

EUGOWRA COMMUNITY SPORTS GROUND
EUGOWRA NSW 2806

GENERAL

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER MANUFACTURER'S NOTES AND SPECIFICATION AND ANY OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS, AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO CALARE CIVIL P/L FOR DECISION BEFORE PROCEEDING WITH THE WORK. CALARE CIVIL PTY. LTD. SHALL NOT BE HELD LIABLE FOR ANY FINANCIAL OR TIME LOSSES INCURRED RESULTING FROM THE FAILURE OF THE PRINCIPAL CONSTRUCTION CONTRACTOR AND THEIR SUBCONTRACTORS TO FOLLOW THE DIRECTIVES ISSUED IN THESE NOTES. NO DEFICIENT WORK WILL BE CERTIFIED.
- G2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS. ALL DIMENSIONS ARE TO BE IN ACCORDANCE WITH THE LATEST SET OF ARCHITECTURAL DRAWINGS.
- G3. ALL LEVELS AND SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED ON SITE BEFORE COMMENCEMENT OF WORK.
- G4. DURING CONSTRUCTION AND FOR THE DURATION OF THE 100 YEAR DESIGN LIFE, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED (THIS INCLUDES USING THE STRUCTURE TO SUPPORT TEMPORARY WORKS). ALL BRACING SHOWN IS THE MINIMUM REQUIREMENT AND NOT ALL BRACING MAY BE SHOWN. ALL TEMPORARY AND PERMANENT BRACING, Tie Downs AND GENERAL FIXINGS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NCC AND ALL RELEVANT AUSTRALIAN STANDARDS.
- G5. THE STRUCTURE HAS BEEN DESIGNED FOR FOLLOWING LOADS:

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SUPERIMPOSED DEAD LOADS TO AS/NZS1170.1:

FLOOR LOADS	G=0.5 kPa
ROOF LOADS	G=0.5 kPa
WALL LOADS	G=0.5 kPa

SUPERIMPOSED LIVE LOADS TO AS/NZS1170.1:

FLOOR LOADS	Q=150 kPa OR 18 kN FOR WORST EFFECT
DECK LOADS (IF APPLICABLE)	Q=150 kPa OR 15 kN/m ALONG EDGE
DECK LOADS (> 1m ABOVE F.S.L)	Q=2.0 kPa OR 1.8 kN FOR WORST EFFECT
NON-TRAFFICABLE ROOF LOADS	Q=0.25 OR 1.1 kN FOR WORST EFFECT

WIND LOADS TO AS/NZS1170.2:

REGION	A0
AVERAGE RECURRENCE INTERVAL, R	500 years
ULTIMATE WIND SPEED V_{500} (3 sec GUST)	45m/s
SERVICEABILITY REGIONAL WIND SPEED V_{25} (3sec)	37m/s
DIRECTIONAL MULTIPLIER	1.0
TERRAIN CATEGORY	2.0
DESIGN BUILDING HEIGHT	<5.0m
TERRAIN/HEIGHT MULTIPLIER ($M_{z,cat}$)	0.91
SHIELDING MULTIPLIER (M_k)	1.0
TOPOGRAPHIC MULTIPLIER (M_t)	1.0

EARTHQUAKE LOADS TO AS/NZS1170.4:

AVERAGE RECURRENCE INTERVAL, R	500 years
PROBABILITY FACTOR, (kp)	1.0
HAZARD FACTOR (Z)	0.08
SITE SUB-SOIL CLASS	C _e
STRUCTURE HEIGHT, (h _s)	2.9m
STRUCTURE DUCTILITY FACTOR (μ)	2.0
HORIZONTAL STATIC ULTIMATE DESIGN FORCE, (F ₁)	0.1 x SEISMIC WEIGHT (w ₁)

- G6. WHERE TEMPORARY CONSTRUCTION WORKS OR ACTIVITY WILL AFFECT OR BE LOCATED ON PROPOSED STRUCTURE, THIS OFFICE IS TO BE NOTIFIED TO ENSURE THE PROPOSED STRUCTURE WILL NOT BE ADVERSELY AFFECTED WHERE TEMPORARY CONSTRUCTION ACTIVITY WILL AFFECT EXISTING BUILDINGS, PROVIDE TEMPORARY PROTECTION TO MAINTAIN THEM WEATHER-PROOF AND PREVENT WATER ENTRY AT ALL TIMES UNTIL ALL PERMANENT PROTECTION INCLUDING FLASHING ETC. ARE COMPLETED. REINSTATE OR REPLACE ALL ATTACHMENTS, SIGNS, FITTINGS AND SERVICES DAMAGED OR REMOVED DURING THE CONSTRUCTION ACTIVITIES.
- G7. NO SUBSTITUTIONS WILL BE MADE WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.
- G8. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES UNLESS NOTED OTHERWISE (U.N.O.).
- G9. ALL WORK MUST BE CARRIED OUT IN ACCORDANCE WITH STATUTORY REQUIREMENTS, THE CURRENT EDITION OF THE NCC AND ALL RELEVANT AUSTRALIAN STANDARDS (CURRENT EDITIONS). THIS INCLUDES ALL THE RELEVANT OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS.
- G10. ALL RELEVANT SAFE WORK METHOD STATEMENTS AND JOB SAFETY ANALYSIS REPORTS ARE TO BE IN ACCORDANCE WITH NSW WORKSAFE REQUIREMENTS.

WITNESS INSPECTIONS

- W1. INSPECTIONS ARE TO BE COMPLETED BY CALARE CIVIL OR OTHER SUITABLY QUALIFIED AND EXPERIENCED ENGINEER ARE TO INSPECT AT THE FOLLOWING CRITICAL HOLD POINTS:
- PREPARATION OF FOUNDATION MATERIAL INCLUDING EXCAVATED PIER HOLES
 - INSTALLATION OF REINFORCEMENT AND/OR DOWELS AND/OR STARTER BARS PRIOR TO THE PLACEMENT OF CONCRETE FOR ALL CONCRETE AND REINFORCED MASONRY STRUCTURES
 - STEEL AND TIMBER FRAMING PRIOR TO THE INSTALLATION OF WALL AND ROOF SHEETING AND LININGS/CEILINGS
- W12. MINIMUM 48 HOURS NOTICE MUST BE PROVIDED THAT WITNESS INSPECTION IS REQUIRED.

