



The Code for Sustainable Homes

**(Produced under CSH version November 2010 - Addendum
(2014) England)**

Post Construction Stage Assessment of

Wh186 Reading

Berkeley Avenue, Reading

For

Weston Homes Plc

By

Stansted Environmental Services Ltd

HEIDI PATEMAN



Parties Involved

Site:Wh186 Reading

Assessor

Organisation Name: Stansted Environmental Services Ltd

Assessment Carried Out By: Heidi Pateman
BRE Assessor Ref. No: BREEAM-Assessor-1657

Address: The Stansted Centre, Parsonage Road, Takeley, East Sussex, CM22 6PU

Email Address: heidi@sestesting.com

Client / Funding Body

Assessment Required by a Funding Body:

No

Organisation Name: Weston Homes Plc
Contact: Graeme Mitchell
Address: ,

Developer

Organisation Name: Weston Homes Plc
Contact: Graeme Mitchell
Address: Weston Business Centre, Parsonage Road, Takeley, CM22 6PU

Architect

Organisation Name: Weston Homes Plc
Contact: Graeme Mitchell
Address: ,



Assessment and Site Information

Site: Wh186 Reading

Assessment Details

Scheme:	CSH
Assessment Reference No:	BRE-00033807-PC-001-00
Scheme Version:	Nov 2010 - Addendum (2014) England
Date Assessment Registered:	01/02/2019
Stage of Development:	Post Construction Stage
Development Phase:	1

Site Details

Site Name:	Wh186 Reading
Site Address:	Berkeley Avenue, Reading
Local Planning Authority:	Reading Borough Council
No. of Units:	112
No. of Social Housing Units:	0
<u>General Description of Development:</u>	
A single E-shaped block of 112 private apartments.	

General Description of Site

Site Area (M ²):	7245
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Building Types:

Block of apartments - partially 8 storey

Construction Types:

RC frame with SFS, flat roof, RC slab podium deck.

Services:

Standard

Unusual Features:

None



Category Summary

Site:Wh186 Reading

Energy:

As Built SAPs achieve a good CO2 reduction and FEE due to the improved building fabric and gas combi boilers with FGHR, accredited thermal bridges and low air test results. Dwellings are provided with electrics energy display devices, tidy dries in the bathrooms with sufficient ventilation via the MEV system, energy efficient white goods and secure cycle storage. No home offices are provided.

Water :

Water efficient sanitary ware and white goods have been provided to the apartments achieving a water usage of less than 90 litres/person/day. The credit is not sought for Wat2.

Materials:

Green Guide Ratings have been sourced and at least 3 of the 5 building elements achieved Ratings of A+ to D, achieving 6 credits. A commitment has been made to responsibly source at least 80% of the main and finishing building element materials.

Surface Water Run-off:

The development has reduced the impermeable area from that of the pre-development site therefore no SUDS are required. The peak rate of runoff and volume of runoff have been reduced due to the increased permeable area and green roofs. The green roofs, trapped gullies and catchpit manholes provide 2 levels of treatment before runoff enters the watercourse. The FRA confirms that the site is at a medium risk of flooding (Zone 2) however a freeboard of 630mm has been provided for 1 credit.

Waste:

Sufficient refuse and mixed dry recycling storage is provided in communal undercroft refuse stores. Stores are accessible in accordance with Checklist IDP. All dwellings are provided with a fitted kitchen recycling bin. A compliant SWMP has been provided at the first review shows 100% of waste being either re-used on site or recycled off site. No credit is sought for Was3.

Pollution:

All insulation products have a GWP of less than 5. The gas combi boilers have NOx emissions of 29mg/kWh.

Health & Wellbeing:

Daylight and view of sky calculations have been carried out for all applicable rooms with varying credits awarded. A 5dB improvement over Approv Doc E requirements has been achieved during a programme of pre-completion sound testing. Plots 1 & 2 have their own private terraces although they can also access the communal podium garden available for all flats. All garden space is accessible in accordance with Checklist IDP. Credits are not sought for Lifetime Homes.

Management:

A fully compliant HUG has been provided. A CCS score of 37 with at least 7 in each section has been achieved. Targets were set for energy & water usage however on-site monitoring did not meet the requirements. Best practice policies for air & water pollution were however followed. Secured by Design Section 2 was only achieved for the plots in staircore A due to lift control issues so certification was withheld for the other stair cores.

Ecology:

An SQE has provided an ecology report which confirmed that the pre-development site was of low ecological value with the exception of a mature tree just outside the site boundary which has been protected and retained. The SQEs enhancement recommendations were incorporated resulting in a +8.4 change in species value due to the large amount of native species planting and green roof. The partial 8 storey block achieves a NIFA to NIGFA of 4.12 : 1.



Dwelling Details

Site:Wh186 Reading

Address: Berkeley Avenue, Reading County : Berkshire

Dwelling ID	Plot No	House No/Name	Street	Post Code	House Type	Soc. Housing	EPC Number	CO ₂ Rating
1	1	91	Riverside View	RG1 6FH	Flat	No	0968-3834-7085-9591-8671	86
2	2	90	Riverside View	RG1 6FH	Flat	No	9548-4006-7378-6431-5964	85
3	3	1	Riverside View	RG1 6FF	Flat	No	9378-5006-7378-6731-5984	88
4	4	2	Riverside View	RG1 6FF	Flat	No	0361-3838-7038-9501-3641	88
5	5	3	Riverside View	RG1 6FF	Flat	No	8602-4576-8339-8097-7818	88
6	6	4	Riverside View	RG1 6FF	Flat	No	0565-3838-7038-9501-8645	88
7	7	5	Riverside View	RG1 6FF	Flat	No	8607-5526-8339-1007-6313	88
8	8	6	Riverside View	RG1 6FF	Flat	No	8431-7238-6360-0127-4996	86
9	9	7	Riverside View	RG1 6FF	Flat	No	8188-7239-6369-3115-4902	90
10	10	8	Riverside View	RG1 6FF	Flat	No	8601-0576-9339-4097-1813	90
11	11	9	Riverside View	RG1 6FF	Flat	No	0265-3817-7386-9291-1475	89
12	12	10	Riverside View	RG1 6FF	Flat	No	0328-2006-7393-6031-5930	89
13	13	11	Riverside View	RG1 6FF	Flat	No	0066-3837-7089-9591-1641	90
14	14	12	Riverside View	RG1 6FF	Flat	No	8606-7586-9339-3007-1313	89
15	15	56	Riverside View	RG1 6FF	Flat	No	9478-2016-7308-6531-5900	89
16	16	57	Riverside View	RG1 6FF	Flat	No	9888-9916-7302-6131-5904	89
17	17	58	Riverside View	RG1 6FF	Flat	No	8171-7538-6100-5354-6992	88
18	18	59	Riverside View	RG1 6FF	Flat	No	0165-3836-7130-9591-2675	87
19	19	60	Riverside View	RG1 6FF	Flat	No	0865-3835-7110-9521-4615	87
20	20	61	Riverside View	RG1 6FH	Flat	No	8121-7538-6100-7377-6990	89
21	21	62	Riverside View	RG1 6FH	Flat	No	9378-0016-7318-6031-5900	90
22	22	63	Riverside View	RG1 6FH	Flat	No	0563-3837-7181-9591-4635	90
23	23	64	Riverside View	RG1 6FH	Flat	No	7008-6916-7310-6731-5950	89
24	24	92	Riverside View	RG1 6FH	Flat	No	0366-3831-7191-2520-5005	89
25	25	93	Riverside View	RG1 6FH	Flat	No	8609-4516-1332-5127-1903	90
26	26	94	Riverside View	RG1 6FH	Flat	No	8781-7532-6119-9328-6996	89
27	27	95	Riverside View	RG1 6FH	Flat	No	9469-3838-7123-9591-3631	87

