

From: Benjamin James [REDACTED]
Sent: 15 December 2021 11:34
To: jennifer.allen2@balfourbeatty.com; joel.hockenhull@balfourbeatty.com
Cc: Bailey, Josh <Joshua.Bailey@herefordshire.gov.uk>
Subject: RE: 8434904 (7152029) SW / LPA 212931 - Land Adjacent Farmers Arms - 5 L/s Information

Good Morning Both,

I am contacting in relation to a planning condition which yourselves have commented on. Unfortunately the planning officer had not passed on your request to us back on the 8th October, so apologies we have not provided this sooner.

To expedite the approval of this condition, I thought it best to contact you directly as correspondence has gone missing via Herefordshire Council Planning Department to this point.

In your comment dated 8th October 2021 10:52:

“Based on correspondence below, ST Water have confirmed that a 5 L/s discharge rate has been agreed. However, the applicant has provided no information on the planning portal that the flow rates from site will be reduced to 5 l/s or below”.

Please see attached quotation from May 2020, via Bradfords Civils, for the equipment installed.

Page 3 of the quote states:

Aco Q-brake vortex flow control - 109mm orifice, design 1 845.00 £ 845.00
head 0.4m, **5l/s flow**, manufactured from grade 304 S/S
c/w integral drain door & by-pass door. Unit requires a
150mm outlet

This is from the Wavin Stormwater Management calculations, that propose attenuation of 4mx3.5mx0.4m and allowable discharge of 5 Ltr/sec.

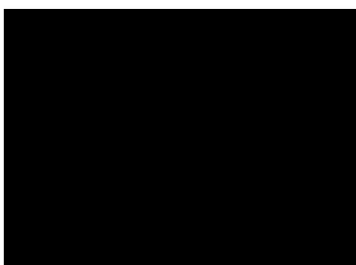
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This information was also issued to Severn Trent Water on the 19th October 2020, for the section 106 surface water connection application.

This should be all the information you require to allow conditions 11 & 13 to be approved.

Kind Regards

Ben James
Director | *Four J Developments Ltd.*



Wavin Stormwater Management



CONNECT TO BETTER

Wavin Stormwater Management

Project Details

Project Name Wellington Heath

Produced By Evan Morgan

Client Name Four J Developments

Site Address Adjacent to Farmers arms, Ledbury, HR8 1LS

Date 19/05/2020

Modular Units and Tank Details - attenuation tank

Length	4m	4 units
Width	3.5m	7 units
Depth	0.4m	1 units
Total Number of Units		28 units

Void	95%
Cover Depth	0.9m
Installation Depth	1.3m

Recommended Unit

Wavin recommend using the following unit for your installation.



AquaCell Core R

Product Number: 6LB100

AquaCell Core has been designed for use in deep applications, subject to both regular and heavy traffic loadings, such as cars and HGV's (for vehicles up to 44 tonnes).

Drainage Details

Area	455m ²
Catchment Type	Roof + Hardstanding
Area Reduction Factor	0.9
Soil Type	Over consolidated clay

Allowable Discharge	5 ltr/sec
Climate Change	30%
Effective Area	532.35m ²
Factor of Safety	1

Rainfall Data

R Value	0.39	Storm Return Period	1 in 30 years
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Time	Z1 Value	y mm	Z2 Value	p mm	Inflow	Outflow	Storage Volume
5min	0.37	7.03	1.44	10.12	5.39	1.5	3.89
10min	0.52	9.88	1.46	14.42	7.68	3	4.68
15min	0.63	11.97	1.47	17.6	9.37	4.5	4.87
30min	0.8	15.2	1.51	22.95	12.22	9	3.22
1hr	1	19	1.51	28.69	15.27	18	-2.73
2hr	1.2	22.8	1.52	34.66	18.45	36	-17.55
4hr	1.45	27.55	1.51	41.6	22.15	72	-49.85
6hr	1.6	30.4	1.49	45.3	24.11	108	-83.89
10hr	1.82	34.58	1.49	51.52	27.43	180	-152.57
24hr	2.2	41.8	1.45	60.61	32.27	432	-399.73
48hr	2.7	51.3	1.41	72.33	38.51	864	-825.49

