# RIVERBANK ESTATE

LOT 1008 MARKET DRIVE CABOOLTURE SOUTH STAGE 19A

FOR PEET CABOOLTURE SYNDICATE LTD



MORETON BAY REGIONAL COUNCIL

AREA OF SITE: 1.12ha

### LOT INFORMATION

EXISTING LOTS LOT 1007 SP295486 LOT 1008 SP295486 PROPOSED NO. OF LOTS: 20

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED PROJECT FOR INFORMATION.

AS CONSTRUCTED DETAILS
I CERTIFY ON BEHALF OF CALIBBE CONSULTING THAT THE "AS CONSTRUCTED" DETAILS SHOWN ON THIS PLAN ARE A TRUE AND ACCURATE RECORD OF THE WORKS.

DANIEL CULLINS RPEQ 18631

BAYE 20-05-2020



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DRAWING NO. DRAWING TITLE

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1

LOCALITY PLAN

### CONSTRUCTION NOTE

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:

- SEDIMENT AND EROSION HAZARD ASSESSMENT (PREPARED BY SOIL SURVEYS)
   ACID SULPHATES SOILS REPORT (PREPARED BY SOIL SURVEYS)
- GEOTECHNICAL REPORT (PREPARED BY SOIL SURVEYS)
- VEGETATION MANAGEMENT PLAN (VMP) (PREPARED BY SAUNDERS HAVILL GROUP)
   ENVIRONMENTAL MANAGEMENT PLAN (EMP) (PREPARED BY SAUNDERS HAVILL GROUP

### CONSTRUCTION HOLD POINT

ONCE THE BASE OF MANHOLES, INSPECTION PITS, GULLIES AND FIELD INLETS FOR STORMWATER DRAINAGE AND SEVER RETICULATION MAYE BEEN WERE POURED, FURTHER CONSTRUCTION SHALL DID NOT PROCEED UNTIL THE SUPERINTENDENT AND OR ENGINEER MAYE INSPECTED THE WORKS FOR FINISHED LEVELS AND APPROVED CONSTRUCTION TO

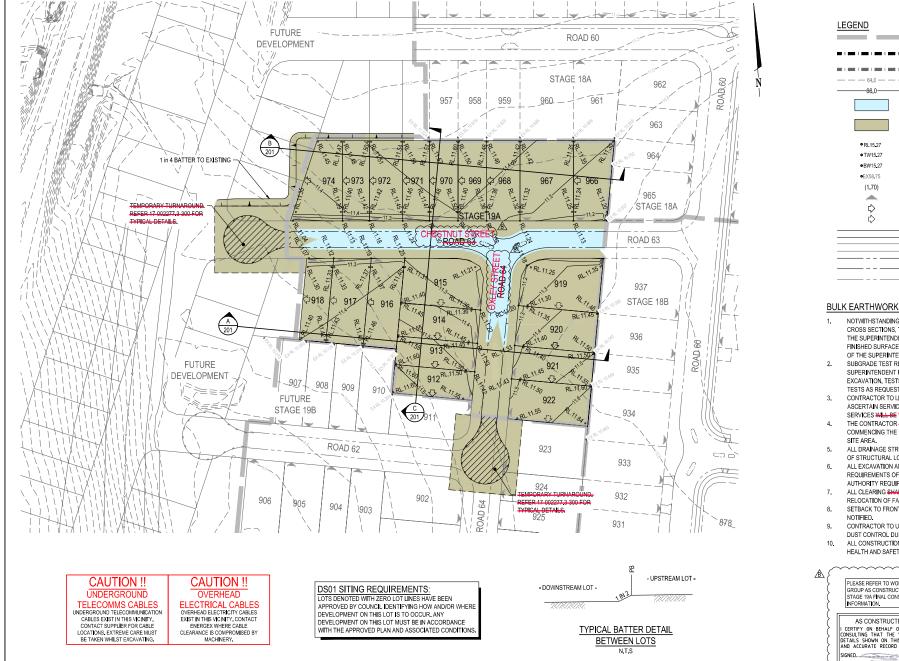
CONSTRUCTION HOLD POINT
PRIOR TO CONSTRUCTION THE CONTRACTOR
SHALL VERIEY VERIFIED LEVELS OF ALL EXISTING
CROSSINGS AND CONNECTION POINTS.

### RIVERBANK ESTATE

STAGE 19A M.B.R.C. REF No. DA/34784/2017/V3RL

Project No.: Stage: Millestone: Revision Date: Drawing No.: Revision: 17-002277.3 19A AS 06.05.20 000 B

CONSTRUCTED



\* The original issue or last amendment of this drawing contained the original signature.

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RPFQ 18631 \*DANIEL COLLINS)

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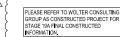
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REVISION DATE ISSUEDETAILS

PROPOSED STAGE BOUNDARY PROPOSED CONCRETE SLEEPER RETAINING WALL REFER TYPICAL DETAIL ON DRG No. 201 EXISTING RETAINING WALL EXISTING SURFACE CONTOUR (0.2m INTERVALS) BULK EARTHWORKS SURFACE CONTOUR (0.1m INTERVALS) AREA OF CUT AREA OF FILL FINISHED SURFACE SPOT LEVEL TOP OF RETAINING WALL LEVEL BOTTOM OF RETAINING WALL LEVEL EXISTING SURFACE SPOT LEVEL PROPOSED RETAINING WALL HEIGHT INDICATIVE DRIVEWAY LOCATION MANDATORY ZERO LOT LINE NOMINAL ZERO LOT LINE PROPOSED EARTHWORKS BATTER 1 IN 4 MAX EXISTING EARTHWORKS BATTER PROPOSED MOUNTABLE KERB & CHANNEL TYPE M3 FUTURE KERB & CHANNEL EXISTING KERR AND CHANNEL

### **BULK EARTHWORKS NOTES**

- NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE CROSS SECTIONS. THE ACTUAL LIMITS SHALL BE DETERMINED ON-SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND SIMILARLY THE FINISHED SURFACE CONTOURS MAY BE ADJUSTED BY WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION.
- SUBGRADE TEST RESULTS TO BE WERE FORWARDED TO THE SUPERINTENDENT FOR DETERMINATION OF BOX DEPTHS PRIOR TO EXCAVATION, TESTS SHALL INCLUDE INCLUDED SOAKED CBR AND/OR OTHER TESTS AS REQUESTED BY THE SUPERINTENDENT.
- CONTRACTOR TO LIAISE WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES PRESENT ON-SITE, ANY ALTERATION WORKS TO SERVICES WILL BE WERE CARRIED OUT BY THAT SERVICE AUTHORITY ONLY.
- THE CONTRACTOR SHALL NOTIFY NOTIFIED THE SUPERINTENDENT PRIOR TO COMMENCING THE DEMOLITION OF ANY EXISTING STRUCTURES WITHIN THE
- ALL DRAINAGE STRUCTURES TO BE WERE PRESERVED FROM THE EFFECTS OF STRUCTURAL LOADING GENERATED BY THE EARTHWORKS.
- ALL EXCAVATION AND FILLING SHALL BE WAS COMPACTED TO THE REQUIREMENTS OF AS3798-2007 IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS, LEVEL 1 SUPERVISION & WAS REQUIRED.
- ALL CLEARING SHALL BE WAS CARRIED OUT IN STAGES TO ALLOW FOR RELOCATION OF FAUNA, COMMENCING AT THE LOWER AREAS OF THE SITE.
- SETBACK TO FRONT OF PADS ARE WERE 3.00m UNLESS OTHERWISE
- CONTRACTOR TO USE INDUSTRY BEST PRACTICE TO ENSURE ADEQUATE DUST CONTROL DURING EARTHWORKS OPERATIONS.
- ALL CONSTRUCTION ACTIVITIES SHALL COMPLY COMPLIED WITH WORKPLACE HEALTH AND SAFETY REQUIREMENTS.



AS CONSTRUCTED DETAILS I CERTIFY ON BEHALF OF CALIBRE CONSULTING THAT THE "AS CONSTRUCTED" DETAILS SHOWN ON THIS PLAN ARE A TRUE AND ACCURATE RECORD OF THE WORKS. DATE.20::05-2020 DANIEL COLLINS RPEQ 18631

UW REF No. 2017011039s19A

**BULK EARTHWORKS** LAYOUT PLAN

STAGE 19A

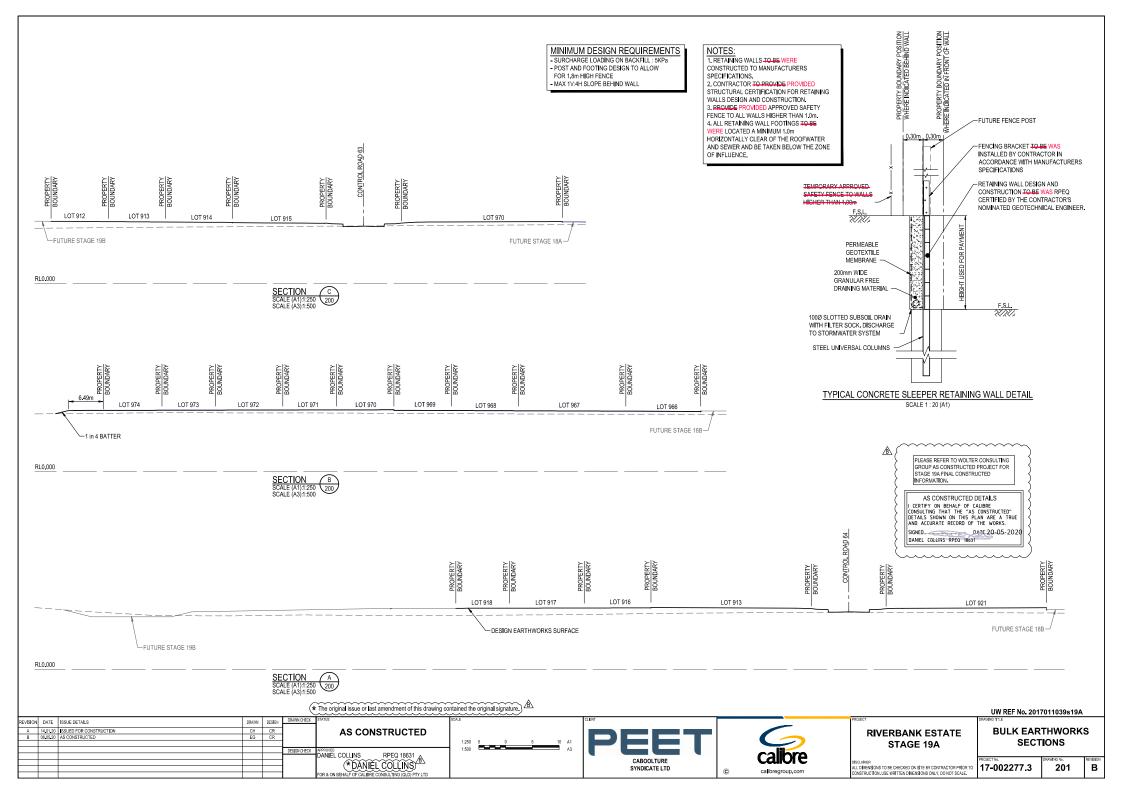
RIVERBANK ESTATE

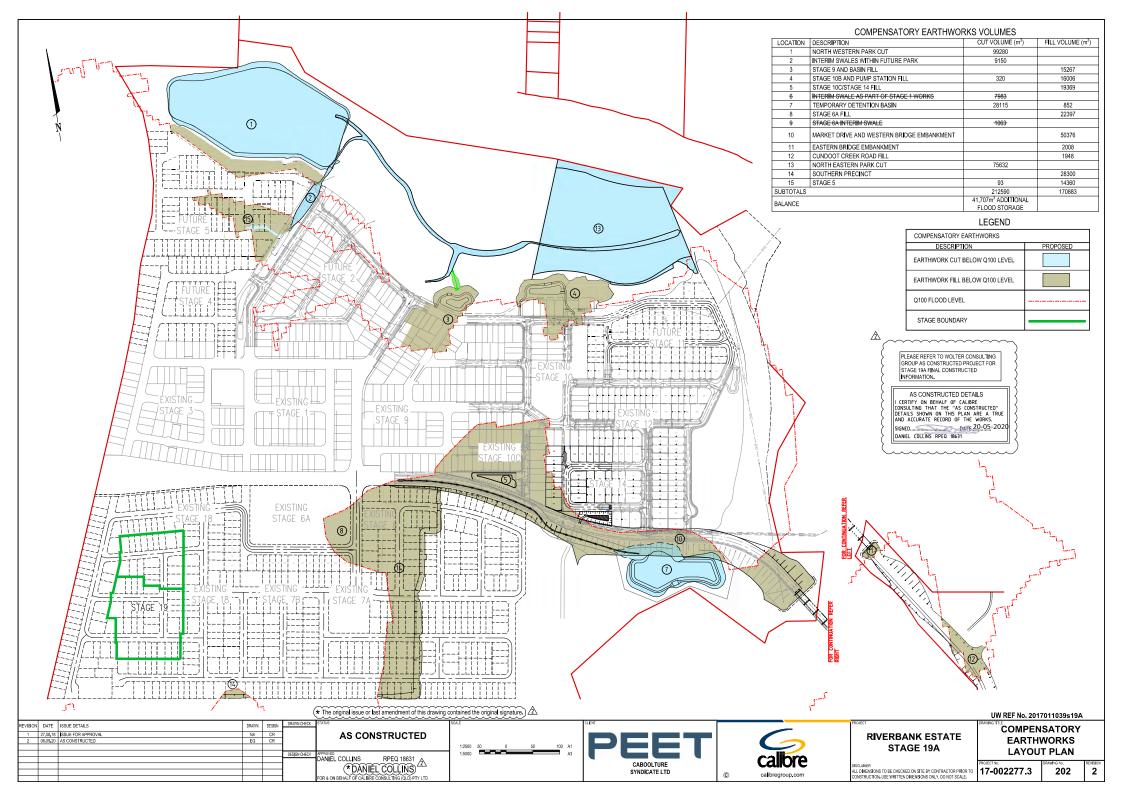
J. DÍMENSIONS TO BE CHECKED ON SÍTE BY CONTRACTOR PRÍOR TO DISTRUCTION, USE WRITTEN DÍMENSIONS ONLY, DO NOT SCALE,