28	28	96	Riverside View	RG1 6FH	Flat	No	8751-7532-6149-1368-6992	89
29	29	97	Riverside View	RG1 6FH	Flat	No	8491-7532-6149-2318-6996	87
30	30	98	Riverside View	RG1 6FH	Flat	No	8030-7539-6140-4351-6226	88
31	31	14	R	RG1 6FF	Flat	No	9078-5016-7348-6831-5980	89
32	32	15	Riverside View	RG1 6FF	Flat	No	2708-7016-7375-6431-5930	89
33	33	16	Riverside View	RG1 6FF	Flat	No	0464-3837-7187-9591-7615	90
34	34	17	Riverside View	RG1 6FF	Flat	No	0267-3830-7157-9521-2641	91
35	35	18	Riverside View	RG1 6FF	Flat	No	8609-4506-7339-1127-3513	91
36	36	19	Riverside View	RG1 6FF	Flat	No	0461-3837-7188-9591-1651	86
37	37	20	Riverside View	RG1 6FF	Flat	No	0662-3830-7159-9521-0625	91
38	38	21	Riverside View	RG1 6FF	Flat	No	8771-7538-6200-1387-6990	91
39	39	22	Riverside View	RG1 6FF	Flat	No	9278-0026-7308-6031-5980	92
40	40	23	Riverside View	RG1 6FF	Flat	No	0561-3830-7251-9521-0601	91
41	41	24	Riverside View	RG1 6FF	Flat	No	8607-4576-1339-0297-1813	92
42	42	25	R	RG1 6FF	Flat	No	0762-3838-7252-9521-4625	87
43	43	65	Riverside View	RG1 6FH	Flat	No	8291-7538-6220-6307-6992	87
44	44	66	Riverside View	RG1 6FH	Flat	No	9678-4026-7338-6131-5904	92
45	45	67	Riverside View	RG1 6FH	Flat	No	0562-3837-7283-9591-7681	90
46	46	68	Riverside View	RG1 6FH	Flat	No	8641-7536-6250-8356-6906	90
47	47	69	Riverside View	RG1 6FH	Flat	No	8604-1566-6339-7207-0613	87
48	48	70	Riverside View	RG1 6FH	Flat	No	0166-3837-7286-9591-1641	88
49	49	71	Riverside View	RG1 6FH	Flat	No	0968-3837-7286-9591-2671	92
50	50	72	Riverside View	RG1 6FH	Flat	No	8609-4576-6339-2297-6813	91
51	51	73	Riverside View	RG1 6FH	Flat	No	0061-3835-7217-9521-3621	87
52	52	99	Riverside View	RG1 6FH	Flat	No	9588-9926-7372-6531-5954	87
53	53	100	Riverside View	RG1 6FH	Flat	No	9860-3838-7228-9591-4655	92
54	54	101	Riverside View	RG1 6FH	Flat	No	2268-6926-7389-6331-5930	91
55	55	102	Riverside View	RG1 6FH	Flat	No	9065-3836-7298-9521-5625	86
56	56	103	Riverside View	RG1 6FH	Flat	No	8551-7539-6289-8356-6922	86
57	57	104	Riverside View	RG1 6FH	Flat	No	2668-9926-7389-6431-3990	90
58	58	105	Riverside View	RG1 6FH	Flat	No	8531-7532-6299-1318-6996	90
59	59	26	Riverside View	RG1 6FF	Flat	No	8604-7576-9339-6297-1813	89
60	60	27	Riverside View	RG1 6FF	Flat	No	8221-7535-6290-6320-6926	91
61	61	28	Riverside View	RG1 6FF	Flat	No	8671-7538-6290-9367-6996	90
62	62	29	Riverside View	RG1 6FF	Flat	No	0263-3834-7350-9591-8605	91
63	63	30	Riverside View	RG1 6FF	Flat	No	8607-0546-0339-0397-4513	91
64	64	31	Riverside View	RG1 6FF	Flat	No	8741-7538-6310-4327-	90

