# WOOLOOWARE BAY TOWN CENTRE DEVELOPMENT CIVIL WORKS PACKAGE

### DRAWING LIST

#### GENERAL

COO1 COVER SHEET AND LOCALITY PLAN

C002 NOTES AND LEGENDS

GENERAL ARRANGEMENT PLAN

#### TYPICAL SECTIONS

C006 TYPICAL ROAD SECTIONS SHEET 1 OF 3

COO7 TYPICAL ROAD SECTIONS SHEET 2 OF 3

COOR TYPICAL ROAD SECTIONS SHEET 3 OF 3

Description

ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 1 OF 7

ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 2 OF 7

ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 3 OF 7

ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 4 OF 7

ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 5 OF 7 ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 6 OF 7

ROADWORKS AND STORMWATER DRAINAGE PLAN SHEET 7 OF 7

#### PAVEMENT, SIGNAGE AND LINEMARKING

C080 PAVEMENT, SIGNAGE AND LINEMARKING PLAN SHEET 1 OF 3

PAVEMENT, SIGNAGE AND LINEMARKING PLAN SHEET 2 OF 3

CO82 PAVEMENT, SIGNAGE AND LINEMARKING PLAN SHEET 3 OF 3

#### SERVICES AND UTILITIES

C090 SERVICES AND UTILITIES COORDINATION PLAN SHEET 1 OF 7

SERVICES AND UTILITIES COORDINATION PLAN SHEET 2 OF 7

SERVICES AND UTILITIES COORDINATION PLAN SHEET 3 OF 7

SERVICES AND UTILITIES COORDINATION PLAN SHEET 4 OF 7

SERVICES AND UTILITIES COORDINATION PLAN SHEET 5 OF 7

SERVICES AND UTILITIES COORDINATION PLAN SHEET 6 OF 7

SERVICES AND UTILITIES COORDINATION PLAN SHEET 7 OF 7

#### **EROSION AND SEDIMENTATION CONTROL**

EROSION AND SEDIMENTATION CONTROL PLAN SHEET 1 OF 3

EROSION AND SEDIMENTATION CONTROL PLAN SHEET 2 OF 3

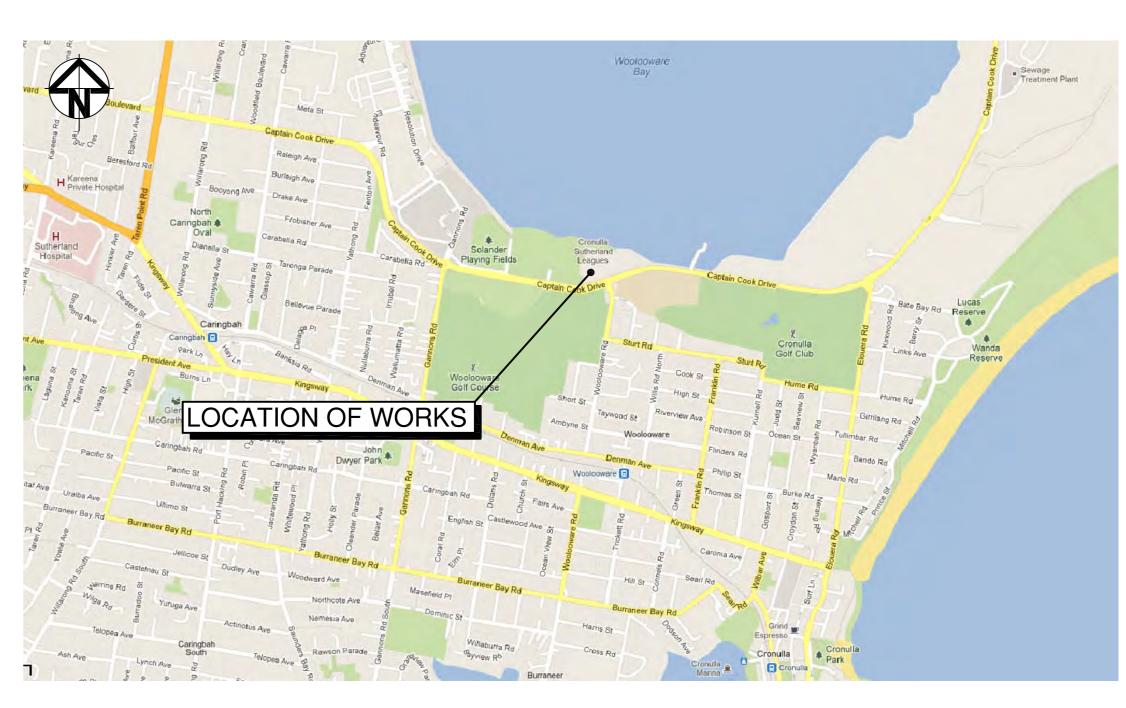
EROSION AND SEDIMENTATION CONTROL PLAN SHEET 3 OF 3

EROSION AND SEDIMENTATION CONTROL DETAILS

#### INTERSECTION TURN PATH PLANS

C130 INTERSECTION VEHICLE TURN PATH PLAN SHEET 1 OF 2

C131 INTERSECTION VEHICLE TURN PATH PLAN SHEET 2 OF 2



LOCALITY PLAN

N.T.S

Bar Scales ISSUED FOR PROJECT APPLICATION ISSUED FOR DRAFT REVIEW 18-01-13

Date

THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L



				_
Scales	NTS	Drawn	ММ	Project
		Designed	MM	lν
Grid		Checked	AMcL	
Height	AHD	Approved		
Datum				Title

**WOOLOOWARE BAY** TOWN CENTRE

**COVER SHEET AND** LOCALITY PLAN

Civil Engineers and Project Managers Suite 702, 154 Pacific Hwy St Leonards NSW 2065

FOR APPROVAL Project No. 11-59

F:\11-59 Shark Park\Drgs\Civil\Final\C001.dwg

#### SITEWORKS NOTES

- 1. ORIGIN OF LEVELS:- REFER SURVEY NOTES.
- 2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO AT & L.
- 3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
- 4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- 5. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- 6. PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- 7. ASPHALTIC CONCRETE SHALL CONFORM TO R.T.A. SPECIFICATION R116.
- 8. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.T.A. FORM 3051 (UNBOUND). R.T.A. FORM 3052 (BOUND) COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1
- FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m OF BASECOURSE MATERIAL PLACED.
- 9. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.T.A. FORM 3051, 3051.1 AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH A.S 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³OF SUB-BASE COURSE MATERIAL PLACED.
- 10. AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH R.T.A. FORM 3051 AND 3051.1 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF AT & L.
- 11. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 12. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

#### STORMWATER DRAINAGE NOTES

- 1. STORMWATER DESIGN CRITERIA: (A) AVERAGE RECURRENCE INTERVAL:
- 1:100 YEARS ROOFED AREAS TO SURCHARGE PIT 1:5 YEARS EXTERNAL PAVEMENTS
- (B) RAINFALL INTENSITIES: TIME OF CONCENTRATION: 5 MINUTES 1:100 YEARS= 247 mm/hr
- 1:5 YEARS= 128 mm/hr (C) RUNOFF COEFFICIENTS: ROOF AREAS:
- EXTERNAL PAVEMENTS: (5 2. PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.
- 3. PIPES UP TO 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
- 4. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE upvc pressure PIPE Grade 6. Ensure all verticals and DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m
- 5. PIPES TO BE INSTALLED TO TYPE HS3 SUPPORT IN ACCORDANCE WITH AS 3725 (1989) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- 6. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (1998) AND AS/NZS 3500 3.2
- 7. PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY AT & L.
- 8. ENLARGERS. CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- 9. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
- 10. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.

POSSIBILITY OF PERSONNEL FALLING DOWN PITS.

- II. GRATES AND COVERS SHALL CONFORM TO AS 3996. 12. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE
- 3. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

#### KERBING NOTES

- 1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH 0F25 MPa U.N.O IN REINFORCED CONCRETE NOTES.
- 2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).
- 3. EXPANSION JOINTS (E.J) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE, EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS. ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- 4. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- 5. BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- 6. IN THE REPLACEMENT OF KERB AND GUTTER :-EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
- EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB AND GUTTER WITH 100mm DIA HOLE.
- EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

#### SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY HARRISON FRIEDMANN, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. AT & L DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT AT & L.

THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

- COPYRIGHT This drawing and/or design is the property of Harrison Friedmann & Associates Pty Ltd and should not be reproduced in part or whole without the written permission of the company.
- Bearings, distances and areas of boundaries are from the Land and Property Management Authority records only. They are on Map Grid of Australia. If accurate True North is required a further survey would be necessary.
- Relationship of improvements to boundaries is diagrammatic only. Boundary fences and retaining walls have not been accurately located and may not be shown on this plan.DO NOT SCALE OFF THIS PLAN. Where offsets from improvements, fences or walls to boundaries are critical for future building design and construction they MUST be confirmed by a further boundary survey. This survey has not investigated any subterranean structures.
- The services information shown on this plan have been determined from visual inspection only and information provided by the relevant authorities through "Dial before you dig" . It is passed on with the understanding that no excavation or works will be commenced without a current services search of all services being obtained from "Dial before you dig" (DBYD) (phone 1100 or fax 1300 652 077) or from any individual service provider. Note that not all services providers are members of DBYD.
- The location of Sydney Water's Sewer Main has been plotted approximately, based on visible maintenance holes and information from Sydney Water. This information can not be relied on. Any construction near Sydney Water Mains requires further investigation, a Service Protection Report (sewer pegout) and approval from Sydney
- The locations of spot levels are diagrammatic only. They are accurate to  $\pm$  0.3m in relation to boundaries. Levels critical to design, excavation or construction must be verified. If contours are shown they depict the topography rather than represent the exact level at any particular point. Care should be taken if extrapolating levels or contours.
- The spread of the crown of the trees shown on this plan is diagrammatic only, based on the average spread observed in the field. Prior to any development proposal which might be affected by trees it is recommended that the tree spreads be verified by field inspection.
- Australian Height Datum was established from PM. 31619 R.L. 1.279 located at the intersection of Captain Cook Drive & Woolooware Road Woolooware . Datum source obtained from S.C.I.M.S. 22/06/2011.
- 9. The plan has been compiled from field survey information and Plans prepared by Rygate & Company Pty Ltd and Johnathan C. Keen & Co. Pty Ltd

#### BULK EARTHWORKS NOTES

- 1. ORIGIN OF LEVELS: REFER SURVEY NOTES
- 2. STRIP ALL TOPSOIL/ORGANIC MATERIAL FROM CONSTRUCTION AREA AND REMOVE FROM SITE OR STOCK PILE AS DIRECTED BY SUPERINTENDENT.
- 3. EXCAVATED MATERIAL TO BE USED AS STRUCTURAL FILL PROVIDED THE PLACEMENT MOISTURE CONTENT OF THE MATERIAL IS +/- 2% OF THE OPTIMUM MOISTURE CONTENT.
- 4. COMPACT FILL AREAS AND SUBGRADE TO NOT LESS THAN:

LOCATION (AS 1289 E 5.1.1.) UNDER BUILDING SLABS

- 5. FOR NON COHESIVE MATERIAL, COMPACT TO 75% DENSITY INDEX.
- MOVEMENT UNDER ROLLER). (A) 1 TEST PER 200m³ OF FILL PLACED PER 300 LAYER OF FILL.
- (C) 1 TEST PER 1000m<sup>2</sup> OF EXPOSED SUBGRADE TESTING SHALL BE "LEVEL 1" TESTING IN ACCORDANCE WITH AS 3798
- 8. FILLING TO BE PLACED AND COMPACTED IN MAXIMUM 150mm LAYERS 9. NO FILLING SHALL TAKE PLACE TO EXPOSE SUBGRADE UNTIL THE AREA HAS BEEN PROOF ROLLED IN THE PRESENCE OF AT & L

- - STANDARD DRY DENSITY
- ON GROUND UNDER ROADS AND CARPARKS LANDSCAPED AREAS UNLESS NOTED OTHERWISE 98%
- 6. BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 8 TONNE (MIN) DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER TO DETECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm
- 7. FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN :-(B) 3 TESTS PER VISIT
- AND APPROVAL GIVEN IN WRITING THAT FILLING CAN PROCEED.

### WORKS LEGEND **EXISTING** +213.00 SURFACE LEVEL CONTOUR — / —— / — FENCE TREE PROPOSED PROPOSED BOUNDARY \_\_\_\_\_213.0 PROPOSED CONTOUR \_\_\_\_SAWCUT\_\_\_ PAVEMENT SAWCUT KERB AND GUTTER KERB ONLY DISH DRAIN VEHICLE CROSSING PRAM RAMP STORMWATER PIT WITH GRATE AND LINE STORMWATER LINE WITH CAP STORMWATER PIT REFERENCE NUMBER KERB INLET PIT KERB INLET PIT (SAG) $\boxtimes$ JUNCTION PIT WITH INFILL SURFACE INLET PIT WITH INFILL

HEADWALL

OPEN SWALE DRAIN

FLUSHING POINT

SUBSOIL DRAINAGE LINE

CO-ORDINATE SETOUT POINT

SINGLE LIGHT POLE

DOUBLE LIGHT POLE

SIGN BOARD

ROAD NAME SIGN

 $\rightarrow$  -

. . . . . . . . .

 $\bigcirc \hspace{-1em} \longrightarrow \hspace{-1em} \bigcirc$ 

SERVICES LEGEND **EXISTING SERVICES** ELECTRICAL OVERHEAD ELECTRICAL GAS TELSTRA RECYCLED WATER \_\_\_\_\_ RW \_\_\_\_\_ WATER SEWER  $\bigcirc$  MH SEWER MANHOLE STORMWATER ----- SW -----O PP POWER POLE LIGHT POLE PROPOSED SERVICES ELECTRICAL ELECTRICAL OVERHEAD HIGH VOLTAGE LOW VOLTAGE TELSTRA WATER SEWER SEWER MANHOLE ROAD SERVICE CROSSING LIGHT POLE ELECTRICITY PIT TELSTRA PIT

			Bar Scales
A	ISSUED FOR PROJECT APPLICATION	29-01-13	
21	ISSUED FOR DRAFT REVIEW	18-01-13	
sue	Description	Date	

THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L



Scales	Drawn	ММ	Proj
	Designed	ММ	
Grid	Checked	AMcL	
Height AHD	Approved		Title
			Title