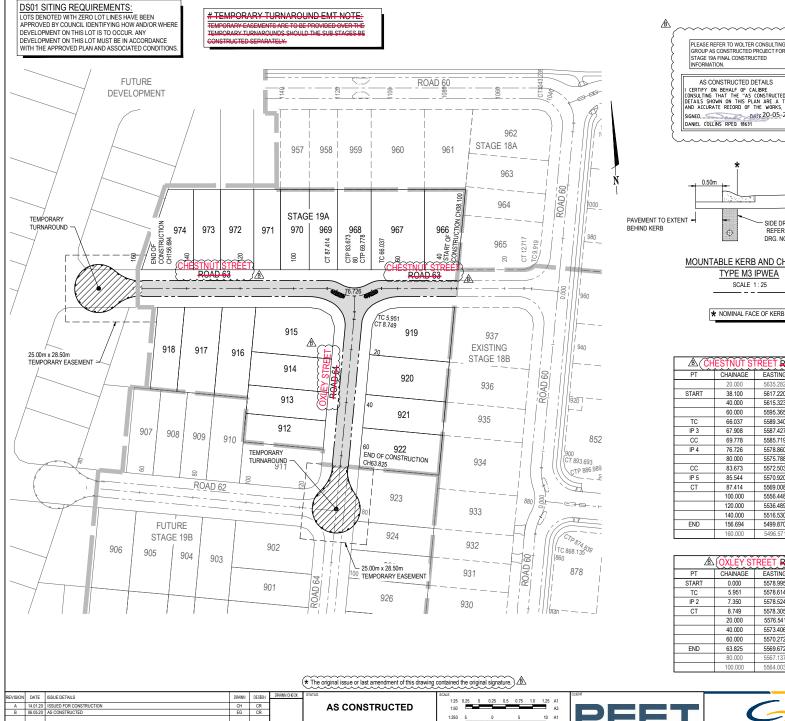
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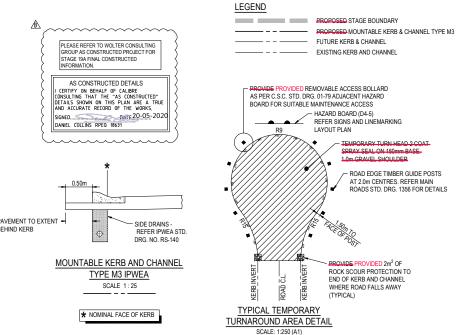




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RPEQ 18631 \*DANIEL COLLINS



PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
	20.000	5635.282	2963.354	10.789	***************************************	*********		
START	38.100	5617.220	2964.514					
	40.000	5615.323	2964.635	10.889	•••••	•••••		
	60.000	5595.365	2965.917	10.989	•••••			
TC	66.037	5589.340	2966.304	11.020	•••••	•••••		
IP 3	67.908	5587.427	2966.427	11.029		R = -7.000	3.741	
CC	69.778	5585.719	2965.558	11.038	•••••			
IP 4	76.726	5578.860	2962.072	11.073		R = 13.000	13.895	
	80.000	5575.788	2964.791	11.089				
CC	83.673	5572.503	2966.407	11.108	•••••			
IP 5	85.544	5570.920	2967.487	11.117		R = -7.000	3.741	
CT	87.414	5569.008	2967.610	11.127				
	100.000	5556.448	2968.416	11.126	•••••	•••••		
	120.000	5536.489	2969.698	11.026		•••••		
	140.000	5516.530	2970.980	10.926				
END	156.694	5499.870	2972.049					
	160.000	5496.571	2972.261	10.826		*********		

			BLE	JT TA	SETC	ROL LINE	NTI	<u>√Ď,64</u> )CO	ŘŎ,	TŘĚĚŤ	(ĽĚY S	7(0)	Æ
G.	A.LE	\L	RAD/SPIRA	RING		HEIGHT		NORTHIN		EASTII	AINAGE	CH	PT
					••••	11.073		2964.174	995	5578.9	0.000		START
					••••	10.975		2958.235	614	5578.6	5.951		TC
8	2.	)	R = 30.000			10.968	П	2956.838	524	5578.5	7.350		IP 2
					••••	10.961	П	2955.455	305	5578.3	8.749	Т	CT
					••••	10.989	П	2944.343	541	5576.5	20.000		
					••••	11.163	П	2924.590	106	5573.4	10.000		
					••••	11.337	П	2904.838	272	5570.2	0.000		
							П	2901.059	372	5569.6	3.825		END
						11.384		2885.085	137	5567.1	30.000		
						11.160	Т	2865.332	003	5564.0	00.000	1	

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CABOOLTURE SYNDICATE LTD

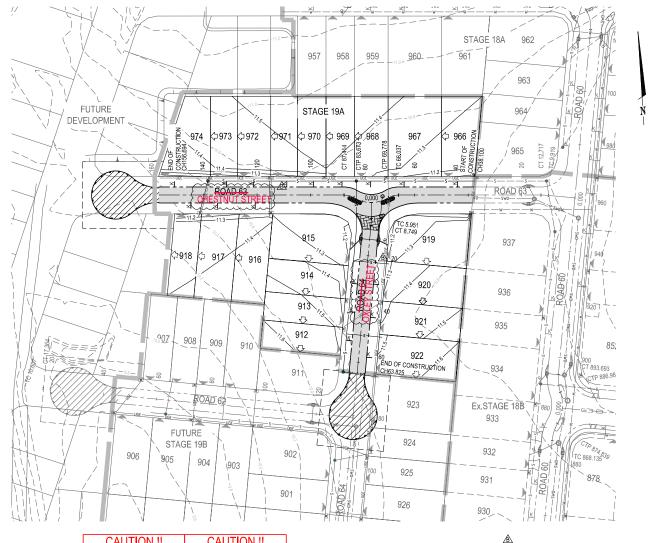
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SURVEY SETOUT RIVERBANK ESTATE LAYOUT PLAN & TABLES STAGE 19A

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### CAUTION !! UNDERGROUND TELECOMMS CABLES

UNDERGROUND TELECOMMUNICATION CABLES EXIST IN THIS VICINITY. CONTACT SUPPLIER FOR CABLE LOCATIONS, EXTREME CARE MUST BE TAKEN WHILST EXCAVATING.

### CAUTION !! UNDERGROUND ELECTRICAL CABLES

UNDERGROUND ELECTRICITY CABLES EXIST IN THIS VICINITY. LOCATIONS, EXTREME CARE MUST BE TAKEN WHILST EXCAVATING

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REVISION DATE ISSUEDETAILS

NOTWITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THE JOB DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ANY UNDERGROUND SERVICES IN THIS AREA AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO.

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED

AS CONSTRUCTED DETAILS I CERTIFY ON BEHALF OF CALIBRE CONSULTING THAT THE "AS CONSTRUCTED" DETAILS SHOWN ON THIS PLAN ARE A TRUE AND ACCURATE RECORD OF THE WORKS. SIGNED......541 £ 20-05-2020

DANIEL COLLINS RPEQ 18631

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AS CONSTRUCTED

RPFQ 18631 \*DANIEL COLLINS

ANIEL COLLINS





### RIVERBANK ESTATE STAGE 19A

L DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO DISTRUCTION, USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

ROADWORKS **LAYOUT PLAN** 

UW REF No. 2017011039s19A

PRESENT ON-SITE. ANY ALTERATION WORKS TO SERVICES WILL BE WERE CARRIED OUT BY THAT SERVICE 9. FOOTPATHS AND BATTERS TO HAVE HAD MINIMUM OF 75mm TOPSOIL (AND GRASSING IF ORDERED).

CONTRACTOR TO LIAISE LIAISED WITH ALL RELEVANT SERVICE AUTHORITIES TO ASCERTAIN SERVICES

10. PROVIDE PROVIDED 'B' GRADE TURFING TO OUTLETS AS DIRECTED BY THE SUPERINTENDENT.

11. ALL EXCAVATION AND FILLING SHALL BE WAS COMPACTED TO THE REQUIREMENTS OF AS3798-2007 IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS, LEVEL 1 SUPERVISION & WAS REQUIRED.

12. ALL DISTURBED AREAS STEEPER THAN 1 IN 6 SHALL BE WERE HYDROMULCHED, TURFED OR EQUIVALENT.

13. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY COMPLIED WITH WORKPLACE HEALTH AND SAFETY

14. ALL FOOTPATHS ARE TO BE WERE 125mm THICK N32 CONCRETE WITH F72 MESH.

DS01 SITING REQUIREMENTS

**LEGEND** 

 $\Diamond$ 

ROADWORKS AND DRAINAGE NOTES

THE SUPERINTENDENT DURING CONSTRUCTION.

EDGE SHALL BE WAS NO GREATER THAN 10mm.

REQUESTED BY THE SUPERINTENDENT.

6. ALL DIMENSIONS ARE WERE IN METRES UNLESS SHOWN OTHERWISE.

UNLESS SHOWN OTHERWISE.

PROPOSED STAGE BOUNDARY

PROPOSED MOUNTABLE KERB & CHANNEL TYPE 'M3'

EXISTING SURFACE CONTOUR (0.2m INTERVALS) DESIGN SURFACE CONTOUR (0.1m INTERVALS)

CONCRETE SLEEPER RETAINING WALL

PROPOSED STORMWATER DRAINAGE PROPOSED SEWERAGE RETICULATION

PROPOSED WATER RETICULATION

EXISTING STORMWATER DRAINAGE

EXISTING WATER RETICULATION EXISTING UNDERGROUND ELECTRICAL EXISTING UNDERGROUND TELECOMMUNICATION

INDICATIVE DRIVEWAY LOCATIONS

MANDATORY ZERO LOT BOUNDARY

PROPOSED AREA OF ASPHALT SURFACING

PROPOSED ENERGEX LINE UNDERGROUND

CONCRETE THRESHOLD TREATMENT. REFER DRG 17-002277.3-302 FOR DETAILS.

