

STRUCTURAL DRAWINGS

DATE: 19-06-2025

PROPOSED ADDITIONS & ALTERATIONS 73 BRIGHTON STREET, CURL CURL FOR BEN LIEBKE

JOB No. 2024122



DRAWING LIST		
SHEET NO	SHEET NAME	REVISION
S0.1	GENERAL NOTES - SHEET 1	C2
S0.2	GENERAL NOTES - SHEET 2	C2
S0.3	GENERAL NOTES - SHEET 3	C2
S0.4	GENERAL NOTES - SHEET 4	C2
S0.5	GENERAL NOTES - SHEET 5	C2
S0.6	GENERAL NOTES - SHEET 6	C2
S1.0	GROUND FLOOR PLAN	C2
S1.1	FOUNDATION DETAILS - SHEET 1	C2
S1.2	FOUNDATION DETAILS - SHEET 2	C2
S1.3	FOUNDATION DETAILS - SHEET 3	C2
S1.4	FOUNDATION DETAILS - SHEET 4	C2
S1.5	FOUNDATION DETAILS - SHEET 5	C2
S1.6	FOUNDATION DETAILS - SHEET 6	C2
S1.7	SEWER DETAILS - SHEET 1	C2
S1.8	SEWER DETAILS - SHEET 2	C2
S2.0	FIRST FLOOR FRAMING PLAN	C2
S2.1	FIRST FLOOR FRAMING DETAILS - SHEET 1	C2
S2.2	FIRST FLOOR FRAMING DETAILS - SHEET 2	C2
S3.0	ROOF FRAMING PLAN	C2
S3.1	ROOF FRAMING DETAILS - SHEET 1	C2
S3.2	ROOF FRAMING DETAILS - SHEET 2	C2
S4.0	WALL BRACING DETAILS - SHEET 1	C2
S4.1	WALL BRACING DETAILS - SHEET 2	C2



GREENWOOD CONSULTING
ENGINEERS

2/25 Seabeach Ave,
Mona Vale NSW 2103

STAGE 2 – INSPECTIONS REQUIRED DURING CONSTRUCTION PHASE

1. Initial site meeting with builder during demolition/excavation – We require this inspection to confirm design assumptions following our initial visual site inspection prior to Stage 1;
2. Concrete Footing/s and Slab/s (Reinforcement/Excavations Levels/Reinforcement Cover/Builder Quality Assurance);
3. Wall Block/Dincol core filling (Reinforcement/Reinforcement Cover/Builder Quality Assurance);
4. Ground Floor Framing – Undertaken prior to commencement of First Floor/Roof addition;
5. First Floor Framing – Undertaken prior to commencement of Roof addition;
6. Roof Framing – Undertaken prior to commencement of First Floor/Roof addition;

As per our agreed fee proposal any additional site inspections outside of initial inspection are charged at GCE agreed pricing in the fee proposal

For inspections on weekends a surcharge will be applied. Weekend inspections will be required for Monday morning concrete pours where Greenwood Consulting Engineers are expected prior to 9am Monday morning.

Please note Greenwood Consulting Engineers is to be given 48 hours’ notice (minimum) prior to required site inspections. Greenwood Consulting Engineers will not certify or sign off structural elements which have not been inspected. Greenwood Consulting Engineers will not certify or sign off based on photos unless explicitly approved by Eliot Greenwood of Greenwood Consulting Engineers.

- Construction certification letter
- Engineering responses to RFI’s from builders and any additional detailing a surcharge will be applied.
- All RFI’s must be issued to this office via email using the RFI template at the end of this form. Text messages and calls will not classify as accepted RFI.
- All Site Inspections requests must also be issued to this office via email correspondence

GENERAL

- G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AND SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH ANY RELATEDWORKS. CONSTRUCTION FROM THESE DRAWINGS, AND THEIR ASSOCIATED CONSULTANTS DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY THE LOCAL AUTHORITIES.
- G2 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY- LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- G3 ALL SET OUT DIMENSIONS SHALL BE OBTAINED FROM ARCHITECT’S AND ENGINEER’S DETAILS. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT AND ENGINEER FOR DECISION BEFORE PROCEEDING WITH RELATED WORK.
- G4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER/SUBCONTRACTOR TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G5 UNLESS NOTED OTHERWISE LEVELS ARE IN METRES AND DIMENSIONS ARE IN MILLIMETRES.
- G6 DURING CONSTRUCTION A MINIMUM OF ONE (1) ADDITIONAL FLOOR SHALL REMAIN FULLY BACKPROPPED BELOW THE DECK BEING FORMED WITH A SECOND FLOOR TO BE A MINIMUM OF 50% BACKPROPPED AT ALL TIMES. AT NO TIME SHALL CONCRETE BE POURED UNLESS THE FLOOR BELOW IS FULLY BACKPROPPED. REFER TO DIAGRAM ON THIS DRAWING FOR CLARITY.
- G7 ANY SUBSTITUTION OF MATERIALS SHALL BE APPROVED BY THE ENGINEER AND INCLUDED IN ANY TENDER.
- G8 THE STRUCTURAL COMPONENTS DETAILED ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANTSTANDARDS AUSTRALIA CODES AND LOCAL GOVERNMENT ORDINANCES FOR THE FOLLOWING LOADINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR PROPOSED FLOOR USAGE. REFER TO DRAWINGS FOR LIVE LOADS AND SUPERIMPOSED DEADLOADS.
- G9 THE CONSULTING ENGINEER HAS DESIGNED THE PERMANENT STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, IMPLEMENTATION AND CERTIFICATION OF ALL TEMPORARY WORKS, PROPPING, NEEDLING, FALSE WORK, BRACING, BACK-PROPPING, AND SO FORTH, NECESSARY TO COMPLETE THE WORK.
- G10 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. THE CONTRACTOR SHALL ALLOW TO ENGAGE A CHARTERED (NPER-3) ENGINEER TO DESIGN, INSPECT THE TEMPORARY WORKS AND VERIFY THE TEMPORARY STABILITY OF THE STRUCTURE.
- G11 WHERE ADDITIONAL CONSTRUCTION LOADS SUCH AS TEMPORARY SHORING, MOBILE CRANES ETC. ARE TO BE IMPOSED ON THE STRUCTURE, THE CONTRACTOR SHALL SUBMIT FULL DETAILS OF THE PROPOSED TEMPORARY SUPPORTS TO THE ENGINEER FOR REVIEW.
- G12 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS. REFER TO THE SPECIFICATION REPORT BY GREENWOOD CONSULTING ENGINEERS FOR FURTHER DETAILS.

DESIGN CRITERIA - ROCK

SITE SOIL CLASSIFICATION: CLASS " A "

SITE WIND CLASSIFICATION : REGION "N3"

CONSTRUCTION TYPE: CONCRETE SLAB & TIMBER FRAMING

FOUNDATIONS

- F1 REFER TO THE NOTES ON THE FOUNDATION DRAWING FOR MINIMUM ALLOWABLE BEARING CAPACITY. THE FOUNDATION MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER FOR THIS BEARING CAPACITY BEFORE PLACING MEMBRANE, REINFORCEMENT OR CONCRETE.
- F2 REFER TO GEOTECHNICAL REPORT PREPARED BY:

NOT CONFIRMED

- ANY ADDITIONAL INVESTIGATION REQUIRED BY THE CONTRACTOR SHALL BE AT THE CONTRACTORS OWN EXPENSE.
- F3 FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS/COLUMNS UNLESS NOTED OTHERWISE.
- F4 DO NOT EXCEED A RISE OF 1IN A RUN OF 2 FOR THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS.
- F5 DO NOT BACKFILL RETAINING WALLS (OTHER THAN CANTILEVER WALLS) UNTIL FLOOR CONSTRUCTION AT TOP AND BOTTOM IS COMPLETED. ENSURE FREE DRAINING BACKFILL AND DRAINAGE IS IN PLACE.
- F6 FOOTINGS TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE. REFER TO DRAWINGS FOR BACKFILL REQUIREMENTS.

SHOTCRETE

- SH1 DEFINITIONS. SHOTCRETE IS SPRAYED CONCRETE WITH MAXIMUM CONCRETE AGGREGATE SIZE OF 10MM, PROJECTED AT HIGH VELOCITY INTO FORM TO PRODUCE A DENSE HOMOGENOUS MASS.
- SH2 MIX DESIGN. MIX IN ACCORDANCE WITH AS 1379 TO THE SUPERVISING ENGINEERS APPROVAL. ALL CONSTITUENTS SHALL BE UNIFORMLY DISPERSED THROUGHOUT THE MIX. UNLESS NOTED OTHERWISE FINAL SET OF THE CEMENT / ADMIXTURE PASTE SHALL BE NO LONGER THAN 12 MINUTES, WITH 24 HOURS STRENGTH OF CONCRETE BEING 10 MPA. UNLESS NOTED OTHERWISE THE 28 DAY COMPRESSIVE STRENGTH OF SHOTCRETE IS TO BE 32 MPA.
- SH3 APPLICATORS. ALL OPERATORS SHALL BE COMPETENT IN SUCH WORK AND THE CONTRACTOR IS TO DEMONSTRATE THAT ALL THE EQUIPMENT IS OPERATIONAL AND ALL OPERATORS ARE EXPERIENCED.
- SH4 EXCAVATION PREPARATION. THE SURFACE TO BE SPRAYED SHALL BE TRIMMED / COMPACTED / GRADED AS REQUIRED BY THE TOLERANCES REFLECTED ON THE DOCUMENTS, AND DAMP BEFORE THE APPLICATION OF SPRAYED CONCRETE. PREVENT INGRESS OF TRIMMED OR UNSHORED MATERIAL, EXCESSIVE WATER ETC. BY THE PROVISION OF THE LOST FORMWORK, POLYTHENE SHEETS ETC AT THE CONTRACTORS EXPENSE.
- SH5 REINFORCEMENT: THE REINFORCEMENT INDICATED ON THE DOCUMENTS IS TO BE PLACED AND SECURED ACCURATELY TO THE SPECIFIED COVERS.
- SH6 SHOTCRETE PLACING. DO NOT SPRAY CONCRETE AT LESS THAN 5° C. PROTECT FRESHLY SPRAYED CONCRETE FROM RAIN, WATER OR WIND UNTIL THE SURFACE IS SUFFICIENTLY HARD ENOUGH TO PREVENT DAMAGE. SPRAY TO SET THICKNESSES AS INDICATED ON THE DOCUMENTS. INSTALL THICKNESS MARKERS TO ENSURE CORRECT CONCRETE THICKNESS. MAXIMUM DEVIATION FROM A 1000MM STRAIGHT EDGE SHALL BE 5MM. PROVIDE FULL RECORDS OF ALL MATERIALS USED IN THE SPRAYED CONCRETE AND PROVIDE CONCRETE TEST RESULTS IN ACCORDANCE WITH SPECIFICATION. JOINTS WITHIN THE CONCRETE SHALL BE TO THE APPROVAL OF THE ENGINEER, AND WILL GENERALLY BE TRIMMED AT AN ANGLE OF 30° TO THE HORIZONTAL IN AN APPROVED POSITION.
- SH7 CONDUCT SITE TESTING OF SHOTCRETE IN ACCORDANCE WITH NOTE RC2.
- SH8 ALL SHOTCRETE TO BE INSTALLED IN ACCORDANCE WITH RECOMMENDED PRACTICE NOTES FOR SPRAYED CONCRETE AS PUBLISHED BY THE CONCRETE INSTITUTE OF AUSTRALIA.

REINFORCED CONCRETE

- RC1 READYMIX CONCRETE SUPPLY SHALL COMPLY WITH AS 1379.
- RC2 MINIMUM CONCRETE QUALITY NOTED ON RELEVANT DRAWINGS. ALL THE REQUIREMENTS OF THE ACSE CONCRETE SPECIFICATION DOCUMENT 1 (LATEST EDITION) SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

COMPRESSIVE STRENGTH:
SAMPLE, TEST, AND ASSESS TO AS 1379. ALL TESTING TO BE CONDUCTED BY A NATA REGISTERED LABORATORY.

THE MINIMUM FREQUENCY OF SAMPLING OF THE CONCRETE AT EACH STAGE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

NO OF BATCHES SUPPLIED:	NO OF SAMPLES TAKEN
1	1
2 TO 5	2
6 TO 10	3
11 TO 30	4
FOR EACH ADDITIONAL 10 BATCHES	1

A SAMPLE SHALL CONSIST OF FOUR CYLINDERS, TWO OF WHICH SHALL BE TESTED AT 28 DAYS, ONE AT 7 DAYS AND ONE AT 4 DAYS. IF THE CONTRACTOR REQUIRES EARLY STRENGTH RESULTS, ADDITIONAL CYLINDERS SHALL BE TAKEN IN THE SAMPLE AS REQUIRED AND AT THE COST OF THE CONTRACTOR.

OTHER QUALITY PARAMETERS
SAMPLE: TEST AND ASSESS TO AS 1379 SECTION 5.
SLUMP: TEST NOT LESS THAN ONE SAMPLE FOR EACH BATCH BEFORE PLACING CONCRETE FROM THAT BATCH IN THE WORK. TAKE THE SAMPLES AT THE POINT OF DISCHARGE ON SITE.
DRYING SHRINKAGE: THE MAXIMUM TOTAL DRYING SHRINKAGE LIMIT FOR THE CONCRETE SHALL BE AN AVERAGE OF 0.070% AT 56 DAYS AND NO SINGLE RESULT SHALL EXCEED 0.075%. MEASUREMENT SHALL BE IN ACCORDANCE WITH AS1012 PART 13 AND BE CONDUCTED BY A NATA REGISTERED LABORATORY.
REJECTION: REMOVE THE CONCRETE FROM THE SITE.

- RC3 NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.
- RC4 DEPTH OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESSES. SLABS AND BEAMS SHALL BE CAST TOGETHER UNLESS NOTED OTHERWISE.
- RC5 CONCRETE SIZES DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.
- RC6 NO HOLES, CHASES OR EMBEDMENT'S OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT THE PROJECT ENGINEERS APPROVAL.
- RC7 CONCRETE SHALL BE KEPT FREE OF SUPPORTING MASONRY WITH A PRE-GREASED GALVANISED STEEL SLIP JOINT, VERTICAL FACES SHALL BE SEPARATED BY 10MM JOINTEX (OR EQUAL).
- RC8 CONSTRUCTION JOINTS SHALL BE LOCATED TO THE SATISFACTION OF THE PROJECT ENGINEER. THE BUILDER SHALL ALLOW FOR ALL NECESSARY CONSTRUCTION JOINTS.
- RC9 CONDUITS AND PIPES WHEN CAST IN SLABS OR WALLS ARE TO BE PLACED BETWEEN THE REINFORCEMENT LAYERS. WHERE THERE IS ONLY ONE LAYER OF REINFORCEMENT, PROVIDE 50MM COVER TO CONDUIT MINIMUM.
- RC10 PROVIDE UPWARD CAMBER TO FORMWORK OF REINFORCED CONCRETE CANTILEVERS OF L/200 WHERE L IS THE PROJECTION BEYOND COLUMN OR WALL FACE, AND TO FORMWORK OF SLABS WHERE NOTED ON PLANS. MAINTAIN SLAB AND BEAM DEPTHS AS SHOWN. PROVIDE 0MM PRECUMBER TO POST TENSIONED SLABS U.N.O. ON PLANS.
- RC11 THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
- RC12 SLABS AND BEAMS SHALL BE CONSTRUCTED TO BEAR ONLY ON THE BEAMS, COLUMNS, WALLS ETC. SHOWN ON THE DRAWINGS. ALL OTHER BUILDING ELEMENTS SHALL BE KEPT 12MM MINIMUM CLEAR FROM SOFFITS OF STRUCTURE.
- RC13 CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS, AND PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 7 DAYS FOLLOWED BY A GRADUAL DRYING OUT. APPROVED SPRAYED ON CURING COMPOUNDS THAT COMPLY WITH AS 3799 MAY BE USED WHERE FLOOR FINISHES WILL NOT BE AFFECTED. (REFER MANUFACTURERS SPECIFICATION). POLYTHENE SHEETING OR WET HESSIAN MAY BE USED TO RETAIN MOISTURE WHERE PROTECTED FROM WIND AND TRAFFIC.
- RC14 CONSTRUCTION SUPPORT PROPPING IS TO BE LEFT IN PLACE WHERE NEEDED TO AVOID OVERSTRESSING THE STRUCTURE DUE TO CONSTRUCTION LOADING. NO BRICKWORK OR PARTITION WALLS ARE TO BE CONSTRUCTED ON SUSPENDED LEVELS UNTIL ALL PROPPING IS REMOVED AND THE SLAB HAS ABSORBED ITS DEAD LOAD DEFLECTION.

PILING

- P1 REFER TO GEOTECHNICAL REPORT AS SPECIFIED IN FOUNDATION NOTE F2 ON THIS DRAWING.
- P2 CLASS OF ROCK SHALL BE AS DEFINED IN THE GEOTECHNICAL REPORT. THE CLASS OF ROCK LEVELS FOR DETERMINING PILE TOE LEVELS SHALL BE AGREED IN WRITING WITH THE ENGAGED GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF DRILLING.
- P3 THE TENDER IS TO BE BASED ON CONDITIONS AS FOUND ON SITE. CHANGES IN CONDITIONS, OR OBSTRUCTIONS WILL NOT FORM A BASIS FOR A VARIATION.
- P4 ALL PILES ARE TO BE INSTALLED BY THE CONTRACTOR TO AS2159-1995 PILING DESIGN AND INSTALLATIONS CODE AND ANY OTHER RELEVANT CODES.
- P5 PILES SHALL BE PLACED TO A PLAN TOLERANCE OF 50MM MAXIMUM AT ANY POINT ALONG THEIR LENGTH, AND A GAP BETWEEN PILES ALONG THEIR LENGTH OF 10MM. IF ANY PILES ARE INSTALLED OUT OF TOLERANCE THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR THE DESIGN AND INSTALLATION COSTS OF ADDITIONAL PILES OR RECTIFYING ELEMENTS OR THE COMPLETE REMOVAL AND REPLACEMENT OF THE PILES AS INSTRUCTED BY THE SUPERINTENDENT.
- P6 CONTRACTOR SHALL PROVIDE FOR ALL SURVEYING REQUIREMENTS TO CONSTRUCT PILING. THIS INCLUDES, BUT IS NOT LIMITED TO SETTING OUT PILES, BEFORE AND DURING DRILLING AND FOR THE PROVISION OF AS-BUILT SURVEY.
- P7 AT THE COMPLETION OF PILING, THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY AND CERTIFICATION THAT ALL PILES ARE WITHIN SPECIFIED TOLERANCES.
- P8 THE CONTRACTOR IS TO MAKE THEMSELVES FAMILIAR WITH THE SITE AND TO ASSESS THE LIKELY ISSUES ASSOCIATED WITH NOISE, VIBRATION, GROUNDWATER, TRAFFICABILITY AND ANY OTHER ISSUES WHICH MAY REQUIRE RISK ASSESSMENT.
- P9 ALL PILES ARE TO BE CUT DOWN TO LEVEL SUCH THAT THEY PROTRUDE 50MM INTO THE BASE OF CAPPING BEAMS AND REINFORCEMENT PROTRUDES IN CAPPING BEAMS AS SHOWN ON DETAILS. THE PILING CONTRACTOR SHALL PROGRESSIVELY REMOVE AND DISPOSE OF ANY SOIL IF ANY FROM THE WORK AREAS. THIS INCLUDES GROUT/CONCRETE SPILLAGE IF ANY. THE PILING CONTRACTOR SHALL ALLOW FOR THE SUPPLY OF ALL EQUIPMENT SUCH AS TRUCKS AND LOADERS AND ANY APPROVALS FOR DISPOSAL AS REQUIRED.
- P10 BUILDER IS ADVISED TO UNDERTAKE A DIAL BEFORE YOU DIG SEARCH PRIOR TO ANY PILING OR FOUNDATION WORKS



- P11 TESTING AS REQUIRED FOR CERTIFICATION OF THE AUSTRALIAN STANDARDS SHALL BE PROVIDED BY THE CONTRACTOR.

PILE GROUT TESTING
TEST GROUT IN ACCORDANCE WITH AS2159 CLAUSE 7.5.6.2 AND NOTE RC2. MIN 28 DAY STRENGTH F'C = 40MPa

PILE INTEGRITY TESTING
TEST 10% OF PILES IN ACCORDANCE WITH AS2159 CLAUSE 8.5. LOCATION OF TEST PILES TO BE CONFIRMED BY STRUCTURAL ENGINEER.
- P12 REFER TO ARCHITECTURAL DRAWINGS FOR ALL REDUCED LEVELS.
- P13 PLACE REINFORCEMENT IN PILES IN ACCORDANCE WITH AS3600 AND NOTES R1 TO R14.

HEALTH AND SAFETY

- H1 THE OBLIGATION OF ABC CONSULTANTS PTY LTD, AS THE DESIGN ENGINEER IS LIMITED TO ENSURING THAT THOSE PARTS OF THE STRUCTURE THAT ARE TO BE USED AS A WORKPLACE ARE AS FAR AS REASONABLY PRACTICABLE DESIGNED TO BE SAFE AND WITHOUT RISKS TO THE HEALTH OF THOSE PERSONS USING THE STRUCTURE AS A WORKPLACE FOR THE PURPOSE FOR WHICH IT WAS DESIGNED IN ACCORDANCE WITH SECTION 22 OF THE NSW WORK HEALTH AND SAFETY ACT 2011 NO.10.
- H2 GCE IS NOT RESPONSIBLE FOR THE OCCUPATIONAL HEALTH AND SAFETY OF PERSONS AT THE SITE AS THOSE OBLIGATIONS RESIDE WITH THE CONTRACTORS AND/OR SUB CONTRACTORS THAT OCCUPY OR HAVE CONTROL OF THE SITE IN ACCORDANCE WITH APPLICABLE OCCUPATIONAL HEALTH AND SAFETY LEGISLATION, CODES OF PRACTICE, GUIDANCE NOTES, AUSTRALIAN STANDARDS AND OTHER RELEVANT DOCUMENTATION.
- H3 ANY ADVICE OR GUIDANCE CONCERNING OCCUPATIONAL HEALTH AND SAFETY ISSUES ARISING AT THE SITE SHOULD BE DIRECTED TO THE HEALTH AND SAFETY EXECUTIVE OR OFFICER NOMINATED FOR THE PROJECT.

This drawing is not to be used for construction unless signed as approved

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NOTE


1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING WORK
2. ALL WORK AND MATERIAL TO COMPLY WITH THE AUSTRALIA BUILDING CODE
3. ALL DIMENSIONS IN mm.

DO NOT SCALE THE DRAWING.

USE STATED DIMENSION ONLY

C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

GREENWOOD CONSULTING
ENGINEERS

2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

Project

PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title

GENERAL NOTES - SHEET 1

Job No. 2024122	Sheet S0.1	
Date JUN 2025		
Scale 1:100	Issue c2	A3

CONCRETE:

EXPOSURE CLASSIFICATION: EXTERNAL - A2
INTERNAL - A1

CONCRETE:

PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH F'c AS DEFINED IN AS 1379.

CONCRETE SPECIFICATION TABLE

LOCATION	f'c MPa AFTER 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
PAD FOOTINGS	32	80	20
SLAB	32	80	20
CORE FILLING GROUT	20	230 (+/-) 20	10

- C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND ANY OTHER RELEVANT AUSTRALIAN STANDARDS UNLESS VARIED BY THE ENGINEER.
- C2 HOLES, PENETRATIONS, CHASES AND CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- C3 CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED WHERE VERTICAL. THE FIRST POUR SHALL BE THOROUGHLY SCABBLED AND CLEANED OF ALL POORLY COMPACTED MATERIAL AND LAITANCE, THOROUGHLY SOAKED AND PAINTED WITH A 2:1 SAND CEMENT SLURRY IMMEDIATELY BEFORE PLACING THE SECOND POUR. THOROUGHLY COMPACT THE SECOND POUR AGAINST THE FIRST POUR.
- C4 CONDUITS, PIPES AND THE LIKE SHALL BE PLACED WITHIN THE MIDDLE THIRD OF THE SLAB DEPTH AND AT A MINIMUM SPACING OF NOT LESS THAN 3 DIAMETERS. CONDUITS AND PIPES SHALL NOT BE PLACED WITHIN THE CONCRETE COVER OUTLINED BELOW.
- C5 THE FINISHED CONCRETE SHALL BE FULLY MECHANICALLY VIBRATED TO ACHIEVE FULL COMPACTION, COMPLETELY FILLING FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE, INCLUDING SLABS ON GROUND AND FOOTINGS, SHALL BE FULLY VIBRATED USING A HIGH FREQUENCY MECHANICAL VIBRATOR.
- C6 ALL CONCRETE SHALL BE PROPERLY CURED. CURING SHALL COMMENCE WITHIN 2 HOURS OF POURING AND SHALL CONTINUE FOR A MINIMUM OF 7 DAYS, FOLLOWED BY A GRADUAL DRYING OUT. CURING SHALL BE BY CONTINUOUS SATURATION WITH POTABLE WATER OR BY USE OF AN APPROVED PROPRIETARY CURING COMPOUND COMPLYING WITH AS 3799, APPLIED UNIFORMLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. THE COMPATIBILITY OF CURING COMPOUNDS WITH PROPOSED APPLIED FINISHES SHALL BE VERIFIED PRIOR TO APPLICATION. FORMED SURFACES EXPOSED WITHIN 14 DAYS OF CASTING SHALL BE SPRAYED WITH AN APPROPRIATE CURING AGENT IMMEDIATELY UPON EXPOSURE.
- C7 SEE CONCRETE SPECIFICATION TABLE ABOVE.
- C8 WHERE A VAPOUR BARRIER IS SPECIFIED BENEATH SLABS ON GROUND PROVIDE A 0.2mm BRANDED POLYTHENE MEMBRANE THROUGHOUT. LAP SHEETS 300mm AND SEAL WITH A 50mm WIDE PRESSURE SENSITIVE WATERPROOF TAPE.
- C9 WHERE CONCRETE SLABS BEAR ON MASONRY, INCLUDING CORED BRICKS, THE BEARING SURFACE OF THE MASONRY SHALL BE RENDERED WITH 1:3 CEMENT SAND MORTAR TO GIVE A LEVEL SURFACE AND A METAL SLIP JOINT LAID PROTECTED BY 0.2mm POLYTHENE SHEET TAPED TO FORMWORK BEFORE PLACING CONCRETE.
- C10 NON LOADBEARING MASONRY SHALL BE SEPARATED FROM THE SOFFIT OF SLABS AND BEAMS BY 12mm CANITE OR OTHER MEANS APPROVED BY THE ENGINEER.
- C11 BEFORE THE COMMENCEMENT OF CONCRETING THE BUILDER SHALL ENSURE THE CONCRETOR IS FULLY AWARE OF ANY AREAS OF FORMWORK THAT HAVE BEEN PRE-CAMBERED OR PRE-SET. EXTREME CARE MUST BE TAKEN TO ENSURE THE SPECIFIED DEPTHS OF BEAMS AND SLABS ARE ACHIEVED IN AREAS OF PRE-SET OR PRE-CAMBERED FORMWORK. THIS CANNOT BE ACHIEVED BY LEVELLING THE CONCRETE SURFACE INTO THE NOMINAL FINISHED CONCRETE LEVEL.
- C12 CONSTRUCTION AND SUPPORT PROPPING SHALL BE ADDED, OR LEFT IN PLACE, TO AVOID OVERSTRESSING THE STRUCTURE DUE TO CONSTRUCTION LOADS
- C13 NO MASONRY OR PARTITION WALLS SHALL BE CONSTRUCTED ON SUSPENDED LEVELS UNTIL 7 DAYS AFTER PROPPING HAS BEEN REMOVED AND THE SLAB PRE-LOADED WITH THE BRICKS OR MATERIALS TO BE USED IN THE WALL.

