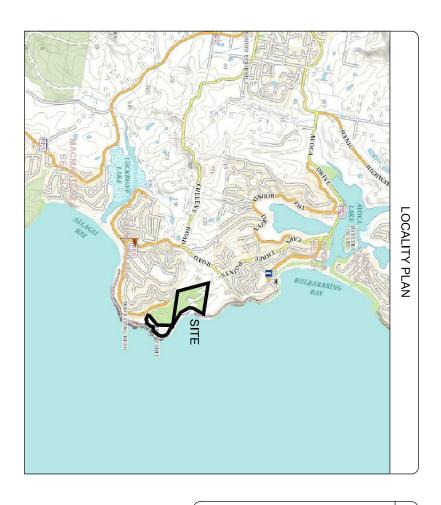


PROPOSED WINNEY BAY CLIFFTOP WALK, 5 LANDS COASTAL WALKWAY - STAGE 5, CAPTAIN COOK LOOKOUT - WINNEY BAY

COPACABANA, NSW

CENTRAL COAST NEW SOUTH WALES





A3.01 A3.02 A3.03 A3.04 A3.05 A3.05 A3.07 A3.07 A3.07 A3.08 A3.09 A3.09 A3.10 A3.11 DESIGN LONG SECTION MCO1SHEET 1
DESIGN LONG SECTION MC01 SHEET 2
PAVEMENT DETAILS SHEET 1
PAVEMENT DETAILS SHEET 2
PAVEMENT DETAILS SHEET 3
PAVEMENT DETAILS SHEET 4 COVER SHEET
STRUCTURAL NOTES
STRUCTURAL NOTES
DETAIL PAVEMENT PLAN SHEET 1
DETAIL PAVEMENT PLAN SHEET 3
DETAIL PAVEMENT PLAN SHEET 3
DETAIL PAVEMENT PLAN SHEET 3 AS1428 DETAILS DRAWING LIST

Postal Address: PO Box 1180, Gosford NSW 2250

Central Coast Office: Suite 35, The Avenue,

Mt Penang Parklands, Kariong NSW 2250 **Ph** 02 4340 1911 Fax 02 4340 1544

CONSULTING Newcastle Office: Shop 113, The Junction Village Centre, Kenrick Street, The Junction NSW 2291 Ph 02 4962 4414

Multi-discipline Engineering

GROUP

DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS ON SITE.

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Y SURVEYOR					44
TO	24.06.15				
SURVEYOR					
Е	29 06 15				
APPROVAL	19 08 15				









WINNEY BAY RESERVE COPACABANA N.S.W.

PROJECT
5 LANDS COASTAL WALKWAY - STAGE 5
CAPTAIN COOK LOOKOUT TO WINNEY BAY

COVER SHEET \Box

20140492 A3.01 CONCEPT PLANS
NOT FOR CONSTRUCTION

CONCRETE (C)

- C01 ALL WORKMANSHIP AND MATERIALS SHALL BEIN ACCORDANCE WITH AS 3800, AS 1379 & AS 3610 CURRENT EDITIONS WITH AMERINMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- C02 ALL CEMENT TO BE TYPE SL, SHRINKAGE LIMITED CEMENT N ACCORDANCE WITH ASS972, EXCEPT THAT THE MAXIMUM SHRINKAGE OF THE CEMENT IN THE MORTAR TEST SAMPLE IN ACCORDANCE WITH ASS600 SHALL BE LESS THAN 600 MICROSTRAIN.

250	20	80	N40	SLABS
250	20		N40	FOOTINGS
MINIMUM CEMENT	MAXIMUM AGGREG.	SLUMP	STRENGTH GRADE	ELEMENT
CONTENT (kg/cu.m)	SIZE (mm)	(mm)	(MPa)	

- ō

- NO ADMIXTURES OTHER THAN LOW RANGE WRA SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.
- C05 CLEAR CONCRETE COVER TO ALL REINFORCEMENT SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE. COVER MAY NEED TO BE INCREASED FOR FIRE RATING.

3600 GRADE	DE GROUND	JND EXPOSED	S& NOT
(INTERNAL) 20	40mm	nm	20mm
(EXTERNAL) 20	50mm	nm 30mm	3
(EXTERNAL) 32	60mm	nm 40mm	3
(EXTERNAL) 40	65mm	nm 45mm	3
50	65mm	nm	,

NOTE: WHERE CONCRETE IS POURED ON A VAPOURPROOF MEMBRANE 0.2mm MINIMUM THICKNESS, THE COVER TO CONCRETE CAST AGAINST GROUND MAY BE REDUCED BY 10mm.

- C06. CONCRETE SIZES SHOWN DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES. NO FINISH WHICH DECREASES COVER IS ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- C07 C08. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS. FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC, REFER TO ARCHITECT'S DETAILS, MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.
- C09. NO HOLES, CHASES, BLOCKOUTS, DUCTS OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- C10. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- C11. ALL CONCRETE COLUMNS GREATER THAN 1.2 METRES IN HEIGHT SHALL BE POURED A MINIMUM OF 4 HOURS PRIOR TO SLAB OR BEAM OVER.
- C12.
- THE INJUSHED CONCRETE SHALL BE MECHANICALLY VIBRATED TO ACHEVE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS, ALL CONCRETE INCLUDING SLABS ON GROUND ADD FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
- C13 CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF THREE DAYS, AND THE 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 ELOOR FINISHES WILL NOT BE AFFECTED REFERER MANUFACTURERS SPECIFICATION), POLYTHENE SHEETING OR WET HESSIAN MAY BE USED IF PROTECTED FROM WIND AND TRAFFIC.
- C14. CONSTRUCTION SUPPORT PROPPING IS TO BE LEFT IN PLACE WHERE NEEDED TO AVOID OVERSTRESSING THE SITUCTURE DUE TO CONSTRUCTION LOADING, NO BRICKWORK OR PARTITION WALLS ARE TO BE CONSTRUCTED ON SUSPENDED LEVELS UNTIL SEVEN DAYS AFTER REPOPING HAS BEEN REMOVED AND THE SLAB PRE-LOADED WITH THE BRICKS OR UNITS TO BE USED IN THE WALL.
- C15 REPAIRS TO CONCRETE SHALL NOT BE ATTEMPTED WITHOUT THE PERMISSION OF THE ENGINEER.
- C16. CAST-IN FIXINGS, BOLTS ETC. SHALL NOT BE ALTERED WITHOUT THE PERMISSION OF THE ENGINEER.
- C17. CONDUITS, PIPES ETC. SHALL ONLY BE LOCATED IN THE MIDDLE THRO OF THE SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS, CONDUITS AND PIPES SHALL NOT BE PLACED WITHIN THE COVER TO REINFORGEMENT.
- SLABS AND BEAMS SHALL BE CONSTRUCTED TO BEAR ONLY ON THE BEAMS, WALLS, COLUMNS ETC. SHOWN ON THE DRAWMSS. ALL OTHER BUILDING BELEWENTS SHALL BE KEPT 12mm CLEAR OF SOFFITS OF STRUCTURE.
- PLASTIC FORMWORK SPACERS AND BAR CHAIRS TO BE USED IN ALL EXPOSED CONCRETE WORK.

DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS ON SITE.

DATE REVISION DESCRIPTION

DATE

ostal Address: PO Box 1180, Gosford

REVISION DESCRIPTION

Multipliscipline Engineering		19 08 15	COUNCIL APPROVAL	D
		29 06 15	90% ISSUE	C
			QUANTITY SURVEYOR	
CONSTITUTE		24 06 15	RE-ISSUE TO	В
▼ KGH			QUANTITY SURVEYOR	
		05.06.15	PRELIMINARY ISSUE TO	>

REINFORCEMENT (R)

REINFORCEMENT SYMBOLS:

R01.

- DENOTES GRADE 500 N BARS TO AS 4671 DENOTES GRADE 250 R HOT ROLLED PLAIN BARS TO AS 4671

S02.

- DENOTES GRADE 500 L HARD-DRAWN WIRE REINFORCING FABRIC TO AS 4671 DENOTES GRADE 450 W HARD-DRAWN PLAIN WIRE TO AS
- NUMBER OF BARS IN GROUP 4671 DENOTES GRADE 500 TRENCH MESH TO AS 4671

R02.

REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION. THE FIGURES FOLLOWING THE FABRIC SYMBOLS RL, SL, L . TM IS THE REFERENCE NUMBER TO AS 4671.

• 4.6/S - COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111, SNUG

NOMINAL BAR SIZE IN mm

SPACING IN mm BAR GRADE AND TYPE

S03.

THREE(3) COPIES OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE RIGHDERF FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF FABRICATION AND PERMISSION TO USE OBTAINED PRIOR TO FABRICATION. PERMISSION TO USE OBTAINED PRIOR TO FABRICATION. PERMISSION TO USE DOES NOT RELIEVE THE BUILDER OF THE FULL RESPONSIBILITY FOR DIMENSIONS, EIT AND COMPLIANCE WITH ARCHITECTURAL AND ENGINEERING DRAWINGS.

R03.

SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE ENGINEER, LAPS SHALL BE IN ACCORDANCE WITH AS 3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR, AS PER THE TABLE BELOW:

- ALL CONCRETE IN SLABS AND BEAMS TO BE PROPORTIONED TO LIMIT DRYING SHRINKAGE TO 650 MICROSTRAIN AT 56 DAYS.

 b. DETAILS OF THE PROPOSED MIX TO 650 MICROSTRAIN AT 56 DAYS.

 c) DETAILS OF THE PROPOSED MIX TO 865 BUBMITTED 8 APPROVAL OBTAINED PRIOR TO POURING ANY CONCRETE.

 c) SHRINKAGE TESTS SHALL BE CARRED OUT BY AN APPROVED WITA REGISTERED LABORATORY IN ACCORDANCE WITH AS 1012 PART 13. TESTS SHALL BE CONDUCTED ON THE ERST BATCH OF CONCRETE USED IN SUSPENDED SLASS AND SUBSECUENTLY AT THE RATE OF ONE TEST EVERY ADDITIONAL 100m³ OF CONCRETE SUPPLIED. THREE SPECIMENS SHALL BE TAKEN FOR EACH TEST SUPPLIED. THREE SPECIMENS SHALL BE TAKEN FOR EACH TEST AND THE SHRINKAGE SHALL BE THE AVERAGE OF THE THREE RESULTS.
- THE COST OF TESTING SHALL BE BORNE BY THE CONTRACTOR AS SHALL ANY ADDITIONAL TESTS REQUIRED IF THE CONCRETE FAILS TO MEET THE SPECIFIED SHRINKAGE LIMITS.

_																					
	N36	N32	N28	N24	N20	N16	N12				N36	N32	N28	N24	N20	N16	N12			BAR SIZE	
	2500	2050	1650	1300	950	650	400	25MPa	BELOW BAR BAR	MORE THAN 300 CONCRETE	2000	1650	1350	1000	750	550	300	25MPa	BELOW BAR O	LESS THAN 300 CONCRETE	or most amino trice (title)
	2200	1850	1500	1150	850	600	400	≽32MPa	AR	00 CONCRETE	1750	1450	1200	900	650	500	300	≽32MPa	BELOW BAR OR VERTICAL BAR	0 CONCRETE	,

BOTTOM BAR LAPPED @ SUPPORTS AND TOP BAR LAPPED AT MID SPAN.

S07.

STEELWORK TO BE CONCRETE ENCASED SHALL BE WRAPPED WITH F41 STEELWIRE FABRIC AND SHALL HAVE 50mm MINIMUM CONCRETE COVER TO THE STRUCTURAL STEEL.

ALL DETAILS, GAUGE LINES ETC. WHERE NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH AISC DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL AND ASCS STANDARDZED STRUCTURAL CONNECTIONS, PLATES TO BE 10mm THICK, EX-STANDARD SQUARE EDGE FLATS U.N.O.

S06

- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER.
- R05 FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 25mm.
 BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER
 CENTRES WITH 3 WRAPS OF THE WIRE.
- R06. WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-400 SPLICED WHERE NECESSARY AND LAP WITH MAIN BARS 400mm UNLESS NOTED.

S10.

S09.

IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THAT STEELWORK IS SECURELY TEMPORARILY BRACED AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.

STRUCTURAL STEELWORK SHALL HAVE THE FOLLOWING SURFACE TREATMENT IN ACCORDANCE WITH THE SPECIFICATION.

S08.

PROVIDE SEAL PLATES TO ALL HOLLOW SECTIONS, PROVIDE VENT HOLES TO HOLLOW MEMBERS & DRAIN HOLES TO ALL MEMBERS TO BE HOT DIP GALVANISED.

