

Home Quality Mark Design Stage Assessment



Maitland Park, Camden

Prepared for BYUK and Camden Council
21st October 2020



envision

HOME
QUALITY
MARK 

Revision	Date
Final	21/10/2020
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1 INTRODUCTION

A 3 Star rating under the Home Quality Mark (HQM) Assessment is required for the proposed Maitland Park development, which includes the proposed development of apartments in Aspen Court, Aspen Villas, Grafton Terrace and the neighbouring house, Grafton House. This report confirms that all evidence has been presented to and reviewed by Envision who is appointed HQM Assessor, in order to achieve the targeted score at Design Stage. The assessment is now to be submitted to BRE for verification and interim certification.

The assessment has been prepared based on a review of design proposals for all the residential dwellings within the proposed development, against the current Home Quality Mark One assessment methodology. This report confirms achievement of the required 3 Star rating, at the interim Design Stage, subject to BRE verification.

Home Quality Mark

Home Quality Mark (HQM) is the new assessment methodology developed by the Building Research Establishment (BRE) as the national quality mark for homes, giving consumers a better choice for a healthier, more sustainable new home.

HQM ratings are awarded based on achievement of relevant minimum standards and number of points overall. The diagram opposite shows the required scores for each rating benchmark, with the targeted rating for this assessment highlighted in green.



2 DESIGN STAGE ASSESSMENT RESULTS

A detailed analysis of the HQM credits achieved at Design Stage is presented in Appendix A of this report.

This assessment is based on a detailed review of the design and is supported by robust commitments, so that there is high level of certainty of what is achievable for this development. Where credits are not considered possible to achieve, justification is provided based on experience of similar developments and discussions with the project team.

The results, as illustrated in the table, confirm that the development has achieved a score of **214**, providing a suitable buffer over the required 150 for a **3 Star rating**, along with meeting the minimum requirements for an HQM assessment.

MAITLAND PARK - HOME QUALITY MARK ASSESSMENT				
21/10/2020				
Based on HQM One Technical Standard (SD239 England August 2018)				
SUMMARY OF SCORES		Note - summary scores reflect minimum score targeted/achieved. Some dwellings will achieve a higher score		
STAR RATING BANDS				
3 Star	150			
4 Star	240			
		Predictive Assessment	Design Stage	Post Construction
	Credits available	Targeted Credits	Achieved Credits	Achieved Credits
Our Surroundings	153	95	95	54
1 Transport and Movement	48	27	27	11
2 Outdoors	58	31	31	15
3 Safety and Resilience	47	37	37	28
My Home	261	98	98	19
4 Comfort	68	33	33	11
5 Energy	83	39	39	8
6 Materials	69	16	16	0
7 Space	24	10	10	0
8 Water	17	0	0	0
Delivery	86	21	21	4
9 Quality Assurance	33	3	3	0
10 Construction Impacts	31	17	17	4
11 Customer Experience	22	1	1	0
Total	500	214	214	77
Rating	-	3 Star	3 Star	

In addition to the requirement to achieve a 3 Star rating, the planning condition requires specific credits to be achieved in relation to Energy, Materials and Water. These are shown in the table below, with all credits confirmed to be achieved at Design Stage.

Camden 'Category'	Credit Title	Available Credits	Predicted Credits		Design Stage Assessment	
			Targeted	% of section credits targeted	Achieved	% of section credits achieved
Energy	4.2 Daylight	13	0	50	0	50
	4.5 Temperature	17	11		11	
	4.6 Ventilation	13	9		9	
	5.1 Energy and cost	60	16		16	
	5.2 Decentralised energy	8	8		8	
	5.3 Air quality	15	15		15	
	10.1 Responsible construction	5	5		5	
	10.2 Construction energy use	5	4		4	
Water	8.1 Water efficiency	17	0	53	0	53
	10.3 Construction water use	5	4		4	
	3.2 Managing rainfall impacts	19	9		9	
	3.1 Flood risk	19	19		19	
Materials	6.1 Responsible sourcing	25	9	24	9	24
	6.2 Materials impacts	25	0		0	
	6.3 Life cycle costing	12	0		0	
	6.4 Durability	7	7		7	
	10.4 Site waste management	14	4		4	

APPENDIX A ACHIEVED CREDITS

The following table sets out the details of the credit achieved at Design Stage, in order to achieve the required HQM rating for the proposed for the proposed development, based on the HQM One methodology. It also presents the evidence that will be required for the Post Construction assessment. These scores are the basis of the assessment results presented in main body of this report.

Note - Predicted Credits are indicative for all units in Aspen Court, Aspen Villas and Grafton Terrace, including proposed house. Comments provided where additional credits may be awarded for some but not all units.

