival of plants will depend on the concentrations of salts. Long-term build up of chemicals and salts in the soil will adversely affect any plantings.

We can't guarantee these plants will survive but they are tolerant to reasonable amounts of the main offenders and will tolerate wet conditions.

Below is a list of plants to help make an attractive garden bed for your wastewater treatment area.

PLANTS 1 – 6m

Acacia mucronata
Variable sallow wattle, Narrow leaf wattle
An upright or spreading, medium to tall shrub 3-4m X 2-3m. Quick growing. Profuse cream to yellow flowers in spring, showy. Attracts seed eating birds. Drought tolerant.

Acacia verticillata
Prickly Moses
Prickly shrub to 2m. Useful habitat plant and very attractive in flower.

Banksia marginata
Honeysuckle, Silver banksia
Evergreen shrub or small tree with attractive narrow, smooth edged leaves which are square or notched at the end and silvery beneath. Greenish yellow cones of flowers that last as cut flowers. Grows well in sandy soil. Strong upright growth.

Bauera rubioides
Dog Rose
Hardy small to medium dense shrub. 1-2m X 1-2m wide with masses of dainty pink flowers, flowering most of year, attracting butterflies. Grows well in wet or moist soils, prefers acid soils. Likes full or filtered sun. Good coastal pant. Frost tolerant. Prune regularly. Good erosion control.

Callistemon pallidus
Lemon Bottlebrush
Evergreen medium shrub, very upright with silky leaves that become smooth with age. Lovely lemon yellow bottlebrushes in spring and summer. Likes a dry or moist position. Tolerates full or filtered sunlight. Attracts nectar eating birds.

Callitris oblonga
Cypress pine, South esk pine
This is one of Australia's native conifers. It has an attractive shrubby shape and is suitable for use in the garden as a fast growing hedge, since it can be pruned to shape. It is also useful for gardens where the soil is rocky and sandy but will tolerate a range of soils, providing the drainage is good.

Correa backhousiana
Velvet correa
A dense, bushy, spreading shrub to 1.5m high by 2m wide. Leaves are glossy green on top, rusty coloured underneath. Greenish cream bell flowers in winter. Spring bird attracting. Tolerates lime and coastal plantings. Usually frost resistant.

Leptospermum lanigerum
Woolley tea-tree
Hardy medium to large shrub 2.5 to 5m high x 1.2-3m wide, massed with white flowers during spring. Soft grey foliage. Prefers moist to wet soils with good drainage and will grow well in full or filtered sun. Attracts butterflies and seed eating birds. Tolerates light snow, smog and frost.

Melaleuca ericifolia
A very hard, fast growing small evergreen tree suited to most soils and aspects. Suitable for poorly drained or saline soils and withstands coastal exposure. Needle-like leaves and 2-3cm long cream flower spikes, in spring and early summer. Ideal for planting as a screen.

Melaleuca gibbosa
Fine leafed paperbark, Slender honey-myrtle
Evergreen small shrub with mauve/purple ball shaped flowers in late spring and summer. Suitable for most soils, tolerating lime and salt soil. Frost resistant.

Melaleuca squarrosa
Tall, bushy shrub, good foliage. Scented, yellow brush flowers, in spring-summer. Suitable for most soils, tolerating very wet conditions, lime, saline and frost.

Micrantheum hexandrum
River box
Attractive foliage plant with new growth showing red stems. Cream flowers in spring. Grows up to 2m high. Prune to form a dense screen plant.

Notelaea ligustrina
Native Olive, Mock olive, Privet mock olive
Tall shrub with smooth, dark green leaves. Small yellow flowers and purple fruit. Prefers a moist, semi-shaded position but grows well in a wide range of conditions.

Pomaderris apetala
Dogwood
Medium to tall shrub 3 to 15 m. This shrub grows in a wide variety of sites from very dry to very wet but will grow larger with moisture. Looks good planted in copses.

SHRUBS TO 1m

Amperea xiphoclada
Upright or arching stems. Attractive foliage sculpturesque in appearance to 60cm. Useful for basket weaving. Dry to moist sites.

Blechnum penna-marina
Alpine Water Fern
Attractive, low growing, matted ground cover. Leathery dark green fronds to 15cm long, tinged pink when young. Ideal hanging baskets. Rockeries and moist positions in the open ground.