RESIDENTIAL FOOTINGS AND SLABS

- R1 THIS DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH AS2870. CONFIRMATION OF THE SITE CLASSIFICATION IN ACCORDANCE WITH AS2870 IS REQUIRED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING ONSITE AND SHALL INCLUDE CONFIRMATION OF BEARING CAPACITY.
- R2 THE OWNERS ATTENTION IS DRAWN TO THE ACCEPTABLE LEVELS OF FOUNDATION PERFORMANCE AS OUTLINED BY AS2870. ACCORDINGLY CATEGORY 1 OR 2 DAMAGE MAY BE EXPECTED UNDER SOME CONDITIONS. SHOULD A HIGHER LEVEL OF CRACK CONTROL BE REQUIRED THEN THE ENGINEER SHOULD BE NOTIFIED SO THAT THIS CAN BE INCORPORATED INTO THE DESIGN.
- R3 SITES SHALL BE PREPARED IN ACCORDANCE WITH AS2870. AS A MINIMUM THIS MUST INCLUDE: TOP SOIL CONTAINING GRASS, ROOTS OR ANY OTHER ORGANIC MATERIAL SHALL BE REMOVED FROM THE AREA ON WHICH THE SLAB IS TO REST. BLIND WITH SAND SUFFICIENT ONLY TO ENSURE NO DAMAGE TO DAMP PROOF MEMBRANE (50mm MAX). A VAPOUR BARRIER/DAMP PROOF MEMBRANE SHALL BE PROVIDED. THE MEMBRANE SHALL BE POLYTHENE SHEETING OF MINIMUM THICKNESS 0.2mm. THE SHEET SHALL BE LAID BENEATH THE SLAB SUCH THAT THE SLAB AND ALL BEAMS ARE ENTIRELY UNDERLAID. THE SHEET SHALL EXTEND UNDER EDGE BEAMS TO GROUND LEVEL. SHEET JOINTS SHALL BE FULLY TAPED LAPS WITH A MINIMUM OF 300mm OVERLAP. PENETRATIONS AT PIPES OR FITTINGS, ETC SHALL BE TAPED OR SEALED WITH A CLOSE FITTING SLEEVE OR TURN UP OF THE MEMBRANE.
- R4 WHERE ENGINEERED FILL IS REQUIRED, THE FILL SHOULD BE IN STRICT ACCORDANCE WITH GEOTECHNICAL ENGINEERS DESIGN AND ADVICE
- R5 WHERE NOTED ON DRAWINGS AS ROLLED FILL, THE FILLING SHALL BE MATERIAL COMPACTED IN LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR OR SIMILAR EQUIPMENT. THE DEPTH OF THE ROLLED FILL SHALL NOT EXCEED: 0.6M FOR SAND FILL COMPACTED IN LAYERS NOT EXCEEDING 300mm & 0.3M FOR NON-SAND FILL COMPACTED IN LAYERS NOT MORE THAN 150mm.
- R6 WHERE NOTED ON DRAWINGS AS "FILL AS FORMWORK", FILLING SHALL BE COMPACTED SUFFICIENTLY TO PROVIDE A STABLE PLATFORM DURING CONSTRUCTION. THIS WOULD NORMALLY BE PROVIDED BY COMPACTION TO AT LEAST 85% MAXIMUM STANDARD DRY DENSITY. CONTRACTOR TO ENSURE ALL ADJACENT WALLS REMAIN STABLE DURING COMPACTION.
- R7 WHERE HOT WATER PIPES ARE TO BE EMBEDDED IN A SLAB, THE SLAB THICKNESS SHALL BE INCREASED BY 25mm AND THE MESH SIZE INCREASED ONE LEVEL (E.G FROM SL82 TO SL92).
- R8 ALLOTMENTS CONTAINING REACTIVE SITES CLASSIFIED AS M, H1, H2 OR E SHALL BE PROVIDED WITH AN ADEQUATE SYSTEM OF DRAINAGE IN ACCORDANCE WITH AS2870 TO ENSURE BEST POSSIBLE FOUNDATION PERFORMANCE. AT A MINIMUM THE FOLLOWING SHOULD BE MAINTAINED: THE SITE SHOULD BE GRADED OR DRAINED SO THAT WATER CANNOT POND AGAINST OR NEAR THE BUILDING. SUBFLOOR AREAS SHOULD BE GRADED TO PREVENT WATER PONDING.

STRUCTURAL STEEL:

- S1 TWO COPIES OF SHOP DETAIL DRAWINGS SHALL BE SUBMITTED TO ENGINEERS AND APPROVAL OF SAME OBTAINED BEFORE COMMENCING FABRICATION, APPROVAL WILL NOT COVER DIMENSIONS OF LAYOUT.
- S2 STEEL SHALL BE GRADE 350 FOR HOLLOW SECTIONS AND GRADE 300 FOR ALL ROLLED SECTIONS U.N.O.
- S3 STEEL FABRICATOR SHALL PROVIDE ALL CERTIFICATION FOR QUALITY AND GRADE OF STEEL AND STRUCTURAL BOLTS, AND GREENWOOD ENGINEERS WILL REVIEW CERTIFICATION AND CONFIRM THAT IT COMPLIES WITH RELEVANT STANDARDS.
- S4 BOLTS ARE DESIGNATED ON THE DRAWINGS BY THE NUMBER, DIAMETER, GRADE AND TIGHTENING PROCEDURE IN ACCORDANCE WITH A.I.S.C. BOLTING PROCEDURES (STANDARDISED STRUCTURAL CONNECTIONS) AND A.S.4100.
- S5 UNLESS OTHERWISE NOTED, WELDS SHALL BE 6mm CATEGORY SP CONTINUOUS FILLET LAID DOWN WITH APPROVED COVERED ELECTRODE. BOLTS SHALL BE M20 8.8/S, min. 2 BOLTS PER CONNECTION. CLEATS AND GUSSETS SHALL BE 10mm THICK.
- S6 ALL CLEATS AND DRILLINGS FOR FIXING OF TIMBER MEMBERS etc. SHALL BE PROVIDED BY FABRICATOR.
- S7 CAMBER TO STRUCTURAL STEEL ROOF BEAMS, TRUSSES, PORTALS etc. SHALL BE 5mm FOR EVERY 2000 OF SPAN UNLESS OTHERWISE NOTED.
- S8 ALL STRUCTURAL STEELWORK BELOW GROUND SHALL BE ENCASED IN CONCRETE MINIMUM 75mm ALL AROUND.
- S9 TRANSLUCENT SHEETING SHALL BE OF GAUGE COMPATIBLE WITH PURLIN SPACING IF STANDARD GAUGE IS USED THEN ADDITIONAL C10012 PURLIN TRIMMERS SHALL BE PROVIDED TO GIVE SUPPORT TO SHEETING AT 1200 CENTRES MAX. SAFETY MESH UNDER TRANSLUCENT SHEETING SHALL CONFORM WITH WORKCOVER REQUIREMENTS.
- S10 ALL STRUCTURAL STEELWORK SHALL BE GRIT BLASTED TO CLASS 2.5 AND PAINTED WITH BLUE ZINC PHOSPHATE 75um DRY FILM THICKNESS UNLESS NOTED OTHERWISE IN ARCHITECTS SPECIFICATION.
- S11 ALL STRUCTURAL STEEL MEMBERS SPECIFIED ON THE DRAWINGS OR OTHER RELATED CONTRACTS AS BEING GALVANISED SHALL CONFORM TO THE REQUIREMENTS OF A.S.4680.
- S12 THE MINIMUM APPLICATION RATE FOR GALVANISING SHALL BE 550g/sq.m.
- S13 ALL STRUCTURAL STEELWORK, MATERIALS, FABRICATION AND ERECTION SHALL COMPLY WITH A.S. 4100.
- WELD TESTING
- S14 THE EXTENT OF NON-DESTRUCTIVE WELD EXAMINATION SHALL BE AS NOTED BELOW RADIOGRAPHIC OR ULTRASONIC EXAMINATION SHALL BE TO AS1554.1, AS2177.1 AND AS2207
- S15 FLASH WELDING AND TESTING OF ALL STUDS SHALL COMPLY WITH AS1554.2
- S16 SUSPENDED CEILINGS AND BULKHEADS, WHERE SUPPORTED BY PURLINS, SHALL BE SUPPORTED BY WEB CONNECTION ONLY AND NOT HOOKED FROM BOTTOM LIP. THE CONTRACTOR SHALL PROVIDE THE BUILDER WITH CERTIFICATION OF STRUCTURAL ADEQUACY STATING COMPLIANCE WITH THE ABOVE.
- S17 ALL EXTERNAL STEELWORK SHALL BE HOT DIPPED GALVANISED

BRICKWORK:

- B1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH A.S. 3700 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS
- B2 BRICK COMPRESSIVE STRENGTH f'uc SHALL BE 20MPa min. U.N.O.
- B3 BRICK MORTAR SHALL BE 1 : 1 : 6 PROPORTIONS BY VOLUME OF CEMENT LIME AND SAND.
- B4 PROVIDE MOVEMENT JOINTS EVERY 8m U.N.O. PROVIDE MOVEMENT JOINTS EVERY 4m IN PARAPET WALLS
- B5 NO BRICKWORK WHICH IS SUPPORTED BY THE SLAB SHALL BE ERECTED UNTIL THE FORMWORK HAS BEEN REMOVED.
- B6 PROVIDE SMOOTH TROWELED MORTAR BED AND TWO LAYERS OF 'ALCOR' ON TOP OF ALL LOAD BEARING WALLS WHERE SLIP JOINTS ARE NOMINATED.

ENGINEERING INSPECTIONS

48HRs NOTICE MINIMUM IS REQUIRED BEFORE ANY SITE INSPECTION. ANY AREAS NOT INSPECTED BY GREENWOOD CONSULTING ENGINEERS WILL NOT BE CERTIFIED. (PHOTO REVIEW OF ELEMENTS ARE NOT PERMISSIBLE)

- E1 BEARING STRATA OF FOUNDATIONS FOR ALL FOOTINGS PRIOR TO CONCRETE POUR TO BE INSPECTED BY GREENWOOD CONSULTING ENGINEERS AND IF SO DEEMED BY A QUALIFIED GEOTECHNICAL ENGINEER.
- E2 REINFORCEMENT IN ALL CONCRETE ELEMENTS PRIOR TO CONCRETE POUR.
- E3 TIMBER AND STEEL FRAMING PRIOR TO CLADDING AND LINING.

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NOTE

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3. ALL DIMENSIONS IN mm.

DO NOT SCALE THE DRAWING.
USE STATED DIMENSION ONLY

C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule



2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

Project

PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title

GENERAL NOTES - SHEET 2

Job No. 2024122	Sheet S0.2	
Date JUN 2025		
Scale 1:100	Issue c2	A3

REINFORCEMENT

R1 COVER TO REINFORCEMENT (IN MM) AND CONCRETE GRADES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE: THE COVER SHALL NOT BE LESS THAN THE BAR DIAMETER AND:

ELEMENT	FORMED AND INTERNAL	FORMED AND EXPOSED TO WEATHER	NOT FORMED, CAST AGAINST GROUND **
CLASSIFICATION			
FOOTINGS, PILE CAPS	-	65	75
COLUMNS, PEDESTALS	40	55	75
SLABS, BAND BEAMS	35	45	60
BEAMS WALLS:	30	45	60
HORIZONTAL BARS	35	45	60
VERTICAL BARS	45	55	60
** IF THE ELEMENT IS CAST ON DAMPPROOF MEMBRANE, DECREASE THE COVER BY 10mm.			

NOTES:

- (i)

COVER IS THE CLEAR DISTANCE BETWEEN ANY REINFORCING (INCLUDING FITMENTS) AND THE FACE OF THE STRUCTURAL ELEMENTS.
- (ii)

FOR ALL EXTERNAL SURFACES, PROVIDE FULLY PLASTIC BAG CHAIRS. TIE WIRES SHALL NOT BE NAILED TO THE FORMS, REINFORCING BARS SHALL NOT BE USED TO KEEP FORMS APART AND A THROUGH TIE SYSTEM SHALL BE USED TO TIE FORMS.
- (iii)

PROVIDE AN APPROVED VAPOR BARRIER FOR SLABS, BEAMS AND THICKENING CAST AGAINST THE GROUND.
- (iv)

THE COVERS SHALL BE MAINTAINED USING APPROVED BAR CHAIRS. BAR CHAIRS SUPPORTING MESH SHALL BE AT 800 X 800MM MAXIMUM CENTRES. BAR CHAIRS SUPPORTING BARS SHALL BE AT 60 BAR DIAMETER OR 1500 MAXIMUM CENTRES WHICHEVER IS THE LESSER. BAR CHAIRS SHALL BE PROVIDED ALONG THE EDGES OF ALL CONSTRUCTION JOINTS. STOP ENDS SHALL NOT BE USED TO MAINTAIN THE COVERS.
- (v)

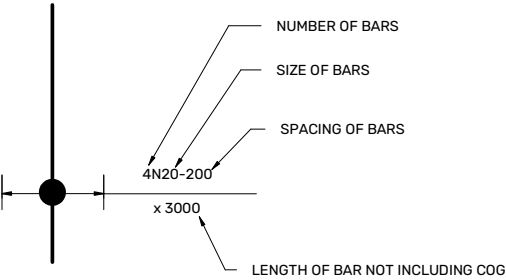
EXTERNAL ELEMENTS ARE THOSE EXPOSED TO WEATHER, RAIN AND WATER PENETRATION AND ARE CLASSIFIED B2 UNLESS NOTED OTHERWISE.
- R2

ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT MORE THAN 1 METRE CENTRE BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS. IN EXPOSURE CONDITIONS GREATER THAN B1 USE ONLY PLASTIC CHAIRS.
- R3

THE ENGINEER SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION.
- R4

REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND IS NOT NECESSARILY IN TRUE PROJECTION. SPLICES TO REINFORCEMENT SHALL BE MADE ONLY AT THE LOCATIONS SHOWN, OR OTHERWISE APPROVED BY THE PROJECT ENGINEER.
- R5

REINFORCEMENT SYMBOLS:
S - DENOTES GRADE 230 S HOT ROLLED DEFORMED BARS TO AS 1302
Y - DENOTES GRADE 410 Y BARS TO AS 1302 GRADE Y
N - DENOTES GRADE 500 N BARS TO AS 1302
R - DENOTES GRADE 230 R HOT ROLLED PLAIN BARS TO AS 1302
F - DENOTES GRADE 450 F HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304
W - DENOTES GRADE 450 W HARD-DRAWN PLAIN WIRE TO AS 1303



THE FIGURES FOLLOWING THE SYMBOL "F" IS THE REFERENCE NO. FOR FABRIC TO AS 1304. REINFORCEMENT NOTATION.
T - DENOTES TOP REINFORCEMENT.
B - DENOTES BOTTOM REINFORCEMENT.
NF - DENOTES NEAR FACE.
FF - DENOTES FAR FACE.
EF - DENOTES EACH FACE.

- R6

SLAB REINFORCEMENT SHALL EXTEND MINIMUM 65MM ONTO MASONRY SUPPORT WALLS AND MINIMUM 50 PERCENT OF BOTTOM REINFORCEMENT TO BE COGGED, TO ACHIEVE ANCHORAGE AT SIMPLY SUPPORTED ENDS. TERMINATE ALL TOP BARS WITH STANDARD COGS AT FORM EDGES.
- R7

SITE BENDING OF DEFORMED REINFORCING BARS SHALL BE DONE WITHOUT HEATING USING MECHANICAL BENDING TOOLS.
- R8

WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE PROJECT ENGINEER.
- R9

JOGGLES TO BARS SHALL BE 1 BAR DIAMETER OVER A LENGTH OF 12 BAR DIAMETERS.
- R10

DISTRIBUTION REINFORCEMENT AND TYING STEEL SHALL BE N12-400 MINIMUM FOR CONVENTIONAL SLABS, OR N12-1000 MINIMUM FOR POST TENSIONED SLABS WHERE NECESSARY UNLESS NOTED OTHERWISE ON PLAN. LAP WITH MAIN BARS 400mm U.N.O.
- R11

REINFORCEMENT CROSSING PENETRATIONS SHALL BE DISPLACED AS NECESSARY, NO REINFORCEMENT SHALL BE CUT WITHOUT THE PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER.
- R12

CURING OF THE CONCRETE ELEMENTS SHALL BE STARTED AS SOON AS THE CONCRETE HAS HARDENED AND SHALL COMPLY WITH THE SPECIFICATIONS.
- R13

PROVIDE A 25MM X 25MM CHAMFER TO ALL CORBELS, UNLESS OTHERWISE INDICATED ON THE DRAWING. ENSURE THAT POLYSTYRENE IS PLACED AROUND THE BEARING, SO THAT THE CONCRETE SURFACES ARE NOT IN CONTACT. SUBMIT CONFIRMATION OF THE SPECIFICATIONS OF ALL BEARING MATERIALS TO THE ENGINEER.

- R14

ENSURE ALL MOVEMENT JOINTS ARE INSTALLED WITH THE SPECIFIED ARCHITECTURAL FINISH, INCLUDING SEALANT, FILLERS, EXPANSION MATERIALS AND REBATES AS REQUIRED.
- R15

CONCRETE SLABS THAT FORM ROOFS TO LIVING AREAS AND BASEMENTS ARE TO HAVE A MAXIMUM CONCRETE SHRINKAGE STRAIN OF 650 X 10⁻⁶ AND WATERPROOFING ADDITIVE TO ARCHITECTS DETAILS.
- R16

UNLESS NOTED OTHERWISE, LAP BARS AS TABULATED BELOW:

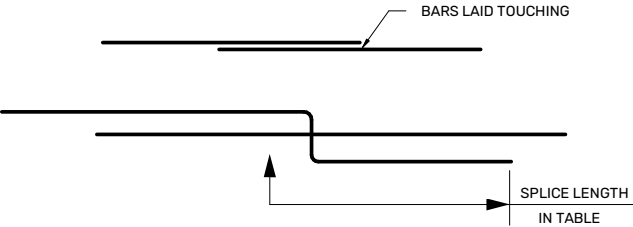
TYPICAL SPLICE LENGTH SCHEDULE			
BAR SIZE	MINIMUM TENSION SPLICE LENGTH (mm)		MINIMUM COMPRESSION SPLICE LENGTH (mm)
	<300mm CONCRETE CAST BELOW IT	>300mm CONCRETE CAST BELOW IT	
N10	500	650	400
N12	500	650	500
N16	700	950	650
N20	950	1250	800
N24	1250	1600	1000
N28	1500	1950	1150
N32	1800	2300	1300
N36	2100	2700	1450

TENSION LAPS MUST BE USED EVERYWHERE UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN.

SPLICE LENGTHS PROVIDED BASE ON F'C = 32MPa.

FOR BUNDLED BARS BASE LENGTH ON LARGEST BAR.
3 BARS BUNDLED, INCREASE BY 20%
4 BARS BUNDLED, INCREASE BY 33%

LAPPED SPLICES FOR BARS IN TENSION SLABS & WALLS SHALL BE AS FOLLOWS:



- R17

CONCRETE SLAB THAT FORMS ROOFS TO LIVING AREAS & BASEMENTS ARE TO HAVE A MAXIMUM SHRINKAGE STRAIN OF 650x10⁻⁶ AND WATERPROOFED TO ARCH DETAILS.

MASONRY

- M1

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700.
- M2

ALL BLOCKWORK WALLS SHALL BE CONSTRUCTED IN GRADE 16 BLOCKS (15 MPA) ACCORDING TO AS/NZ 4455. ALL BRICKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 30 MPA ACCORDING TO AS/NZ 4455. THE MAXIMUM UNRESTRAINED FIVE YEAR EXPANSION OF BRICKS SHALL BE IN ACCORDANCE WITH NATA TEST B01.
- M3

ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ANY CONTROL JOINTS IN THE CONCRETE.
- M4

NON LOADBEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY 12MM THICK CLOSE CELL POLYETHYLENE STRIPS.
- M5

NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- M6

MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE SUPERINTENDENT.
- M7

MORTAR SHALL BE FULL BED AND UNLESS NOTED OTHERWISE, THE NOMINAL PROPORTIONS BY VOLUME SHALL BE AS FOLLOWS:

EXPOSURE CLASSIFICATION	PORTLAND CEMENT (GP)	BLENDED CEMENT (GB)	BUILDING LIME	SAND
M3	1	0	1	5
	0	1	1	4
	1	0	0.5	4.5
M4	0	1	0.25	2.25

M3 - DENOTES AREAS WITH MODERATE EXPOSURE GREATER THAN 1KM FROM SURF COASTAL AREAS
M4 - DENOTES AREAS WITH EXTREME EXPOSURE WITH 1KM FROM A SURF COAST OR AN INDUSTRY WHERE CHEMICAL POLLUTANTS ARE PRODUCED.
REFER TO AS3700 FOR FURTHER DETAIL

- M8

GROUT USED TO FILL CAVITIES AND CORES IN REINFORCED MASONRY SHALL HAVE A MIN. 28 DAY COMPRESSIVE STRENGTH OF 32 MPA AND A SLUMP OF 225MM (+/-25MM) MAXIMUM AGGREGATE SIZE OF 10MM ROUNDED GRAVEL. NOMINAL PROPORTIONS SHALL BE 1: 0.3 : 3 : 2 OF CEMENT, LIME, SAND, AGGREGATE AND WITH A MINIMUM CEMENT CONTENT OF 300 KG/CM. PROVIDE CLEAN OUT HOLES AT BASE OF PILASTERS AND EVERY CORE OF REINFORCED WALLS.
- M9

HORIZONTAL JOINT REINFORCEMENT SHALL BE PROVIDED AT MAX. 600 VERTICAL SPACING FOR ALL CONCRETE BLOCKWORK, CONCRETE BRICKWORK, AND CALCIUM SILICATE BRICKWORK.
- M10

FULLY BED FACE SHELLS AND CROSS WEBS IN HOLLOW BLOCK WALLS.

- M11

HOLLOW BLOCKWORK OPENINGS GREATER THAN 400MM VERTICALLY OR HORIZONTALLY SHALL BE TRIMMED AT THE SIDES AND BOTTOM BY FILLING ONE CORE AND REINFORCE WITH 1N12 EXTENDING 600MM PAST OPENING. THE TOP OF THE OPENING SHALL HAVE A REINFORCED LINTEL BEAM, ARCH BAR OR STEEL ANGLE SUPPORT AS REQUIRED.
- M12

ALL TIES AND REINFORCEMENT SHALL HAVE A MINIMUM CLEAR COVER OF 50MM TO EXTERNAL FACE OF MASONRY.
- M13

ALL WALLS SHALL BE TIED OR BONDED AT THEIR INTERSECTIONS.
- M14

NO CAVITY OR CORE SHALL BE FILLED TO A HEIGHT GREATER THAN 1200MM WITHOUT SUITABLE SHORING.
- M15

ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANISED STEEL SLIP JOINT BETWEEN CONCRETE SOFFIT AND THE TOP OF THE MASONRY ELEMENT UNLESS NOTED OTHERWISE.
- M16

PROVIDE VERTICAL CONTROL JOINTS AT 10M . MAX. CENTRES, AND 5M MAX. FROM CORNERS IN ALL MASONRY WALLS, UNLESS NOTED OTHERWISE.
- M17

BACKFILL TO RETAINING WALLS TO BE FREE DRAINING GRANULAR MATERIAL UNLESS NOTED OTHERWISE. PROVIDE SUBSOIL DRAIN TO WEEP HOLES.
- M18

DO NOT CONSTRUCT MASONRY WALLS ON SUSPENDED CONCRETE SLABS UNTIL SLAB HAS BEEN STRIPPED AND DE-PROPPED.
- M19

ALL CAVITY CONSTRUCTION TO HAVE 316 GRADE STAINLESS STEEL WALL TIES INSTALLED AS PER CLAUSE 3.4 IN AS 3700. REFER PROJECT SPECIFICATION AND LOCAL AUTHORITIES REQUIREMENTS. REFER NOTE 62.
- M20

GENERIC JOINT DETAILS ARE INDICATED ON THESE DRAWINGS FOR INFORMATION, BUT IT IS THE ARCHITECT'S RESPONSIBILITY TO IDENTIFY JOINT LOCATIONS AND TYPES WHERE APPROPRIATE ON ARCHITECTURAL DRAWINGS, AND TO PROVIDE DETAILS OF NON-STANDARD ELEMENTS TO ACCOMMODATE ANTICIPATED MOVEMENTS.
- M21

OBSERVATION OF CONSTRUCTION OF NON-LOAD BEARING MASONRY WALLS/PARTITIONS AND OTHER NON-LOAD BEARING ELEMENTS IS NOT INCLUDED IN THE STRUCTURAL ENGINEER'S SCOPE OF WORKS.
- M22

STACKING OF BLOCKWORK:
GENERALLY, ON SUSPENDED SLABS AND SLABS ON GROUND, BLOCKS SHALL BE STACKED ONE PALLET HIGH (MAXIMUM PALLET MASS 1300KG) WITH 1200MM CLEARANCE BETWEEN ADJACENT PALLETS ON ALL SIDES. THE WEIGHT OF STACKED BLOCKS SHALL NOT EXCEED THE DESIGN LIVE LOAD FOR THE FLOOR. REFER EXCEED THE DESIGN LIVE LOAD FOR THE FLOOR. REFER PLANS FOR DESIGN LOADS.