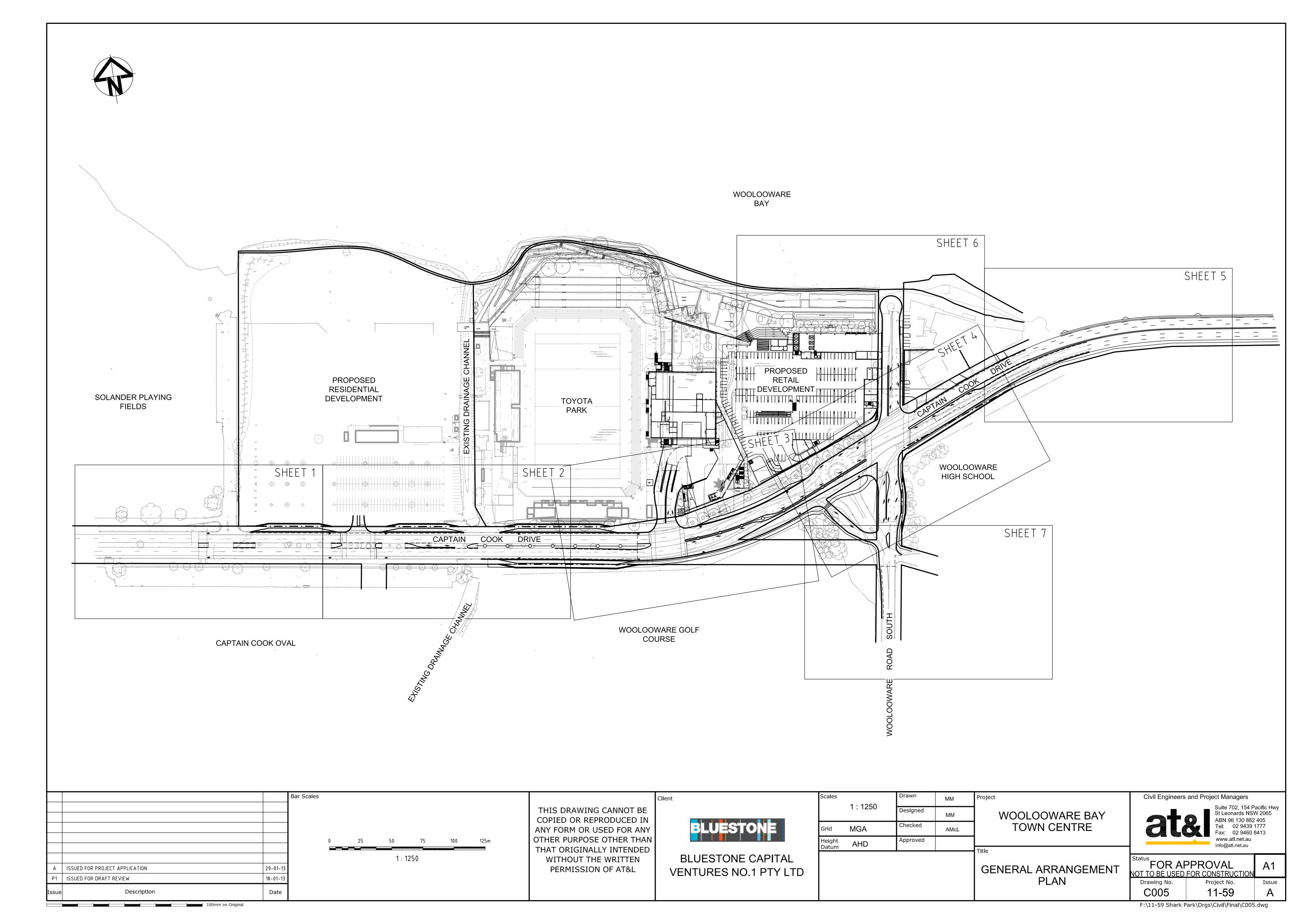
**WOOLOOWARE BAY TOWN CENTRE** 

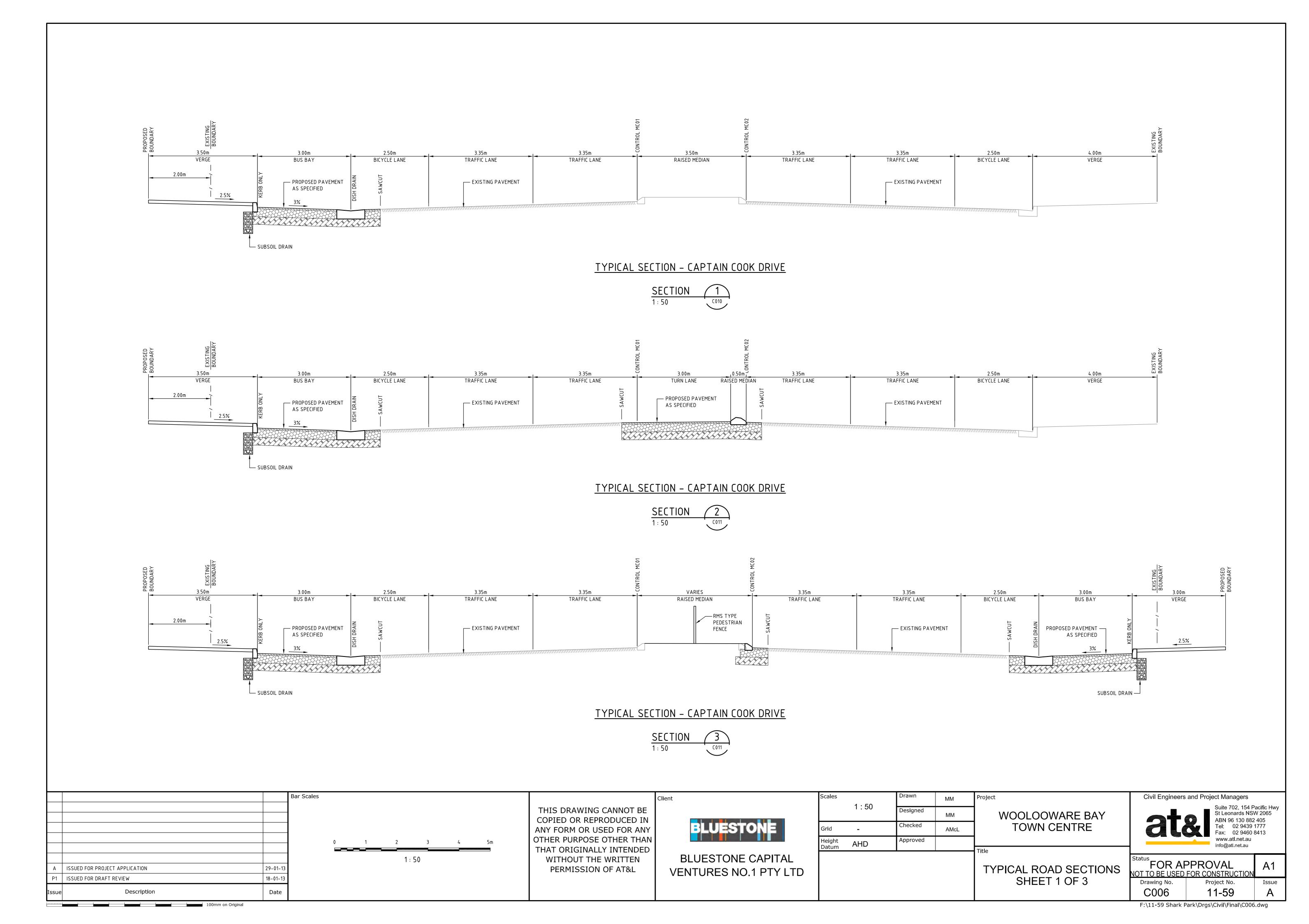
NOTES AND LEGENDS

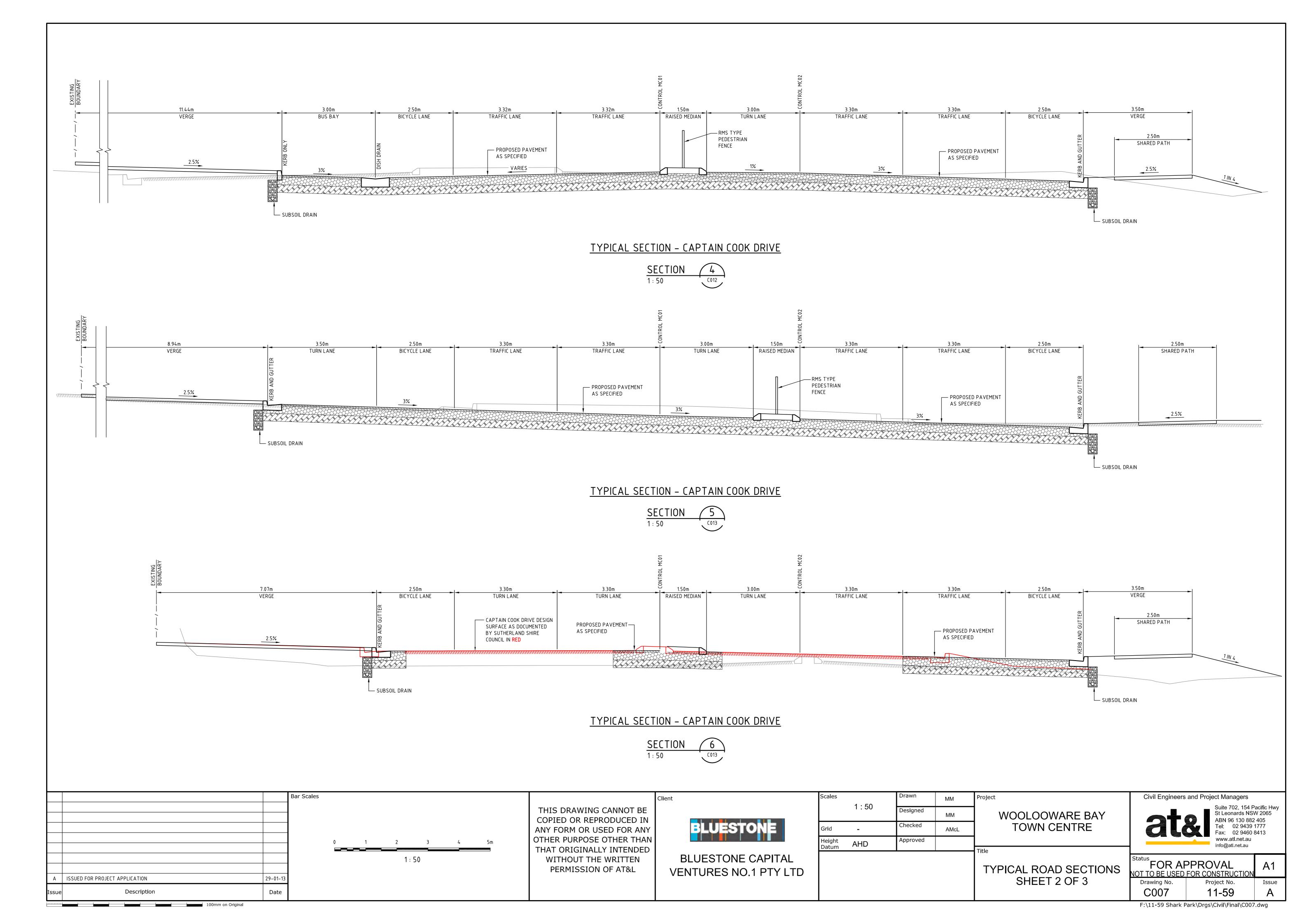
Civil Engineers and Project Managers Suite 702, 154 Pacific Hwy St Leonards NSW 2065 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9460 8413 www.atl.net.au info@atl.net.au

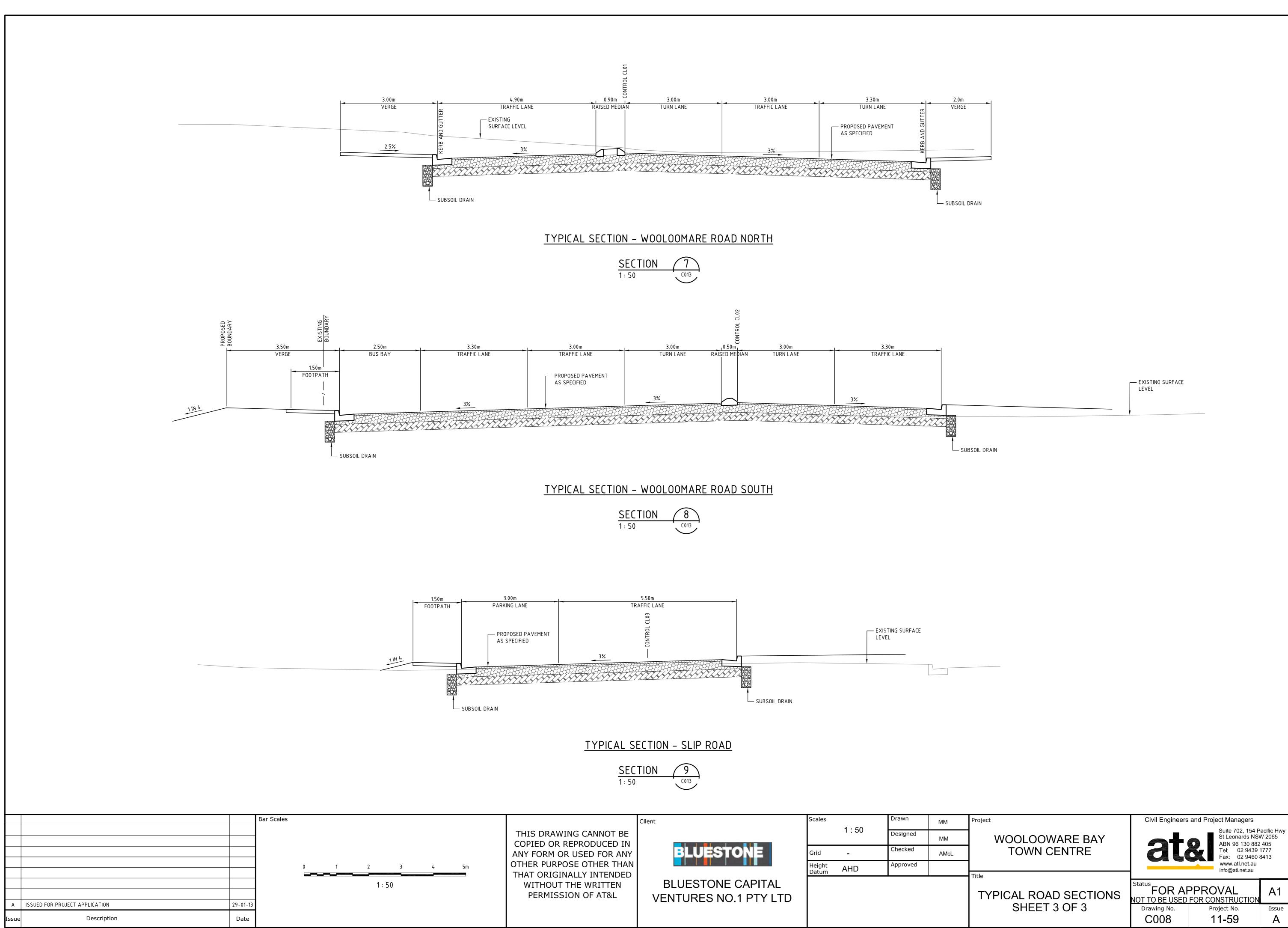
FOR APPROVAL OT TO BE USED FOR CONSTRUCTION Drawing No. Project No. C002 11-59