NOMINAL ZERO LOT BOUNDARY

PROPOSED ELECTRICAL PIT PROPOSED NBN PITS

ALL WORKS SHALL BE WERE CARRIED OUT IN ACCORDANCE WITH CURRENT C.S.C. STANDARD DRAWINGS

NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE CROSS SECTIONS, THE ACTUAL

SIMILARLY THE FINISHED SURFACE CONTOURS MAY HAVE BEEN BE ADJUSTED BY WRITTEN DIRECTION OF

LIMITS SHALL BE WERE DETERMINED ON-SITE BY THE SUPERINTENDENT DURING CONSTRUCTION AND

3. LEVELS FOR KERB AND CHANNELING CONSTRUCTION ARE WERE AT EQUAL INTERVALS AT LIP OF CHANNEL

5. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE HAVE BEEN VARIED AS REQUIRED

TO ACHIEVE A SATISFACTORY CONNECTION AND THE CONTRACTOR SHALL INCLUDE INCLUDED THE COST

OF THIS WORK IN THE TENDER PRICE. WHERE NEW WORK JOINS EXISTING, THE WORK SHALL TRANSITION

TRANSITIONED NEATLY WITH THE PAVEMENT SO THAT DEVIATION FROM THE LINE OF A 3.0m STRAIGHT

SUBGRADE TEST RESULTS TO BE WERE FORWARDED TO SUPERINTENDENT. FOR DETERMINATION OF BOX DEPTHS PRIOR TO EXCAVATION, TESTS SHALL INCLUDE INCLUDED SOAKED CBR AND/OR OTHER TESTS AS

4. SIDE DRAINS TO BE WERE CONSTRUCTED UNDER ALL KERBS AND ALL KERB AND CHANNEL AND IN LOCATIONS DIRECTED BY THE SUPERINTENDENT IN ACCORDANCE WITH C.S.C. STANDARDS

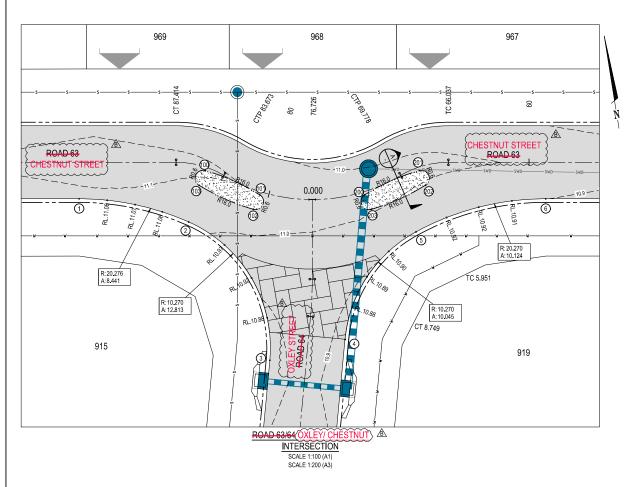
EXISTING SEWERAGE RETICULATION

KERB ADAPTOR - REFER NOTES ON DRG 17-002275.1-400

LOTS DENOTED WITH ZERO LOT LINES HAVE BEEN APPROVED BY COUNCIL IDENTIFYING HOW AND/OR WHERE DEVELOPMENT ON THIS LOT IS TO OCCUR. ANY DEVELOPMENT ON THIS LOT MUST BE IN ACCORDANCE WITH THE APPROVED PLAN AND ASSOCIATED CONDITIONS. ACCESS AND SERVICES TO EXISTING PROPERTIES TO REMAIN REMAINED AT ALL TIMES.

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301 В



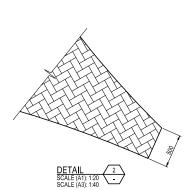
### CHESTNUT AND OXLEY STREET ROAD 63 AND ROAD 64

### PAVEMENT SETOUT

Point No.	Easting	Northing	Level
1	5561,586	2965.351	11.070
2	5569,657	2963.097	11,030
3	5575.052	2952.380	10.861
4	5580.768	2953.562	10.872
5	5586.580	2961.264	10.912
6	5596.428	2963.113	10.901

## CHESTNUT STREET AREAD 63 ISLAND SETOUT

Point No.	Easting	Northing	Level
100	5571.153	2966.851	11.110
101	5575.098	2964.781	11.086
102	5574.546	2963,729	11.054
103	5570.601	2965.798	11.088
200	5582.937	2964.277	11.046
201	5587.115	2965.826	11.025
202	5587.528	2964.711	10.993
203	5583.350	2963.163	11.009



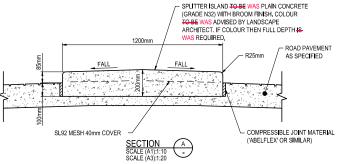
PROPOSED STAGE BOUNDARY PROPOSED STORMWATER DRAINAGE PROPOSED WATER RETICULATION FUTURE SEWERAGE RETICULATION FUTURE WATER RETICULATION

EXISTING STORMWATER DRAINAGE

PROPOSED MOUNTABLE KERB & CHANNEL TYPE M3 PROPOSED BARRIER KERB ONLY TYPE B1 DESIGN SURFACE CONTOUR (0.1m INTERVALS)

STAMPED ASPHALT THRESHOLD TREATMENT.

LEGEND

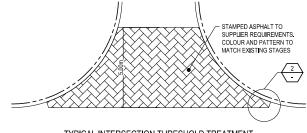


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AS CONSTRUCTED DETAILS
I CERTIFY ON BEHALF OF CALIBRE
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DETAILS SHOWN ON THIS PLAN ARE A TRUE
AND ACCURATE RECORD OF THE WORKS. 

DANIEL CULLINS RPEQ 18631

B



### TYPICAL INTERSECTION THRESHOLD TREATMENT

SCALE 1:100 (A1) SCALE 1:200 (A3)

* The original issue or last amendment of this drawing contained the original signature.	<u> </u>
(* The original issue or last amendment of this drawing contained the original signature ).	
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EVISION	DATE	ISSUE DETAILS	DRAWN	DESIGN	DRAWN CHECK	STATUS	90
A	14,01,20	ISSUED FOR CONSTRUCTION	CH	CR		AS CONSTRUCTED	
В	06.05.20	AS CONSTRUCTED	EG	CR		7.0 00.110111.00125	
						APPROVED	
						DANIEL COLLINS RPEQ 18631	
						(*DANIÉL COLLINS) /B\	
						EOD & ON BEHALF OF CALIBRE CONSULTING (OLD) DTY LTD.	



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### **RIVERBANK ESTATE** STAGE 19A

UW REF No. 2017011039s19A
WING TITLE
INTERSECTIONS
DETAILS PLAN

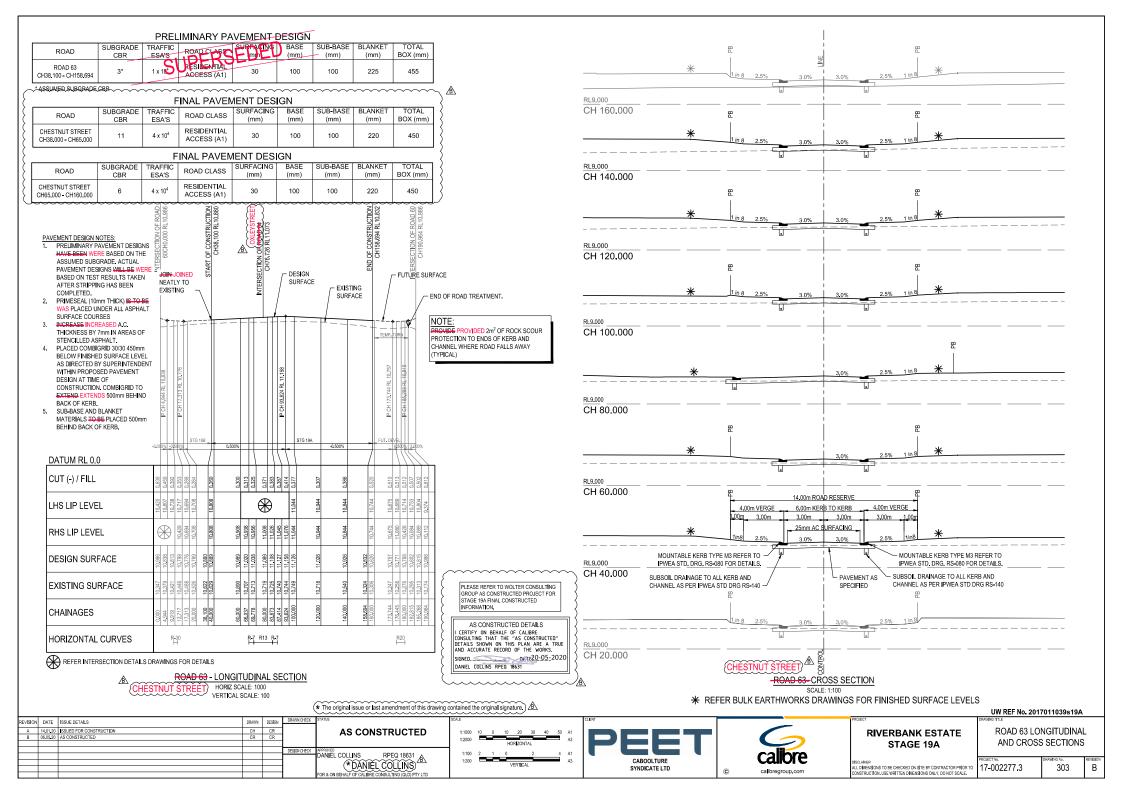
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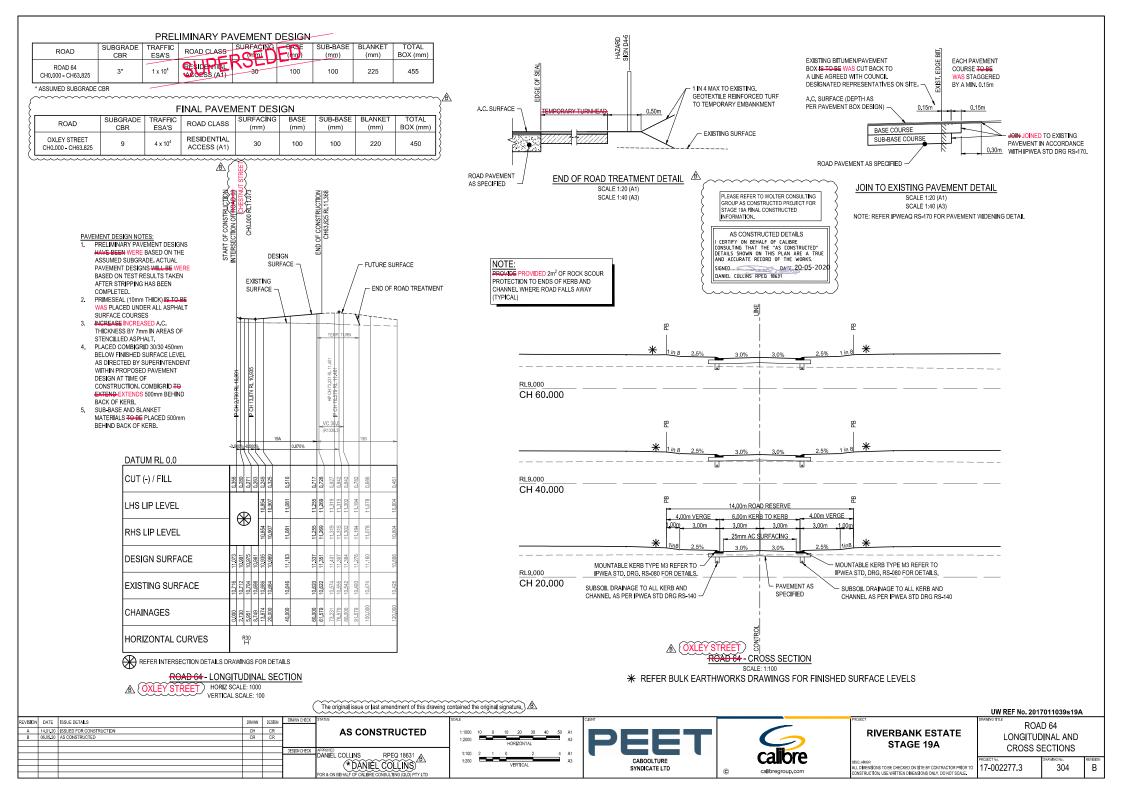
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ONSTRUCTION, USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