Blechnum wattsii
Hard Water Fern
Hardy and vigorous fern with dark green leathery fronds to 1m tall. Very easily grown in large pot or a moist, shady position in the ground.

Callistemon viridiflorus
Green Bottlebrush
Erect shrub with pale green bottlebrushes. Good in damp conditions. 1-2m X 1m. Frost resistant.

Carex appressa
Tall sedge, Tussock sedge
A tall perennial to 1.8m high. Stems acutely 3 angled and leaves 3-6mm broard. Occurs in winter wet depressions that can dry out completely in summer. Flowers in spring.

Carex inyx
Tassell Sedge
Evergreen clump forming sedge with green foliage and gorgeous golden brown pendulous tassels 1m x 1m.

Carex tasmanica
Curley Sedge
An upright sedge to 30cm. Attractive tight curls on tips of leaves. Wet sites but will tolerate long dry spells.

Dianella tasmanica
Flax Lily
An evergreen perennial plant with arching, strap-like leaves which can be up to 1.2m long. During spring and summer this plant bears clusters of nodding, star shaped, bright blue to purple flowers which are followed by glossy deep blue berries. Thrives in a sunny to partly shaded position in humus rich, well drained soil. Ideal for rockeries, poolside planting and containers.

Ficinea nodosa (syn isolepis nodosa)
Knobby club rush
Dense tufted native rush with stiff stems. Rounded brown flower knobs in summer. Suit damp or moist sandy soil. 60cm X 1m wide.

Ficinea nodosa (syn isolepis nodosa)
Knobby club rush (syn. Isolepis nododa)
Ideal for planting around pond margins, this fast growing perennial plant forms clumps of upright, often arching, dark green stems. Brownish, globular flower heads are produced throughout the year. A tough hardy plant which thrives in full sun in a range of soils. Tolerates salt spray, waterlogged and saline soils. Adds texture and colour to seaside gardens and water features, useful for general garden planting.

Goodenia elongata
Lanky Goodenia
Suckering ground cover 10cm tall X 50cm. Glossy green leaves, rich yellow flowers on tall stems spring-summer, prefers moist soils in full sun or part shade.

Isolepis inundata
Knobby club rush, Swamp club rush
Handy aquatic for waters edge or general planting (eg. shrub beds, dry creek beds).

Lomandra longifolia
Long leaf mat bush, Sagg
A popular plant for use as accent in gardens, where the rush like foliage contrasts well with broad leafed plants. Use it next to ponds or as a boarder plant. Flowers in spring, bearing clusters of cream, strongly perfumed flowers - great for use in flora arrangements. A very adaptable plant that will grow well in a range of soils but does best in a moist position.

Mazus pumilio
Mauve carpet
Low growing creeping plant. Ideal ground cover, with mauve flowers, spring and summer. Semi shade or sun.

Melaleuca squamea
A bushy shrub to 1m with stunning mauve flowers in spring-summer. Grows well in a damp spot. Frost hardy.

Poa labillardieri
A popular native grass grown for its soft blue foliage. In the warmer months this clumping plant produces an attractive flower head with a purple tint. Thrives in a sunny to partly shaded position and grows in a range of soils. Suitable for planting under trees, embankments and mass plantings. Cut to just above ground level in late winter for fresh new spring growth.

Polystichum proliferum
Mother Shield Fern
An easy to grow fern with attractive green fronds. New fronds are covered with eye catching brownish scales. An ideal plant for ferneries and shaded garden positions but will perform equally well when planted in a container. Plant in humus rich, moist, well drained soil in part shade. Fertilise with a good organic fertilizer. When planting in containers use a premium potting mix.

Polystichum proliferum
Mother Shield Fern
Attractive native fern with arching fronds to 1m long forming plantlets near the tip. Very easily grown in a moist position in morning or filtered sun. Suitable for tubs.

Pratia pedunculata
Blue pratia, Common pratia, White pratia
This dainty, spreading plant forms a carpet of tiny green leaves which from spring to early summer is smothered in a mass of tiny, white flowers. This carpeting plant is ideal for filling in spaces near rocks and sleepers and makes an attractive groundcover. Thrives in a sunny to semi-shaded position in moist soil. Keep moist at all times.