- R07 IOGGLES TO BARS SHALL COMPRISE A LENGTH OF 12 BAR DIAMETERS BETWEEN BEGINNING AND END OF AN OFFSET OF 1 3AR DIAMETER.
- R08 ALL REINFORGEMENT SHALL BE FRIMLY SUPPORTED ON MID STEEL PLASTIC TIPPED CHARRS, PLASTIC CHARRS OR CONCRETE CHARRS AT NOT GREATER THAN 1 METTRE CENTRES BOTH WAY'S, AND 800 EACH WAY TO EN FABRIC. WHEN POLITIES BOTH WAY'S, AND 800 EACH WAY TO EN FABRIC WHEN PLASTED ON GROUND AS FORMORE PROVIDE PLASTICS WHEN PLASTIC TIPPED STEEL CHARRS SHALL NOT BE USED ON EXPOSED FACES IN EXPOSURE CLASSIFICATION B1, BZ AND CONLY PLASTIC OR PLASTIC OR CONCRETE CHARRS.
- AT A SIMPLE OR END SUPPORT OF A SLAB ON A MASONRY WALL, ALL BOTTOM SLAB REINFORCEMENT SHALL EXTEND OVER THE MASONRY WALL BY A LENGTH Fomm FOR NY2 BARS & 95mm FOR NY6 BARS. IF THIS CANNOT BE ACHIEVED DUE TO COVER FOR UNE BARS. IF THIS CHAINOT BE ACHIEVED DUE TO COVER FOR UNE BARS. IF THEN THE BARS SHALL BE COGGED. FOR FABRIC THE LAST WELDED CROSS FOD SHALL BE LOCATED OVER THE WALL AND 50mm MINIMUM BEYOND THE FACE OF THE WALL AND 50mm MINIMUM BEYOND THE FACE OF THE

S13

REFERENCE SHOULD BE MADE TO AS 2312 FOR APPROPRIATE COATING SYSTEMS FOR ALL EXTERVAL APPLICATIONS, COATING OF EXTERNAL LINTELS SHALL BE IN ACCORDANCE WITH B.C.A AND AS 3700.

- SITE BENDING OF REINFORCEMENT SHALL BE AVOIDED IF POSSIBLE, WHERE SITE BENDING IS UNAVOIDABLE IT SHALL BE CARRED OUT COLD, WITHOUT THE APPLICATION OF HEAT, AND IN ACCORDANCE WITH THE PRACTICE NOTE RPN1 OF THE STEEL REINFORCEMENT INSTITUTE OF AUSTRALIA.
- R11. THE STRUCTURAL ENGINEER SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE EDELVERED UNTIL FINAL APPROVAL HAS BEEN OBTAINED FROM THE STRUCTURAL ENGINEER.

ALLOW ADDITIONAL CONCRETE THICKNESS WHERE 'SANDBLASTED' CONCRETE FINISH IS SPECIFIED TO MAINTAIN 45mm MIN. COVER ALL SETOUT DIMENSION AND PATH WIDTHS BY OTHERS. ALL FALLS AND GRADES ON PATHS BY OTHERS. PATHS TO HAVE SUFFICIENT GRADE & CROSSFALL SO AS TO NOT POND SURFAGE WATER

FOOTPATH NOTES:

JOINT SPACING SCHEDULE

PATH WIDTH

TJ SPACING EJ SPACING

FW8.

3.6m 7.2m 18.0m

STRUCTURAL STEEL (SS)

- . ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 AND AS 1554 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- UNLESS NOTED OTHERWISE ALL MATERIAL SHALL BE:
 GRADE 259 HOT-ROLLED PLATES COMPLYING WITH AS 3878;
 GRADE 259 HOT-ROLLED PLATS.
 GRADE 259 HOT-ROLLED FLATS.,
 GRADE 309 PLUS UB, UC, PFC, ANGLES, AND TFB,
 GRADE 309 PLUS UB, UC OMPLYING WITH AS 3679.2;
 GRADE C350 RHS, CHS COMPLYING WITH AS 1163;

- SS7. PROVIDE SEAL PLATES TO ALL HOLLOW SECTIONS.
- SS9. THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER TO STEEL WHETHER OR NOT DETAILED ON THE DRAWINGS.

FORMWORK (FW)

- THE DESIGN, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK AND FALSEWORK IS THE RESPONSIBILITY OF THE BUILDER.
- FW2 DESIGN AND CONSTRUCTION AND STRIPPING TIMES SHALL COMPLY WITH AS 3610 AND AS 3600 UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- FW3.

S12. THE FABRICATION AND ERECTION OF THE STRUCTURAL
STEELWORK SHALL BE UNDERTAKEN BY A QUALIFIED PERSON
EXPERIENCE IN SUCH SUPERVISION, IN ORDER TO ENSURE THAT
ALL REQUIREMENTS OF THE DESIGN ARE MET, ALL BEAMS AND
RAFTERS SHALL BE FABRICATED AND ERECTED WITH NATURAL
CAMBER UP.

S11. THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER TO STEEL WHETHER OR NOT DETAILED ON THE DRAWINGS.

EXTERNAL

MECHANICAL SURFACE

HOT DIPPED GALV. + 2 COAT EPOXY PROTECTIVE COATING

- FORMWORK SHALL BE DESIGNED TO ACCOMMODATE MOVEMENTS AND LOAD RE DISTRIBUTION DUE TO POST-TENSIONING.

FW5

- FW6 WHERE NECESSARY SPECIAL REQUIREMENTS FOR SEQUENCE OF CONCRETE PLACEMENT AND STRIPPING ARE SET OUT ON DRAWINGS.
- FW7 DESIGN INFORMATION CONCERNING THE FOUNDATION FORMWORK SHALL BE DETERMINED FROM THE CONDITIONS EXISTING ON SITE AT THE TIME OF CONSTRUCTION, REFER ALSO TO THE GEOTECHNICAL REPORT WHERE AVAILABLE.