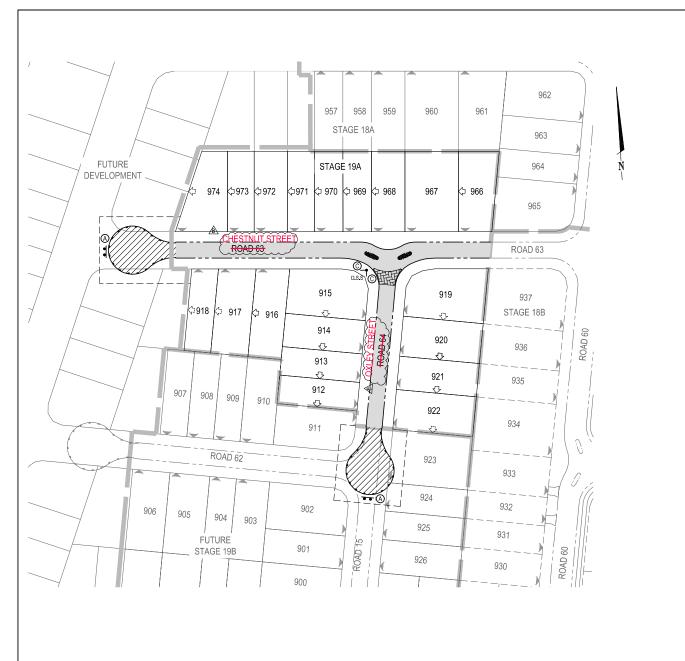
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### SIGN LEGEND

s.s

SINGLE STREET NAME SIGN

DSS

DOUBLE STREET NAME SIGN

Å

ROAD SIGN WITH SIGN IDENTIFIER

### SIGNS LEGEND



A



NO THROUGH

©

- 1. ALL LINEMARKING AND SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 2. ALL EXISTING SIGNS AND LINEMARKING TO REMAIN U.N.O.
- 3. NOSES OF ALL ISLANDS CHALL BE PAINTED WITH WHITE RETROREFLECTIVE PAINT

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED INFORMATION

AS CONSTRUCTED DETAILS AS CONSTRUCTED DETAILS

I CERTIFY ON BEHALF OF CALIBRE
CONSULTING THAT THE "AS CONSTRUCTED"
DETAILS SHOWN ON THIS PLAN ARE A TRUE
AND ACCURATE RECORD OF THE WORKS. DANIEL COLLINS RPEQ 18631

UW REF No. 2017011039s19A

**RIVERBANK ESTATE** 

SIGNS AND LINEMARKING LAYOUT PLAN

REVISION B

305

STAGE 19A DISCIAINER

ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION, USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

17-002277.3

**AS CONSTRUCTED** \*DANIEL COLLINS DANIEL COLLINS

DRAWN DESIGN

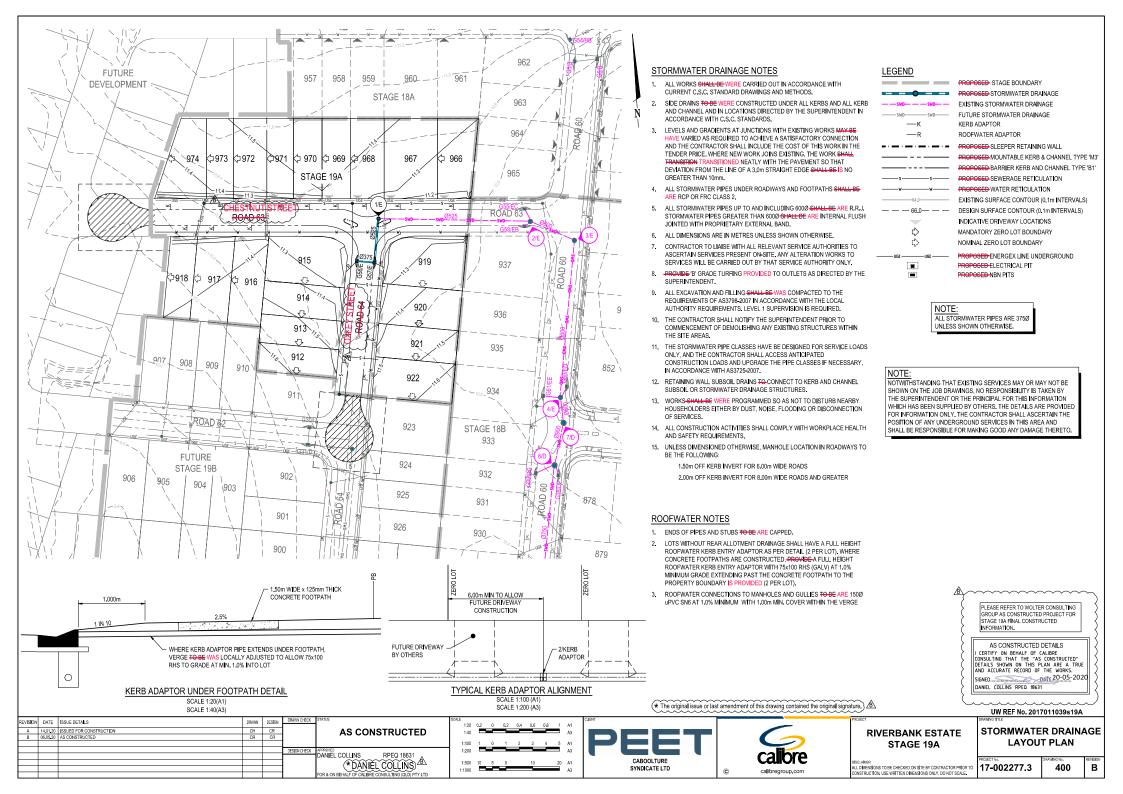
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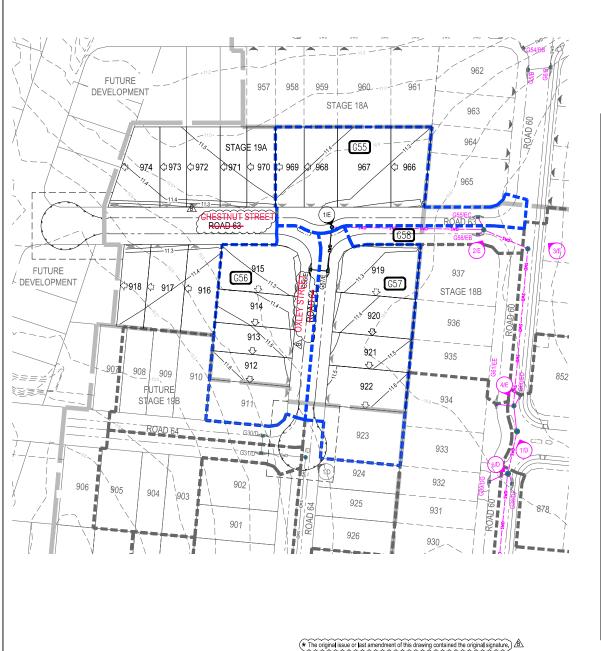


(\* The original issue or last amendment of this drawing contained the original signature.)









DRAWN DESIGN

**AS CONSTRUCTED** 

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DANIEL COLLINS

REVISION DATE ISSUE DETAILS



CATCHMENT NAME

FUTURE CATCHMENT BOUNDARY

FUTURE STORMWATER DRAINAGE EXISTING STORMWATER DRAINAGE

EXISTING SURFACE CONTOUR (0.2m INTERVALS) DESIGN SURFACE CONTOUR (0.1m INTERVALS)

PROPOSED MOUNTABLE KERB & CHANNEL TYPE M3 PROPOSED BARRIER KERB & CHANNEL TYPE B1

### CONSTRUCTION EQUIPMENT LOADING TYPICAL DETAILS

00110	11100	11011	LQUII	IVILINI	LOAD	1101	11 10/	L DL	17 (120		
CONSTRUCTION	PIPE			MINIM	UM CON	MPACT <b>I</b> C	ON COVE	ER TO P	IPE OBVI	ERT	
EQUIPMENT	CLASS	Ø300	Ø375	Ø450	Ø525	Ø600	Ø675	Ø750	Ø825	Ø900	Ø1050
VIBRATORY RAMMER	2	0.450	0.450	0.400	0.400	0.350	0.350	0.300	0.300	0.250	0.250
(UP TO 75kg)	3	0.300	0.300	0.300	0.300	0.250	0.250	0.200	0.200	0.200	0.200
VIBRATORY TRENCH	2	0.400	0.400	0.400	0.350	0.250	0.250	0.200	0.200	0.200	0.200
ROLLER (UP TO 2t)	3	0.250	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH	2	0.700	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.400	0.400
DRUM ROLLER (7†)	3	0.450	0.450	0.450	0.450	0.350	0.350	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH	2	0.850	0.850	0.850	0.800	0.800	0.800	0.750	0.750	0.750	0.750
DRUM ROLLER (10t)	3	0.550	0.550	0.550	0.500	0.500	0.500	0.200	0.200	0.200	0.200
EXCAVATOR AND COMPACTION WHEEL	2	0.650	0.700	0.650	0.650	0.650	0.650	0.600	0.600	0.550	0.550
(15t)	3	0.450	0.450	0.450	0.450	0.450	0.450	0.350	0.350	0.250	0.250
EXCAVATOR AND COMPACTION WHEEL	2	1.000	1.050	1.000	0.950	0.900	0.900	0.850	0.850	0.750	0.750
(25t)	3	0.650	0.650	0.650	0.650	0.650	0.650	0.600	0.600	0.500	0.500
GRADER (CAT120H)	2	0.600	0.600	0.600	0.450	0.200	0.200	0.200	0.200	0.200	0.200
(14.5t)	3	0.600	0.600	0.450	0.450	0.200	0.200	0.200	0.200	0.200	0.200
GRADER (CAT140H)	2	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
(17.0t)	3	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
SCRAPER (CAT613C11)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
(27.2t)	3	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
SCRAPER (CAT621F)	2	0.700	0.700	0.700	0.650	0.650	0.600	0.600	0.600	0.600	0.600
(53.8t)	3	0.650	0.650	0.650	0.600	0.600	0.600	0.600	0.600	0.600	0.600
DOZER (CATD7 G)	2	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
DOZEN (CATOT G)	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
DOZER (CATD9 R)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200
DOZEN (CATOS N)	3	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
EXCAVATOR (CAT	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
315B) (15.8t)	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT317)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
(17.3t)	3	0.200	0.200	0.200	0.200	0,200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
(CAT325B) (25.9t)	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200

	CATCHN	MENT TABLE
	CATCHMENT NAME	CATCHMENT AREA (Ha)
	G56	0.256
	G57	0.297
Ī	G58	0.049
Ī	G55	0.244

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED INFORMATION.

> AS CONSTRUCTED DETAILS
> I CERTIFY ON BEHALF OF CALIBRE
> CONSULTING THAT THE "AS CONSTRUCTED"
> DETAILS SHOWN ON THIS PLAN ARE A TRUE
> AND ACCURATE RECORD OF THE WORKS. SIGNED.... DATE20-05-2020 DANIEL COLLINS RPEG 18631

UW REF No. 2017011039s19A

STORMWATER DRAINAGE CATCHMENT PLAN

DISCIDULER

ALL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO CONSTRUCTION, USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

**RIVERBANK ESTATE** STAGE 19A

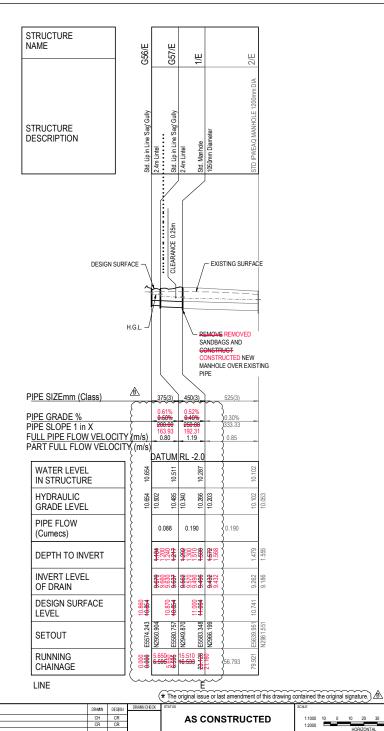
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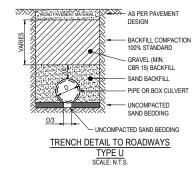
calibre calibregroup.com

CABOOLTURE SYNDICATE LTD



EVISION DATE ISSUE DETAILS

06.05.20 AS CONSTRUCTED



### TRENCH NOTES:

- 1. TYPICAL TYPE U TRENCH TO CABOOLTURE SHIRE COUNCIL STANDARD DRAWING 01-83.
- 2. ALL WORKS CHALL BE WERE CONSTRUCTED IN ACCORDANCE WITH MAIN ROADS SPECIFICATIONS FOR ROADWORKS WITH THE EXCEPTION OF ASPHALT SURFACING FOR ACCESS AND COLLECTOR ROADS WHICH SHALL BE ARE IN ACCORDANCE WITH BRISBANE CITY COUNCIL SPECIFICATIONS 5310 (SUPPLY OF DENSE GRADED ASPHALT) AND 5320 (LAYING OF

NOTE: WHERE DISCREPANCY OCCURS BETWEEN THE DESIGN AND DEVELOPMENT MANUAL AND THE ABOVE SPECIFICATIONS, THE PROVISIONS OF THE DESIGN MANUAL SHALL APPLY.

