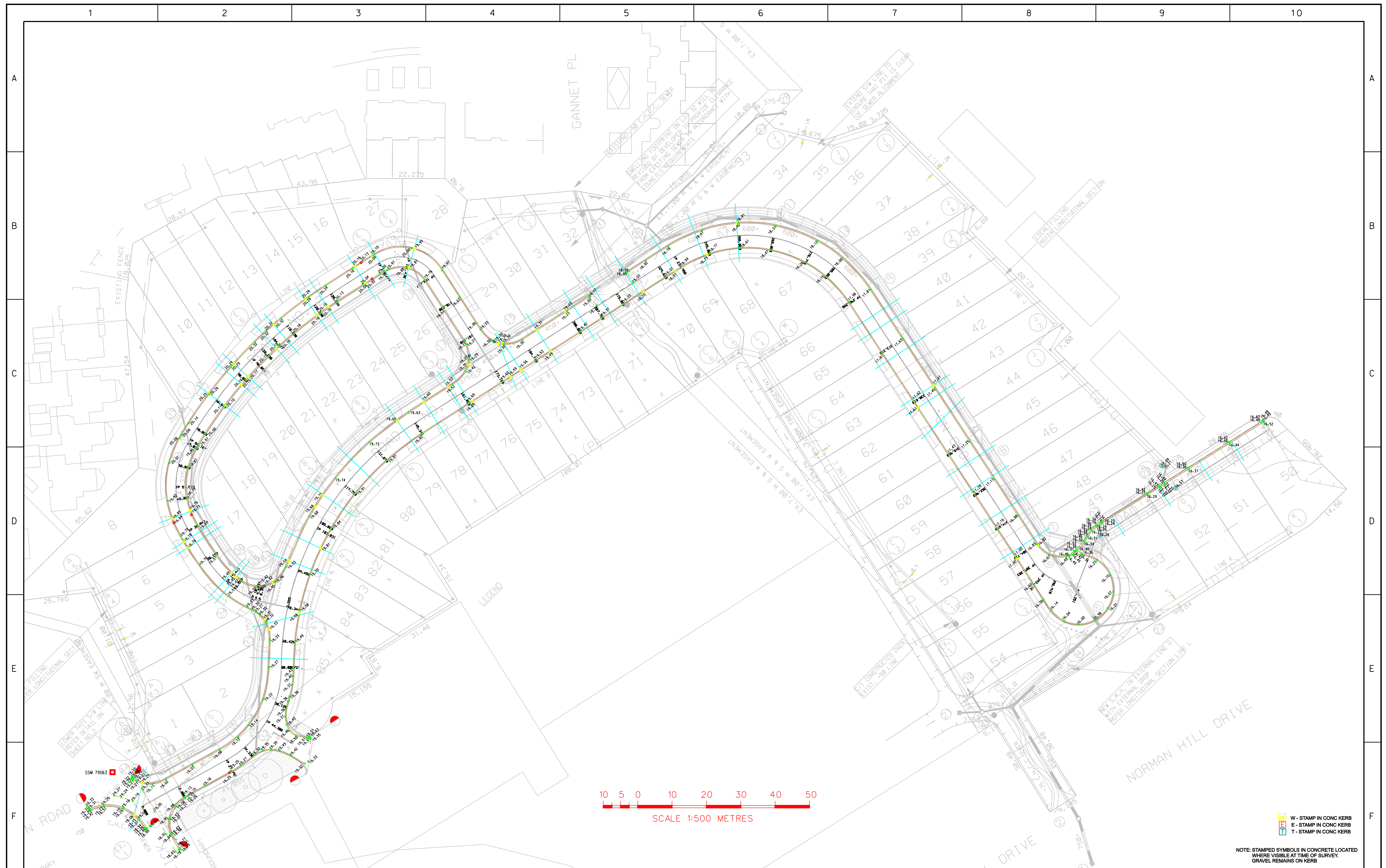


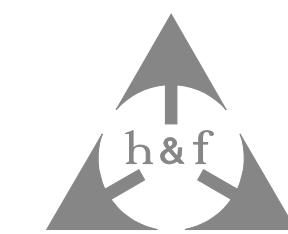


IMPORTANT NOTE:
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02	30.08.2010	FINAL ISSUE - LEVEL & SYMBOL SIZE AMENDED		JJL
01	05.07.2010	PRELIMINARY ISSUE - DESIGN REFERENCES ADDED		JJL
00	05.07.2010	PRELIMINARY ISSUE	114099WK	JJL
REVISION	DATE	DESCRIPTION	CCAD REF	APPROVED