STRUCTURAL STAINLESS STEEL (SSS)

- SS1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 AND AS 1554 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

- SS3. THREE(3) COPIES OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST TOANS PROPE TO COMMENCEMENT OF FABRICATION AND PERMISSION TO USE OBTAINED PRIOR TO FABRICATION. PERMISSION TO USE DOES NOT RELIEVE THE BUILDER OF THE FULL RESPONSIBILITY FOR DMENSIONS, FIT AND COMPLIANCE WITH ARCHITECTURAL AND ENGINEERING DRAWINGS.
- SS4. BOLTS:
 ALL BOLTS: SHALL BE M16 GRADE 304/S UNLESS NOTED OTHERWISE.
 ALL BOLTS, NUTS & WASHERS TO BE STAINLESS STEEL.
 (GRADE 304) TO ISO 3506. SNUG TIGHTENED WITH NYLON LOCK NUTS.
 STAINLESS STEEL. TO BE SEPARATED FROM OTHER METALS WITH
 NEOPRENE WASHERS.
- SS5. WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1554.1

 AND AS 1564.6 WELDING CONSUMABLES SHALL BE SUITABLE FOR STANLESS STELL OR ALLUMBING UN.O. ALL WELDS SHALL BE SOME C.F.W. SP GATEGORY U.N.O. OPBW SHALL BE SP CATEGORY U.N.O. INSPECTION SHALL BE 100% WISHALL BE 500% WELDS SHALL BE 100% WISHALL SHOWN WELDS TO AS 1564.

 BUTT WELDS SHALL BE 100% WISHALL SCANNED.

 BUTT WELDS SHALL BE COMPLETE PENETRATION WELDS TO AS 1564.

 SS6. ALL DETAILS, GAUGE LINES ETC. WHERE NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH AISC DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL AND AISC STANDARDIZED STRUCTURAL CONNECTIONS, PLATES TO BE 6mm THICK, EX-STANDARD SQUARE EDGE FLATS U.N.O.

*** TIGHTENED.

• 8.8/S - HIGH STREMENTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252, SNUG TIGHTENED.

• 8.8/TB - HIGH STREMGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS BEARING JONT.

• 8.8/TF - HIGH STREMGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A FRICTION JOINT WITH FACING SURFACES LEFT UNCOATED.

ALL BOLTS SHALL BE M20 GRADE 8.8/S UNLESS NOTED. NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS, ALL BOLTS, UTS & WASHERS TO BE GALVANISED. TB AND TF BOLTS TO BE INSTALLED USING APPROVED LOAD NIDICATING WASHERS, OR BY TURN OF NUT CONTROL OF TENSIONING.

S05. WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1554.1. WELDING SS CONSUMABLES SHALL BE E48XX OR W50X U.N.O. ALL WELD SHALL BE 6 MM CPW SP CA.TEGORY U.N.O. O'BW SHALL BE SP CATEGORY U.N.O. INSPECTION SHALL BE CARRIED OUT TO AS 1554.1. ALL GP/SP WELDS SHALL BE 100% VISUALLY SCANNED.

BUTT WELDS SHALL BE COMPLETE PENETRATION WELDS TO AS 1554.

- SS8. IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THAT STEELWORK IS SECURELY TEMPORARILY BRACED AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.
- SS10. THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE UNDERTAKEN BY A QUALIFIED PERSON EXPERIENCED IN SUCH SUPERVISION, IN ORDER TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN ARE MET. ALL BEAMS AND RAFTERS SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP.
- FW1
- DURING CONSTRUCTION, SUPPORT PROPPING SHALL BE PROVIDED WHERE LOADS FROM STACKED MATERIALS. FORMWORK AND OTHER SUPPORTED SLAGS INDUCE LOADS IN A SLAB OR BEAM WHICH EXCEED THE DESIGN LOAD FOR STRENGTH OR SERVICE/SMITH AT THAT AGE ONCE THE MOMINATED 28 DAY STRENGTH HAS BEEN ATTANKED, THESE LOADS SHALL NOT EXCEED THE DESIGN SUPERIMPOSED LOADS SET OUT IN THE GENERAL NOTES.
- FW4 IN MULTISTOREY CONSTRUCTION PROPPING SHALL BE PROVIDED AT LEAST 3 LEVELS BELOW THE FLOOR BEING CAST, PROP REMOVAL IS TO BE PROGRAMMED TO AVOID DISTRESS TO PREVIOUSLY CAST FLOORS, RE-SHORING OR BACK-PROPPING IS SUBJECT TO THE APPROVAL OF THE PROJECT DESIGN ENGNEER.
- FW5 THE FORMWORK SHALL BE DESIGNED TO RELY ON NO RESTRAINT OR SUPPORT FROM THE PERMANENT STRUCTURE WITHOUT PRIOR APPROVAL FROM THE PROJECT DESIGN

- UNLESS NOTED OTHERWISE PROVIDE UPWARD CAMBER TO FORMWORK OF CANTILEVERS OF L/120, WHERE L IS THE SHORTEST PROJECTION BEYOND COLUMN OR WALL FACE, AND TO FORMWORK OF SLASS WHERE NOTED ON PLAN.
 MAINTAIN THE SLAB AND BEAM DEPTHS SHOWN.

CAR1.

WHERE SHOWN ON THE DRAWINGS REINFORCMENT BARS SHALL BE CHEMICALLY ANCHORED INTO EXISTING CONCRETE AS DESCRIBED BELOW.

CHEMICALLY ANCHORED REINFORCEMENT

- SS2. UNLESS NOTED OTHERWISE ALL STAINLESS STEEL SHALL BE COMPLYING WITH ASINZS 4673. OF A GRADE SUITABLE FOR USE IN MARINE SPLASH ZONE CONDITIONS.

CAR2. PERCUSSION DRILL (CORING NOT PERMITTED) A HOLE TO THE CORRECT DIAMETER AND DEPTH FOR THE PARTICULAR SIZE REINFORDING BARS AS TABULATED BELOW, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

BAR SIZE (Y OR N) HOLE DIA (mm)

HOLE DEPTH (mm)

32823 32823 32823

120 150 250 280

CAR4 CAR3.

THOROUGHLY CLEAN THE HOLE USING A ROUND WIRE BRUSH AND BLOWOUT ALL DUST.

ENSURE HOLE IS CLEAN AND DRY AND INSERT SUFFICIENT HILT HY 150 RESIN INTO THE BASE OF THE HOLE TO ENSURE THAT WHEN THE BAR IS INSTALLED RESIN APPEARS AT THE FACE OF THE HOLE.

- DRILLING CONTRACTOR IS TO OBTAIN WRITTEN AUTHORISATION FROM ADJOINING PROPERTY OWNERS BEFORE CARRYING OUT PLACEMENT OF PILING ANCHORS.

CAR6.

ENSURE BAR IS NOT DISTURBED WHILST RESIN IS CURING. (APPROX. 2 HOURS).

IMMEDIATELY INSERT THE REINFORCING BAR INTO THE HOLE BY ROTATING SLOWLY TO FULLY COAT THE BAR WITH RESIN, AND PUSH FULLY INTO THE HOLE.

