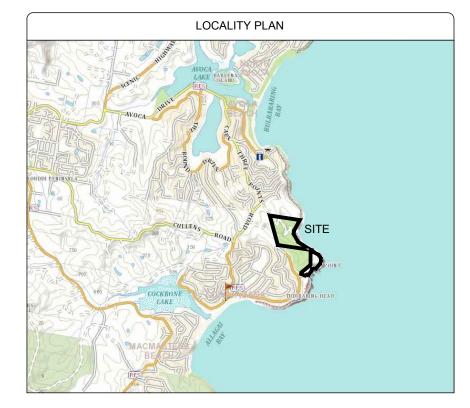


PROPOSED WINNEY BAY CLIFFTOP WALK, 5 LANDS COASTAL WALKWAY - STAGE 5, CAPTAIN COOK LOOKOUT - WINNEY BAY

AT

COPACABANA, NSW FOR

GOSFORD CITY COUNCIL A4 SERIES - BRIDGE STRUCTURAL PLANS AND DETAILS



DRAWING LIST

- A4.01 COVER SHEET
 A4.02 STRUCTURAL NOTES
 A4.03 DETAIL BRIDGE PLAN
 A4.04 BRIDGE PILING AND ABUTMENT SETOUT PLAN
 A4.05 BRIDGE PILE AND ABUTMENT STRUCTURAL DETAIL
 A4.06 BRIDGE BEARING PAD DETAILS
 A4.07 TYPICAL BRIDGE ELEVATION
 A4.08 TYPICAL BRIDGE SECTION
- A4.08 TYPICAL BRIDGE SECTIONA4.09 STRUCTURAL CONNECTION DETAILS SHEET 1

NEW BRIDGE: 2015

DESIGN STANDARD: AS 5100-2004; BRIDGE DESIGN ALLOWANCE FOR SUPERIMPOSED DEAD LOADS: 0.5 kPa (SERVICEABILITY) EARTHQUAKE LOADING (TO BRIDGE CODE - AS5100): BRIDGE CLASSIFICATION: TYPEI IMPORTANCE FACTOR: 3.0 ACCELERATION COFFICIENT: a = 0.11 SITE FACTOR: s = 1.0 DESIGN VIND SPEED = 102.8m/s SERVICEABILITY WIND SPEED = 102.8m/s SERVICEABILITY SERVICEABILITY SERVICEABILITY SERVICEABILITY SERVICEABILITY SERVICEABILITY SERVICEABILITY SERVICEABILITY SERVICE



DO NOT SCALE DRAWINGS, VERIEVALL DIMENSIONS ON SITE

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

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

RGH CONSULTING GROUP Multi-discipline Engineering



	ADDRESS WINNEY BAY RESERVE COPACABANA N.S.W.	DRAWING TITLE
	PROJECT 5 LANDS COASTAL WALKWAY - STAGE 5	
3	CAPTAIN COOK LOOKOUT TO WINNEY BAY	ANTHONY MIE AUST

ANTHONY JOHN GRIFFITHS MIE AUST CPENG 2342830





CONCEPT PLANS NOT FOR CONSTRUCTION

A

SHEET		SCALE	1:200	INIT.	SHEET	N
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		CHECKED	AJG		REV	W E
		DATE	JANUAR	Y 2015		$ \setminus V / $
	signed date	JOB NUMBER	20140	492	U	S

CONCRETE (C)

C01. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600, AS 1379 & AS 3610 CURRENT EDITIONS WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

C02 ALL CEMENT TO BE TYPE SL, SHRINKAGE LIMITED CEMENT IN ACCORDANCE WITH AS3972, EXCEPT THAT THE MAXIMUM SHRINKAGE OF THE CEMENT IN THE MORTAR TEST SAMPLE IN ACCORDANCE WITH AS3600 SHALL BE LESS THAN 600 MICROSTRAIN.

ELEMENT	STRENGTH GRADE (MPa)	SLUMP (mm)	MAXIMUM AGGREG. SIZE (mm)	MINIMUM CEMENT CONTENT (kg/cu.m)
SLABS	S65	80	20	250
FOOTINGS	S65	80	20	250

PROJECT ASSESSMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379 CLAUSE B7.

a. ALL CONCRETE IN SLABS AND BEAMS TO BE PROPORTIONED TO LIMIT DRYING SHRINKAGE TO 650 MICPOSTRAM AT 50 STUC

ALL CONCRETE IN SLABS AND BEAMS TO BE PROPORTIONED TO LIMIT DRYING SHRINKAGE TO 650 MICROSTRAIN AT 56 DAYS. DETAILS OF THE PROPOSED MIX TO BE SUBMITTED & APPROVAL OBTAINED PRIOR TO POURING ANY CONCRETE. SHRINKAGE TESTS SHALL BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY IN ACCORDANCE WITH AS 1012 PART 13. TESTS SHALL BE CONDUCTED ON THE FIRST BATCH OF CONCRETE USED IN SUSPENDED SLABS AND SUBSCOUENTLY AT THE RATE OF ONE TEST EVERY ADDITIONAL 100^{m3} OF CONCRETE 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.