Pratia pedunculata
Blue pratia, Common pratia, White pratia
This dainty, spreading plant forms a carpet of tiny, green leaves, which from spring to early summer is smothered in a mass of tiny blue flowers. This carpeting plant is ideal for filling in spaces near rocks and sleepers, and makes an attractive groundcover, thrives in a sunny to semi-shaded position in moist soil. Keep moist at all times.

Scaevola hookeri
Creeping fan flower, Mat fan flower
A very densely matting, evergreen groundcover with glossy, dark green leaves and small, white fan-shaped flowers in flushes, during spring, summer and autumn. An excellent soil binding plant for average to moist positions. Frost hardy.

Velleia paradoxa
Spur valleia
Wild flower 20cm X 20cm with large yellow flowers spring and summer. Prefers moist soils which are well drained and part shade to full sun.

Viola fuscoviolacea
A spreading, matting violet with attractive dense foliage and tiny deep purple-blue flowers in spring and summer. Prefers a moist position. Withstands frosts and snow.

Viola hederacea
Native violet
An attractive creeping evergreen perennial with fan shaped leaves. This plant produces beautiful mauve flowers over a long flowering period. An ideal ground cover for full sun to part shade in well drained soils.

TREES

Acacia dealbata
Silver Wattle
A tall tree with a smooth trunk, often decorated with silvery, mottled patches contrasting with the greyish-green leaves. In spring, clusters of golden-yellow, fluffy ball like flowers almost cover the whole tree.

Acacia melanoxylon
Blackwood
A beautiful formal tree that produces one of Australia's most sought after woods for cabinet making. Light yellow flowers occur in winter and early spring. A useful tree for a windbreak or screen as it grows densely. It is also tolerant of a wine range of positions, however its height and width will be greatest if the soil is moist and fertile.

Eucalyptus ovata
Black gum, Swamp gum
Evergreen medium to tall moisture loving tree, good for poorly drained soils. Smooth white trunk. Masses of white flowers in autumn which attract birds. Frost hardy. Good tree for cool districts. Water absorber. Drought tolerant. Excellent shade and windbreak tree.

Eucalyptus rodwayi
Swamp Peppermint
This tree is suitable for a wide range of conditions, from very dry sandy soils to river banks. Grows 15 to 20m.

Eucalyptus viminalis
White Gum
A magnificent tree with a lovely white trunk. This tree is suitable for very dry to very wet sites. Its height is 20 to 40m depending on availability of moisture.

Pomaderris apetala
Dogwood
Medium to tall shrub 3 to 15 m. This shrub grows in a wide variety of sites from very dry to very wet but will grow larger with moisture. Looks good planted in copses.

Prostanthera lasianthos
Christmas bush, Tasmanian Christmas bush
The Tasmanian Christmas bush comes into flower around Christmas with masses of mint scented foliage. A rapid growth in a range of soils but for best results grow in a well drained soil and mulch to retain moisture in the drier months. An attractive plant that will grow in a range of positions in the garden.

Tasmannia lanceolata
Mountain pepper, Native pepper
Small leafed mountain form. Handsome foliage shrub with bright green leaves and red stems. Creamy-yellow flowers in spring. Slow growing to 1.5m, hardy in a cool moist well drained position in sun or shade.

Appendix C

Certificate Forms

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Mr Alan Hudson *Owner /Agent*

17 Paraka Street *Address*

Parklands Tas 7320 *Suburb/postcode*

Qualified person details:

Qualified person: Tony Barriera - Geoton Pty. Ltd.

Address: PO Box 522 Phone No: 03 6326 5001

Prospect Tas 7250 Fax No:

Licence No: CC6220 P Email address: tbarriera@geoton.com.au

Qualifications and Insurance details: Tony Barriera – BEng, MSc CPEng, NER – IEAust 471929 Civil, Geotechnical Certain Underwriters at Lloyd's- About Underwriting

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Geotechnical Engineering

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 20 Beach Crescent Lot No: 48

Greens Beach Tas 7270 Certificate of title No: 218000/48

The assessable item related to this certificate: Classification of foundation conditions according to AS2870 - 2011

(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

Certificate details:

Certificate type: Foundation Site Classification – AS2870

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work: ☐

or

a building, temporary structure or plumbing installation: ☒

In issuing this certificate the following matters are relevant –

Documents:	Geoton Pty Ltd, Report Reference No. GL25515Ab, dated 07/11/2025
Relevant calculations:	Refer to report
References:	AS 2870 – 2011 Residential Slabs and Footings Construction AS 4055 – 2021 Wind Loads for Housing CSIRO Building Technical File 18

Substance of Certificate: (what it is that is being certified)

Site Classification in accordance with AS2870 - 2011
Wind Loading in accordance with AS 4055 - 2021
Findings and recommendations of report

Scope and/or Limitations

The classification applies to the site as investigated at the time and does not account for any future alteration to foundation conditions resulting from earthworks, drainage condition changes or site maintenance variations.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:		GL25515Ab	07/11/2025

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Mr Alan Hudson *Owner name*
17 Paraka Street *Address*
Parklands Tas 7320 *Suburb/postcode*

Designer details:

Name: Tony Barriera
Category: Civil Engineer – Hydraulic - Domestic
Business name: Geoton Pty Ltd
Phone No: 03 6326 5001
Business address: P O Box 522
Prospect TAS 7250
Fax No:
Licence No: IEAust 471929, CC6220 P
Email address: tbarriera@geoton.com.au

Details of the proposed work:

Owner/Applicant Mr Alan Hudson
Designer's project reference No. GL25515Ab
Address: 20 Beach Crescent
Lot No: 48
Greens Beach Tas 7270

Type of work: Building work ☐ Plumbing work ☒ *(X all applicable)*

Description of work:
New building
on-site wastewater management system

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☒ Civil design	Civil Engineer or Civil Designer
	☐ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☐ Performance Solution: ☒ (*X the appropriate box*)

Other details:
All design documents provided in Report GL25515Ab, dated 07/11/2025

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by:	Date:
Schedules:	Prepared by:	Date:
Specifications:	Prepared by:	Date:
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by:	Date:

Standards, codes or guidelines relied on in design process:

All design documents are contained within report

AS/NZS1547:2012 On-site domestic-wastewater management

Any other relevant documentation:

Attribution as designer:

I Tony Barriera of Geoton Pty Ltd am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	Tony Barriera		07/11/2025
Licence No:	CC6220P		

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- ☐ The works will not increase the demand for water supplied by TasWater
- ☐ The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- ☐ The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- ☐ The works will not damage or interfere with TasWater's works
- ☐ The works will not adversely affect TasWater's operations
- ☐ The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- ☐ I have checked the LISTMap to confirm the location of TasWater infrastructure
- ☐ If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I Tony Barriera of Geoton Pty Ltd being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	Tony Barriera		07/11/2025

GEOTON Pty Ltd
Geotechnical Consultants

LOADING CERTIFICATE

To:	**Mr Alan Hudson**		*Owner /Agent*	Certificate Ref: AS/NZS 1547:2012 Section 7.4.2
	17 Paraka Street		*Address*	
	Parklands Tas	7320	*Suburb/postcode*	

Details of work:

Address:	**20 Beach Crescent**	Lot No:	48
	Greens Beach Tas **7270**	Certificate of title No:	218000/48
The work related to this certificate:	On-site domestic-wastewater management	*(description of the work or part work being certified)*	

Certificate details:

In issuing this certificate the following matters are relevant –

Documents:	Report GL25515Ab dated 07/11/2025 Drawing 1 – Site Plan Drawing 2 – Raised Conventional Bed Plan and Section Drawing 3 – Wastewater Cross-Section
Relevant calculations:	Contained in the above
References:	AS/NZS1547:2012 On-site domestic-wastewater management

Substance of Certificate:

This certificate sets out the design criteria and the limitations associated with use of the system.