CAR5

DESIGN SPECIFICATION:

REINFORCEMENT: BAR - N500 GRADE STIRRUP - R250 GRADE MESH - SL500 GRADE - LOW DUCTILITY3

"C" COVER: TOP - 65mm SIDE - 65mm BTM - 65mm

DAMP PROOF MEMBRANE: 0.2mm POLYETHYLENE FILM CONTINUOUSLY BRANDED "AS2870 CONCRETE UNDERLAY, 0.2mm - HIGH IMPACT RESISTANCE"

SITE CLASSIFICATION: AS 3600
'S" - ADID SULPHATIE / OCEAN FRONT
REFER GEOTECHNICAL REPORT
BY DOUGLAS PARTINERS REF: 84701.00 DATED APRIL 2015 POSURE CLASSIFICATION: AS 3600

- COASTAL FC = N40MPa (B2) PATHWAYS
TIDAL/SPLASH ZONE FC = S50MPa (C2)

LOADING: AS 1170.1 SHARED PATHWAYS / STAIRS: 3kPa TRAFFICABLE PATHWAY: 5kPa

DESIGN REFERENCE STANDARDS:

AS 3600 - CONCRETE STRUCTURES
AS 4100 - STREEL STRUCTURES
AS 4100 - STRUCTURES
AS 1170 - STRUCTUREAL DESIGN ACTIONS
AS 1012 - CONCRETE TESTING
AS 1289 - SOIL TESTING
AS 1289 - CONCRETE MANUFACTURE
AS 1478 - CONCRETE MANUFACTURE
AS 1478 - CONCRETE MANUFACTURE
AS 1478 - CONCRETE MANUTURES
AS 1871 - STEAL RELINFORCING MATERIALS
AS 1872 - STEAL RELINFORCING MATERIALS
AS 1854 - STRUCTUREAL STEAL RELDING
AS 1654 - STRUCTUREAL STEAL STRUCTURES
AS 2372 - GUIDE TO THE PROTECTION OF IRON & STEEL AGAINST
AS 2373 - COUDE TO THE PROTECTION OF IRON & STEEL AGAINST
AS 2374 - FORMWORK FOR CONCRETE
AS 2156 - WALKING TRACKS
AS 1428 - DESIGN FOR ACKESS AND MOBILITY
AS 2890 - OFF STREET CAR PARKING