C04. 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.

EXPOSURE CLASS TO AS 3600	MINIMUM CONCRETE GRADE	CAST AGAINST GROUND	CAST IN FORMS & EXPOSED	CAST IN FORMS & NOT EXPOSED
A1 (INTERNAL)	20	40mm		20mm
A2 (EXTERNAL)	20	50mm	30mm	-
B1 (EXTERNAL)	32	60mm	40mm	-
B2 (EXTERNAL)	40	65mm	45mm	-
C2	50	65mm	-	-

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.

- CONCRETE SIZES SHOWN DO NOT INCLUDE THICKNESSES OF C06. APPLIED FINISHES. NO FINISH WHICH DECREASES COVER IS ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- C07. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB
- C08. FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC. REFER TO ARCHITECT'S DETAILS, MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.
- 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. C09.
- C10. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- ALL CONCRETE COLUMNS GREATER THAN 1.2 METRES IN HEIGHT SHALL BE POURED A MINIMUM OF 4 HOURS PRIOR TO SLAB OR C11. BEAM OVER
- C12. THE FINISHED CONCRETE SHALL BE MECHANICALLY VIBRATED TO ACHIEVE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
- 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 C13. DAYS FOLLOWED BY A GRADUAL DRYING OUT. APPROVED SPRAYED ON CURING COMPOUNDS THAT COMPLY WITH AS 3799 MAY BE USED WHERE FLOOR FINISHES WILL NOT BE AFFECTED (REFER MANUFACTURERS SPECIFICATION). POLYTHENE SHEETING OR WET HESSIAN MAY BE USED IF PROTECTED FROM WIND AND TRAFFIC.
- CONSTRUCTION SUPPORT PROPPING IS TO BE LEFT IN PLACE WHERE NEEDED TO AVOID OVERSTRESSING THE STRUCTURE DUE TO CONSTRUCTION LOADING. NO BRICKWORK OR PARTITION WALLS ARE TO BE CONSTRUCTED ON SUSPENDED LEVELS UNTIL SEVEN DAYS AFTER PROPPING HAS BEEN REMOVED AND THE SLAB PRE-LOADED WITH THE BRICKS OR UNITS TO BE USED IN THE WALL. C14.
- 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 E PERMISSION OF THE ENGINEER
- CONDUITS, PIPES ETC. SHALL ONLY BE LOCATED IN THE MIDDLE THIRD OF THE SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS. CONDUITS AND PIPES SHALL NOT BE PLACED WITHIN THE COVER TO REINFORCEMENT. C17.
- SLABS AND BEAMS SHALL BE CONSTRUCTED TO BEAR ONLY ON THE BEAMS, WALLS, COLUMNS ETC. SHOWN ON THE DRAWINGS. ALL OTHER BUILDING ELEMENTS SHALL BE KEPT 12mm CLEAR OF SOFFITS OF STRUCTURE. C18.
- PLASTIC FORMWORK SPACERS AND BAR CHAIRS TO BE USED IN ALL EXPOSED CONCRETE WORK. C19.

DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS ON SITE

IMINARY ISSUE TO	05.06.15			DATE		Central Coast Office: Suite 35, The Avenue, Mt Penang
NTITY SURVEYOR SSUE TO	24.06.15				RGH Consulting	Parklands, Kariong NSW 2250 Ph 02 4340 1911 Fax 02 4340 1544
ITITY SURVEYOR					GROUP	Village Centre, Kenrick Street,
					Multi-discipline Engineering	The Junction NSW 2291 Ph 02 4962 4414
S		SUE 29.06.15	SUE 29.06.15	SUE 29.06.15	SUE 29.06.15	SUE 29.06.15 GROUP

REINFORCEMENT (R)

R01. REINFORCEMENT SYMBOLS:

R03.

- DENOTES GRADE 500 N BARS TO AS 4671 N DENOTES GRADE 250 R HOT ROLLED PLAIN BARS TO AS
- DENOTES GRADE 500 L HARD-DRAWN WIRE ı.
- REINFORCING FABRIC TO AS 4671 DENOTES GRADE 450 W HARD-DRAWN PLAIN WIRE TO AS w
- TM DENOTES GRADE 500 TRENCH MESH TO AS 4671 NUMBER OF BARS IN GROUP
- 17N20-250
- -SPACING IN mm NOMINAL BAR SIZE IN mm

THE FIGURES FOLLOWING THE FABRIC SYMBOLS RL, SL, L .. TM IS THE REFERENCE NUMBER TO AS 4671.

