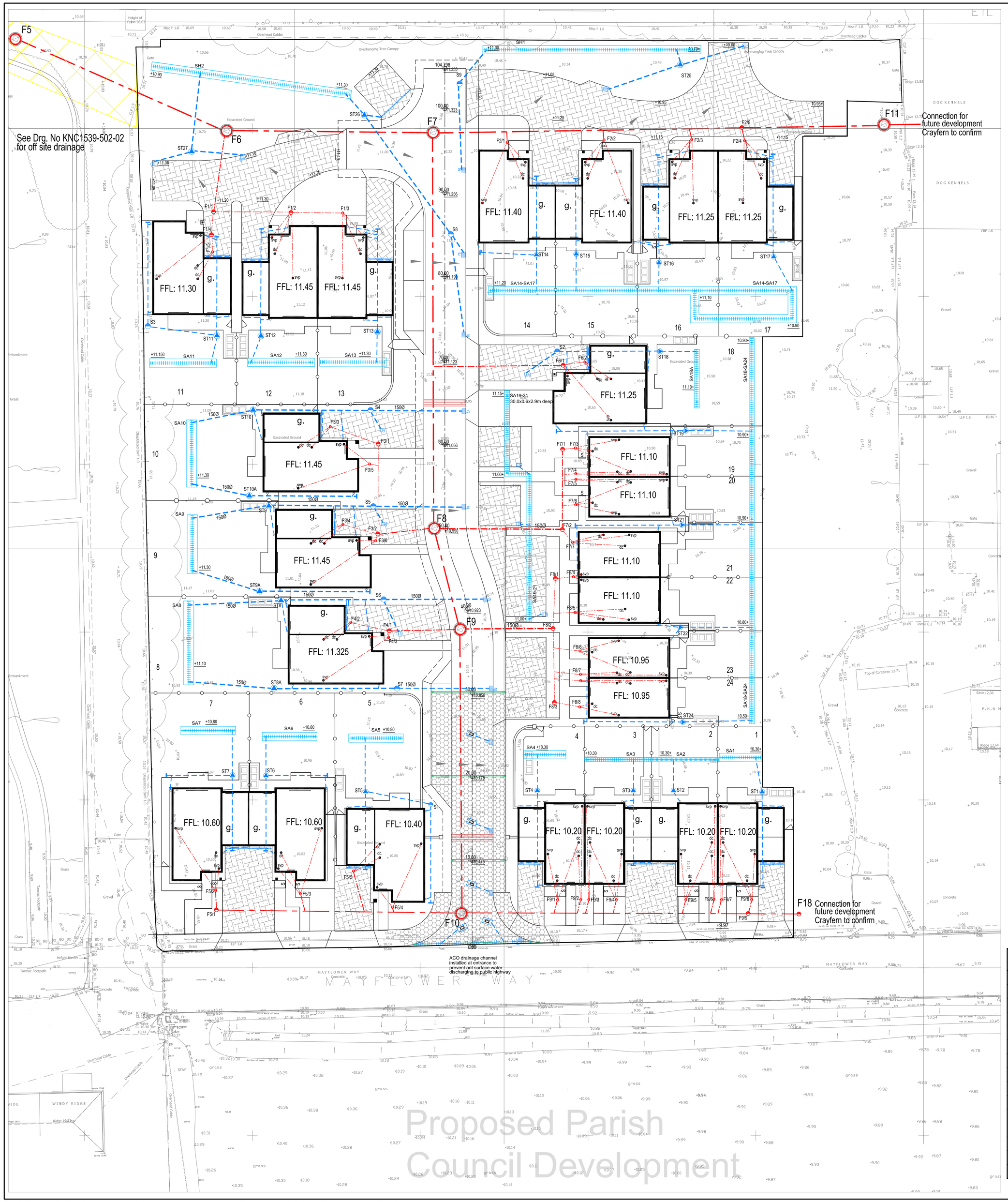

DOMESTIC SOAKAWAY DETAILS-Trench Soakaways

Soakaway Ref	Area Draining m²	Width m	Length m	Soakaway Ground Level m	Inlet to Soakaway Level m	Soakaway Base Level m	Infiltration Zone
SA1	67	1.0	5.0	10.30	9.40	7.30	3
SA2/SA3	134	0.5	8.0	10.30	9.40	7.30	3
SA4	67	1.0	5.0	10.30	9.40	7.30	3
SA5-SA7	87	1.0	6.5	10.80	9.50	7.80	3
SA8+ Ch 30-53	320	1.2	10.0	11.10	9.70	7.60	3
SA9+Ch 53-63	210	1.2	7.0	11.30	10.00	7.80	3
SA10+Ch 63-74	220	1.2	8.0	11.30	10.00	7.80	1
SA11	92	1.0	8.0	11.15	10.45	8.15	1
SA12	92	1.0	8.0	11.30	10.60	8.30	1
SA13	92	1.0	8.0	11.30	10.60	8.30	1
SA14-SA17	340	1.0	52.0	11.20-10.90	10.30	8.70	2
SA18-SA24	420	0.6	46.0	10.90-10.50	9.90	7.10	2
SA18A	60	0.6	7.0	11.10	10.20	8.00	2
SH1	480	1.0	26.0	11.00-10.70	10.00	7.50	2
SH2	85	1.0	24.0	11.30-10.90	10.00	7.70	1

ACCESS ROAD & DOMESTIC DRIVES (Based on in-situ tests)

Driveways Plots	Depth of Open Graded sub-base m	Shallow Test Zone
Plots 1-5	303	2
Access Ch 0-20	285	2
Access Ch 20-30	270	2

Infiltration Rates

Infiltration Zone	Soakage Rate (m/s)	Soakage Rate (m/hr)	Test Depth (m)
1	1.497 E-05	0.05364	2.80
2	1.887 E-06	0.006793	2.80
3	2.639 E-05	0.09500	3.34
Shallow Zone 1	3.689 E-07	0.00132280	1.00
Shallow Zone 2	5.0 E-06	0.01800	1.00

Infiltration rates have been confirmed by in-situ tests.

Notes:

1.All levels are to local Datum.
2.All Highway work's on or adjacent to existing public highway shall be executed in accordance with the Traffic Safety Code for Roadwork's and Chapter 8 of the Traffic Signs Manual.
3.At the commencement of works on site the contractor is to carry out trial pits and liaise with Utility Companies in order to establish the exact position of all existing statutory utility plant in the vicinity of works and take adequate precautions or their protection.
4.The Contractor is to comply fully with the CDM Regulations in the course of constructing the works.