CONCEPT PLANS
NOT FOR CONSTRUCTION

A3.02

STRUCT

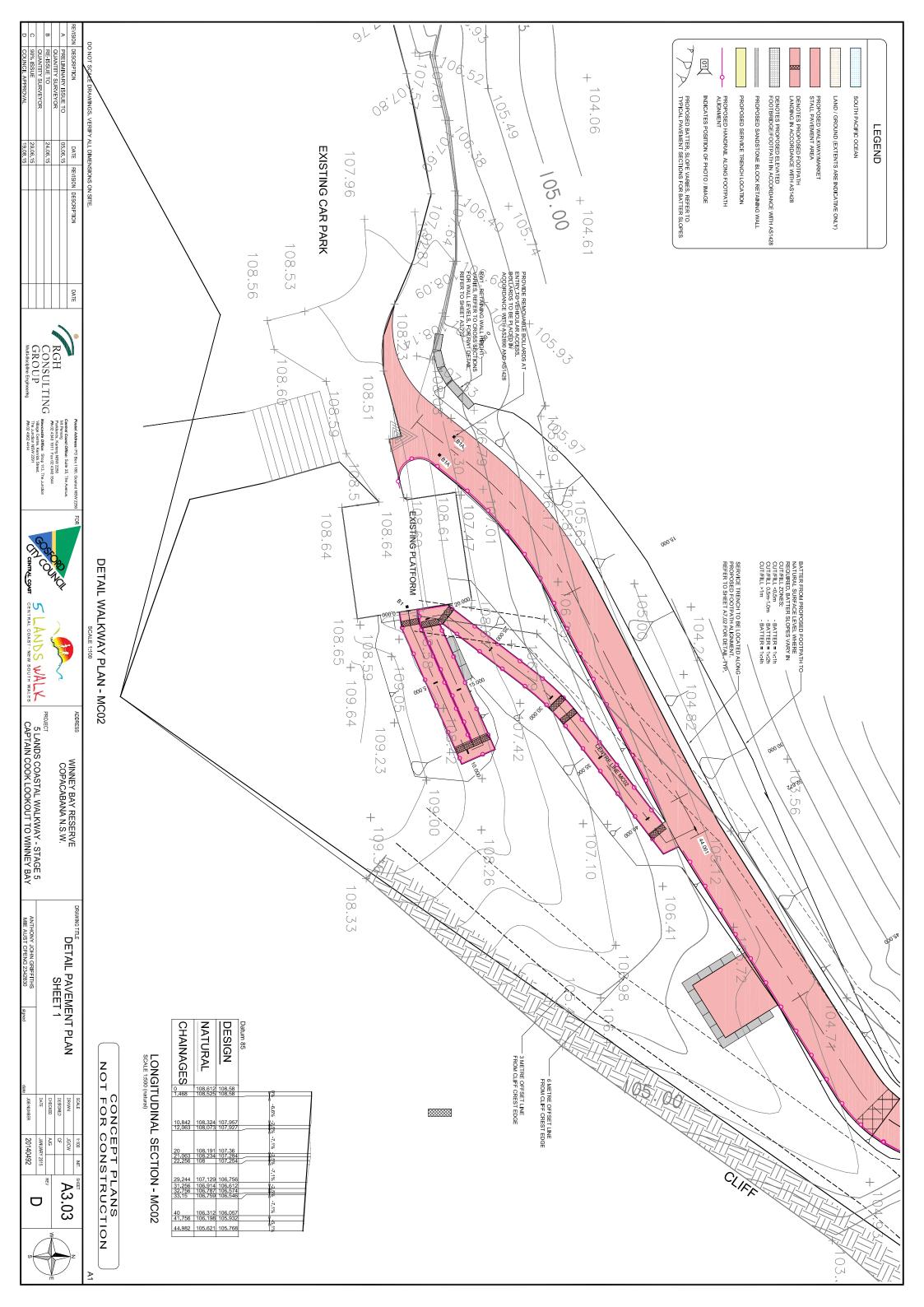
JRAL NOTES JOB NUMBER

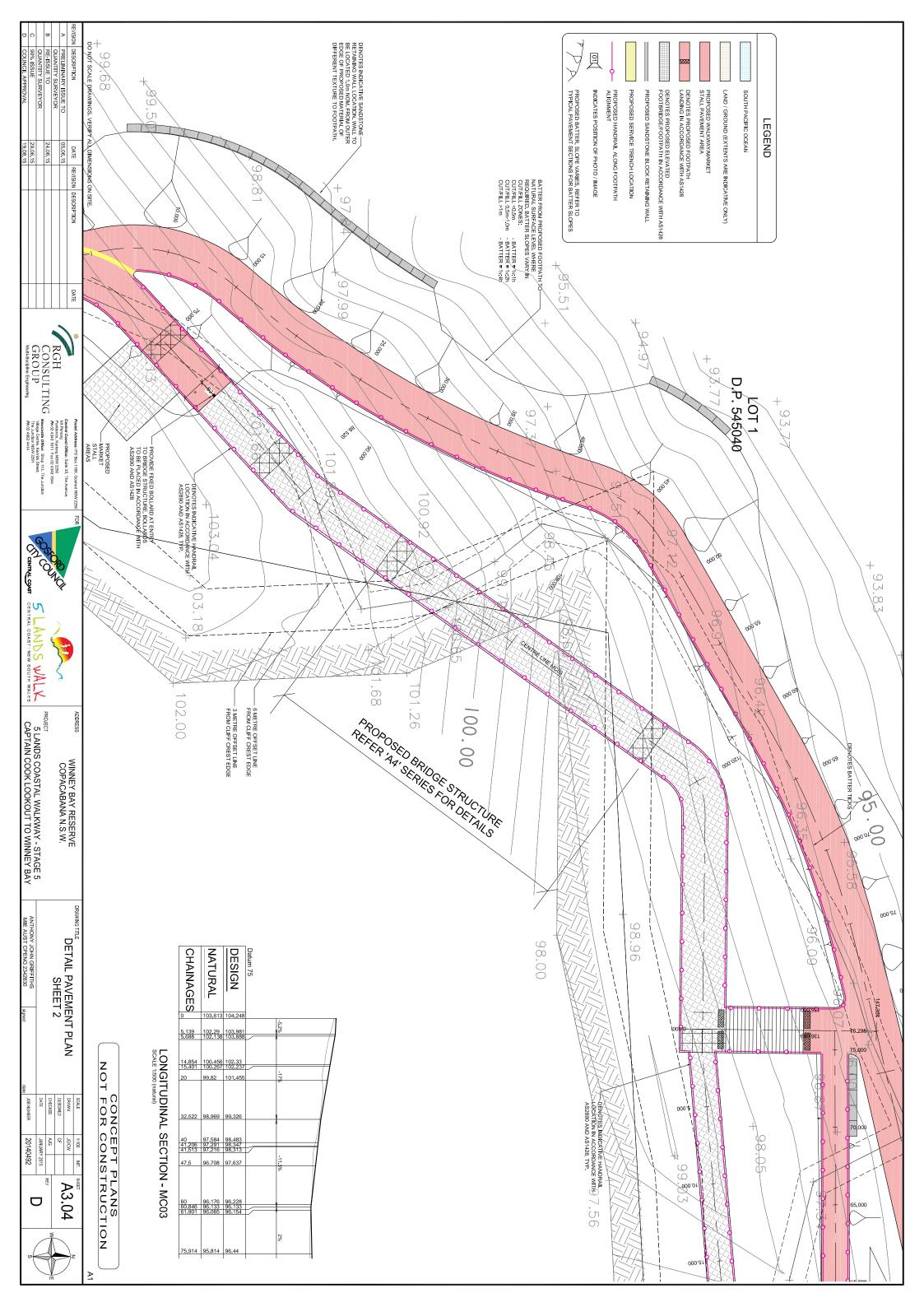
Newcastle Office: Shop 113, The Junction Village Centre, Kenrick Street, The Junction NSW 2291
Ph 02 4962 4414 Central Coast Office: Suite 35, The Avenue, Mt Penang Parklands, Kariong NSW 2250 Ph 02 4340 1911 Fax 02 4340 1544 CENTRAL COAST - NEW SOUTH WALES