TEMPORARY WORKS

- TW1. ALL TEMPORARY WORKS SUCH AS SHORING, PROPPING, BRACING, UNDERPINNING, SCAFFOLDING, FORMWORK, FALSEWORK, NEEDLE BEAMS AND WORK/CRAPE/PLACING PLATFORMS MUST BE DESIGNED BY A SUITABLY QUALIFIED ENGINEER TO BE ENGAGED BY THE PRINCIPAL CONSTRUCTION CONTRACTOR.
- TW2. THESE DRAWINGS ONLY SHOW THE PERMANENT STRUCTURE. UNDER NO CIRCUMSTANCES IS ANY PART OF THE PERMANENT STRUCTURE TO BE PROVIDED SUPPORT FOR TEMPORARY WORKS WITHOUT CONSULTING OF AN CIVILITY LIAISON TO ENSURE THE STRUCTURE IS ADEQUATE.
- TW3. IF ANY PART OF THE STRUCTURE IS CONSIDERED UNSAFE TO ERECT OR POSES A RISK, THIS OFFICE IS TO BE IMMEDIATELY CONTACTED FOR COMMENT, IF IN DOUBT, ASK.

CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

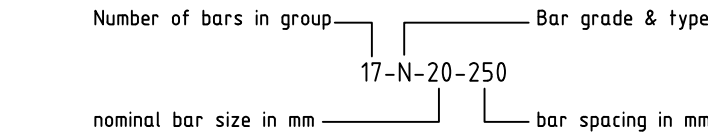
CONCRETE SPECIFICATION					
ELEMENT	SLUMP (mm)	MAX. AGGREGATE SIZE (mm)	CEMENT TYPE	f _c 28 DAY STRENGTH	ADMIXTURE
SLABS	80	20	GP PORTLAND CEMENT	N32	-
POLISHED SLABS		20		N40	
PAD FOOTINGS AND PIERS	80	20		N25	-
WALLS, COLUMNS AND PANELS	80	20		N32	-
BLINDING	-	-		N15	-

C3. UNDER NO CIRCUMSTANCES IS ADDITIONAL WATER TO BE ADDED TO THE CONCRETE ON SITE TO IMPROVE WORKABILITY. THE ADDITION OF WATER SIGNIFICANTLY REDUCES THE FINAL CONCRETE STRENGTH. MINIMUM CLEAR CONCRETE COVER TO REINFORCEMENT INCLUDING TIES AND STIRRUPS SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN.

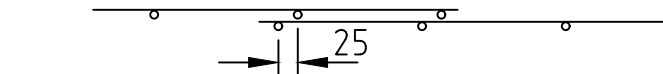
- | ELEMENT | COVER (mm) |
|-------------------|-------------------|
| FOOTINGS | 75 |
| COLUMNS AND BEAMS | 40 |
| SLAB ON GROUND | 30 TOP, 50 BOTTOM |
| SUSPENDED SLAB | 30 |

- C4. COVER TO REINFORCEMENT SHALL BE OBTAINED BY THE USE OF APPROVED BAR CHAIRS. BAR CHAIR SPACING SHALL ENSURE THAT REINFORCEMENT REMAINS IN PLACE THROUGHOUT THE POUR AND SHALL BE AT MIN. C/C SPACING AS FOLLOWS:
- | | MESH | 800mm |
|--|-------------------|--------|
| | BAR REINFORCEMENT | 1000mm |
- C5. ALL CONCRETE SHALL BE COMPACTED WITH MECHANICAL VIBRATORS. VIBRATORS SHALL NOT BE USED TO SPREAD CONCRETE.
- C6. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C7. BEM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS.
- C8. TOLERANCES FOR THE SIZE AND SHAPE OF REINFORCEMENT AND FOR STRUCTURES AND MEMBERS SHALL BE IN ACCORDANCE WITH AS4671
- C9. FORMWORK SHALL BE DESIGNED AND CERTIFIED BY A CHARTERED ENGINEER AND BUILT IN ACCORDANCE WITH AS3610.
- C10. NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- C11. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER. ALL CONSTRUCTION JOINTS SHALL BE SCABBLED OVER THE WHOLE FACE AND ANY UNSOUND MATERIAL REMOVED.
- C12. SAW CUT SHRINKAGE JOINTS SHALL BE MADE AS SOON AS POSSIBLE AFTER THE POUR. THIS TIME IS CONCRETE AND TEMPERATURE DEPENDENT BUT IS TO BE COMPLETED WITHIN THE FOLLOWING TIME LIMITS:
- IF TEMPERATURE EXCEEDS 25° THEN SAWCUTS MUST BE COMPLETED WITHIN 12 HOURS OF FINISHING
 - ALL OTHER TEMPERATURES, SAWCUTS MUST BE COMPLETED WITHIN 16 HOURS
- C13. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION. HOOKS, COGS, LAPS, ETC., SHALL COMPLY WITH SECTION 13 OF AS3600 (I.N.O.J.).
- C14. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN UNLESS THE APPROVAL OF THE ENGINEER IS OBTAINED FOR ANY OTHER SPLICE.
- C15. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER.
- C16. REINFORCEMENT SYMBOLS:
- | | |
|---|---|
| Y | DENOTES GRADE 410Y HOT ROLLED DEFORMED BARS TO AS1302. |
| R | DENOTES GRADE 230R HOT ROLLED PLAIN BAR S TO AS1302. |
| S | DENOTES GRADE 230S HOT ROLLED DEFORMED BARS TO AS1302. |
| N | DENOTES GRADE 500-N BARS TO AS/NZS4671:2001 |
| F | DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS1304. |
| L | DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS/NZS4671:2001 |
| M | DENOTES HARD-DRAWN WIRE TRENCH MESH TO AS1304. |
| W | DENOTES HARD-DRAWN PLAIN WIRE TO AS1303. |

NOTATION:



- C18. ALL FABRIC FOR SLABS POURED ON GROUND MUST BE IN PLACE BEFORE CONCRETING COMMENCES AND SHALL BE SUPPORTED ON BAR CHAIRS IN ACCORDANCE WITH NOTE C4 ABOVE, SEATED ON SPREADER PLATES.
- C19. FABRIC LAP DETAILS:



- C20. EXPOSED CORNERS TO BE CHAMFERED 20mm ACROSS UNLESS NOTED OTHERWISE (U.N.O.).
- C21. PROVIDE CONTINUOUS MOIST CURING OR WRAP WITH AN IMPERVIOUS MEMBRANE ALL CONCRETE COMPONENTS FOR A MINIMUM 14 CONTINUOUS DAYS AFTER INITIAL SET.
- C22. IF CONCRETE HAS NOT ACHIEVED ITS CHARACTERISTIC COMPRESSIVE STRENGTH, APPROVAL FOR EARLY STRIPPING OF FORMWORK SUPPORTS SHALL BE OBTAINED FROM THE ENGINEER.
- C23. ALL EXPOSED SURFACES SHALL BE INSPECTED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
- C24. CURING COMPOUND COMPLIANT WITH AS3799 MAY BE USED ON SLAB IN CONJUNCTION WITH PLASTIC SHEETING
- C25. LAP LENGTHS IN BAR REINFORCEMENT SHALL BE MADE IN ACCORDANCE WITH THE FOLLOWING TABLE:

BAR DIAMETER	LAP (mm)
N12	800
N16	1000
N20	1300
N24	1600
N28	2000
N32	2300

STRUCTURAL STEELWORK

- S1. FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH AS4100 CURRENT EDITION, AS1554 AND AS/NZS5131 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- S2. STRUCTURAL STEEL WORK SHALL BE OF THE FOLLOWING GRADES UNO

SECTION	GRADE
HOT-ROLLED UB, UC, PFC 125 EA & GREATER 150x90 UA & GREATER	BHP 300 PLUS
HOT-ROLLED TFB, TFC SMALL EA & UA	AS 3679.1 - 250
COLD-FORMED CHS	AS 1163 - G350
COLD-FORMED RHS	AS 1163 - G350
COLD-FORMED SHS	AS 1163 - G350
DURAGAL (ALL SHAPES)	AS 1163 - G450
COLD-FORMED CEES, ZEES AND TOPHATS - 10mm BMT	AS1397 - G550
COLD-FORMED CEES, ZEES AND TOPHATS - 10mm BMT	AS1397 - G450

- S3. ALL DIMENSIONS GIVEN FOR MATERIAL ARE GROSS DIMENSIONS WITH NO REDUCTION FOR WELD PREPARATION.
- S4. BOLTS DESIGNATED:
- 4/6'S SHALL BE COMMERCIAL GRADE BOLTS TO A5111 AND A5112 (GRADE 4.6) TIGHTENED TO A SNUG FIT.
 - 8/8'S SHALL BE HIGH STRENGTH BOLTS TO A51252 TIGHTENED TO A SNUG FIT.
 - 8/8'TF AND 8/8'TB SHALL BE HIGH STRENGTH BOLTS TO A51252 FULLY TENSIONED IN ACCORDANCE WITH A54100.
- ALL BOLTS SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM OF ONE FULL THREAD BEYOND THE TIGHTENED NUT.
- S5. ALL HIGH STRENGTH BOLTED JOINTS SHALL BE CLEARLY AND PERMANENTLY MARKED AS TB OR TF BEFORE ASSEMBLY.
- S6. PERMANENT MARKS SHALL BE APPLIED TO ALL ASSEMBLED HIGH STRENGTH BOLTS AND NUTS TO INDICATE SNUG-TIGHT POSITION.
- S7. ALL WASHERS FOR HIGH STRENGTH BOLTS SHALL BE HARDENED STEEL TO A51252 EXCEPT FOR SNUG-TIGHT JOINTS WHERE BLACK STEEL WASHERS TO A51237 MAY BE USED.
- S8. A FLAT WASHER SHALL BE FITTED UNDER THE ROTATING COMPONENT OF EACH BOLT. ALL TAPERED WASHERS SHALL BE FITTED UNDER THE NON-ROTATING COMPONENT WHERE POSSIBLE.
- S9. HIGH STRENGTH BOLTS FOR TF & TB JOINTS MUST NOT BE DRIVEN AND MUST NOT BE RE-USED. ALL WELDING TO BE COMPLETED PRIOR TO BOLTING.
- S10. ALL BOLT HOLES SHALL BE THE NOMINATED DIA. (D) OF THE FASTENER + 2mm IN DIAMETER, EXCEPT BASEPLATES WHICH SHALL BE D + 6mm. SLOTTED HOLES SHALL ONLY BE USED WHERE SPECIFIED AND SHALL CONSIST OF 2 DRILLED HOLES, WITH PORTION BETWEEN REMOVED U.N.O. BURNING OF HOLES NOT ALLOWED.
- S11. SUBSTITUTIONS OF STEEL SECTIONS SHOWN ON THE DRAWING SHALL NOT BE MADE WITHOUT APPROVAL FROM CALARE CIVIL P/L.
- S12. CONCRETE ENCASED STEELWORK SHALL BE WRAPPED WITH F41 FABRIC AND THE STEELWORK SHALL HAVE A MINIMUM 50MM COVER OF CONCRETE UNLESS OTHERWISE NOTED.
- S13. AFTER FABRICATION THE STEEL SHALL BE CLEANED WITH A POWER WIRE BRUSH TO REMOVE ALL LOOSE RUST, MILL SCALE, WELD SPATTER, WELD SLAG & DIRT AND TREATED AS FOLLOWS:

ELEMENT	TREATMENT
ALL	POWER WIRE BRUSH TO CLASS 2.5 AND 2 COATS OF ZINC RICH PRIMER WITH SUITABLE TOP COAT TO ARCHITECTS OR CLIENTS REQUIREMENTS. ALTERNATIVELY HOT DIP GALVANISE TO AS2312.2

- S14. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED BY THE MANUFACTURER.
- S15. THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL, TIMBER TO STEEL WHETHER OR NOT DETAIL ON THE DRAWING.
- S16. THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE SUPERVISED BY A QUALIFIED ENGINEER EXPERIENCED IN SUCH SUPERVISION TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN ARE MET.
- S17. WELDS SHALL BE 6MM CONTINUOUS FILLET, ELECTRODES E48XX, ALL BOLTS M20 DIAMETER, ALL GUSSET PLATES AND CLEATS 10MM THICK U.N.O.
- S18. PROVIDE A SPACE OF 20mm BETWEEN ALL BEAMS/COLUMNS BEARING ON CONCRETE OR MASONRY AND BRICKWORK WITH AN OPEN CENTRE HORIZONTAL DRAIN EARTH CONSISTENCY HARD RAMMED IN POSITION OR AN APPROVED SHRINK COMPENSATING COURSE.
- S19. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR STRUCTURAL REVIEW. FABRICATION SHALL NOT COMMENCE UNTIL THE REVIEW HAS BEEN COMPLETED.

