DIRECTORS
Stewart McGeady Rick Wray Brad Seghers

Date: 9th February 2016 Job No. 160136
Client: Alison Fleet Engineer: NC

Site: 1/29 Margaret Street, Fairlight

At the request of Alison Fleet, Nick Crowle of Northern Beaches Consulting Engineers P/L carried out a site inspection at the above property on 25th February 2016. The purpose of the visit was to inspect and comment on the capacity of the existing structure to support the proposed alterations as indicated on S01.

The assessment was limited to the proposed wall alterations and consisted of a walk over style inspection of the building. The four storey unit block is constructed with brick walls, concrete floors and a tiled roof.

PROPOSED WORKS

The proposed works include the removal of a section of wall between the bathroom and the hallway, the bathroom and a bedroom, a new doorway between a bedroom and the hallway, a new doorway between the study and a bedroom, and the removal of a door opening into the study.

ASSESSMENT

The walls are considered sound and provide an adequate structure for the proposed works, provided that engineering plans are complied with. The works are not expected to adversely affect the buildings overall structural integrity.

STRUCTURAL REQUIREMENTS

1. Temporary prop the existing slab before the walls are removed
2. Install a 150 UB 18 (B1) with a maximum span of 1600mm
3. Install a 150 UB 18 (B2) with a maximum span of 1600mm
4. Install the 100x100x6 SHS (SC1) then install a 150x100x8 Galintel Rendabar (L1) with a maximum span of 900mm as per S03.
5. Install a 150x100x8 Galintel Rendabar (L2) with a maximum span of 900mm.
6. B1 and B2 must be fire rated in accordance with the BCA requiring a 90/-/- fire rating. L1 and L2 must have 15mm of cement render to underside of lintel to achieve fire rating.

Note: This certification does not cover any defects to the structure that were not included for assessment at the time of inspection. In the event that defects are uncovered during construction or become apparent after construction is complete, then the engineer should inspect the areas of concern and prepare a specification for remedial works. (These works will be carried out at hourly rates.) The procedure above in no way relieves the builder of their usual construction obligations.

If the proposed works are to be certified in accordance with this report, they must be inspected by Northern Beaches Consulting Engineers while exposed. An additional fee applies.

Yours sincerely,
NORTHERN BEACHES CONSULTING ENGINEERS P/L

David Hunter
BE CPEng NER

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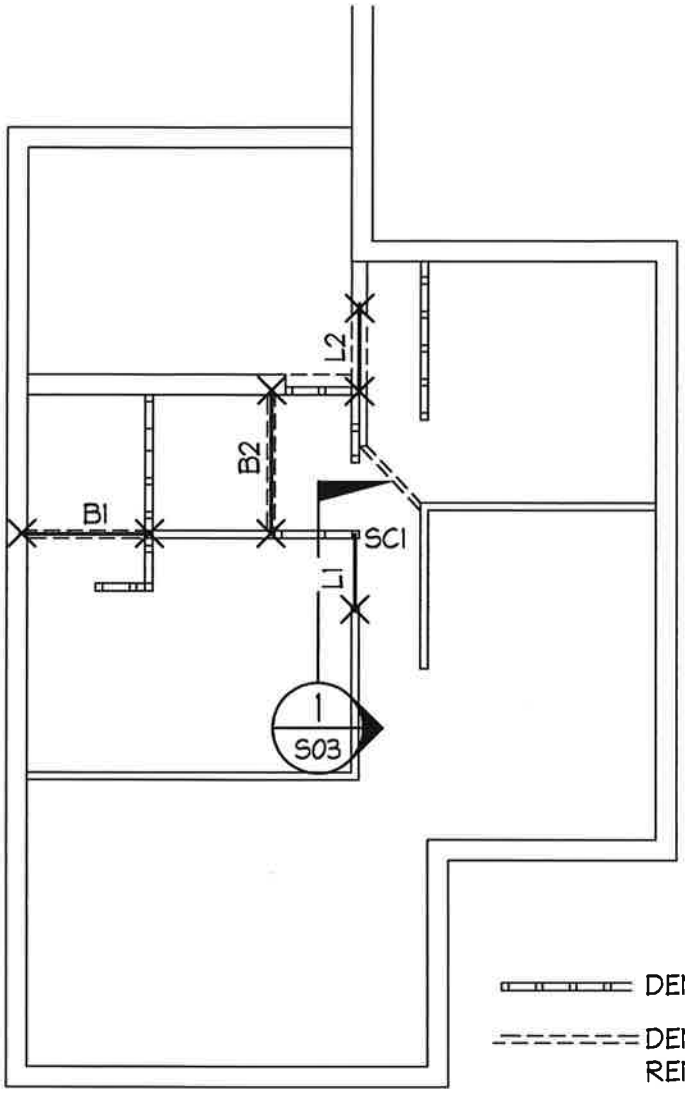