CV = CHARACTERISTICS VALUE DOS = DEGREE OF SATURATION FOR BASE (FINAL) LAYER

NOTWITHSTANDING THE STORMWATER STRUCTURE LEVELS SHOWN, THE COVER OR GRATE LEVEL SHALL SUIT SUITED THE FINISHED SURFACE PROFILE. THE PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS ANTICIPATED LOADS AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS 3725-1989. CRACKED PIPES WILL NOT BE WERE NOT ACCEPTED. REFER CONSTRUCTION EQUIPMENT LOADING TABLE ON DRG 17-002277.3-401

### REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

<u>.</u>	JRAINAGE	SIRUCIUR	<u>KES</u>
STRUCTURE TYPE		TAL CONTROL POINT LOCATION)	VERTICAL CONTROL (REFERENCE LEVEL)
MANHOLE	REF	€ OF MAIN SHAFT	FINISHED SURFACE LEVEL
GULLY PIT	REF	CENTRE OF STRUCTURE	KERB LIP LEVEL
HEADWALL	REF	INTERSECTION OF HEADWALL FACE AND PIPE &	TOP OF HEADWALL

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED

AS CONSTRUCTED DETAILS
I CERTIFY ON BEHALF OF CALIBRE
CONSULTING THAT THE "AS CONSTRUCTED"
DETAILS SHOWN ON THIS PLAN ARE A TRUE
AND ACCURATE RECORD OF THE WORKS. BA E 20-05-2020 SIGNED DANIEL COLLINS RPEQ 18631

UW REF No. 2017011039s19A

STORMWATER DRAINAGE LONGITUDINAL SECTIONS

STAGE 19A

RIVERBANK ESTATE

ISCLAIMER

LL DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO
ONSTRUCTION. USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE.

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RPEQ 18631 \*DANIEL COLLINS





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L.,		LOCATION	٧			TIME		UB-CAT						, I	NLET DES								IN DESI								ADLOSS					PART FU			1	DES <b>I</b> GN L	EVELS.		
$\vdash$				-	$\vdash$	tc	I C	10 C	) A	C*A	+CA	Q		-	+	Qg	g Qb		tc	1 +	CA Qt	Qm	Qs	Qp	L S	-	V	Т		V2/2g	Ku	hu KI hi	I K	w hw	Sf	hf	Vp		_	_	_		
∌ DESIGN ARI	STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	LAND USE		SUB-CATCHMENT TIME OF CONC.		CÓ-EFFICIENT CO-EFFICIENT	OF RUNOFF	EQUIVALENT AREA	- 1	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	% AT INLET  MINOR FLOW	ROAD CAPACITY	FLOW	BYPASS FLOW     BYPAS			RAINFALL	© TOTAL (C*A)  S MAJOR TOTAL FLOW	MAJOR SURFACE			REACH LENGTH		FLOW VELOCITY FULL  (PIPE GRADE VELOCITY)	TIME OF FLOW IN REACH	STRUCTURE CHARTING. STRUCTURE RATIOS FOR YV VALUE CALCULATIONS	⇒ VELOCITY HEAD		US PIPE SI RUCI.  HEADLOSS LAT HEADLOSS CO-EFFICIENT LAT. PIPE STRUCT.	⇒ HEADLOSS W.S.E		PIPE FRICTION SLOPE		» ∨ELOCITY	∋ OBVERT LEVELS	⇒ DRAIN SECTION H.G.L		3 W.S.E.	SURFACE OR K&C	
10 100	2/D	2/D to 3/D	G30;G31;G3;	;G33	76		111/11		Ild	i lia	IId	VS	1/5	76 US	15	1/5	l's		_		607 42: 1723				13.876 0.2 atten flows)				Qo 0,241 Do 450 Filow 1/D made eqv grate flow	0,116		0.162 G32/DA and 1	1.	40 0,163		0.099	III/S			10,382	10.38		
		1000																	14.60		1160		1 50 100		outer a de la company		(1867)		Routine 2.14 Equiv delhr 19 CHART 49 High vel lat GSSDB DW 575 CH 600 CO.35 DW 515 CH 600 CD.35 DW 515 CH			Velt 0.48 Velter	#2 1.003 ngle 206 F Equiv deflr qv G32/DA 0.165 inv/D0 1.1 H 2.22 333/DB 0.76 DIWD 0.023 H-L H-L-0.2 = es in line c 8.1/D and s 12.0.690 ngle 174 F a/D0 1.38 a 1.79 WSE ( 97	& 1/D 0 0.83 1.99 1.79 ase 533.DB 0w.Q.241 pha.D	Kw 1.35				100-10-1				
10 100	G35/DC	G35/DC to G34/DC	G35			10,00 10,00	164 0 243 0	,84 0,84 .84 1,0	34 0,18 00 0,18	84 0,15 84 0,18	6 0,155 4 0,184	FLOV	71 V WIDTH/IDEI	PTH 2,298W	23 1 /d m	66	5	G37/DE	10,00 10,00	164 0 243 0	1,155 12 1,184	2596	58 (Pip	66 flow= Grate	9,071 0,5 flow)	54 300(	0,93 (1.00)	0,15	Qg 0,066 Qo 0,066 Do 300 CHRT 32: Vo2/2gDo 0,15 H/Do 1,18 Kg side flow 4,24 end flow 3,49	0,044	4,24			0,187		0,042		9,975 9,926	10,328 10,286	10,515	10,51	15 10,825	G35/DC
10 100	G34/DC	G34/DC to 3/D	G35;G34			8,00 8,00	179 0 265 0	.84 0.84 .84 1.0	34 0,10 00 0.10	09 0,09 09 0.10	2 0,092 9 0,109	46 80 FLOV	46 V W <b>I</b> DTH/DE		23 1	46	0	G33/DB	10,15 10.15	163 0 242 0	,247 19 1.293	7 2596	89 (Pipe flow	107 Sum upstr	18,285 Q. atten flows)	42 375(	0,97 (1.03)	0,30	Og 0.042 Qo 0.107 Do 375 Angle 85 Chart 47 S/Do 2.5 charting DwDo 0.80 K0 2.14 K0.5 2.31 Qu Qo 0.61 Cg 0.33 K 2.28 S/Do 2.5 K0 2.14 K0.5 2.31 K 2.28 S/Do 2.5 K0 2.14 K0.5 2.40 K 2.41	0,048	2,01	0.096 Interp val for S CHART 46 S/Do 2.5 K0 1 S/Do 2.0 K0 1 Interp val for S	S/Do 2.01 I I.63 K0.5 2 I.93 K0.5 2	02 K 1.96 03 K 2.01	0,38	0,069		9,926 9,849	10,190 10,121	10,286	10,30	05 10,810	G34/DC
10 100	3/D	3/D to 4/D	G30;G31;G32 35;G34	G33;G											16				14.35 14.35	141 0 210 1	.854 591 1,016	3 2596	261 (Pipe flow	332 Sum upstr	58,878 (L4 atten flows)		2 0,73 (1,61)		Co 0.332 Do 750 Routine 2,6 Combined pipes @ 90 deg deffn Join Pipes: 2/D and G34/DC Vel 1,504 Vel2 0.842	0,027	1,26	0,034 Eq Dia 566 Ar CHART 50 Du K'w 0,30 Vu 1. Ku 1,57 Kw 2. Interpolated K	ngle 245 F u/Do0,75 a .32 W/SE 0 .55	.07	0.08	0,048		9,849 9,613	10,087 10,039	10,121	10,12	26 10,769	3/D
10 100	G56/E	G56/E to G57/E	G56			13.00 13.00	147 0 219 0	.84 0.84 .84 1.0	34 0.25 00 0.25	56 0.21 56 0.25	5 0.215 6 0.256	88 156 FLOV	88 V WIDTH/DE	0.00 1 PTH 2.158W	50 7S0 /d m	.1 88	0	G57/E	13.00 13.00	147 0 219 0	1,215 15 1,256	3 292	68 (Pip	88 flow= Grate	6.595 0.1 flow)	50 375(	0.80 (1.12)	0,11	Og 0.088 Qc 0.088 Dc 375 CHRT 32: Vo2/2gDc 0.09 H/Dc 1.64 Kg side flow 3.86 end flow 3.21	0.033	3,86	0,126	3.	36 0,126	0,25	0.017		9.937 9.904	10.552 10.535	10,678	10,67	78 10,854	G56/E
10 100	G57/E	G57/E to 1/E	G56;G57			13.00 13.00	147 0 219 0	.84 0.8 .84 1.0	34 0.29 00 0.29	97 0.24 97 0.29	9 0.249 7 0.297	102 181 FLOV	102 V WIDTH/IDE	0.00 1 PTH 2.486W	50 750 fd m	.1 102	2 0	G58/EB	13.11 13.11	147 0 218 0	.464 33: 1.553	5 292	145 (Pipe flow	190 Sum upstr	16.533 (La atten flows)	40 450(	(1,13)	0.23	Qg 0.102 Qo 0.190 Do 450 Angle 90 Chert 47 8/Do 2,5 chertdeg Du/Do 0.83 KO 2.07 Kb/5.2,50 Qu/Qo 0.46 Cg 1,04 K 2,31 S/Do 2,5 KO 2,07 Kb/5.2,30 K 2,31 S/Do 2,5 KO 2,48 Kb/5.2,40 K 2,40	0.072	2.02	0.145 Interp val for S CHART 46 S/Do 2,5 K0 1 S/Do 2,0 K0 1 Interp val for S	S/Do 2.45 I 67 K0.5 2 1.97 K0.5 2	01 K 2.02 02 K 2.02	0.44	0.074		9.904 9.838	10.390 10.316	10.535	10.55	57 10.854	G57/E
10 100	1/E	1/E to 2/E	G56;G57												15				13.34 13.34	146 0 216 0	464 33: 1553	2252	142 (Pipe flow	190 Sum upstr	56.793 0.2 atten flows)	30 525(	0.85 (1.10)	0.95	Oo 0.190 Do 525 CHART 50 Du/Do0,86 alpha 86 KW 0,30 Vu 1.19 WSE 0,08 Ku 1.69 Kw 2,28	0.037	1,69			28 0.084	0.18	0.101		9.838 9.668	10.253 10.152	10.316	10.33	37 11,004	1/E
10 100	G7/AC	G7/AC to 2/A	G7			13.00 13.00	147 0 219 0	.84 0.8- .84 1.0	34 0.23 00 0.23	21 0.18 21 0.22	6 0,186 1 0,221	FLOW	89 V WIDTH/DEI DOWNSTRE/	0.50 2 PTH 2.538W AM 0.811m		80	9	G8/AF	13,00 13,00	147 0 219 0	l.186 13 l.221	2630	54 (Pip	80 flow= Grate	6,903 1, flow)	00 300(	1.13 (1.37)	0.10	Qg 0.080 Qo 0.080 Do 300 CHRT 32: Vo2/2gDo 0.22 H/Do 1.76 Kg side flow 3.15 end flow 2.81	0.065	3,15	0.205	3.	15 0.205	0,69	0.047		9,242 9,173	9.769 9.722	9.974	9,974	4 10.160	G7/AC
10 100	2/A	2/A to 3/A	G1;G2;G4:G3; G54;G7	G6;G6;		Æ}	PLE	EASE REF	ER TO V	WOLTER	CONSUL	TING	3		15				15.08 15.08	138 1 205 1	.483 100 .765	5 2630	455 (Pipe flow	550 Sum upstr	30,562 0.3 atten flows)	50 750(:	2 1.21 (1.80)	0.42	Qo 0.550 Do 750 Routine 2.1 CHART 33 DuIDo 1.0 Qui Qo 0.86 Kw=Ku= 0.57 Combined pipes in line case Join Pipes: 1/A and GT/AC	0,075	0.56	0.042 Vel1 1.076 Ve Eq Dia 807 Ar CHART 50 Du KW 0.05 Vu 1. Ku 0.56 KW 0. Interpolated K	d2 1 062 ngle 184 F a/Do1 08 a .08 W/SE 0 .60	.04	0.22	0.069		9.173 9.020	9,680 9,611	9.722	9.723	3 10,215	5 2/A
10 100	3/A	3/A to 4/A	1/C;2/C;G1;G/ 3;G5;G6;G5	;G4;G ;G7			I CER CONSU DETAI AND	AGE 19A F ORMATIO AS CON TIFY ON ILTING TH LS SHOW ACCURATE	NSTRUC BEHALF HAT TH IN ON TE RECOR	CTED D OF CA	ETAILS LIBRE CONSTRU AN ARE THE WOR	CTED"	III / I		17				15,58 15,58	136 1 202 2	,888 126 ,252	4 2630	568 (Pipe flow	695 = Sum upstr	53,543 0,3 atten flows)	50 825(:	2 1,26 (1,92)	0,71	On 0,895 Dn 825 Have 2C Pomiles every grise flow Angle 8C Chart 47 5/00 2.2 chartning Durb 0,847 (6,017 KM 52.23 Gut 0,6 17 6,025 K.21 KY.243 SD 1,6 17 6,025 K.21 KY.243 SD 1,6 17 6,025 K.21 KY.243 SD 1,6 17 6,025 K.25 KY.245 SD 1,6 17 6,026 KY.25 KY.2	0,081	1,25	0.101 Routine 2.2 Combined pip Join Pipes: 2/A and 2/C Velf 1.384 Ve Eq Dia 357 Ar CHART 30 Di Kw 0.03 Kw 0. Interpolated K K vals step pip Averaged Ku:	nes in line of 12 1 228 ngle 113 F a 100 1.01 a 26 WSE 0	ow 0,695 pha D .03	0,22	0.116		9,051 8,783	9,510 9,394	9,611	9,611	6 10,062	2 3/A
10 100	1/AE	1/AE 10 2/AE					٦		Ţ.,		1	1			15				8,00 8,00	179 0 265 0	1,000 30 1,041	2252	30 Addition (Pipe flow	30 al flow: 0.030 Sum upstr	18,431 1, 0 cumecs atten flows)	00 225(i	J 0,66 (1.40)	0,31	Qo 0.030 Do 225 CHRT 32: Vo2/2gDo 0.09 H/Do 2.27 Kg side flow 3.05 end flow 2.71	0,022	3,05	0,067	3.	0,067	0,22	0.041		9,124 8,939	9,672 9,631	9,739	9,739	9 9,819	1/AE
10 180	2/AE	2/AE to 5/A	2/AE			8,00 8,00	179 0 265 0	.84 0.84 .84 1.0	34 0,18 00 0,18	57 0.13 57 0.15	2 0,132 7 0,157	66 116 FLOV	66 V WIDTHVIDEI	0.50 7 PTH 2.963W	78 13S	0,1 66	0	G11/AH	8,31 8,31	177 0 262 0	1,132 11	1 2252	49 Addition (Pipe flow	65 Il flow: -0,03 Sum upstr	6,220 1, 0 cumecs atten flows)	00 225(	J 1,42 (1,40)	0,07	Qg 0,065 Qo 0,065 Do 225 CHART 34 Angle 30 Case 3 S/Do 2.5 Dw/Do 1,00 Qg/Qo 1,01 K 2,81 S/Do 3,94 cor-0,49 Ku 2,32 Kw 2,32	0,103	2,32	0,239	2.	32 0,239	1,03	0,064		8,919 8,857	9,392 9,328	9,631	9,63	1 9,728	2/AE