6992								
65	65	32	Riverside View	RG1 6FF	Flat	No	9678-9036-7318-6731-5970	92
66	66	33	Riverside View	RG1 6FF	Flat	No	8600-5576-2339-5397-0813	92
67	67	34	Riverside View	RG1 6FF	Flat	No	0461-3830-7352-9521-2641	91
68	68	35	Riverside View	RG1 6FF	Flat	No	8001-7538-6320-7327-6992	90
69	69	74	Riverside View	RG1 6FH	Flat	No	0169-3837-7382-9591-5645	91
70	70	75	Riverside View	RG1 6FH	Flat	No	9378-2036-7338-6031-5910	90
71	71	76	Riverside View	RG1 6FH	Flat	No	8603-2566-3339-0397-3313	86
72	72	77	Riverside View	RG1 6FH	Flat	No	8571-7538-6330-4337-6946	90
73	73	78	Riverside View	RG1 6FH	Flat	No	8608-6576-3339-7397-9813	92
74	74	79	Riverside View	RG1 6FH	Flat	No	9578-0036-7348-6631-5910	91
75	75	106	Riverside View	RG1 6FH	Flat	No	8011-7539-6349-3316-6922	90
76	76	107	Riverside View	RG1 6FH	Flat	No	8221-7532-6349-5363-6992	86
77	77	108	Riverside View	RG1 6FH	Flat	No	8631-7532-6349-7333-6996	87
78	78	109	Riverside View	RG1 6FH	Flat	No	9768-3836-7394-9521-1621	88
79	79	36	Riverside View	RG1 6FF	Flat	No	9878-2036-7358-6631-5920	89
80	80	37	Riverside View	RG1 6FF	Flat	No	0364-3834-7355-9591-1631	91
81	81	38	Riverside View	RG1 6FF	Flat	No	8541-7538-6350-6327-6996	90
82	82	39	Riverside View	RG1 6FF	Flat	No	8621-7535-6350-9364-6996	86
83	83	40	Riverside View	RG1 6FF	Flat	No	0062-3834-7356-9591-4641	87
84	84	41	Riverside View	RG1 6FF	Flat	No	8541-7538-6360-3347-6996	92
85	85	42	Riverside View	RG1 6FF	Flat	No	8581-7535-6360-4354-6996	91
86	86	43	Riverside View	RG1 6FH	Flat	No	8606-8576-6339-4397-9813	90
87	87	80	Riverside View	RG1 6FH	Flat	No	8001-7538-6360-9337-6992	90
88	88	81	Riverside View	RG1 6FH	Flat	No	0562-3837-7387-9591-6641	88
89	89	82	Riverside View	RG1 6FH	Flat	No	8603-7576-7339-7397-9813	91
90	90	83	Riverside View	RG1 6FH	Flat	No	9378-7036-7378-6031-5960	91
91	91	110	Riverside View	RG1 6FH	Flat	No	2868-1936-7379-6831-5984	90
92	92	111	Riverside View	RG1 6FH	Flat	No	9661-3836-7398-9521-3685	90
93	93	44	Riverside View	RG1 6FF	Flat	No	0464-3837-7388-9591-2661	89
94	94	45	Riverside View	RG1 6FF	Flat	No	2068-5036-7384-6231-5960	91
95	95	46	Riverside View	RG1 6FF	Flat	No	0668-3837-7388-9591-2671	86
96	96	47	Riverside View	RG1 6FF	Flat	No	8491-7538-6400-1337-6992	87
97	97	48	Riverside View	RG1 6FF	Flat	No	2368-0046-7314-6131-5910	90
98	98	49	Riverside View	RG1 6FF	Flat	No	8321-7534-6420-2336-6926	90
99	99	84	Riverside View	RG1 6FH	Flat	No	8801-7533-6420-5356-6996	90
100	100	85	Riverside View	RG1 6FH	Flat	No	0568-3837-7482-9591-3625	87

101	101	86	Riverside View	RG1 6FH	Flat	No	0269-3837-7482-9591-6685	88
102	102	87	Riverside View	RG1 6FH	Flat	No	8701-7533-0430-2302-6902	90
103	103	112	Riverside View	RG1 6FH	Flat	No	8081-7539-6439-4306-6922	89
104	104	113	Riverside View	RG1 6FH	Flat	No	8697-6566-3339-1427-6913	86
105	105	50	Riverside View	RG1 6FF	Flat	No	2068-8046-7344-6731-5910	90
106	106	51	Riverside View	RG1 6FF	Flat	No	8191-7538-6440-3377-6992	87
107	107	52	Riverside View	RG1 6FF	Flat	No	9278-3046-7358-6731-5924	88
108	108	53	Riverside View	RG1 6FF	Flat	No	2068-4046-7354-6731-5940	91
109	109	88	Riverside View	RG1 6FH	Flat	No	8391-7538-6450-7377-6992	85
110	110	89	Riverside View	RG1 6FH	Flat	No	0760-3837-7486-9591-7631	85
111	111	54	Riverside View	RG1 6FF	Flat	No	0264-3837-7486-9591-4645	85
112	112	55	Riverside View	RG1 6FF	Flat	No	8605-6576-6339-2497-6813	85



Issue Details

Site:Wh186 Reading

Category: Energy

Issue:Ene1 Dwelling Emission Rate

Max Credits:15

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Average CO2 reduction		Complete	1.90	9,10,1,2,3,4,5,6,7,8

Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	As Built SAP Calculations	PCR	EV2
3	User Defined Evidence Type	Ene1&2 Calculations	PCR	EV3
4	User Defined Evidence Type	Site Plan	PCR	DR1
5	User Defined Evidence Type	Floor Plans	PCR	DR2
6	User Defined Evidence Type	Sales Plans	PCR	DR3
7	User Defined Evidence Type	Sections	PCR	DR4
8	User Defined Evidence Type	Elevations	PCR	DR5
9	User Defined Evidence Type	Window/Door Schedules	PCR	DR6
10	User Defined Evidence Type	Roof Plan	PCR	DR7

Description of Features Relating to Issue & Suggested Improvements

As Built SAPs were carried out by an accredited OCDEA Assessor for all units using the specification and drawings provided. The SAPs were then used to complete the Ene1&2 calculation. The dwellings are designed with RC frame and SFS wall construction with predominantly brick outer skin, together with RC slab podium deck, intermediate floors and flat roof. The U Values exceed Building Regulation requirements, thermal bridging is designed to ACDs and the dwellings are provided with MEV and gas combi boilers with flue gas heat recovery. The Ene1&2 calculations show that the block achieves an average CO2 reduction of 11.4% which achieves 1.9 credits.

Issue:Ene2 Fabric Energy Efficiency

Max Credits:2

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Average DFEE		Complete	7.50	1,2,3,4,5,6,7,8,9,10

Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	As Built SAP Calculations	PCR	EV2
3	User Defined Evidence Type	Ene1&2 Calculations	PCR	EV3
4	User Defined Evidence Type	Site Plan	PCR	DR1
5	User Defined Evidence Type	Floor Plans	PCR	DR2
6	User Defined Evidence Type	Sales Plans	PCR	DR3
7	User Defined Evidence Type	Sections	PCR	DR4
8	User Defined Evidence Type	Elevations	PCR	DR5
9	User Defined Evidence Type	Window/Door Schedules	PCR	DR6
10	User Defined Evidence Type	Roof Plan	PCR	DR7

Description of Features Relating to Issue & Suggested Improvements

As Built SAPs were carried out by an accredited OCDEA Assessor for all units using the specification and drawings provided. The SAPs were then used to complete the Ene1&2 calculation. The dwellings are designed with RC frame and SFS wall construction with predominantly brick outer skin, together with RC slab podium deck, intermediate floors and flat roof. The U Values exceed Building Regulation requirements, a low DAP has been set, thermal bridging is designed to ACDs and the dwellings are provided with MEV and gas combi boilers with flue gas heat recovery. The Ene1&2 calculations show that the block achieves an average DFEE of 36.7kWh/m2/yr therefore 7.5 credits have been achieved.