Wastewater Characteristics

Population equivalent used for this assessment = 5 (3 bedroom dwelling)
Wastewater volume (L/day) used for this assessment = 600 (120 Litres per person)
Approximate blackwater volume (L/day) = 240
Approximate greywater volume (L/day) = 360

Soil Characteristics/Design Criteria

Texture (Table E1 from AS/NZS 1547) = Loams
Soil category (Table E1 from AS/NZS 1547) = 3
Soil structure (Table E4 from AS/NZS 1547) = Massive
Indicative permeability (Table 5.1 from AS/NZS 1547) = 0.5-1.5m/day
Adopted permeability = 0.5m/day
Adopted Design Loading Rate = 30mm/day
Soil thickness for disposal = >2m
Minimum depth (m) to water = 1.8m

Dimensions for On-Site Treatment System

Disposal and treatment methods = Secondary Treatment System (STS) and Raised Conventional Bed
Site modification and specific design = Not required
Primary disposal area required = 20.1m^2
Reserve disposal area required = 20.0m^2
Location and use of Reserve area = No area available for reserve
Is there sufficient area available on site for disposal = Yes

Notes

The purpose of the reserve area is to allow for future extention of the land application system to allow a factor of safety against unforseen malfunction or failure, perhaps following increased household occupancy or inadvertent misuse of the system.

The land application area may be reduced to account for flow reductions by water-saving devices, provided the organic loading rate is not higher than it would have been without the flow reduction.

Allowable Variation from Design Flow

Based on an approved STS 10 EP system (10 equivalent persons) rated at 1,500 litres per day and a wastewater design volume of 600L/day the allowable variation from design flow (peak loading events) would be an additional 900L/day.

System Limitations

Consequences of overloading the system:

(A) Adverse effects on soil properties and plant growth through excess salt accumulation in the root zone during extended dry periods
(B) Harmful long-term environmental effects to the soil of land application system or the adjacent surface water and groundwater; or
(C) Increased risk to public heath from surface ponding in the land application area or channelling or seepage beyond the land application area.

Consequences of underloading the system:

Not applicable to this type of system.

Operation Requirements

Refer to operation manual of preferred secondary treatment system.
Adverse effects of not operating the system correctly may include:

(A) Odour; and
(B) Disease.

Maintenace Requirements

Refer to operation manual of preferred secondary treatment system.
Adverse effects of not maintaining and monitoring the system correctly may include:

(A) Odour;
(B) Pump failure;
(C) Air blower failure or filter blockage;
(D) Alarm failure;
(E) Irrigation field failure; and
(F) Poor water quality, lack of disinfection.

I certify the matters described in this certificate.

Signed: *Date:* *Certificate No.*

Certifier:		07/11/2025	GL25515Ab

Tasmanian Government

Certificate of Accreditation

On-Site Wastewater Management System

This Certificate of Accreditation is hereby issued by the Director of Building Control pursuant to Section 18(1) of the *Building Act 2016* and the accreditation of products.

System:	FujiClean ACE1200
Manufacturer or Supplier:	FujiClean Australia PTY LTD
Of:	2/176 Siganto Drive, Helensvale QLD 4212

This is to certify that the FujiClean ACE1200 as described in Schedule 1, has been accredited for use as a **Secondary Treatment System** for the treatment of domestic wastewater generated in association with any class of building defined within the National Construction Code. This accreditation is subject to the conditions and permitted uses specified in Schedule 2, and in accordance with the *Building Act 2016.*

Robyn Pearce
Director of Building Control
Consumer, Building and Occupational Services
Department of Justice

Date of Issue: 24 July 2025 **Certificate Number: DOC/25/56377**

This Certificate of Accreditation is in force until 14 August 2030 unless withdrawn earlier at the discretion of the Director of Building Control

Document development history

Version date	Certificate number	Approved by	Amendment notes
15/07/2025	DOC/25/56377	AMJ	Original release

Schedule 1: Specification

System Description

The FujiClean ACE1200 is a single tank aerated wastewater treatment system. Waste is treated through sedimentation, anaerobic and aerobic processes a clarification stage prior to disinfection and dispersal to land. Contact media is used in the aerobic filtration chamber to promote further decomposition.

This model is approved for a maximum treatment of 1,200L/day from a maximum 8EP.

This model has been certified as a Secondary Treatment System compliant with AS1546.3.2017.

This model has been approved by the certifier for use in Climate Zone 7.

This model has demonstrated a reduction in Nitrogen of 79% and Phosphorous reduction of 14.5% and achieves advanced secondary effluent standards.