STRUCTURAL STEEL

- SS1

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- SS2

UNLESS NOTED OTHERWISE, ALL STEEL SHALL BE IN ACCORDANCE WITH AS 3678 GRADE 250 OR AS 3679 GRADE 300, OR AS 1163 GRADE 350 AS APPROPRIATE.
- SS3

THREE (3) COPIES OR 1 TRANSPARENCY OF WORKSHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF FABRICATION. FABRICATION SHALL NOT COMMENCE WITHOUT ENGINEERS APPROVAL OF WORKSHOP DRAWINGS. ALL DIMENSIONS AND SETOUTS TO BE OBTAINED FROM THE ARCHITECTS DRAWINGS WHERE NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- SS4

THE BOLTING PROCEDURE IS DESIGNATED AS FOLLOWS: 4.6/S COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111 -SNUG TIGHTENED 8.8/S HIGH STRENGTH BOLTS OF GRADE 8.8 TO AS 1252 - SNUG TIGHTENED 8.8/TB HIGH STRENGTH BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A BEARING TYPE JOINT 8.8/TF HIGH STRENGTH BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A FRICTION TYPE JOINT WITH FACING SURFACES LEFT UNCOATED.
- SS5

UNLESS NOTED OTHERWISE ALL FILLET WELDS SHALL BE 6MM CONTINUOUS CATEGORY SP USING E41XX ELECTRODES. ALL BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS SP TO AS 1554.1. ALL GUSSET PLATES SHALL BE 12 mm THICK. ALL BOLTS SHALL BE M20 8.8/S IN 22 mm DIAMETER HOLES, MINIMUM 2 BOLTS TO EACH CONNECTION. ALL WASHERS AND BOLTS SHALL BE GALVANISED.
- SS6

FABRICATION SHALL COMPLY WITH AS 4100 - SECTION 14, ERECTION SHALL COMPLY WITH AS 4100 - SECTION 15, /TB AND /TF BOLTS TO BE INSTALLED IN ACCORDANCE WITH AS 4100 - SECTION 15, USING EITHER THE PART-TURN METHOD OR THE DIRECT-TENSION INDICATOR METHOD.
- SS7

WHERE CONNECTION FORCES (IN KILONEWTONS) ARE SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE PROVIDED TO TRANSMIT THESE FORCES. CONNECTIONS SHALL PROVIDE FOR A MINIMUM FORCE OF 25 KN.
- SS8

STEELWORK INTENDING TO BE CONCRETE ENCASED SHALL BE UNPAINTED. ENCASING CONCRETE TO BE GRADE N25 PROVIDING COVER ADEQUATE TO SUIT FIRE RATING OR EXPOSURE CONDITIONS. CONCRETE ENCASEMENT SHALL BE CENTRALLY REINFORCED WITH 5MM WIRE TO AS 1303 OR 6MM STRUCTURAL GRADE BARS TO AS 1302 AT 150 MM PITCH.
- SS9

ALL STEELWORK BELOW GROUND SHALL BE ENCASED BY 75MM OF CONCRETE, STEEL WRAPPED WITH FGW41 PLACED 25 MM CLEAR OF STEEL. PROVIDE 50 MM MINIMUM ENCASING.
- SS10

STEELWORK NOT TO BE CONCRETE ENCASED SHALL BE GIVEN ONE SHOP COAT OF AN APPROVED PRIMER UNLESS NOTED OTHERWISE. FACES OF FRICTION GRIP CONNECTIONS SHALL NOT BE PAINTED. REFER TO ARCHITECTURAL SPECIFICATIONS FOR COATINGS SCHEDULE.
- SS11

THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER AND OTHER ELEMENTS TO STEEL WHETHER OR NOT DETAILED IN THE DRAWINGS.
- SS12

UNLESS NOTED OTHERWISE CAMBER SHALL BE PROVIDED TO ALL ROOF BEAMS, TRUSSES, PORTALS ETC. AT 5 MM PER 2000MM OF SPAN. NO MEMBER SHALL BE ERECTED WITH NEGATIVE CAMBER.
- SS13

PROVIDE SEAL PLATES TO THE PLATES TO THE ENDS OF ALL HOLLOW SECTIONS, WITH 'BREATHER' HOLES IF MEMBERS TO BE HOT DIP GALVANISED.
- SS14

ALL STEELWORK SHALL BE SECURELY TEMPORARILY BRACED BY THE ERECTOR AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION. DESIGN OF ALL TEMPORARY BRACING IS THE RESPONSIBILITY OF THE ERECTOR. SPECIFIC DESIGN DETAILS ARE TO BE FORWARDED ONTO THE PROJECT ENGINEER UPON REQUEST. ALL BOLTS SHALL BE OF SUCH LENGTH THAT AT LEAST ONE FULL THREAD IS EXPOSED BEYOND THE NUT AFTER THE NUT HAS BEEN TIGHTENED.
- SS15

ALL BOLTS SHALL BE OF SUCH LENGTH THAT AT LEAST ONE FULL THREAD IS EXPOSED BEYOND THE NUT, AFTER THE NUT HAS BEEN TIGHTENED.
- SS16

MINIMUM ONE WASHER SHALL BE USED UNDER THE NUT IN ALL SITUATIONS. IF TIGHTENING IS CARRIED OUT AT TH HEAD, AND ADDITIONAL WASHER IS TO BE USED UNDER THE HEAD. FOR SLOTTED HOLES USE HARDENED WASHER UNDER THE NUT AND BOLT HEAD.
- SS17

UNLESS NOTED OTHERWISE ALL MATERIAL TO BE: GRADE 250-HOT ROLLED PLATES, FLATS, ANGLES (100 X 100 OR 125 X 75 AND SMALLER) GRADE 300-ALL WB'S AND WC'S GRADE 300 PLUS-ALL UB'S, UC'S, PFC'S AND LARGER ANGLES. GRADE 350-ALL RHS'S, AND CHS'S.
- SS18

ALL GALVANISING OF STRUCTURAL STEELWORK TO AS 1650. THE CONTINUOUS AVERAGE ZINC COATING MASS TO BE 600 G/M² (550 G/M² MINIMUM)
- SS19

THE FABRICATION AND ERECTION OF THE STRUCTURAL STEEL WORK SHALL BE SUPERVISED BY A QUALIFIED ENGINEER, EXPERIENCED IN SUCH SUPERVISION, TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN ARE MET.
- SS20

SURFACE FINISHES FOR ALL STRUCTURAL STEELWORK TO BE IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATION.

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule



2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

Project

PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title

GENERAL NOTES - SHEET 3

Job No. 2024122	Sheet S0.3	
Date JUN 2025		
Scale 1:100	Issue c2	A3

FORMWORK

- FW1

THE DESIGN CERTIFICATION, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK AND FALSE WORK SHALL BE THE RESPONSIBILITY OF THE BUILDER/SUBCONTRACTOR, UNLESS SPECIFIC DESIGN REQUIREMENTS ARE SHOWN ON THE ENGINEERING DRAWING.
- FW2

FORMWORK DESIGN, CONSTRUCTION TOLERANCES AND STRIPPING TIMES SHALL COMPLY WITH AS 3610 AND AS 3600 UNLESS OTHERWISE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.
- FW3

DURING CONSTRUCTION, SUPPORT PROPPING WILL BE REQUIRED WHERE LOADS FROM STACKED MATERIALS, FORMWORK AND OTHER SUPPORTED SLABS INDUCE LOADS IN A SLAB OR BEAM WHICH EXCEED THE DESIGN LOAD FOR STRENGTH OR SERVICEABILITY AT THAT AGE. ONCE THE NOMINATED 28 DAY STRENGTH HAS BEEN ATTAINED, THESE LOADS SHALL NOT EXCEED THE DESIGN SUPERIMPOSED LOADS SET OUT IN THE GENERAL NOTES.
- FW4

STRIPPING OF FORMWORK AND BACKPROPPING DETAILS SHALL BE IN ACCORDANCE WITH AS 3600 CLAUSE 17.6 , AND SHALL BE CARRIED OUT BY A SUITABLY QUALIFIED AND EXPERIENCED PERSON. REFER TO THE PROJECT ENGINEER FOR ANY SPECIFIC REQUIREMENTS WHICH MAY BE SPECIFIED. REFER TO NOTE G6.
- FW5

THE FORMWORK SHALL NOT BE DESIGNED TO RELY ON RESTRAINT OR SUPPORT FROM THE PERMANENT STRUCTURE WITHOUT PRIOR APPROVAL FROM THE PROJECT STRUCTURAL ENGINEER.
- FW6

THE FORMWORK SHALL BE DESIGNED TO ACCOMMODATE MOVEMENTS AND LOAD REDISTRIBUTION DUE TO POST TENSIONING.
- FW7

CONCRETE FORMED SURFACES SHALL HAVE FINISHES IN ACCORDANCE WITH AS 3610, AS SPECIFIED BY THE PROJECT ARCHITECT.
- FW8

DO NOT PLACE PERMANENT LOADS, INCLUDING MASONRY WALLS AND THE LIKE, ON THE CONCRETE STRUCTURE UNTIL AFTER THE FORMWORK AND BACKPROPPING HAS BEEN REMOVED. REFER TO NOTE RC15.
- FW9

DESIGN INFORMATION CONCERNING THE FOUNDATION FORMWORK SHALL BE DETERMINED FROM THE CONDITIONS EXISTING ONSITE AT THE TIME OF CONSTRUCTION. ALSO REFER GEOTECHNICAL REPORT WHERE AVAILABLE FOR FURTHER DETAILS.
- FW10

REFER TO ARCHITECTS DRAWINGS FOR TEST PANEL DETAILS. REINFORCEMENT FOR TEST PANELS SHALL BE SIMILAR TO THAT IN THE PERMANENT STRUCTURE BEING REPRESENTED.
- FW11

FORMWORK AND SCAFFOLDING SHALL BE EXTENDED BEYOND TENDON ANCHORAGE POINT TO PROVIDE SPACE FOR STRESSING OPERATIONS WHERE REQUIRED. SAFETY HOARDING FOR STRESSING SHALL BE PROVIDED AS NECESSARY.
- FW12

PROVIDE INDEPENDENT THIRD PARTY CERTIFICATION OF ADEQUACY OF ALL FORMWORK PRIOR TO POURING ANY CONCRETE. CERTIFICATION SHALL BE BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER REGISTERED ON THE NATIONAL PROFESSIONAL ENGINEERS REGISTER.
- FW13

THE CONTRACTOR SHALL DEVELOP A WRITTEN CONSTRUCTION PROCEDURE FOR THE PLACING OF CONCRETE IN TALL MEMBERS. THIS MAY REQUIRE THE PROVISION OF INSPECTION AND POURING OPENINGS IN FORMWORK, OR CONSTRUCTION JOINTS AT LOCATIONS APPROVED BY THE ARCHITECT. THE CONSTRUCTION PROCEDURE SHALL BE SUBMITTED TO THE ENGINEER FOR ACCEPTANCE WITH RESPECT TO COMPLIANCE WITH THE DESIGN INTENT.FW14ALL SLABS, BEAMS, COLUMNS, WALLS ETC HAVE BEEN DESIGNED FOR THEIR FINAL DESIGN LOADS WHEN ACTING AS A PART OF A TOTAL STRUCTURE. PROPPING AND TEMPORARY SUPPORTS THAT MAY BE REQUIRED TO MAINTAIN THE TEMPORARY STRUCTURAL ADEQUACY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SLAB ON GRADE

SOG1

ALL RE-ENTRANT CORNERS AT PENETRATIONS FOR SUMPS, PITS, COLUMN BLOCKOUTS AND THE LIKE, TO HAVE TRIMMER BARS PLACE AT 45 DEGREES TO CORNER OR IN EACH DIRECTION AT CORNERS UNLESS NOTED IN A DIFFERENT ARRANGEMENT ON PLAN.

TRIMMER BARS IN SLAB:

REFER NOTES ON SLAB ON GROUND DRAWING. PLACED AT 45° TO COLUMN FACE

REFER NOTES ON SLAB ON GROUND DRAWING. PLACED ON CENTRE OF INCOMING JOINT

TRIMMER BARS TO BE TIED TO U/S OF SLAB MESH.

PROVIDE SUB-FLOOR DRAINAGE TO HYDRAULIC ENGINEERS DETAILS.

PRIOR TO PLACEMENT OF SLAB, SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E1.1' OF AS 1289 FOR THE TOP 300 mm. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH SITE WON MATERIAL TO THE ENGINEERS APPROVAL.

STRUCTURAL TIMBER

- T1

ALL TIMBER DESIGN, CONSTRUCTION AND MATERIAL TO BE TO AS 1720.1 AND AS 1720.2 UNLESS NOTED OTHERWISE.
- T2

AS 1684 SHALL BE APPLIED TO DOMESTIC CONSTRUCTION.
- T3

ALL TIMBER USED SHALL HAVE BEEN STRESS GRADED BY VISUAL OR MECHANICAL MEANS IN ACCORDANCE WITH THE APPROPRIATE AUSTRALIAN STANDARDS.
- T4

SOFTWOOD TO BE MINIMUM GRADE F7, HARDWOOD TO BE MINIMUM GRADE F14 UNLESS NOTED OTHERWISE.
- T5

EXTERNAL TIMBER TO BE EITHER HARDWOOD DURABILITY AS PER AS1702.2 OR IMPREGNATED PINE GRADE F7. PRESSURE TREATED TO AS 1604 AND RE-DRIED PRIOR TO USE. SUPPLEMENTARY TREATMENT SHALL BE APPLIED TO ALL CUT SURFACES. SUPPLY SUPPORTING DOCUMENTATION FOR PRESERVATIVE TREATMENT. AS1702.2
- T6

TIMBER TRUSSES TO BE PRECAMBERED AN AMOUNT EQUAL TO DEAD LOAD DEFLECTION. THREE (3) COPIES OF SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL CLEARLY SHOWING THE DESIGN LOADS ON THE ROOF AND CEILING AND TRUSS NODE POINT LOADS AND PRECAMBER. DRAWINGS SHALL BE SUBMITTED MINIMUM 14 DAYS PRIOR TO COMMENCEMENT OF FABRICATION. FABRICATION SHALL NOT COMMENCE UNLESS PERMISSION TO DO SO HAS BEEN GIVEN. DESIGN OF TRUSSES SHALL ONLY BE DONE BY A QUALIFIED STRUCTURAL ENGINEER EXPERIENCED IN TIMBER DESIGN.
- T7

ALL BOLTS IN TIMBER CONSTRUCTION TO BE MINIMUM M16 UNLESS NOTED OTHERWISE. BOLT HOLES TO BE DRILLED EXACT SIZE. WASHERS UNDER HEADS AND NUTS TO BE AT LEAST 2.5 TIMES THE BOLT DIAMETER. EDGE DISTANCES FOR FASTENERS IN TIMBER (FROM ENDS AND SIDES) SHALL BE IN ACCORDANCE WITH AS 1720.
- T8

SHANK AND THREAD OF BOLTS SHALL BE THOROUGHLY COATED WITH A HEAVY WATERPROOF GREASE BEFORE INSERTING INTO THE TIMBER.
- T9

SPECIALISED TIMBER FASTENERS SUCH AS GANG-NAIL PLATES, TRIP-L-GRIP ETC. SHALL BE OF PROVEN TYPE AND SHALL HAVE HAD WORKING LOADS DETERMINED IN ACCORDANCE WITH THE PROCEDURE SPECIFIED IN AS 1849.
- T10

ALL TIMBER JOINTS AND NOTCHES ARE TO BE 100MM MINIMUM AWAY FROM LOOSE KNOTS, SEVERE SLOPING GRAIN, GUM VEINS OR OTHER MINOR DEFECTS.
- T11

TIMBER DIMENSIONS ON THE FINISHED WIDTH AND THICKNESS TO BE: SEASONED SOFTWOOD +5 MM, -0MM UNSEASONED SOFTWOOD >F7 +3MM, -3MM ≤ F7+2MM, -4MM SEASONED HARDWOOD +2MM, -0MM UNSEASONED HARDWOOD +3MM, -3MM (SEE ALSO CLAUSE 1.6.2 IN AS 2082)
- T12

AT THE PRACTICAL COMPLETION OF THE CONTRACT, AND AGAIN AT THE END OF THE MAINTENANCE PERIOD AND IF NECESSARY DURING THAT PERIOD, THE CONTRACTOR SHALL RE-TIGHTEN ALL BOLTS TO APPROVAL. BOLTS THAT WILL BE INACCESSIBLE AFTER COMPLETION OF THE PROJECT, SHALL BE RE-TIGHTENED, IMMEDIATELY PRIOR TO BEING BUILT IN.
- T13

SURFACE FINISHES FOR ALL STRUCTURAL TIMBER SHALL BE IN ACCORDANCE WITH THE ARCHITECTURAL SPECIFICATION.

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2. ALL WORK AND MATERIAL TO COMPLY WITH THE AUSTRALIA BUILDING CODE

3. ALL DIMENSIONS IN mm.

DO NOT SCALE THE DRAWING.

USE STATED DIMENSION ONLY

C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

GREENWOOD CONSULTING ENGINEERS

2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

Project

PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title

GENERAL NOTES - SHEET 4

Job No. 2024122	Sheet S0.4	
Date JUN 2025		
Scale 1:100	Issue c2	A3


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Drawn	A.L
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Client
BEN LIEBKE

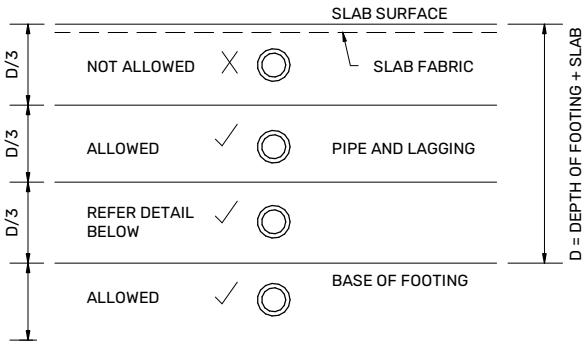
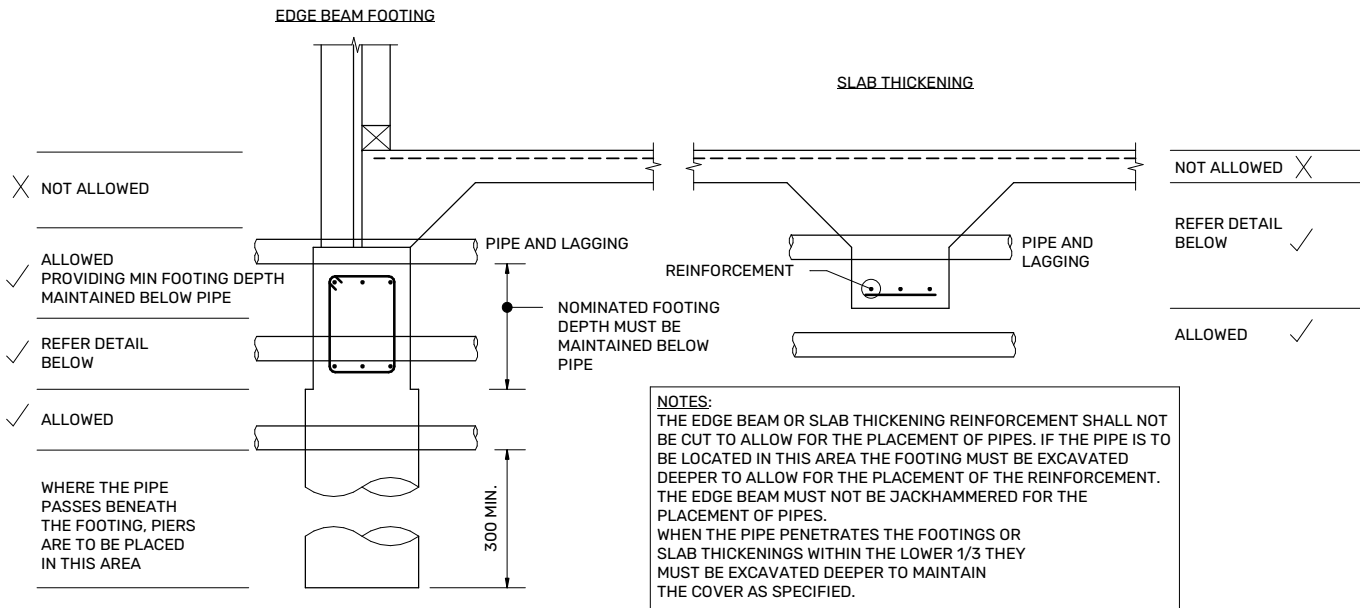
Project
PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title
GENERAL NOTES - SHEET 5

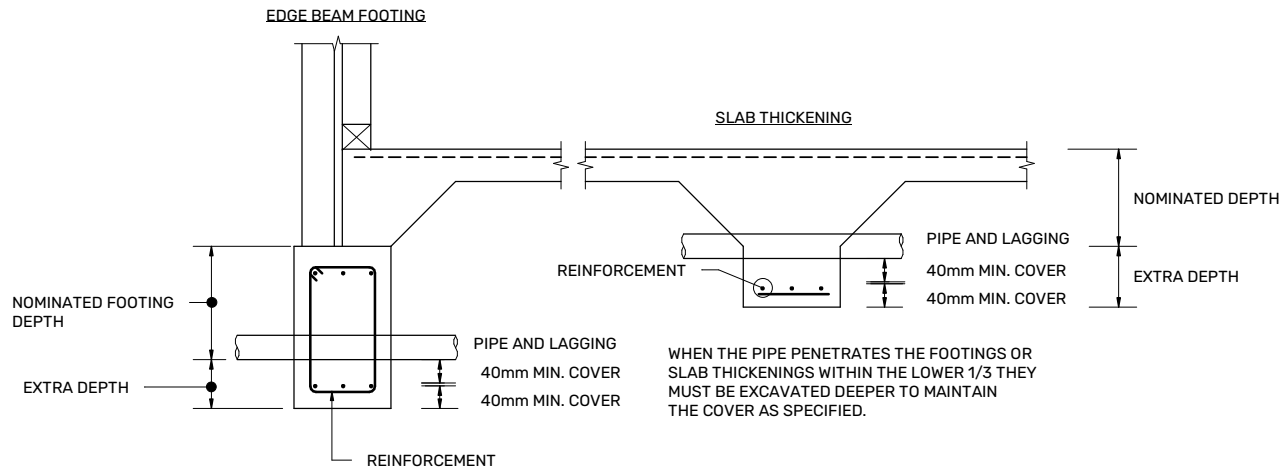
Job No. 2024122	Sheet
Date JUN 2025	S0.5
Scale 1:20	Issue c2 A3

PLUMBING GUIDELINES

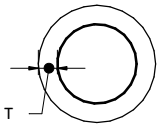
EDGE BEAM AND SLAB THICKENING PIPE PENETRATIONS



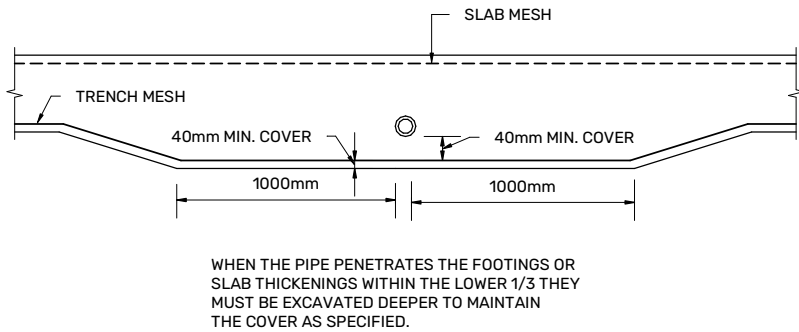
LOCAL DEEPENING OF EDGE BEAM FOOTING OR SLAB THICKENING



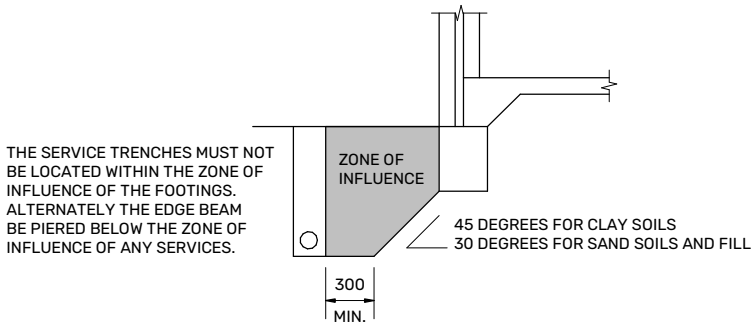
MINIMUM PIPE LAGGING

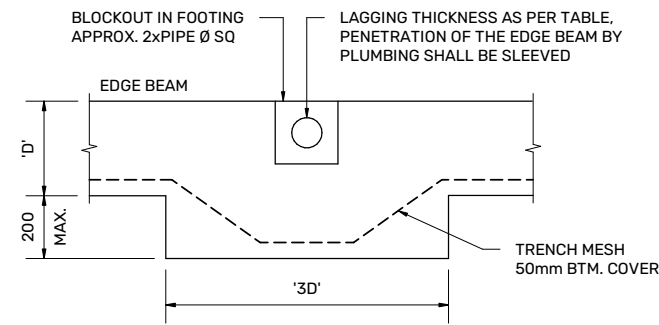


CLASS	LAGGING THICKNESS (T)
S, M	20
H1, H2, E	40



SERVICE LINE LOCATION AND PIERING





TRENCH MESH
50mm BTM. COVER

EDGE BEAM

LAGGING THICKNESS, (MIN. 40mm)
PENETRATION OF THE EDGE BEAM BY
PLUMBING SHALL BE SLEEVED

75

1000 MIN.

ALT. TO 2 LAYERS OF
MESH, BEND THE SINGLE
LAYER AND MAINTAIN
75mm SEPARATION
DISTANCES

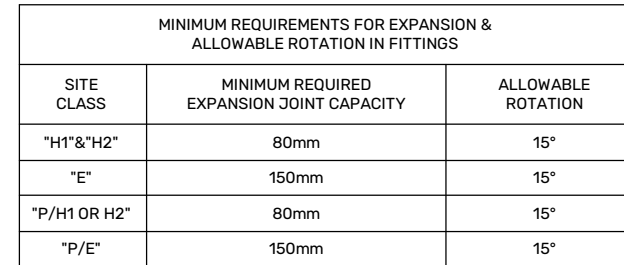
EDGE BEAM THICKENING DETAIL 2

FFL

STRAPS REQ'D IF UNCONTROLLED FILL IS IN EXCESS OF 600mm

STRAPS NOT REQ'D IN Cavity

FFL - FINISHED FLOOR LEVEL



S.D.1 CLAUSE 3.1.2.3 OF VOLUME 2 OF THE NATIONAL CONSTRUCTION CODE (NCC) REQUIRES THAT THE FINISHED HEIGHT OF ANY SLAB BE A MINIMUM OF 150mm, GENERALLY, ABOVE THE FINISHED GROUND LEVEL AFTER LANDSCAPING, AND THAT THE EXTERNAL SURFACE DRAINS AWAY WITH A MINIMUM OF 50mm FALL OVER THE FIRST METRE. IT SHOULD ALSO BE NOTED THAT CLAUSE 4.6.6.6 OF AS/NZS 3500.2-2003 REQUIRES THAT THE TOP OF THE OVERFLOW RELIEF GULLY BE A MINIMUM OF 150mm BELOW THE LOWEST GRATE IN THE SLAB AND 75mm ABOVE THE FINISHED\ GROUND LEVEL.

S.D.2 FINISHED GROUND AND FLOOR LEVELS SHALL BE AS SHOWN IN THE TYPICAL SURFACE DRAINAGE DETAILS ON THIS PAGE AND THE FOLLOWING REQUIREMENTS

S.D.2.1 DURING CONSTRUCTION, SURFACE WATER SHALL BE DIVERTED AWAY FROM FOOTINGS TO A LAWFUL POINT OF DISCHARGE

S.D.2.2 THE FINISHED SURFACE OF ANY GROUND, INCLUDING PATHWAYS AND DRIVEWAYS, SHALL BE GRADED AWAY FROM ANY FOOTING, SLAB OR BASEMENT RETAINING WALL A MINIMUM OF 50mm OVER THE FIRST METRE.

S.D.2.3 THE GROUND SHALL THEN BE GRADED AROUND THE BUILDING SUCH THAT SURFACE WATER WILL DRAIN AWAY FROM THE BUILDING TO A LAWFUL POINT OF DISCHARGE

S.D.2.4 THE GROUND SHALL ALSO BE SHAPED SUCH THAT NO PONDING OF SURFACE WATER CAN OCCUR

S.D.2.5 WHERE DRAINAGE PITS ARE INSTALLED TO DRAIN SURFACE WATER AWAY, GRATED INLET PITS SHALL BE INSTALLED WITH PIPES DRAINING TO A LAWFUL POINT OF DISCHARGE. PITS AND PIPES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS/NZS 3500.3-2003. DRAINAGE PITS MAY NEED TO BE INSTALLED TO ALLOW SURFACE WATER TO DRAIN AWAY IN AREAS WHERE THE DISTANCE FROM A FOOTING TO A BOUNDARY OR ADJACENT STRUCTURE, EG FENCE, IS LESS THAN 1.0m

S.D.2.6 THE FINISHED FLOOR LEVEL OF ANY GARAGE OR CARPORT SHALL ALSO BE SET SUCH THAT DRIVEWAY SLOPES COMPLY WITH AS/NZS 2890.1-2004. REFER TO THE TYPICAL DRIVEWAY DETAILS ON THESE PAGE.

S.D.3 RETAINING WALLS SHALL BE INSTALLED AT THE BASE OF CUT AND FILL BATTERS WHERE BATTER SLOPES EXCEED 1:3. RETAINING WALLS ARE ALSO REQUIRED WHERE CUTTING BELOW THE BASE OF AN EXISTING RETAINING WALL AND WHERE AN ADDITIONAL SURCHARGE IS PLACED ABOVE AN EXISTING RETAINING WALL.

Issue c2	A3
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REINFORCEMENT NOTES:-

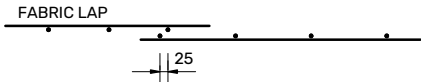
1. PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT U.N.O. NOTED ON DRAWINGS
FOOTING - 50 ALL ROUND
SLAB - 25 ALL ROUND (INTERNAL)
- 40 ALL ROUND (EXPOSED TO WEATHER OR GROUND)
BEAMS - 40 ALL ROUND
COLUMN - 40 TO TIES
WALLS - 40 GENERALLY

2. COVER TO REINFORCEMENT END TO BE U.N.O.

3. MAINTAIN COVER TO REINFORCEMENT AROUND ALL PIPES,CONDUITS,REGLETS,DRIP GROOVES,ETC.

4.ALL COGS TO BE STANDARD COGS U.N.O.

5. FABRIC END AND SIDE LAPS ARE TO BE PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURES REQUIREMENTS TO ACHIEVE A FULL TENSILE LAP. FABRIC SHALL BE LAID SO THAT THERE IS MAXIMUM OF 3 LAYERS AT ANY LOCATION.