DENOTES NEW STUD WALL.

DENOTES WALL TO BE REMOVED.

SKETCH PLAN

SCALE = N.T.S.

MEMBER SCHEDULE

B1, B2 - 150 UB 18
L1 - 150x100x8 GALINTEL RENDABAR
L2 - 2/150x100x8 GALINTEL RENDABAR
SP1 - 100x100x6SHS

L1 & L2 TO HAVE MIN. 15mm OF CEMENT RENDER TO UNDERSIDE OF LINTEL.

NOTE : B1,B2 & SP1 TO BE FIRE RATED TO THE NCC. 90/-/- FIRE RATING REQUIRED.

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Project:
PROPOSED ALTERATIONS
at: 1/29 MARGARET ST
FAIRLIGHT
for: ALISON FLEET

Date:	Design:	Drawn:	Checked:
JAN. 16	N.C.	LFC	

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GENERAL NOTES:

GENERAL

G1. The drawings are to be read together with all Architects drawings and specifications.

G2. Dimensions shall not be obtained by scaling from the drawings. All setting out dimensions shall be verified and discrepancies shall be referred to the Engineer prior to commencement of work.

G3. Care is required during construction so that structural elements are not over stressed and that the works and excavations required therefore are kept stable at all times.

G4. Design, materials and workmanship are to be in accordance with current S.A.A standards and statutory authority regulations except where varied by these documents.

G5. Design live loads are in accordance with AS 1170.1

G6. Builder to ensure stability of existing structures in the vicinity of excavation works.

INSPECTIONS BY ENGINEER

48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION
ANY STRUCTURAL ELEMENT NOT INSPECTED BY NBC WILL NOT BE CERTIFIED BY NBC

1. Bearing strata of all footings prior to concrete pour by Geotechnical Engineer.
2. Any reinforcement prior to concrete pour.
3. Timber and Steel framing prior to cladding or lining.
4. Steel lintels after installation.
5. CONTACT YOUR PCA (Principal Certifying Authority) AS TO REQUIREMENTS FOR MANDATORY CRITICAL STAGE inspections IN ACCORDANCE WITH REVISED EP&A ACT REGULATIONS EFFECTIVE JULY 1, 2004.
6. Inspection by Geotechnical Engineer over 1.5m of vertical cut through Sandstone bed rock to permit identification of defects and remedial measures initiated.

TIMBER

T1. All workmanship and materials to be in accordance with AS 1684, AS 1720 and as 3959. All soft wood to be Grade F7 unless noted otherwise. All hardwood to be minimum Grade F14 unless otherwise noted. Exposed timber to be CCA treated (to AS 1604) redried after full impregnation, or durability class 1, 2 or 3. ALL SOFTWOOD TIMBER FRAMING TO HAVE A MINIMUM TREATMENT PROTECTION OF H2 or T2 TREATED FOR TERMITE PROTECTION UNLESS NOTED OTHERWISE.

T2. All joists deeper than 150 to have blocking over support bearers and at a maximum 3000 centres.