Sludge chamber - minimum pump out frequency*

Design flow (L/per day)	600	900	1200
Pump out period (years)	10	7.5	5

*Sludge pump out to be included in the prescribed essential building services maintenance register.

Schedule 2: Conditions of Accreditation

Definitions in this schedule:
(Note: referenced Standards and Acts refer to version as per current NCC)

AS/NZS 1547 means the Joint Australian/New Zealand Standard 'AS/NZS 1547 On-site domestic-wastewater management'

AS 1546.3 means the Joint Australian/New Zealand Standard 'AS 1546.3 On-site domestic wastewater treatment systems, Part 3: Secondary treatment systems'

AS/NZS 3000 means the Joint Australian/New Zealand Standard 'AS/NZS 3000 Wiring rules'

AS/NZS 5667 means the Joint Australian/New Zealand Standard 'AS/NZS 5667.1 Water quality –

Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and preservation and handling of samples'

BOD_5 means '5-day Biochemical Oxygen Demand'

Council means 'the Municipal Council having jurisdiction'

Designer means 'a person who has a specialty in the area of designing on-site wastewater management system installations and appropriately licensed under the *Occupational Licensing Act 2005*, with the suitable scope of work.

Director means 'the Director of Building Control'

E. coli means 'Escherichia coli of the family Enterobacteriaceae which is a bacterium used in public health as an indicator of faecal pollution'

g/m^3 means grams per cubic metre

Manufacturer means 'as listed on Certificate of Accreditation'

NATA means 'National Association of Testing Authorities'

PCA means 'Plumbing Code of Australia'

Permit means 'a Permit issued by the council pursuant to section 82 of the *Building Act 2016*'

Permit authority means 'a person or body authorised for that purpose by the council of the municipal area in which the on-site wastewater management system is installed'

Secondary Treatment System (STS) is as defined in AS1546.3

Supplier means 'the party as listed on Certificate of Accreditation, that is responsible for ensuring that products meet and, if applicable, continue to meet, the requirements on which the certification is based.'

System means 'as listed on Certificate of Accreditation'

TSS means 'Total Suspended Solids'.

General

The system must be supplied, constructed, and installed in accordance with the design submitted and accredited by the Director.

The system must not be installed in a plumbing installation other than in accordance with the conditions of the permit issued by the Permit Authority.

The supplier must supply the owner and occupier, of each installation, with a user manual setting out the following:

- the treatment processes
- procedures to be followed in the event of a system failure
- emergency contact number
- care, operation, monitoring, and maintenance requirements, and
- inspection and sampling procedures to be followed as part of the on-going monitoring and program required by the permit authority.

Any proposed modifications to the system's specified processes, equipment, materials, or fittings, listed as a trigger for a retest under the relevant standard, must provide an updated certificate from the certifying body, prior to consideration for a certificate of accreditation amendment by the Director.

The supplier must provide the following information to each permit authority where it is intended to install a system in their jurisdiction:

- Statement of warranty
- System compatibility with area specific climate zone
- Statement of service life
- Quality Assurance Certification
- Installation Manual
- Service Manual
- Owner's Manual
- Service Report Form
- Engineering Drawings on A3 format
- Detailed Specifications
- Certificate of Accreditation and Schedules.

This Certificate of Accreditation is valid for five (5) years from the date of issue or until withdrawn by the Director.

At each anniversary of the accreditation date the supplier must submit to the Director a list of all systems installed in Tasmania during the previous 12 months. The Director may randomly select

up to 10% of the installed systems in any one calendar year. The Director will nominate a NATA accredited laboratory for all sampling and will be tested for BOD_5 and TSS and Chlorine residual. The sampling and testing of the selected systems are to be done at the supplier's expense. The following results must be reported to the Director:

- Address of system
- Date inspected and sampled
- Sample identification number
- Chlorine Residual
- BOD5
- TSS, and
- Service history

Where a system has been found not to operate satisfactorily during its serviceable life, the failure must be reported to the DBC, and as a result require modification to achieve the required water quality limits, all installed systems are to be modified accordingly.

The system must not be deployed to areas where seasonal climatic conditions will negatively affect its proper operation (refer to manufacturer'*s* specifications).

Installation and commissioning report

The Installation and Commissioning Report is to cover the 'as-constructed' records of the system installation together with the results of commissioning tests to demonstrate correct construction and installation and is to be provided to the owner and permit authority on completion of the work. (Refer to AS/NZS 1547 and associated appendices).