6. LAPS IN REINFORCEMENT SHALL BE MADE ONLY WHERE SHOWN ON THE DRAWINGS U.N.O

7. LAP LENGTHS ARE TO BE AS TABLE BELOW.

TENSION LAPS

N12	500
N16	700
N20	1000
N24	1300
N28	1500

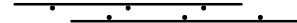
COMPRESSION LAPS

N16	640
N20	800
N24	960
N28	1120

PLEASE NOTE GREENWOOD CONSULTING ENGINEERS TO BE GIVEN 48 HOURS NOTICE (MINIMUM) PRIOR TO REQUIRED SITE INSPECTIONS.GREENWOOD CONSULTING ENGINEERS WILL NOT CERTIFY OR SIGN OFF STRUCTURAL ELEMENTS WHICH HAVE NOT BEEN INSPECTED.GREENWOOD CONSULTING ENGINEERS WILL NOT CERTIFY OR SIGN OFF BASED ON PHOTOS UNLESS EXPLICITLY APPROVED BY ELIOTGREENWOOD OF GREENWOOD CONSULTING ENGINEERS.

IN AS 3600 : 2001, CLAUSE 13.2.3 STATES THAT " THE TWO OUTERMOST TRANSVERSE WIRES OF ONE SHEET OF MESH MUST OVERLAP THE TWO OUTERMOST TRANSVERSE WIRES OF THE SHEET BEING LAPPED," AS SHOWN BELOW.

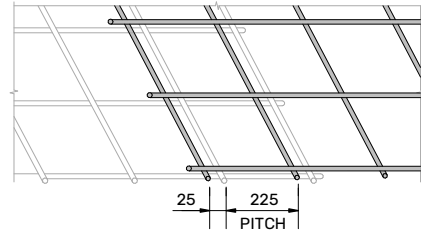
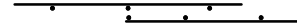
OVERLAP OF ENDS OF SHEETS (WITH OVERHANG)



OVERLAP OF SIDES OF SHEETS



OVERLAP OF SIDE AND END OF SHEETS

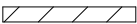


250mm CODE REQUIREMENT NZS3101

MEMBER SCHEDULE

MARK	SIZE
TP1	200x200 F27 POST

LEGEND



DENOTES BLOCK WALLS ABOVE



DENOTES STUD WALLS ABOVE



DENOTES STEP IN SLAB

SLAB SCHEDULE

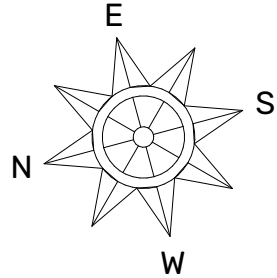
- (100) 100mm THICK CONCRETE SLAB WITH SL92 MESH ON TOP
(120) 120mm THICK CONCRETE SLAB WITH SL92 MESH ON TOP
(150) 150mm THICK CONCRETE SLAB WITH SL92 MESH TOP AND BOTTOM
(150*) 150 THICK SUSPENDED CONCRETE SLAB WITH 102 MESH TOP AND BOTTOM
A - ADDITIONAL N12 @ 300c/c COG BAR
B - ADDITIONAL N12 @ 300c/c (1500 LONG)

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Revision Schedule



2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

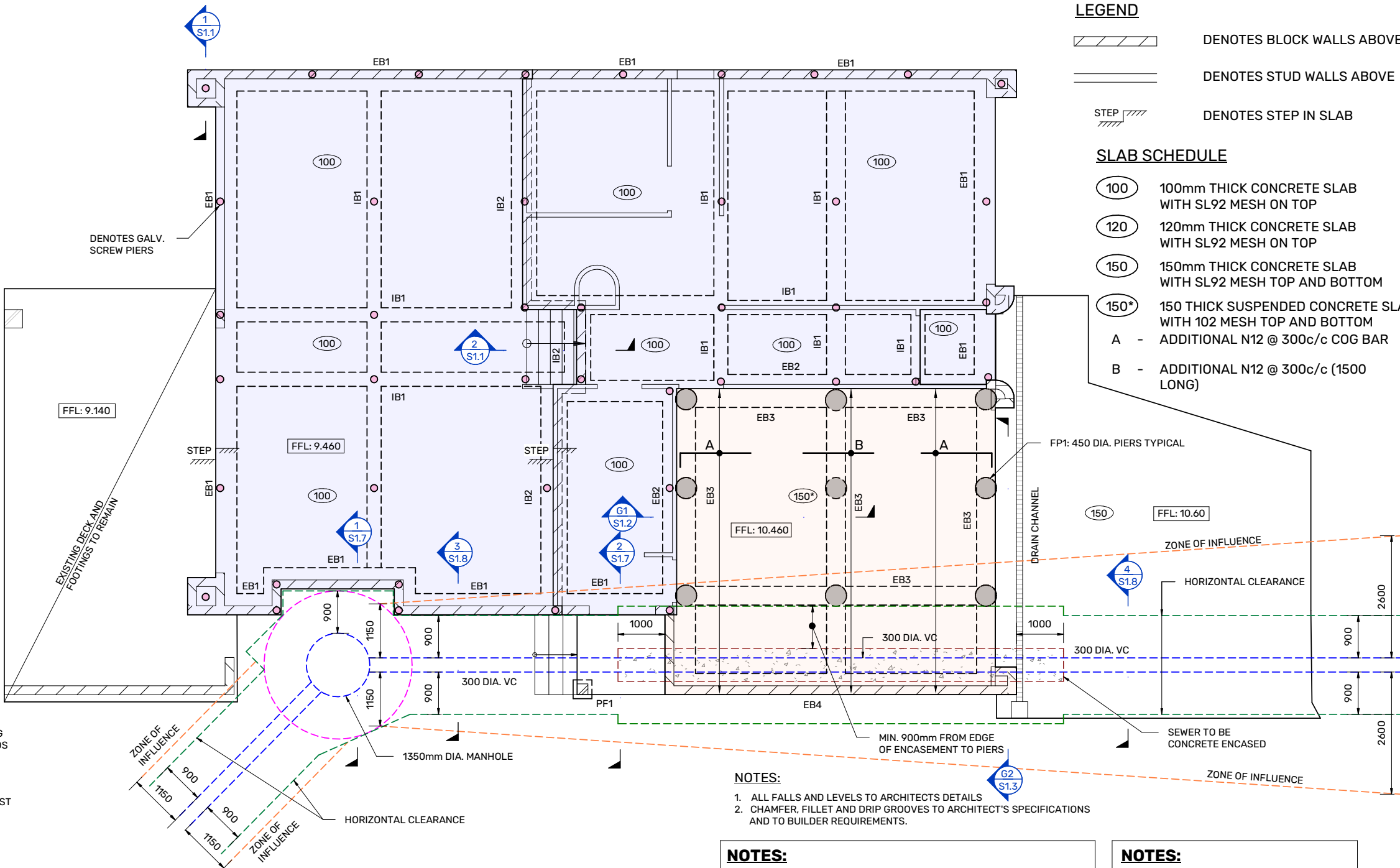
Project

PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title

GROUND FLOOR PLAN

Job No. 2024122	Sheet
Date JUN 2025	S1.0
Scale As indicated	Issue c2 A3



NOTES:

1. ALL FALLS AND LEVELS TO ARCHITECTS DETAILS
2. CHAMFER, FILLET AND DRIP GROOVES TO ARCHITECT'S SPECIFICATIONS AND TO BUILDER REQUIREMENTS.

NOTES:

LOCATIONS TO BE CONFIRMED BETWEEN BUILDER AND ENGINEER FOLLOWING EXCAVATION AND CONFIRMATION OF ROCK LOCATION

ALL FOOTING DETAILS ARE SUBJECT TO REVISION AND VARIATION FOLLOWING THE SITE EXCAVATION AND ENGINEERS INSPECTION OF THE FOUNDATION MATERIAL.

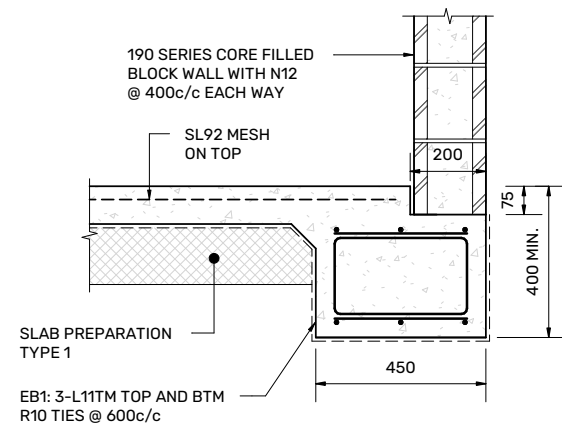
Please note Greenwood Consulting Engineers is to be given 48 hours notice (minimum) prior to required site inspections. Greenwood Consulting Engineers will not certify or sign off structural elements which have not been inspected. Greenwood Consulting Engineers will not certify or sign off based on photos unless explicitly approved by Eliot Greenwood of Greenwood Consulting Engineers.

NOTES:

SUB FLOOR FRAMING AND FOOTINGS - BUILDER TO EXPOSE EXISTING FOOTING BASE - BEARING MATERIAL CAPACITY TO BE CONFIRMED CONFIRMED BY GEOTECHNICAL CONSULTING ENNGINEER.
BUILDER TO INSPECT ALL NEW POINT LOADS AND ENSURE ADEQUATE FOOTING UNDER WITH ENGINEER WHILST ONSITE. UNDERPINNING AND ADDITIONAL CONCRETE FOOTINGS MAY BE REQUIRED TO SUPPORT NEW LOADS

SLAB NOTES:

1. FLOOR FINISH TYPE, FLASHING AND WATERPROOF MEMBRANES AS PER ARCHITECTS DETAILS AND B.C.A.
2. FOR SITE CLASSIFICATION, FOUNDATION MATERIAL AND ALLOWABLE BEARING CAPACITY, REFER TO GEOTECHNICAL ENGINEERS REPORT AND NOTE SHEET
3. THE DESIGNED FOUNDATION MATERIAL SHALL BE UNIFORM AND BE APPROVED BY A GEOTECHNICAL ENGINEER FOR THE ALLOWABLE BEARING PRESSURE BEFORE PLACING REINFORCEMENT OR CONCRETE. PILES OR BLOCKDOWNS SHALL BE USED TO ACHIEVE UNIFORM BEARING WHERE NECESSARY.
4. FINISHED FLOOR LEVELS (FFL) AND THICKNESS OF FLOOR FINISH TO BE CONFIRMED WITH ARCHITECT DURING EXCAVATION AND SET OUT.
5. FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.
6. ANY OVER EXCAVATION FOR THE FOOTINGS SHALL BE FILLED WITH CONCRETE OF THE SAME STRENGTH AS THE FOOTING. IF GREATER THAN 20% OF THE FOOTING THE ENGINEER IS TO BE NOTIFIED.
7. ALL INTERNAL SLABS TO BE POURED ON A VAPOUR BARRIER NORMAL SAND BLINDING ON WELL COMPACTED OR NATURAL GROUND U.N.O. REFER TO TYPICAL SLAB PREPARATION DETAILS FOR INFORMATION AND INSTRUCTIONS
8. ALL EXTERNAL SLABS TO BE POURED ON NATURAL GROUND WITH A MINIMUM 30mm SAND BLINDING.
9. WHERE ARCHITECTS DRAWINGS INDICATE FALLS IN SLAB, STRUCTURAL SIZES SHOWN ARE THE MINIMUM ALLOWABLE THICKNESS.
10. ALL SLABS ON GROUND TO BE REINFORCED WITH SL82 FABRIC TOP THROUGHOUT, INCREASED TO SL92 FABRIC WHERE TILED U.N.O.
11. NO ALLOWANCE HAS BEEN MADE FOR POLISHED CONCRETE FLOORS, NOTIFY ENGINEER IF CONCRETE FINISH IS TO BE POLISHED.
12. ALL NON-LOAD BEARING WALLS HAVE BEEN ASSUMED TO BE CONSTRUCTED USING LIGHTWEIGHT MATERIALS, NOTIFY ENGINEER IF THE MATERIAL IS NOT LIGHT WEIGHT.

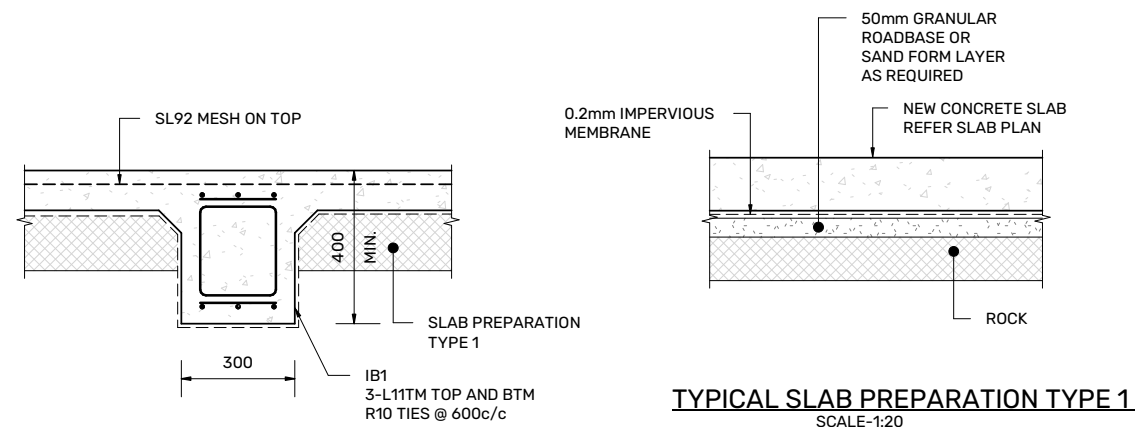
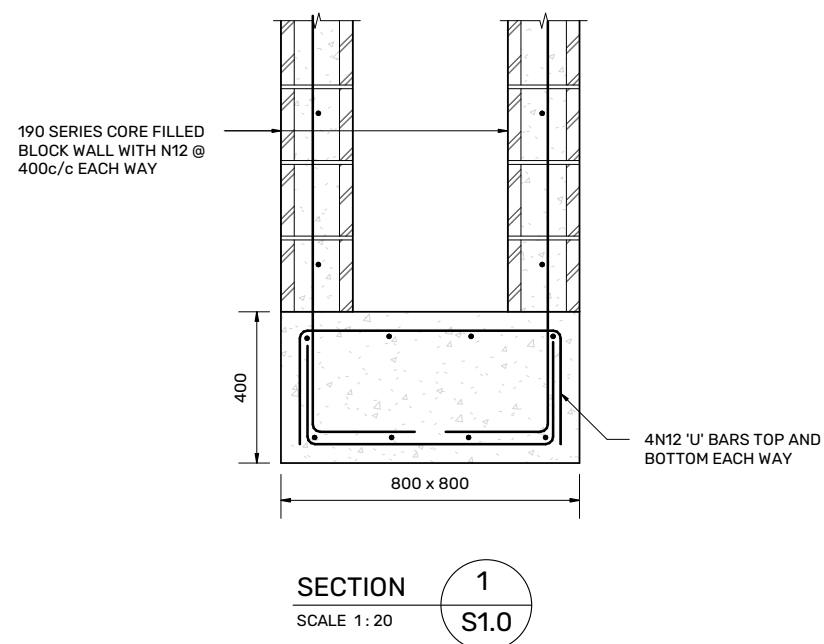
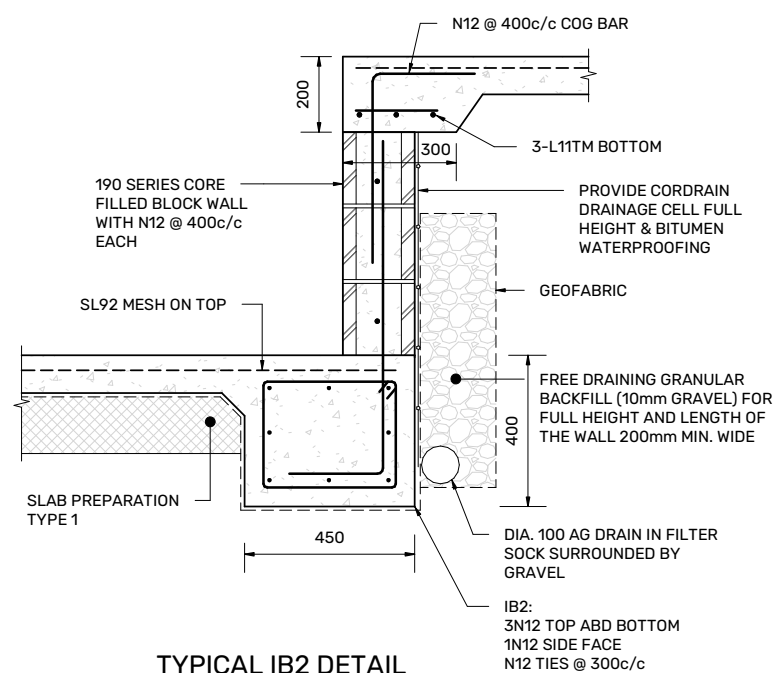


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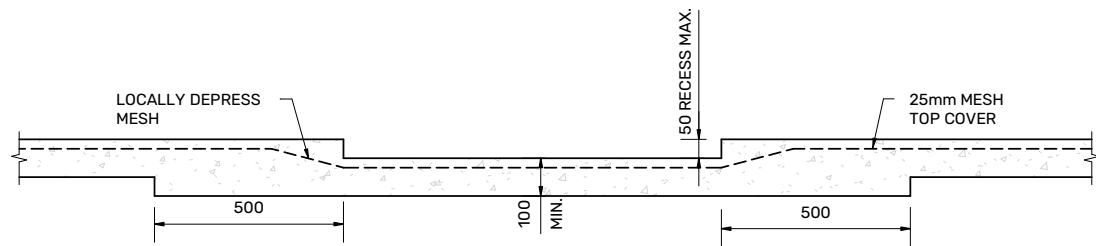
Client

BEN LIEBKE

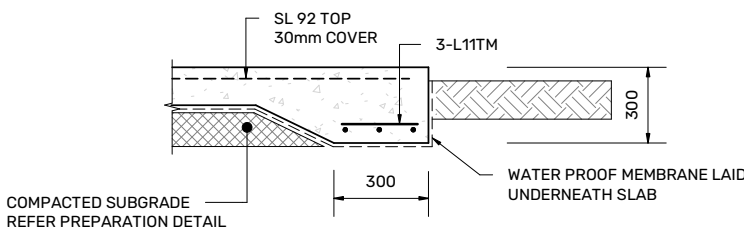
Project
PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title
FOUNDATION DETAILS -
SHEET 1

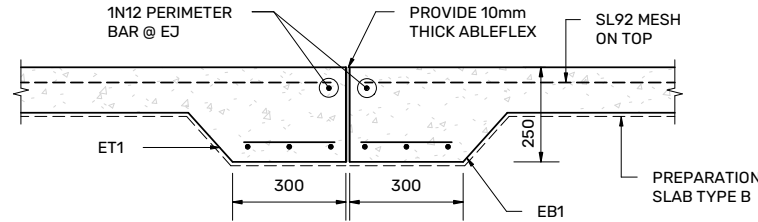
Job No. 2024122	Sheet S1.1	
Date JUN 2025		
Scale 1:20	Issue c2	A3



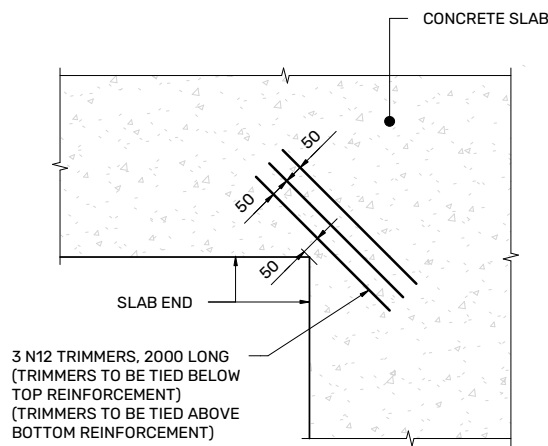
WET AREA RECESS DETAIL
SCALE: 1:20



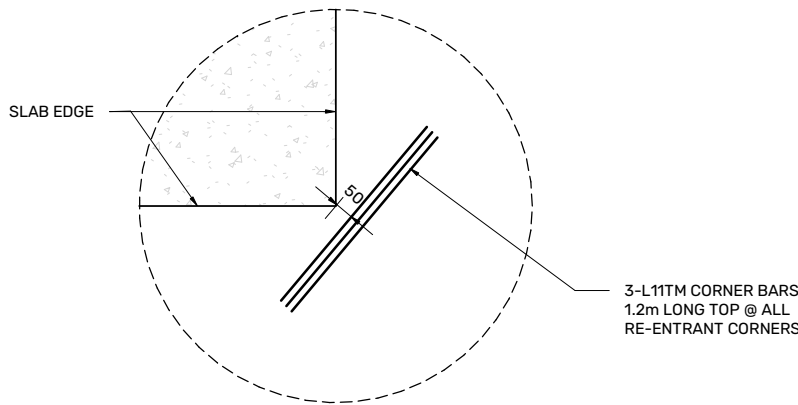
TYPICAL ET1 EDGE THICKNING DETAIL
SCALE: 1:20



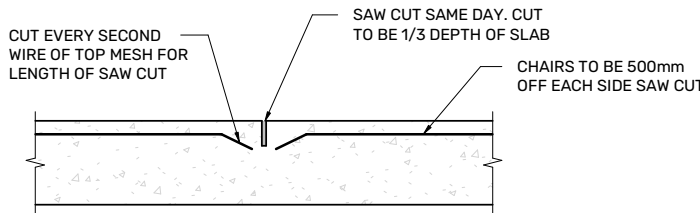
TYPICAL EJ DETAIL
SCALE 1:20



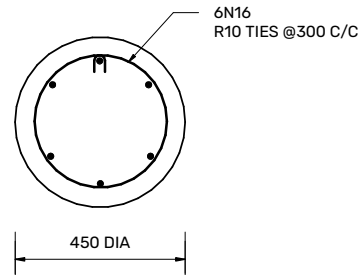
TYPICAL TRIMMER DETAIL
SCALE - N.T.S



TYPICAL CORNER TRIMMER BAR DETAIL
SCALE: N.T.S



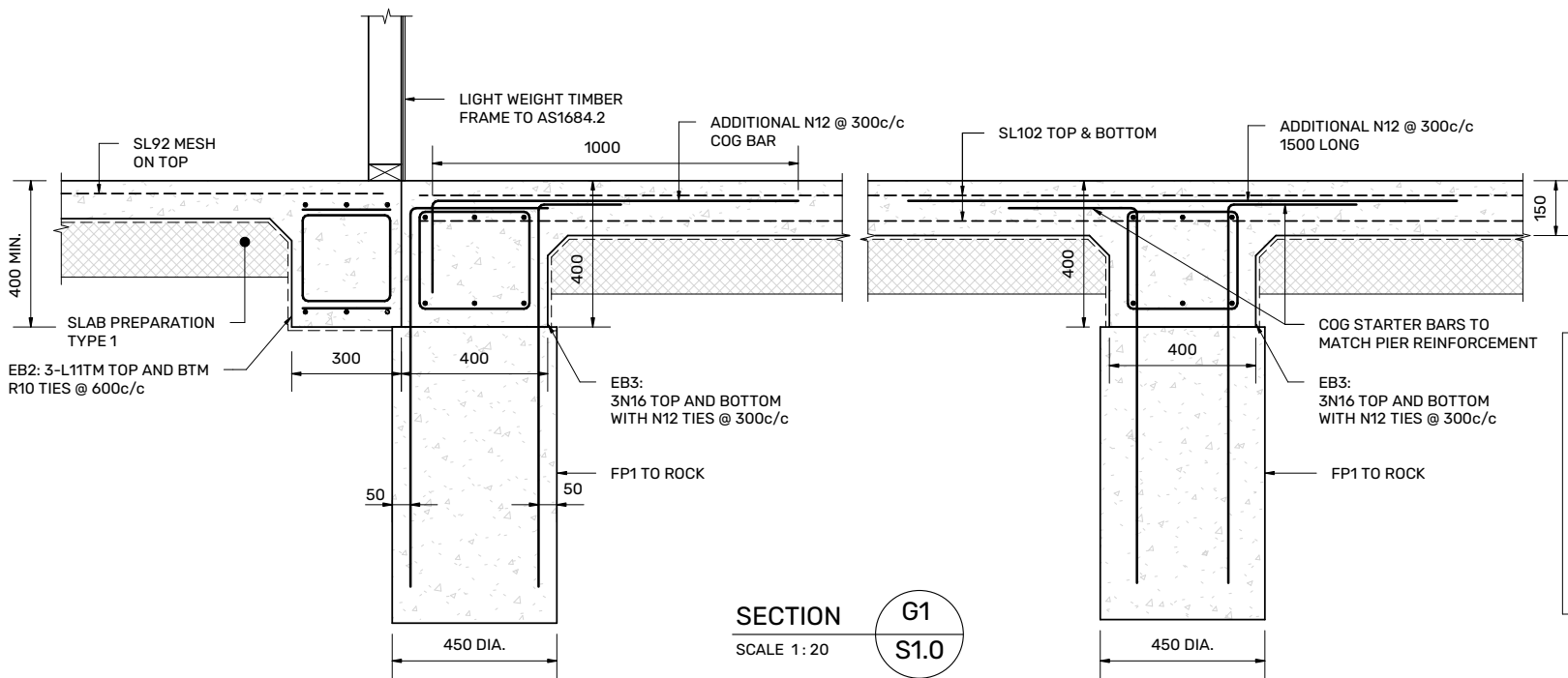
SAW CUT 'SC' DETAIL
SCALE: 1:10



TYPICAL FP1 DETAIL
SCALE: 1:20

FP1 CONCRETE PIERS:

- PIERS TO BE 450mm DIAMETER FOUNDED ON APPROVED MATERIAL AS PER GEOTECHNICAL ENGINEERS DETAILS
- FOR DEPTH UPTO 1200mm PROVIDE 4N12, R10 TIES @ 300 C/C.
- FOR DEPTH UPTO 2400mm PROVIDE 6N16, R10 TIES @ 300 C/C.
- FOR DEPTH EXCEEDING 2400mm PLEASE CALL ENGINEER IMMEDIATELY



SECTION G1
SCALE 1:20
S1.0

IT IS THE RESPONSIBILITY OF THE BUILDER AND THE CERTIFIER TO CHECK AND VERIFY THAT ALL WORKS COMPLY, AND TO ENSURE THAT ALL BUILDING WORKS ARE CARRIED OUT FULLY IN ACCORDANCE WITH THE CONDITIONS OF THE BCA AND AUSTRALIAN STANDARDS. ANY ERRORS OR OMISSIONS TO BE BROUGHT TO THE ATTENTION OF THE AUTHOR PRIOR TO COMMENCING ANY WORKS.

RESIDENTIAL BUILDING WORK WITHIN THE MEANING OF THE HOME BUILDING ACT 1989 MUST NOT BE CARRIED OUT UNLESS THE PRINCIPAL CERTIFYING AUTHORITY FOR THE DEVELOPMENT TO WHICH THE WORK RE-LATES HAS GIVEN WRITTEN NOTICE OF FULL COMPLIANCE AND PROVIDED THE CONSTRUCTION CERTIFICATE. THE CERTIFIER MUST REVIEW PLANS FOR APPROVAL AND CONFIRM COMPLIANCE PRIOR TO ISSUING THE CONSTRUCTION CERTIFICATE.