- R02. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
 - 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:

BAR SIZE	LESS THAN 300 CONCRETE BELOW BAR OR VERTICAL BA		
-			
	25MPa	≽32MPa	
N12	300	300	
N16	550	500	
N20	750	650	
N24	1000	900	
N28	1350	1200	
N32	1650	1450	
N36	2000	1750	
	MORE THAN 300 CONCRETE		
	BELOW BAR E	BAR	
	25MPa	≥32MPa	
N12	400	400	
N16	650	600	
N20	950	850	
N24	1300	1150	
N28	1650	1500	
N32	2050	1850	
N36	2500	2200	

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

- R04. 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
- WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE R06 N12-400 SPLICED WHERE NECESSARY AND LAP WITH MAIN BARS 400mm UNLESS NOTED.
- JOGGLES TO BARS SHALL COMPRISE A LENGTH OF 12 BAR DIAMETERS BETWEEN BEGINNING AND END OF AN OFFSET OF 1 BAR DIAMETER. R07
- ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1 METRE CENTRES BOTH WAYS, AND 800 EACH WAY FOR FABRIC. WHEN POURED ON GROUND AS FORMWORK PROVIDE PLATES UNDER ALL BAR CHAIRS, PLASTIC GYDER OTTEL (UNDO CLIMIN DO CLIMOTE ON) PLASTIC TIPPED STEEL CHAIRS SHALL NOT BE USED ON EXPOSED FACES IN EXPOSURE CLASSIFICATION B1, B2 AND C ONLY PLASTIC OR PLASTIC OR CONCRETE CHAIRS.
- R09. 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 75mm FOR N12 BARS & 95mm FOR N16 BARS. JE THIS CANNOT BE ACHIEVED DUE TO COVER REQUIREMENTS THEN THE BARS SHALL BE COGGED. FOR FABRIC THE LAST WELDED CROSS ROD SHALL BE LOCATED OVER THE WALL AND 50mm MINIMUM BEYOND THE FACE OF THE
- R10 SITE BENDING OF REINFORCEMENT SHALL BE AVOIDED IF SITE BENDING OF REINFORCEMENT SHALL BE AVOIDED IF POSSIBLE. WHERE SITE BENDING IS UNAVOIDABLE IT SHALL BE CARRIED OUT COLD, WITHOUT THE APPLICATION OF HEAT, AND IN ACCORDANCE WITH THE PRACTICE NOTE RPNI OF THE STEEL REINFORCEMENT INSTITUTE OF AUSTRALIA.
- THE STRUCTURAL ENGINEER SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELIVERED UNTIL FINAL APPROVAL HAS BEEN OBTAINED FROM THE STRUCTURAL ENGINEER.

STRUCTURAL STEEL (SS)

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

S02. UNLESS NOTED OTHERWISE ALL MATERIAL SHALL BE: • GRADE 250 HOT-ROLLED PLATES COMPLYING WITH AS 3678; • GRADE 250 HOT-ROLLED FLATS,. • GRADE 300 PLUS UB, UC, PFC, ANGLES, AND TFB, • GRADE 300 WB, WC COMPLYING WITH AS 3679.2; • GRADE C350 RHS, CHS COMPLYING WITH AS 1163;

S03. THREE(3) COPIES OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR 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 DIMENSIONS FIT AND COMPLIANCE WITH ARCHITECTURAL AND ENGINEERING DRAWINGS.

- S04. BOLTS:-•4.6/S COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111, SNUG TIGHTENED
- 8.8/S HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252, SNUG TIGHTENED. •8.8/TB - HIGH STRENGTH STRUCTURAL BOI TS OF GRADE 8.8 TO AS

•8.8/TE - HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS BEARING JOINT. •8.8/TF - HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A FIRCTION JOINT WITH FACIN SURFACES LEFT UNCOATED. ALL BOLTS SHALL BE M20 GRADE 8.8/S UNLESS NOTED. NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS. ALL BOLTS, NUTS & WASHERS TO BE GALVANISED. TB AND TF BOLTS TO BE INSTALLED USING APPROVED LOAD INDICATING WASHERS, OR BY TURN OF NUT CONTROL OF TENSIONING.

S05. WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1554.1. WELDING 55 CONSUMABLES SHALL BE E48XX OR W50X U.N.O. ALL WELD SHALL BE 6 MM CFW SP CATEGORY U.N.O. CPBW 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.