Inspection and Maintenance Report

Maintenance reports cover ongoing inspection and maintenance operations to monitor the operation of the installation. (Refer to AS/NZS 1547).

Any installed pump must have a rated capacity that matches the hydraulic characteristics of the irrigation and be capable of discharging at least 50% more than the 30-minute flow rate. For drip irrigation, ensure that drip emitter flow rates do not vary more than 10% from the design rate over the whole of the system when installed on a sloping site.

Effluent distribution by sub-surface application may be permitted where the Permit Authority is satisfied that the application for a permit to install the system has demonstrated that the:

- effluent can be retained within the authorised land application area
- where applicable the land application has been designed and is capable of being installed and maintained in accordance with AS/NZS 1547
- the location of the land application satisfies the relevant requirements of the State Policy on Water Quality Management 1997, and
- the discharge can satisfy the relevant water quality limits.

Product approval documentation

The following documents are referenced as part of this Accreditation:

Document	Document date
Global test report 2636	30/03/2020
Global CoC 5627-3568-01	07/02/2024

Installation and Commissioning

The installation and operation of the system must comply with the conditions of accreditation and the manufacturer's instructions.

All plumbing work carried out in connection with the system installation must satisfy the requirements of the Building Act and the Plumbing Code of Australia and be carried out by a licensed plumber with appropriate training and qualifications.

All electrical work must be carried out by a licensed electrician and in accordance with relevant provisions of AS/NZS 3000.

Where a system requires a 240V AC power supply, a weather-proof isolating switch must be provided at the power outlet. The power supply must have its own clearly marked designated circuit breaker in the electricity supply fuse box.

Each system installation must be inspected and checked by the designer or the designer's agent. The designer on completion is to certify that the system has been constructed, installed, and commissioned in accordance with its design, the conditions of accreditation and any additional requirements set out in the permit.

Note: Where the designer is not available to supervise the installation, the designer shall obtain a signed Standard of Work certificate (Form 71b) from the installing plumber stating that the installation has been constructed/installed and commissioned in accordance with its design, the conditions of accreditation and any additional requirements of the council and/or permit authority.

Where discharging wastewater to a land application by irrigation, a lockable sampling tap or gate valve is to be provided on the outlet pipe to the irrigation.

A report is to be prepared by the council approved plumbing contractor detailing the inspection of the installation and the results of the commissioning tests and be accompanied by a certificate certifying that the system is operating and performing adequately.

Copies of the following reports/certificates must be submitted to the council and the owner as soon as practicable after the commissioning of the system and after each scheduled or unscheduled service or inspection for the period specified in the permit:

- The initial plant installation and commissioning report
- All required laboratory analytical test reports, and
- All inspection and maintenance reports.

Copies of any report or certificate required by the conditions of accreditation must be made available to the Director on request.

The designer is to provide a statement advising the user of which items and products that must not be placed in the system.

To verify that the system is commissioned, sampling must be carried out, by a council approved person, for BOD_5, TSS and Free Residual Chlorine. The samples are to be tested and reported on by a NATA certified laboratory.

Maintenance and monitoring

Each installation must be serviced and monitored at not less than 3 monthly intervals in accordance with the conditions of accreditation, the conditions of permit and manufacturer's requirements.

Notes:

- Only a licensed plumber can carry out the maintenance and required monitoring of the system other than electrical work unless licensed to do so.
- The licensed plumber may need to complete training by the supplier before carrying out any maintenance on the system.
- The maintenance and monitoring intervals may be combined provided the monitoring frequency remains at 3-monthly intervals.

The owner of the system must enter and maintain a maintenance contract with the council, the supplier of the system, or other council approved plumbing contractor.

The system must be operated and maintained to ensure it performs continuously and without any intervention between inspections carried out by the council approved plumbing contractor.

A service report is to be prepared by the plumbing contractor who carried out the work detailing the inspection of the installation and the results of all servicing tests and conditions at the completion of all scheduled or unscheduled services or inspections.

The service report is to be accompanied by a signed certificate confirming that the system is operating and performing adequately.