Issue:Ene3 Energy Display Devices

Max Credits:2

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	Electric EDD		Complete	1.00	1,2
		<u>Related Evidence</u>			
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Energy Display Device Details	PCR	EV34	
2	User Defined Evidence Type	Site Audit & Photos	PCR	EV31	

Description of Features Relating to Issue & Suggested Improvements

This credit was not originally sought, however electric smart meters were installed and Eon energy display devices provided. Products details confirm that the EDDs provide numerical and graphical data for both current and historic usage in line with Code requirements. The provision was confirmed at site audit therefore 1 credit has been awarded.

Issue:Ene4 Drying Space

Max Credits:1

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	Tidy Dry		Complete	1.00	1,2,3,4,5
		<u>Related Evidence</u>			
Ev.No.	Evidence Type	Evidence Title	Version	Location	

1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	Tidy Dry Details	PCR	EV4
3	User Defined Evidence Type	Accommodation Schedule	PCR	EV5
4	User Defined Evidence Type	Floor Plans	PCR	DR2
5	User Defined Evidence Type	Site Audit & Photos	PCR	EV31

Description of Features Relating to Issue & Suggested Improvements

The specification states that the dwellings are provided with Leifheit Telegant 8.1m tidy dries in the bathroom with ventilation at min 13 l/s via the MEV system. The provision has been confirmed at site inspection. Sufficient natural drying space and ventilation has been provided therefore 1 credit has been awarded.

Issue:Ene5 Energy Labelled White goods

Max Credits:2

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	White Goods & HUG		Complete	2.00	1,2,3,4,5
Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	White Goods Details	PCR	EV6	
3	User Defined Evidence Type	Kitchen Layouts	PCR	DR8	
4	User Defined Evidence Type	Home User Guide	PCR	EV7	
5	User Defined Evidence Type	Site Audit & Photos	PCR	EV31	

Description of Features Relating to Issue & Suggested Improvements

The specification states that the dwellings are provided with a Zanussi ZBB28441SA fridge freezer with an A+ energy rating, a Zanussi ZDT21001FA dishwasher with an A+ energy rating and a Zanussi ZWT71401WA washer dryer with a B energy rating. The specification also makes a commitment to provide a Home User Guide compliant with Checklist Man1 Parts 1 and 2, therefore providing details of the EU Energy Labelling Scheme. The white goods provision has been confirmed at site inspection and the Home User Guide provided includes the relevant details therefore 2 credits have been awarded.

Issue:Ene6 External lighting

Max Credits:2

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Energy Efficient Lighting		Complete	0.00	5,1,2,3,4,6,7
Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	Lighting Details	PCR	EV8	
3	User Defined Evidence Type	Floor Plans	PCR	DR2	
4	User Defined Evidence Type	Site Plan	PCR	DR1	

5	User Defined Evidence Type	Elevations	PCR	DR5
6	User Defined Evidence Type	Drainage & Levels Drawings	PCR	DR3
7	User Defined Evidence Type	Site Audit & Photos	PCR	EV31

Description of Features Relating to Issue & Suggested Improvements

The specification and drawings confirm that all external and communal lighting will be energy efficient with a luminous efficacy of greater than 40 lumens per circuit Watt. Internal communal areas will have emergency lighting with PIR. External lighting fixed to the dwellings are specified to have timers/dusk to dawn sensors with manual override switches as shown on the elevations. External communal areas are specified to have timers/dusk to dawn sensors and PIRs. The undercroft bin and cycle stores are specified with low energy bulkhead lights with PIR and the undercroft car park lighting are fluorescent tube with PIR. Lighting details have been provided confirming energy efficiency for all products with the exception of the terrace lights. At site inspection, the majority of the lighting and control provision was confirmed however the terrace lights did not appear to have any automatic controls and were manually switched therefore the credits cannot awarded.

Issue:Ene7 Low and Zero Carbon Technologies

Max Credits:2

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Credits not sought		Complete	0.00	

Description of Features Relating to Issue & Suggested Improvements

These credits are not sought.

Issue:Ene8 Cycle Storage

Max Credits:2

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Secure Bike Storage		Complete	1.00	2,3,4,5,6,7,8,1,9

Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	Accommodation Schedule	PCR	EV5
3	User Defined Evidence Type	Bike Rack Details	PCR	EV9
4	User Defined Evidence Type	Secured by Design Compliance Confirmation	PCR	EV10
5	User Defined Evidence Type	Site Plan	PCR	DR1
6	User Defined Evidence Type	Floor Plans	PCR	DR2
7	User Defined Evidence Type	Drainage & Levels Drawings	PCR	DR3
8	User Defined Evidence Type	Window & Door Schedules	PCR	DR6
9	User Defined Evidence Type	Site Audit & Photos	PCR	EV31

Description of Features Relating to Issue & Suggested Improvements

112 bike spaces are provided which is sufficient for the 49 no. 1Bed, 59 no. 2Bed and 4 no. 3Bed flats to achieve 1 credit. The cycle racks are semi vertical Odoni Elwell Type 9 which are secured to the structure of the building and are capable of locking both wheel and frame. The bike store is open to the car park, bordered just with railings however the site is gated and secure as shown on Drgs 80.22 and 15.105. The provision has been confirmed at site inspection and Secured by Design Section 2 compliance has also been received. On this basis 1 credit has been awarded.

Issue:Ene9 Home Office

Max Credits:1

	<u>Specification</u>				
ID	Description		Status	Credits	Ev.No.
1	Credit not sought		Complete	0.00	

Description of Features Relating to Issue & Suggested Improvements

This credit is not sought.

