

## GENERAL NOTES

- G1 THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS. REFER TO ARCHITECTS DRAWINGS FOR SETOUT DIMENSIONS, LEVELS, STEPS AND FALLS.
- G2 UNLESS THESE DRAWINGS ARE CHECKED, SIGNED AND IDENTIFIED 'AS FOR CONSTRUCTION' THEY SHALL NOT BE USED FOR CONSTRUCTION.
- G3 THE BUILDER IS TO CHECK AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL DIMENSIONS AND ANY DISCREPANCY IS TO BE REPORTED IMMEDIATELY.
- G4 DO NOT OBTAIN DIMENSIONS BY SCALING OFF THESE DRAWINGS.
- G5 THE BUILDER/CONTRACTOR IS RESPONSIBLE FOR SAFETY, METHOD OF CONSTRUCTION, STABILITY OF THE BUILDING DURING CONSTRUCTION AND EXCAVATION IN THE VICINITY OF NEIGHBOURING BUILDINGS. ANY ELEMENT OF THE PROJECT WHICH POSES UNACCEPTABLE LEVELS OF RISK TO CONSTRUCTION SHALL BE REFERRED TO THE DESIGN ENGINEER.
- G6 ALL WORKMANSHIP AND MATERIALS ARE TO COMPLY WITH THE REQUIREMENTS OF THE NATIONAL CONSTRUCTION CODE (NCC), THE BUILDING ACT QUEENSLAND, CURRENT AUSTRALIAN STANDARDS AND LOCAL GOVERNMENT GUIDELINES.
- G7 ALL STANDARDS AND CODES OF PRACTICE REFERRED TO ARE THOSE EDITIONS CURRENT AT TIME OF TENDERING.
- G8 NOMINATION OF PROPRIETARY ITEMS DOES NOT INDICATE EXCLUSIVE PREFERENCE. IT INDICATES THE REQUIRED PROPERTIES OF THE ITEM.
- G9 PROVIDE TERMITE PROTECTION IN ACCORDANCE WITH AS 3660. BUILDER SHALL CONFIRM WITH OWNER THE PREFERRED METHOD OF TERMITE MANAGEMENT. OWNER IS RESPONSIBLE FOR ONGOING INSPECTION OF TERMITE MANAGEMENT SYSTEM AND STRUCTURAL TIMBER ELEMENTS.
- G10 THE BUILDER/ CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING SERVICES ON AND EXTERIOR TO THE SITE. ANY DAMAGE TO THESE EXISTING SERVICES SHALL BE REPAIRED AT THE BUILDER/ CONTRACTOR'S EXPENSE.

## TIMBER NOTES

- T1 ALL WORKMANSHIP AND MATERIALS INCLUDING FRAMING SIZES AND LINTELS NOT SHOWN, TO BE IN ACCORDANCE WITH AS 1720 AND AS 1684.2.
- T2 ALL TIMBER CONNECTIONS TO BE IN ACCORDANCE WITH AS 1684.2, UNLESS NOTED OTHERWISE. ALL PROPRIETARY CONNECTORS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS DETAILS.
- T3 ALL SEASONED TIMBER TO BE JOINT GROUP JD4 MINIMUM. ALL UNSEASONED TIMBER TO BE JOINT GROUP J2 MINIMUM.
- T4 ALL BOLTS TO TIMBER WORK GRADE 4.6/S UNO (NOT APPLICABLE TO MASONRY ANCHORS OR CAST-IN BOLTS). BOLTS, NUTS AND WASHERS HOT DIP GALVANISED.
- T5 BOLT HOLES IN STEEL PLATES SHALL PROVIDE A SNUG FIT I.E. NOT GREATER THAN 0.5mm LARGER THAN BOLT DIAMETER.
- T6 WASHERS TO TIMBER: M12 BOLTS - 55# x 3 THK. M16 AND M20 BOLTS - 75# x 5 THK. M24 BOLTS - 85# x 6 THK (REFER TO DETAILS DRAWINGS). AT THE END OF THE DEFECTS LIABILITY PERIOD ALL BOLTED CONNECTIONS THROUGHOUT ENTIRE PROJECT MUST BE RE-TIGHTENED.
- T7 ALL STUD FRAMING TO BE CONSTRUCTED IN ACCORDANCE WITH AS 1684.2.
- T8 ALL CLOUTS FOR NAILING OF CROSS BRACING STEEL STRAPPING ARE 30 x 2.8mm GALVANISED FLAT HEAD NAILS.
- T9 LINTELS HAVE BEEN DESIGNED SO THAT LONG TERM DEFLECTION SHALL BE LESS THAN EITHER, SPAN / 360 OR 9mm.
- T10 BATTENS -25x50mm(TILE) OR 38x75mm(SHEET) HWD F14 (J2) ROOF BATTENS AT 330mmc/c (TILE) OR 900c/c (SHEET).  
FIXED TO TRUSS OR RAFTERS WITH NAIL OR SCREW AS PER TIE DOWN TABLE.
- T11 TRUSSES AT :-  
600 MAX CRS FOR TILED ROOF.  
900 MAX CRS TO SHEET ROOF.
- T12 ALL TIMBER MEMBERS TO BE TREATED IN ACCORDANCE WITH AS1684.2  
REFER HAZARD CLASS SELECTION TABLE WITHIN THIS SET OF DRAWINGS.

## DESIGN LOADS

- DL1. THE STRUCTURAL ELEMENTS HAVE BEEN DESIGNED FOR THE FOLLOWING SUPERIMPOSED DEAD AND LIVE LOADS IN ACCORDANCE WITH AS/NZS 1170.1:2002 PART 1: PERMANENT, IMPOSED AND OTHER ACTIONS

ELEMENT	LOAD TYPE	UNIFORMLY DISTRIBUTED ACTIONS	CONCENTRATED ACTIONS
DECK	LIVE LOAD	2.0kPa	1.8kN
NON TRAFFICABLE ROOF	LIVE LOAD	0.25kPa	1.1kN

- DL2. WIND LOADING HAS BEEN DETERMINED IN ACCORDANCE WITH AS/NZS 1170.2: 2011.

WIND CLASS: N2 (NON-CYCLONIC)

Vdes = 40 m/s (ULTIMATE LIMIT STATE)

Vdes = 26 m/s (SERVICEABILITY LIMIT STATE)

REGION B

TERRAIN CATEGORY: 3

- DL3. THE RELEVANT PROVISION OF AS1170.4: 2007 PART 4: EARTHQUAKE ACTIONS IN AUSTRALIA HAVE BEEN APPLIED

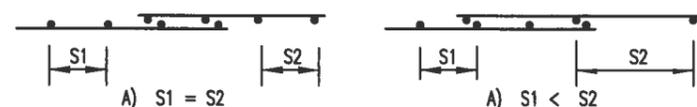
## CONCRETE NOTES

- C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600.
- C2 CONCRETE PROPERTIES IN ACCORDANCE WITH AS 3600.

