1.GENERAL 1.1. Read Drawings in conjunction with all Architectural and other Consultants' drawings and Specifications and such other written instructions as may be issued during the course of the contract. Unless noted otherwise (U.N.O.) obtain all dimensions from the Architectural drawings. These drawings are prepared from limited information from site. Refer any discrepancies in these documents to the Architect before proceeding with the work. 1.2. Check and be responsible for the correctness of all dimensions and report any discrepancy immediately to the Architect. Do NOT scale dimensions from the drawings. 1.3. Ensure stability of the works during construction, and that of the adjacent structures, including excavations in the vicinity. Ensure no part of the existing and new structure is 1.4.Ensure all workmanship and materials are in accordance with the requirements of the current SAA Codes with Amendments and the By-laws and Ordinances of the relevant Building Authority and the Specification. 1.5.Design Loads: Live Load: 3.0 kPa Floor: Roof: Wind 0.25 kPa $V_U = 50 \text{m/s}$ Velocity 2.FOUNDATIONS AND FOOTING 2.1.Site Class:-2.2. Foundations have been designed for the following Allowable Bearing Pressure. Obtain approval from a qualified Geotechnical Engineer of the foundation material before placing the 150 kPa for footings or to rock. 3.CONCRETE 3.1.Ensure all workmanship and materials are in accordance with the current SAA Code AS 3600, except where varied by the contract documents. 3.2.Concrete Quality Element: Grade (MPa) Max. Slump (mm) Max. Aggregate (mm) Cement type NONE Admixture 3.3. Provide clear concrete cover to reinforcement, as per AS 3600 or as below, which ever is the more severe requirement: External members (Class B2) Internal members (Class A1) Members cast against ground Members cast against ground with membrane 3.4. Mechanically vibrate all concrete. Do not use the vibrator to spread concrete. 3.5. Reinforcement is shown diagrammatically and is not necessarily shown in true projection. 3.6. Do not weld reinforcement unless shown on Structural Drawings. 3.7. Cog ALL top bars at slab edges. 3.8. Unless noted otherwise provide 350mm minimum end laps to fabric and lap slab, beam bars as noted below. Securely tie all reinforcement at all laps and intersections with 1.25mm black annealed wire. Bar Diameter N12 N16 3.9. Support reinforcement on approved plastic or plastic tipped wire stools on flat plates at not more than one metre centres both ways in slabs.

20mm

65mm

Lap Length (mm)

400 550 750

30mm

4.3. Refer to Architects Drawings for locations of vertical control joints. 4.4. Unless noted otherwise provide lateral movement affording masonry ties equal to 'M.E.T. 3.1' across vertical joints at 400mm maximum centres. 4.5. For all non load-bearing walls leave a minimum gap of 15mm between underside of structure and top of wall unless noted otherwise. 5. BLOCKWORK Reinforced Blockwork Grade 12 Additives Core filling Grout 6.STRUCTURAL STEELWORK 6.1. Ensure all workmanship and materials are in accordance with current SAA Codes: AS 1112, AS1163, AS 4100, AS1554 & the A.C.S.E structural steel fabrication and erection specifications except where varied by the contract documents. 6.2. Unless noted otherwise ensure all steel is in accordance with: AS 3678 AS 3679 AS 3679.1 AS 1538 6.3. Unless noted otherwise use 6mm continuous fillet weld, All bolts 20mm diameter Grade 8.8/S hot dip galvanised(Do not use bolt threads within the load-bearing length) 6.4. Where indicated on the drawings use complete penetration butt welds as defined in AS 1554 and grind smooth. 6.5. Unless noted otherwise use weld category GP to AS 1554.1 6.6. Supply galvanised bolts, nuts and washers, etc. in accordance with AS 1214. 6.7. Provide all cleats and drill all holes necessary for fixing steel to steel and timber to steel whether or not detailed in the drawings. 6.8. Provide steelwork not concrete encased with the surface treatment in accordance with the following specifications. Element: Internal All External steel work or in contact with External walls/ 6.9. Studs abutting columns shall be gun fixed at 300max cts. Column faces abutting brickwork shall have approved frame ties gun fixed at 3 course cuts for building into bed joints

1 cement: 4 Sand

10mm max aggregate.

Min 12MPa

230mm slump

Structural Steel

Hot-Rolled Bars and Sections

Surface Cleaning to

AS1627 Part 4

Class 1 Blast

Class 2.5 Blast

Cold Formed Steel Structures Code

0.005 parts Dynex (water thickener)

All cores to be filled and grout compacted adequately

Structural Steel Hot-Rolled Floor Plates and Slabs

Coating

70µm/ R.O.Z.P- 1 coat.

Hot dip galvanise after

fabrication to AS 4680.

7.TIMBER 7.1. Ensure all workmanship and materials are in accordance with the current SAA Code AS 1720.1 and AS 1684 7.2. Provide splices in continuous timbers only where shown on drawings. 7.3. Unless noted otherwise provide minimum edge and between-bolts spacings not less than those specified in AS 1720.1 7.4. Install all bolts which connect timbers with washers under nut and head if bearing against timber as follows: For M6 and Smaller bolts Min. 30mm dia. X 1.6mm thick washers. For M8, M10, M12, M16 bolts Min. 60mm dia. X 3mm thick washers. 7.5. Provide spring washers if bolts become inaccessible after installation. 7.6. Install bolts in holes having diameter not less than 1mm or more than 2mm larger than the bolt diameter. 7.7. Tighten all bolts connecting timber when installed. Re-tighten bolts those remain accessible at the end of the building period and at the end of defects liability period. Retighten all other bolts immediately before they become inaccessible. 7.8. Unless noted otherwise provide 75mm x 50mm top wall nailing plate. 7.9. Provide timber free from sapwood, springs, splits and other deleterious defects. Do not use timber with knots at joints. 7.10. Fix all 3-way framing anchors, with a minimum of ten 30 x 2.8mm flat head nails approved by the manufacturer of the anchors. 8.MASONRY ANCHORS 8.1. Use Chemical anchors utilising Grade 316 stainless steel and recommended injection 8.2. Embedment, edge distance and spacing of anchors to be as recommended by manufacturer or as specified on drawings. 8.3. Install anchors strictly in accordance with manufacturer's written instructions. Test Anchors after installation for the following loads. Minimum 15 Nm torque 12mm diameter anchors 16mm diameter anchors Minimum 35 Nm torque Minimum 50 Nm torque 20mm diameter anchors Grey Zinc Phosphate primer to

structural civil engineers

ABN 94 095 027 320 PO Box 747, TURRAMURRA. NSW 2074

CHIEF MECHANICAL **ENGINEERS BUILDING 505 WILSON ST REDFERN** 2016 **NOTES**

REV SET OF 1/2

DRG NO.

21002.01