Category: Water

Issue:Wat1 Indoor Water Use

Max Credits:5

	<u>Specification</u>				
ID	Description		Status	Credits	Ev.No.
1	84.7 litres		Complete	4.00	1,2,3,4,5
<u>Related Evidence</u>					
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Specification	PCR	EV1	
2	User Defined Evidence Type	White Goods Details	PCR	EV6	
3	User Defined Evidence Type	Sanitary Ware Details	PCR	EV11	
4	User Defined Evidence Type	Wat1 Calculation	PCR	EV12	
5	User Defined Evidence Type	Site Audit & Photos	PCR	EV31	

Description of Features Relating to Issue & Suggested Improvements

The specification states that the dwellings will be provided with a Zanussi ZDT21001FA dishwasher using 0.85 litres/place setting, a Zanussi ZWT71401WA washer dryer using 6.36 litres/kg dry load, a RAK WC with a 6/3 litre dual flush cistern, a Jubilee Eco 134 litre bath, sink taps restricted to 5 litres, basin taps restricted to 2.5 litres and showers restricted to 6 litres. Product details have been provided to confirm the water usage and this information has been used to complete the Wat1 calculation. A total net internal potable water usage of 84.7 litres has been achieved therefore 4 credits have been awarded.

Issue:Wat2 External Water Use

Max Credits:1

	<u>Specification</u>
--	----------------------

ID	Description	Status	Credits	Ev.No.
1	Credit not sought	Complete	0.00	

Description of Features Relating to Issue & Suggested Improvements

This credit is not sought.

Category: Materials

Issue:Mat1 Environmental Impact of Materials

Max Credits:15

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Green Guide Ratings	Complete	6.00	6,7,8,1,2,3,4,5
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	As Built SAP Calculations	PCR	EV2
3	User Defined Evidence Type	Floor Plans	PCR	DR2
4	User Defined Evidence Type	Sections	PCR	DR4
5	User Defined Evidence Type	Elevations	PCR	DR5
6	User Defined Evidence Type	Window & Door Schedules	PCR	DR6
7	User Defined Evidence Type	Green Guide Ratings	PCR	EV13
8	User Defined Evidence Type	Mat1 Calculations	PCR	EV14

Description of Features Relating to Issue & Suggested Improvements

The specification and drawings have been used to calculate the areas of the applicable building elements and obtain the Green Guide Ratings. The Developer committed to achieving Green Guide Ratings of A+ to D for at least 3 of the main building elements and this has been achieved with a Mat 1 score of 6.43 therefore 6 credits can be awarded.

Issue:Mat2 Responsible Sourcing of Materials - Basic Building Elements

Max Credits:6

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Responsible Sourcing	Complete	4.00	1,2,3,4,5,6,7,8,9,10,11
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	As Built SAP Calculations	PCR	EV2
3	User Defined Evidence Type	Mat1 Calculations	PCR	EV14
4	User Defined Evidence Type	Mat2&3 Calculations	PCR	EV15

5	User Defined Evidence Type	Green Guide Ratings	PCR	EV13
6	User Defined Evidence Type	Materials Schedule & Responsible Sourcing Certificates	PCR	EV33
7	User Defined Evidence Type	Floor Plans	PCR	DR2
8	User Defined Evidence Type	Sections	PCR	DR4
9	User Defined Evidence Type	Elevations	PCR	DR5
10	User Defined Evidence Type	Window & Door Schedules	PCR	DR6
11	User Defined Evidence Type	Roof Plans	PCR	DR7

Description of Features Relating to Issue & Suggested Improvements

The Mat2 calculations were carried out based on the specification and drawings and the materials are further confirmed in the As Built SAPs provided. The Developer made a commitment to responsibly source at least 80% of the materials within each of the basic building elements. Responsible sourcing certificates have been provided and the Mat2 calculation achieves a score of 10.63 allowing 4 credits to be awarded.

Issue:Mat3 Responsible Sourcing of Materials - Finishing Elements

Max Credits:3

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Responsible Sourcing - Finishes	Complete	3.00	3,4,5,6,2,1
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specification	PCR	EV1
2	User Defined Evidence Type	Mat2&3 Calculations	PCR	EV15
3	User Defined Evidence Type	Window/Door Schedules	PCR	DR6
4	User Defined Evidence Type	Floor Plans	PCR	DR2
5	User Defined Evidence Type	Developer Letter	PCR	EV32
6	User Defined Evidence Type	Materials Schedules and Responsible Sourcing Certificates	PCR	EV33

Description of Features Relating to Issue & Suggested Improvements

The Mat3 calculations were carried out based on the specification and drawings provided. The Developer made a commitment to responsibly source at least 80% of the materials within each of the finishing building elements. The Chain of Custody certificates provided were predominantly for timber materials enabling a score of 13.58 to be achieved therefore 3 credits have been awarded.

Category: Surface Water Run-off

Issue:Sur1 Management of Surface Water Run Off from Developments

Max Credits:2

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Water Treatment	Complete	1.00	3,4,5,1,2,6

Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Sur1 Template & Qualification Statement	PCR	EV27
2	User Defined Evidence Type	Specifications	PCR	EV1
3	User Defined Evidence Type	Drainage & Levels Drawings	PCR	DR3
4	User Defined Evidence Type	Sections	PCR	DR4
5	User Defined Evidence Type	Roof Plans	PCR	DR7
6	User Defined Evidence Type	Developer Letter	PCR	EV32

Description of Features Relating to Issue & Suggested Improvements

The drainage design and Sur1 Template was completed at Design Stage by a suitably qualified engineer. The Template confirms that the brownfield site is 7245m2. The pre-development impermeable area is 5254m2 and this has been reduced post development to 3591m2. The peak rate of runoff for the pre-development site is calculated to be 58 l/s and 168 l/s for the 1 and 100 year storm events of 6 hour duration. The peak rate of runoff for the post development site is calculated to be 51 l/s and 149 l/s for the 1 and 100 year storm events including an allowance for climate change. The pre-development volume of runoff is calculated to be 410 m3 which has reduced post development to 280 m3 prior to mitigation and to 0 m3 following mitigation. Mandatory requirements have therefore been achieved. No SUDs are required to reduce the peak rate or volume of runoff, however the development has been provided with green roofs. Roof drainage will pass through the green roofs/landscape areas on the buildings and the podiums. The green roofs and podiums cover 90% of the undercroft car park area. The access road and uncovered parking areas will be drained by trapped gullies and before discharging into the River Kennet, the runoff will also pass through a catchpit manhole, therefore the system will provide two levels of treatment in line with the SUDs Manual. The Developer has confirmed that the drainage has been installed as designed and that there have been no changes in the local area that would affect the flood risk of the site. One credit has therefore been awarded for water treatment.