ELEMENT	EXP. CLASS	CONC. GRADE	MAX. SLUMP (mm)	MAX. AGG. SIZE	COVER
FOOTINGS	A1	N20	100	20	50
SLAB ON GROUND - INTERNAL	A1	N20	100	20	30 TOP
SLAB ON GROUND - EXTERNAL	B1	N32	100	20	40 TOP

ALL CONCRETE FOR SLABS SHALL HAVE DRYING SHRINKAGE TEST RESULTS TO AS1012.13 SHOWING A MAXIMUM INCLUDING TOLERANCE OF 600 MICROSTRAIN.

- C3 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C4 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS WHERE POURED INTEGRALLY WITH THE BEAM
- C5 PROVIDE ALL EXPOSED EDGES AND CORNERS WITH 25mm CHAMFERS OR FILLETS. DRIP GROOVES ARE REQUIRED TO THE UNDERSIDE OF OVERHANGING CONCRETE SLABS. MAINTAIN REINFORCEMENT COVER AT THESE LOCATIONS.
- C6 FORM ALL CONSTRUCTION JOINTS AND PLACE WHERE SHOWN ON DRAWINGS.
- C7 NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL ENGINEERS DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT ENGINEERS APPROVAL. CONDUITS, PIPES ETC. SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF THE SLAB DEPTH AND SPACED AT NOT LESS THAN THREE DIAMETERS.
- C8 ALL CONCRETE SHALL BE EFFECTIVELY VIBRATED (UNO)
- C9 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- C10 ALL REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS 4671 AND REINFORCING BARS DESIGNATED AS FOLLOWS:-
- |   |   |             |
|---|---|-------------|
| N | NORMAL DUCTILITY DEFORMED BAR           | fsy=500 MPa |
| L | LOW DUCTILITY PLAIN OR WELDED WIRE MESH | fsy=500 MPa |
| R | STRUCTURAL GRADE PLAIN ROUND BAR        | fsy=250 MPa |
| S | STRUCTURAL GRADE DEFORMED BAR           | fsy=250 MPa |
- THE NUMBER FOLLOWING THE SYMBOL FOR THE BAR IS THE DIAMETER OF BAR IN MILLIMETRES.
- C11 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN ON THE STRUCTURAL DRAWINGS.
- C12 WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
- C13 REINFORCEMENT SHALL BE SUPPORTED ON SUFFICIENT CHAIRS TO ENSURE THAT THE SPECIFIED COVER IS ACHIEVED.
- C14 LAP SPLICES FOR FABRIC (MESH) IN TENSION SHALL BE MADE SO THAT THE OUTER MOST TRANSVERSE WIRES OF ONE SHEET OF FABRIC OVERLAP THE TWO OUTERMOST TRANSVERSE WIRES OF THE SHEET BEING LAPPED, AS SHOWN IN REINFORCEMENT LAP DETAIL BELOW. ALL FABRIC (MESH) SHALL BE fsy = 500 MPa.



- C15 LAP SPLICES FOR BARS SHALL BE 50 x DIAMETER UNO BY ENGINEER. REFER TABLE BELOW

LAP LENGTH SCHEDULE	
BAR TYPE	LAP LENGTH
N12	600
N16	800
N20	1000

## ENGINEERING INSPECTION

- E1 ALL STRUCTURAL ELEMENTS ARE TO BE INSPECTED TO ENSURE CONFORMITY WITH THESE DRAWINGS.
- E2 THE BUILDER/CONTRACTOR SHALL PROVIDE THE ENGINEER WITH 24 HOURS ADVANCE NOTICE OF CONCRETE PLACING AND FRAME AND STRUCTURAL STEELWORK INSPECTIONS.

## BORED PIER NOTES

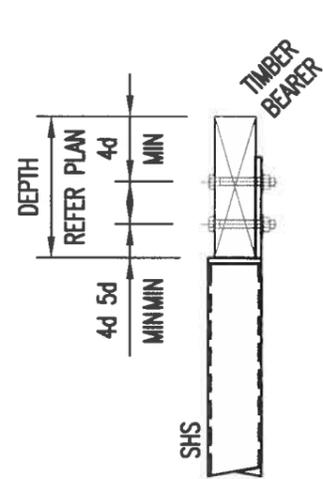
- BP1 BORED PIERS COVERED BY THESE NOTES ARE CAST INTO THE GROUND REINFORCED CONCRETE PIERS.
- BP2 SOCKET LENGTH NOTED ON THE DRAWING IS THE DEPTH TO WHICH THE UNLINED HOLE SHALL PENETRATE COMPETENT SOIL WITH A SAFE END BEARING CAPACITY OF 100kPa U.N.O. THIS SOCKET LENGTH MUST NOT BE SHEATHED AS THE FRICTION BETWEEN THE SOIL AND CAST CONCRETE IS THE MAJOR CONTRIBUTOR TO LOAD CARRYING CAPACITY.
- BP3 THE BASE MUST BE COMPLETELY CLEANED TO CARRY END BEARING COMPONENT OF LOAD. IF HOLE CANNOT BE CLEANED CONSULT ENGINEER FOR ADDITIONAL SOCKET LENGTH REQ'D TO CARRY LOAD IN SHAFT ADHESION.
- BP4 WHEN HOLE IS CLEAN PLACE REINFORCING CAGE USING "WAGON WHEEL" CHAIRS ON HELIX/LIGATURES OR, PROVIDE SUCH OTHER SYSTEM AS APPROVED BY ENGINEER TO HOLD REINFORCING STEEL IN PLACE.
- BP5 CONCRETE SHALL BE TREMMIED TO BASE OF HOLE WITH A MAXIMUM FREE FALL OF 1 METRE. THOROUGHLY COMPACT WITH AN IMMERSION VIBRATOR TO MAXIMISE FRICTION AGAINST SOIL.
- BP6 IF HOLES ARE FLOODED DURING CONCRETE PLACEMENT DELIVERY END OF HOSE SHALL BE HELD MIN. 300 BELOW TOP LEVEL OF CONCRETE UNTIL PUMPING IS COMPLETE TO PREVENT DILUTION OF MIX. OVER FILL AND REMOVE TOP 100 OF CONCRETE BEFORE COMPACTING.
- BP7 IN CERTAIN INSTANCES IN REACTIVE CLAYS THE ENGINEER MAY DIRECT THAT PIERS BE LINED TO A NOMINATED DEPTH TO PREVENT UPLIFT OR DRAW DOWN. USE CLOSE FITTING CARDBOARD FORM TUBE WHICH SHALL EXTEND FROM TOP FINISHED PIER LEVEL (GROUND LEVEL) TUBES MUST BE SECURELY HELD AGAINST DROPPING INTO THE PIER HOLE.