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

 GREENWOOD CONSULTING ENGINEERS
2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

Project
PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title
FOUNDATION DETAILS - SHEET 2

Job No. 2024122	Sheet S1.2
Date JUN 2025	
Scale As indicated	Issue c2 A3

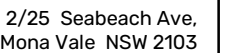
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Revision Schedule



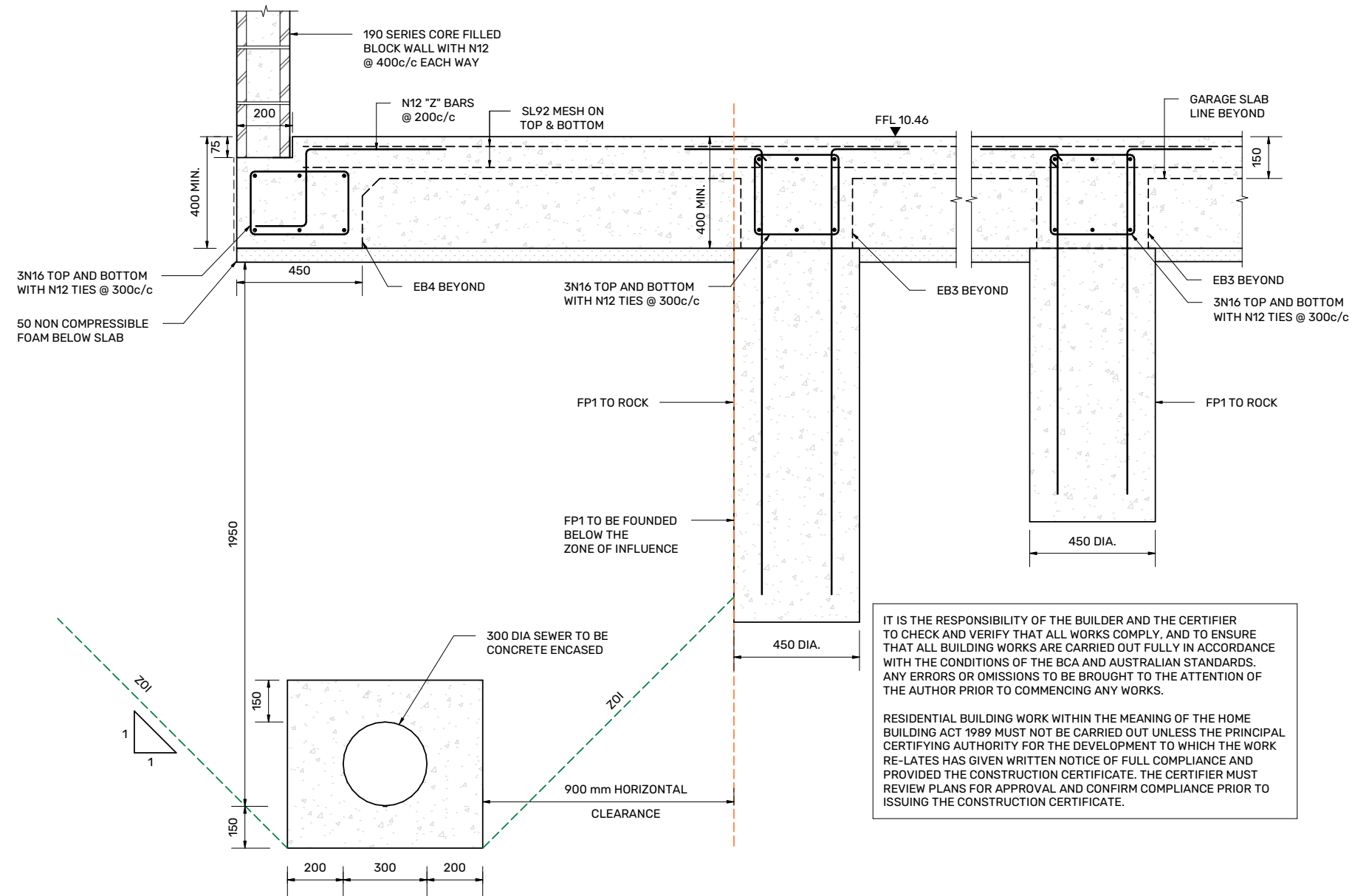
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

Project
PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title
FOUNDATION DETAILS - SHEET 3

Job No. 2024122	Sheet S1.3	
Date JUN 2025		
Scale 1:20	Issue c2	A3

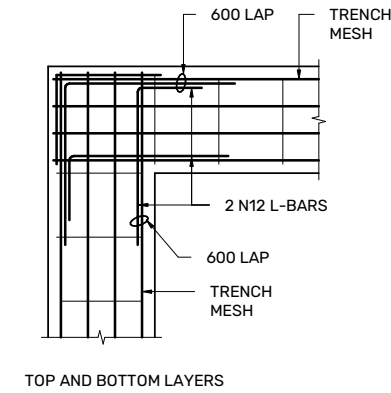


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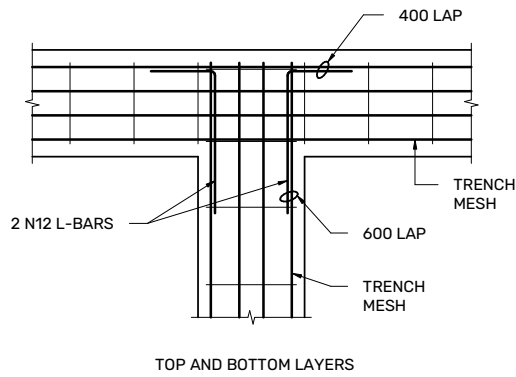
RESIDENTIAL BUILDING WORK WITHIN THE MEANING OF THE HOME BUILDING ACT 1989 MUST NOT BE CARRIED OUT UNLESS THE PRINCIPAL CERTIFYING AUTHORITY FOR THE DEVELOPMENT TO WHICH THE WORK RELATES HAS GIVEN WRITTEN NOTICE OF FULL COMPLIANCE AND PROVIDED THE CONSTRUCTION CERTIFICATE. THE CERTIFIER MUST REVIEW PLANS FOR APPROVAL AND CONFIRM COMPLIANCE PRIOR TO ISSUING THE CONSTRUCTION CERTIFICATE.

SECTION
SCALE 1:20

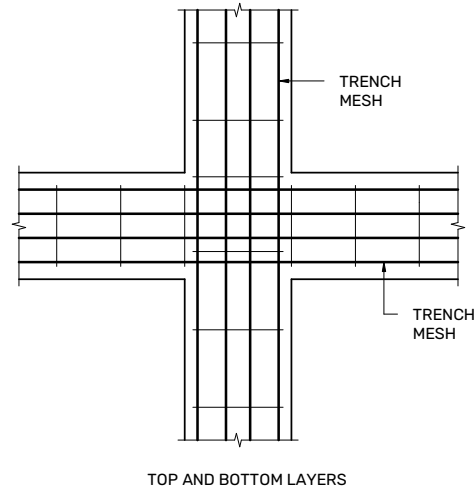




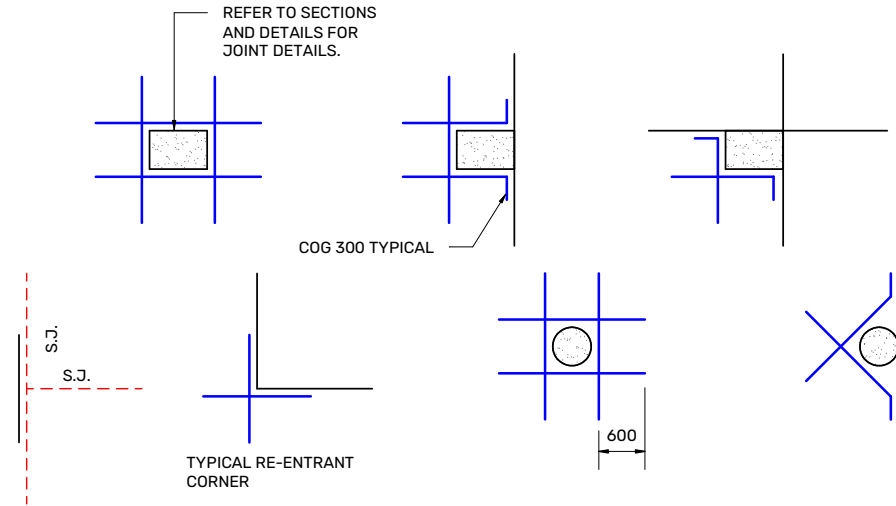
**PLAN
FOOTING CONER**
SCALE : N.T.S



**PLAN
FOOTING 'T' JUNCTION**
SCALE : N.T.S



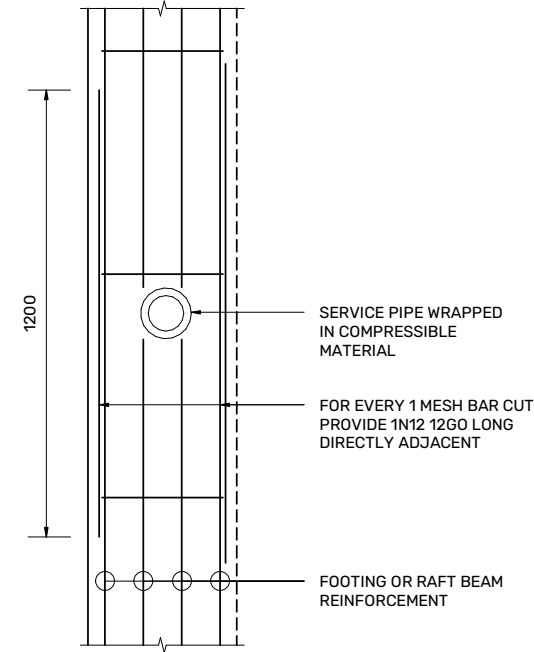
**PLAN
FOOTING 'X' JUNCTION**
SCALE : N.T.S



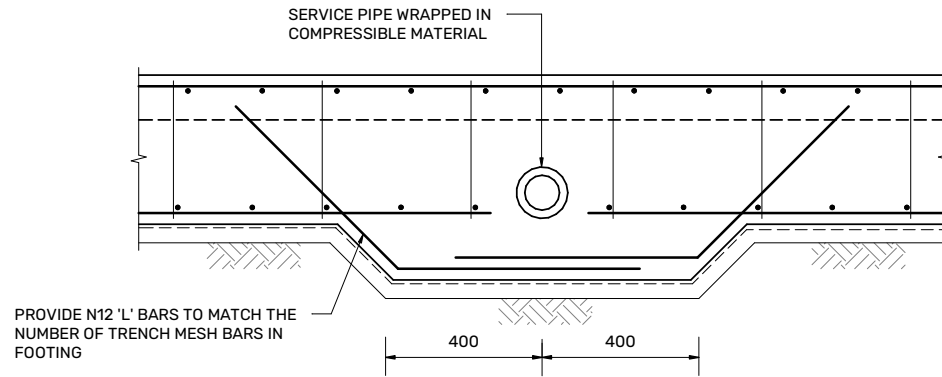
SLAB ON GROUND - ALL TRIMMERS TO BE 2N12 TOP U.N.O.
SUSPENDED SLAB - ALL TRIMMERS TO BE 3N16 T&B U.N.O.

TYPICAL TRIMMER DETAILS

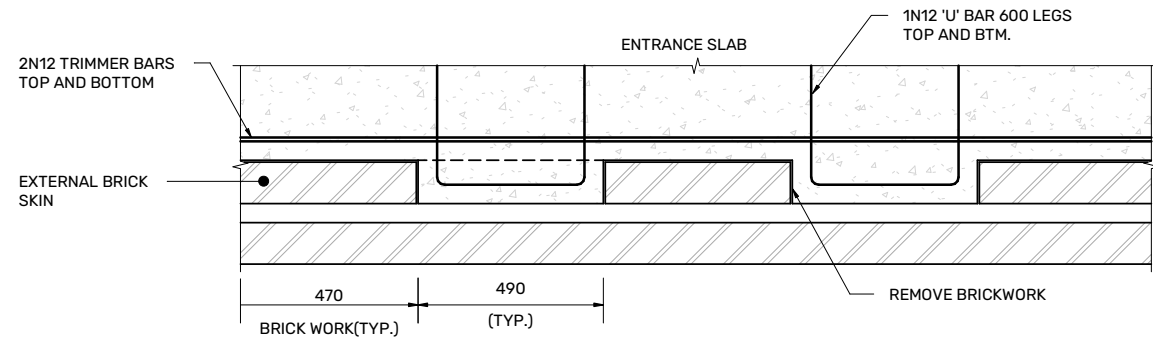
AT ALL COLUMNS, WALLS, PITS, FLOOR WASTES, ETC THAT CAUSE
A PENETRATION THROUGH THE SLAB.



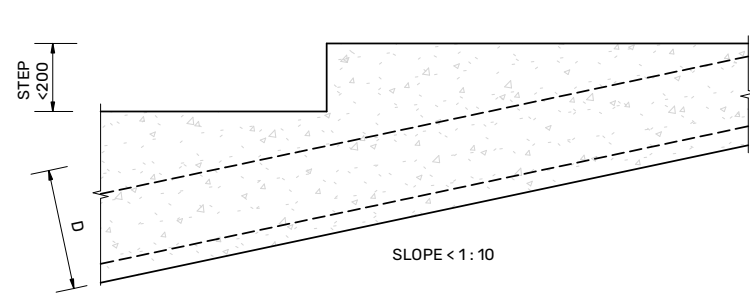
VERTICAL PIPE PENETRATION
SCALE 1:20



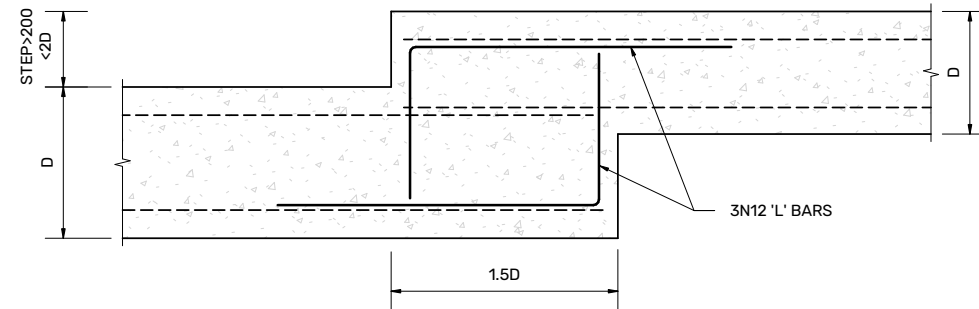
HORIZONTAL PIPE PENETRATION
SCALE 1:20



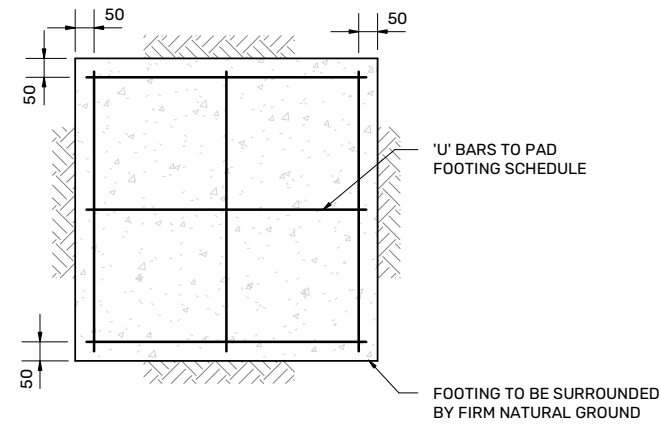
**SLAB TOOTING DETAL
(PLAN VIEW)**
SCALE 1:20



STEPPED FOOTING DETAIL 1
SCALE 1:20



STEPPED FOOTING DETAIL 2
SCALE 1:20



TYPICAL FOOTING PLAN VIEW
SCALE 1:20

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

**GREENWOOD CONSULTING
ENGINEERS**
2/25 Seabeach Ave,
Mona Vale NSW 2103

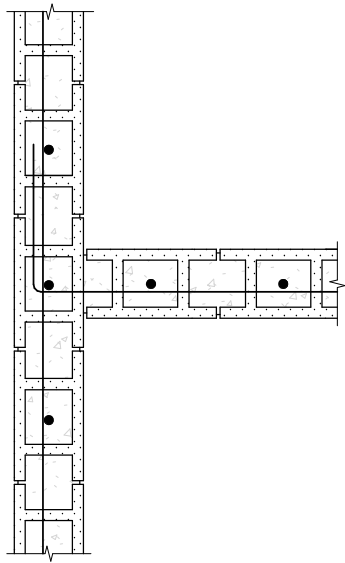
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

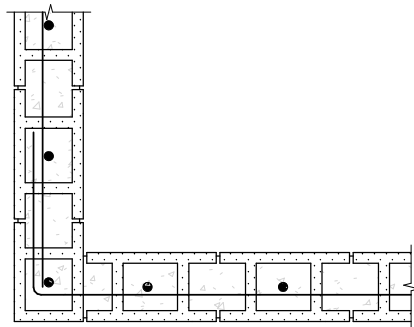
Project
**PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL**

Drawing Title
**FOUNDATION DETAILS -
SHEET 4**

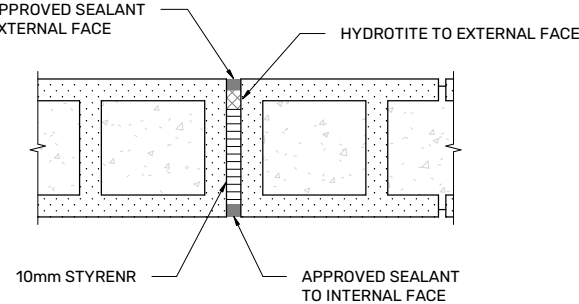
Job No. 2024122	Sheet S1.4
Date JUN 2025	
Scale As indicated	Issue c2 A3



TYPICAL 'T' INTERSECTION
SCALE = N.T.S

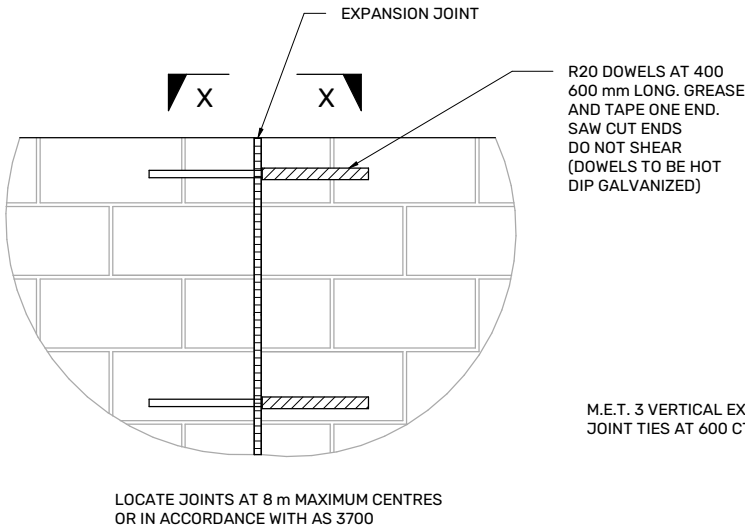


TYPICAL CORNER DETAIL
SCALE = N.T.S



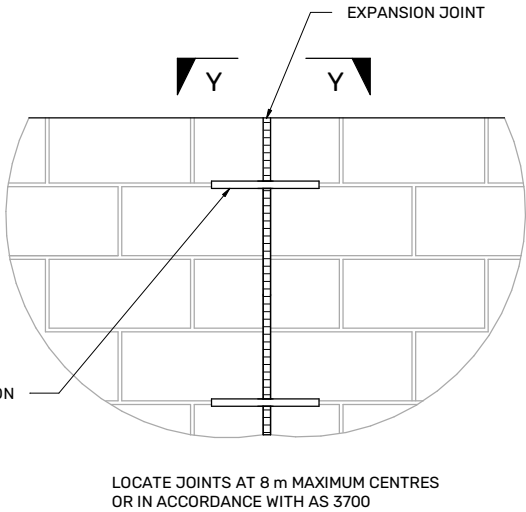
REFER DETAILS OVER FOR DOWELS OR TIES TO BE USED IN JOINT

**TYPICAL EXPANSION JOINT SEALANT
DETAILS FOR EXTERNAL FLOOD BLOCK WALLS**
SCALE = 1 : 12.5

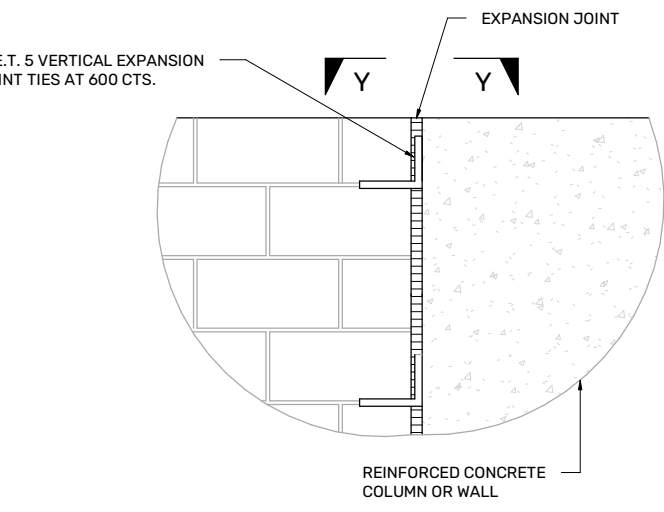


ELEVATION

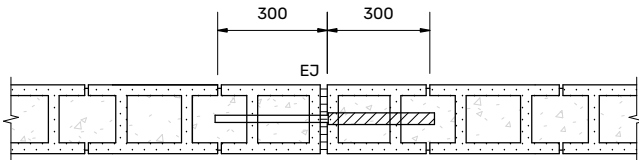
(OR)



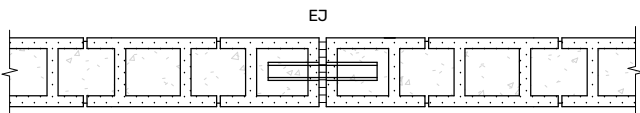
ELEVATION



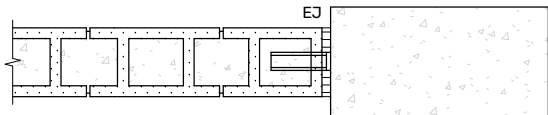
ELEVATION



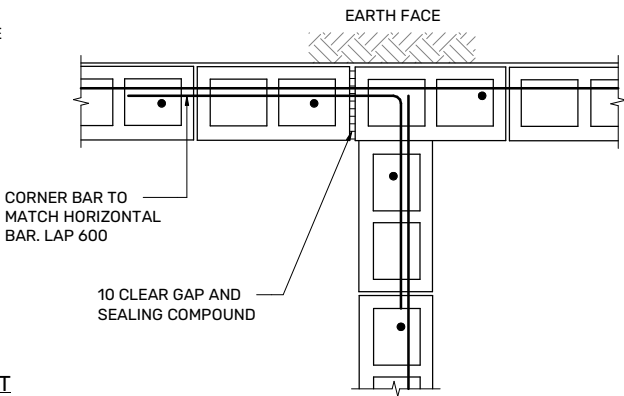
**SECTION X-X
TYPICAL EXPANSION
JOINT DETAILS**
SCALE = N.T.S



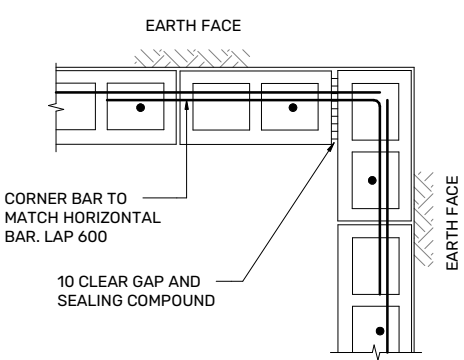
**SECTION Y-Y
TYPICAL EXPANSION
JOINT DETAILS**
SCALE = N.T.S



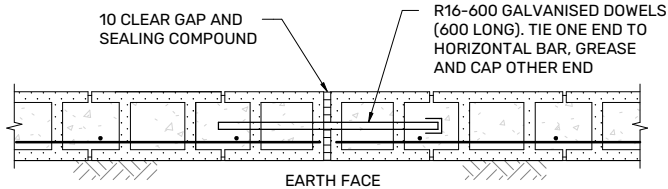
**SECTION Y-Y
TYPICAL EXPANSION
JOINT DETAILS**
SCALE = N.T.S



TYPICAL T SECTION DETAIL
SCALE 1:10



TYPICAL CORNER DETAIL
SCALE 1:10



TYPICAL EXPANSION JOINT DETAILS
SCALE 1:10
PROVIDE EXPANSION JOINTS AT 6m c/c

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

**GREENWOOD CONSULTING
ENGINEERS**
2/25 Seabeach Ave,
Mona Vale NSW 2103

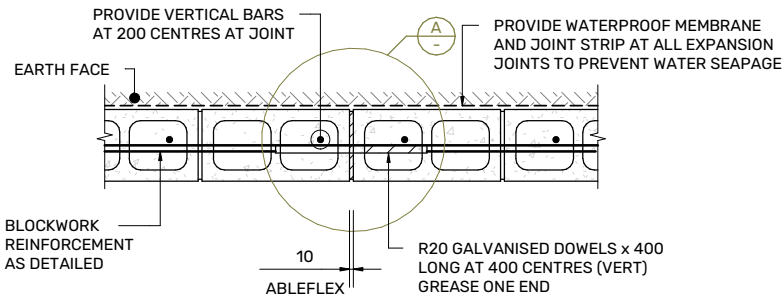
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

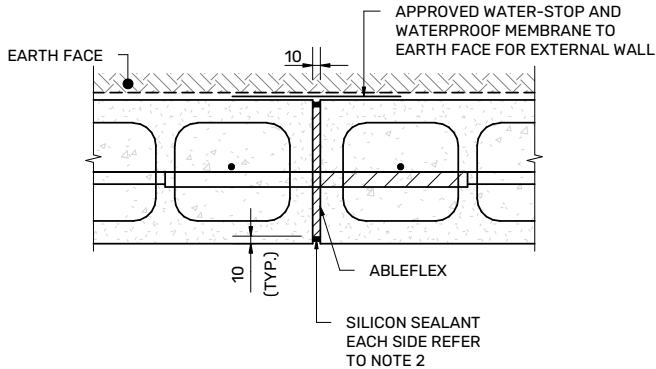
Project
PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title
FOUNDATION DETAILS -
SHEET 5

Job No. 2024122	Sheet
Date JUN 2025	S1.5
Scale 1:10	Issue c2 A3



EXTERNAL WALL PLAN
SCALE 1:20

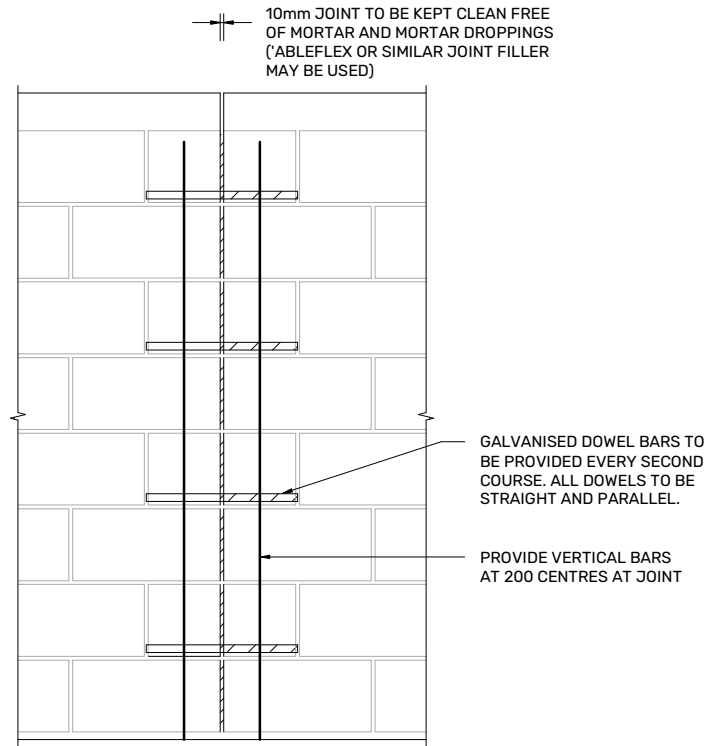


DETAIL
SCALE 1:20

TYPICAL EXPANSION JOINT DETAILS
SCALE 1:20

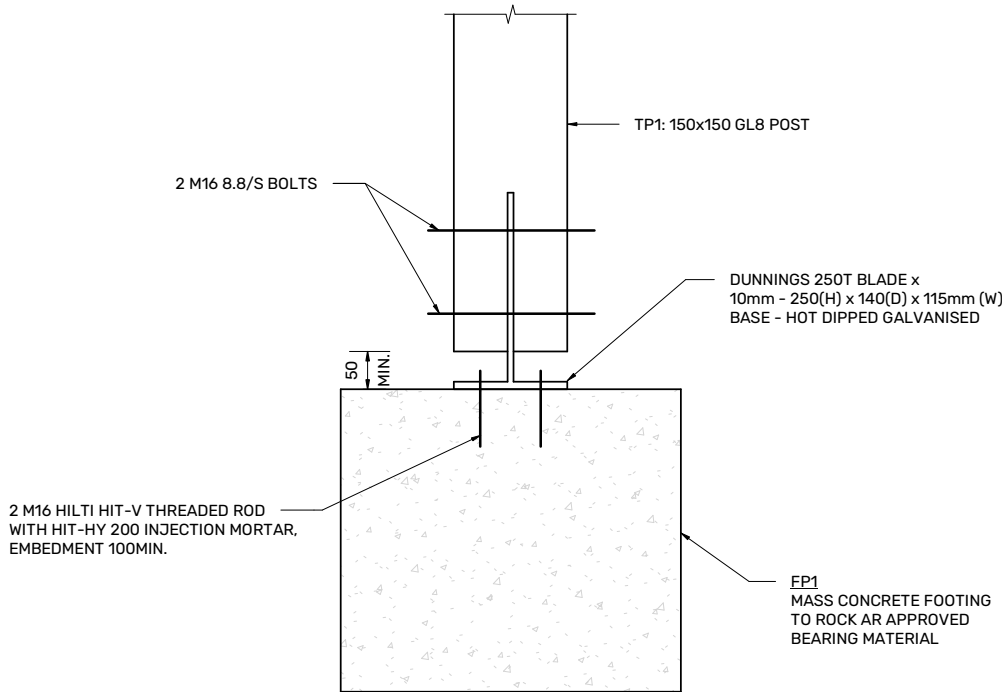
NOTES:

- UNLESS OTHERWISE NOTED ON PLAN JOINTS SHALL BE LOCATED AT 8000 CENTRES MAX. AND 4000 FROM CORNERS.
- PROVIDE SILICON SEALANT BOTH FACES IN ALL JOINTS. USE PARCHEM EMER-SEAL CR OR AN APPROVED EQUIVALENT.