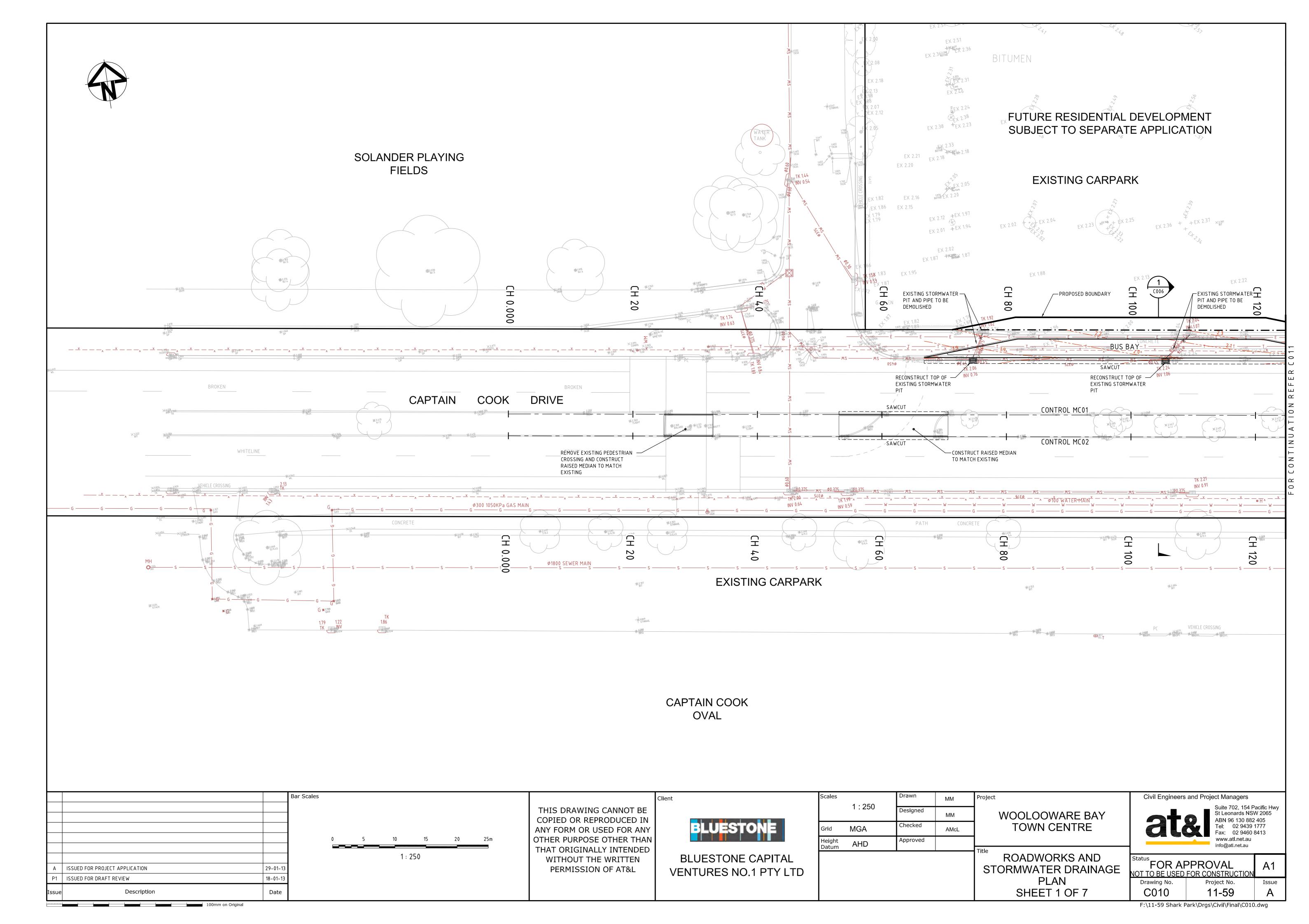
F:\11-59 Shark Park\Drgs\Civil\Final\C002.dwg