SCALE: HORZ. 1:500		VERT.	A1
CONTOUR INTERVAL: MAJOR 1.0 MINOR 0.25			
HORIZONTAL ORIGIN			
COORD. SYSTEM MGA	MARK ADOPTED: COORDINATES: E 512 959.058 N 6 653 197.736		SSM 79063
VERTICAL DATUM			
DATUM: AHD	BM ADOPTED:		SSM 79063 Rt. 19.1338

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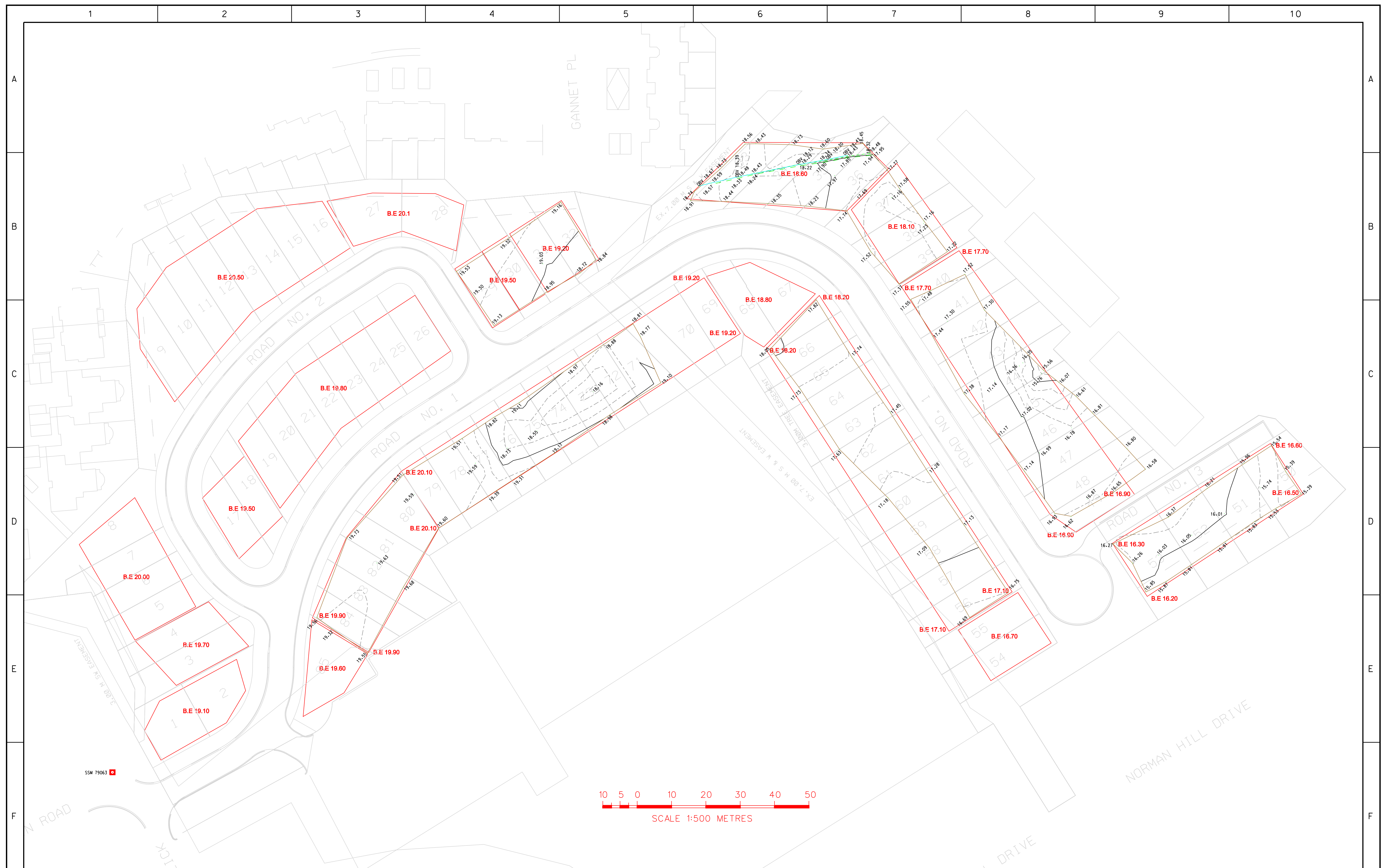
PROJECT: OPAL COFFS

PLAN SHOWING WORK AS
EXECUTED ON KERB LIP LINE
ROADS 1, 2 & 3

J.K WILLIAMS GROUP



SHEET 1 OF 1	
DRAWING NUMBER	REV
114099011	02



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field measurement.