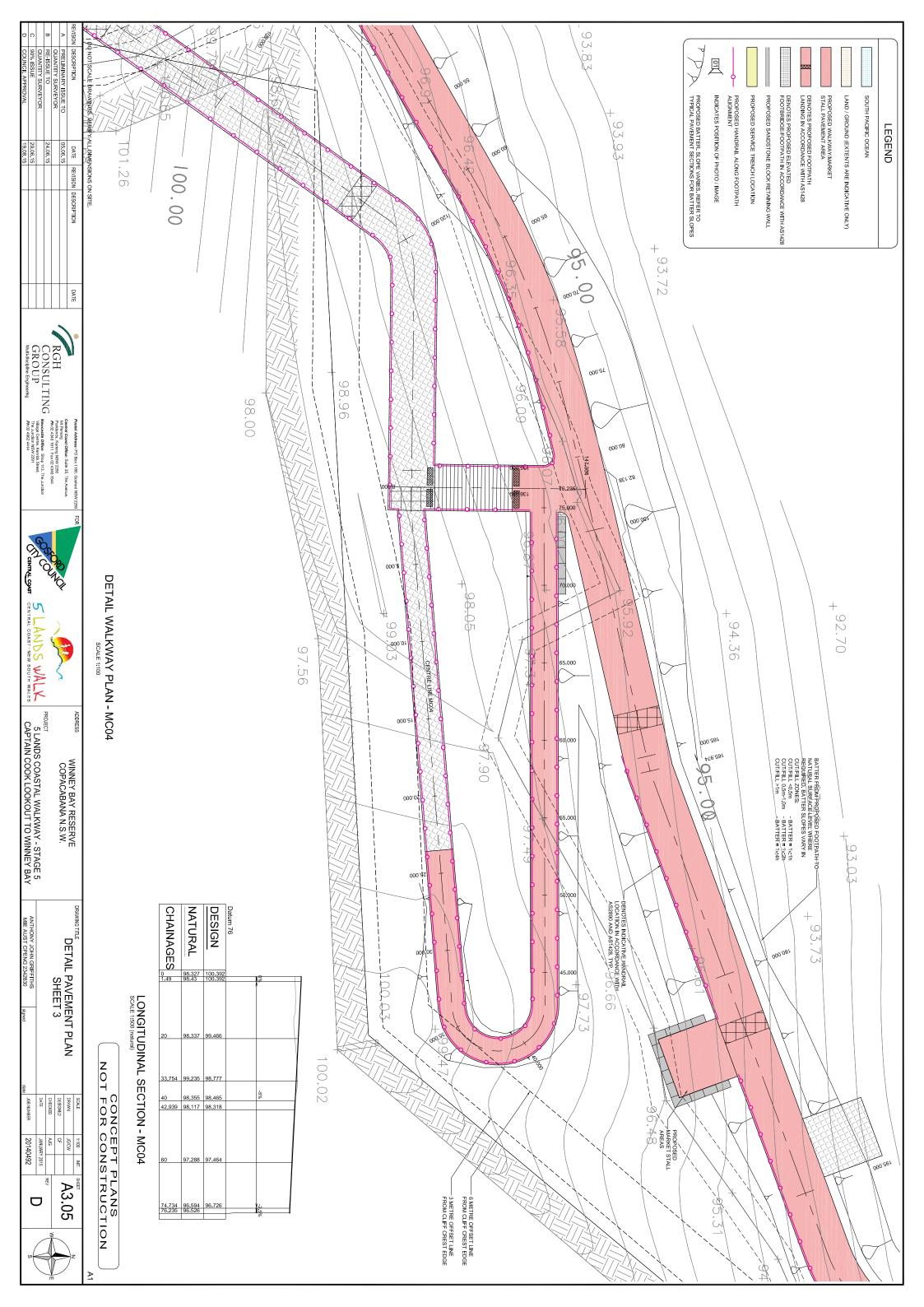
PROJECT
5 LANDS COASTAL WALKWAY - STAGE 5
CAPTAIN COOK LOOKOUT TO WINNEY BAY

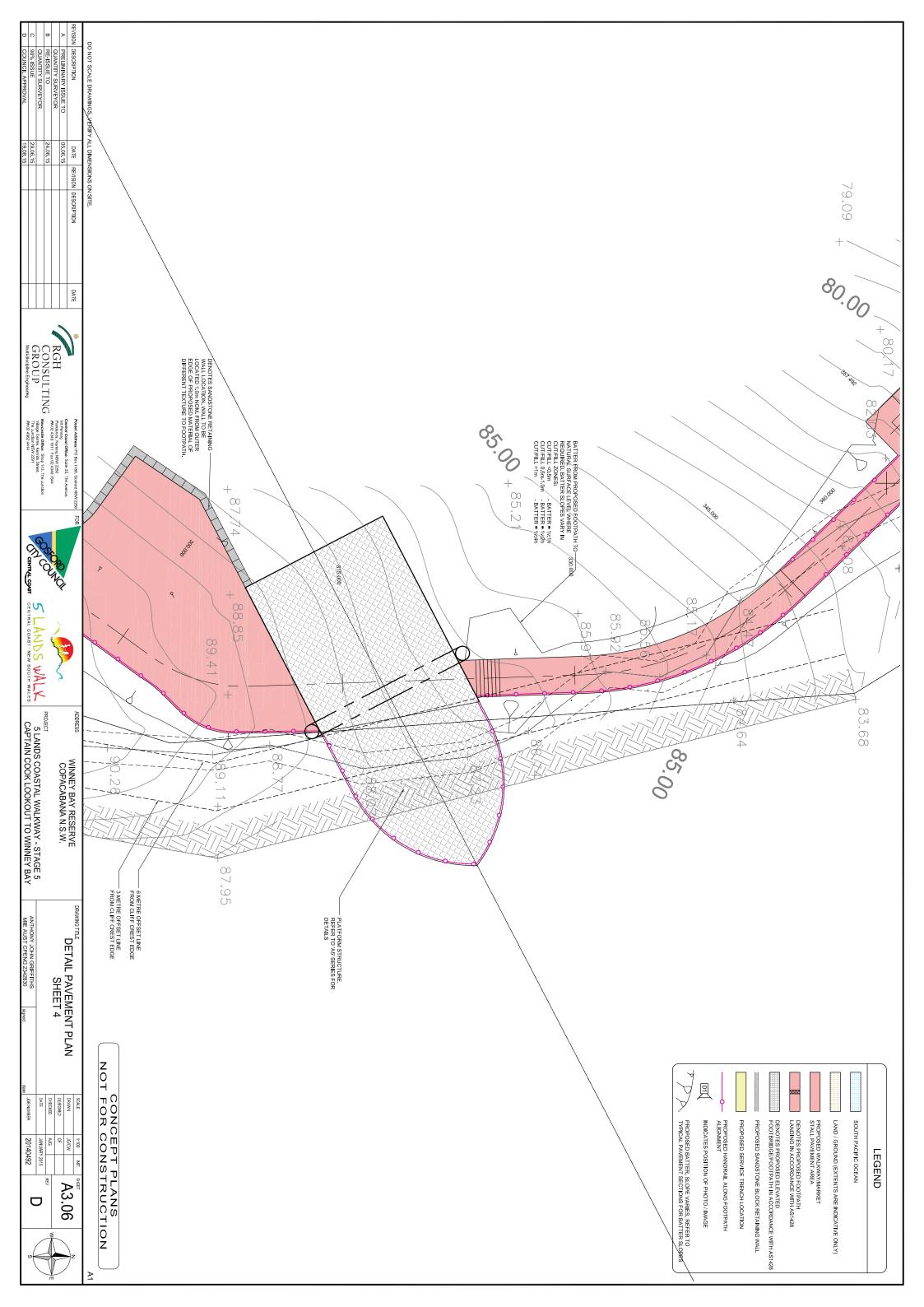
WINNEY BAY RESERVE COPACABANA N.S.W.