\$06. ALL DETAILS, GAUGELINES 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 100m THICK, EX-STANDARD SQUARE EDGE FLATS U.N.O.

S07 STEELWORK TO BE CONCRETE ENCASED SHALL BE WRAPPED WITH F41 STEELWIRE FABRIC AND SHALL HAVE 50mm MINIMUM CONCRETE COVER TO THE STRUCTURAL STEEL.

S08. PROVIDE SEAL PLATES TO ALL HOLLOW SECTIONS. PROVIDE VENT HOLES TO HOLLOW MEMBERS & DRAIN HOLES TO ALL MEMBERS TO BE HOT DIP GALVANISED.

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

S10. STRUCTURAL STEELWORK SHALL HAVE THE FOLLOWING SURFACE TREATMENT IN ACCORDANCE WITH THE SPECIFICATION.

	ELEMENT	SURFACE CLEANING	PROTECTIVE COATING	
•	EXTERNAL	MECHANICAL	HOT DIPPED GALV. + 2 COAT EPOXY TO MANUF. SPEC.	

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

S12. 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.

S13. REFERENCE SHOULD BE MADE TO AS 2312 FOR APPROPRIATE COATING SYSTEMS FOR ALL EXTERNAL APPLICATIONS. COATING OF EXTERNAL LINTELS SHALL BE IN ACCORDANCE WITH B.C.A AND AS 3700.

5 LANDS WALK

CENTRAL COAST CENTRAL COAST NEW SOUTH WALES

ADDRESS

PROJECT

WINNEY BAY RESERVE

COPACABANA N.S.W.

5 LANDS COASTAL WALKWAY - STAGE 5

CAPTAIN COOK LOOKOUT TO WINNEY BAY

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.
- SS2. UNLESS NOTED OTHERWISE ALL STAINLESS STEEL SHALL BE COMPLYING WITH AS/NZS 4673. OF A GRADE SUITABLE FOR USE IN MARINE SPLASH ZONE CONDITIONS.
- SS3. THREE(3) COPIES OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF FABRICATION AND PERMISSION TO USE OBTAINED PRIOR TO FABRICATION AND FERMISSION TO USE OBTAINED PRIOR TO FABRICATION. PERMISSION TO USE DOES NOT RELIEVE THE BUILDER OF THE FULL RESPONSIBILITY FOR DIMENSIONS, FIT AND COMPLIANCE WITH ARCHITECTURAL AND ENGINEERING DRAWINGS
- SS4. BOLTS: ALL BOLTS SHALL BE M16 GRADE 304/S UNLESS NOTED OTHERWISE ALL BOLTS SHALL BE MIN GRADE SUMS 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 1554.6 WELDING CONSUMABLES SHALL BE SUITABLE FOR STAINLESS STEEL OR ALUMINIUM U.N.O. ALL WELDS SHALL BE 3mm C.F.W. SP GATEGORY U.N.O. CPBW SHALL BE SP CATEGORY U.N.O. INSPECTION SHALL BE CARRIED OUT TO AS 1554.1. AND AS 1554.6 ALL CONEWELDS SHALL BE CARRIED OUT TO AS 1554.1. AND AS 1554.6 ALL GP/SP WELDS SHALL BE 100% VISUALLY SCANNED. BUTT WELDS SHALL BE COMPLETE PENETRATION WELDS TO AS 1554.
- 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.C
- SS7. PROVIDE SEAL PLATES TO ALL HOLLOW SECTIONS
- SS8. IT IS THE BUILDER'S RESPONSIBILITY TO ENSURE THAT STEELWORK IS SECURELY TEMPORARILY BRACED AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.
- 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.
- 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.

FORMWORK (FW)