00	28.06.2010	ORIGINAL ISSUE	114099WI	JJL
REVISION	DATE	DESCRIPTION	CCAD REF	APPROVED

SCALE: HORIZ. 1:500		VERT.	A
CONTOUR INTERVAL: MAJOR 1.0 MINOR 0.25			
HORIZONTAL ORIGIN			
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VERTICAL DATUM			
DATUM: AHD	BM ADOPTED: SSM 79063 RL 19.338		

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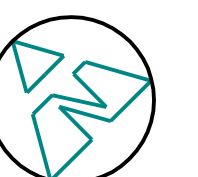


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PROJECT: OPAL COFFS

PLAN SHOWING SURVEYED
STRIP AREAS

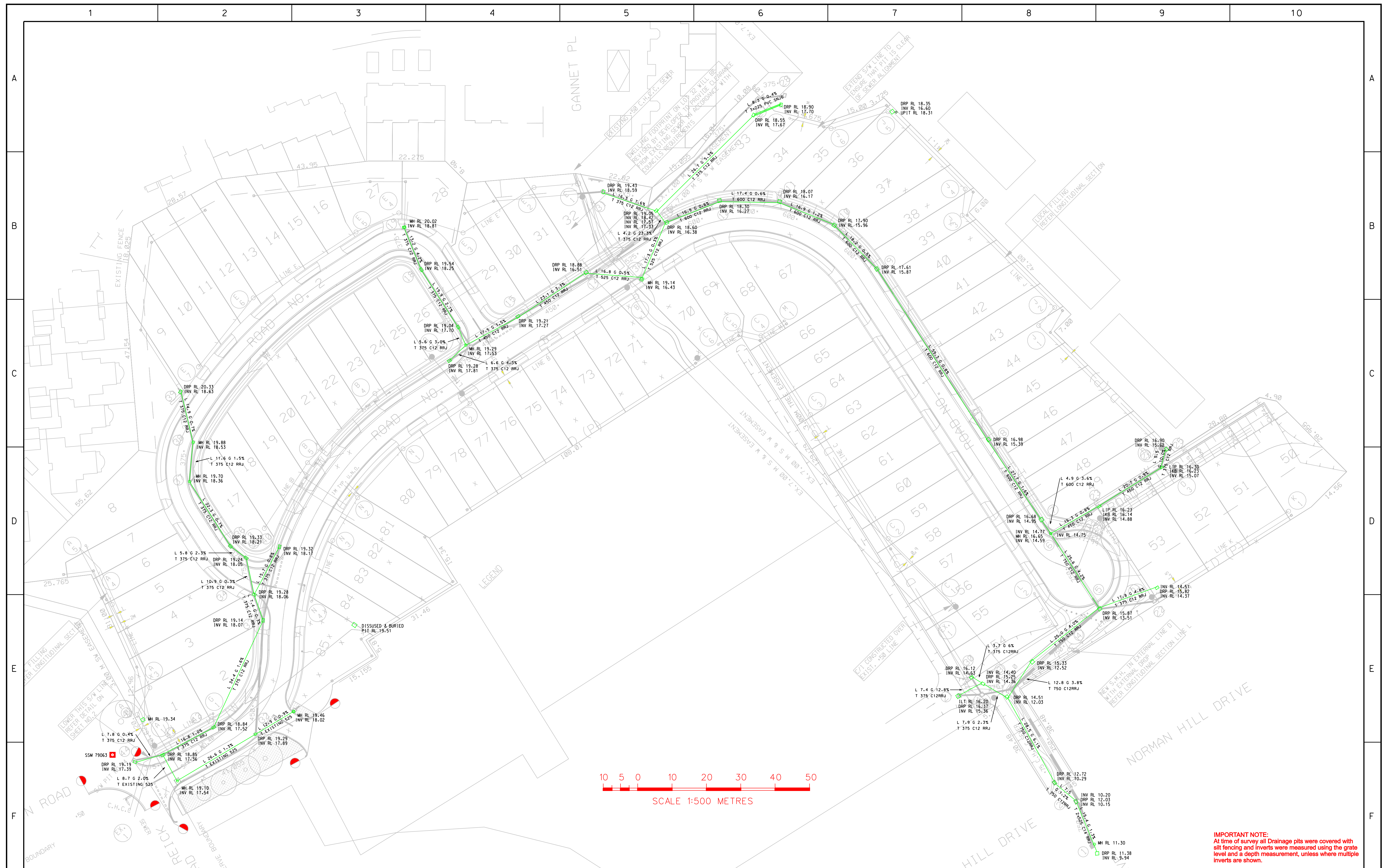
J.K WILLIAMS GROUP



SHEET 1 OF 1

DRAWING NUMBER	REV
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114099006	00
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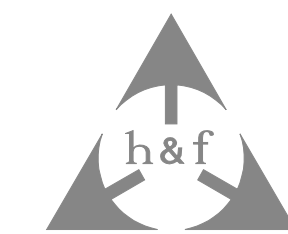