20140492









DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS ON SITE. PRELIMINARY ISSUE TO
QUANTITY SURVEYOR
RE-ISSUE TO
QUANTITY SURVEYOR
90% ISSUE
COUNCIL APPROVAL DESIGN CHAINAGES NATURAL LONGITUDINAL SECTION - MC01 (CONTINUED) SCALE 1:500 (natural) 108.06 108.06 24 06 15
 10.51
 106.427
 106.751

 13.01
 106.183
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 105.881 106.195 DESCRIPTION 32.243 105.621 105.768 33.443 105.574 105.738 PROVIDE MASS ROCK RETAINING WALL AND FILL BEHIND TO DESIGN SURFACE LEVEL, COMPACT FILL IN ACCORDANCE WITH GEOTICH ENGINEERS REGUREMENTS, REFER TO SHEET A3.10 FOR ROCK RETAINING WALL DETAIL. 60 104.169 104.44 61.401 104 104.37 63.857 103.613 104.248 RGH
CONSULTING M
GROUP
Multidiscipline Engineering 72.085 102.345 103.836 74.643 102.264 103.708 75.843 102.218 103.678 102.143 103.381 84.843 102.036 103.036 86.043 102.003 103.006
 95.181
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 Postal Address: PO Box 1180, Gosford NSW 22 Central Coast Office: Suite 35, The Avenue, Int Francisco, Carlong NSW 2250 Physics 240, 1911 Fax 02-240 1544 Physics 240, 1911 Fax 02-240 1544 Unique Centre, Kentrick Street, The Junction NSW 2261 Ph 102 4582 4414 PROPOSED BRIDGE STRUCTURE. REFER TO 'A4' SERIES DRAWINGS FOR BRIDGE DETAILS -1500 HIGH HANDRAIL 134.88 98.241 100.42 136.09 98.326 100.39 137.59 97.985 100.39 140 97.473 98.657 CENTRAL COAST CENTRAL COAST- NEW SOUTH WALES 95.219 94.946 182.992 95.039 94.797 184.192 94.932 94.767 PROJECT
5 LANDS COASTAL WALKWAY - STAGE 5
CAPTAIN COOK LOOKOUT TO WINNEY BAY 199,144 93,941 94,019 200 93,901 93,977 203,945 93,533 93,779 204,922 93,388 93,755 205,145 93,353 93,749 WINNEY BAY RESERVE COPACABANA N.S.W. DESIGN LONG SECTION MC01 - SHEET 1 91.078 91.067 266.803 90.724 90.727 268.003 90.661 90.697 270.886 90.511 90.553 275.555 90.372 280 90.341 90.097 287.756 90.286 89.709 288.956 90.274 89.679 300 89.744 89.127 302.313 89.599 89.011 NOT FOR CONSTRUCTION 87.091 88.157 326.018 86.568 87.856 327.967 86.428 86.428 330.515 86.117 86.081 20140492 340 84.834 84.789 341.735 84.445 84.552 345.223 83.962 84.07 A3.07 D 354.579 82.209 82.776 357.492 81.307 81.307 360 81.423 81.305 REFER TO SHEET A3.06 FOR LONG SECTION CONTINUATION \geq

DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS ON SITE. PRELIMINARY ISSUE TO
QUANTITY SURVEYOR
RE-ISSUE TO
QUANTITY SURVEYOR
90% ISSUE
COUNCIL APPROVAL DESIGN CHAINAGES NATURAL 24 06 15 354.579 82.209 82.776 LONGITUDINAL SECTION - MC01 (CONTINUED) 357.492 81.307 81.307 360 81.423 81.305 360.492 81.412 81.305 ADJOINS ABOVE 697.083 34.188 34.075 DESCRIPTION 700 33.771 33.624 701.173 33.578 33.427 701.351 33.548 33.396 370.632 78.827 78.827 373.632 78.786 78.827 76.958 77.139 380 383.772 76.01 76.14 717.775 30.413 30.549 720 30.02 30.173 386.772 76.114 76.14 396.912 73.616 73.615 399.912 73.566 73.563 400 73.543 73.54 732.775 28.458 28.407 740 27.715 27.703 410.052 70.918 70.916 RGH
CONSULTING "
GROUP
Multidiscipline Engineering 413.052 70.566 70.766 747.775 27.348 27.184 752.662 27.133 26.935 419.891 69.351 69.05 420 69.343 69.05 758.906 26.691 26.616 760 26.621 26.558 763.906 26.36 26.313 768.906 25.965 25.914 Postal Address: FO Box 1180, Gosford NSW 22 Cartral Coast Office: Suite 35, The Avenue, Bit Fending Kentory, NSW 2250 Philosophysics 2440 1911 Fact 22 430 1544 Philosophysics 2440 1915 Fact 24 430 1544 Villago Contra, Kentrick Street, The Junction NSW 2251 Philosophysics 4414 STAIRS AND LANDINGS 772.271 25.711 25.613 -8.9% 451.565 60.928 785.78 24.181 24.269 786.288 24.09 24.196 788.235 23.853 23.916 454.57 60.931 60.95 58.785 58.889 464.71 57.101 57.101 800 22.911 22.865 801.771 22.82 22.817 803.235 22.794 22.8 15m 467.71 56.997 57.086
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 0.5% 820 22.697 22.714 490.99 48.785 49.027 824.254 22.691 22.693 825.637 22.689 22.689 CH825.637 RL22.689 493.99 49.06 49.055 5 LANDS WALK 831.754 22.697 22.758 46.669 46.831 500 504.13 45.185 45.303 507.13 45.386 45.303 845.303 23.336 23.335 517.27 41.831 41.831 851.892 23.603 23.666 520 41.807 41.805 520.27 41.805 41.802 856.892 23.823 23.841 CH860.12 RL23.873 530.41 38.697 38.696 PROJECT
5 LANDS COASTAL WALKWAY - STAGE 5
CAPTAIN COOK LOOKOUT TO WINNEY BAY 534.575 38.645 38.645 CH869.288 RL23.79 872.913 23.79 23.842 873.539 23.817 23.862 540 37.129 37.196 541.454 36.798 36.807 877.385 24 24.048 877.913 24.021 24.083 880 24.17 24.225 WINNEY BAY RESERVE COPACABANA N.S.W. 884.057 24.5 24.5 551.43 34.904 34.916 556.43 34.199 34.179 560 33.973 33.912 561.43 33.923 33.865 5.7% 900 25.401 25.403 900.346 25.422 25.422 CH587.349 RL33.422 DESIGN LONG SECTION MC01 - SHEET 2 598.833 33.554 33.58 600 33.588 33.612 604.323 33.703 33.732 605.504 33.753 33.764 620 34.249 34.165 635.359 34.192 34.589 34.331 34.717 645.694 34.69 34.874 NOT CONCEPT PLANS
FOR CONSTRUCTION 35.313 35.269 20140492 671.351 35.565 35.583 675.473 35.608 35.639 CH675.473 RL35.639 35.62 35.571 A3.08 686.351 35.221 D 697.083 34.188 34.075 700 33.771 33.624 701.173 33.578 33.427 701.351 33.548 33.396 ADJOINS BELOW