Critical storm duration (hrs)

15min

Required Storage Height

4.87m

Volume from Dimensions

5.32m³

Area Sales Manager

If you would like to find out how to purchase, please contact your Area Sales Manager

Name	Nick Stack
Phone Number	07880 147978

Aquacell Disclaimer

- All information generated by this tool is supplied in good faith and without charge to enable reasonable assessment of the practical performance of Wavin products.
- Wavin offers a program of continuous improvement and reserves the right to modify the specification of products without notice.
- All information in this publication is believed to be correct at time of preparation. However, no responsibility can be accepted for any errors or omissions. Final determination of the suitability of information or material for the use contemplated and the manner of the use is the sole responsibility of the user
- Calculations are based upon relevant industry standards in accordance with the Wallingford Procedure, and should be verified by a qualified engineer.

Quotation

Delivery Address	Customer	FOU002	Quote No	237 / 10599514
Four J Developments Ltd LAND ADJACENT TO FARMERS ARM WELLINGTON HEATH LEDBURY HEREFORDSHIRE FAO : ben james	Date Required	15/05/2020	Quote Date	14/05/20 16:09
	Your Ref	Backdrop Manholes	Sale Type	Delivered
			Raised By	Evan Morgan

Product Code	Description	Quantity	Price (Ex Vat)	Total
PPL067	Polypipe Deep Inspection Chamber Base & 4 Risers 110mm Black ICDB3	4	147.54 ea	£ 590.16
PPL071	Polypipe Four Riser (for Deep Inspection Chamber Base) 860mm effective height Black ICDR4	4	79.86 ea	£ 319.44
PPL345	Polypipe Riser Sealing Ring for UG431 460mm Black UG488	4	1.78 ea	£ 7.12
PPL063	Polypipe 460mm Riser to Riser Fixing Kit FRK503	4	7.82 ea	£ 31.28
PPL060	Polypipe 460mm Plastic Frame To Riser Fixing Kit FRK500	2	3.90 ea	£ 7.80
PPL068	Polypipe Deep Plastic Cover & Frame for Inspection Chamber Square 460mm Black UG510	2	38.14 ea	£ 76.28
PPM090	Polypipe UG515 Frame to Riser Seal for UG510 Cover & Frame 460mm Black	2	1.93 ea	£ 3.86
PPL361	Polypipe 460mm Restricted Access Reducer Black UG514	2	20.73 ea	£ 41.46
SRB005	Standard Seating Ring 600 x 600mm Access	4	38.92 ea	£ 155.68
WRM002	Wrekin D400 Double Tri Ductile Iron Tristar Cover & Frame 600x600x100mm Pipework for Back drops	2	116.24 ea	£ 232.48
PPM051	Polypipe 110mm Long Radius Rest Bend Double Socket 87.5deg Terracotta UG483	4	6.72 ea	£ 26.88
PPL292	Polypipe 110mm Equal Junction Triple Socket 87.5deg Terracotta UG423	4	9.81 ea	£ 39.24
PPL444	Polypipe 110mm Screwed Access Plug Spigot Tail Terracotta USA62	4	5.69 ea	£ 22.76
PPL324	Polypipe 110mm Plain Ended Underground Pipe 6mtr Terracotta UG460	6	16.67 ea	£ 100.02
PPL271	Polypipe 110mm Coupling Polypropylene Double Socket Terracotta UG402	20	2.05 ea	£ 41.00