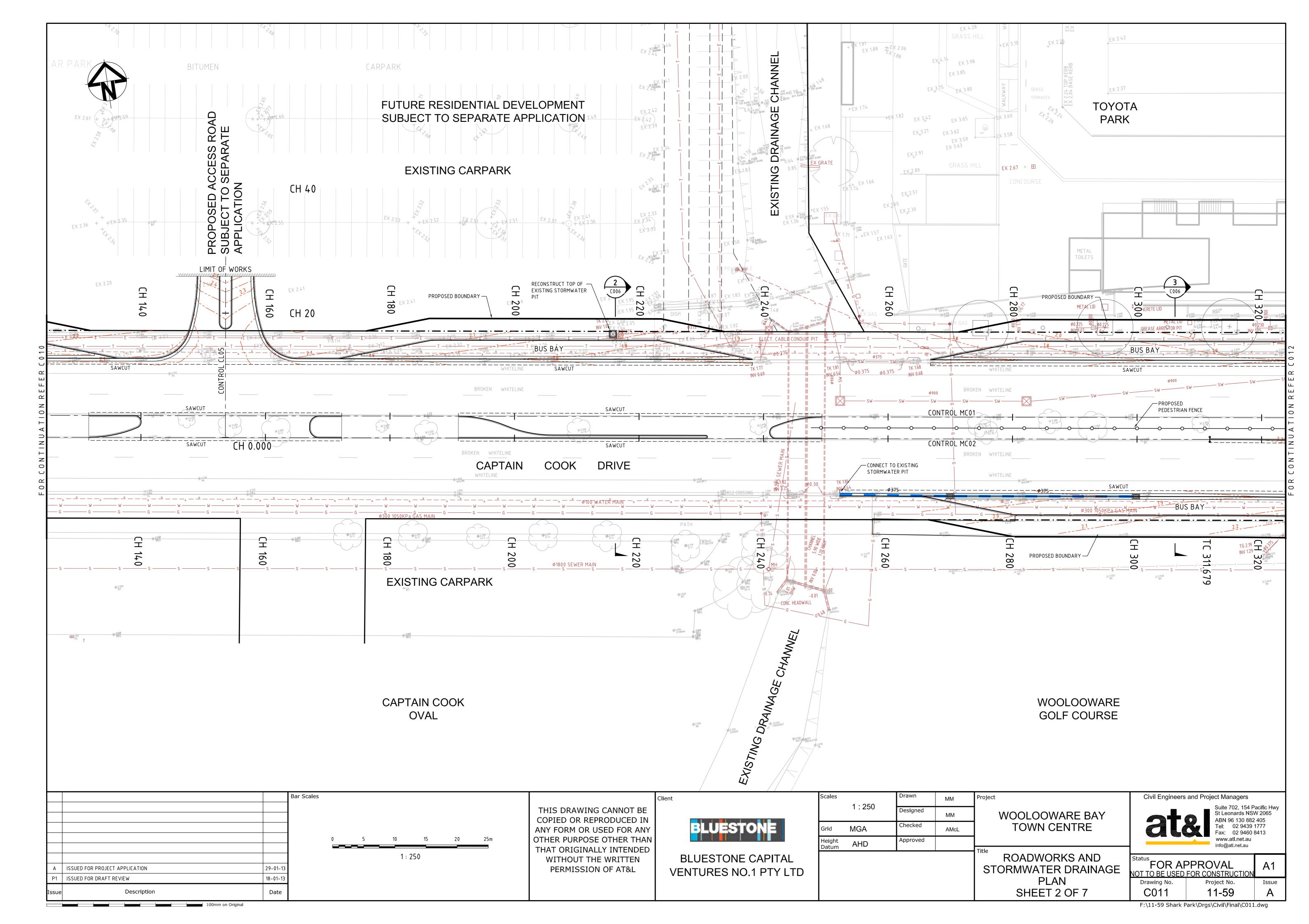


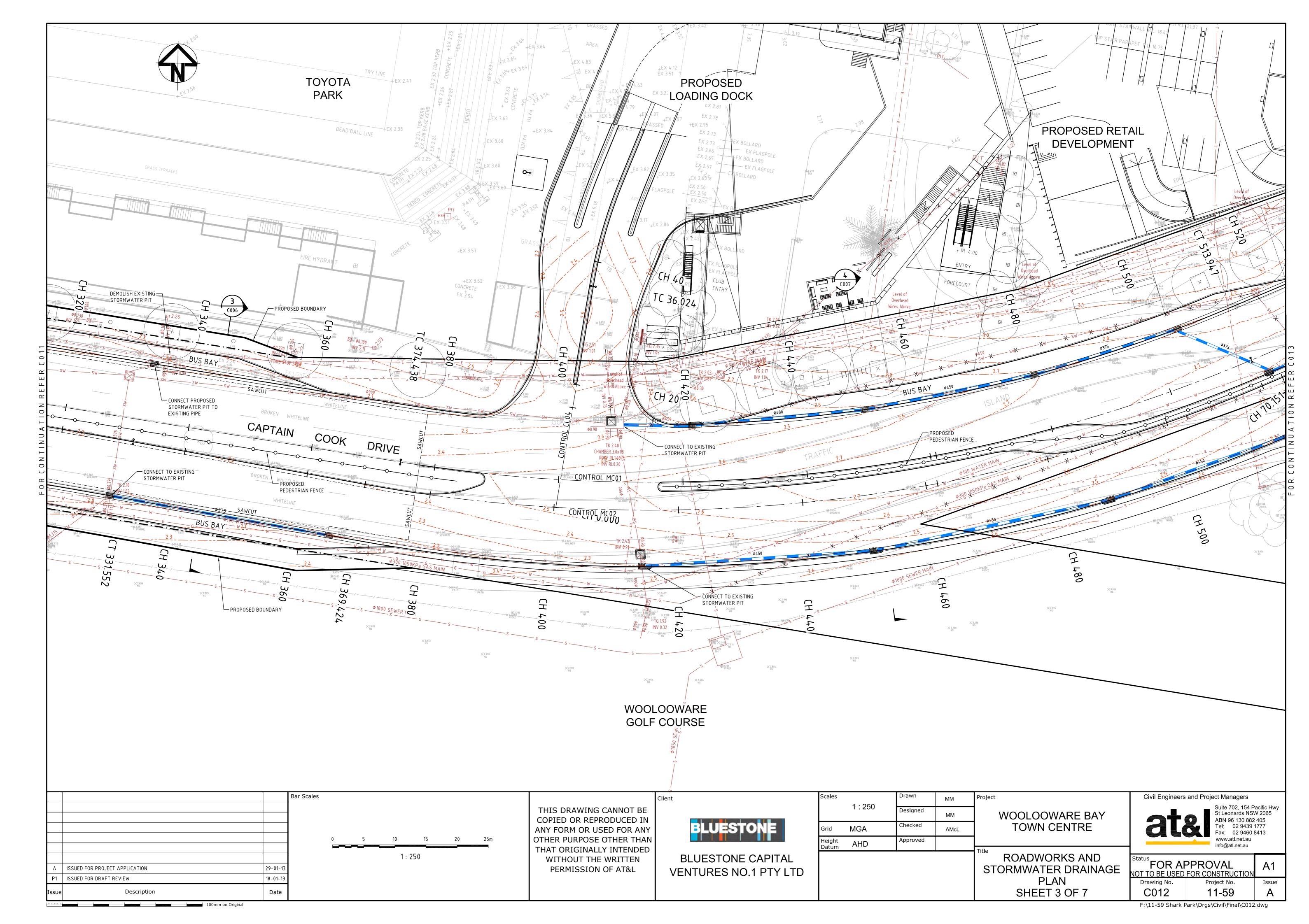


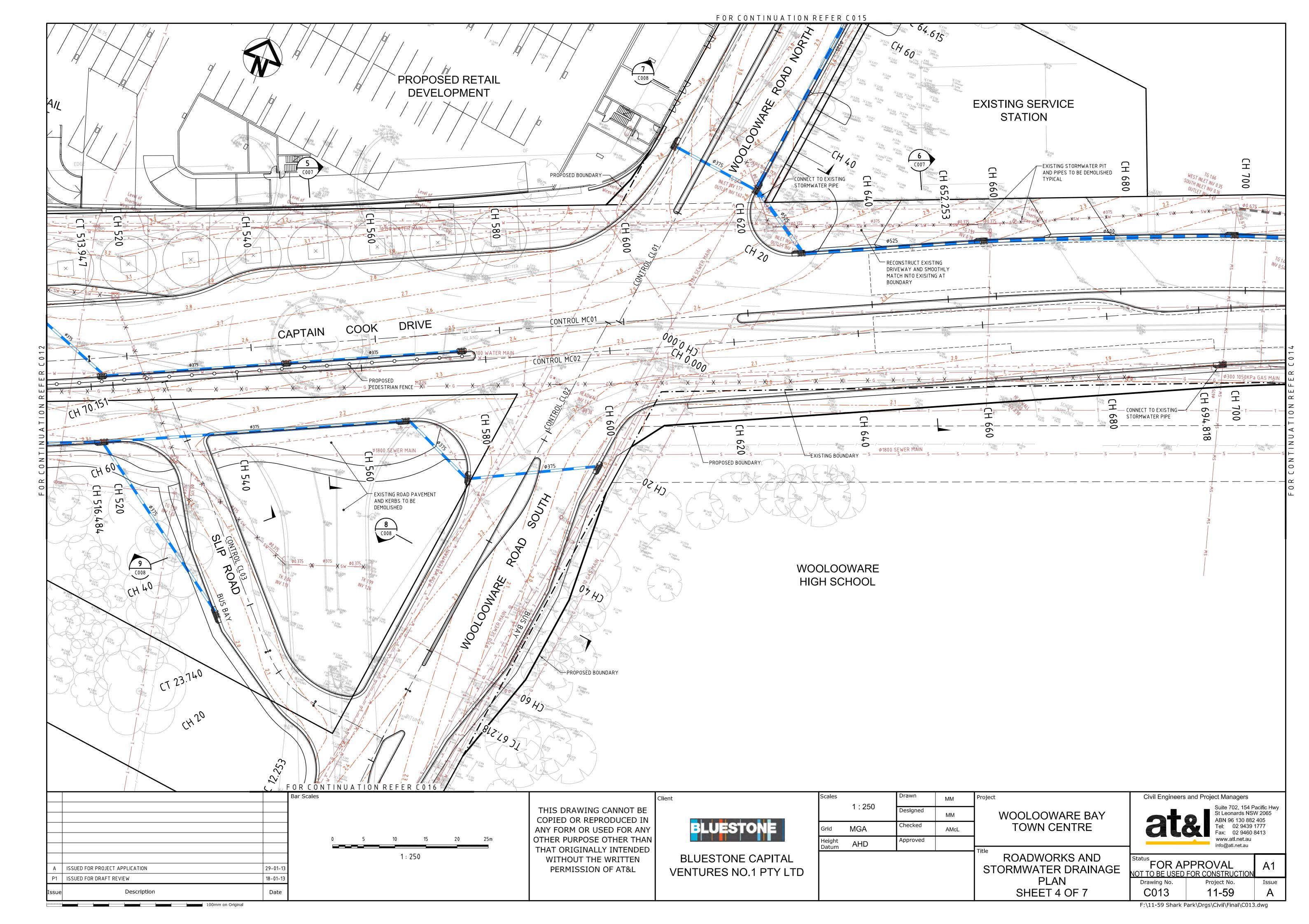


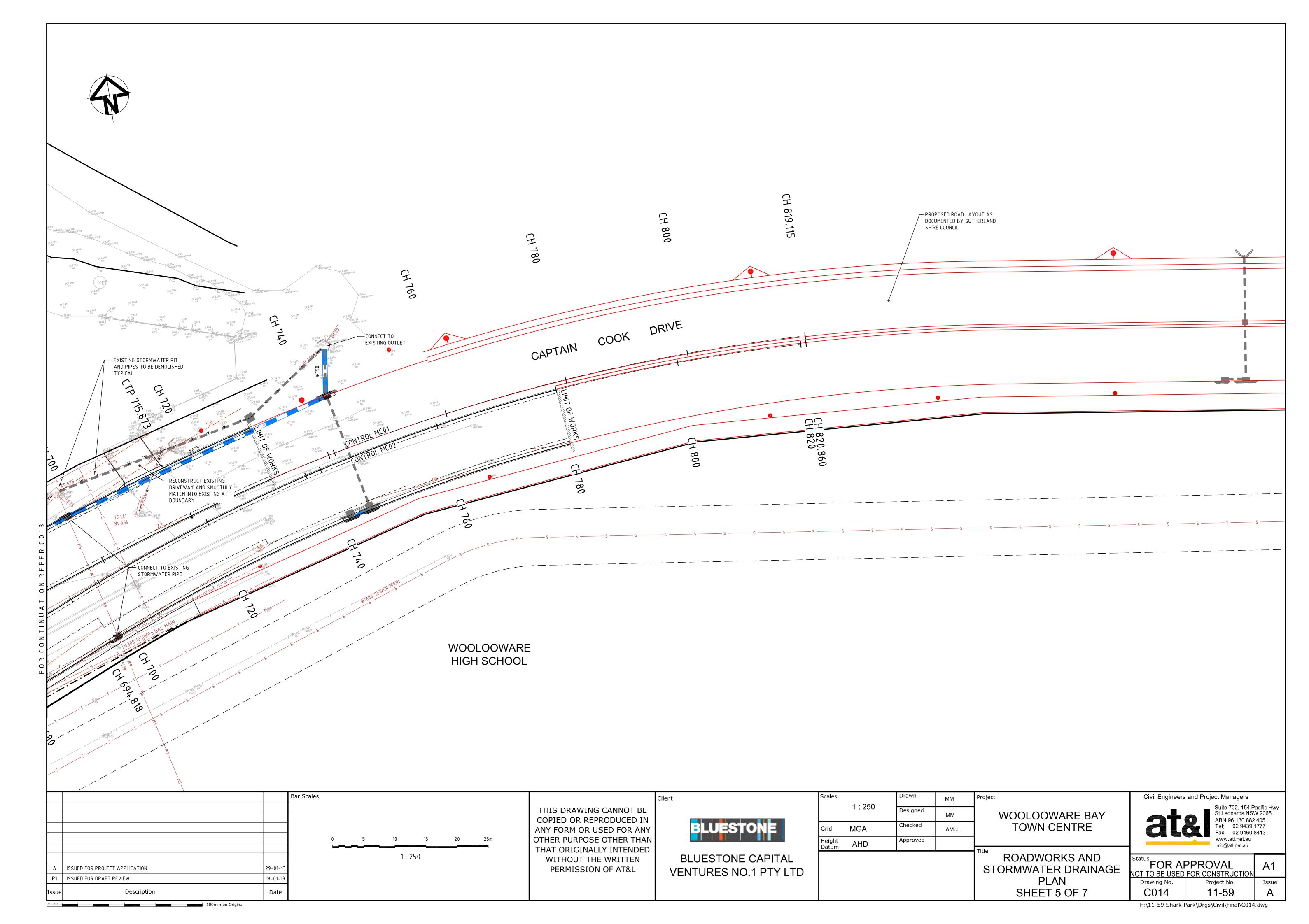


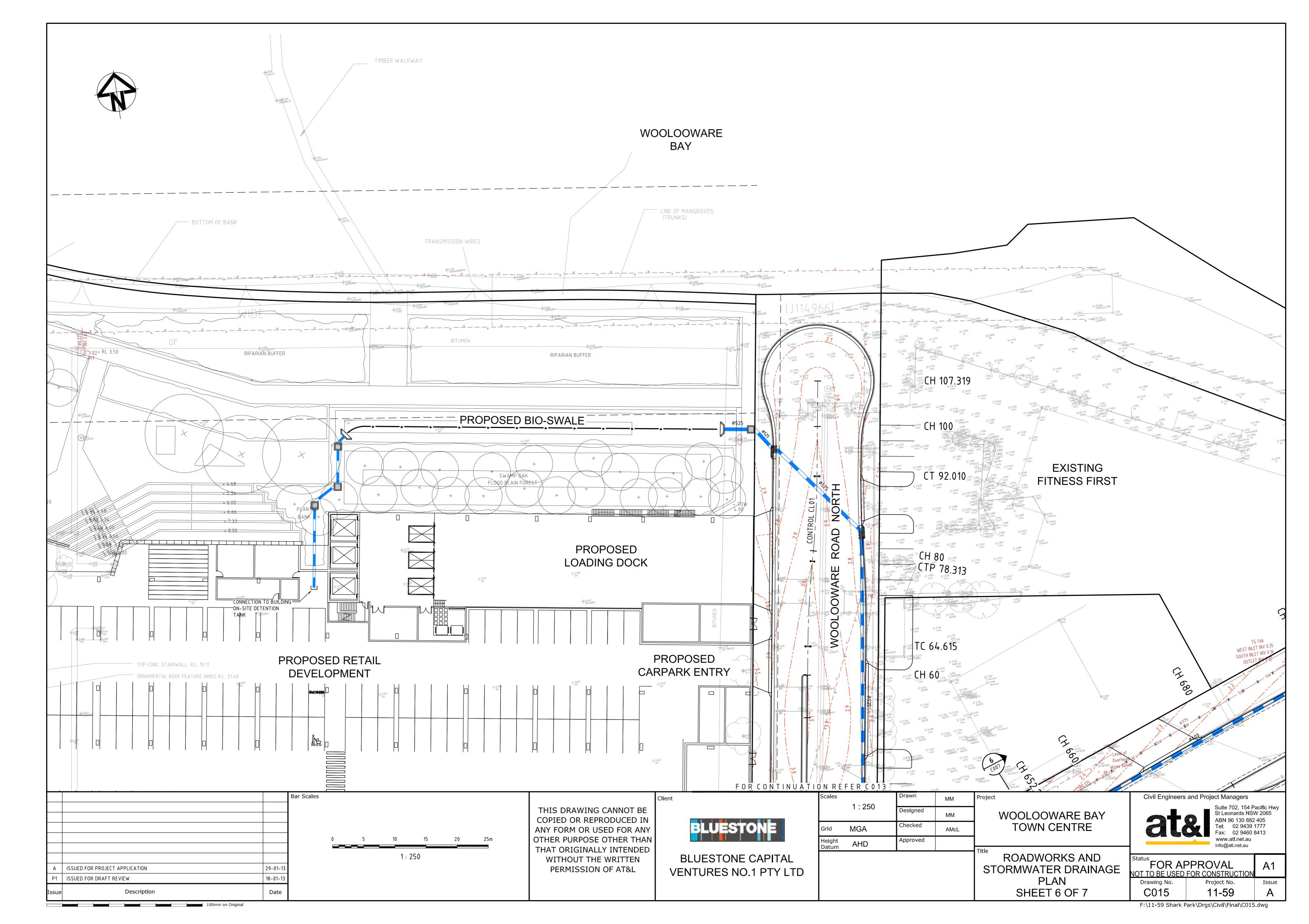


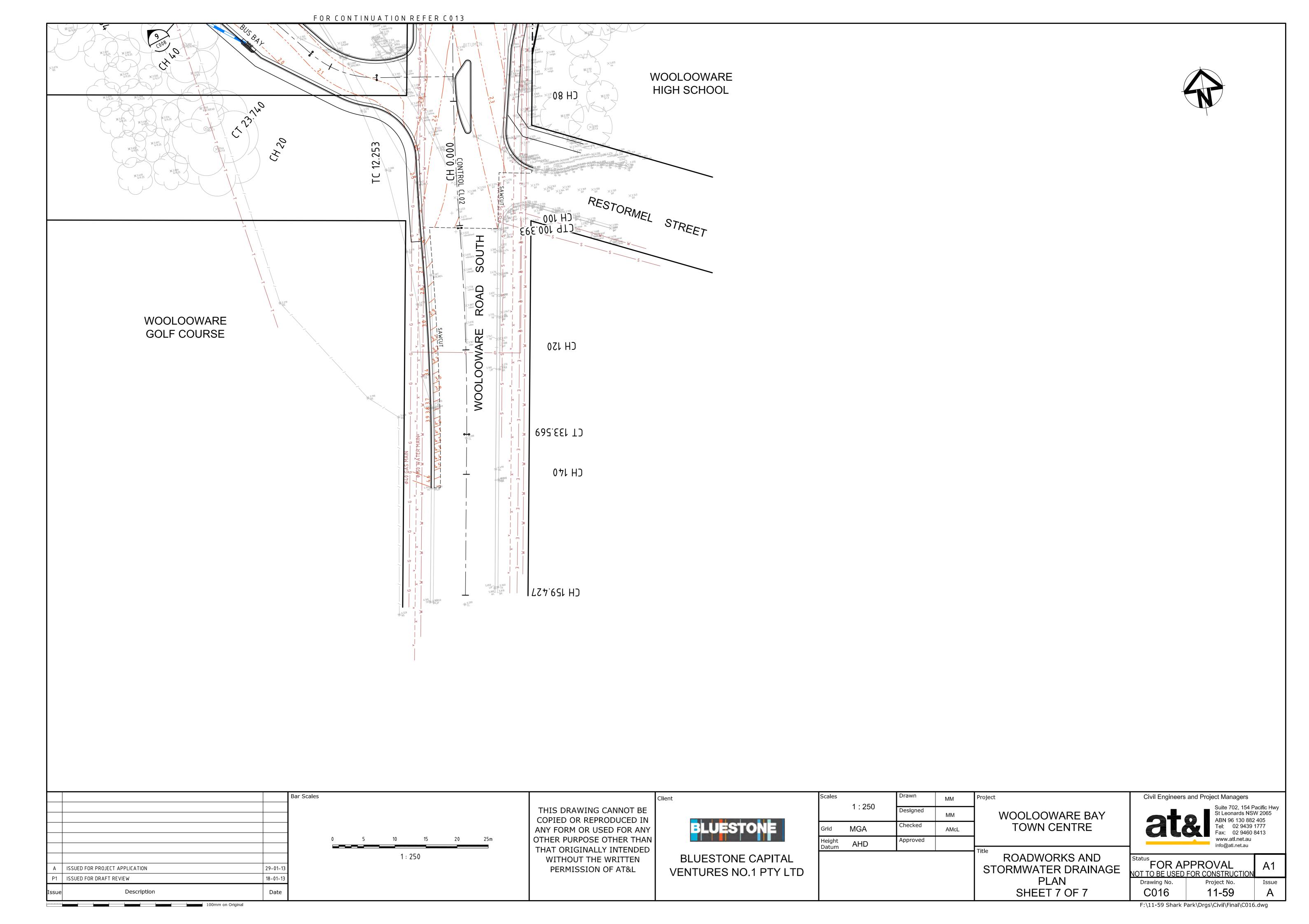


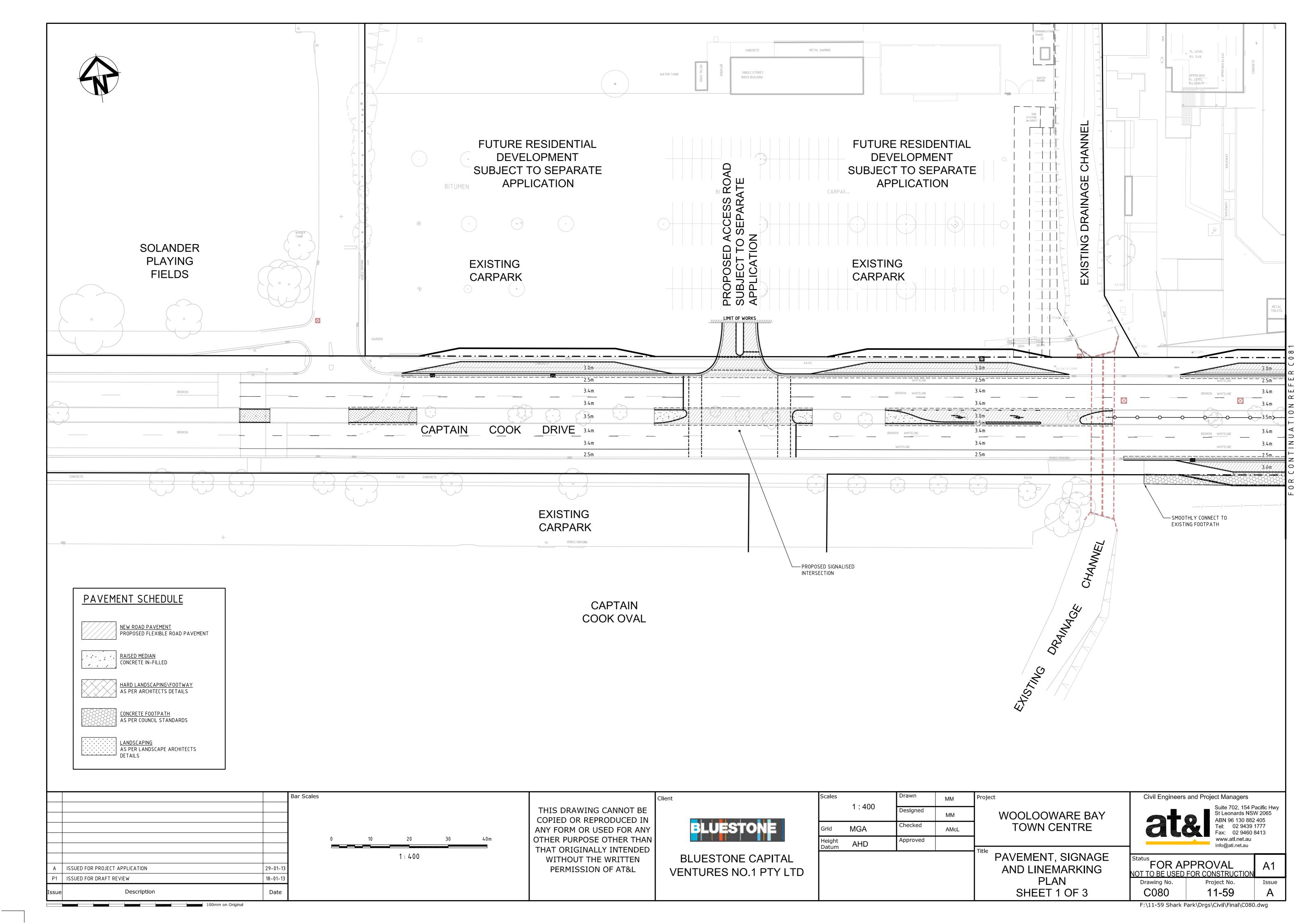