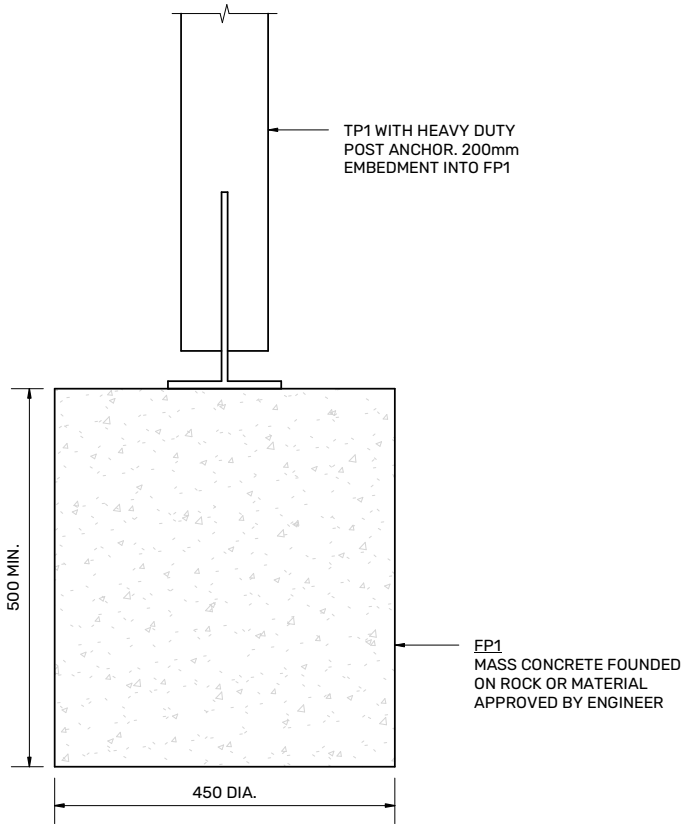


ELEVATION

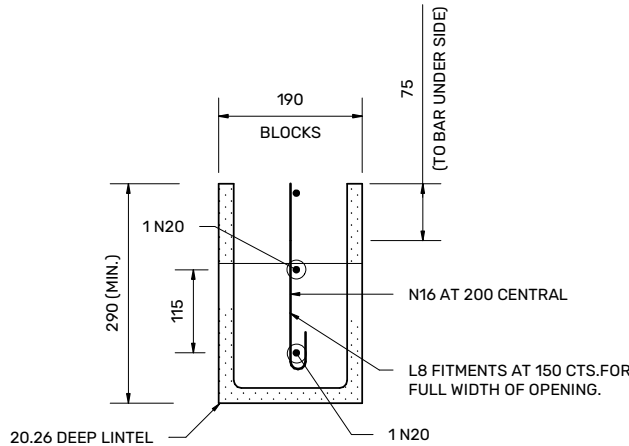
TYPICAL BLOCKWORK VERTICAL EXPANSION JOINT
SCALE 1:20



TYPICAL POST ANCHOR DETAIL
SCALE 1:10



TYPICAL FP1 DETAIL
SCALE 1:10



NOTE:
ALL REINFORCEMENT TO BE CARRIED ATLEAST 200mm BEYOND THE SUPPORT

TYPICAL BLOCK LINTEL DETAIL -
20.26 3/4 LINTEL
SCALE - 1 : 10

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

 **GREENWOOD CONSULTING ENGINEERS**
2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

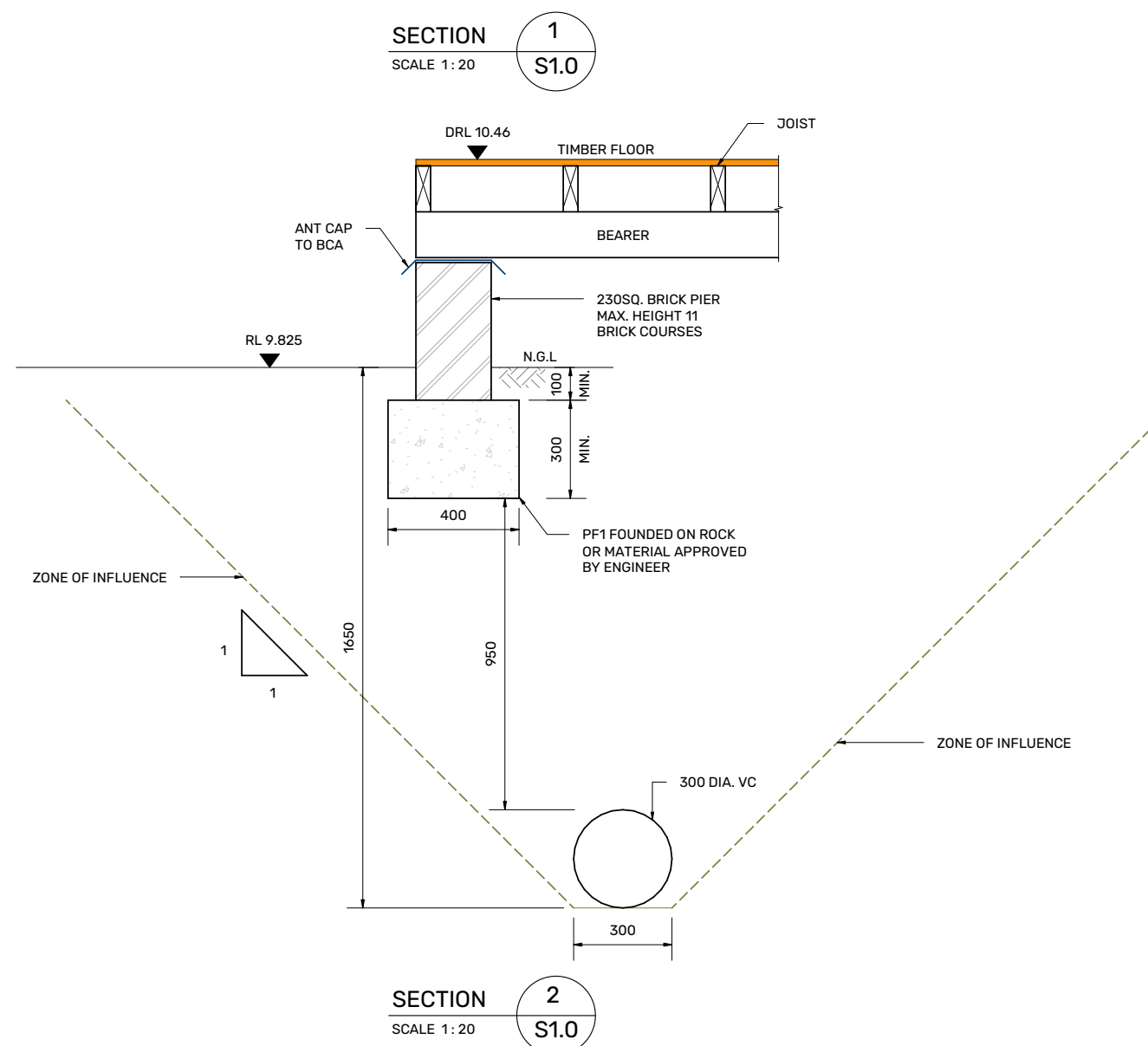
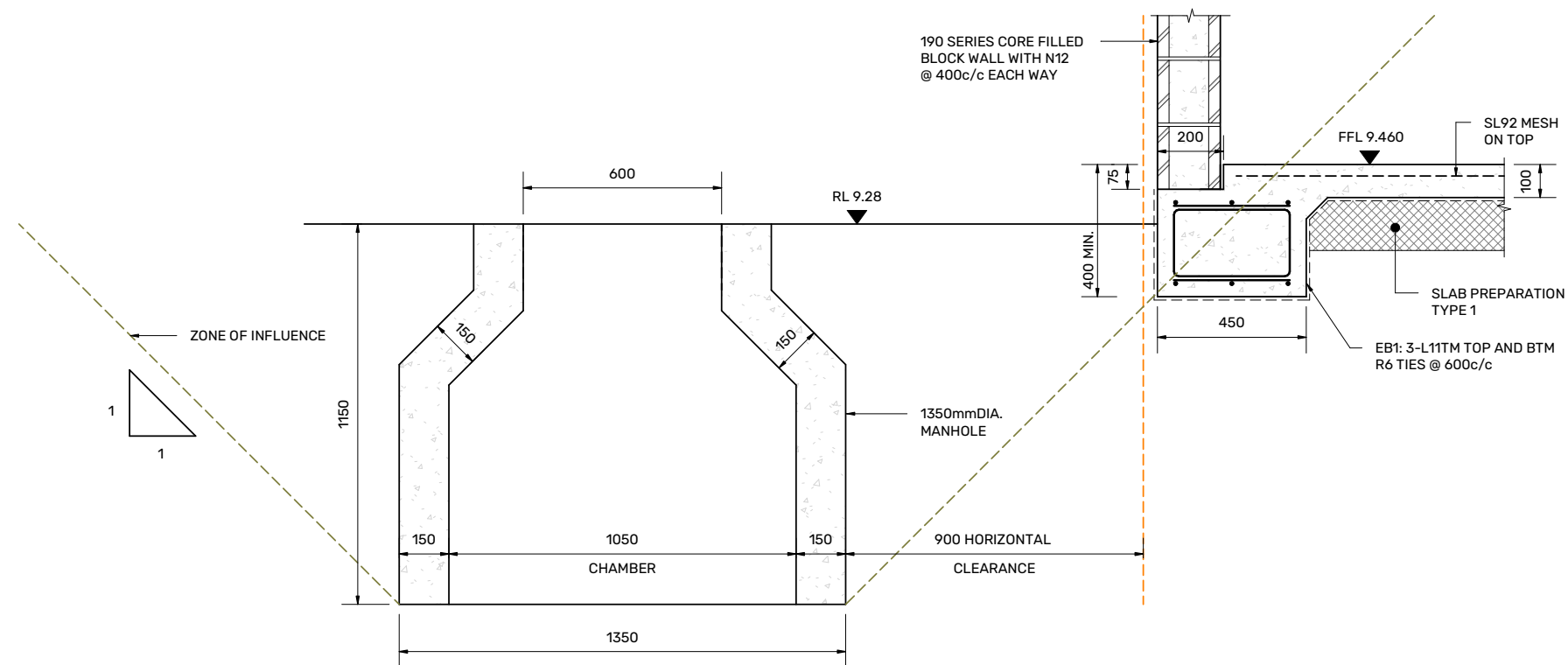
Project

PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title

FOUNDATION DETAILS - SHEET 6

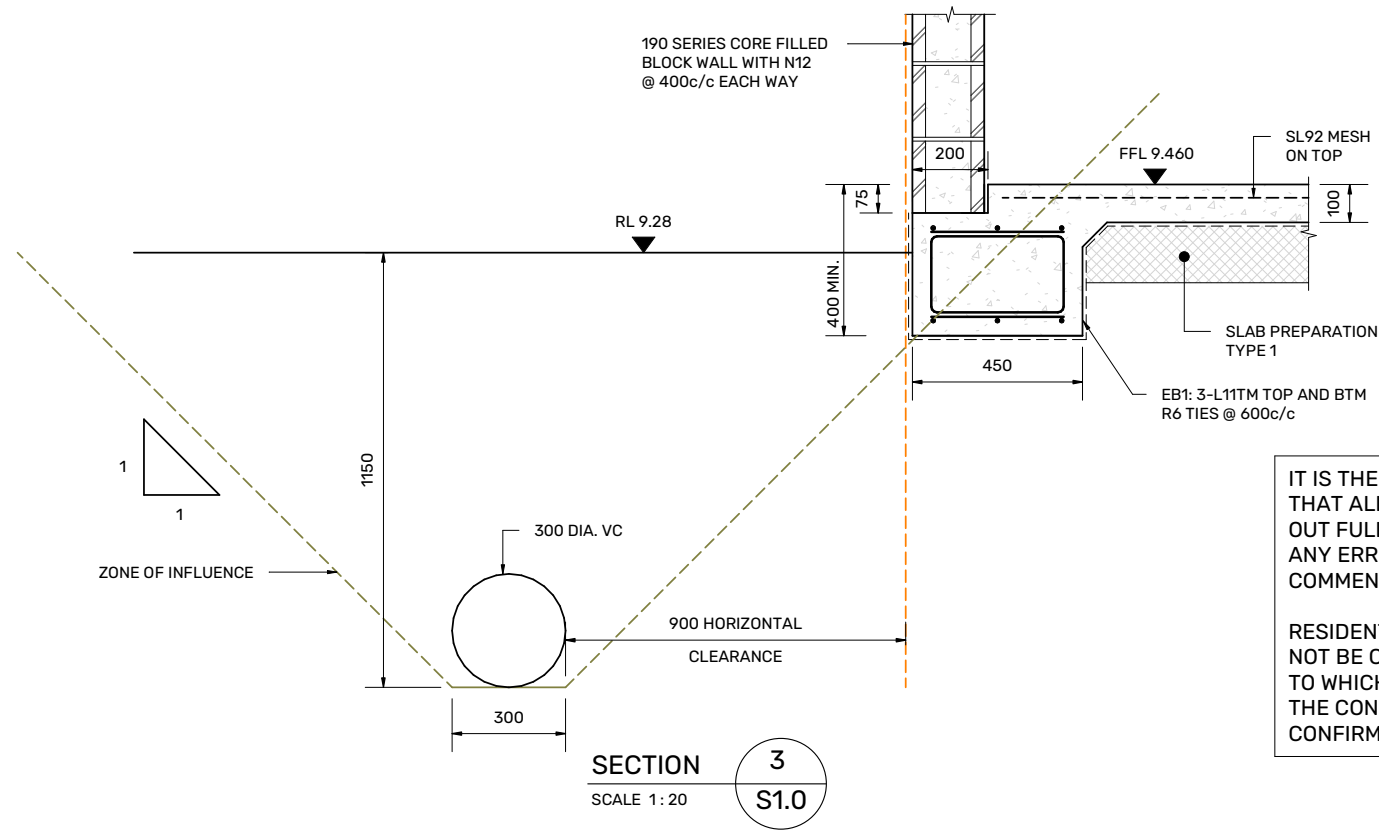
Job No. 2024122	Sheet
Date JUN 2025	S1.6
Scale As indicated	Issue c2 A3



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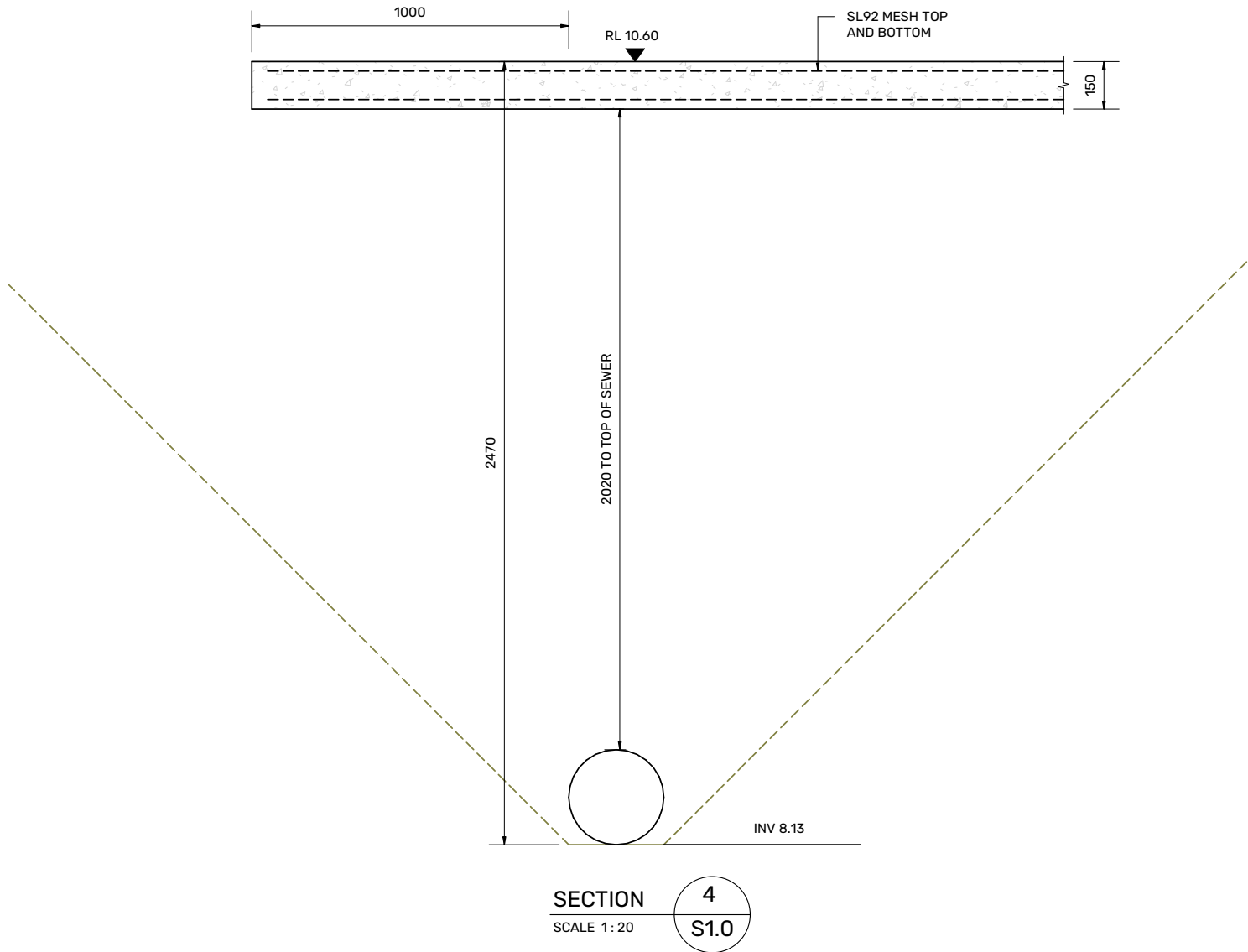
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Scale 1:20	Issue c2	A3
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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

GREENWOOD CONSULTING ENGINEERS

2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
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Approved	E.G

Client

BEN LIEBKE

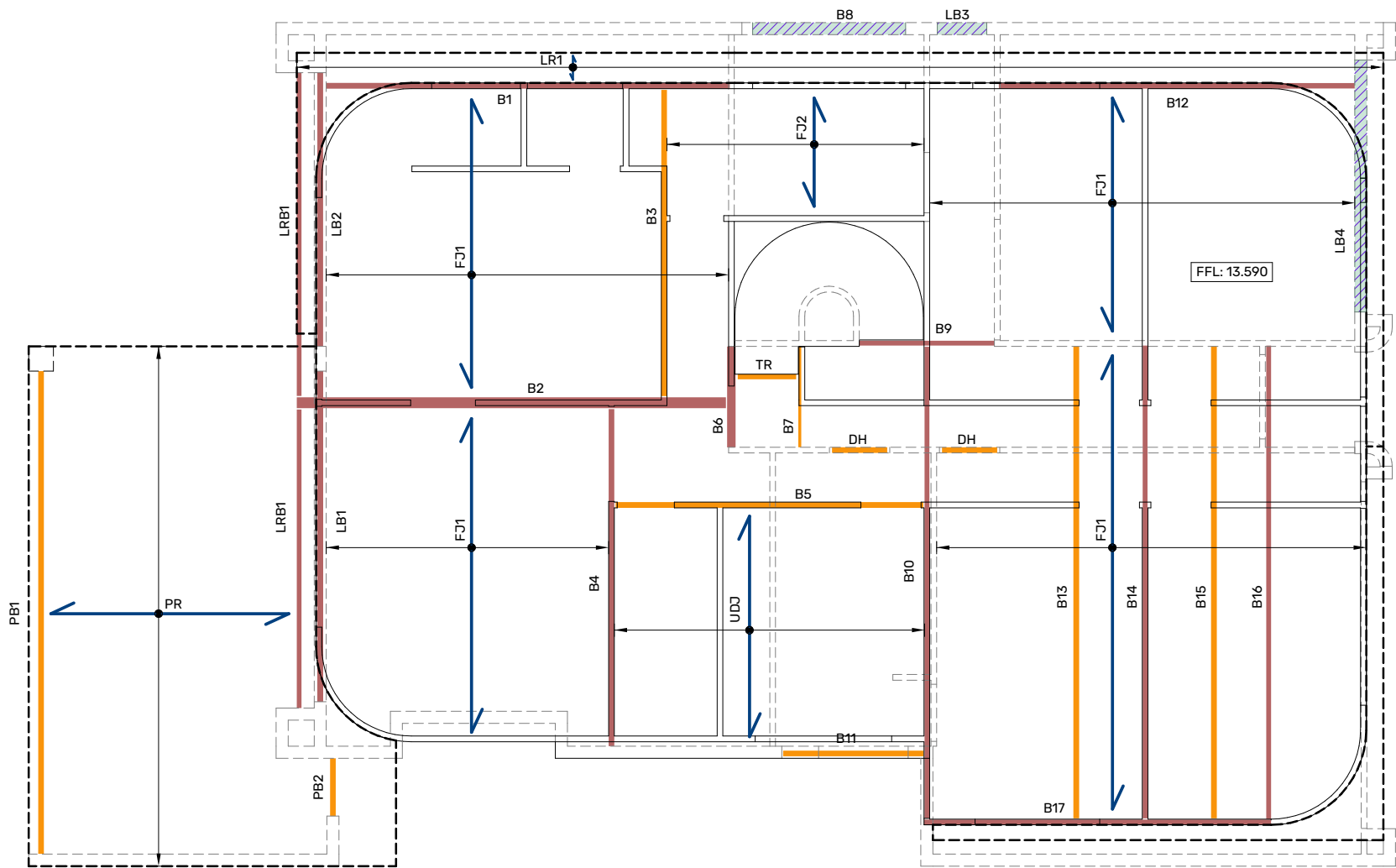
Project

PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title

SEWER DETAILS - SHEET 2

Job No. 2024122	Sheet
Date JUN 2025	S1.8
Scale 1:20	Issue c2 A3



FIRST FLOOR FRAMING PLAN

SCALE: 1 : 100

LEGEND

- DENOTES WALLS BELOW
- DENOTES WALLS ABOVE
- DENOTES ROOF FALL DIRECTION. REFER TO ARCHITECTURAL DOCUMENTATION FOR DETAILS TYPICAL

NOTE:

PROVIDE HOOP IRON STRAP BRACING TO ROOF RAFTERS AS PER AS1684.2 WIND CLASSS N2

NOTES:

- 1. ALL TIMBER STUDD WALLS TO BE 90x45 MGP10 H2 or T2 TREATED STUDS AT 450 CTS. STUD IN ACCORDANCE WITH AS1684.2-2010 AS WELL AS NSW TIMBER FRAMING MANUAL.
- 2. ALL EXISTING WALLS AND FOOTING TO BE CONFIRMED ONSITE
- 3. ALL TIMBER LINTEL BEAMS TO BE IN ACCORDANCE WITH AS1684.2-2010.
- 4. ALL TIMBER TO TIMBER TIE DOWNS AND CONNECTIONS TO BE TO AS 1684.2 - 2010
- 5. DOUBLE JOISTS TO BE LOCATED BELOW ALL LOAD BEARING STUD WALLS.
- 6. ALL ADDITIONAL BRACING BY OTHERS TO AS1684.2 CLASS N2
- 7. ALL TIMBER BEAMS/LINTELS TO BEAR ONTO DOUBLE STUD U.N.O
- 8. ALL STEEL BEAMS BEARING ONTO BRICKWORK NO LESS THAN 200mm WHEN PAREALE TO WALL AND TO HAVE 300 WIDE 10mm THICK BEARING PLATE WHEN PERPENDICULAR.
- 9. ALL HYSPAN BEAMS TO BE LAMINATED AS PER DETAIL H1 AND MANUFACTURERS GUIDELINES.
- 10. TIMBER BLOCKING AT MID SPAN OF ALL JOISTS AND RAFTERS
- 11. WALL AND ROOF BRACING IS TO BE IN ACCORDANCE WITH AS 1684 TIMBER FRAMING CODE AND NSW TIMBER FRAMING MANUAL.
- 12. TRIM ROOF OPENINGS WITH EQUIVALENT RAFTER/PURLIN SIZES U.N.O..
- 13. FOR STEEL COLUMN TO TIMBER/STEEL MEMBERS USE 10mm PLATE WITH 2 M16 BOLTS FOR ANY CLEAT CONNECTIONS.
- 14. ALL EXTERNAL/EXPOSED SOFTWOOD MEMBERS ARE TO BE SUITABLY PRESERVATIVE TREATED TO H3 LEVEL (AS 1604) THEN STAINED OR PAINTED.
- 15. ALL EXTERNAL/EXPOSED HARDWOOD MEMBERS ARE TO BE OF DURABILITY CLASS 2 OR BETTER (AS 1604) THEN STAINED OR PAINTED.
- 16. ENGINEER TO INSPECT AND CERTIFY ALL FRAMING, TIE DOWNS AND BRACING PRIOR TO SHEETING.
- 17. WATERPROOFING AND FLASHING AT INTERNAL TO EXTERNAL STEP TO BE IN ACCORDANCE WITH BCA
- 18. ALL EXPOSED STEEL WORK TO BE GALVANISED OR SUITABLY PAINTED WITH A 2 COAT EPOXY SYSTEM APPLIED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GUIDELINES AND TO BE APPROVED BY ENGINEER.
- 19. ALL TIMBER FIXINGS AND TIE DOWNS TO BE IN ACCORDANCE WITH AS1684.2 FOR N2 WIND CONDITIONS

IF IN DOUBT ABOUT ANY ASPECT OF PROJECT CONTACT THIS OFFICE ON 0424 784 706

FIRST FLOOR MEMBER SCHEDULE

MARK	SIZE
FJ1	MJ300 90 meyJOIST @ 450c/c OR 300x45 meySPAN13 @ 450c/c
FJ2	200x45 meySPAN13 @ 450c/c
UDJ	240x45 meySPAN13 @ 450c/c
B1	300 PFC
B2	360UB44.7 OR 250UC89.5
B3	2/300x45 LVL 13
B4	250 PFC
B5	2/300x45 LVL 13
B6	200UB22.3
B7	300x45 LVL 13
B8	BLOCK LINTEL
B9	200 PFC
B10	200 PFC
B11	2/300x45 LVL 13
B12	300 PFC
B13	2/300x45 LVL 13
B14	200 PFC
B15	2/300x45 LVL 13
B16	200 PFC
B17	200 PFC
DH	2/90x45 LVL 13
LB1	250 PFC
LB2	250 PFC
LB3	BLOCK LINTEL
LB4	BLOCK LINTEL
LRB1	200 PFC
LRB2	200 PFC
PB1	2/240x45 F27
PB2	2/240x45 F27
PR	240x45 F27
LR1	90x45 F7 RAFTER @ 600c/c
TR	300x45 LVL 13

NOTES:

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ALL EXPOSED STEEL WORK TO BE GALVANISED OR SUITABLY PAINTED WITH A 2 COAT EPOXY SYSTEM APPLIED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GUIDELINES AND TO BE APPROVED BY ARCHITECT. PROVIDE SEAL PLATES TO THE ENDS OF ALL HOLLOW SECTIONS. WITH 'BREATHERR' HOLES IF MEMBERS TO BE HOT DIP GALVANISED. SITE WELDING OF HOT DIP GALVANISED STEEL IS PERMISSIBLE IF UPON COMPLETION THE WELDS ARE TREATED WITH THE APPROPRIATE COATING AS PER AS/NZS2312

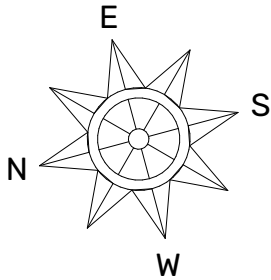
LOCATION AND SETOUT OF STRUCTURAL STEEL AND TIMBER MEMBERS SHOWN ON THIS DRAWING IS DIAGRAMMATIC ONLY. DIMENSIONAL SETOUT AND ALIGNMENT OF ALL STRUCTURAL STEEL AND TIMBER MEMBERS SHOWN ON THIS DRAWING IS TO BE AS PER ARCHITECTS DRAWINGS OR ON SITE MEASUREMENTS.