PAVEMENTS

- P01. ALL SUB BASE AND SUBGRADE TO BE PREPARED IN ACCORDANCE WITH THE CIVIL ENGINEERS PLANS.
- P02. SUBGRADE IS TO BE MINIMUM 98% STANDARD COMPACTION. PROOF ROLL THE PAVEMENT AREA TO IDENTIFY ANY SOFT SPOTS AND REMOVE AND RE-COMPACT SOFT SPOTS
- P03. ALL FILL AND EARTHWORKS TO BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF A53978 CURRENT EDITION. ANY FILL SHALL BE COMPACTED TO 98% STANDARD COMPACTION IN LAYERS OF NO MORE THAN 150mm UNLESS OTHERWISE NOTED. A MINIMUM OF 100mm OF COMPACTED ROADBASE OR CRUSHER STD IS REQUIRED UNDER PAVEMENTS.
- P04. DEEPER EXCAVATIONS DUE TO THE PRESENCE OF UNSUITABLE OR SOFT MATERIAL MAY BE BACKFILLED TO A SUITABLE LEVEL (ENSURING THE DESIGN BEAM DEPTH IS STILL ACHIEVABLE) USING LEAN 15 MPA MASS CONCRETE AS A BLINDING LAYER.
- P05. ALL TOPSOIL, ORGANIC MATTER OR SOFT SPOTS SHALL BE REMOVED AND ALL FOOTINGS ARE TO BE FOUNDED IN SUITABLE NATURAL GROUND WITH THE EXCEPTION OF ENGINEERED FILL. COMPLETELY REMOVE AND GRUB OUT ANY TREE ROOTS AND REPLACE WITH COMPACTED FILL AT PROPOSED PAVEMENT LOCATION.
- P06. ALL DEBRIS AND RUBBISH INCLUDING REINFORCING AND DOWEL CUTOUTS ARE TO BE REMOVED FROM THE SLAB PRIOR TO THE PLACEMENT OF CONCRETE.
- P07. ABELFLEX IS TO BE INSTALLED AGAINST ALL EXISTING PAVEMENTS, PITS, KERBS AND BUILDING SLABS. ABELFLEX STRIP TO BE REMOVED AND SUITABLE MASTIC SEALANT INSTALLED AFTER CURING OF CONCRETE.
- P08. ALL REINFORCEMENT IS TO HAVE A MINIMUM OF 40mm COVER. COVER IS TO BE MAINTAINED AT SAWCUT LOCATION BY LOCALLY DEPRESSING FABRIC.
- P09. HIGH IMPACT DAMP PROOF MEMBRANE TO BE INSTALLED UNDER PAVEMENT. ALL JOINTS TO BE LAPPED AND TAPED. IF MEMBRANE IS OMITTED, THE RISK OF SHRINKAGE CRACKING GREATLY INCREASES, AS A MINIMUM THE SUBGRADE IS TO BE DAMPENED BY A WATER TRUCK TO MINIMISE BLEED WATER LOSS THROUGH THE BASE OF THE SLAB.
- P10. SAWCUTS ARE TO BE CUT AS SOON AS CONCRETE HAS ATTAINED SUFFICIENT HARDNESS AND WITHIN 8-12 HOURS OF POUR
- P11. ALL DOWELS ARE TO BE INSTALLED PERPENDICULAR TO THE TOP OF THE SLAB. SKEWED DOWELS WILL CREATE ADDITIONAL SHRINKAGE CRACKS ADJACENT TO THE DOWEL JOINT.
- P12. DOWELS ARE TO HAVE A SUITABLE BOND BREAKER ON ONE END
- P13. CONCRETE IS TO BE CONTINUALLY CURED FOR A MINIMUM OF 14 DAYS BY APPLICATION OF A SUITABLE CURING COMPOUND AND DAILY PERIODIC WETTING.

FOUNDATIONS

- F2. RESIDENTIAL SLABS AND FOOTINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS2870.2011. FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 150 kPa. IF REQUIRED PIERS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 250 kPa.
- F3. ALL TOPSOIL, ORGANIC MATTER OR SOFT SPOTS SHALL BE REMOVED AND ALL FOOTINGS ARE TO BE FOUND TO SUITABLE NATURAL GROUND WITH THE EXCEPTION OF ENGINEERED FILL. COMPLETELY REMOVE AND GRUB OUT ANY TREE ROOTS AND REPLACE WITH COMPACTED FILL AT PROPOSED BUILDING LOCATION.
- F4. SUBGRADE IS TO BE MINIMUM 98% STANDARD COMPACTION. PROOF ROLL THE BUILDING PAD TO IDENTIFY ANY SOFT SPOTS AND REMOVE AND RE-COMPACT SOFT SPOTS
- F5. ALL FILL AND EARTHWORKS TO BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF AS3978 CURRENT EDITION. ANY FILL SHALL BE COMPACTED TO 98% STANDARD COMPACTION IN LAYERS OF NO MORE THAN 150mm UNLESS OTHERWISE NOTED. A MINIMUM OF 100mm OF COMPACTED ROADBASE OR CRUSHER DUST IS REQUIRED UNDER SLABS.
- F6. DEEPER EXCAVATIONS DUE TO THE PRESENCE OF UNSUITABLE SOIL OR SOFT MATERIAL MAY BE BACKFILL TO A SUITABLE LEVEL (ENSURING THE DESIGN BEAM DEPTH IS STILL ACHIEVABLE) USING LEAN 15 Mpa MASS CONCRETE AS A BLINDING LAYER. ALTERNATIVELY CONTACT ENGINEER FOR PIER SETOUT.
- F7. EXCAVATION IS NOT TO OCCUR PRIOR TO RAINFALL EVENTS TO PREVENT WATER PONDING IN EXCAVATIONS. ON NO ACCOUNT SHOULD WATER BE ALLOWED TO POND IN THE BUILDING AREA IMMEDIATELY BEFORE, DURING OR AFTER CONSTRUCTION.
- F8. TREES AND SHRUBS SHOULD NOT BE PLANTED WITHIN A DISTANCE EQUAL TO THE FULL GROWN TREE HEIGHT, AWAY FROM THE BUILDING. FURTHER PROTECTION FROM TREES MAY BE GAINED BY INSTALLATION OF A ROOT BARRIER.
- F9. GARDEN BEDS SHOULD NOT BE LOCATED DIRECTLY ADJACENT TO THE FOOTINGS AS MOISTURE VARIATION FROM WATERING PLANTS WILL CAUSE FOOTING MOVEMENT.
- F10. BUILDINGS ON REACTIVE CLAY SITES (CLASS S, M, H, E) MAY EXHIBIT MINOR AESTHETIC CRACKING. IF PROPER SITE MANAGEMENT PROCEDURES ARE ADHERED TO, SUCH DAMAGE WILL BE MINIMISED.
- F11. CARE IS TO BE TAKEN TO ENSURE THE ZONE OF INFLUENCE FROM THE FOOTING DOES NOT IMPACT ADJACENT STRUCTURES SUCH AS RETAINING WALLS, EXISTING BUILDING OR MAINS.
- F12. SIMILARLY, THE FOOTING EXCAVATION IS NOT TO UNDERMINE THE ZONE OF INFLUENCE OF EXISTING ADJACENT STRUCTURES WITHOUT SUITABLE SUPPORT BEING PROVIDED TO THE EXISTING STRUCTURE FIRST.
- F13. TIME BETWEEN EXCAVATION OF BEAMS AND POURING OF CONCRETE SHOULD BE MINIMISED TO PREVENT MOISTURE CHANGES IN THE FOUNDING MATERIAL.
- F14. ALL FOOTINGS ARE TO HAVE A WITNESS INSPECTION OF THE REINFORCEMENT TO ENSURE CORRECT PLACEMENT, ARRANGEMENT AND COVER OF REINFORCEMENT. WITNESS INSPECTIONS ARE TO BE COMPLETED EITHER BY THIS OFFICE WITH 48 HOURS NOTICE OR BY SUITABLE QUALIFIED CERTIFYING AUTHORITY.
- F15. ALL DEBRIS AND RUBBISH INCLUDING REINFORCING AND POD OFFCUTS ARE TO BE REMOVED FROM THE SLAB PRIOR TO THE PLACEMENT OF CONCRETE.
- F16. ALL PIER HOLES SHALL HAVE ALL LOOSE MATERIAL REMOVED FROM THE BASE PRIOR TO THE PLACEMENT OF CONCRETE. IN THE EVENT OF GROUNDWATER INGRESS ALL WATER IS TO BE PUMPED OUT IMMEDIATELY PRIOR TO THE PLACEMENT OF CONCRETE.