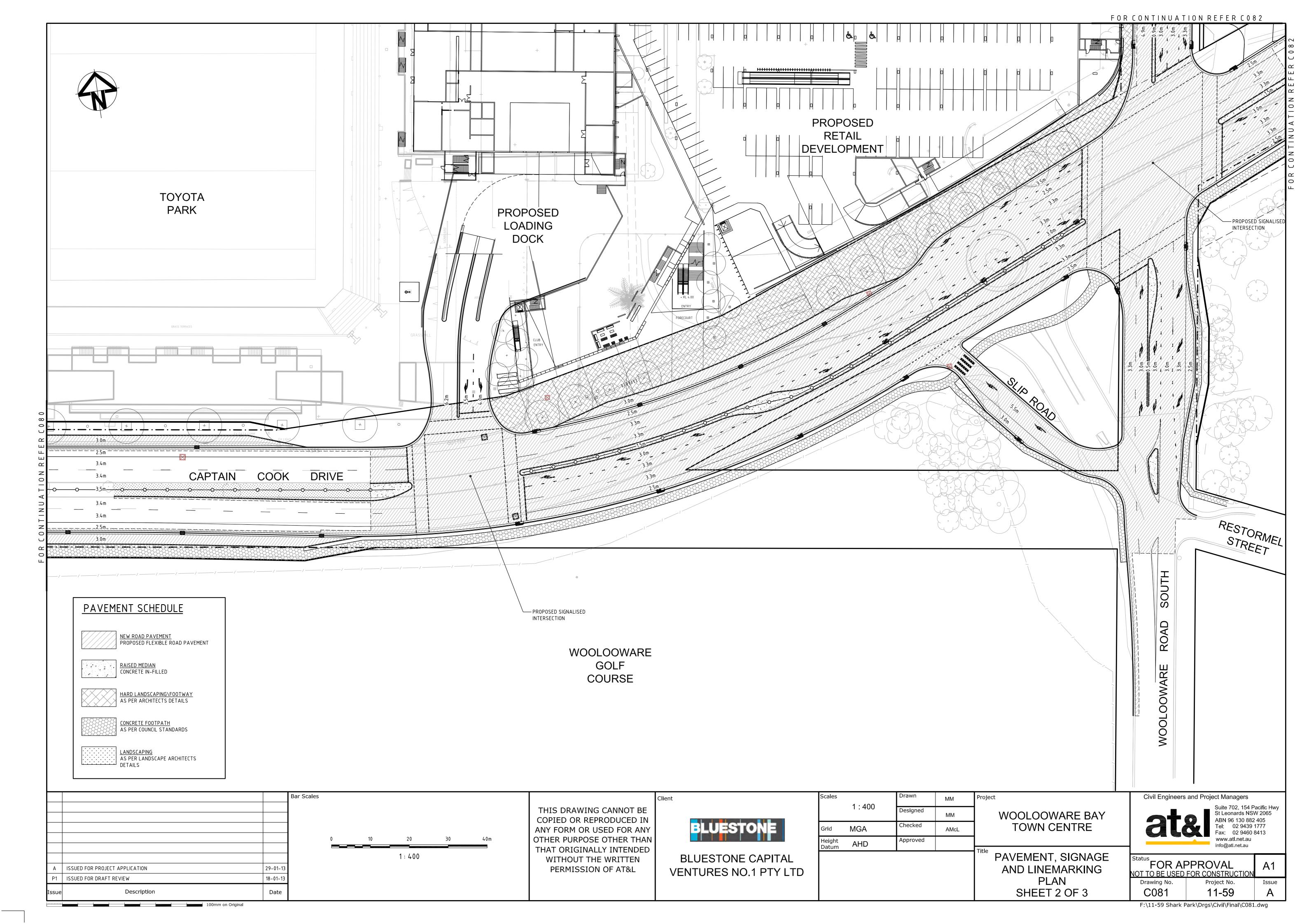


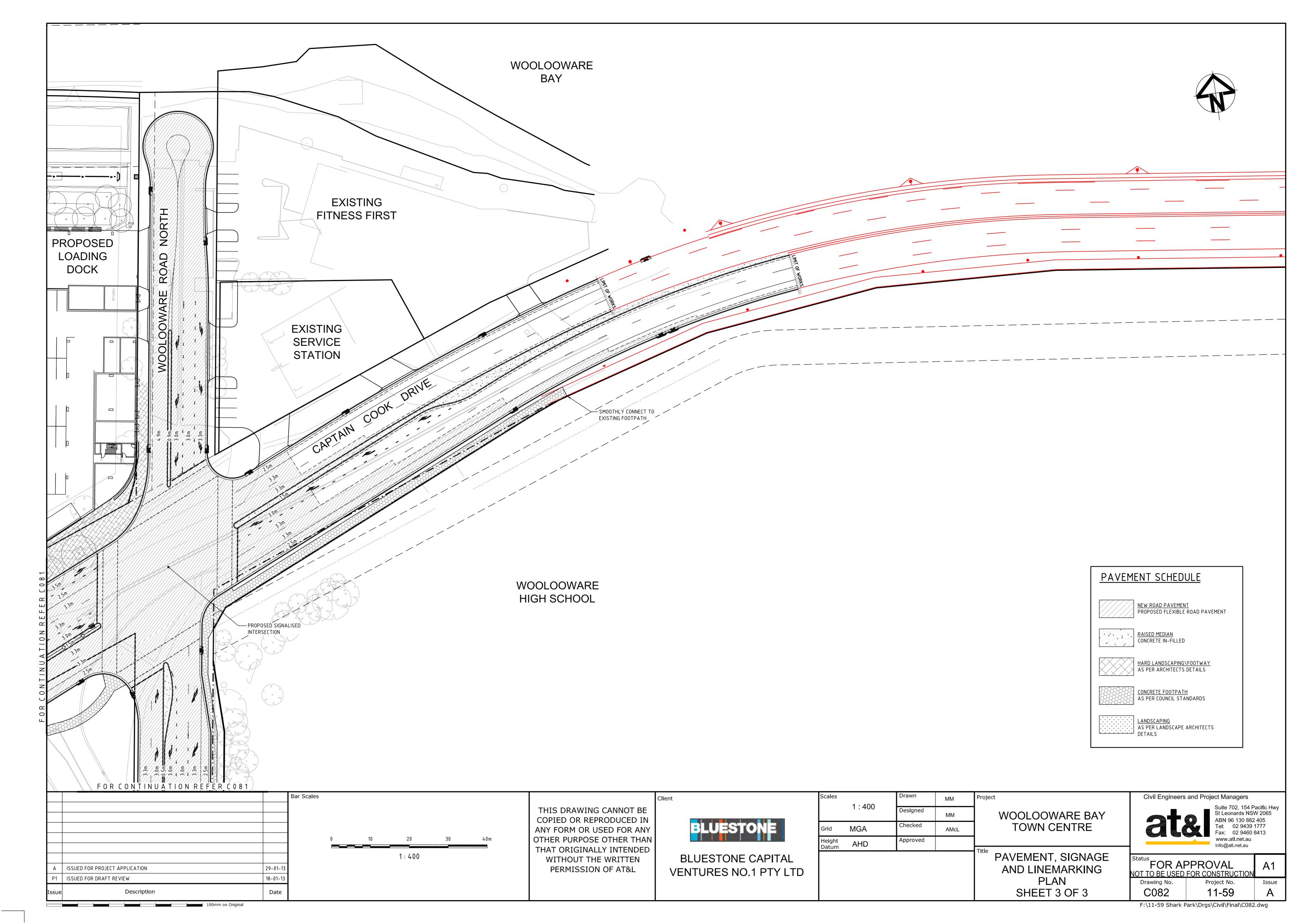


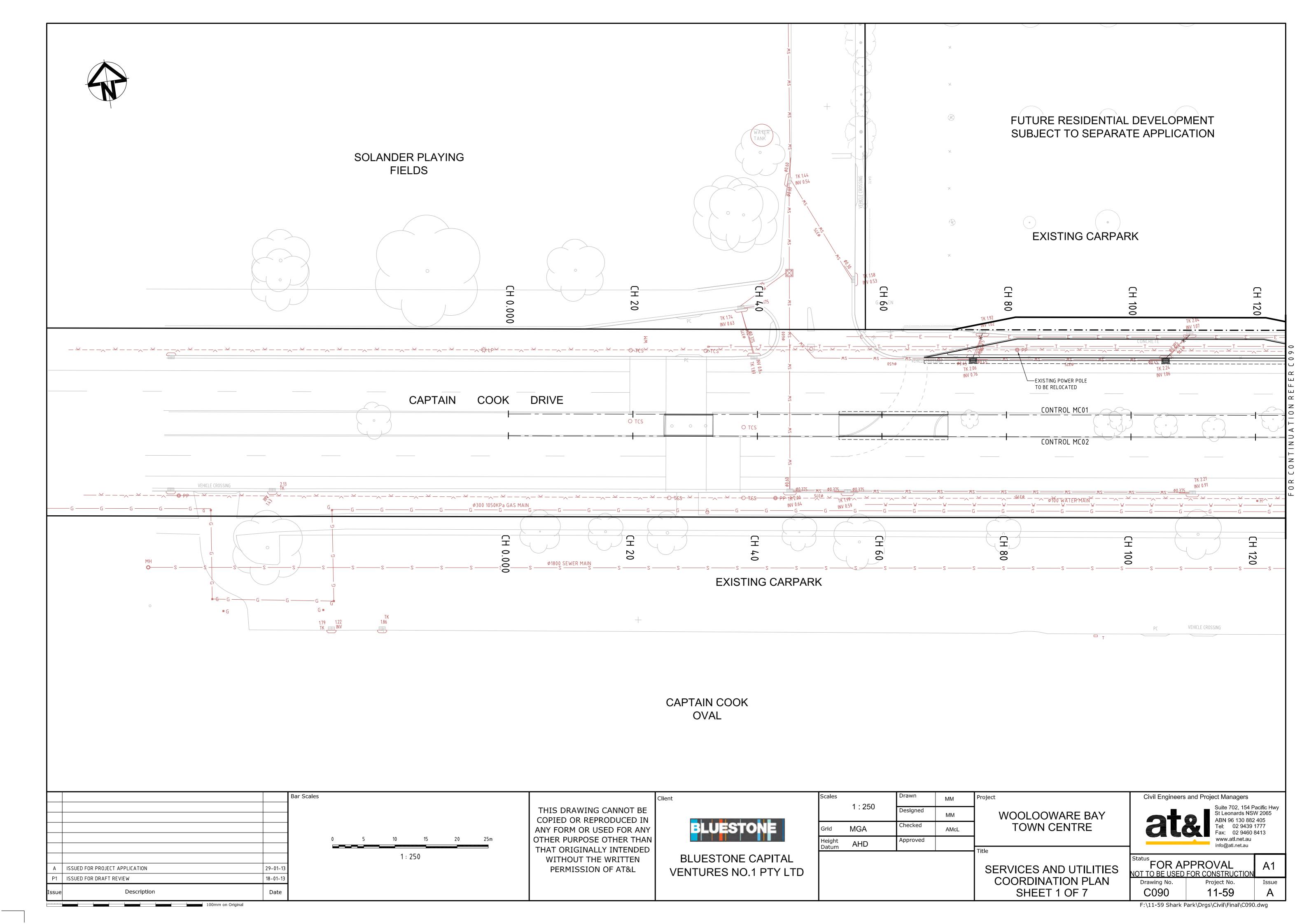


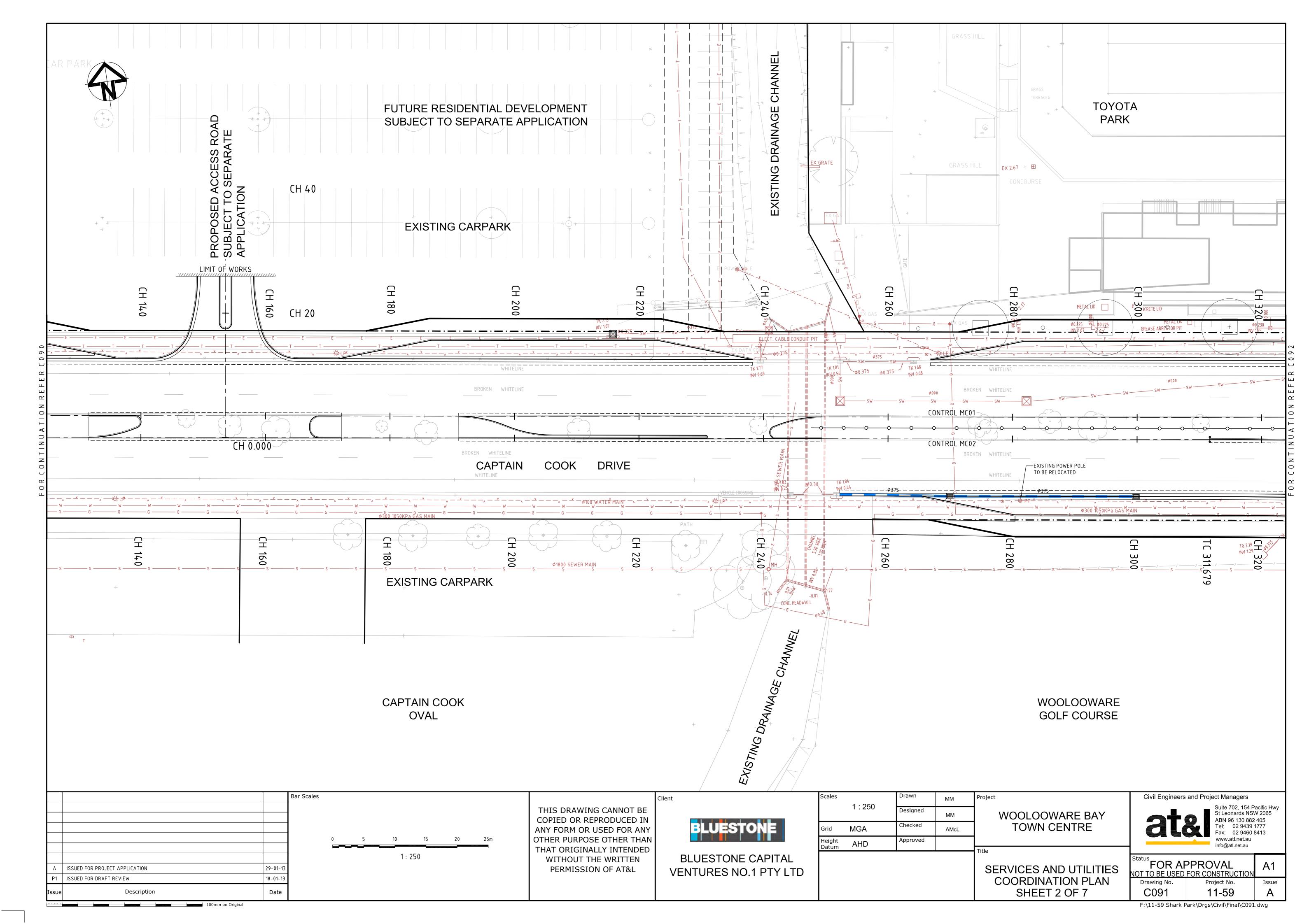


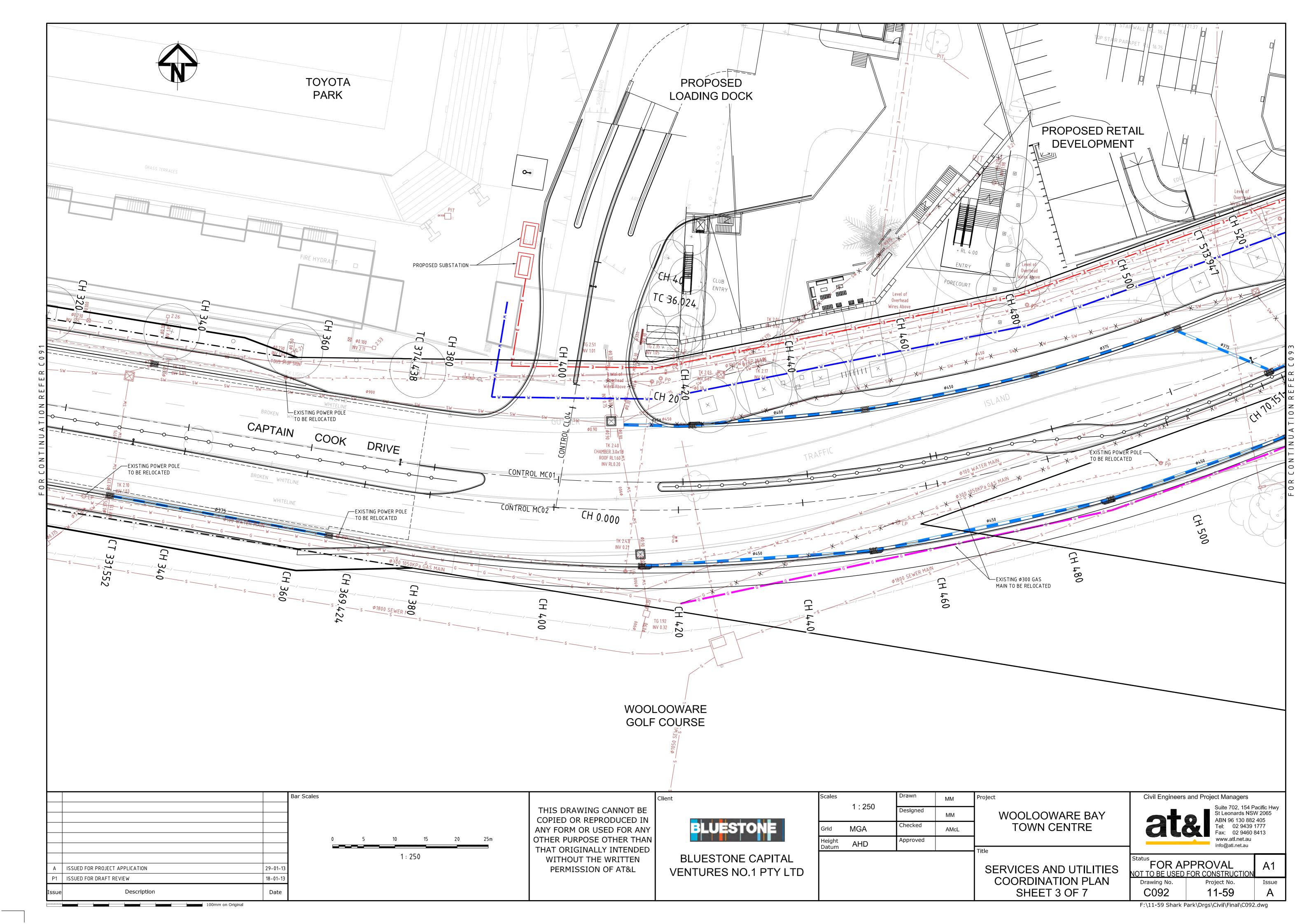


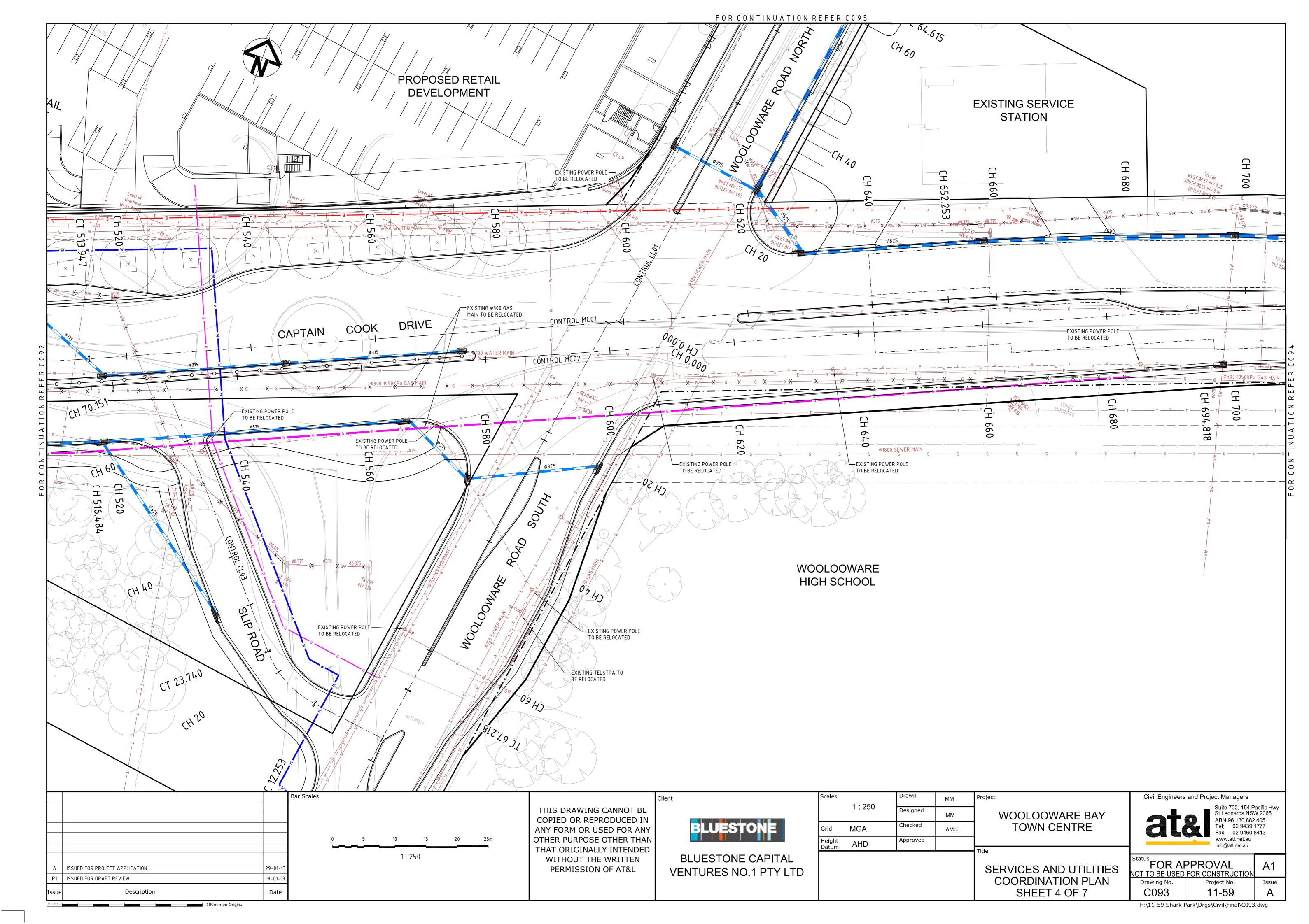