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

2/25 Seabeach Ave,
Mona Vale NSW 2103

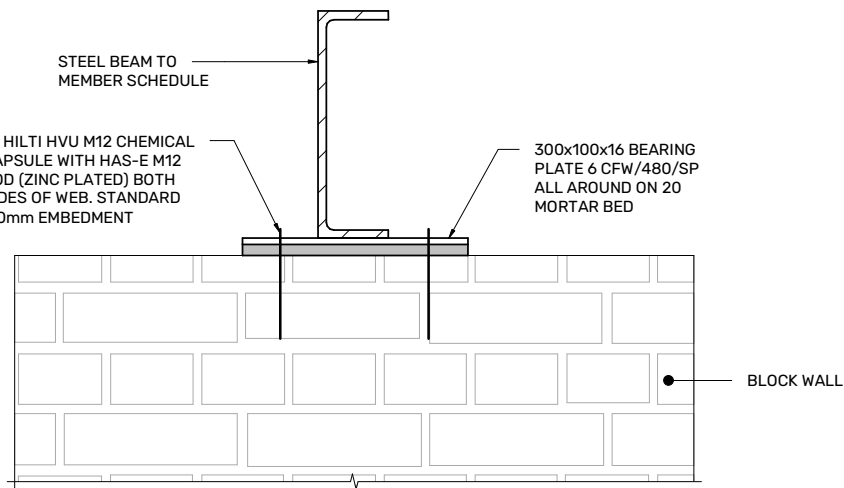
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

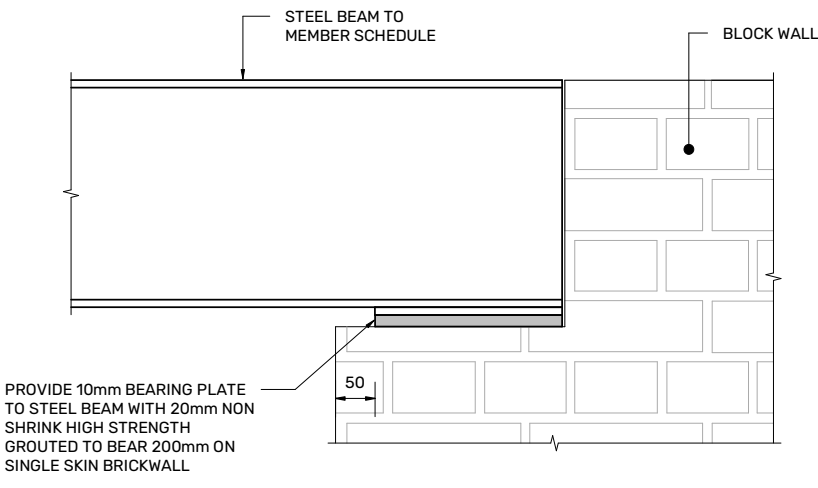
Project
PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title
FIRST FLOOR FRAMING PLAN

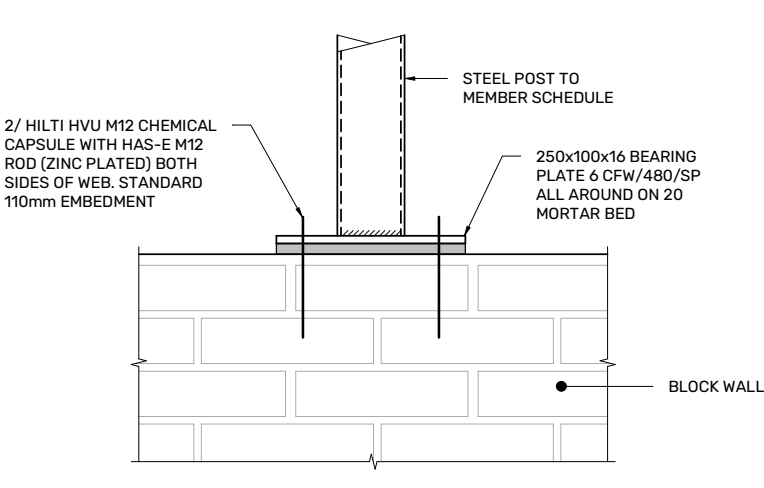
Job No. 2024122	Sheet S2.0
Date JUN 2025	
Scale As indicated	Issue c2 A3



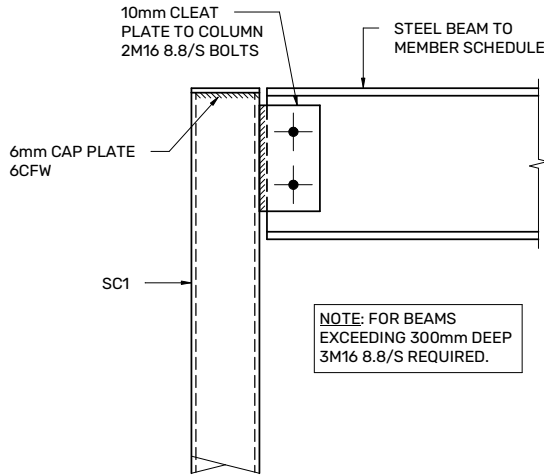
**TYPICAL STEEL BEAM PERPENDICULAR TO
BRICK WALL - BEARING PLATE DETAIL**
SCALE 1:10



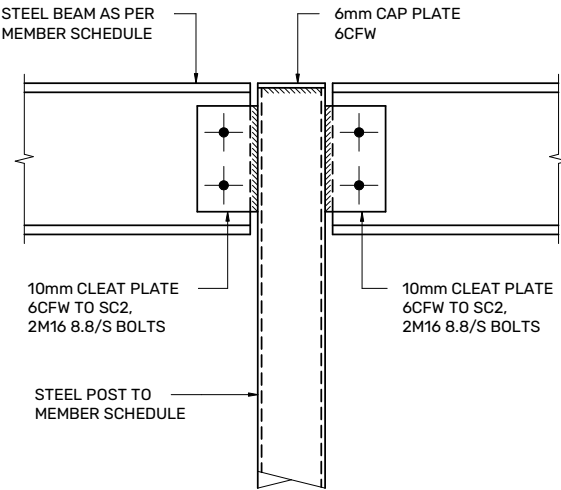
**TYPICAL STEEL BEAM PARALLEL TO BRICK
WALL - BEARING PLATE DETAIL**
SCALE 1:10



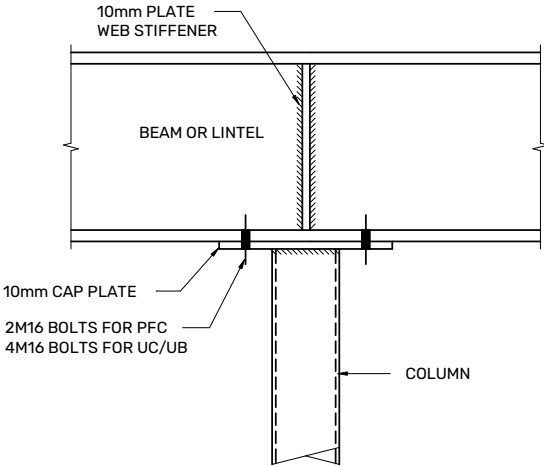
TYPICAL BEARING PLATE DETAIL
SCALE 1:10



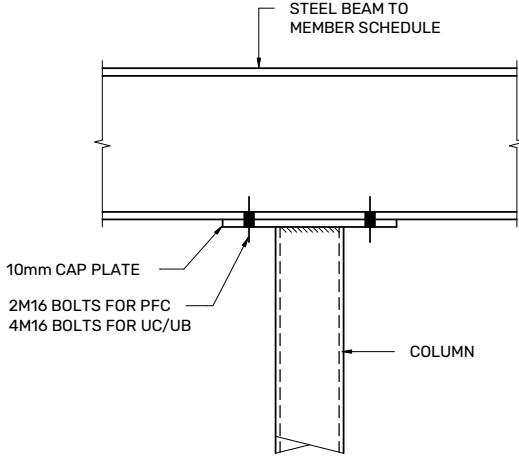
**TYPICAL STEEL BEAM TO SC1 CONNECTION
DETAIL**
SCALE 1:10



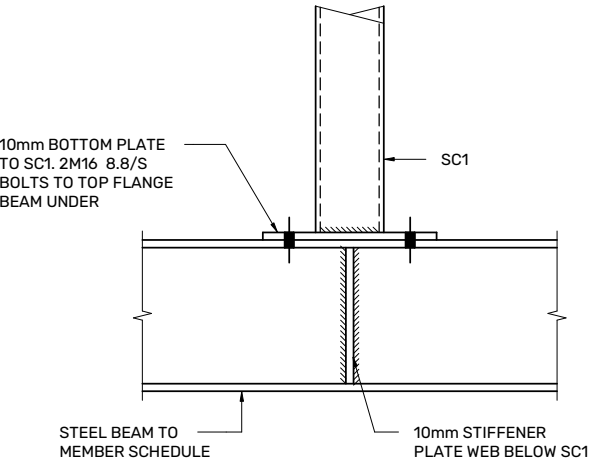
**CENTRAL STEEL POST TO STEEL BEAM
CONNECTION DETAIL**
SCALE 1:10



**TYPICAL STEEL BEAM TO CENTRAL COLUMN
CONNECTION DETAIL**
SCALE 1:10



**TYPICAL STEEL BEAM TO CENTRAL COLUMN
CONNECTION DETAIL**
SCALE 1:10



SC1 TO STEEL BEAM CONNECTION DETAIL
SCALE 1:10

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P1	PRELIMINARY	12-12-24

Revision Schedule

**GREENWOOD CONSULTING
ENGINEERS**
2/25 Seabeach Ave,
Mona Vale NSW 2103

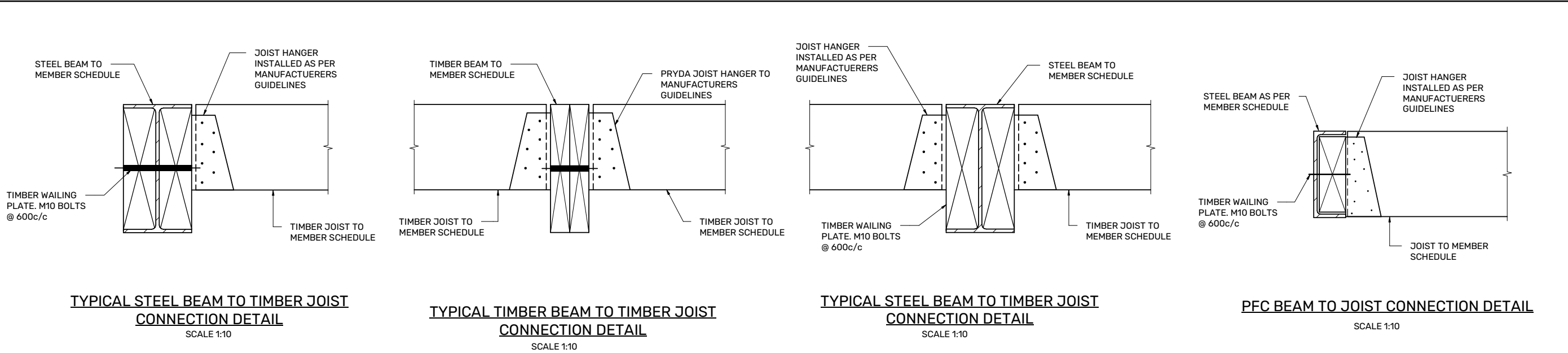
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

Project
PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title
FIRST FLOOR FRAMING
DETAILS - SHEET 1

Job No. 2024122	Sheet S2.1
Date JUN 2025	
Scale 1:10	Issue c2 A3



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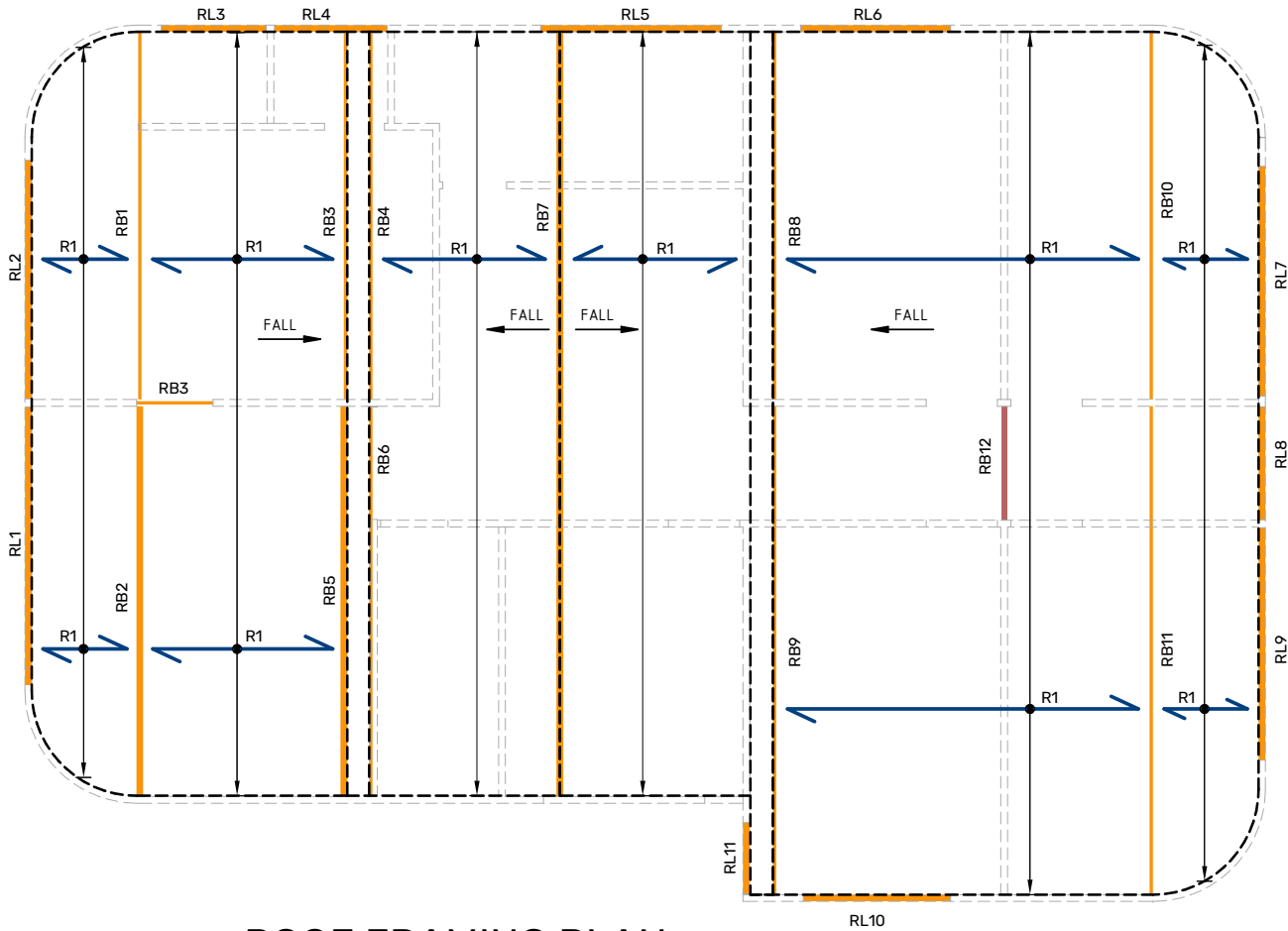
C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule

GREENWOOD CONSULTING ENGINEERS

2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed		E.G
Drawn		A.L
Checked		E.G
Approved		E.G
Client		
BEN LIEBKE		
Project		
PROPOSED ADDITIONS & ALTERATIONS 73 BRIGHTON STREET, CURL CURL		
Drawing Title		
FIRST FLOOR FRAMING DETAILS - SHEET 2		
Job No. 2024122	Sheet	
Date JUN 2025	S2.2	
Scale 1:10	Issue c2	A3



ROOF FRAMING PLAN

SCALE: 1 : 100

LEGEND



DENOTES ROOF FALL DIRECTION,
REFER TO ARCHITECTURAL DOCUMENTATION
FOR DETAILS TYPICAL

NOTES:

1. ALL TIMBER STUDD WALLS TO BE 90x45 MGP10 H2 or T2 TREATED STUDS AT 450 CTS. STUD IN ACCORDANCE WITH AS1684.2-2010 AS WELL AS NSW TIMBER FRAMING MANUAL.
2. ALL EXISTING WALLS AND FOOTING TO BE CONFIRMED ONSITE
3. ALL TIMBER LINTEL BEAMS TO BE IN ACCORDANCE WITH AS1684.2-2010.
4. ALL TIMBER TO TIMBER TIE DOWNS AND CONNECTIONS TO BE TO AS 1684.2 - 2010
5. DOUBLE JOISTS TO BE LOCATED BELOW ALL LOAD BEARING STUD WALLS.
6. ALL ADDITIONAL BRACING BY OTHERS TO AS1684.2 CLASS N2
7. ALL TIMBER BEAMS/LINTELS TO BEAR ONTO DOUBLE STUD U.N.O
8. ALL STEEL BEAMS BEARING ONTO BRICKWORK NO LESS THAN 200mm WHEN PARALEL TO WALL AND TO HAVE 300 WIDE 10mm THICK BEARING PLATE WHEN PERPENDICULAR.
9. ALL HYSPAN BEAMS TO BE LAMINATED AS PER DETAIL H1 AND MANUFACTURERS GUIDELINES.
10. TIMBER BLOCKING AT MID SPAN OF ALL JOISTS AND RAFTERS
11. WALL AND ROOF BRACING IS TO BE IN ACCORDANCE WITH AS 1684 TIMBER FRAMING CODE AND NSW TIMBER FRAMING MANUAL.
12. TRIM ROOF OPENINGS WITH EQUIVALENT RAFTER/PURLIN SIZES U.N.O..
13. FOR STEEL COLUMN TO TIMBER/STEEL MEMBERS USE 10mm PLATE WITH 2 M16 BOLTS FOR ANY CLEAT CONNECTIONS
14. ALL EXTERNAL/EXPOSED SOFTWOOD MEMBERS ARE TO BE SUITABLY PRESERVATIVE TREATED TO H3 LEVEL (AS 1604) THEN STAINED OR PAINTED.
15. ALL EXTERNAL/EXPOSED HARDWOOD MEMBERS ARE TO BE OF DURABILITY CLASS 2 OR BETTER (AS 1604) THEN STAINED OR PAINTED.
16. ENGINEER TO INSPECT AND CERTIFY ALL FRAMING, TIE DOWNS AND BRACING PRIOR TO SHEETING.
17. WATERPROOFING AND FLASHING AT INTERNAL TO EXTERNAL STEP TO BE IN ACCORDANCE WITH BCA
18. ALL EXPOSED STEEL WORK TO BE GALVANISED OR SUITABLY PAINTED WITH A 2 COAT EPOXY SYSTEM APPLIED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GUIDELINES AND TO BE APPROVED BY ENGINEER.
19. ALL TIMBER FIXINGS AND TIE DOWNS TO BE IN ACCORDANCE WITH AS1684.2 FOR N2 WIND CONDITIONS

IF IN DOUBT ABOUT ANY ASPECT OF PROJECT CONTACT THIS OFFICE ON 0424 784 706

NOTE:

PROVIDE HOOP IRON STRAP
BRACING TO ROOF RAFTERS AS
PER AS1684.2 WIND CLASSS N2

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ROOF MEMBER SCHEDULE

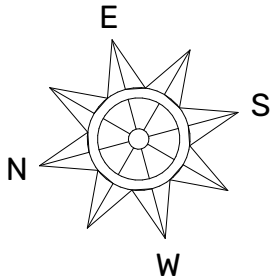
MARK	SIZE
R1	140x45 MGP10 RAFTER @ 600c/c
RB1	300x45 LVL 13
RB2	2/300x45 LVL 13
RB3	300x45 LVL 13
RB4	300x45 LVL 13
RB5	2/300x45 LVL 13
RB6	300x45 LVL 13
RB7	2/300x45 LVL 13
RB8	300x45 LVL 13
RB9	300x45 LVL 13
RB10	300x45 LVL 13
RB11	300x45 LVL 13
RB12	200 PFC
RL1	2/190x45 MGP10
RL2	2/190x45 MGP10
RL3	2/140x45 MGP10
RL4	2/140x45 MGP10
RL5	2/190x45 MGP10
RL6	2/140x45 MGP10
RL7	2/190x45 MGP10
RL8	2/140x45 MGP10
RL9	2/140x45 MGP10
RL10	2/140x45 MGP10
RL11	2/90x45 MGP10

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C2	CONSTRUCTION ISSUE	19-06-25
C1	CONSTRUCTION ISSUE	10-02-25
P1	PRELIMINARY	12-12-24

Revision Schedule



2/25 Seabeach Ave,
Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client

BEN LIEBKE

Project

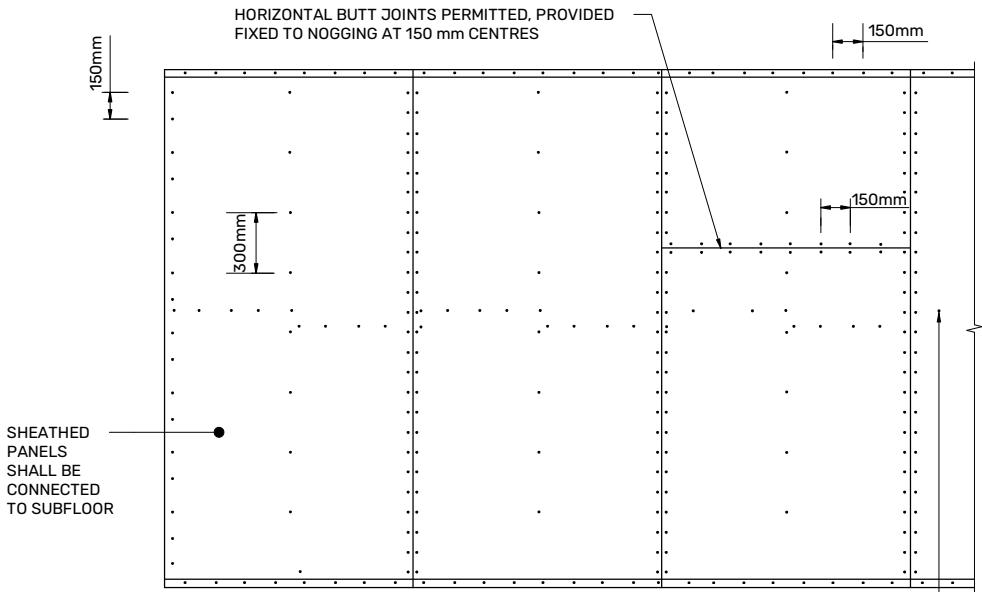
PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL

Drawing Title

ROOF FRAMING PLAN

Job No. 2024122	Sheet
Date JUN 2025	S3.0
Scale As indicated	Issue c2 A3

PLYWOOD : PLYWOOD SHALL BE NAILED TO FRAME USING 30mm x 2.8mm^ø GALVANIZED FLAT- HEAD NAILS OR EQUIVALENT.