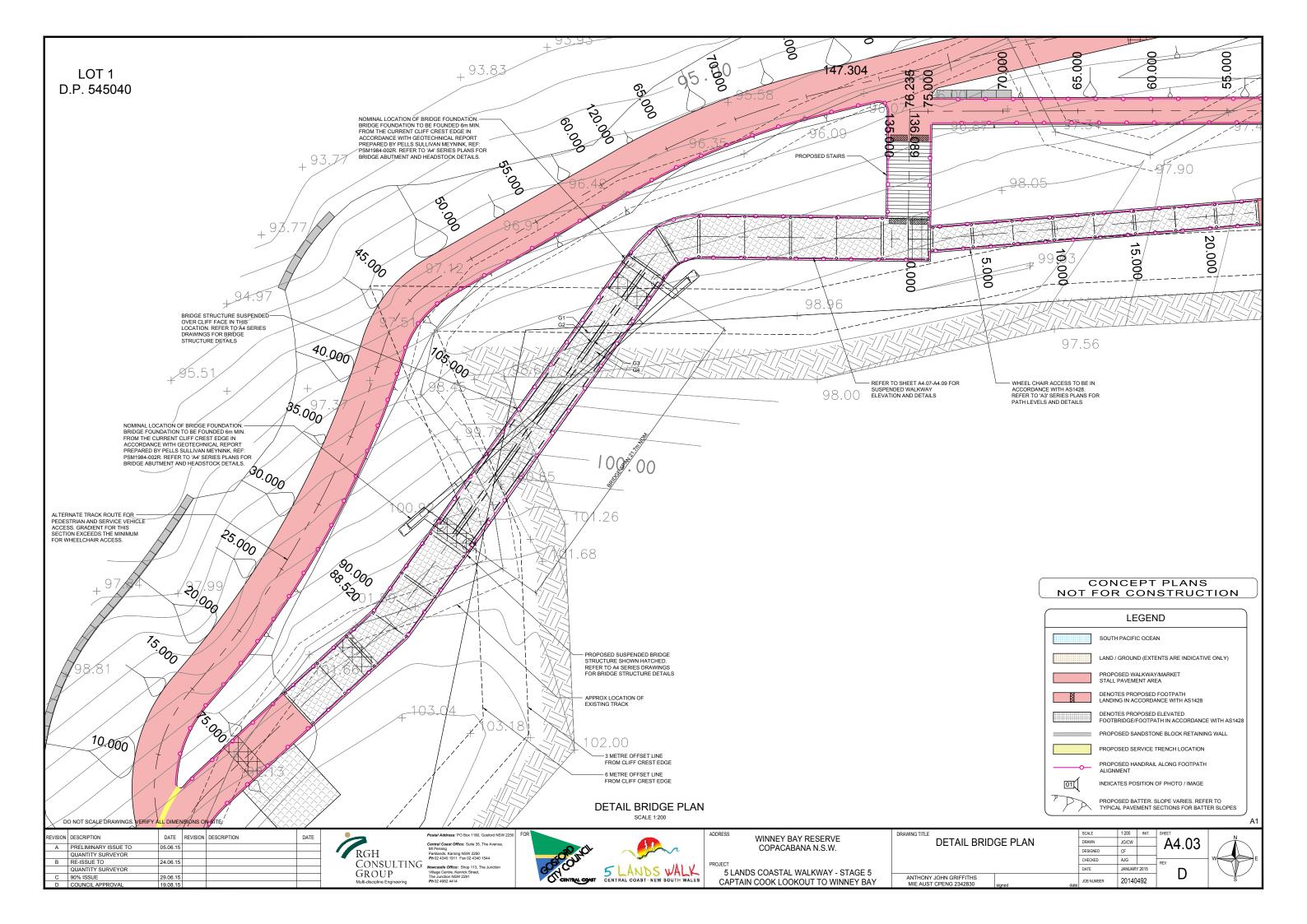
- EW1. THE DESIGN, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK AND FALSEWORK IS THE RESPONSIBILITY OF THE BUILDER
- EW2 DESIGN AND CONSTRUCTION AND STRIPPING TIMES SHALL COMPLY WITH AS 3610 AND AS 3600 UNLESS OTHERWIS APPROVED BY THE ENGINEER.
- DURING CONSTRUCTION, SUPPORT PROPPING SHALL BE DURING CONSTRUCTION, SUPPORT PROPPING SHALL BE PROVIDED WHERE LOADS FROM STACKED MATERIALS, FORMWORK AND OTHER SUPPORTED SLABS INDUCE LOADS IN A SLAB OR BEAM WHICH EXCEED THE DESIGN LOAD FOR STRENGTH OR SERVICEABILITY AT THAT AGE ONCE THE NOMINATED 28 DAY STRENGTH HAS BEEN ATTAINED, THESE LOADS SHALL NOT EXCEED THE DESIGN SUPPERIMPOSED LOADS SET OUT IN THE GENERAL NOTES.
- IN MULTI-STOREY CONSTRUCTION PROPPING SHALL BE FW4. 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 ENGINEER.
- FW5. THE FORMWORK SHALL BE DESIGNED TO RELY ON NO RESTRAINT OR SUPPORT FROM THE PERMANENT STRUCTURE WITHOUT PRIOR APPROVAL FROM THE PROJECT DESIGN ENGINEER
- EW5 FORMWORK SHALL BE DESIGNED TO ACCOMMODATE MOVEMENTS AND LOAD RE DISTRIBUTION DUE TO POST-TENSIONING
- WHERE NECESSARY SPECIAL REQUIREMENTS FOR SEQUENCE OF CONCRETE PLACEMENT AND STRIPPING ARE SET OUT ON DRAWINGS. E\//6
- 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. FW7.
- FW8. UNLESS NOTED OTHERWISE PROVIDE UPWARD CAMBER TO FORMWORK OF CANTILEVERS OF L/120, WHERE L IS THE SHORTEST PROJECTION BEYOND COLUMN OR WALL FACE, NOT FOR DWD/ COF CHARD WILE FOR UNITED ON UNITED AND INFO AND TO FORMWORK OF SLABS WHERE NOTED ON PLAN. MAINTAIN THE SLAB AND BEAM DEPTHS SHOWN.