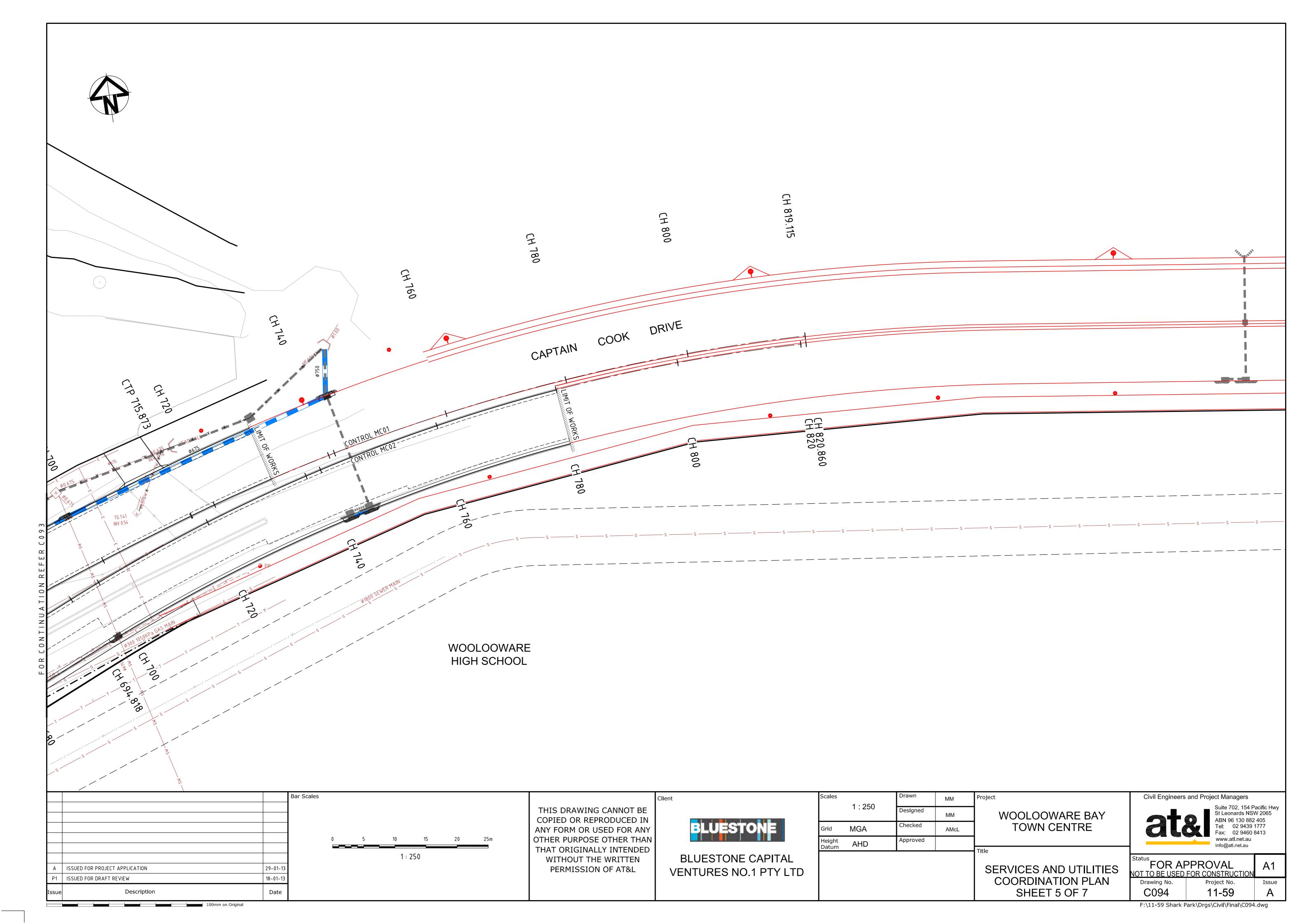


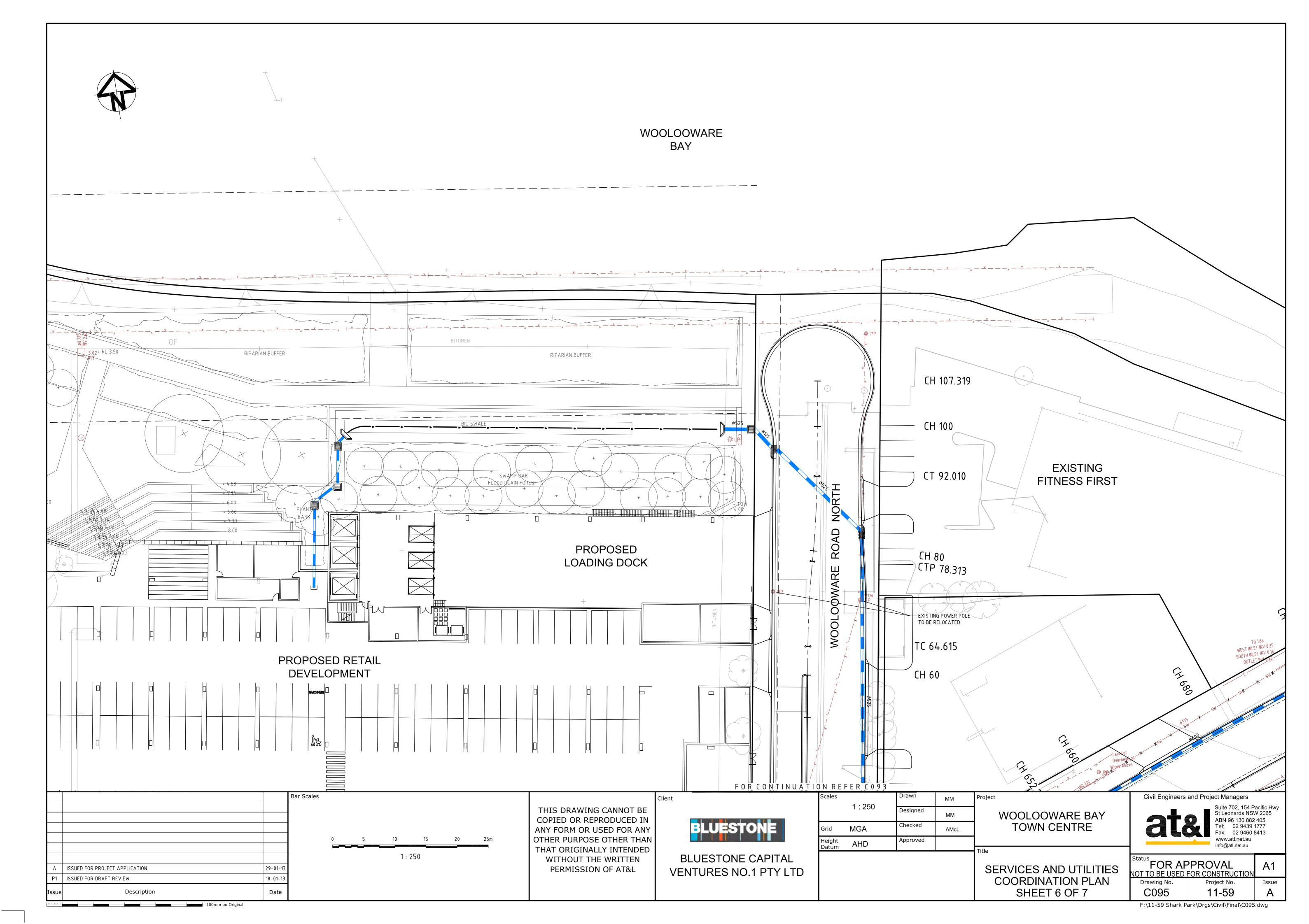


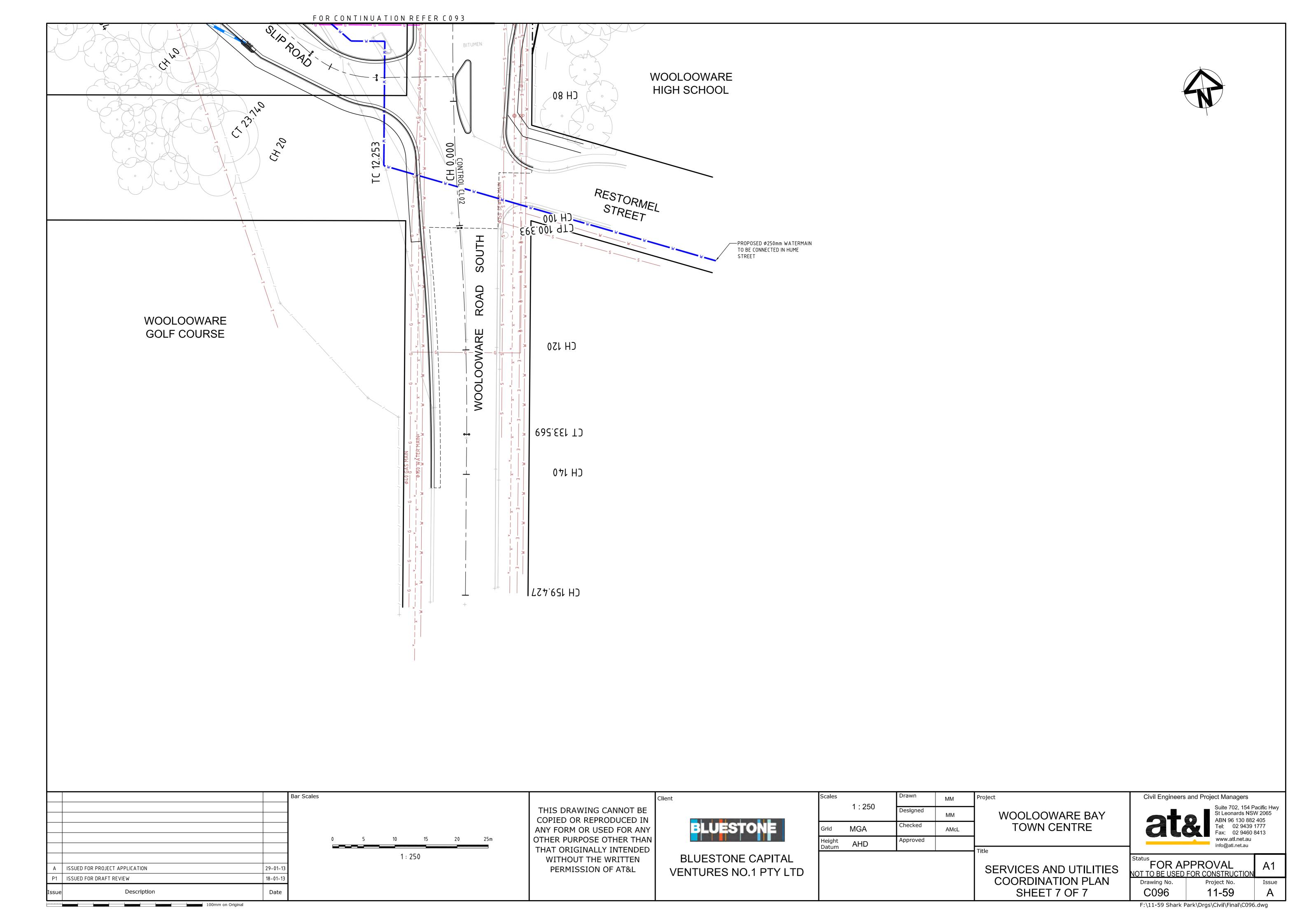


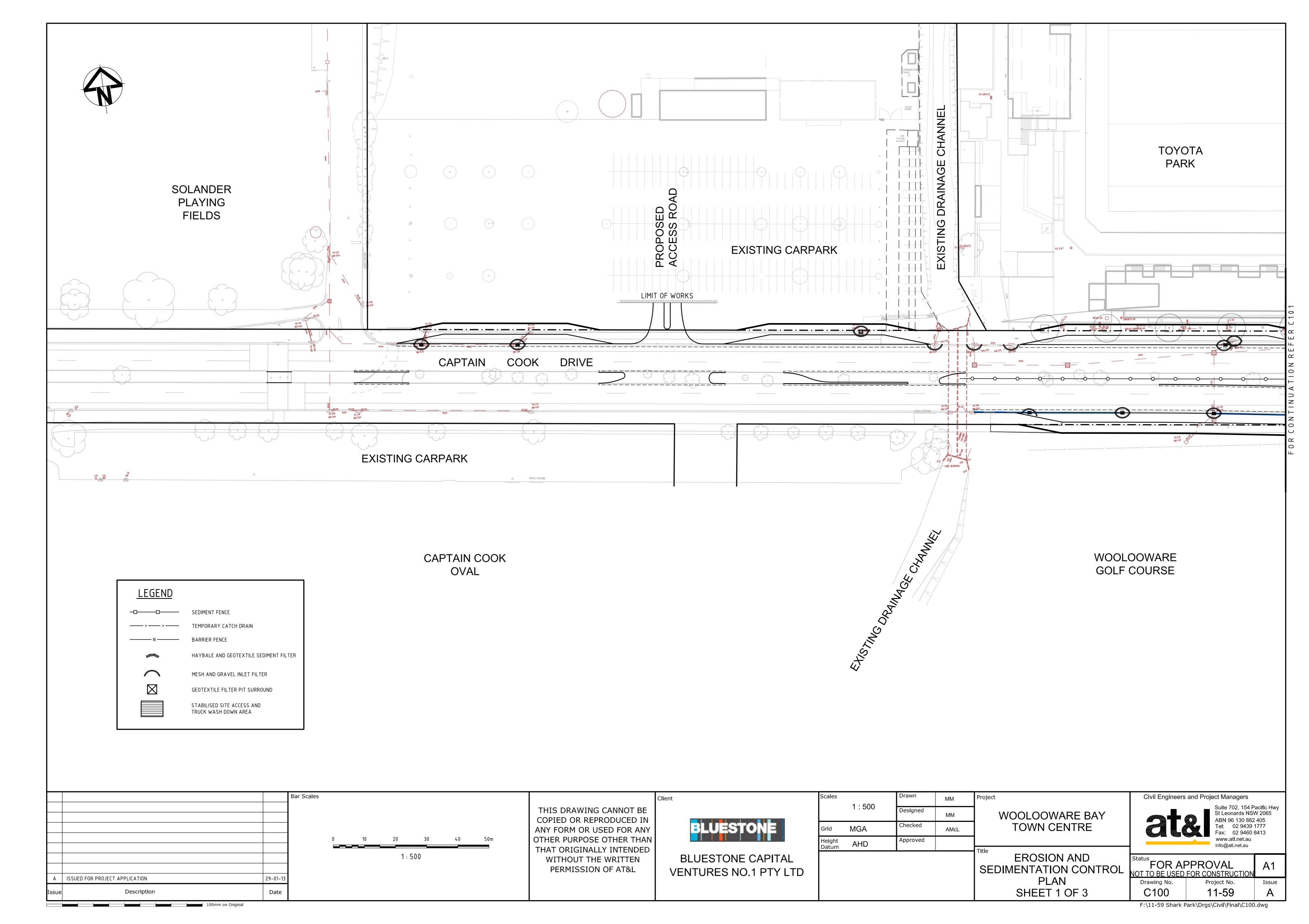


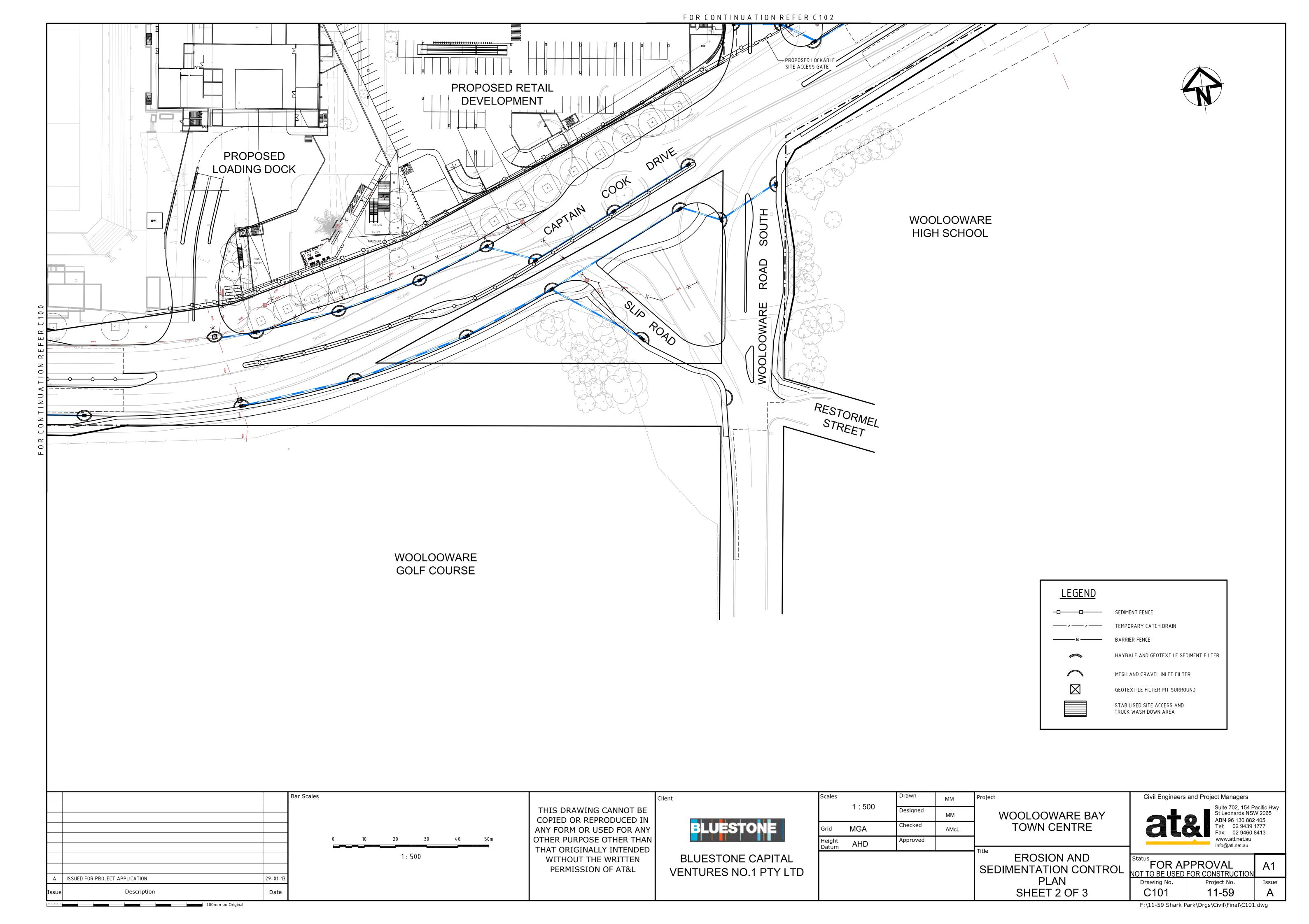


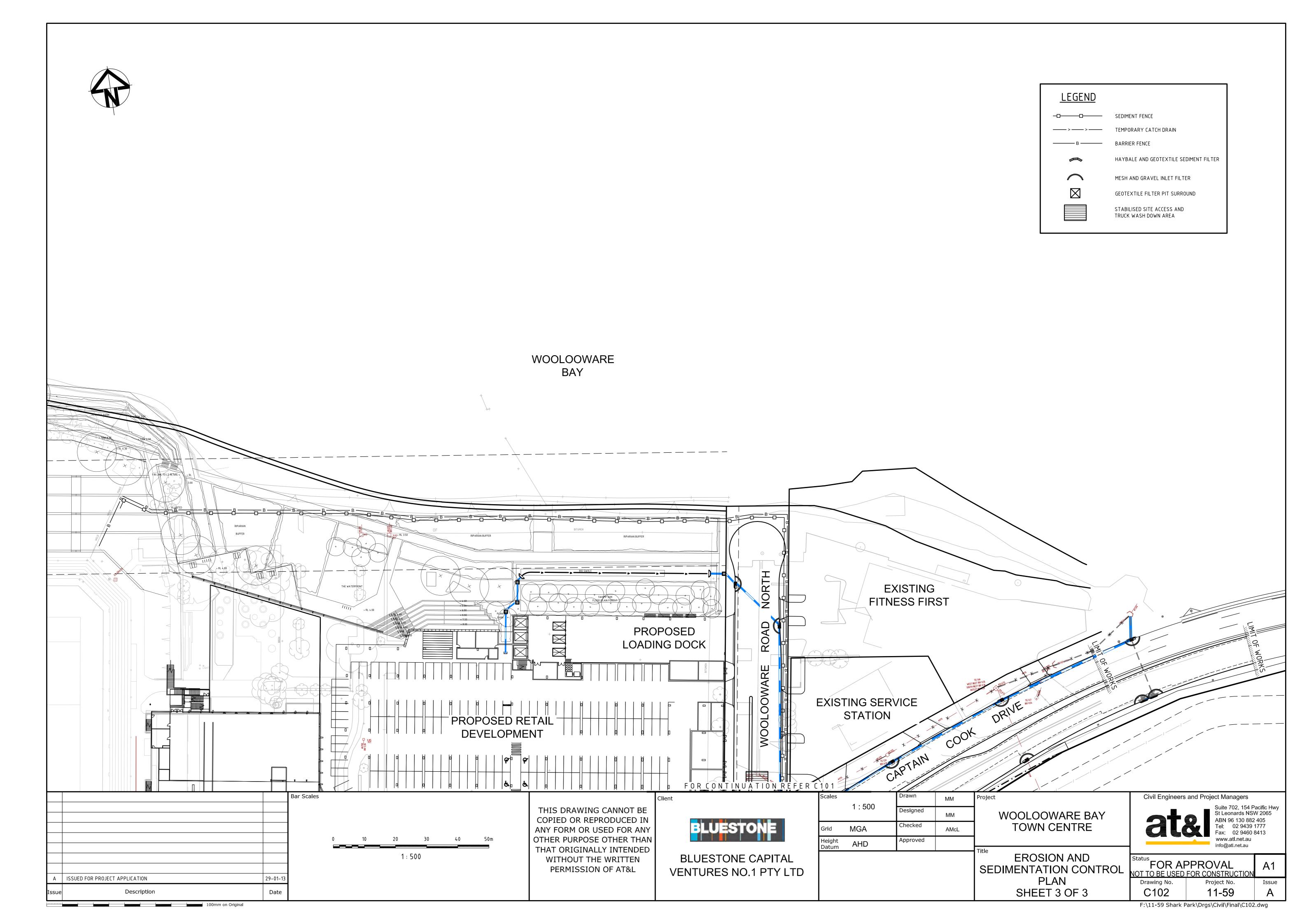


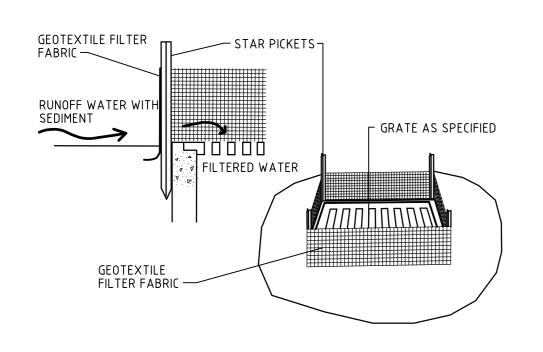