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01	30.08.2010	ADDITIONAL PIPE INFORMATION ADDED & INVERT LEVELS PIT 6	114099WG	JJL
00	02.07.2010	ORIGINAL ISSUE	114099WG	JJL
REVISION	DATE	DESCRIPTION	CCAD REF	APPROVED

SCALE: HORZ. 1:500		VERT.	A1
CONTOUR INTERVAL: MAJOR 1.0 MINOR 0.25			
HORIZONTAL ORIGIN			
COORD. SYSTEM MGA	MARK ADOPTED: COORDINATES: E 512 959.058 N 6 653 197.736		SSM 79063
VERTICAL DATUM			
DATUM: AHD	BM ADOPTED:		SSM 79063 Rt. 19.1338

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PROJECT:	
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OPAL COFFS

PLAN SHOWING DRAINAGE
WORK AS EXECUTED
DRAINAGE PITS, MANHOLES & INVERT
LEVELS

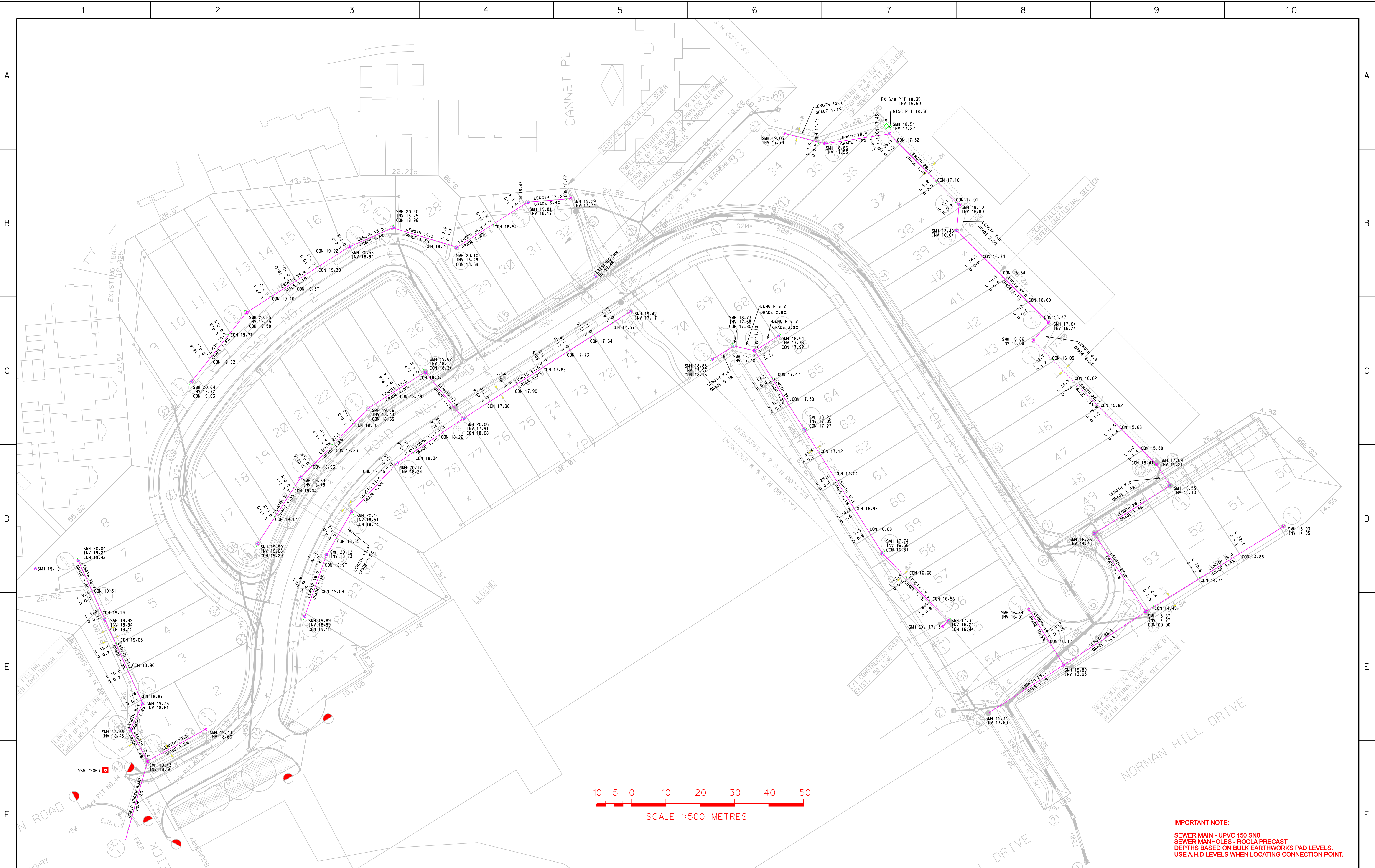
J.K WILLIAMS GROUP



SHEET 1 OF 1

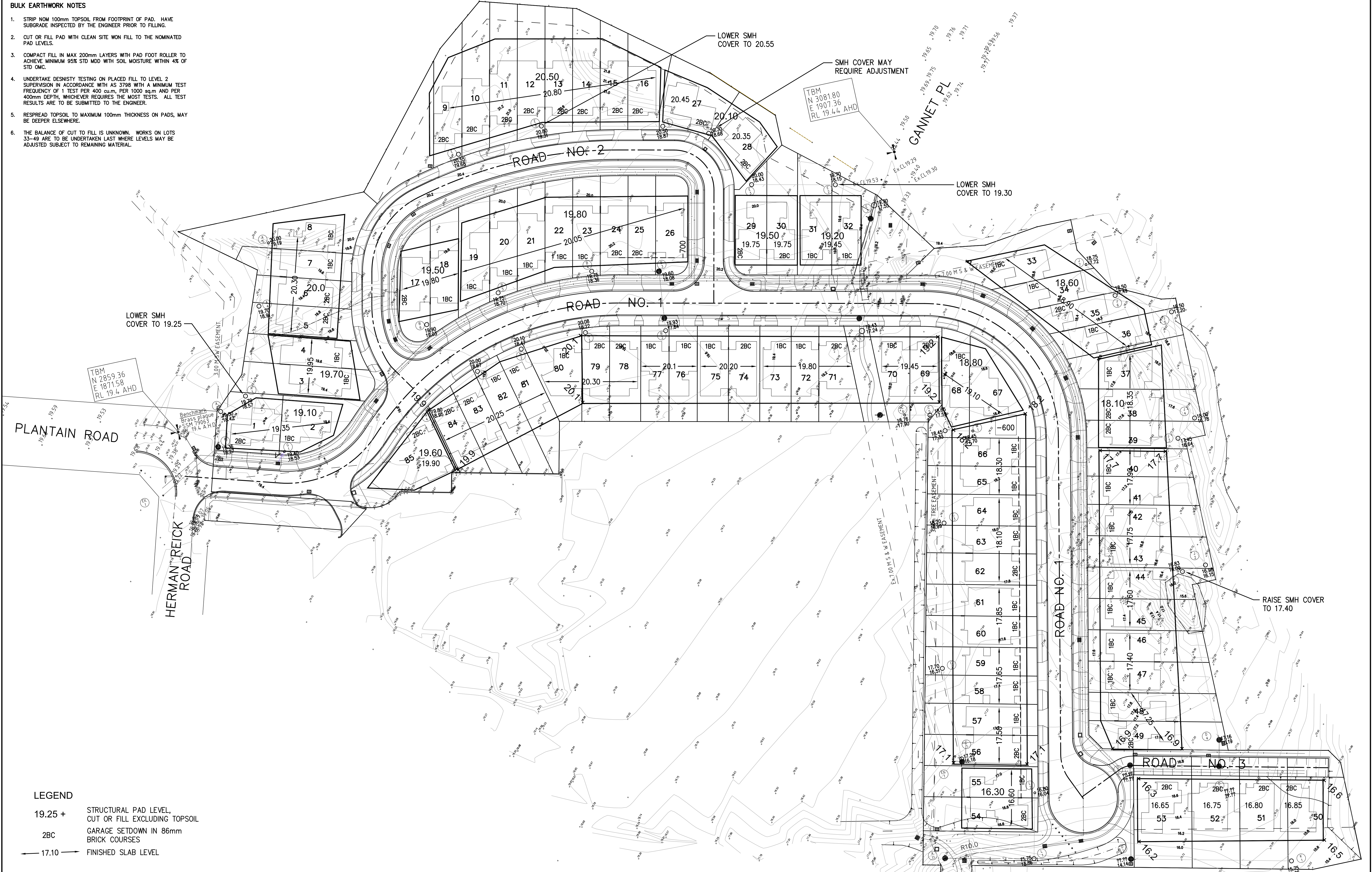
DRAWING NUMBER	REV

114099009	01