## STEELWORK NOTES

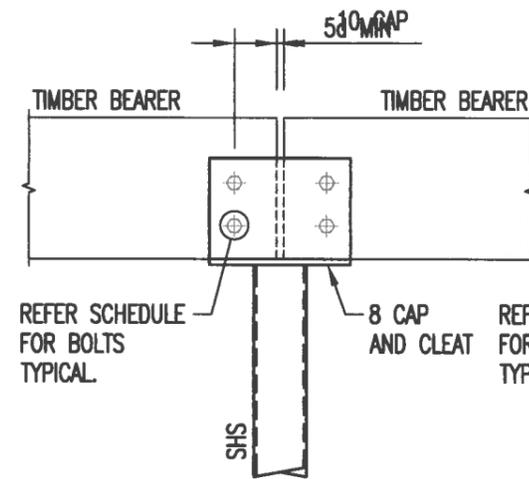
- SW1 ALL STEELWORK SHALL COMPLY WITH THE REQUIREMENTS OF:-  
AS1170 PARTS 1 AND 2 LOADING CODE  
AS4100 STEEL STRUCTURES CODE  
AS4600 COLD FORMED STEEL STRUCTURE CODE  
AS1562 DESIGN AND INSTALLATION OF METAL ROOFING  
AS1111/1112 METRIC HEXAGON COMMERCIAL BOLTS AND SCREWS  
AS2312 GUIDE TO THE PROTECTION OF IRON AND STEEL.
- SW2 PLATES, CLEATS, BRACES AND ALL OTHER HOT ROLLED SECTIONS SHALL BE GRADE 300 MATERIAL UNO AND POWER BRUSHED TO ST2 AND PRIMED WITH AN APPROVED METAL PROTECTIVE COATING.
- SW3 PURLINS BRIDGING AND ALL OTHER COLD FORMED SECTIONS SHALL BE GRADE G450 MATERIAL AND GALVANISED TO MIN Z 275.
- SW4 ALL WELDS TO HOT ROLLED SECTIONS TO BE EFFECTED WITH E48XX OR W50X ELECTRODES BUT NOT LESS THAN REQ'D BY AS4100.
- SW5 ALL WELDS TO COLD FORMED SECTIONS SHALL BE 1.0mm CONTINUOUS WELD USING AN E70 OR E80 LOW HYDROGEN ELECTRODE OR MIG EQUIVALENT.
- SW6 BOLTS NOMINATED BY DIAMETER, ULTIMATE STRENGTH AND METHOD OF TIGHTENING (EG M20 8.8/S DIA 20mm, HIGH STRENGTH BOLT, SNUG TIGHT).
- SW7 ALL BOLTS TO BE INSTALLED WITH ONE HARDENED WASHER UNDER THE TURNED PART. (CROWN WASHERS TO FRICTION GRIP BOLTS).
- SW8 UNLESS NOTED OTHERWISE ALL CONNECTION PLATES SHALL BE 6mm, BOLTS M16(8.8/S) AND WELDS 6CFW.
- SW9 SURFACE TREATMENT UNO  
- PROTECTED FROM WEATHER - CLASS 1 CLEAN (MECHANICAL WIRE BRUSH) WITH 70 MICRONS OF ZINC PHOSPHATE PRIMER (SP1-C IN AS2312)  
- EXPOSED TO WEATHER - CLASS 2.5 BLAST CLEAN WITH 75 MICRONS OF INORGANIC ZINC SILICATE (MP01-A IN AS2312) OR HOT DIP GALVANISED.  
- HOLDING DOWN BOLTS - HOT DIP GALVANISED.
- SW10 REPAIR OF FIELD WELDS AND DAMAGED GALVANISED STEELWORK SHALL BE POWER CLEANED TO AS 1627.2 CLASS 3 DEGREASE. APPLY 2 COATS OF 40 MICRONS OF JOTUN GALVANITE.

					Newport Consulting Engineers		CLIENT <b>BELL</b> 32 NORTH HEAD ROAD NEW BRIGHTON NSW 2483			BUILDER <b>LIVING POOLS &amp; SPAS</b>			I certify that if constructed in accordance with these drawings, the project will be structurally adequate complying with all relevant Australian Standard and Codes of Practice.			JOB NO. <b>23-0485</b>														
							Ground Floor 349 Coronation Drive Milton, QLD-4064						M. S. YOURELL M.I.E. (AUST) R.P.E.Q. (8295)			DWG NO. <b>P01</b>														
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SUFF REVISION					DATE		DRAWN		CHECKED		LOT NUMBER			4			DP			1035885										

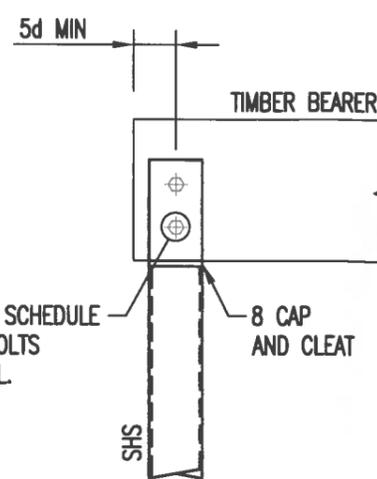
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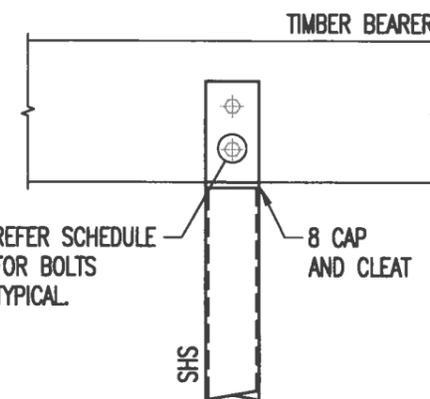
SIDE ELEVATION