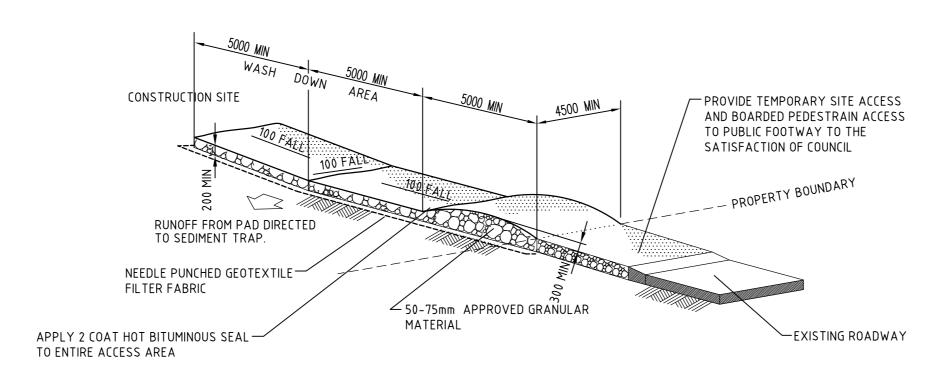




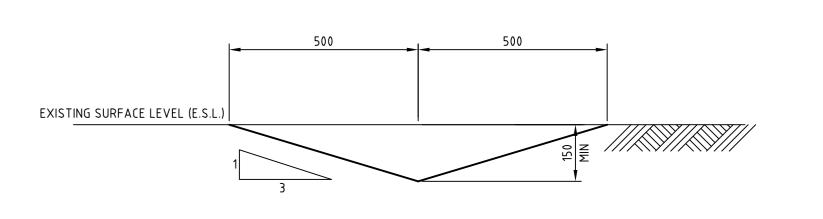




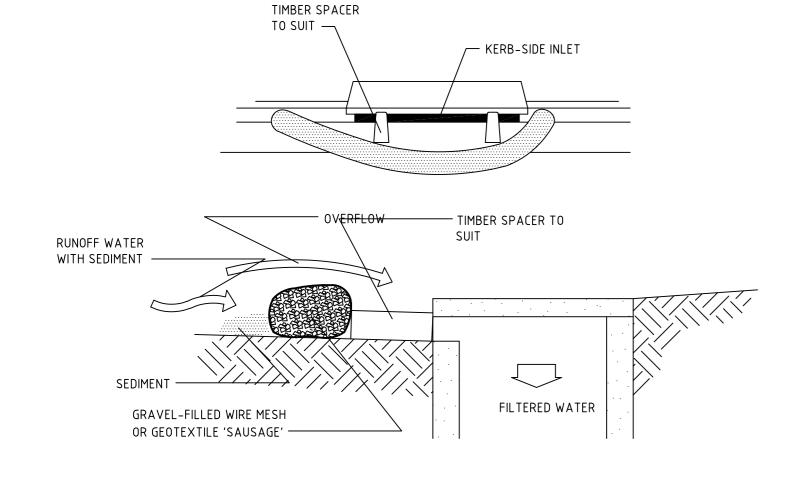
GEOTEXTILE FILTER PIT SURROUND NTS



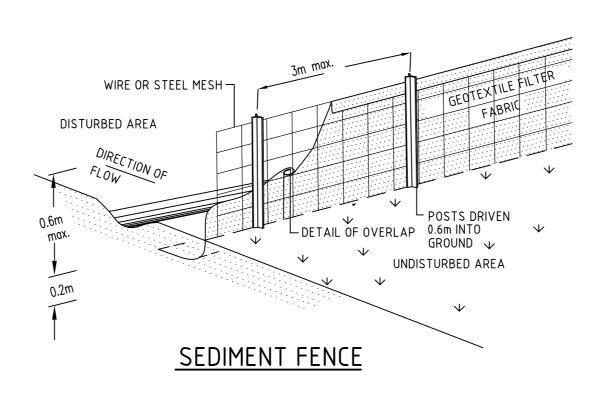
STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA

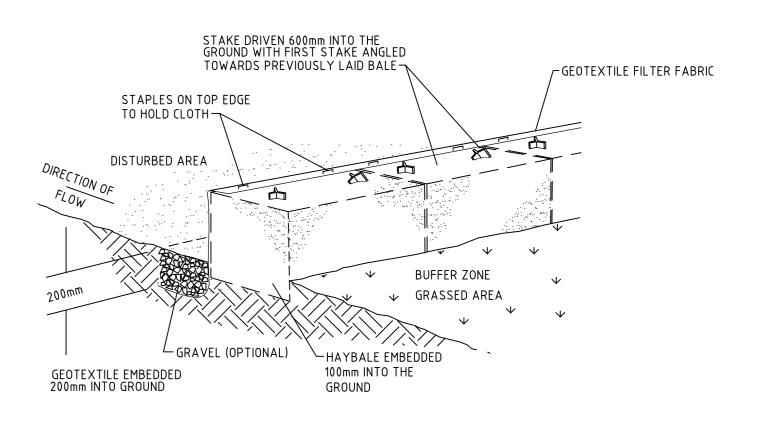


TEMPORARY CATCH DRAIN
(MIN FALL 1%) SCALE 1:10



MESH AND GRAVEL INLET FILTER NTS





HAYBALE AND GEOTEXTILE SEDIMENT FILTER

			Bar
			1
			1
			1
			1
			1
			1
Α	ISSUED FOR PROJECT APPLICATION	29-01-13	
Issue	Description	Date	

THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L



				_
Scales	es AS SHOWN	Drawn	MM	Project
		Designed	ММ	W
Grid	MGA	Checked	AMcL	
Height Datum	AHD	Approved		Title

**VOOLOOWARE BAY TOWN CENTRE** 

**EROSION AND** 

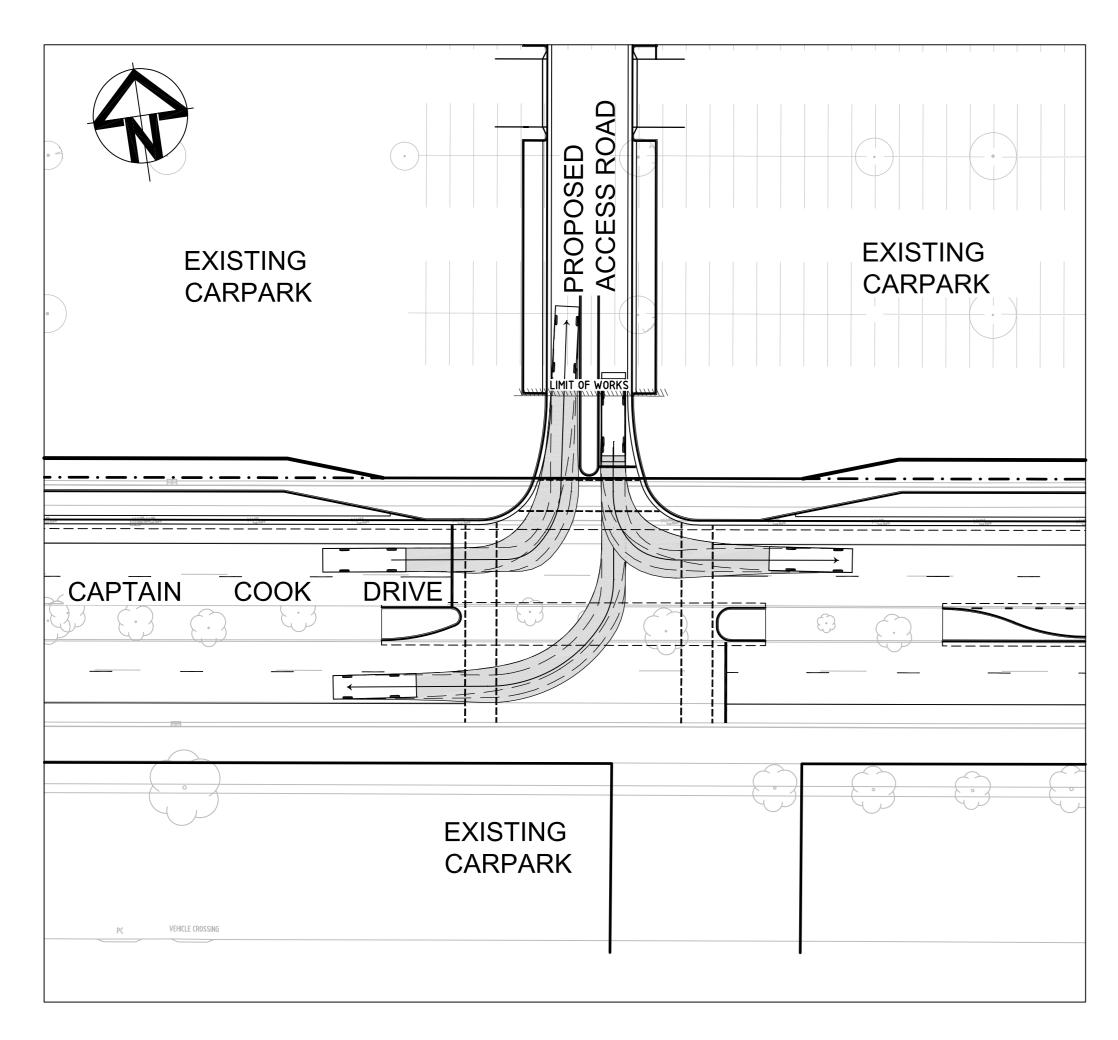
**DETAILS** 

SEDIMENTATION CONTROL

Suite 702, 154 Pacific Hwy St Leonards NSW 2065 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9460 8413 FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION

Drawing No. Project No. C105 11-59

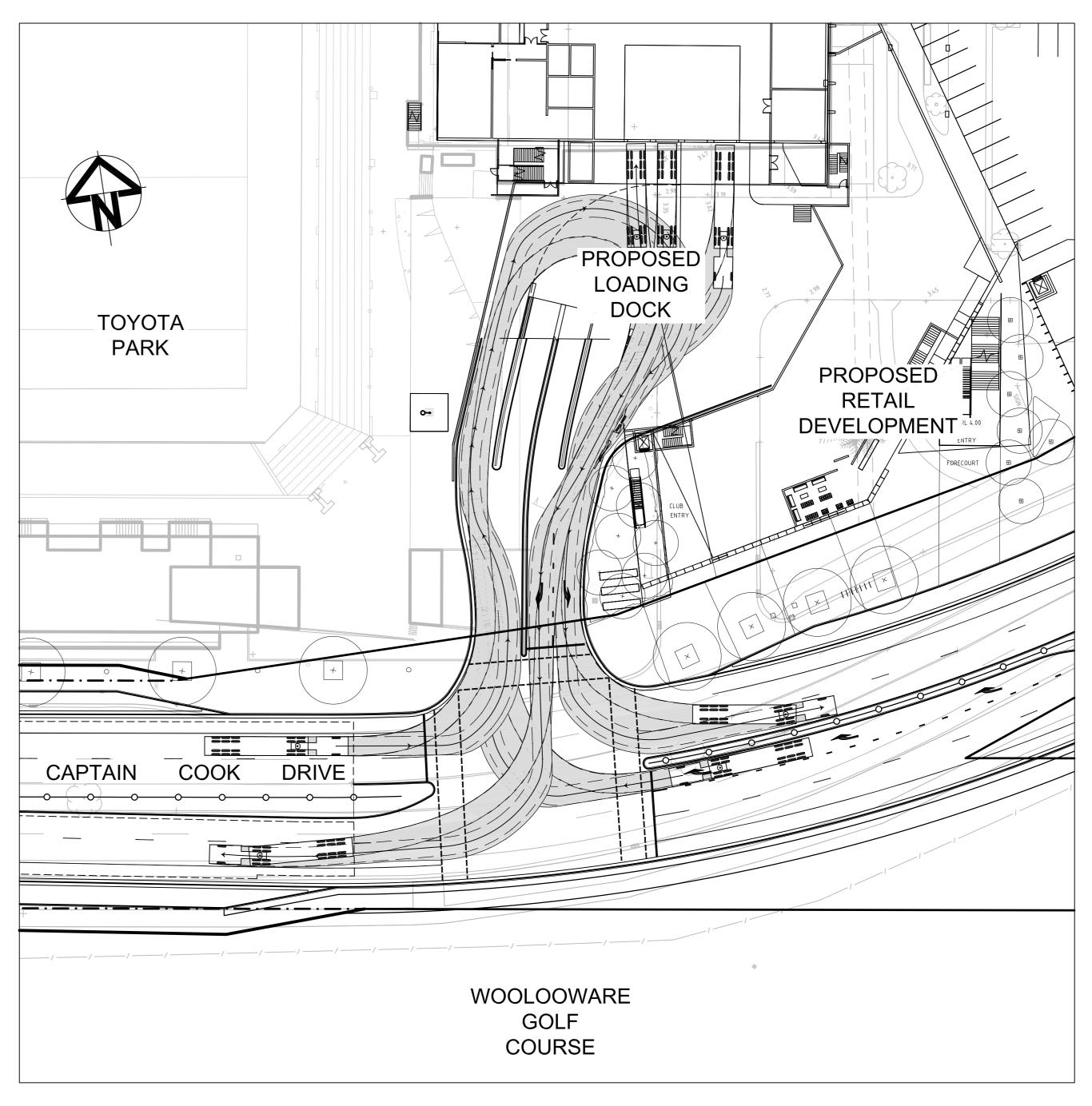
Civil Engineers and Project Managers



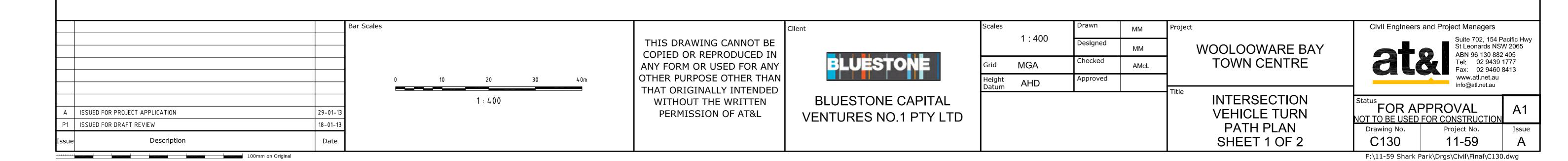
INTERSECTION CAPTAIN COOK DRIVE AND PROPOSED ACCESS ROAD

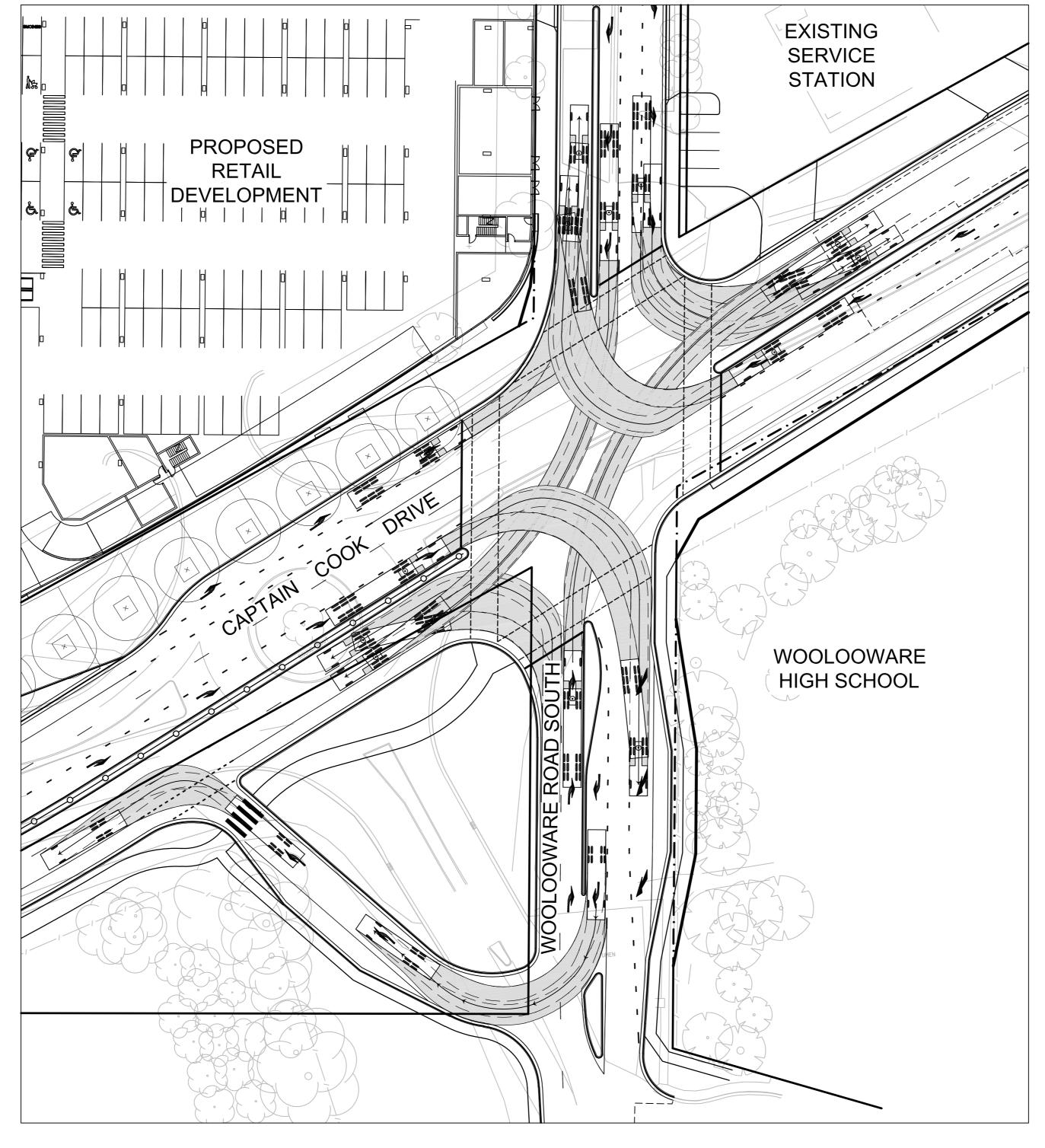
8.8m SERVICE TRUCK TURN PATH PLAN

SCALE 1: 400



## INTERSECTION CAPTAIN COOK DRIVE AND PROPOSED LOADING DOCK 19.0m SEMI TRAILER TURN PATH PLAN SCALE 1: 400





# INTERSECTION CAPTAIN COOK DRIVE AND PROPOSED LOADING DOCK 19.0m SEMI TRAILER AND 12.5m BUS TURN PATH PLAN SCALE 1: 400