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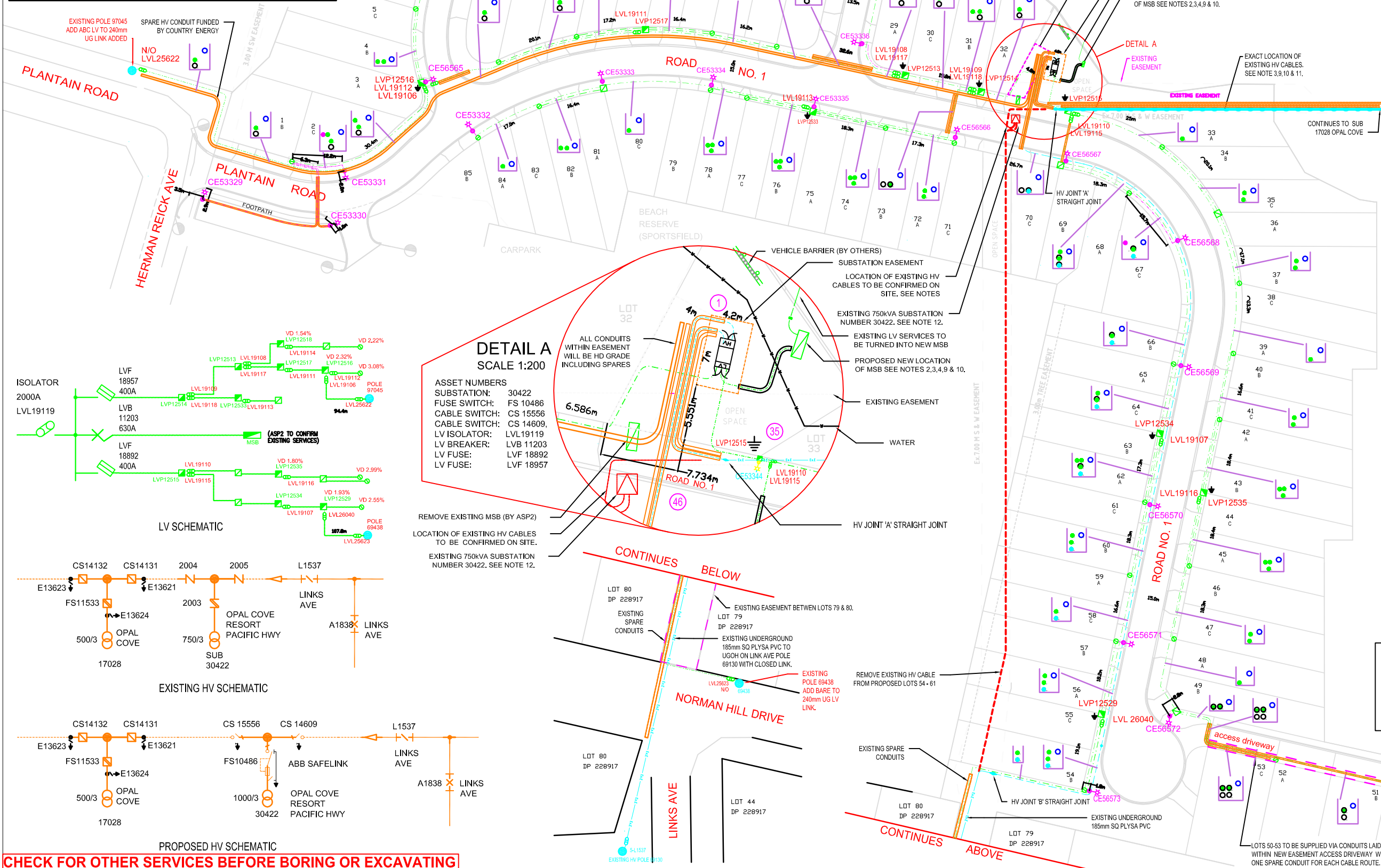
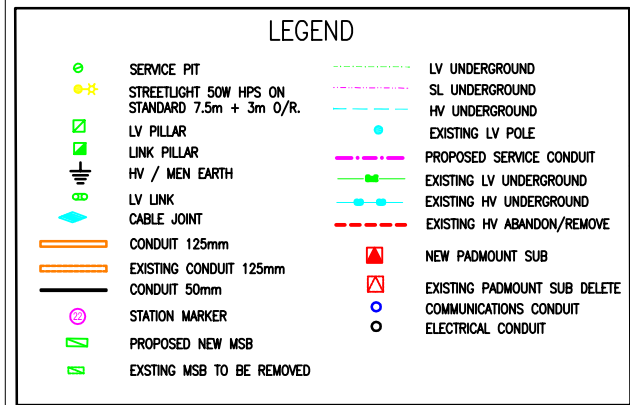


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02	30.08.2010	AMENDED PIT E5, ADDED LENGTHS, DEPTHS & GRADES	114099AY	JJL																																																																			
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114099008	02																																																																						