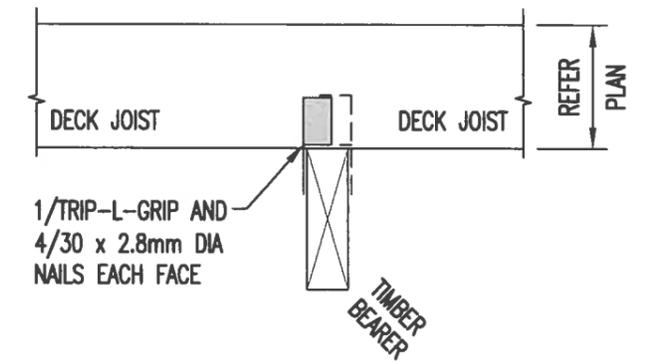
BUTT JOINT DETAIL



END JOINT DETAIL



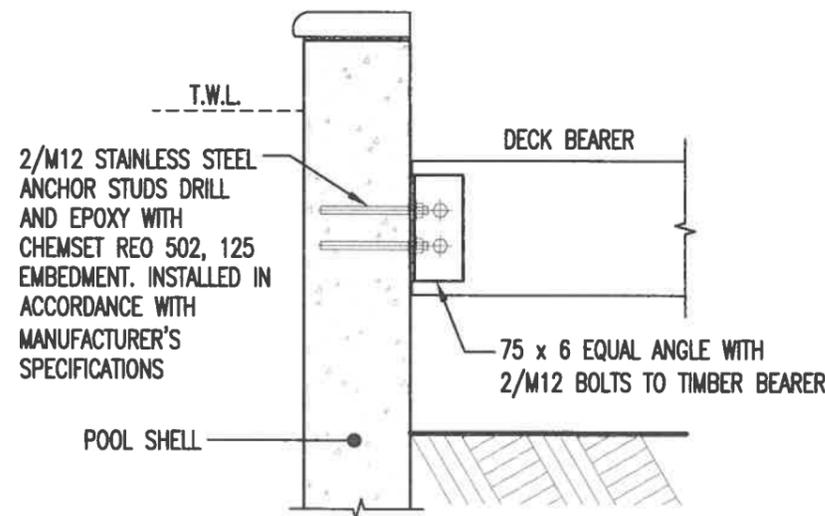
CONTINUOUS DETAIL



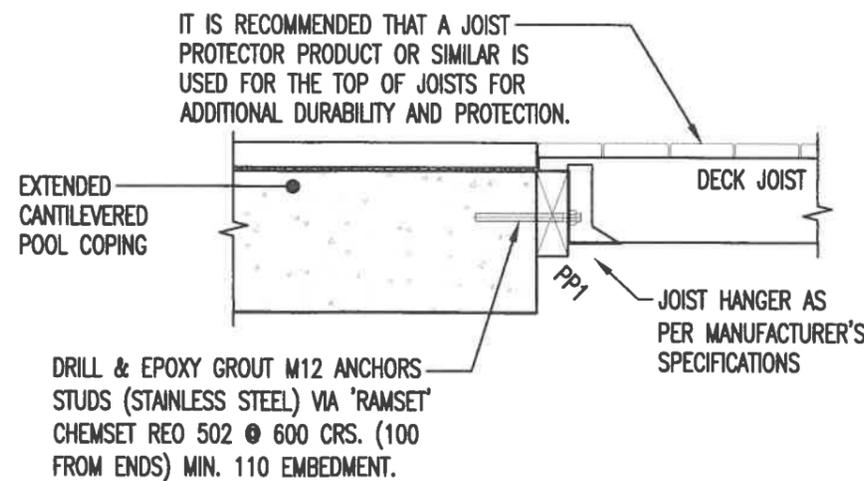
TYPICAL JOIST TO BEARER DETAIL  
SCALE 1:10

BOLT SCHEDULE	
TIMBER BEARER DEPTH	No BOLTS REQD
≤ 240	2/M12
> 240	3/M12 OR 2/M16

TYPICAL STEEL COLUMN TO TIMBER BEARER DETAILS  
SCALE 1:10



EQUAL ANGLE BRACKET (EAB)  
TO POOL WALL DETAIL  
SCALE 1:10



TIMBER POLE PLATE (PP1)  
TO POOL STRUCTURE  
SCALE 1:10

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NOMINAL FIXINGS TABLE – EXTRACT FROM AS1684.2 TABLE 9.4

JOINT	MINIMUM FIXING FOR EACH JOINT
FLOOR FRAMING	
BEARER TO TIMBER STUMP/POST	4/75 x 3.33mm DIA OR 5/75 x 3.05mm DIA MACHINE-DRIVEN NAILS PLUS 1/30 x 0.8mm G.I. STRAP OVER BEARER AND FIXED BOTH ENDS TO STUMP WITH 4/2.8mm DIA NAILS EACH END; OR 1/M10 BOLT THROUGH BEARER HALVED TO STUMP; OR 1/M12 CRANKED BOLT FIXED VERTICALLY THROUGH BEARER AND BOLTED TO STUMP PLUS 4/75 x 3.33mm DIA AND 5/75 x 3.05mm DIA MACHINE-DRIVEN NAILS.
BEARER TO MASONRY COLUMN/WALL/PIER (EXCLUDING MASONRY VENEER CONSTRUCTION)	1/M10 BOLT OR 1/50 x 4mm MILD STEEL BAR FIXED TO BEARER WITH M10 BOLT AND CAST INTO MASONRY (TO FOOTING).
BEARER TO CONCRETE STUMP/POST	1/6mm DIA ROD CAST INTO STUMP, VERTICALLY THROUGH BEARER AND BENT OVER.
BEARERS TO STEEL POST	1/M10 COACH SCREW OR BOLT.
FLOOR JOIST TO BEARER	2/75 x 3.05mm DIA NAILS.

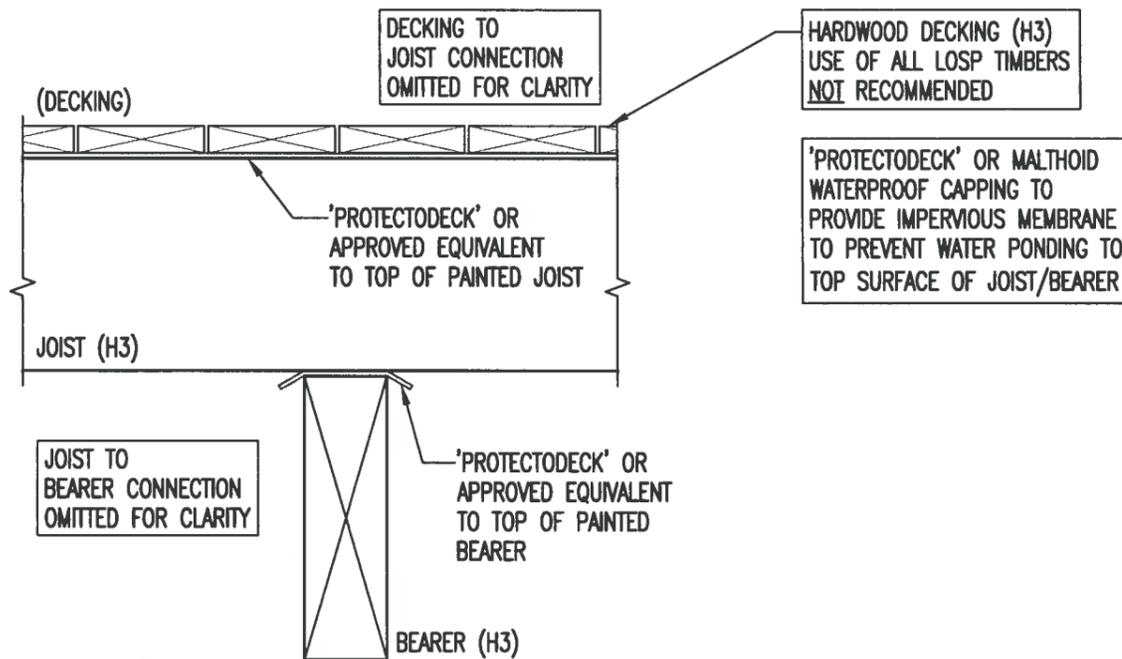
ADDITIONAL NOTES:

- UNLESS NOTED OTHERWISE THE MINIMUM DIA OF MACHINE DRIVEN NAILS SHALL BE:  
 HARDWOOD AND CYPRESS FRAMING: - 3.05mm DIA  
 SOFTWOOD FRAMING - 3.33mm DIA
- WHERE PLAIN SHANK HAND DRIVEN NAILS ARE USED IN LIEU OF MACHINE DRIVEN NAILS, THEY SHALL BE THE FOLLOWING MINIMUM DIAMETER:  
 HARDWOOD AND CYPRESS FRAMING - 3.15mm DIA  
 SOFTWOOD AND OTHERLOW - 3.75mm DIA  
 DENSITY TIMBER FRAMING

HAZARD CLASS SELECTION GUIDE

TABLE B1 AS 1684.2-2010

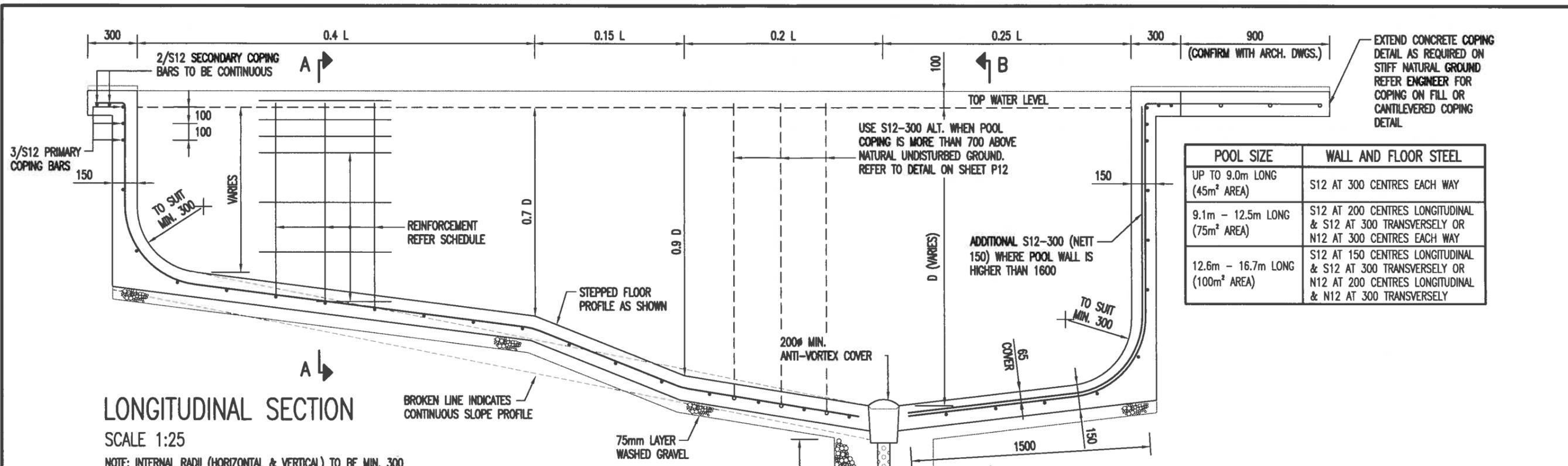
HAZARD CLASS	EXPOSURE	SPECIFIC SERVICE CONDITIONS	BIOLOGICAL HAZARD	TYPICAL USES
H1	INSIDE, ABOVE GROUND	COMPLETELY PROTECTED FROM THE WEATHER AND WELL VENTILATED, AND PROTECTED FROM TERMITES	LYCTID BORERS	SUSCEPTIBLE FRAMING, FLOORING, FURNITURE, INTERIOR JOINERY
H2	INSIDE, ABOVE GROUND	PROTECTED FROM WETTING. NIL LEACHING	BORERS AND TERMITES	FRAMING, FLOORING, AND SIMILAR, USED IN DRY SITUATIONS
H3	OUTSIDE, ABOVE GROUND	SUBJECT TO PERIODIC MODERATE WETTING AND LEACHING	MODERATE DECAY, BORERS & TERMITES	WEATHERBOARD, FASCIA, PERGOLAS (ABOVE GROUND), WINDOW JOINERY, FRAMING & DECKING
H4	OUTSIDE, IN-GROUND	SUBJECT TO SEVERE WETTING & LEACHING	SEVERE DECAY, BORERS & TERMITES	FENCE POSTS, GARDEN WALLS LESS THAN 1m HIGH, GREENHOUSES, PERGOLAS (IN GROUND) AND LANDSCAPING TIMBERS
H5	OUTSIDE, IN-GROUND CONTACT WITH OR IN FRESH WATER	SUBJECT TO EXTREME WETTING AND LEACHING AND/OR WHERE THE CRITICAL USE REQUIRES A HIGHER DEGREE OF PROTECTION	VERY SEVERE DECAY, BORERS & TERMITES	RETAINING WALLS, PILING, HOUSE STUMPS, BUILDING POLES, COOLING TOWER FILL
H6	MARINE WATERS	SUBJECT TO PROLONGED IMMERSION IN SEA WATER	MARINE WOOD BORERS AND DECAY	BOAT HULLS, MARINE PILES, JETTY CROSS BRACING, LANDING STEPS AND SIMILAR