T3. Roof trusses to be designed by the manufacturer to the relevant standards. Pre camber to be an amount equal to dead load deflection unless otherwise noted..

T4. All holes for bolts to be exact size. Washers to be used under all heads and nuts and to be at least 2.5 times the bolt diameter. Bolts to be M16 grade 4.6 unless noted otherwise.

T5. Treat all exposed cut ends with Reseal by Protim to manufacturers specification to achieve required Hazard Level Exposure Classification.

T6. Battens for T & G to be Kiln Dried to 12 %. 38mm minimum. deep treated pine or as recommended by supplier. Flooring to be installed no sooner than 28 days after slab pour.

T7. Hot dip galvanized nails/clouts/screws to be used with all timber connections.

T8. Continuous nailing must not be used for any timber connections.

T9. All exposed CCA treated pine to have an application of penetrating sealer to reduce warping and twist of the timber due to varying moisture content in service.

T10. All Stud walls to be 90x45 F7 Kiln Dried T2 Treated at 450 Cts and noggings to AS 1684.

STEEL

S1. All Structural steelwork to be Grade 300 or greater. Design, fabrication and erection to be in accordance with AS 4100.

S2. Materials and workmanship shall comply with AS 1250 - 1981, SAA Steel Structures Code and the specification for Structural Steel.

S3. Rolled steel sections including steel plates shall comply with AS 3678-1990.

S4. Cold formed steel sections shall be Grade 450 Zinc coated in accordance with AS 1538-1988.

S5. Welded and seamless steel hollow sections shall comply with AS 1163 Grade 350.

S6. Bolt Designation:
4.6S - Commercial bolts Grade 4.6, snug tightened.
8.8S - High Strength structural bolts Grade 8.8, snug tightened.
8.8TB - High Strength structural bolts Grade 8.8, fully tightened to AS 1511 and acting as a Bearing Joint.
8.8TF - High Strength structural bolts Grade 8.8, fully tensioned to AS 1511 and acting as a Bearing Joint.
Unless noted otherwise, all bolts will be 8.8S.

S7. Unless shown otherwise, minimum connection shall be 2M16 bolts, 10 thick gusset plates, 6mm continuous fillet welds.

S8. Load indicating washers shall be used in all fully tensioned joints. (8.8TF & 8.8TB).

S9. All welding shall be carried out in accordance with AS 1554 SAA Structural Steel Welding Code.

S10. Unless noted otherwise all welds shall be category SP using E41xx Electrodes. All butt welds shall be complete penetration butt welds category SP.

S11. Grouting of anchor bolt sleeves and base plates shall be completed by the contractor using High Strength, Non-Shrink grout.

S12. Fabrication and erection tolerances for Structural Steelwork shall be in accordance with AS 4100.

S13. Purlin bolts shall be M12 - 4.6S galvanised.

S14. Steel work shall have one of the following grades of corrosion protection:-

INTERNAL

a. Thoroughly cleaned wire brushing, followed by two coats of zinc phosphate primer equivalent to Dulux Luxaprime applied by hand using brushes to achieve a total dry film thickness of 70 microns.

EXTERNAL ELEMENTS, & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS GREATER THAN 2 km FROM SEA WATER:

b. Preparation Blast clean to a minimum standard Class 2.5 in accordance with AS 1627 Part 4.
Primer 2-pack epoxy phosphate at dft 75 microns (Dulux Durepon P14).
Barrier Coat 2-pack epoxy micaeous iron oxide, dft 100 microns
Finish Coat 2-pack epoxy high gloss acrylic to dft 75 microns.
(e.g. Dulux Acrathane 1 F)

c. Hot dipped galvanized to AS 4680.
Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, two pack zinc rick epoxy primer (Dulux Zincanode 202) is to be be applied after wire brushing affected area (use 3 coats minimum) or Hot Metal Spray in accordance with AS 4680.
PAINTING OVER HOT DIP GALVANISED STEEL:
Degrease and preparation whip blast. Application of a general purpose epoxy (Dulux Duremax GPE) thickness 125 microns. Application of a high build polyurethane (Dulux Weathermax HBR) thickness 100 microns