\* The original issue or last amendment of this drawing contained the original signature.

DRAWN DESIGN D CH CR CR CR AS CONSTRUCTED DESIGN CHECK APPROVED DANIEL COLLINS RPEQ 18631

\* DANIEL COLLINS

FOR & ON BEHALF OF CALIBRE CONSULTING (QLD) PTY LTD





**RIVERBANK ESTATE** STAGE 19A

STORMWATER DRAINAGE **CALCULATIONS SHEET** 

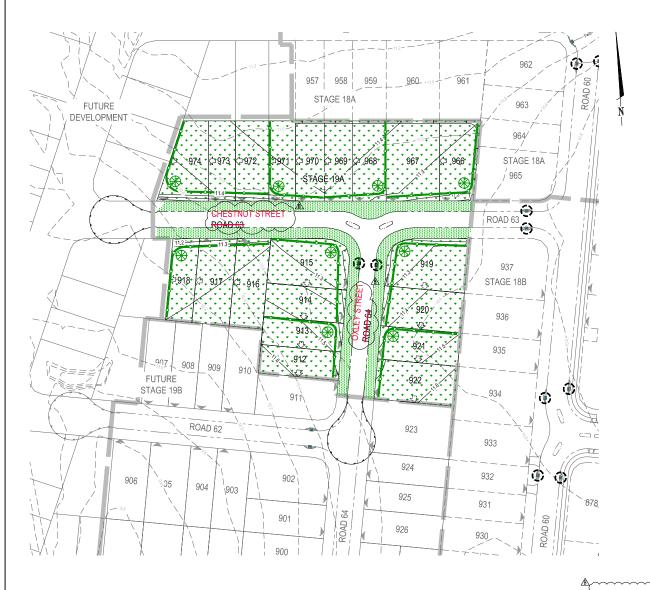
UW REF No. 2017011039s19A

DISCLAIMER
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REVISION B



PROVIDE PROVIDED 'SPILL THROUGH WEIR' IN SEDIMENT FENCE. 'SPILL THROUGH WEIR' TO BE WAS GENERALLY IN ACCORDANCE WITH SILT. FENCE DETAIL WITH GEOTEXTILE FABRIC TO BE WAS WRAPPED AROUND STAR PICKET PLACED. HORIZONTALLY APPROX. 400mm ABOVE FINISHED SURFACE

REFER DRG No. 801 FOR NOTES & DETAILS PROVIDE PROVIDED TEMPORARY APPROVED CHILD RESISTANT FENCE AROUND PERIMETER OF TEMPORARY SEDIMENT BASINS/TRENCHES TO MANUFACTURER'S SPECIFICATION.

OSION & SEDIMENT CONTROL PLAN IS A CONCEPT PLAN ATING AN APPROACH TO EROSION & SEDIMENTATION ONTROL FOR THE SITE. IT IS THE CONTRACTORS ESPONSIBILITY TO PROVIDE AN EROSION & SEDIMENT ONTROL DESIGN AND A COMPLETED DESIGN CERTIFICATE PRIOR TO COMMENCEMENT OF WORK, CERTIFICATION MUST BE JNDERTAKEN BY A SUITABLY QUALIFIED, EXPERIE

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED

AS CONSTRUCTED DETAILS AS CONSTRUCTED DETAILS
I CERTIFY ON BEHALF OF CALIBRE
CONSULTING THAT THE "AS CONSTRUCTED"
DETAILS SHOWN ON THIS PLAN ARE A TRUE
AND ACCURATE RECORD OF THE WORKS.  **LEGEND** 



TUREING/LANDSCAPING VERGE IN ACCORDANCE WITH LANDSCAPE PLAN

STABILISED SURFACE (HYDROMULCH, MULCH OR SEED TO ALLOTMENTS

POSED BIO-RETENTION TO BE USED AS TEMPORARY SEDIMENT TRENCH

GULLET INLET PROTECTION

### **EROSION AND SEDIMENT CONTROL NOTES:**

- THE CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS TO CONTROL AND MINIMISE EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
- NOTWITHSTANDING THE DESIGN SHOWN ON THE DRAWINGS, THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT SEDIMENT CONTROL DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY OF SEDIMENT LEAVING THE SITE.
- SOME VARIATIONS TO THE SPECIFIED CONSTRUCTION SEQUENCE MAY BE NECESSARY IN CERTAIN AREAS TO FACILITATE CONSTRUCTION. WHERE THIS IS THE CASE, ANY VARIATION MUST BE APPROVED BY THE SUPERINTENDENT PRIOR TO IMPLEMENTATION.
- AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION GULLY INLETS.
- CLEARING OF SITE AND STOCKPILE SITE TO BE WAS DETERMINED ON SITE BY SUPERINTENDENT AND IS TO BE WAS CLEAR OF ANY WATER COURSE.
- WHERE POSSIBLE PROVIDE PROVIDED CUT-OFF DRAINS TO DIVERT CLEAN WATER FROM UNDISTURBED CATCHMENT.
- ALL PERIMETER BANKS/SWALES SHALL HAVE HAD UNINTERRUPTED POSITIVE GRADE TO AN
- CONSTRUCT CONSTRUCTED WASH DOWN BAY OR SHAKE DOWN AT ENTRY/EXIT TO COUNCIL STANDARDS AND TO THE SATISFACTION OF COUNCIL'S LICENSING AND COMPLIANCE
- INLETS TO HAVE HAD SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS DIRECTED BY THE SUPERINTENDENT.
- THE EXTENT OF GRASSING OR HYDROMULCHING BE WAS DETERMINED BY THE ENGINEER AND SHALL BE WAS SEEDED, AS SPECIFIED, WITHIN SEVEN DAYS OF FINAL TRIMMING.
- THE CONTRACTOR SHALL BE WAS RESPONSIBLE FOR COMPLYING WITH COUNCIL'S REQUIREMENTS IN RELATION TO GRASS STRIKE AND GRASS COVERAGE RATES AT THE ON AND OFF MAINTENANCE INSPECTIONS.
- PROVIDE PROVIDED TURF STRIPS OVER SEWER/ROOFWATER LINES WHERE ADJACENT TO EXISTING PROPERTIES.
- ALL SEDIMENT FENCES TO BE WERE INSTALLED TO THE SATISFACTION OF COUNCIL'S LICENSING AND COMPLIANCE OFFICER.
- ALL OPEN ENDED PIPEWORK LOCATED IN OPEN TRENCHES AND INCOMPLETE PITS ARE TO **BE WERE** CAPPED WITH SUITABLE FILTER CLOTH AT THE END OF EACH DAY'S WORK AND IMMEDIATELY PRIOR TO STORMS
- ALL MATERIALS TRACKED OR SEDIMENT WASHED ONTO COUNCIL'S ROAD FROM THE DEVELOPMENT ARE TO BE WERE BROOMED UP AND COLLECTED.
  ALL SEDIMENT CONTROL DEVICES SHALLE BE WERE MONITORED, CLEANED AND/OR REPAIRED WHENEVER THE CAPACITY OF THE EROSION AND SEDIMENT CONTROL MEASURE FALLS FELL BELOW 75%.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE WERE INSPECTED AT LEAST DAILY (WHEN WORK IS OCCURRING OCCURRED ON SITE) OR WEEKLY (WHEN WORK IS NOT 17. OCCURRING DID NOT OCCUR ON SITE). WITHIN 24 HOURS OF EXPECTED RAIN AND WITHIN 18 HOURS OF A RAINFALL EVENT AS REQUIRED TO MAINTAIN CONTROL DEVICES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL (ESC) MEASURES ARE TO BE WERE MAINTAINED AND FULLY OPERATIONAL DURING THE MAINTENANCE PERIOD, AND ARE TO BE WERE REMOVED AFTER THE SATISFACTORY COMPLETION OF AN 'OFF MAINTENANCE' INSPECTION AND PRIOR TO FORMAL ACCEPTANCE BY COUNCIL.
- NO OBSTRUCTIONS SHALL BE WERE PLACED ON COUNCIL'S PUBLIC ROADS OR GULLY PITS FOR SAFETY REASONS.

\* The original issue or last amendment of this drawing contained the original signature.