FASTENER SPACING :
150mm TOP AND BOTTOM PLATES
150mm VERTICAL EDGES, NOGGING
300mm INTERMEDIATE STUDS

WHERE REQUIRED, ONE ROW OF NOGGINGS STAGGERED OR SINGLE LINE AT HALF WALL HEIGHT

MINIMUM PLYWOOD THICKNESS, mm		
STRESS GRADE	STUD SPACING mm	
	450	600
NO NOGGING (EXCEPT HORIZONTAL BUTT JOINTS)		
F8	7	9
F11	4.5	7
F14	4	6
F27	3	4.5
ONE ROW OF NOGGING		
F8	7	7
F11	4.5	4.5
F14	4	4
F27	3	3

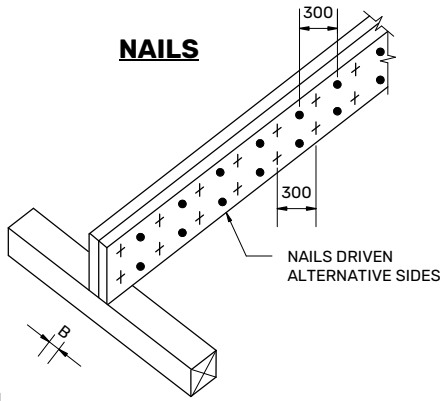
BEAD OF ELASTOMERIC ADHESIVE BETWEEN

TEMPORARY WATERPROOF MEMBRANE OVER

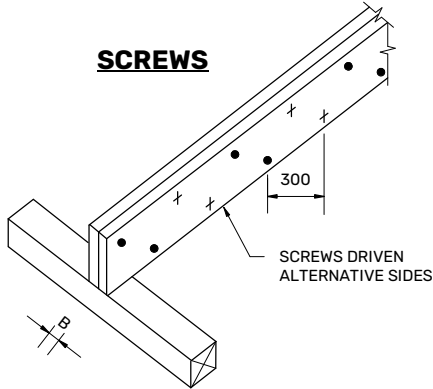
BEAD OF ELASTOMERIC ADHESIVE BETWEEN

THE DETAILS SHOWN ARE INTENDED TO BOTH LIMIT THE ENTRY OF MOISTURE BETWEEN THE LAMINATES AND TO PROVIDE ADEQUATE SHEAR TRANSFER

NAILS



SCREWS

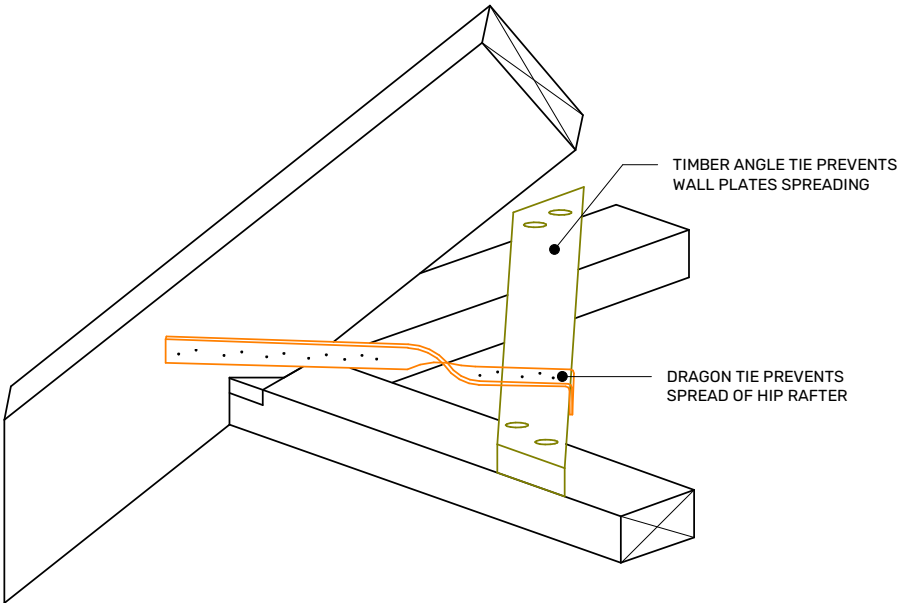


VERTICAL LAMINATION - TWO PIECES

SECTION SIZE "B"	MINIMUM NAIL DIA.	MINIMUM NAIL LENGTH	MINIMUM SCREW GUAGE	MINIMUM SCREW LENGTH
35	3.06 mm	75 mm	-	-
45	3.30 mm	90 mm	14g	75 mm
63	3.30 mm	100 mm	14g	100 mm
90	-	-	14g	150 mm

'PWB' BRACING DETAILS

SCALE 1:10



HIP RAFTER CONNECTION TO WALL FRAME DETAIL

SCALE - 1:10

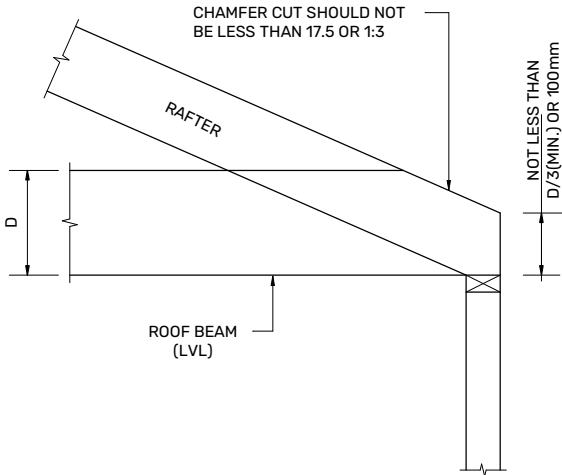
RAFTERS, REFER TO PLAN FOR DETAIL

'DOUBLE UP' MAIN RAFTERS

'DOUBLE UP' MAIN RAFTERS

TYPICAL SKYLIGHT DETAIL

SCALE - 1:10



THE ABOVE CHAMFER DETAIL MAY BE USED FOR COUNTER BEAM, HANGING BEAMS AND STRUTTING BEAMS SIZED USING DESIGN IT.

CHAMFER OF MEYER TIMBER LVL SUPPORTS

SCALE - 1:20

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P1	PRELIMINARY	12-12-24

Revision Schedule

 **GREENWOOD CONSULTING ENGINEERS**
2/25 Seabeach Ave,
Mona Vale NSW 2103

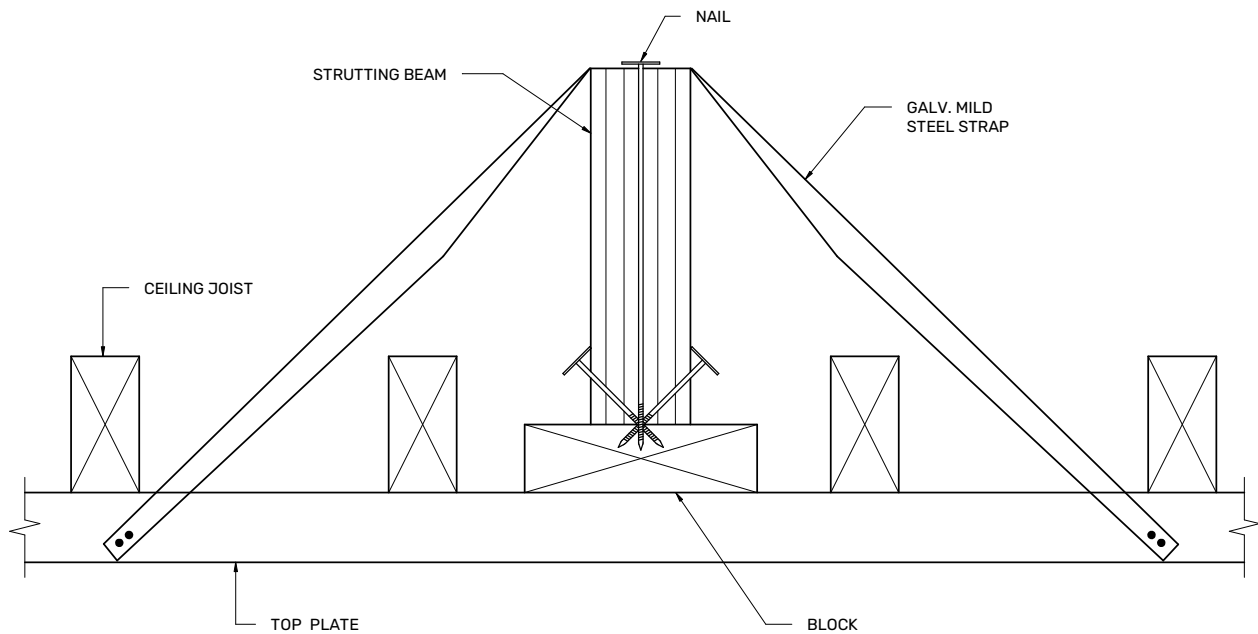
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

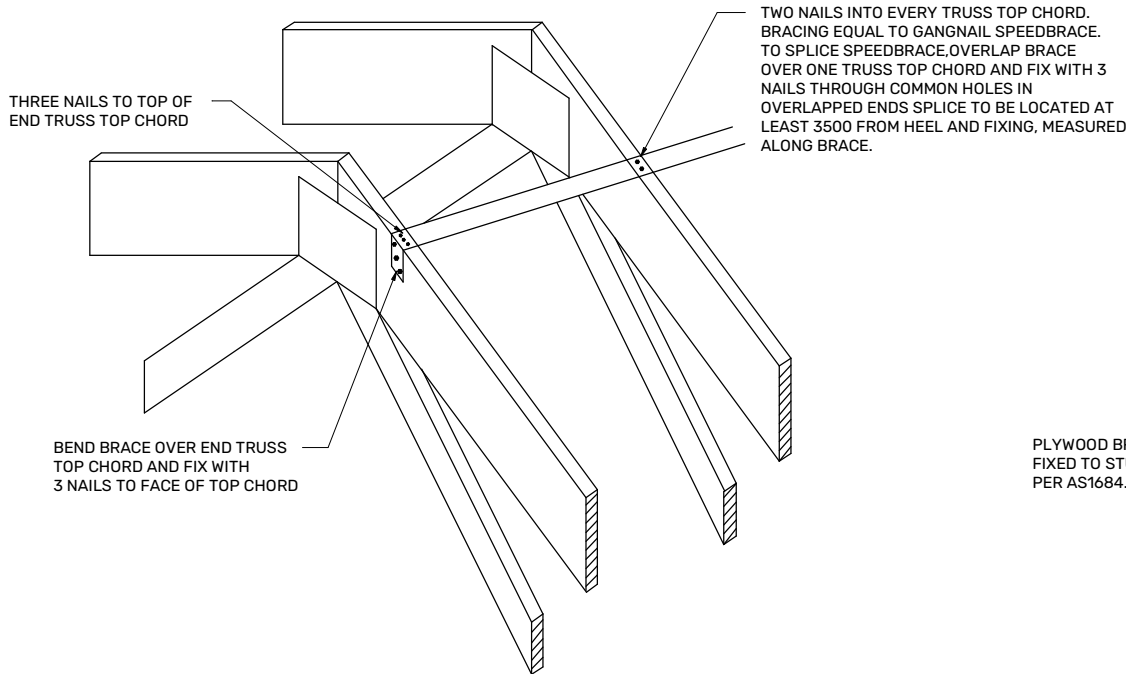
Project
**PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL**

Drawing Title
ROOF FRAMING DETAILS - SHEET 1

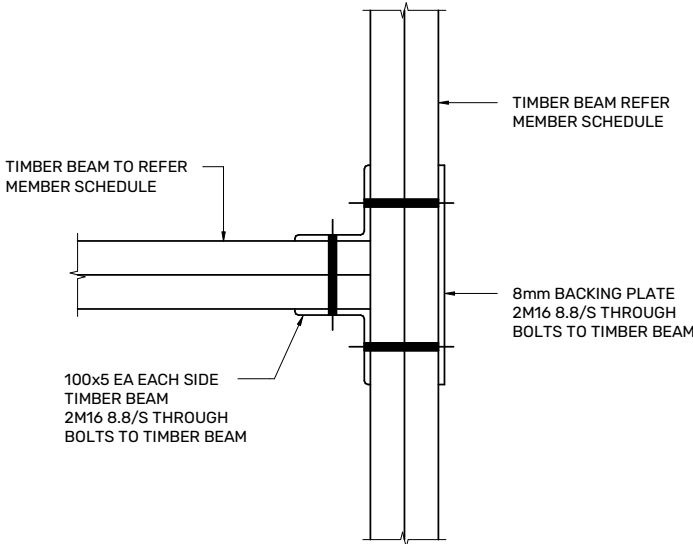
Job No. 2024122	Sheet S3.1
Date JUN 2025	
Scale As indicated	Issue c2 A3



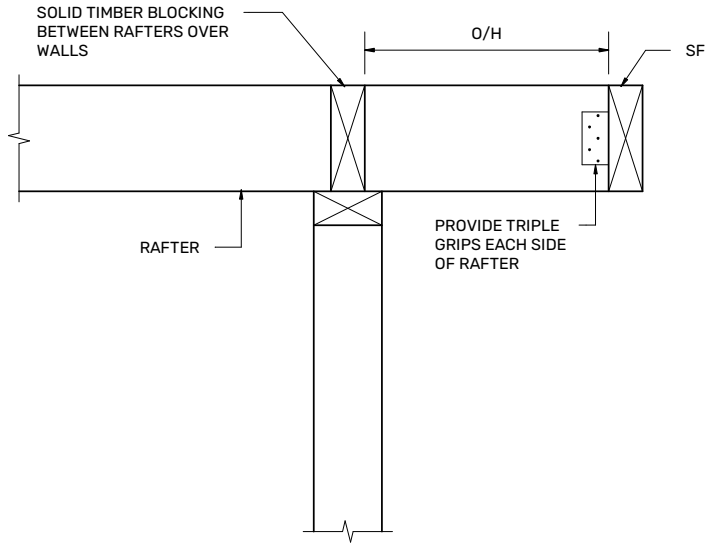
**END RESTRAINT FOR STRUTTING BEAMS -
STRUTTING BEAM PARALLEL TO CEILING JOISTS**
SCALE:1:5



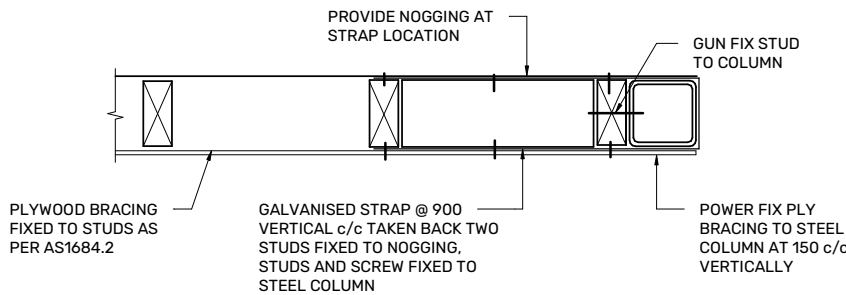
TYPICAL ROOF STRAP BRACING FIXING DETAIL
N.T.S



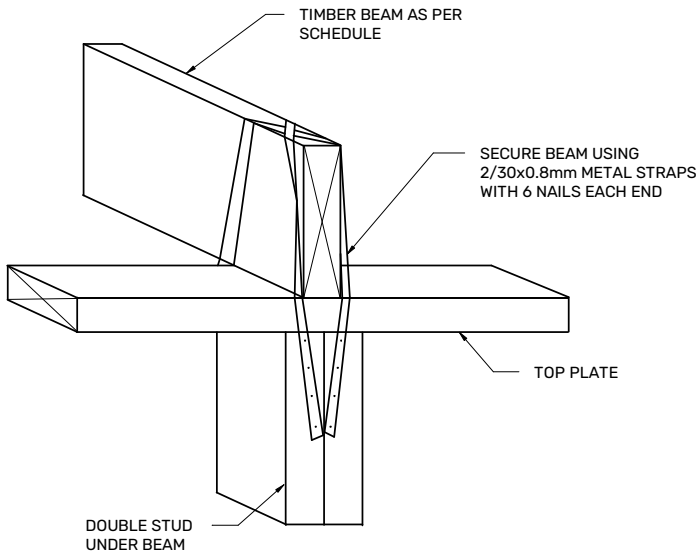
TIMBER BEAM TO TIMBER BEAM CONNECTION
SCALE 1:10



SF TO RAFTER DETAIL
SCALE-1:10



COLUMN TO PLY BRACING WALL DETAIL
SCALE 1:10



BEAM TIE DOWN DETAIL
SCALE 1:10

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2/25 Seabeach Ave,
Mona Vale NSW 2103

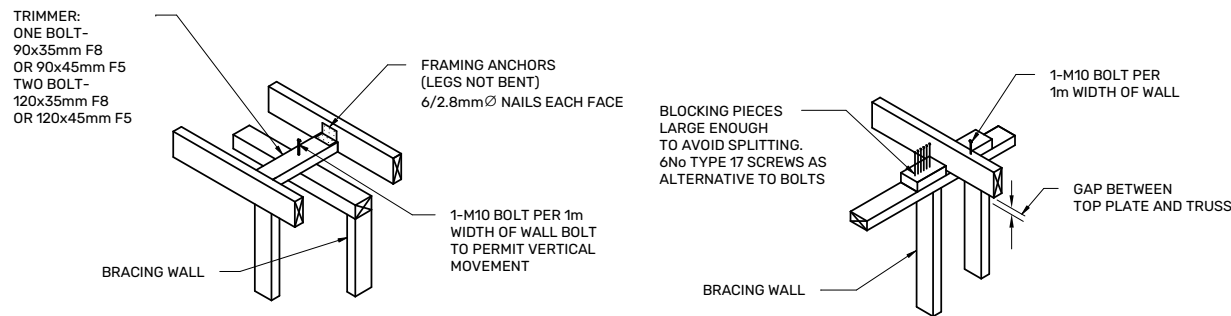
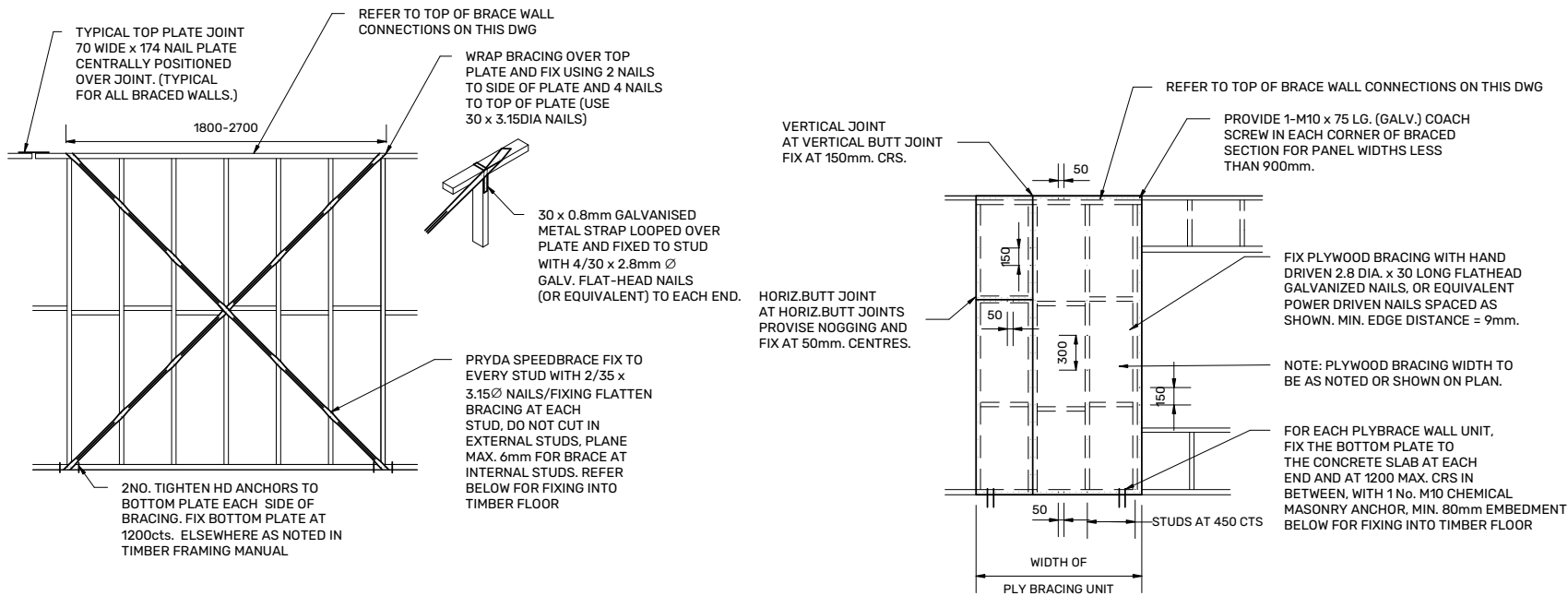
Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

Client
BEN LIEBKE

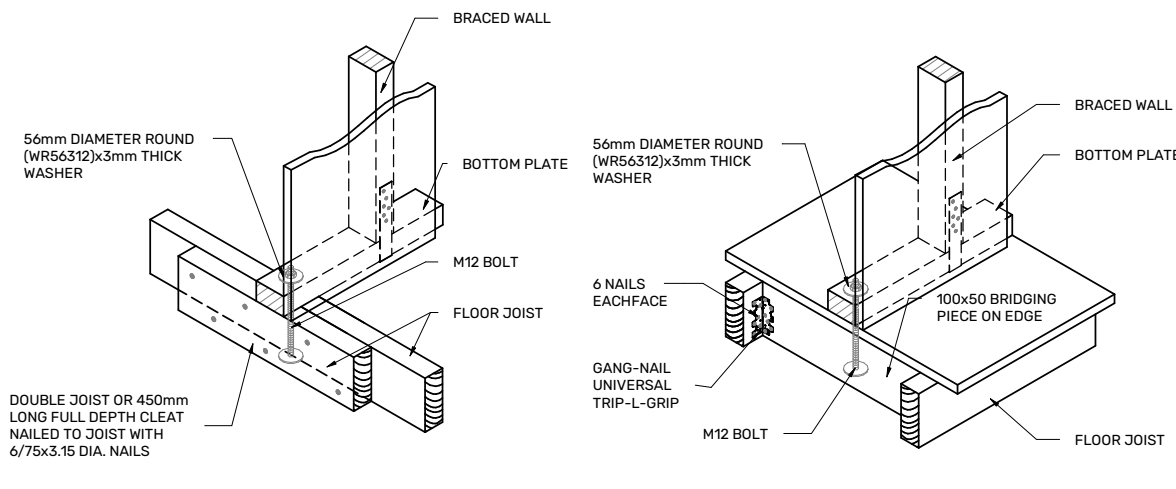
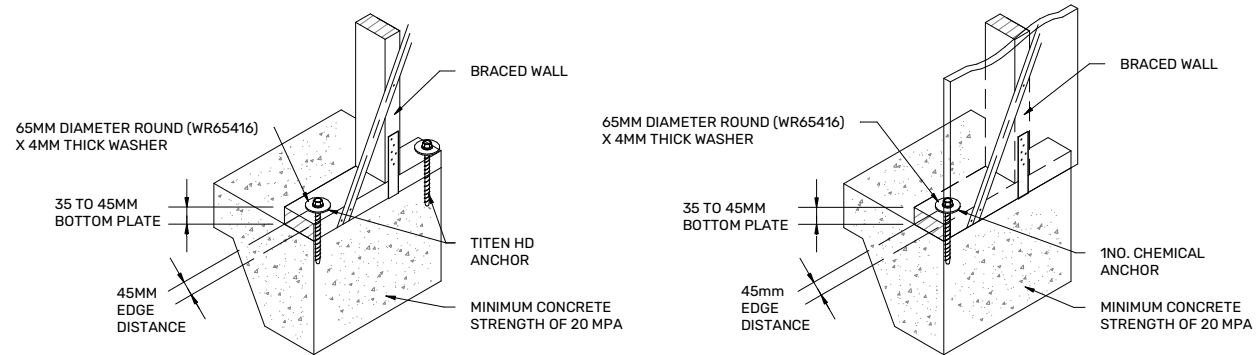
Project
**PROPOSED ADDITIONS &
ALTERATIONS
73 BRIGHTON STREET, CURL
CURL**

Drawing Title
**ROOF FRAMING DETAILS -
SHEET 2**

Job No. 2024122	Sheet
Date JUN 2025	S3.2
Scale As indicated	Issue c2 A3



INTERNAL BRACING WALL TOP CONNECTIONS
 SCALE N.T.S.



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P1	PRELIMINARY	12-12-24

Revision Schedule

GREENWOOD CONSULTING ENGINEERS
 2/25 Seabeach Ave,
 Mona Vale NSW 2103

Designed	E.G
Drawn	A.L
Checked	E.G
Approved	E.G

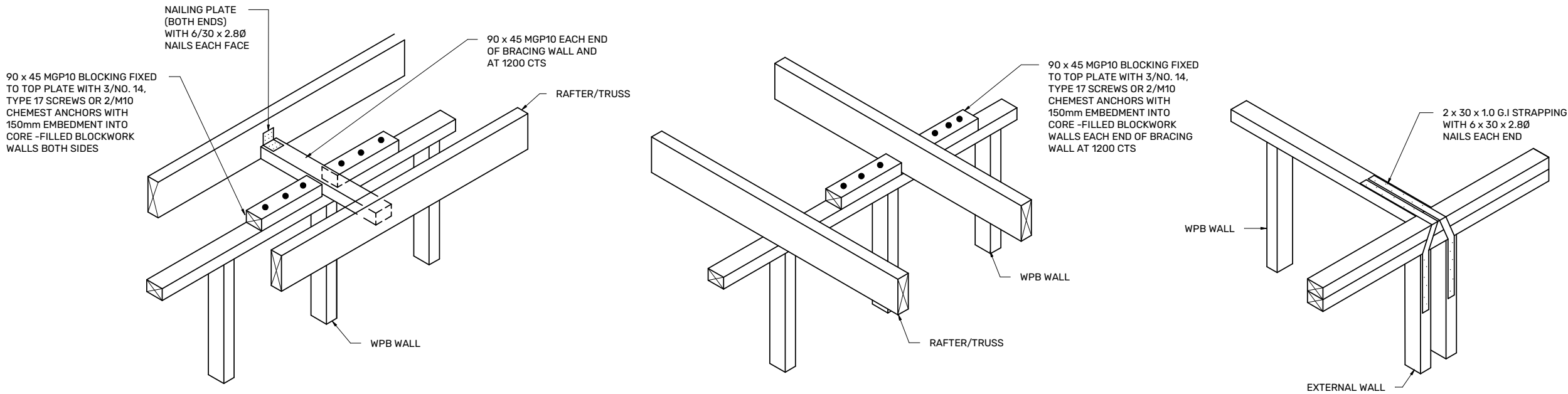
Client
 BEN LIEBKE

Project
 PROPOSED ADDITIONS &
 ALTERATIONS
 73 BRIGHTON STREET, CURL
 CURL

Drawing Title
 WALL BRACING DETAILS -
 SHEET 1

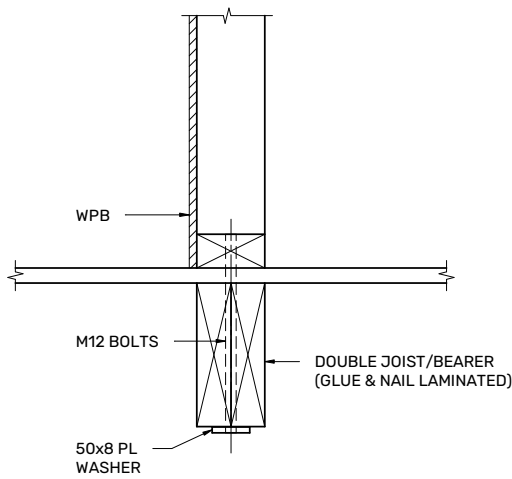
Job No. 2024122	Sheet
Date JUN 2025	S4.0
Scale As indicated	Issue c2 A3

WALL BRACING DETAIL

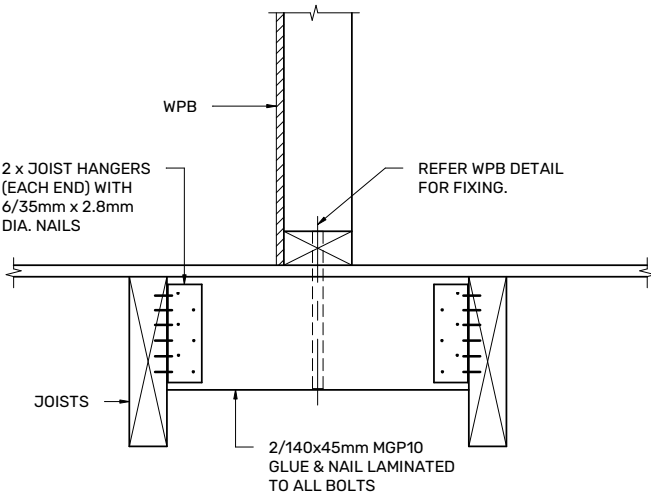


WPB OF ROOF FRAMING/ EXTERNAL WALL CONNECTION

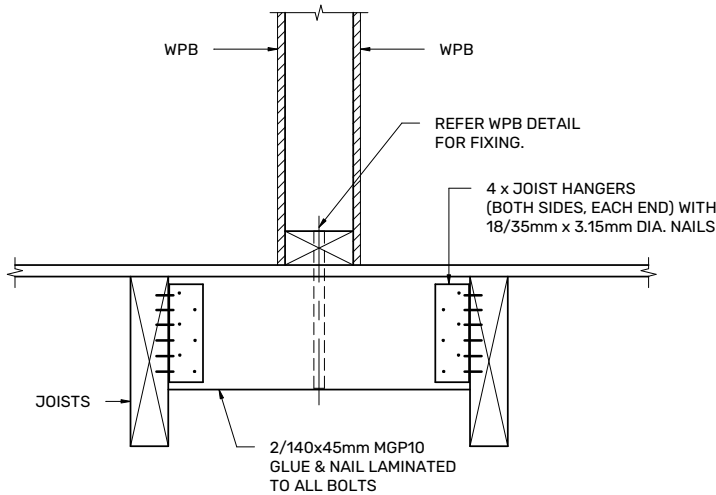
SCALE N.T.S



WPB TO JOIST / BEARER CONNECTION



WALL SHEETED ONE SIDE ONLY



WALL SHEETED BOTH SIDES

WPB TO OFFSET JOIST CONNECTION

SCALE N.T.S


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Designed	E.G
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Approved	E.G

Client
BEN LIEBKE

Project
PROPOSED ADDITIONS & ALTERATIONS
73 BRIGHTON STREET, CURL CURL

Drawing Title
WALL BRACING DETAILS - SHEET 2

Job No. 2024122	Sheet
Date JUN 2025	S4.1
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