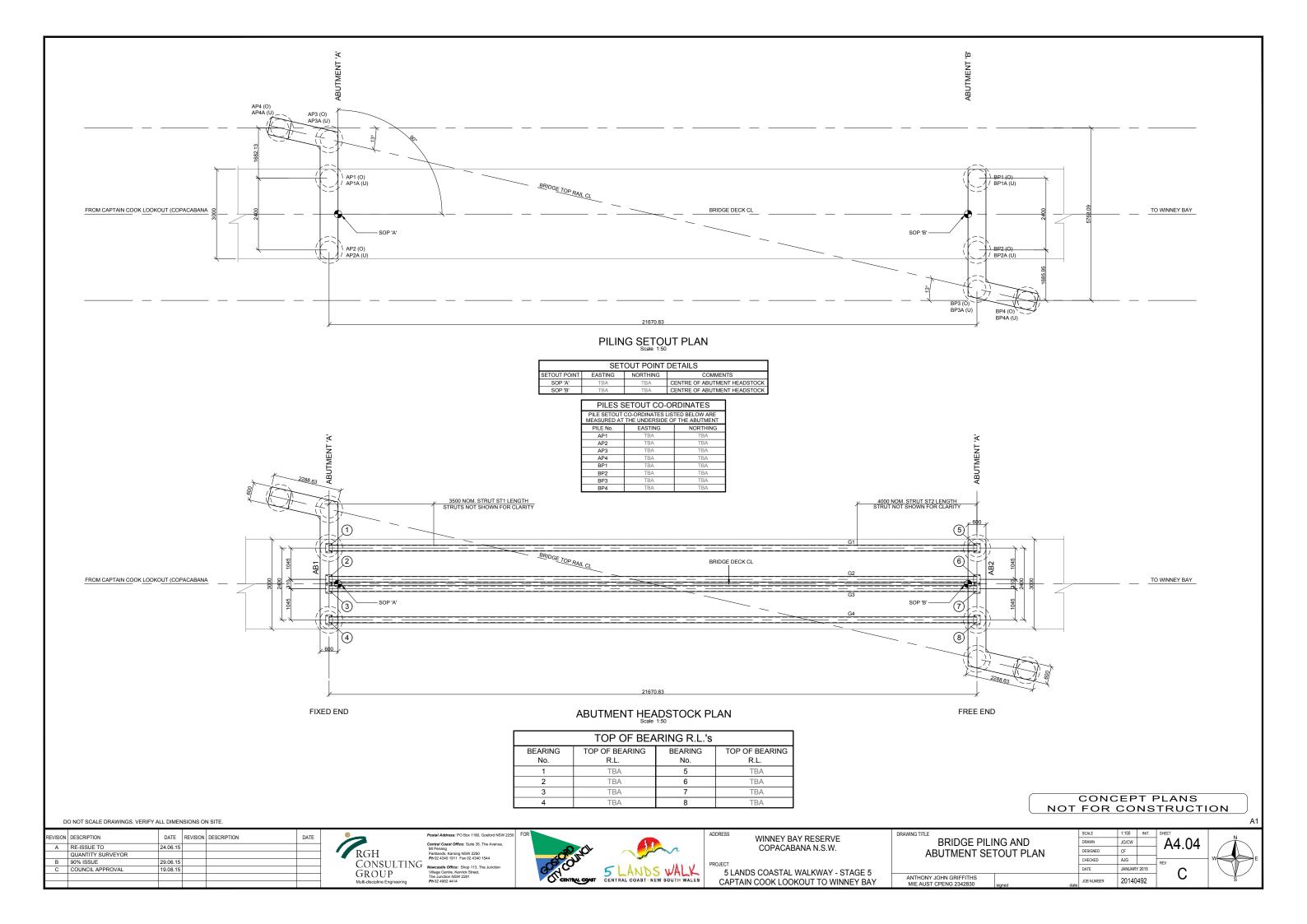
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