Issue:Sur2 Flood Risk

Max Credits:2

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Zone 2 with 630mm Freeboard		Complete	1.00	1,2,3
Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location	
1	User Defined Evidence Type	Flood Risk Assessment	PCR	EV26	
2	User Defined Evidence Type	Freeboard Details	PCR	EV28	
3	User Defined Evidence Type	Developer Letter	PCR	EV32	

Description of Features Relating to Issue & Suggested Improvements

The original Flood Risk Assessment was carried out in 2008. This was updated by Peter Brett Associates in August 2010 to reflect PPS25 requirements and additional mitigation measures. The FRA was again updated with an Addendum in November 2017 by EAS to assess the risk for Plots 1 and 2 which are being relocated and also to reflect February 2016 Climate Change guidance. This last FRA confirms that the site is in Zone 2 with a medium risk of flooding from the the River Kennet on the eastern boundary and predominantly from the Holy Brook to the west. The EA surface water map shows a very low risk of flooding from surface water. The EA website shows that the site is not in a Source Protection Zone therefore is not at significant risk from groundwater. There is a residual risk of flooding

to Plots 1 and 2 from sewer failure. The risk of flooding from artificial sources is low. In summary, there is a medium risk of flooding from rivers (Zone 2). Mitigation measures are recommended to raise the floor levels of Plots 1 and 2 and entrances to 300mm above the Design Flood Level whilst the other units are on the upper floors. Details have been provided to show that the finished floor level of the ground floor units is 39.500 against a DFL including climate change at 38.870 therefore providing a 630mm freeboard allowing 1 credit to be awarded. The Developer has confirmed that the drainage has been installed as designed and that there have been no changes in the local area that would affect the flood risk of the site.

Category: Waste

Issue: Was1 Storage of non-recyclable waste and recyclable household waste

Max Credits: 1

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Local Authority Collection	Complete	4.00	4,5,6,7,8,9,10,1,2,3
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specification	PCR	EV1
2	User Defined Evidence Type	Accommodation Schedule	PCR	EV5
3	User Defined Evidence Type	Local Authority Collection Details & Table Cat 5.1	PCR	EV16
4	User Defined Evidence Type	Checklist IDP & door width information	PCR	EV17
5	User Defined Evidence Type	Site Plan	PCR	DR1
6	User Defined Evidence Type	Drainage & Levels Drawings	PCR	DR13
7	User Defined Evidence Type	Kitchen Layouts	PCR	DR8
8	User Defined Evidence Type	Site Audit & Photos	PCR	EV31
9	User Defined Evidence Type	Window/Door Schedules	PCR	DR6
10	User Defined Evidence Type	Floor Plans	PCR	DR2

Description of Features Relating to Issue & Suggested Improvements

Reading Borough Council make a fortnightly alternate collection for refuse and mixed dry recycling from flats. The 49 no. 1Bed, 59 no. 2Bed and 4 no. 3Bed require a total of 15,890 litres of storage in accordance with BS5906 requirements. The undercroft car park contains 3 communal bin stores, one adjacent to each stair core. All stores are provided with 1100 litre Eurobins totalling 12,100 litres for Store A, 8,800 litres for Store B and 6,600 litres for Store C, totalling 27,500 litres therefore exceeding storage volume requirements. The mix of refuse and recycling bins is split across all 3 stores so that residents have easy access. Access is available via the stair cores, compliant in accordance with Checklist IDP via wide door openings and level thresholds with turning space available. Plots 1 and 2 at undercroft level have access to the car park area directly through the rear communal door. Internally all plots are provided with a 30 litre recycling bin fitted within the kitchen, divided with each section no less than 7 litres. All dwellings have been provided with sufficient accessible refuse and recycling storage therefore 4 credits are awarded.

Issue: Was2 Construction Site Waste Management

Max Credits: 2

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	99.34% Diverted Waste	Complete	3.00	1,2
1	99.34% Diverted Waste	Complete	3.00	1,2
1	99.34% Diverted Waste	Complete	3.00	1,2
1	99.34% Diverted Waste	Complete	3.00	1,2

<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	SWMP & Checklist Was2	PCR	EV19

Description of Features Relating to Issue & Suggested Improvements

The initial Site Waste Management Plan was provided at Design Stage which was compliant with Checklist Was2 and a commitment was made to divert at least 85% of site waste from landfill. The final SWMP review provided shows that 99.34% of materials have been re-used or recycled off site and 0.66% has been sent to landfill, showing that the project has surpassed these targets and 3 credits can be awarded.

Issue:Was3 Composting

Max Credits:1

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Credits not sought	Complete	0.00	

Description of Features Relating to Issue & Suggested Improvements

This credit is not sought.

Category: Pollution

Issue:Pol1 Global Warming Potential (GWP) of insulants

Max Credits:1

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	GWP <5	Complete	1.00	3,1,2
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	Checklist Pol1 & Insulation Details	PCR	EV20
3	User Defined Evidence Type	As Built SAP Calculations	PCR	EV2

Description of Features Relating to Issue & Suggested Improvements

by the information shown in the As Built SAPs. Product details have been sourced and confirm the Global Warming Potentials as detailed on Checklist Pol1. All insulants have a GWP of less than 5 therefore 1 credit can be awarded.

Issue:Pol2 NOx Emissions **Max Credits:**3

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	NOx Emissions less than 40mg/kWh		Complete	3.00	1,2,3
		<u>Related Evidence</u>			
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	Boiler NOx Details	PCR	EV21	
3	User Defined Evidence Type	Site Audit & Photos	PCR	EV31	

Description of Features Relating to Issue & Suggested Improvements

The specification confirms that the dwellings will be provided with a Logic Code ES33. This boiler was discontinued and replaced by Ideal Logic with the ESP1 33 which has NOx emissions of 29 mg/kWh. A number of the larger plots were provided with the ESP1 38 which also has low NOx emissions of 33mg/kWh. The provision of both boilers has been confirmed at site audit and manufacturer's details confirm the NOx emissions therefore 3 credits are awarded.

Category: Health & Wellbeing

Issue:Hea1 Daylighting **Max Credits:**3

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	0 Credits		Complete	0.00	1,2,3,4,5,6,7,8
2	1 Credit		Complete	1.00	1,2,3,4,5,6,7,8
3	2 credits		Complete	2.00	1,2,3,4,5,6,7,8
4	3 credits		Complete	3.00	1,2,3,4,5,6,7,8
		<u>Related Evidence</u>			
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	Daylight Calculations & Summary	PCR	EV22	
3	User Defined Evidence Type	Site Plan	PCR	DR1	
4	User Defined Evidence Type	Floor Plans	PCR	DR2	
5	User Defined Evidence Type	Sections	PCR	DR4	
6	User Defined Evidence Type	Elevations	PCR	DR5	

7	User Defined Evidence Type	Window & Door Schedules	PCR	DR6
8	User Defined Evidence Type	Site Audit & Photos	PCR	EV31

Description of Features Relating to Issue & Suggested Improvements

Daylight and view of sky calculations have been carried out by the Assessor for all applicable rooms for all plots using the drawings provided. Random measurements were checked at site inspection. The dwellings achieve varying credits due to window sizes, orientation and obstructions.