- BULK EARTHWORK NOTES**
1. STRIP NOM 100mm TOPSOIL FROM FOOTPRINT OF PAD. HAVE SUBGRADE INSPECTED BY THE ENGINEER PRIOR TO FILLING.
 2. CUT OR FILL PAD WITH CLEAN SITE WON FILL TO THE NOMINATED PAD LEVELS.
 3. COMPACT FILL IN MAX 200mm LAYERS WITH PAD FOOT ROLLER TO ACHIEVE MINIMUM 95% STD MDD WITH SOIL MOISTURE WITHIN 4% OF STD OMC.
 4. UNDERTAKE DESINISTY TESTING ON PLACED FILL TO LEVEL 2 SUPERVISION IN ACCORDANCE WITH AS 3798 WITH A MINIMUM TEST FREQUENCY OF 1 TEST PER 400 sq.m, PER 1000 sq.m AND PER 400mm DEPTH, WHICHEVER REQUIRES THE MOST TESTS. ALL TEST RESULTS ARE TO BE SUBMITTED TO THE ENGINEER.
 5. RESPREAD TOPSOIL TO MAXIMUM 100mm THICKNESS ON PADS, MAY BE DEEPER ELSEWHERE.
 6. THE BALANCE OF CUT TO FILL IS UNKNOWN. WORKS ON LOTS 33-49 ARE TO BE UNDERTAKEN LAST WHERE LEVELS MAY BE ADJUSTED SUBJECT TO REMAINING MATERIAL.



C B A	13.05.10	LOT 29 PAD & SLAB LEVEL CHANGED. PAD & SLAB LEVELS, LOTS 9-16, 27, 28, 56-85. ISSUED FOR TENDER	GJK GJK JPA	GJK GJK GJK	© COPYRIGHT 2010 The design and details shown on these drawings are applicable to this project only and may not be reproduced in whole or in part or be used for any other project or purpose without the written consent of DE GROOT & BENSON Pty Ltd with whom copyright resides	APPROVED ON BEHALF OF COFFS HARBOUR CITY COUNCIL CITY ENGINEER	Scale 1:500		Cad Disk No. DVD5		de Groot & Benson Pty Ltd  Consulting Engineers & Planners A.C.N. 052 300 571 236 Harbour Drive Coffs Harbour NSW 2450 Phone (02) 6652 1700 Fax (02) 6652 7418 Email email@gdb.com.au	RESIDENTIAL SUBDIVISION OPAL COVE KORORA FOR OPAL COVE HOLDINGS	LOT FILLING PLAN	Drawing No. 09217-C01	
	Surveyed						Datum		Amendment No. C						
	Drawn JPA						Design GJK		Approved					Council No.	
	REV.						DATE	REVISION		DR.BY/AP.BY					DATE