REVISION DATE ISSUEDETAILS DRAWN DESIGN 14,01,20 ISSUED FOR CONSTRUCTION AS CONSTRUCTED ANIFI COLLINS RPFQ 18631 \*DANIEL COLLINS A





**RIVERBANK ESTATE** 

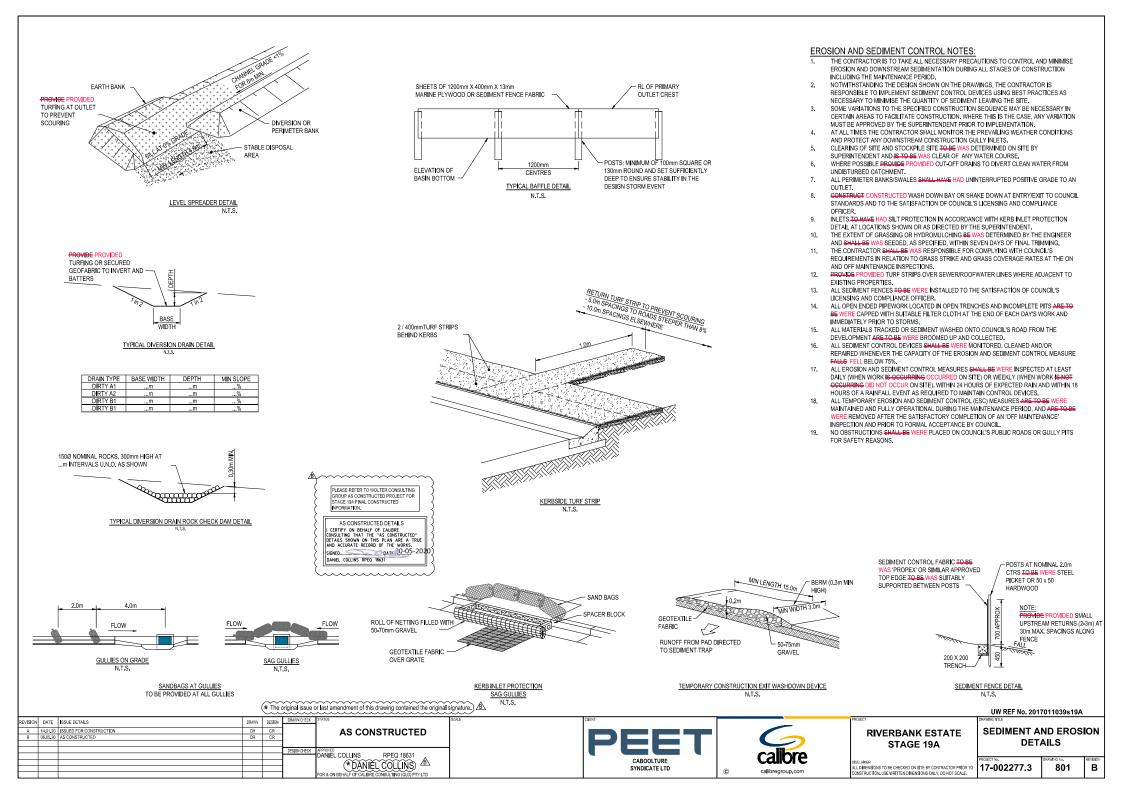
SEDIMENT AND EROSION LAYOUT PLAN STAGE 19A

L DIMENSIONS TO BE CHECKED ON SITE BY CONTRACTOR PRIOR TO INSTRUCTION, USE WRITTEN DIMENSIONS ONLY, DO NOT SCALE,

17-002277.3

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UW REF No. 2017011039s19A



# RIVERBANK ESTATE

LOT 1008 MARKET DRIVE CABOOLTURE SOUTH STAGE 19A

FOR PEET CABOOLTURE SYNDICATE LTD



**MORETON BAY** REGIONAL COUNCIL

AREA OF SITE: 1.12ha

### LOT INFORMATION

**EXISTING LOTS** LOT 1007 SP295486 LOT 1008 SP295486 PROPOSED NO. OF LOTS: 20

> PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED AS CONSTRUCTED DETAILS CERTIFY ON BEHALF OF CALIBRE CONSULTING THAT THE "AS CONSTRUCTED" DETAILS SHOWN ON THIS PLAN ARE A TRUE AND ACCURATE RECORD OF THE WORKS,



DRAWING INDEX

DRAWING NO. DRAWING TITLE

COVER SHEET, LOCALITY PLAN AND DRAWING INDEX

BULK EARTHWORKS

BULK EARTHWORKS LAYOUT PLAN 200

BULK EARTHWORKS SECTIONS 202 COMPENSATORY EARTHWORKS LAYOUT PLAN

ROADWORKS

SURVEY SETOUT LAYOUT PLAN & TABLES

ROADWORKS LAYOUT PLAN INTERSECTIONS DETAILS PLAN 302 <u>∕B</u>

ROAD 63 LONGITUDINAL AND CROSS SECTIONS POAD 64 ONGITUDINAL AND CROSS SECTIONS SIGNS AND LINEMARKING LAYOUT PLAN

DRAINAGE

400 STORMWATER DRAINAGE LAYOUT PLAN 401 STORMWATER DRAINAGE CATCHMENT PLAN 402 STORMWATER DRAINAGE LONGITUDINAL SECTIONS

STORMWATER DRAINAGE CALCULATIONS SHEET 403

SEWER RETICULATION

SEWER RETICULATION COVER SHEET 500 SEWER RETICULATION LAYOUT PLAN 501 502 SEWER RETICULATION LONGITUDINAL SECTIONS

WATER RETICULATION

600 WATER RETICULATION COVER SHEET WATER RETICULATION LAYOUT PLAN

FROSION AND SEDIMENT PLAN

800 SEDIMENT AND EROSION LAYOUT PLAN SEDIMENT AND EROSION DETAILS

DATE 12-05-2020 DANIEL COLLINS RPEU 18631

### RIVERBANK ESTATE

STAGE 19A M.B.R.C. REF No. DA/34784/2017/V3RL 17-002277.3 19A 06.05.20 CONSTRUCTED

### CONSTRUCTION NOTE

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:

- .. SEDIMENT AND EROSION HAZARD ASSESSMENT (PREPARED BY SOIL SURVEYS)
- .. ACID SULPHATES SOILS REPORT (PREPARED BY SOIL SURVEYS)
- GEOTECHNICAL REPORT (PREPARED BY SOIL SURVEYS) VEGETATION MANAGEMENT PLAN (VMP) (PREPARED BY SAUNDERS HAVILL GROUP)
- ENVIRONMENTAL MANAGEMENT PLAN (EMP) (PREPARED BY SAUNDERS HAVILL GROUP)

### CONSTRUCTION HOLD POINT

ONCE THE BASE OF MANHOLES, INSPECTION PITS, GULLIES AND FIELD INLETS FOR STORMWATER DRAINAGE AND SEWER RETICULATION HAVE BEEN WERE POURED, FURTHER CONSTRUCTION SHALL DID NOT PROCEED UNTIL THE SUPERINTENDENT AND OR ENGINEER HAVE INSPECTED THE WORKS FOR FINISHED LEVELS AND APPROVED CONSTRUCTION TO

CONSTRUCTION HOLD POINT PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIEV VERIFIED LEVELS OF ALL EXISTING CROSSINGS AND CONNECTION POINTS



LIVE WORKS TABLE

DESCRIPTION

AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION UNITYWATER TO CARRY OUT WORKS ASSOCIATED

AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION UNITYWATER TO CARRY OUT WORKS ASSOCIATED

5.00m FROM EXISTING STUB, CONTRACTOR, TO LAY NEW RETICULATION SEWERS. AFTER

WITH PROPOSED LIVE CONNECTIONS AND CONNECTION TO EXISTING DN160 STUB.

CLEANSING, TESTING AND INSPECTION, NOTIFY UNITYWATER

WITH PROPOSED LIVE CONNECTION FOR LOT 966.

NO.

1(A)

1(C)

EVISION DATE ISSUE DETAILS

NAME OF ESTATE		RIVERBANK ESTATE
SUBDIVIDER		PEET CABOOLTURE SYNDICATE
APPLICATION No.		2017011039s19A
SP DELEGATE APPROVAL DATE		**
DRAWING/PLAN No.		17-002277.3 - 500-502
No. OF LOTS		20
AREA IN Ha.		11,54ha
LENGTH	DN110	**
OF SEWERS	DN160	252,781

DATUM LEVEL P.S.M. 109474 RL 15 122 AHD LOT 1006 BERRY STREET CABOOLTURE SOUTH

CALIBRE CONSULTING (QLD) PTY LTD	
CONTACT	
DANIEL COLLINS	
TELEPHONE	
(07) 3895 3444	Ī

### SEWER RETICULATION NOTES

- ALL WORK AND MATERIALS SHALL BE WERE IN ACCORDANCE WITH FOLLOWING CURRENT SPECIFICATIONS AND STANDARDS (IN ORDER OF PRIORITY):
- SOUTH EAST QUEENSLAND SEWERAGE CODE (SEQ-SP's) - SEWERAGE CODE OF AUSTRALIA WSA02-2014 V3.1.
- UNLESS SPECIFIED OTHERWISE, ALL WORK AND MATERIALS SHALL COMPLY COMPLIED WITH THE RELEVANT AUSTRALIAN STANDARDS.
- THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING MUST HAVE HAD CONTRACT ADMINISTRATION UNDERTAKEN BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORK NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE WAS NOT PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.
- ALL WORK ON EXISTING SEWERS TO BE CARRIED OUT BY UNITYWATER AT THE DEVELOPERS EXPENSE, OR AS DIRECTED BY UNITYWATER.
- ALL PIPES AND MATERIALS SHALL COMPLY COMPLIED WITH THE REQUIREMENTS OF THE 'ACCEPTED PRODUCTS AND MATERIALS'LIST.
- EACH ALLOTMENT CHALL BE IS SERVED BY A DN110 PE (OR DN100 uPVC) PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 PE (OR DN150 uPVC) PROPERTY CONNECTION SHALL BE WAS PROVIDED. PROPERTY CONNECTIONS SHALL BE ARE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS.
- PROPERTY CONNECTION BRANCHES SHALL EXTEND EXTENDED INTO THE PROPERTY A MINIMUM OF 300mm (QUU, GCCC, LCC & RCC) OR 500mm (UNITY WATER) AND A MAXIMUM OF 750mm.
- WHERE PIPES ARE WERE LAID IN FILL, THE FILLING SHALL BE WAS CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (LOOSE) IN DEPTH AND SHALL BE WAS COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIAL'S MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH A.S. 1289 (MODIFIED COMPACTION). TESTING SHALL BE WAS CARRIED OUT AFTER EACH ALTERNATE LAYER, IN ALL SUCH CASES, APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE WAS NOT ISSUED BY SEQ SERVICE PROVIDER UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
- 10. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER, BULKHEADS SHALL BE WERE CONSTRUCTED IN ACCORDANCE WITH THE SEQ-SP's.
- 11. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS.
- 12. SEWER SHALL BE WAS DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN THE SEQ-SP's.
- 13. BENCH MARK MARKED AND LEVEL LEVELED TO AHD.

### **ENVIRONMENTAL MANAGEMENT APPROVAL NOTES**

VEGETATION PROTECTION

- TREES LOCATED ALONG FOOTPATH SHOULD BE WERE, WHERE POSSIBLE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
- WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHOULD BE WERE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES MUST BE WERE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN REMAINED TO COMPLETION.
- WHERE POSSIBLE, TREE ROOTS SHOULD BE WERE TUNNELLED UNDER, RATHER THAN SEVERED, IF ROOTS ARE WERE SEVERED, THE DAMAGED AREA SHOULD BE WAS TREATED WITH A SUITABLE FUNGICIDE, CONTACT CONTACTED COUNCIL ARBORIST FOR FURTHER ADVICE.
- ANY TREE LOPPING REQUIRED SHOULD BE WAS UNDERTAKEN BY AN APPROVED ARBORIST.

- TOPSOIL AND SUBSOIL SHOULD BE WAS STOCKPILED SEPARATELY.
- CARE SHOULD BE WAS TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE HAVE INVOLVED PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.

- SILTATION CONTROL MEASURES SHOULD BE WERE PLACED DOWNSTREAM OF ANY EXCAVATION
- APPROPRIATE SEDIMENT CONTROLS SHOULD BE WERE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
- NO SOIL SHOULD BE WAS STOCKPILED WITHIN 5m OF THE CREEK.

### REHABILITATION

- PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS ARE TO BE WERE REINSTATED.
- PREDISTURBANCE VEGETATION PATTERNS SHOULD BE WERE RESTORED.

ALL CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE WORKPLACE HEALTH AND SAFETY LEGISLATION.

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE WERE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING.

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1 IN 60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION OF 1.50m, UNLESS NOTED OTHERWISE.

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED NFORMATION.

AS CONSTRUCTED DETAILS DATE 12-05-2020) DANIEL COLLINS RPEQ 18631

NOTWITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THE JOB DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ANY UNDERGROUND SERVICES IN THIS AREA AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO.

TANGENT POINT SET-OUT INFORMATION FOR HORIZONTAL BENDS IS TO BE INCLUDED ON AS-CONSTRUCTED DRAWINGS

UW REF No. 2017011039s19A

SEWER RETICULATION COVER SHEET

RPEQ 18631 A ANIEL COLLINS \*DANIEL COLLINS

nesign

MH/MS

TYPF

FND

\* The original issue or last amendment of this drawing contained the original signature.

Nο

16/1

AS CONSTRUCTED

DIA

DN160PF

COVER

TYPE

LOT

Nο

966

F.S.L.

10.928

E.S.L.

10.631

I.L.