5.Highways in the vicinity of the works must be kept free from mud, debris and dust falling from vehicles or the wheels of vehicles connected with the works.
6.All drain and sewer pipes to be laid soffit to soffit, unless shown otherwise.
7.Minimum gradient for 100Ø SW is 1:100 and 100Ø FW is 1:80 with one WC connected otherwise 1:40. Bedding for domestic drainage Class B. All pipe runs near buildings to comply with the Building Regulations 2010 Part H1.
8.Position of soil pipes, standing wastes, wc outlets etc. are shown on the Architect's working drawings. Rainwater downpipe positions are to be checked against Architects details to ensure compatibility. Rainwater downpipes to have rodding access facilities where surface water drainage passes under buildings.
9.All concrete and concrete products to be in accordance with BRE 363 for sulphates.
10.All slab levels shown are for guidance only and may need to be adjusted on site, subject to approval by the engineer.
11.Do not scale from this drawing, work only from stated dimensions or setting out details.
12.Refer to tables for manhole schedules
13. Where paths falls towards the front door use suitable linear/slot drainage sysytem connected to surface water system as per architects details.
14. All plots to have gardens sloping away from properties otherwise interceptor drains to be installed.
15. Surface water drainage connected to catchit manhole prior to discharge to soakaway
16. Soakaways to be minimum 5.0m from dwelling foundations and 2.0m from boundary wall foundations. Boundary walls within 2.0m of soakaways to have reinforced foundations. If groundwater is encountered during construction of soakaway engineer to be advised immediatly
17. This drawing is to be read in conjunction with all relevent engineering drawings issued by Kazys Narbutas Consulting and Crayfern Homes for this site only.