- NOTES**
- THIS DRAWING TO BE READ IN CONJUNCTION WITH COUNTRY ENERGY NETWORK STANDARDS AND THE GENERAL TERMS AND CONDITIONS.
 - ALL SERVICE WORK TO BE INSTALLED IN ACCORDANCE WITH AS3000:2007 AND THE NSW SERVICE AND INSTALLATION RULES. THIS INCLUDES RELOCATION OF MAIN SWITCHBOARD FROM BESIDE THE EXISTING SUBSTATION.
 - THE PREPARATION OF THIS DESIGN, HAS BEEN UNDERTAKEN GIVING DUE CONSIDERATIONS TO THE EXISTING SERVICES. THE PROJECT CONSTRUCTOR IS, HOWEVER, WHOLLY RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF EXISTING SERVICES AND PERMANENT SURVEY MARKS BEFORE THE CONSTRUCTION COMMENCES, AND NO LIABILITY WILL BE ACCEPTED BY THE DESIGNER OF THIS PROJECT FOR DAMAGE TO EXISTING SERVICES AS A RESULT OF THIS DESIGN. HAND ESCAVATION SHOULD BE EMPLOYED.
 - UNLESS APPROVED OTHERWISE, INTERRUPTIONS TO ANY CUSTOMER SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED: MOBILE GENERATORS OR SUBSTATIONS, LIVE LINE WORK, DESIGN ALTERATIONS, WORK PRACTICES / STANDARDS, LOW VOLTAGE PARALLELS THE COST IS TO BE FUNDED BY THE CUSTOMER / DEVELOPER.
 - PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
 - ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION. CONSTRUCTOR IS TO ENSURE THAT ALL CABLE AND CONDUITS ARE
 - INSTALLED RELATIVE TO FINAL LEVELS.
 - DO NOT PLACE RELIANCE ON ANY DRAWING QUANTITIES OR DIMENSIONS GIVEN IN THIS DRAWING ARE BASED ON DESIGN INFORMATION AND SITE CONDITIONS AT THE TIME OF DESIGN. AS QUANTITIES AND DIMENSIONS ARE SUBJECT TO CHANGE, THE CONSTRUCTOR OF THIS PROJECT MUST CHECK ALL QUANTITIES AND DIMENSIONS PRIOR TO TENDERING AND PRIOR TO CONSTRUCTION.
 - LOCATION OF EXISTING HV & LV CABLES. FROM SUBSTATION AND LV SERVICE MAINS FROM EXISTING MAIN DISTRIBUTION BOARD ARE INDICATION ONLY AS CLEAR RECORDS WERE NOT SUPPLIED FOR THE DESIGN PROCESS. CAUTION SHOULD BE IN TAKEN TO RETAIN THE 72 SERVICES ALREADY SUPPLIED. DUCT CONFIGURATIONS SHOWN ARE A GUIDE ONLY - REFER TO DBYD SEARCHES AND COUNTRY ENERGY UNDERGROUND MAPS FOR MORE DETAIL.
 - HAND ESCAVATION IS TO BE USED IN THE VICINITY OF EXISTING UNDERGROUND WORKS.
 - ACCREDITED DESIGNER TO BE CONTACTED REGARDING ISSUES RAISED WITH THIS DESIGN.
 - COUNTRY ENERGY HAS CONFIRMED SUBSTATION ASSET NUMBER 30422 WILL BE REASSIGNED TO ACCOMMODATE THE NEW 1000kVA SUBSTATION PROPOSED. THE EXISTING 750kVA SUBSTATION SHOULD BE RETURNED TO COUNTRY ENERGY FIELD SERVICE AT COFFS HARBOUR.
 - REFER TO COUNTRY ENERGY DRAWINGS: CEM7201.02 UNDERGROUND ROAD CROSSING INSTALLATION DETAILS, CEM7201.03 CONSTRUCTION NOTES & KEY PRINCIPALS DIAGRAM, CEM7201.09 SERVICE ARRANGEMENTS EXCAVATION & BACKFILL LEVELS (ELECTRICITY & TELECOMMUNICATIONS), CEM7201.11 TYPICAL TRENCH DETAILS
 - STREETLIGHTING TO BE INSTALLED AS PER STREETLIGHTING SCHEDULE AND TYPICAL SECTION REFERENCES AT 1m BEHIND FACE OF KERB.
 - INSTALL STREETLIGHTING TO AS1158.3.1 CAT P4 USING 50W HPS LUMINAIRES. DESIGN CONFIRMED AND APPROVED VIA JOHNROWE COFFS HARBOUR CITY COUNCIL 6648 4412.
 - TRAFFIC CONTROL TO BE CARRIED OUT BY APPROVED CONTRACTORS.
 - CUSTOMER TO CARRY OUT ALL REQUIRED CLEARING BEFORE CONSTRUCTION COMMENCES.
 - THE DEVELOPERS PROJECT MANAGER FOR THESE WORKS IS JAMES STEPHENS 0414 315 213 (JK WILLIAMS GROUP).
 - THE 1000kVA PADMOUNT SUBSTATION WILL BE ORDERED FROM THE MANUFACTURER AFTER DESIGN CERTIFICATION AND NOTICE OF COMMENCE CONSTRUCTION HAS BEEN RECEIVED FROM THE ASP.
 - SHARED TRENCH ARRANGEMENT HAS BEEN DOCUMENTED COMMUNICATIONS CONDUIT WILL BE INSTALLED THE ACROSS ALL PROPERTY FRONTAGES.
 - PROPOSED ACCESS EASEMENT BESIDE NEW SUBSTATION 30422 WILL BE PROVIDED BY THE DEVELOPER AS AN ALL WEATHER TRACK CAPABLE OF ACCEPTING A CRANE TRUCK TO INSTALL AND SERVICE NEW SUBSTATION 30422.
 - LV INTERCONNECTION IS PROPOSED TO UTILISE EXISTING SPARE CONDUITS BETWEEN LOT 54 AND NORMAN HILL DRIVE. THE CONTRACTOR WILL PROVIDE A VARIATION PRICE TO COUNTRY ENERGY SHOULD THESE CONDUIT NOT BE AVAILABLE FOR USE.

THE FOLLOWING SERVICES HAVE BEEN IDENTIFIED IN THE VICINITY OF THE PROPOSED WORKS

TYPE	OWNER	CONTACT
ELECTRICAL	COUNTRY ENERGY	132356
COMMUNICATIONS	TELSTRA, KEMPSEY	1800 114 918