LINTELS:

- L1. ALL LINTELS TO BE STRUCTURALLY DESIGNED TO COMPLY WITH THE STRENGTH REQUIREMENTS OF AS1170, AS3700 AND AS4773 CURRENT EDITIONS
- L2. ALL LINTELS SUPPORTING MASONRY SHALL HAVE A MINIMUM BEARING LENGTH OF 100mm EACH END FOR LINTELS SPANNING UP TO 1000mm AND 150mm EACH END FOR ALL OTHER LINTELS
- L3. MASONRY SHALL NOT OVERHANG THE LINTEL WIDTH BY MORE THAN 25mm
- L4. UNEQUAL STEEL ANGLES ARE TO HAVE THE LONGER LEG VERTICAL IF USED
- L5. ALL LINTELS TO BE HOT DIP GALVANISED AND COMPLY WITH AS/NZS 2699.3
- L6. ANY GAP BETWEEN THE VERTICAL LEG AND THE MASONRY SHALL BE PACKED WITH MORTAR IN ACCORDANCE WITH AS4773.1
- L7. GALINTELS OR ANY OTHER PROPRIETARY LINTELS (IF USED) SHALL BE INSTALLED AS PER THE MANUFACTURER'S SPECIFICATION.
- L8. CARE IS TO BE TAKEN AT ALL TIMES TO MAINTAIN THE BUILDING IN A SAFE CONDITION, AND THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF THE SUPPORTED WALLS SHOW ANY SIGNS OF MOVEMENT.

DRAWING INDEX

DRAWING No.	TITLE
S1	NOTES SHEET 1 OF 2
S2	NOTES SHEET 2 OF 2
S3	SLAB AND FOOTING MARKING PLAN
S4	SLAB AND FOOTING DETAILS