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Product Code	Description	Quantity	Price (Ex Vat)	Total
PPM051	Polypipe 110mm Long Radius Rest Bend Double Socket 87.5deg Terracotta UG483	2	6.72 ea	£ 13.44
PPL272	Polypipe 110mm Short Radius Bend Double Socket 45deg Terracotta UG403	10	5.62 ea	£ 56.20
PPL273	Polypipe 110mm Short Radius Bend Single Socket 45deg Terracotta UG404	4	4.44 ea	£ 17.76
PPL278	Polypipe 110mm Short Radius Bend Single Socket 15deg Terracotta UG410	4	4.64 ea	£ 18.56
PPL277	Polypipe 110mm Short Radius Bend Single Socket 11.25deg Terracotta UG408	2	5.09 ea	£ 10.18
PPL331	Polypipe 110mm Short Radius Bend Single Socket 30deg Terracotta UG468	4	4.64 ea	£ 18.56
PPL314	Polypipe Inspection Chamber Base 220mm deep x 460mm dia Black UG440	1	28.47 ea	£ 28.47
PPL306	Polypipe Side Riser 460mm dia/215mm high Black UG431	4	14.04 ea	£ 56.16
PPL345	Polypipe Riser Sealing Ring for UG431 460mm Black UG488	4	1.78 ea	£ 7.12
PPL068	Polypipe Deep Plastic Cover & Frame for Inspection Chamber Square 460mm Black UG510	1	38.14 ea	£ 38.14
PPM090	Polypipe UG515 Frame to Riser Seal for UG510 Cover & Frame 460mm Black Attenuation tank, geotextiles, flow control and chamber	1	1.93 ea	£ 1.93
MWS158	Polystorm-R Modular Water Storage Unit 1000 x 500 x 400mm (61T/m2 Loading)	28	34.05 ea	£ 953.40
ZZ_ZSP103_7 8573	techline 1mm PP impermeable membrane 2m x 20m	1	219.45 ea	£ 219.45
ZZ_ZSP103_7 8575	TNW3000 protection fleece 2m x 50m	1	159.60 ea	£ 159.60
ZZ_ZSP103_7 8577	50mm x 10m D/S joint tape	2	13.23 ea	£ 26.46

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	Your Ref	Backdrop Manholes	Sale Type	Delivered
			Raised By	Evan Morgan

Product Code	Description	Quantity	Price (Ex Vat)	Total
ZZ_ZSP103_7 8579	75mm x 50m pro grade lap tape	1	14.56 ea	£ 14.56
ZZ_ZSP103_7 8581	carriage	1	99.75 ea	£ 99.75
	lead time 1-2 working days			
PPL218	Polystorm Lite Mini Silt Trap PSMST110	1	280.42 ea	£ 280.42
PPM086	Polypipe Side Riser with Seal 320mm dia/135mm high Black UG466	2	8.01 ea	£ 16.02
PPL357	Polypipe 320mm Square PVC Cover & Frame Black UG502	1	20.32 ea	£ 20.32
ZZ_ZSP103_7 8583	Aco Q-brake vortex flow control - 109mm orifice, design head 0.4m, 5l/s flow. manufactured from grade 304 S/S c/w integral drain doan & by-pass door. Unit requires a 150mm outlet	1	845.00 ea	£ 845.00
ZZ_ZSP103_7 8585	Aco Q-Chamber (can come prefitted with above flow control). assumed 1500mm high, 1050mm diamter, x2 150mm inlet/outlet points	1	1,009.93 ea	£ 1,009.93
CSS004	Cover Slab 1200mm Square Eccentric Access 600 x 600mm SRB4	1	127.36 ea	£ 127.36
SRB005	Standard Seating Ring 600 x 600mm Access	2	38.92 ea	£ 77.84
CAK011	D400 Double Tri Ductile Iron Cover & Frame 600x600x100mm	1	116.24 ea	£ 116.24

The quantities shown are believed to be correct on the basis of the details provided by you, but no responsibility can be accepted for their sufficiency or otherwise, and we cannot accept liability for any consequential costs.

This quotation is valid for 30 days from the date at the head of this document.

Subject to our terms and conditions of sale. Copies available on request.

Evan Morgan

Civils Development Manager
Tel: 01594 826152

Total Goods	£5,928.33
Total VAT	£1,185.66
Total Amount	£7,113.99

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