TYPICAL TOP PROTECTION OF JOISTS AND BEARERS TO DECK AREAS

SCALE 1:5

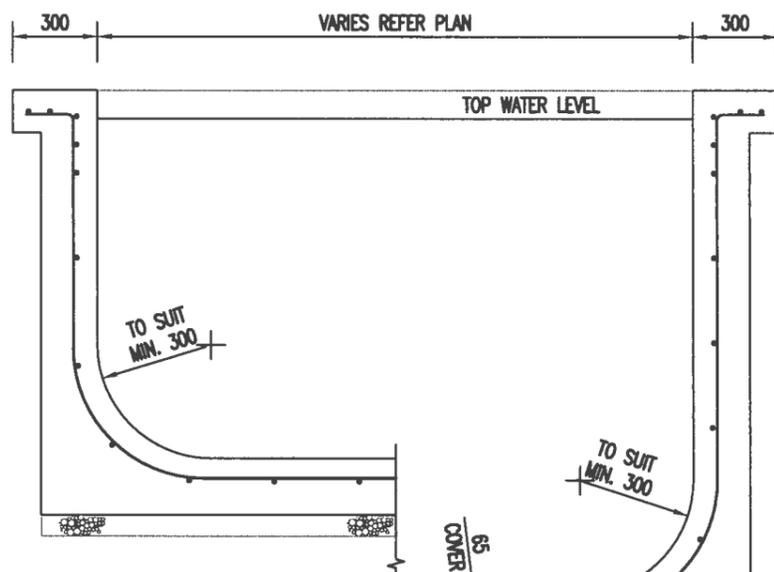
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**LONGITUDINAL SECTION**

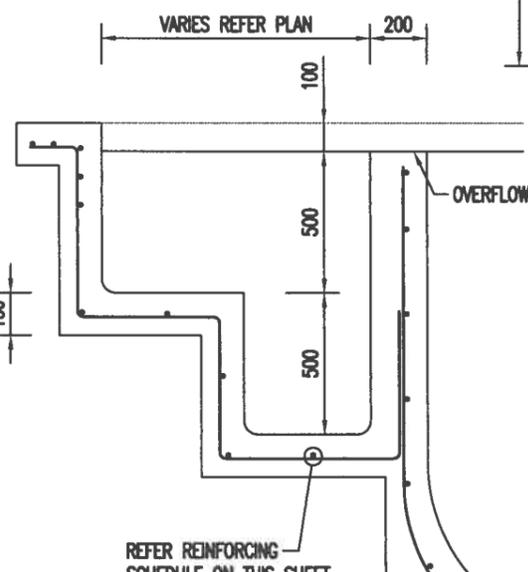
SCALE 1:25

NOTE: INTERNAL RADII (HORIZONTAL & VERTICAL) TO BE MIN. 300



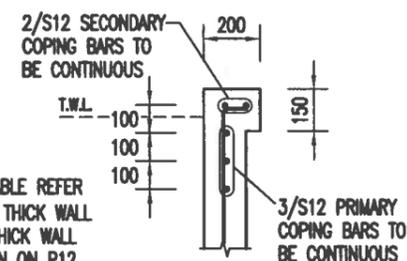
**HALF SECTION A-A**

SCALE 1:25



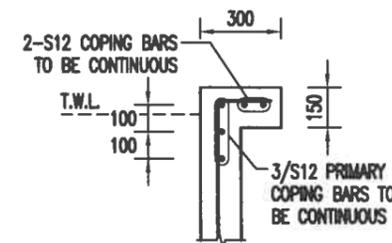
**SPA POOL DETAIL**

SCALE 1:25



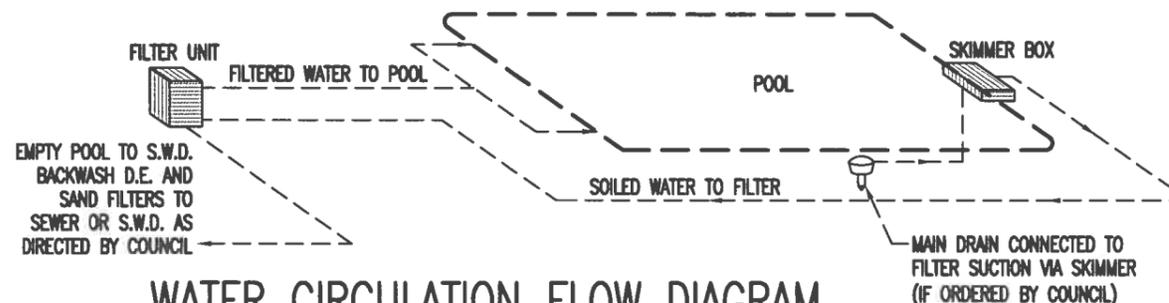
**200 WIDE COPING SECTION**

SCALE 1:25



**300 WIDE COPING SECTION**

SCALE 1:25



**WATER CIRCULATION FLOW DIAGRAM**

NOTE: ALL FILTRATION PIPES TO BE 40mm (MIN) P.V.C. CLASS 9 PIPE AND ALL FITTINGS CLASS 18 TO AS 1475

NOTE 2: WATER RECIRCULATION FOR POOL TO COMPLY WITH AS1926.3-2010 - WATER RECIRCULATION SYSTEMS

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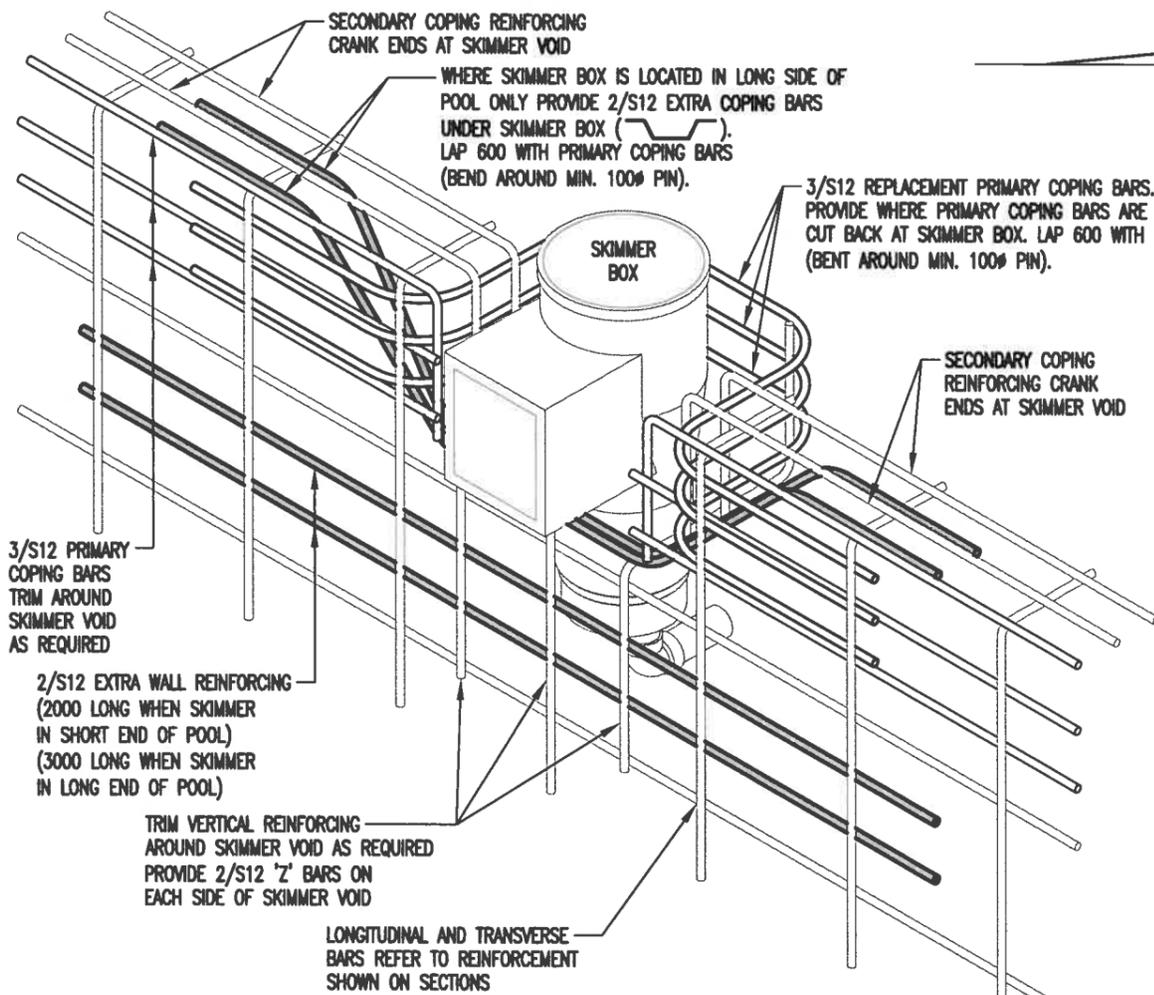
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CLIENT  
**BELL**  
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 NEW BRIGHTON  
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BUILDER  
**LIVING POOLS & SPAS**