8 492

DEPTH

2 436m

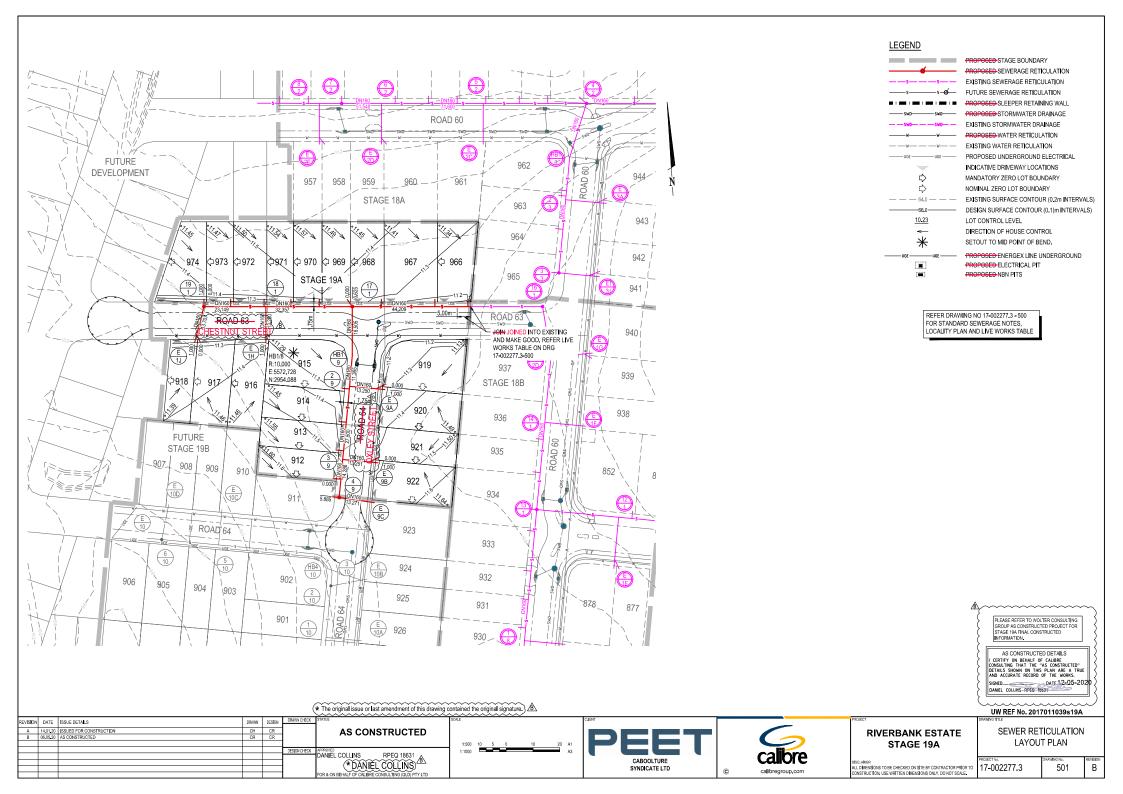


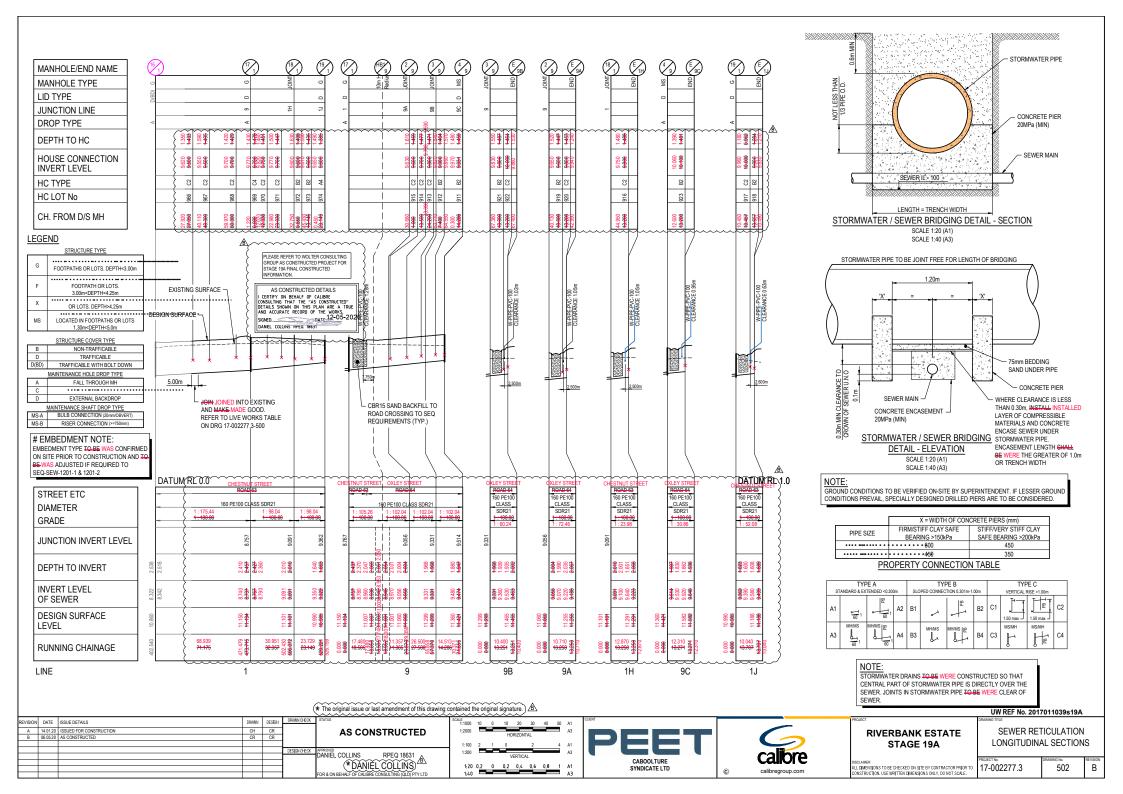


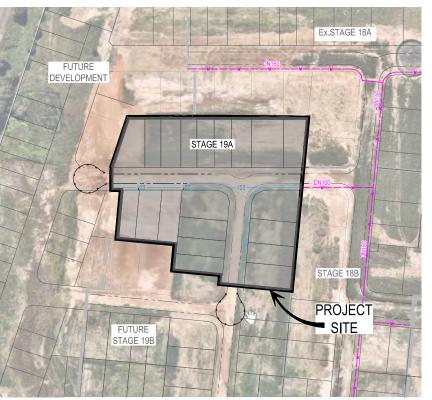
RIVERBANK ESTATE STAGE 19A

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LOCALITY PLAN N.T.S.

NOTWITHSTANDING THAT EXISTING SERVICES MAY OR MAY NOT BE SHOWN ON THE JOB DRAWINGS, NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR THIS INFORMATION WHICH HAS BEEN SUPPLIED BY OTHERS. THE DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL ASCERTAIN THE POSITION OF ANY UNDERGROUND SERVICES IN THIS AREA AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO.

ALL CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY OMPLIED WITH ALL APPLICABLE WORKPLACE HEALTH AND SAFETY LEGISLATION.

ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE WERE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING COMMENCING.

### (\* The original issue or last amendment of this drawing contained the original signature.)

### EVISION DATE ISSUEDETAILS nesign AS CONSTRUCTED ANIFI COLLINS RPFQ 18631 \*DANIEL COLLINS

PLEASE REFER TO WOLTER CONSULTING GROUP AS CONSTRUCTED PROJECT FOR STAGE 19A FINAL CONSTRUCTED

CAROOI TURE SYNDICATE LTD

**ABBREVIATIONS** 

CISL CR CTS CUR DI DICL

DN EW FH HC

HP

JD LP MH

MS

mPVC

MSBW

MSCL PE

PMT

RTS

SC TEP

oPVC UW

- ASBESTOS CEMENT

- CUT TO SUIT

- DUCTILE IRON

- EARTHENWARE

- JOINT DEFLECTION - LOW POINT - MAINTENANCE HOLE

- POLYETHYLENE

- ROTATE TO SUIT

- UNITYWATER

- VITRIFIED CLAY

- MAINTENANCE SHAFT

- MILD STEEL BUTT WELD

- MILD STEEL CEMENT LINED

- STOP COCK/WATER METER

- TERMINAL ENTRY POINT - ORIENTED POLY VINYL CHLORIDE

- MODIFIED POLY VINYL CHLORIDE

- PADMOUNT TRANSFORMER (ELECTRICAL SITE)

- FIRE HYDRANT - HOUSE CONNECTION

- HIGH POINT

- DIAMETER NOMINAL

- CAST IRON CEMENT LINED

- CAST IRON SPUN LINED

- CONCRETE REINFORCED

- CONCRETE UN-REINFORCED

- DUCTILE IRON CEMENT LINED

### WATER RETICULATION NOTES

- 1. ALL WORK AND MATERIALS SHALL BE WERE IN ACCORDANCE WITH FOLLOWING CURRENT
- SPECIFICATIONS AND STANDARDS (IN ORDER OF PRIORITY): - SOUTH EAST QUEENSLAND WATER SUPPLY CODE (SEQ-SP's)
- WATER SUPPLY CODE OF AUSTRALIA WSA03-2011 V3.1.
- 2. UNLESS SPECIFIED OTHERWISE, ALL WORK AND MATERIALS SHALL COMPLY COMPLIED WITH THE RELEVANT AUSTRALIAN STANDARDS.
- 3. ADOPT ADOPTED LIP OF KERB AS PERMANENT LEVEL.
- 4. COVER ON MAINS FROM PERMANENT LEVEL TO BE WERE AS SHOWN IN STANDARD DRAWING SEQ-WAT-1200-2
- 5. CONDUITS TO BE WERE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS IN SEQ-SP's. 6. A WATER METER SUPPLIED AT DEVELOPER'S COST, IS TO BE WAS INSTALLED AT THE SERVICE POINT OF
- EACH LOT IN ACCORDANCE WITH THE STANDARD DRAWINGS IN SEQ-SP's. 7. ALL MATERIAL USED IN THE WORKS SHALL COMPLY COMPLIED WITH THE SEQ-SP's
- 8. ALL CONCRETE FOOTPATHS TO BE WERE CLEAR OF WATER MAINS, WHERE POSSIBLE.
- 9. THE CONSTRUCTION OF THE WATER SUPPLY RETICULATION WORK SHOWN ON THIS DRAWING MUST HAVE HAD CONTRACT ADMINISTRATION UNDERTAKEN BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORK NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE WAS NOT PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.
- 10. ALL WORK ON EXISTING WATER MAINS TO BE WERE CARRIED OUT BY UNITYWATER AT THE DEVELOPERS EXPENSE.

### **ENVIRONMENTAL MANAGEMENT APPROVAL NOTES**

### VEGETATION PROTECTION

- TREES LOCATED ALONG FOOTPATH SHOULD BE WERE, WHERE POSSIBLE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
- WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHOULD BE WERE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES MUST BE WERE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN REMAINED TO COMPLETION.
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- ANY TREE LOPPING REQUIRED SHOULD BE WAS UNDERTAKEN BY AN APPROVED ARBORIST.
- TOPSOIL AND SUBSOIL SHOULD BE WAS STOCKPILED SEPARATELY.
- CARE SHOULD BE WAS TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE HAVE INVOLVED PLACING APPROPRIATE SEDIMENT CONTROLS AROUND

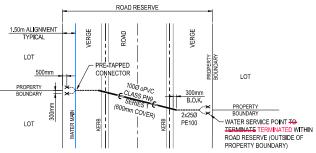
### CREEK CROSSINGS

- SILTATION CONTROL MEASURES SHOULD BE WERE PLACED DOWNSTREAM OF ANY EXCAVATION
- APPROPRIATE SEDIMENT CONTROLS SHOULD BE WERE USED TO PREVENT SEDIMENT FROM
- NO SOIL SHOULD BE WAS STOCKPILED WITHIN 5m OF THE CREEK.

### REHABILITATION

calibregroup.com

- PREDISTURBANCE SOIL PROFILES AND COMPACTION LEVELS ARE TO BE WERE REINSTATED.
- B. PREDISTURBANCE VEGETATION PATTERNS SHOULD BE WERE RESTORED.



### TYPICAL WATER SERVICE AND CONDUIT DETAIL

(REFER S.E.Q. (UNITYWATER) STD. DRG. WAT-1108-1 TO 1108-3) SCALE: N.T.S.

> RIVERBANK ESTATE STAGE 19A

WATER RETICULATION COVER SHEET

UW REF No. 2017011039s19A

17-002277.3

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