FOUL DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
F1/1	11,15	10,45	0,600	450 diameter	3	B125
F1/2	11,30	10,60	0,600	450 diameter	3	B125
F1/3	11,30	10,70	0,500	250 diameter	4	B125
F1/4	11,15	10,50	0,550	450 diameter	3	B125
F1/5	11,15	10,55	0,500	250 diameter	4	B125
F2/1	11,25	10,65	0,500	250 diameter	4	B125
F2/2	11,25	10,65	0,500	250 diameter	4	B125
F2/3	11,10	10,50	0,500	250 diameter	4	B125
F2/4	11,10	10,50	0,500	250 diameter	4	B125
F2/5	11,10	8,35	2,65	450 diameter	3	B125
F3/1	11,20	10,60	0,500	450 diameter	3	B125
F3/2	11,20	10,45	0,650	450 diameter	3	B125
F3/3	11,30	10,70	0,500	250 diameter	4	B125
F3/4	11,30	10,70	0,500	250 diameter	4	B125
F3/5	11,30	10,70	0,500	250 diameter	4	B125
F3/6	11,30	10,70	0,500	250 diameter	4	B125
F4/1	11,175	10,50	0,575	450 diameter	3	B125
F4/2	11,175	10,575	0,500	250 diameter	4	B125
F4/3	11,175	10,575	0,500	250 diameter	4	B125
F5/1	10,40	9,70	0,600	450 diameter	3	B125
F5/2	10,45	9,85	0,500	250 diameter	4	B125
F5/3	10,45	9,85	0,500	250 diameter	4	B125
F5/4	10,25	9,65	0,500	250 diameter	4	B125
F5/5	10,25	9,65	0,500	250 diameter	4	B125
F6/1	11,10	10,45	0,550	450 diameter	3	B125
F6/2	11,10	10,50	0,500	250 diameter	4	B125
F7/1	10,95	10,30	0,550	450 diameter	3	B125
F7/2	10,95	10,10/10,05	0,750	450 diameter	3	B125
F7/3	10,95	10,35	0,500	250 diameter	4	B125
F7/4	10,95	10,35	0,500	250 diameter	4	B125
F7/5	10,95	10,35	0,500	250 diameter	4	B125
F7/6	10,95	10,35	0,500	250 diameter	4	B125
F7/7	10,95	10,35	0,500	250 diameter	4	B125
F8/1	10,95	10,30	0,550	450 diameter	3	B125
F8/2	10,90	10,00/9,95	0,800	450 diameter	3	B125
F8/3	10,80	10,15	0,550	450 diameter	3	B125
F8/4	10,95	10,35	0,500	250 diameter	4	B125
F8/5	10,95	10,35	0,500	250 diameter	4	B125
F8/6	10,80	10,20	0,500	250 diameter	4	B125
F8/7	10,80	10,20	0,500	250 diameter	4	B125
F8/8	10,80	10,20	0,500	250 diameter	4	B125
F9/1	10,05	9,45	0,500	250 diameter	4	B125
F9/2	10,05	9,45	0,500	250 diameter	4	B125
F9/3	10,05	9,45	0,500	250 diameter	4	B125
F9/4	10,05	9,45	0,500	250 diameter	4	B125
F9/5	10,05	9,45	0,500	250 diameter	4	B125
F9/6	10,05	9,45	0,500	250 diameter	4	B125
F9/7	10,05	9,45	0,500	250 diameter	4	B125
F9/8	10,05	9,45	0,500	250 diameter	4	B125
F9/9	10,00	9,18	0,720	450 diameter	3	B125

SURFACE WATER DRAINAGE MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Cover Grade
S1	10,25	9,68	0,470	450 diameter	3	B125
S2	11,15	10,60	0,45	450 diameter	3	B125
S3	11,15	10,65	0,40	450 diameter	3	B125
S4	11,25	10,20	0,90	450 diameter	3	B125
S5	11,25	10,20	0,90	450 diameter	3	B125
S6	11,30	9,90	1,30	450 diameter	3	B125
S7	11,15	9,90	1,15	450 diameter	3	B125
S8	11,10	10,30	0,65	450 diameter	3	D400
S9	11,20	10,10	0,95	450 diameter	3	D400
ST1	10,05	9,50	0,45	450 diameter	5	B125
ST2	10,05	9,50	0,45	450 diameter	5	B125
ST3	10,05	9,50	0,45	450 diameter	5	B125
ST4	10,05	9,50	0,45	450 diameter	5	B125
ST5	10,25	9,60	0,55	450 diameter	5	B125
ST6	10,45	9,90	0,45	450 diameter	5	B125
ST7	10,45	9,90	0,45	450 diameter	5	B125
ST8	11,175	9,80	1,275	450 diameter	5	B125
ST8A	11,175	9,80	1,275	450 diameter	5	B125
ST9	11,30	10,10	1,10	450 diameter	5	B125
ST9A	11,30	10,50	0,70	450 diameter	5	B125
ST10	11,30	10,10	1,10	450 diameter	5	B125
ST10A	11,30	10,50	0,70	450 diameter	5	B125
ST11	11,15	10,55	0,50	450 diameter	5	B125
ST12	11,30	10,70	0,50	450 diameter	5	B125
ST13	11,30	10,70	0,50	450 diameter	5	B125
ST14	11,25	10,50	0,65	450 diameter	5	B125
ST15	11,25	10,50	0,65	450 diameter	5	B125
ST16	11,10	10,40	0,60	450 diameter	5	B125
ST17	11,10	10,40	0,60	450 diameter	5	B125
ST18	11,10	10,30	0,70	450 diameter	5	B125
ST19	10,95	10,10	0,75	450 diameter	5	B125
ST20	Not Used					
ST21	10,95	10,10	0,75	450 diameter	5	B125
ST22	10,80	10,00	0,70	450 diameter	5	B125
ST23	Not Used					
ST24	10,80	10,00	0,70	450 diameter	5	B125
ST25	10,80	10,10	0,55	450 diameter	5	B125
ST26	11,40	10,15	1,10	450 diameter	5	B125
ST27	11,00	10,30	0,55	450 diameter	5	B125