EXTERNAL ELEMENTS, & ELEMENTS WITHIN EITHER SKIN OF EXTERNAL CAVITY WALLS LESS THAN 2 km AND GREATER THAN 200m FROM SEA WATER:

d. Preparation blast clean to minimum Class 2.5
Application of a two pack zinc rich epoxy primer (Dulux Zincanode 402) thickness 75 microns. Application of a general purpose epoxy (Dulux Duremax GPE) thickness 125 microns. Application of a high build polyurethane (Dulux Weathermax HBR) thickness 100 microns

e. Hot dipped galvanized to AS 4680.
Where the galvanic (Hot Dip Galvanized) coating is compromised by welding, bolting or damage, two pack zinc rick epoxy primer (Dulux Zincanode 202) is to be be applied after wire brushing affected area (use 3 coats minimum) or Hot Metal Spray in accordance with AS 4680.
PAINTING OVER HOT DIP GALVANISED STEEL:
Degrease and preparation whip blast. Application of a general purpose epoxy (Dulux Duremax GPE) thickness 125 microns. Application of a high build polyurethane (Dulux Weathermax HBR) thickness 100 microns

S15. Workshop drawings shall be prepared and two copies submitted to the engineer for review prior to fabrication commencement.

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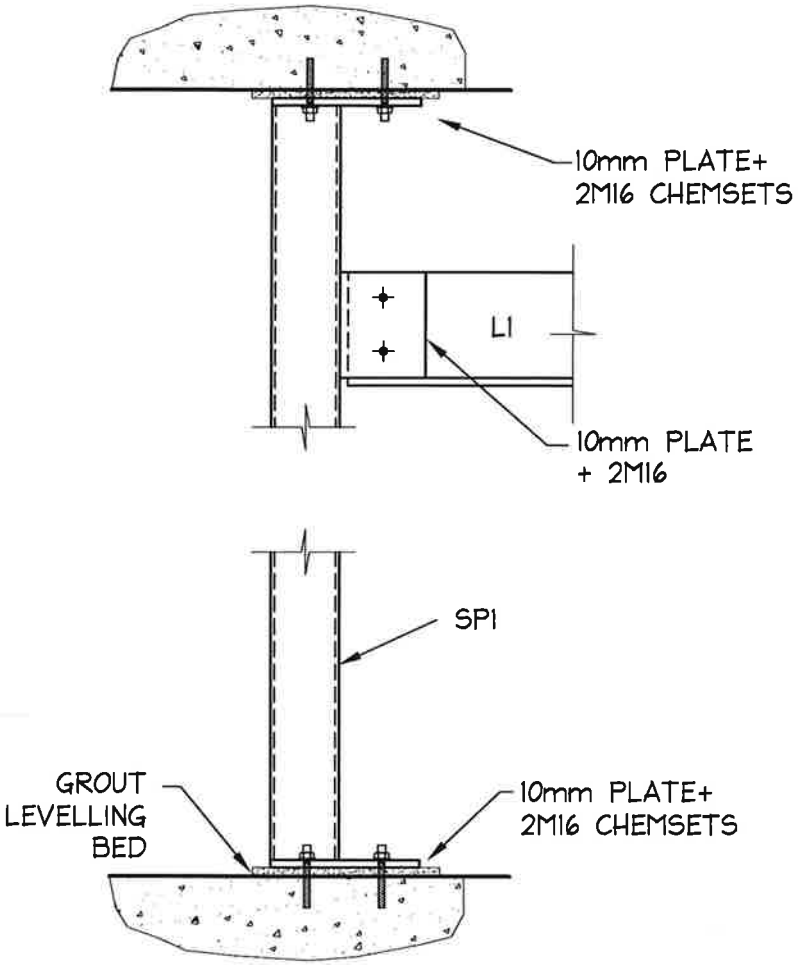

SECTION 1 / S02

SCALE = 1:20

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