Issue:Hea2 Sound Insulation

Max Credits:4

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	5dB		Complete	3.00	2,1,3,4
Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location	
1	User Defined Evidence Type	Specification	PCR	EV1	
2	User Defined Evidence Type	Sound Testing Schedule, UKA S Accreditation & Test Certifica tes	PCR	EV18	
3	User Defined Evidence Type	Details	PCR	DR9	
4	User Defined Evidence Type	Developer Letter	PCR	EV32	

Description of Features Relating to Issue & Suggested Improvements

A commitment was made to carry out a programme of pre-completion sound testing. SES, a UKAS accredited acoustic consultancy, were appointed to carry out the testing. A commitment was also been made to achieve a 5dB improvement over Approved Doc E sound insulation values. The testing report and certificates shows that sufficient tests were carried out and certificates provided achieve a 5dB reduction therefore 3 credits can be awarded.

Issue:Hea3 Private Space

Max Credits:1

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	Communal Garden Space		Complete	1.00	1,2,3,4,5 ,6,7,8,9 ,10
Ev.No.	Evidence Type	<u>Related Evidence</u> Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	Checklist IDP & door width infor mation	PCR	EV17	
3	User Defined Evidence Type	Accommodation Schedule	PCR	EV5	
4	User Defined Evidence Type	Site Plan	PCR	DR1	
5	User Defined Evidence Type	Floor Plans	PCR	DR2	
6	User Defined Evidence Type	Drainage & Levels Drawings	PCR	DR3	

7	User Defined Evidence Type	Window/Door Schedules	PCR	DR6
8	User Defined Evidence Type	Details	PCR	DR9
9	User Defined Evidence Type	Hea3 Calculation	PCR	EV23
10	User Defined Evidence Type	Roof Plans	PCR	DR7

Description of Features Relating to Issue & Suggested Improvements

The specification and drawings show that Plots 1 and 2 at Level 00 have their own private terraces which are in excess of the size requirements for the 1Bed and 2Bed dwellings. A level threshold and clear door opening width of min 800mm is provided. These plots can also access the communal gardens by a level route via the spinal corridor and Block entrance doors at Level 01. All other plots have access to two communal gardens via the Block entrance doors D26 at Level 01 which have a level threshold as shown on Drg 45.02 and a clear door opening width of min 875mm. These doors lead onto a level/gently sloping path of min 1200mm wide towards 2 no. communal gardens with a total of 504m2 shared space. The 49 no. 1Bed, 59 no. 2Bed and 4 no. 3Bed require a total of 179m2 therefore sufficient external space has been provided. All space is accessible in accordance with Checklist IDP therefore the credit can be awarded.

Issue:Hea4 Lifetime Homes

Max Credits:4

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	Credits not sought		Complete	0.00	

Description of Features Relating to Issue & Suggested Improvements

These credits are not sought.

Category: Management

Issue:Man1 Home User Guide

Max Credits:3

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	Full HUG		Complete	3.00	1,2
		<u>Related Evidence</u>			
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	Home User Guide & Checklist Man1	PCR	EV7	

Description of Features Relating to Issue & Suggested Improvements

A commitment was been made to provide a Home User Guide compliant with Checklist Man1 Parts 1 and 2 to all dwellings. A copy of the Home User Guide has been provided which is compliant with the Checklist therefore full credits can be awarded.

Issue:Man2 Considerate constructors Scheme**Max Credits:2**

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	CCS 35+		Complete	2.00	1,2
<u>Related Evidence</u>					
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	CCS Monitors Report & Certificate	PCR	EV29	

Description of Features Relating to Issue & Suggested Improvements

The site was registered with the Considerate Constructors Scheme. Visit 1 achieved a score of 34 however a commitment was made to achieve a score of over 35 with at least 7 in each section. The final visit achieved a score of 37 with at least 7 in each section therefore 2 credits have been awarded.

Issue:Man3 Construction Site Impacts**Max Credits:2**

ID	Description	<u>Specification</u>	Status	Credits	Ev.No.
1	2 Items		Complete	1.00	1,2
<u>Related Evidence</u>					
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	Specifications	PCR	EV1	
2	User Defined Evidence Type	KPI Graphs, Environmental Policy Documents & Checklist Man 3	PCR	EV24	

Description of Features Relating to Issue & Suggested Improvements

A commitment was made within the specification to set targets, monitor and report on energy usage, site transport and water usage on site together with following best practice procedures with regards to air pollution in accordance with Checklist Man3. Site transport was not monitored therefore in accordance with their Environmental Policy Documents, the Client has followed best practice procedures with regards to water pollution so that 4 items on Checklist Man3 were covered. Graphical data for target versus actual energy and water usage has been provided but only until 28th February 2019 therefore missing approx 10 months of data towards the end of the build. In addition, meter readings were not regularly taken and data has had to be averaged across a number of months in the SWMP, therefore it is not considered that the requirements of Checklist Man3 were met as regular monitoring was clearly not carried out. Environmental Policy Documents have however been provided therefore 1 credit can be awarded.

Issue:Man4 Security**Max Credits:2**Specification

ID	Description	Status	Credits	Ev.No.
1	No SBD	Complete	0.00	1,2
2	SBD for Core A	Complete	2.00	3,4,1,2
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	Secured by Design Compliance Confirmation	PCR	EV10
3	User Defined Evidence Type	Floor Plans	PCR	DR2
4	User Defined Evidence Type	Site Plan	PCR	DR1

Description of Features Relating to Issue & Suggested Improvements

A commitment was made to achieve compliance with Secured by Design Section 2 (Silver award) requirements. The CPDA has confirmed that compliance has been achieved for stair core A, however issues were found with regards to the lift controls on the other stair cores and certification was withheld therefore 2 credits can only be awarded to the core A plots.