ADOPTED FOUL WATER MANHOLE SCHEDULE

REFERENCE	Cover Level (m)	Invert Level (m)	Depth to Soffit (m)	Size (mm)	Type	Comments
ExMhRef1505	10.34	6.51 (TBC)	3.68	Existing		Existing manhole level to be confirmed
F1	10.50	6.55	3.80	1200 diameter	1	
F2	10.20	6.90	3.15	450 diameter	3 (TBC)	
F3	9.90	7.20	2.55	1200 diameter	2	
F3A	9.90	7.26	2.49	1200 diameter	2	
F4	9.90	7.29	3.06	1200 diameter	1	
F5	10.50	7.75	2.60	1200 diameter	2	
F6	11.00	7.92	2.93	1200 diameter	2	
F7	11.20	8.10	2.95	1200 diameter	2	
F8	10.95	8.42	2.38	1200 diameter	2	
F9	10,85	8.51	2.19	1200 diameter	2	
F10	10.20	8.74	1.31	1200 diameter	2	
F11	10.50	8.45	1.90	1200 diameter	2	Construction to be confirmed by Crayfern
F18	10.00	9.28	0.62	450 diameter	3	Construction to be confirmed by Crayfern

SAFETY, HEALTH & ENVIRONMENTAL INFORMATION CDM Regulations 2015

In addition to the hazards/risks normally associated with the type of work detailed on this drawing note should be made of the following:

- Working in vicinity of live highway
- Services to be located prior to any excavation work being undertaken
- Deep excavations
- Working on live foul sewers

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Contractor is not relieved of any of his obligations under all applicable health and safety regulations.

Legend:

- Existing foul water sewer
- Existing surface water sewer
- Type 2 manhole
- Type 3 manhole
- Silt Trap Manhole
- Domestic foul water drainage [Level indicated]
- Domestic surface water drain. (Level indicated)
- ACO drain installed at ALL garage entrances and at site entrance
- SA1 Domestic gravel filled soakaway designed in accordance with Environment Agency criteria. In-situ testing has been undertaken to confirm infiltration rates.
- Unadopted highway gully with Polypipe Permavoid Diffuser dropped in 2mm mesh to diffuse surface water into the sub grade
- Yard gully serving domestic drives
- Impermeable block paved driveway and parking area
- Permeable block paved driveway and parking area Sub base depth
- Access road sub base for infiltration Ch 0- 30
- FFL 11.20 Proposed Finished Floor Level
- Carriageway crossfall
- Proposed easement for foul drainage
- Sub surface 'baffles' under carriageway surfacing.
- S Step 150mm or 75mm
- +10.90 Proposed level (may be amended on site subject to discussion with the Engineer)

Rev.	Date	Details	Initials
D	21.01.20	Levels and full soakaway details added	KN
C	07.10.19	Layout scale amended	KN
B	06.10.19	En-suites removed Plots 5,8,9,10,11 & 18, schedule added	KN
A	20.09.19	First issue	KN

Drawing Status: FOR TENDER

Project: MAYFLOWER WAY ANGMERING

Client: Crayfern HOMES

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Drawing Title: Engineering Details Drainage Layout

Drawn	Checked	Scales	Paper Size	Date
KN		1:250	A1	09.19

Job No.	Drawing No.	Revision
KNC1539	502-01	D

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Drawings should be checked and verified on site and any discrepancies should be reported to Kazys Narbutas Consulting as soon as possible.

ARUN DISTRICT COUNCIL AWARDDOC