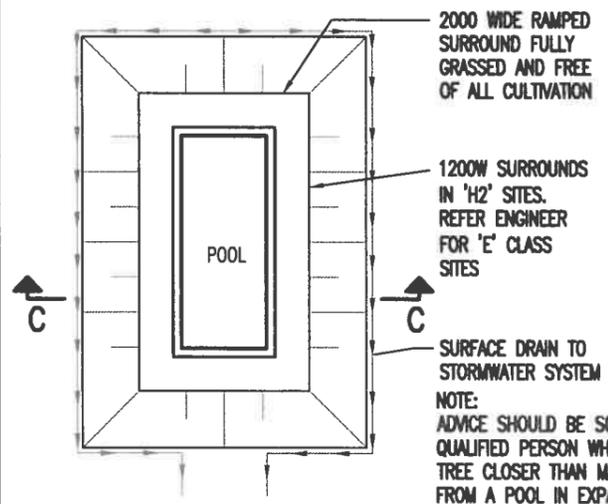
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**23-0485**  
 DWG NO.  
**P11**  
 SHEET 11



**REINFORCING AROUND SKIMMER BOX DETAIL**

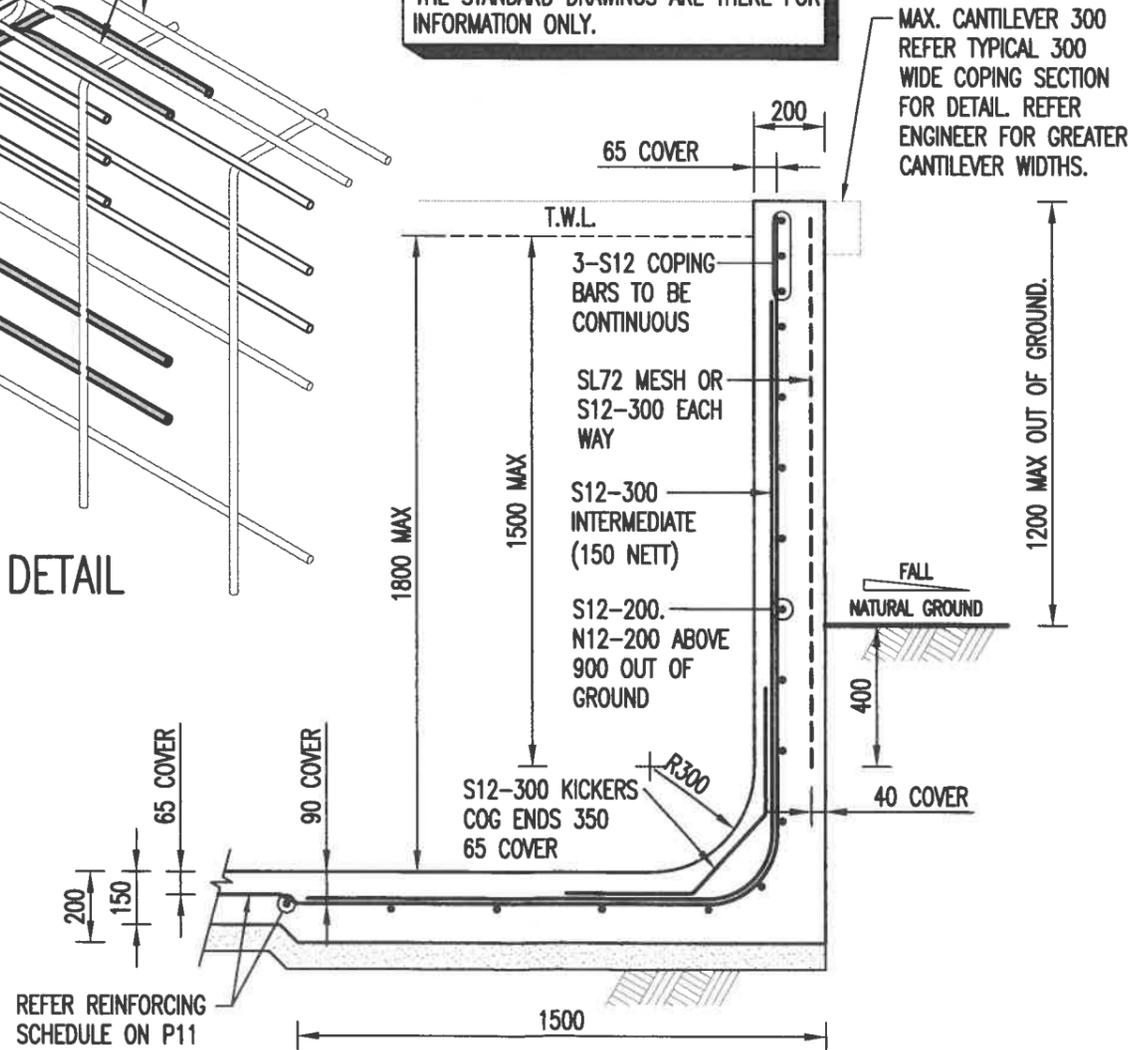
ISOMETRIC VIEW



**EXPANSIVE CLAY SOILS PROVISIONS PLAN**  
SCALE 1:250



**IMPORTANT NOTE:**  
WHERE SITE SPECIFIC STRUCTURAL DETAILING, SECTIONS AND REINFORCEMENT IS SHOWN TOGETHER WITH P11 THEN THOSE DETAILS TAKE PRECEDENCE AND THE STANDARD DRAWINGS ARE THERE FOR INFORMATION ONLY.