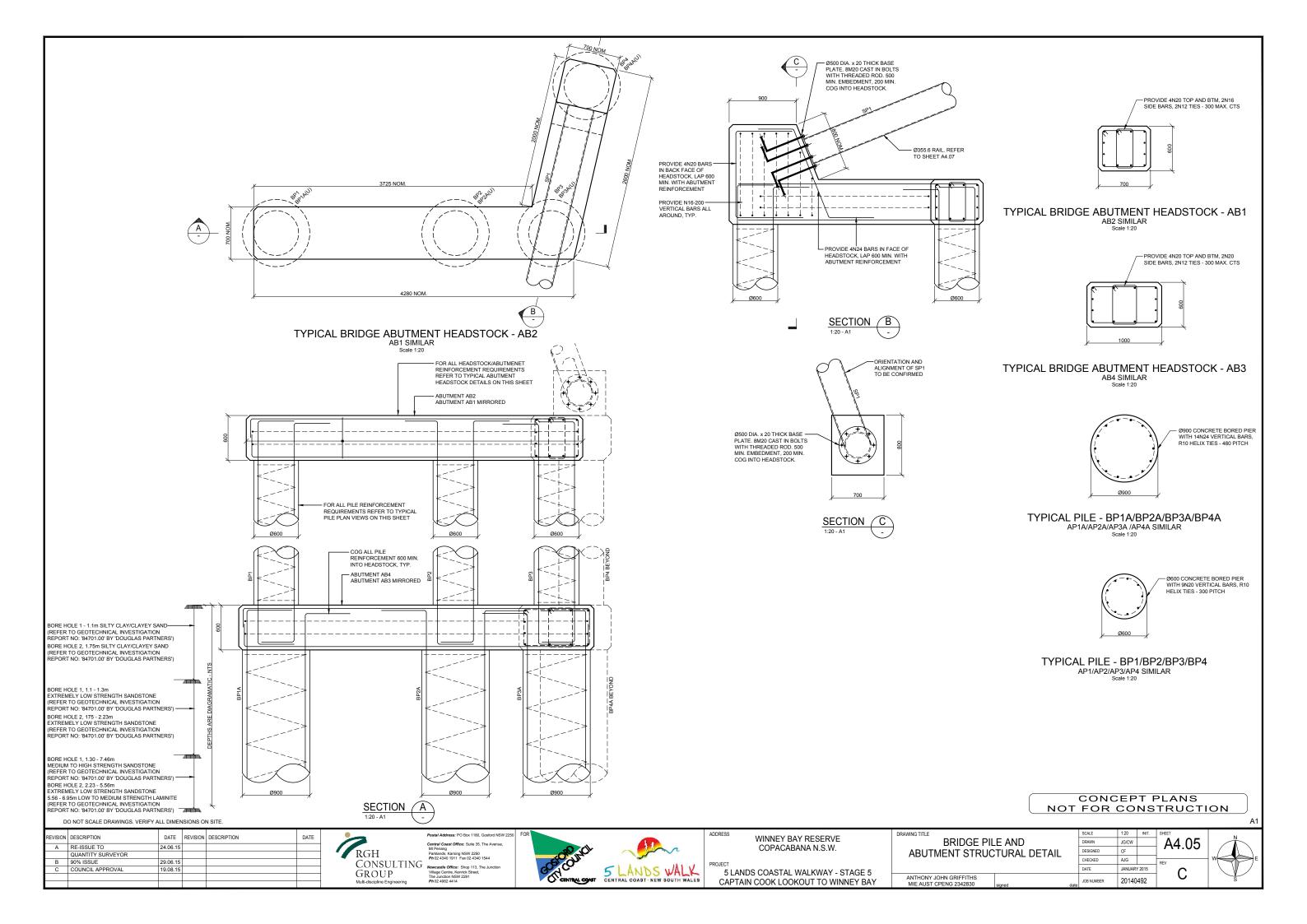
ANTHONY JOHN GRIFFITHS MIE AUST CPENG 2342830