PRELIMINARY ONLY
NOT FOR CONSTRUCTION
08-04-25

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- SID1. THE SAFETY RISK MITIGATION ITEMS BELOW ARE BASED ON CALARE CIVIL'S DESIGN OFFICE EXPERIENCE AND DO NOT NECESSARILY ACCOUNT FOR ALL CONSTRUCTION, OPERATION, MAINTENANCE AND DEMOLITION SAFETY RISKS. BASED ON INFORMATION AVAILABLE WHEN THIS DRAWING WAS MADE, IN ITS CAPACITY AS DESIGNER ONLY, CALARE CIVIL HAS TRIED TO IDENTIFY SAFETY RISKS PERTAINING TO CONSTRUCTION, OPERATION, MAINTENANCE AND DEMOLITION PHASES OF THE ASSET. INCLUSION (OR NOT) OF ANY ITEM DOES NOT REDUCE OR LIMIT OBLIGATIONS OF CONSTRUCTOR, USER, MAINTAINER AND DEMOLISHER TO UNDERTAKE APPROPRIATE RISK MANAGEMENT ACTIVITIES TO REDUCE RISK AND IS NOT AN ADMISSION BY CALARE CIVIL THAT INCLUSION OF ANY ITEM IS THE DESIGNER'S RESPONSIBILITY.
- SID2. CONSTRUCT BUILDING ELEMENTS THAT CONTRIBUTE TO SAFETY, SUCH AS HANDRAILS AND TOE BOARDS, FALL ARREST SYSTEMS, ACCESS STAIRS, etc AS EARLY AS POSSIBLE AND IN ACCORDANCE WITH NSW SAFE WORK STATUTORY REQUIREMENTS.
- SID3. PROVIDE SAFETY BARRIERS AT EDGES OF OPENINGS AND ELEVATED AREAS.
- SID4. REVIEW ADEQUACY OF WORKING SPACE AVAILABLE FOR CONSTRUCTION ACTIVITIES. ENSURE SEPARATION OF PLANT AND PERSONNEL ON SITE, INCLUDING MOVEMENTS OF BOTH.
- SID5. LOCATE LIFTING SLEW AND LAY DOWN AREAS AWAY FROM REGULAR CONSTRUCTION TRAFFIC.
- SID6. PROVIDE PROTECTION TO PERSONNEL FROM PLANT AND EQUIPMENT, INCLUDING POST-TENSIONED GROUND ANCHOR INSTALLATION WORKS.
- SID7. ENSURE ISOLATION SAFE SYSTEMS OF WORK OR PROTECTIVE MEASURES ARE INSTALLED BEFORE WORKING NEAR LIVE ELECTRICAL INFRASTRUCTURE. PROVIDE PROTECTION OF ELECTRICAL OVERHEAD WIRING SYSTEMS DURING CONSTRUCTION.
- SID8. WRITTEN RISK ASSESSMENTS ARE ADVISED FOR ACCESS TO OPEN EXCAVATIONS.
- SID9. PROVIDE ACCESS AND EGRESS TO EXCAVATIONS APPROPRIATE IN CASE OF INUNDATION, COLLAPSE OR ENGULFMENT.
- SID10. LOCATE STOCKPILES AND HEAVY EQUIPMENT INCLUDING CRANES AWAY FROM BURIED SERVICES AND BUILDING BOUNDARIES WHERE ADJACENT BASEMENTS ARE PRESENT.
- SID11. SEEK ADVICE FROM SUITABLY QUALIFIED GEOTECHNICAL OR STRUCTURAL ENGINEER PRIOR TO DEEP OR HEAVY SURFACE PLANT AND EQUIPMENT OR STOCKPILING MATERIAL NEAR OPEN EXCAVATIONS OR EXISTING RETAINING STRUCTURES.
- SID12. DO NOT STOCKPILE MATERIALS BEHIND OR EXCAVATE IN FRONT OF EXISTING RETAINING WALLS UNTIL WALL STABILITY HAS BEEN REVIEWED BY SUITABLY QUALIFIED STRUCTURAL ENGINEER.
- SID13. SEEK ADVICE FROM SUITABLY QUALIFIED STRUCTURAL ENGINEER BEFORE LAYING SERVICES BELOW EXISTING FOOTING LEVELS.
- SID14. HAVE LOAD CAPACITY OF STRUCTURES VERIFIED BY SUITABLY QUALIFIED STRUCTURAL ENGINEER BEFORE LOADING OR STORING MATERIALS ON EXISTING OR PARTIALLY COMPLETED STRUCTURAL ELEMENTS.
- SID15. SEEK ADVICE FROM SUITABLY QUALIFIED STRUCTURAL ENGINEER IF PLANNING CRANE LIFTS OR HOIST INSTALLATION ON PARTIALLY ERECTED OR SUSPENDED STRUCTURES.
- SID16. SEEK ADVICE FROM SUITABLY QUALIFIED STRUCTURAL ENGINEER BEFORE CORING, CHASING, CUTTING OR REMOVAL OF EXISTING CONCRETE AND REINFORCEMENT.
- SID17. HAVE SUITABLY QUALIFIED STRUCTURAL ENGINEER UNDERTAKE STRUCTURAL CHECK OF EXISTING CONCRETE, MASONRY AND STUD WALLS WHERE FIXINGS OR EQUIPMENT IS TO BE ATTACHED. INSTRUCT SERVICES CONTRACTORS UNDER NO CIRCUMSTANCES CAN STRUCTURAL MEMBERS BE CUT, NOTCHED OR DRILLED TO ACCOMMODATE NEW SERVICES.
- SID18. ESTABLISH LOCATIONS OF LIVE EMBEDDED SERVICES BEFORE CUTTING THROUGH SLABS, ETC.
- SID19. DEVELOP STEELWORK / BRACE / TILT UP INSTALLATION SAFE WORK METHOD STATEMENT TO MINIMIZE LIFE AND MINIMIZE FALLING OBJECT RISKS, AND HAVE REVIEWED BY SUITABLY QUALIFIED STRUCTURAL ENGINEER PRIOR TO ERECTION.
- SID20. DO NOT CUT OR UNBOLT ANY STRUCTURAL MEMBERS WITHOUT SEEKING REVIEW BY SUITABLY QUALIFIED STRUCTURAL ENGINEER.
- SID21. PROVIDE BUCKLING STABILITY TO LONG SPAN BEAMS, TRUSSES etc DURING ERECTION. IF UNSURE, CHECK WITH SUITABLY QUALIFIED STRUCTURAL ENGINEER PRIOR TO LIFTING AND INSTALLATION.
- SID23. MINIMIZE SITE BASED TREATMENTS (eg WELDING, CUTTING, SPRAY PAINTING, GRIT BLASTING etc). PROVIDE ADEQUATE PROTECTION, SCREENING AND VENTILATION TO MINIMIZE HAZARDS TO PERSONNEL IF SITE BASED TREATMENT IS UNAVOIDABLE.
- SID24. TRY TO AVOID WORKING IN CONFINED SPACES. IF CONFINED SPACES WORK CAN'T BE AVOIDED, PROVIDE SAFE WORK METHOD STATEMENT ADDRESSING MITIGATION OF RISKS. PROVIDE ADEQUATE SIGNAGE TO TEMPORARY AND PERMANENT CONFINED SPACES TO AS2865.
- SID25. AVOID HOT WORKS ON SITE PARTICULARLY IN TIMBER FRAMED STRUCTURES. HOT WORKS TO COMPLY WITH CLIENT PROCEDURES FOR APPLICABLE "HOT WORKS PERMITS".
- SID26. DETERMINE APPROPRIATE METHOD OF PAINT REMOVAL AND DISPOSAL BEFORE STRIPPING PAINT, PARTICULARLY ON HISTORIC STRUCTURES. COATINGS CONTAINING COAL TAR EPOXIES, BITUMENS AND ASPHALTS, ZINC CHROMATE AND LEAD PRESENT A HEALTH RISK. PROVIDE SCREENING TO PUBLIC AND ENVIRONMENT FOR PAINT REMOVAL AND CLEANING OPERATIONS. USE ENVIRONMENTALLY APPROPRIATE RESTORATION METHODS DURING MAINTENANCE AND REPAIR WORK.
- SID27. MAKE WORK AREAS SAFE WHERE STRUCTURAL ELEMENTS ARE DAMAGED, CRACKED OR HAVE SUFFERED SIGNIFICANT SECTION LOSS BEFORE ALLOWING GENERAL CONSTRUCTION OR REPAIR ACCESS.
- SID28. REPORT SIGNIFICANT SECTION LOSS OR CORROSION FLAKING BEFORE STARTING PAINTING OR REPAIRS. CONSULT SUITABLY QUALIFIED STRUCTURAL ENGINEER IF SECTION LOSS OR EXTENSIVE CORROSION FLAKING PRESENT BEFORE PROCEEDING WITH WORK.
- SID29. DEVELOP AND IMPLEMENT RISK MITIGATION STRATEGIES BEFORE ALLOWING ACCESS OVER SUSPENDED CLADDING FINISHES THAT MAY BECOME BRITTLE OVER TIME.
- SID30. REPORT LOOSE OR MISSING BOLTS etc IN CONNECTIONS ENCOUNTERED DURING DAY TO DAY OPERATIONS.
- SID31. REMOVE MATERIAL FROM STORAGE STRUCTURES BEFORE UNDERTAKING MAINTENANCE WORK.
- SID32. ALL STRUCTURES SHOULD BE TEMPORARILY BRACED DURING ERECTION TO ENSURE THEY REMAIN IN A STABLE STATE UNTIL SUCH TIME THAT THE PERMANENT BRACING CAN BE INSTALLED.
- SID33. SCAFFOLDING IS TO BE USED FOR ACCESS ONLY AND NOT USED AS A MEANS OF TEMPORARY BRACING OF A STRUCTURE, UNLESS DESIGNED AND CERTIFIED ACCORDINGLY.
- SID34. ALL TEMPORARY FORMWORK, FALSEWORK AND ANY PROPPING IS TO BE CERTIFIED BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER FOR ADEQUACY PRIOR TO INSTALLATION.
- SID35. UNDER NO CIRCUMSTANCES SHALL STRIPPING OF FORMS COMMENCE OR PROPPING BE REMOVED FROM A SITU CONCRETE POURS UNTIL ADEQUATE DESIGN STRENGTHS HAVE BEEN REACHED AND VERIFIED THROUGH TESTING.
- SID36. UNDER NO CIRCUMSTANCES SHALL DEMOLITION OR PARTIAL DEMOLITION OF A STRUCTURE OCCUR UNTIL A STRUCTURAL ENGINEER HAS BEEN CONSULTED ON THE PROPOSED METHOD AND EXTENT OF DEMOLITION WORKS. AT ALL TIMES DURING DEMOLITION THE STRUCTURE IS TO REMAIN IN A STABLE STATE AND NO ELEMENT SHALL BE OVERSTRESSED.
- SID37. ALL HIGH-RISK WORK INCLUDING USE OF CRANES, HOISTS, LIFTING EQUIPMENT, SHAFT OR TRENCH EXCAVATION, CONFINED SPACES, WORKING AT HEIGHTS AND HOT WORK SHOULD ONLY BE CARRIED OUT AND SUPERVISED BY SUITABLY QUALIFIED PERSONS WHO HAVE COMPLETED THE RELEVANT COURSES BY AN APPROVED RTO.
- SID38. WHERE THE SPACING OF ROOF STRUCTURAL ELEMENTS EXCEEDS 600MM IN BOTH DIRECTIONS, SAFETY MESH IS TO BE INSTALLED ON ROOF ELEMENTS TO REDUCE RISK OF FALLS FOR RIGGERS AND OTHER TRADES WORKING ON ROOF AREAS