Category: Ecology

Issue:Eco1 Ecological Value of Site

Max Credits:1

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Low Ecological Value	Complete	1.00	1,2,3,4
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Ecology Report	PCR	EV30
2	User Defined Evidence Type	Land & Post Demolition Survey s	PCR	DR10
3	User Defined Evidence Type	Site Audit & Photos	PCR	EV31
4	User Defined Evidence Type	Landscape Details	PCR	DR11

Notes and Further Information

***** Photo of retained tree *****

Description of Features Relating to Issue & Suggested Improvements

A Suitably Qualified Ecologist was appointed to provide an Ecology Report including the Code Ecology Template. The SQE has confirmed that the pre-development site consisted of landscape types of low ecological value and a tree which was to be protected and retained as shown on the landscape details. This was confirmed at site audit therefore the credit can be awarded.

Issue:Eco2 Ecological Enhancement

Max Credits:1

ID	Description	Status	Credits	Ev.No.
1	Enhancement Details	Complete	1.00	4,1,2,3
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	Ecology Report	PCR	EV30
3	User Defined Evidence Type	Landscape Details	PCR	DR11
4	User Defined Evidence Type	Site Audit & Photos	PCR	EV31

Description of Features Relating to Issue & Suggested Improvements

The SQE made the following ecological enhancement recommendations: Key recommendations include native species planting and insect boxes; Additional recommendations include planting containers with native species planting, bird boxes and hedgehog boxes. The Developer made a commitment to include all key and 30% additional enhancement details within the landscape design. The landscape details show the key recommendations and additional native species planting and all enhancements have been confirmed at site audit. One credit has therefore been awarded.

Issue:Eco3 Protection of Ecological Features

Max Credits:1

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	Protection	Complete	1.00	1,2,3,4,5
<u>Related Evidence</u>				
Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Specifications	PCR	EV1
2	User Defined Evidence Type	Ecology Report	PCR	EV30
3	User Defined Evidence Type	Landscape Details	PCR	DR11
4	User Defined Evidence Type	Land & Post Demolition Survey s	PCR	DR10
5	User Defined Evidence Type	Site Audit & Photos (inc Arboric ultural Monitoring Report)	PCR	EV31

Description of Features Relating to Issue & Suggested Improvements

The SQE identified a mature tree outside the boundary of the site which was to be protected and retained. A commitment was made to protect and retain any items identified by the ecologist as having an ecological value and the landscape details show the tree in situ. Protection of the tree was confirmed by the Arboriculturalist therefore the credit can be awarded.

Issue:Eco4 Changes in Ecological Value of Site

Max Credits:4

<u>Specification</u>				
ID	Description	Status	Credits	Ev.No.
1	+8.4 Change in Species Value	Complete	3.00	1,2,3
<u>Related Evidence</u>				

Ev.No.	Evidence Type	Evidence Title	Version	Location
1	User Defined Evidence Type	Ecology Report	PCR	EV1
2	User Defined Evidence Type	Landscape Details	PCR	DR11
3	User Defined Evidence Type	Land & Post Demolition Survey s	PCR	DR10

Description of Features Relating to Issue & Suggested Improvements

The SQE has calculated the change in species value from pre-development at a species value of zero to post development at a species value of 8.4. This has been made possible by the large amount of native species planting. This minor enhancement achieves 3 credits.

Issue:Eco5 Building Footprint

Max Credits:2

		<u>Specification</u>			
ID	Description		Status	Credits	Ev.No.
1	Ratio 4.12 : 1		Complete	2.00	1,2,3
		<u>Related Evidence</u>			
Ev.No.	Evidence Type	Evidence Title	Version	Location	
1	User Defined Evidence Type	ECO5 Calculation	PCR	EV25	
2	User Defined Evidence Type	Site Plan	PCR	DR1	
3	User Defined Evidence Type	Floor Plans	PCR	DR2	

Description of Features Relating to Issue & Suggested Improvements

The site plan and floor plans have been used to calculate the NIGFA (footprint) to NIFA (Floor Area) ratio. The partial 8 storey block achieves a ratio of 4.12 : 1 therefore 2 credits can be awarded.



Allocation of SpecIDs to Dwellings

Site:Wh186 Reading

Plot	Address	ENE								WAT	MAT			SUR	WAS			POL	HEA				MAN				ECO							
		1	2	3	4	5	6	7	8	9	1	2	3	1	2	1	2	3	1	2	3	4	1	2	3	4	1	2	3	4	5			
1	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	
3	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	1	1	
4	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
5	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
6	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
7	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
8	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
9	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
10	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
11	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	
12	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	
13	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
14	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
15	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
32	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
33	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
34	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1

[illegible]

80	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	2	1	1	1	1	1
81	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
82	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
83	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
84	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2	1	1	1	1	1
85	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2	1	1	1	1	1
86	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
87	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
88	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
89	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
90	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1
91	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
92	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
93	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2	1	1	1	1	1
94	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
95	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
96	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
97	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
98	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
99	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
100	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
101	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
102	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1
103	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
104	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
105	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
106	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
107	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
108	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
109	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
110	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
111	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1
112	Riverside View	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	2	1	1	1	1	1



Detailed Score Sheet

Site:Wh186 Reading

PLOT	ENE									WAT		MAT			SUR		WAS			POL		HEA				MAN				ECO					SCORE SUMMARY				
	1	2	3	4	5	6	7	8	9	1	2	1	2	3	1	2	1	2	3	1	2	1	2	3	4	1	2	3	4	1	2	3	4	5	Ene Lvl	Wtr Lvl	M Req	Ovl Lvl	Ttl Pts
1	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
2	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
3	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
4	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
5	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
6	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
7	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
8	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
9	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
10	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
11	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	0	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	60
12	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	0	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	60
13	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
14	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
15	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
16	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
17	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	0	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	58
18	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
19	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
20	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
21	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
22	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
23	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
24	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
25	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
26	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
27	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
28	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
29	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
30	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
31	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
32	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
33	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
34	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
35	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
36	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
37	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
38	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
39	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	61
40	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	2	1	1</								

48	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
49	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
50	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
51	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
52	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
53	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
54	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
55	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
56	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
57	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
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60	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
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62	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
63	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
64	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
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66	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
67	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
68	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
69	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
70	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
71	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
72	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
73	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
74	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
75	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
76	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
77	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
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79	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
80	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
81	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
82	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
83	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
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85	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	62
86	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
87	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
88	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
89	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	61
90	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	2	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	60
91	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	1	3	1	0	3	2	1	0	1	1	1	3	2	3	4	No	3	59
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94	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
95	1.90	7.50	1	1	2	0	0	1	0	4	0	6	4	3	1	1	4	3	0	1	3	3	3	1	0	3	2	1	2	1	1	1	3	2	3	4	No	3	64
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97	1.90	7.50	1	1	2	0	0	1	0	4	0																												