A copy of the service report and certificate is to be provided to the occupant and council. Each service report is to contain a statement reminding the user of which items and products that must not be placed in the system.

Each service must include monitoring the operation of the system and associated land application.

Maintenance must be carried out on all mechanical, electrical, and functioning components of the system as appropriate.

The monitoring, servicing, and reporting of the installation must include but not be restricted to the following matters, as appropriate:

Reporting on weather conditions, ambient temperature, effluent temperature

Odour

Check and test pump

Check and test air blower, fan or air venturi and clean/replace air filters

Check and test alarm system

Check slime growth on membranes and report the on condition of membranes

Check and report operation of sludge return, sludge level and de-sludging

Check and record water meter reading (if fitted)

Check and record operation of irrigation area, irrigation fittings

Check and clean/replace irrigation filters

Check and report on water quality (testing for pH, Turbidity, EC and dissolved oxygen)

Check, and replenish chlorine disinfection system

Cleaning of the following items at above the waterline:

- clarifier
- pipework
- valves
- walls of chambers.

Performance

Hydraulic and Organic Loading:

The system is accredited for treatment of domestic wastewater from buildings with the following maximum hydraulic and organic loads:

Model	**Hydraulic load (L/day)**	**Biochemical Oxygen Demand (g/day)**
FujiClean ACE1200	1200	560

Treated effluent from the system must not exceed the following limits (90% of samples):

For sub-surface irrigation:	
5-day Biochemical Oxygen Demand (BOD_5)	10 g/m^3 (max. 20 g/m^3)
Total Suspended Solids (TSS)	10 g/m^3 (max. 20 g/m^3)
Total Nitrogen (TN)	Less than or equal to 25
Total Phosphorous (PH)	Less than or equal to 5
For surface irrigation:	

5-day Biochemical Oxygen Demand (BOD_5)	10 g/m^3 (max. 20 g/m^3)
Total Suspended Solids (TSS)	10 g/m^3 (max. 20 g/m^3)
Total Nitrogen (TN)	Less than or equal to 25
Total Phosphorous (PH)	Less than or equal to 5
E. coli	10 cfu/100 mL (max. 20 cfu/100 mL)
Free Residual Chlorine concentrations	≥ 0.5 g/$m^3$and less than 2.0 g/m^3

Ongoing management

The mandatory servicing and monitoring are to commence 3 months after the plant is commissioned. The servicing and monitoring are to coincide with the supplier's required on-going routine scheduled maintenance program.

In the event of failure to comply with the water quality limits set out in these conditions, fortnightly sampling and testing for *BOD_5*, *TSS* and Free Residual Chlorine must be carried out until the system is re-commissioned.

The method of preserving and the handling of samples taken from the plant must satisfy the relevant requirements of AS/NZS 5667.

Copies of the following reports and certificates must be submitted to the permit authority and the owner as soon as practicable after the commissioning of the system and after each scheduled or unscheduled service for the period specified in the permit:

- the initial plant installation and commissioning report
- all laboratory analytical test reports; and
- all inspection and maintenance reports

The system is to be de-sludged strictly in accordance with the manufacturer's recommendations and the sludge is to be disposed of in accordance with the Tasmanian Biosolids Reuse Guidelines and the conditions of permit.

Only persons with a waste transport business Environment Protection Notice are to be engaged for the removal, transporting and disposal of accumulated sludge removed from the system.

Any waste material removed from the system must be collected and disposed of or utilised by an approved facility or agency.

Measures are to be put in place during servicing that will protect the environment, personnel and any other persons who could be affected by the activity.

Permitted uses

The effluent is suitable for land application by way of the following forms:

(a) sub-surface by:

(i) subsurface drip irrigation in accordance with the relevant provisions of AS/NZS 1547

(ii) trenches, beds, mounds, evapo-transpiration in accordance with the relevant provisions of AS/NZS 1547.

(b) above ground by:

(i) spray irrigation

(ii) surface drip irrigation in accordance with the relevant provisions of AS/NZS 1547.

Note: Each of the above forms of irrigation is subject to consent from the permit authority and the relevant provisions of AS/NZS 1547.

Where it is not practicable for effluent from the system to be applied in accordance with AS/NZS 1547 the method of discharge must satisfy the performance requirements of the National Construction Code.