CM1.	ALL CONCRETE MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF AS1500.
CM2.	ALL BLOCKWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RELEVANT SAA CODE.
CM3.	THE DESIGN STRENGTH OF BLOCKWORK SHALL BE 15 MPa WITH M3 MORTAR MIX IN THE RATIO OF 1:1.6 (CEMENT:LIME:SAND). LIME CANNOT BE SUBSTITUTED BY CHEMICAL PLASTICISERS
CM4.	CONCRETE FOR FILLING CORES WHERE REQUIRED SHALL HAVE A DESIGN STRENGTH AT 28 DAYS OF $f_{c,20MPa}$ AND A SLUMP OF 125mm WHEN BEING PLACED WITH 10mm MAXIMUM SIZE OF AGGREGATE.
CM5.	CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BASE OF ALL REFINED CORES TO ENABLE CLEANING OF CORES.
CM6.	APPROVED JOINT REINFORCEMENT SHALL BE LAID IN HORIZONTAL JOINTS AT A MAXIMUM OF 600mm CENTRES WITH ADDITIONAL LAYERS DIRECTLY ABOVE AND BELOW WINDOW AND DOOR OPENINGS.
CM7.	WALL TIES FOR BRICKWORK AND BLOCKWORK CAVITY WALLS SHALL COMPLY WITH AS/NZS 2699. TIES ARE TO BE MEDIUM DUTY MINIMUM AND SPACED AT MAXIMUM 600mm CENTRES BOTH HORIZONTALLY AND VERTICALLY.
CM8.	WHERE BLOCKWORK SUPPORTS CONCRETE SLABS THE TOP COURSE SHALL BE COVERED WITH TWO LAYERS OF ALCOR OR EQUIVALENT.
CM9.	WHEN LAYING BLOCKS, FACE SHELLS AND PERPENDS SHOULD BE FULLY BEDDED IN THE MORTAR.
CM10.	REINFORCEMENT MUST BE POSITIONED ACCURATELY AND TIED SECURELY BEFORE PLACING CONCRETE OR GROUT.
CM11.	VERTICAL REINFORCING BARS, INCLUDING STARTER BARS, SHOULD BE AS CLOSE AS POSSIBLE TO THE CENTRE OF THE WALL UNLESS NOTED OTHERWISE, CONSISTENT WITH COVER REQUIREMENTS.
CM12.	MORTAR FINS PROTRUDING INTO CORES SHOULD BE REMOVED BEFORE GROUTING.
CM13.	CLEANOUT OPENINGS SHOULD BE PROVIDED IN THE BOTTOM COURSE, IN ALL REINFORCED CORES, TO PERMIT REMOVAL OF MORTAR FINS AND OTHER DEBRIS, AND TO ALLOW POSITIONING AND TYING OF VERTICAL REINFORCEMENT. THESE OPENINGS MUST BE CLOSED BEFORE GROUTING.
CM14.	IT IS RECOMMENDED THAT READY-MIXED GROUT SHALL BE USED.
CM15.	ALL CORES SHOULD BE FILLED WITH GROUT IF REINFORCED AND RODDED TO ENSURE THERE ARE NO VOIDS IN ANY CAVITY OR CORES OF THE WALL.
CM16.	EXPANSION JOINTS AND CONTROL JOINTS ARE TO BE CONSTRUCTED AT 600mm CENTRES U.N.O.
CM17.	THE GROUT SHALL BE COMPACTED THOROUGHLY SO THAT VOIDS ARE NOT LEFT. COMPACTION SHALL BE BY RODDING WITH A PLAIN ROUND BAR (DO NOT USE MAIN VERTICAL REINFORCING BARS OR OTHER DEFORMED BARS) OR WITH A HIGH FREQUENCY PENCIL VIBRATOR USED CAREFULLY.
CM18.	IF ANY SINGLE LIFT OF GROUTING SHOULD NOT EXCEED 30 TIMES THE MINIMUM CORE DIMENSIONS OR 3.0m WALL HEIGHT, WHICHEVER IS LESS IN A 72 HOUR PERIOD LIFTS SHOULD BE COMPLETED IN 1500mm INCREMENTS WITH 60 MINUTES BETWEEN THE PRECEEDING LIFT.
CM19.	WALLS SHALL NOT BE CONSTRUCTED OVER ANY SUSPENDED CONCRETE UNTIL THE SUPPORTING CONCRETE HAS CURED.
CM20.	IF ANY SHRINKAGE OF THE CORES IS TO OCCUR, THE TOP COURSE SHALL BE FILLED WITH SELF-LEVELLING-HIGH STRENGTH GROUT TO ENSURE ADEQUATE BEARING TO THE TOP SIDE OF THE WALL.
CM21.	ALL BLOCKS SHALL BE CONSTRUCTED WITH THE APPROPRIATE BLOCK TYPE, INCLUDING KNOCK-OUTS, CHANNEL, LINTEL, CONTROL JOINT WHERE REQUIRED FOR THE RELEVANT BLOCK CODINGS. BLOCK CODING MAY BE OBTAINED FROM CONCRETE MASONRY ASSOCIATION AUSTRALIA (CMAA) FOR THE APPLICABLE BLOCK SERIES.
CM22.	ALL REINFORCEMENT SHALL BE INSPECTED BY A SUITABLY QUALIFIED ENGINEER PRIOR TO CORE FILLING.
CM23.	LAP LENGTHS IN BAR REINFORCEMENT SHALL BE MADE IN ACCORDANCE WITH THE FOLLOWING TABLE:

BAR DIAMETER	LAP (mm)
N12	800
N16	1000
N20	1300

F1. ALL FORMWORK SHALL BE DESIGNED AND CERTIFIED BY AN EXPERIENCED STRUCTURAL ENGINEER AND CONFORM TO THE REQUIREMENTS OF AS3610 CURRENT EDITION.

F2. FORMWORK WILL BE DESIGNED TO ACCOMMODATE FOR DYNAMIC LOADS, DUE TO LIFTS AND TEMPERATURE OF CONCRETE AND ANY OTHER LOADING EXPECTED TO BE EXPERIENCE DURING THE POUR AND EARLY STAGE CONSTRUCTION LOADING OF THE CONCRETE DURING INITIAL CURING.

F3. PROPPING OR SUPPORTING FORMWORK ON EXISTING STRUCTURES WILL TAKE INTO CONSIDERATION THE STRUCTURAL ADEQUACY OF THESE ELEMENTS TO SUSTAIN THE LOADS IMPOSED BY THE PROPS OR FORMWORK. IT IS NOTED THAT SUSPENDED SLABS MAY NEED TO BACKPROPPED TO FOUNDATIONS AND DESIGN SHOULD ACCOUNT FOR THE STRENGTH OF CONCRETE PROPPED PRIOR TO THE CONCRETE REACHING 28 DAYS OF CURING.

F4. CONTRACTOR TO NOTIFY AND SEEK APPROVAL FROM CALARE CIVIL PTY. LTD IF IT IS PROPOSED TO USE ANY ADJACENT STRUCTURE DESIGNED BY CALARE CIVIL PTY. LTD AS A FORMWORK SUPPORT.

F5. CLASS OF SURFACE FINISH IS TO BE IN ACCORDANCE WITH SPECIFICATION MADE BY THE PROJECT ARCHITECT.

F6. FORMWORK TO BE DESIGNED AND CONSTRUCTED SUCH THAT A MINIMUM CLASS 3 FINISH IS ACHIEVABLE ON ALL EXPOSED SURFACES OF THE CONCRETE ELEMENTS.

F7. RELEASE AGENTS [AS DEFINED IN AS3610 (CURRENT EDITION)] SHOULD BE APPLIED TO FACE OF FORMS PRIOR TO PLACING REINFORCEMENT TO AID IN STRIPPING OF FORMS AND TO AID IN ACHIEVING REQUIRED SURFACE CLASS FINISH. RELEASE AGENT WILL TAKE INTO CONSIDERATION ANY ADVERSE EFFECTS OF POST SURFACE TREATMENT REQUIRED BY THE ARCHITECTURAL PLANS.

F8. 25mm BEVEL EDGE FINISH TO BE PROVIDED INTERSECTION OF FORMS.

F9. DRIP GROOVES TO BE INSTALLED ON UNDERSIDE OF EXPOSED SLAB EDGES.

F10. ALL WATER, DUST, DEBRIS AND ANY OTHER CONTAMINANTS ARE TO BE REMOVED PRIOR TO POURING OF CONCRETE.

F11. HORIZONTAL FORMS SHALL NOT BE REMOVED UNLESS APPROVAL HAS BEEN OBTAINED FROM THE DESIGN ENGINEER.

F12. FORMS FOR VERTICAL SURFACES MAY BE STRIPPED IN ACCORDANCE WITH THE FOLLOWING TABLE. NOTE THAT SURCHARGE LOADS ARE NOT TO BE APPLIED TO THESE ELEMENTS UNLESS APPROVAL IN WRITING HAS BEEN OBTAINED FROM THE DESIGN ENGINEER.

VERTICAL FACE FORMWORK MINIMUM STRIPPING TIMES AFTER CASTING			
CLASSIFICATION	AVERAGE TEMPERATURE		
	ABOVE 20 DEGREES	12-20 DEGREES	5-12 DEGREES
CLASSES 1-3	1 DAY	2 DAYS	3 DAYS
CLASSES 4-5	9 HOURS	12 HOURS	18 HOURS
ALL	IF FROST IS POSSIBLE THEN MINIMUM 1 DAY BEFORE STRIPPING		

[illegible]