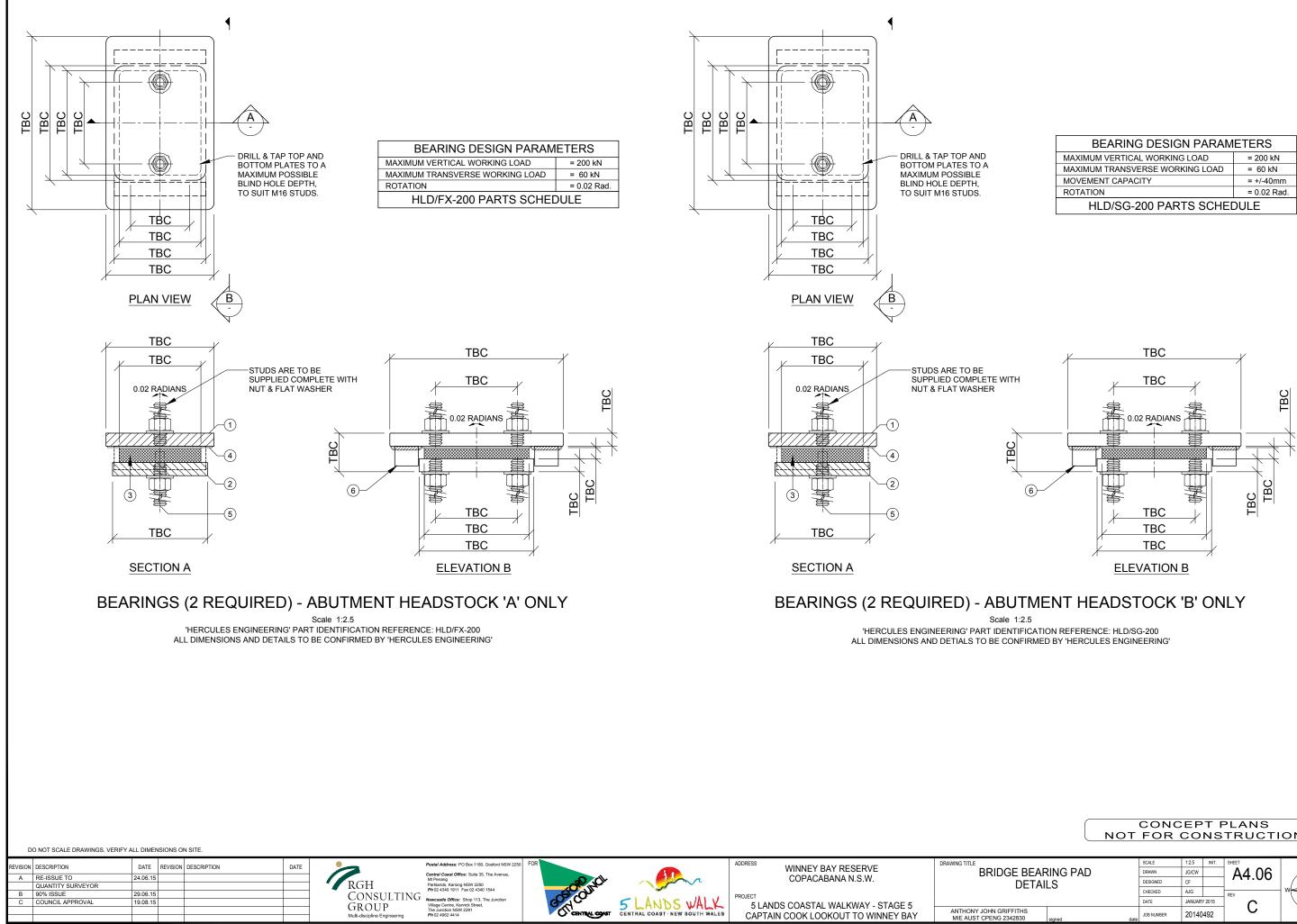
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EEL SHALL BE TABLE FOR USE IN	C/	CORRECT DIAME	TER AND DEPTH FO ARS AS TABULATED	PERMITTED) A HOLE TO R THE PARTICULAR SIZ BELOW, UNLESS SHOW	E
DRAWINGS SHALL BE LEAST 7 DAYS PRIOR MISSION TO USE		BAR SIZE (Y OR N)	HOLE DIA (mm)	HOLE DEPTH (mm)	
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JOHN GRIFFITHS		DATE	JANUARY 2015	D	$ \bigvee$

JOB NUMBER 20140492









BEARING DESIGN PARAMETERS					
MAXIMUM VERTICAL WORKING LOAD	= 200 kN				
MAXIMUM TRANSVERSE WORKING LOAD	= 60 kN				
MOVEMENT CAPACITY	= +/-40mm				
ROTATION	= 0.02 Rad.				
HLD/SG-200 PARTS SCHEDULE					

		FOR	co	NS	TRUCTI	ON
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		SCALE	1:2.5	INIT.	SHEET	Ν
ARING PAD AILS		DRAWN	JG/CW		A4.06	
		DESIGNED	CF		7.4.00	
(ILO		CHECKED	AJG		REV	W E
		DATE	JANUARY 2015		<u> </u>	$\setminus V$ /
signed	date	JOB NUMBER	20140492		U	s