**POOL WALL SECTION FOR OUT OF GROUND STRUCTURE UP TO 1200.**  
SCALE 1:20

**CONSTRUCTION NOTES**

- A THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN AND BRITISH CODES OF PRACTICE. SAMPLING AND TESTING OF CONCRETE TO BE AS SET DOWN IN AS 3600-2018 CONCRETE STRUCTURE CODES
- B CONCRETING SHALL BE CARRIED OUT IN ONE CONTINUOUS OPERATION AND SHALL BE APPLIED BY THE PNEUMATIC SPRAYED PROCESS. CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH (F<sub>c</sub>) OF 25 MPa AT 28 DAYS MIN CEMENT CONTENT OF 270 kg/m<sup>3</sup> AND MAX. 10 AGG. (ALL WORK IN ACCORDANCE WITH AS 3735)
- C IF REINFORCED CONCRETE POOL IS LOCATED WITHIN 1 km FROM LARGE EXPANSES OF SALT WATER (COASTAL), A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 32 MPa AT 28 DAYS SHALL BE USED (IN ACCORDANCE WITH AS 2783-1992).

**CURING**

- A IMMEDIATELY AFTER THE PNEUMATIC CONCRETE HAS BEEN PLACED, IT SHOULD BE PROTECTED FROM PREMATURE DRYING BY SHADING FROM DIRECT SUN AND SHIELDING FROM WIND. AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY IT SHOULD BE THOROUGHLY WETTED AND THEREAFTER KEPT WET CONTINUOUSLY FOR AT LEAST 7 DAYS

**REINFORCEMENT**

- A REINFORCEMENT SHOWN S12 OR N12 SHALL BE 12mm DIAMETER DEFORMED BARS TO AS 1302. REINFORCEMENT TO BE SECURELY FIXED AND SUPPORTED TO OBTAIN CORRECT COVER TO BARS AS NOTED ON DRAWING. UNLESS NOTED OTHERWISE LAPS TO BARS TO BE 500

**GROUND WATER**

- A THE DESIGN REQUIRES THAT GROUND WATER PRESSURE TO POOL WALLS AND FLOOR SLAB BE RELIEVED BY INSTALLATION OF A HYDROSTATIC VALVE WITH MAIN DRAIN DETAIL
- B SURFACE WATER SHOULD BE DIRECTED AWAY FROM POOL

**POOL SIZE**

- A THE MAXIMUM OVERALL SIZE OF POOL SHALL NOT EXCEED 100m<sup>2</sup> IN AREA OR 16.7m IN LENGTH
- B THE DETAILS ON THIS DRAWING APPLY GENERALLY TO UNIFORMLY CURVED POOLS UNUSUAL SHAPES MAY REQUIRE SPECIAL CONSIDERATION

**FOUNDATIONS**

- A WHERE POOL IS TO BE CONSTRUCTED IN ROCKY OR CLAYEY GROUND A 75mm LAYER OF 20mm DIAMETER (MAXIMUM) GRAVEL IS TO BE SPREAD UNDER POOL SLAB
- B THIS STANDARD POOL DESIGN IS SUITABLE FOR CONSTRUCTION IN EXPANSIVE CLAY SOILS ONLY WHERE THE EXPANSIVE CLAY PROVISIONS SHOWN ON THIS DRAWING ARE ADHERED TO
- C WHERE THERE ARE ANY VARYING FOUNDATIONS OVER POOL AREA OR WHERE UNDISTURBED SOUND NATURAL GROUND IS NOT ENCOUNTERED, REFER ENGINEER FOR FOUNDATION DESIGN
- D ALL TOPSOIL AND ORGANIC MATTER UNDER POOL FLOOR IS TO BE REMOVED. THE DESIGN REQUIRES THAT THE POOL BASE BE CONSTRUCTED ON UNDISTURBED SOUND NATURAL GROUND (SNG) CAPABLE OF WITHSTANDING A MINIMUM BEARING PRESSURE OF NOT LESS THAN 75kPa UNLESS APPROVED BY ENGINEER
- E WHERE THE POOL WALLS ARE NOT POURED AGAINST SOUND NATURAL GROUND TO THE LEVELS SHOWN ON THE DRAWING, THE DESIGN OF THE WALLS MAY NEED MODIFICATION. REFER TO ENGINEER
- F IF OVER EXCAVATION IS REQUIRED TO ACHIEVE UNDISTURBED SOUND NATURAL GROUND TO THE UNDERSIDE OF THE POOL BASE, SEAT AND BENCH AREAS, THE OVER EXCAVATION SHALL BE BACKFILLED WITH 20mm SCREENINGS

**CONCRETE COVER**

- A THE VERTICAL WALL REINFORCEMENT SHOWN ON THE "TYPICAL LONGITUDINAL SECTION" SHOULD BE NOMINALLY ON THE CENTRE LINE OF THE WALL AND SHOULD BE ACCURATELY BENT TO REMAIN CENTRAL AROUND THE CURVATURE AND INTO THE BASE
- B THE MINIMUM COVER TO REINFORCEMENT ON BOTH FACES SHALL ALSO COMPLY WITH THAT SHOWN ON THE DRAWINGS

**SALT WATER POOL**

- A IF SALT CHLORINATOR USED CONCENTRATION TO BE KEPT BELOW 10 000 P.P.M.

				Newport Consulting Engineers		CLIENT <b>BELL</b> 32 NORTH HEAD ROAD NEW BRIGHTON NSW 2483		BUILDER <b>LIVING POOLS &amp; SPAS</b>		JOB NO. <b>23-0485</b>								
						LOT NUMBER 4 DP 1035885				DWG NO. <b>P12</b>								
A	ISSUE FOR CONSTRUCTION	03/05/2023	DPB	MY	PH: (07) 3252 9822 FAX: (07) 3252 9844 info@newportengineers.com.au		Ground Floor 349 Coronation Drive Milton, QLD-4064				DRAWN	DPB	DESIGNED	MY	APPROVED	MY	SHEET	12