Credit Title	Sub Title	Available Credits	Predicted Credits		Summary of Requirements (for details, see HQM One Technical Manual)	Project Specific Comment	Design Stage Assessment				Post Construction Assessment			
			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
Our Surroundings														
1. Transport and Movement														
1.1 Public Transport Availability	Accessibility Index	12	8	(+4 for some units)	Up to 12 credits awarded based on accessibility to public transport nodes.	Based on published AI on TfL website, using postcodes in Transport Assessment - NW3 2EH = 10.83 and NW5 4JA = 13.94. Those dwellings with postcode NW3 2EH will achieve 8 credits and those dwellings with postcode NW5 4JA will achieve 12 credits.	TFI Public Accessibility report	Envision	Yes	8	As design stage			8
	Improved local service	3	0	0	Further 3 credits available if contract with local transport providers to improve local services	No credits targeted as no contract with local transport providers to improve local services	Credit not targeted							
1.2 Sustainable Transport Options	Home information pre-requisite	n/a	n/a	n/a	Pre-requisite to provide the home information pack to achieve these credits - for requirement see 11.2 below	Pre-requisite is targeted as part of meeting minimum requirements (see 11.2)								
	Cycle Storage	6	0	(+3 for some units)	For 3 credits:- 1 beds - 0.5 spaces per unit 2/3 beds - 1 space per unit 4+ - 2 spaces per unit For 6 credits:- 1 beds - 1 space per unit 2/3 beds - 2 space per unit 4+ - 4 spaces per unit (Spaces must be covered overhead and be fixed to a permanent structure)	Based on 1 cycle space per dwelling, some but not all units will achieve credits. (Transport Assessment indicates cycle shelters will be covered, meeting the HQM requirement). Updated re. MMA submission - number of cycle spaces still at least 1 per dwelling. 1 beds = 6 credits 2/3 beds = 3 credits (although 7 units in AC and 1 unit in AV can achieve 6) 4 beds (i.e. house) = 0 credits	Details of cycle storage and access from building entrance	Cullinan Studio / ECE	Stage 3 Plans Stage 4 GF Plans indicating areas of cycle storage Planning consent confirming number of cycle storage per building	(+3 for all units except house)	Site report confirming installation of cycle storage Confirmation of any changes to Stage 4 design	Envision		
	Cycle Networks	4	0	0	Credits for improvements to local cycling network, with connection from units to safe cycle route via safe pedestrian route.	To achieve credit - must demonstrate specific improvement to local cycle network. Not included in proposals.	Credit not targeted							
	Electric vehicle charging points	4	0	0	Where parking is communal, credits achieved dependent on following factors:- - Type of fast charging in place - No of spaces with EV provision - Total number of spaces	Latest discussions confirm no electric charging points to be provided as limited carparking that is for disabled use only with restricted access. (3 credits achievable if 2 electric charging points installed with >7kW charging capacity. Further credit if greater number of charging points installed.)	Credit not targeted							
	Car clubs	3	3	-	A compliant Car Club within 650m of the home. (Definition of 'compliant Car Club' includes club will have sufficient provision of cars to cater for expected demands of whole development.)	Transport Assessment identifies Car Club within 650m, and also references car clubs as one of the travel plan initiatives.	Details of Car Club	Ramboll	Transport Assessment	3	As design stage			3
1.3 Local Amenities	Key / Beneficial local amenities	16	16	-	Three or more local amenities within walking distance (650m via safe walking routes), plus additional 2 amenities within 1.5 miles.	16 credits based on information on proximity to amenities provided in Transport Assessment.	Details of local amenities and walking routes	Ramboll	Transport Assessment	16	Site report confirming presence of local amenities	Envision		
2 Outdoors														
2.1 Identifying Ecological Risks and Opportunities	Survey and Evaluation	3	3	-	Ecologist appointed early in project and site surveyed/evaluated.	Based on appointment of The Ecology Consultancy, credits assumed.	Confirmation of ecologist appointment	Arcadis	Email confirmation	3	As design stage			3
	Determining ecological outcomes	3	3	-	Identify, appraise and agree ecological outcomes early in design in line with hierarchy of mitigation.	Credits agreed feasible in discussion with George from The Ecology Consultancy.	Ecology Report	The Ecology Consultancy	Ecology report	3	As design stage			3
	Wider site sustainability	1	0	0	When determining ecological outcomes, consideration given to wider site activities and potential for ecosystem benefits.	Credit not targeted as whilst consideration was given to wider sustainability in developing the ecological outcomes, this was not defined clearly in terms of ecosystem services.	Credit not targeted							
2.2 Managing Impacts on Ecology	Ecological risks / liaison and implementation	3	3	-	First 6 credits of 2.1 above achieved. Roles and responsibilities clearly defined, compliance with ecological legislation confirmed and site preparation and construction planned to achieve optimal ecological outcomes.	Credits agreed feasible in discussion with George from The Ecology Consultancy.	Ecology Report	The Ecology Consultancy	Ecology report	3	As design stage			3

Note - Predicted Credits are indicative for all units in Aspen Court, Aspen Villas and Grafton Terrace, including proposed house. Comments provided where additional credits may be awarded for some but not all units.

Credit Title	Sub Title	Available Credits	Predicted Credits		Summary of Requirements (for details, see HQM One Technical Manual)	Project Specific Comment	Design Stage Assessment				Post Construction Assessment			
			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
	Managing negative risks	6	6	-	Negative impacts managed and no overall loss of ecological value.	Credits assumed based on latest updates to landscaping/planting plans and assumed agreement on bat surveys/nest bird checks/external light sensitive design	Ecology Report Updated landscaping plans Confirmation on bat surveys/nesting bird checks External lighting design confirmation	The Ecology Consultancy BYUK/Ridge	Email discussion Landscaping plan Ecology report Confirmations on nesting bird checks and external lighting design	6	Confirmation of planting Confirmation on bat surveys/nesting bird checks External lighting design confirmation	Bougyues		
2.3 Ecological Change and Enhancement	Previously occupied land	2	2	-	75% of proposed development on previously developed land.	Credits achievable as whole site previously developed.	Existing and proposed site plans	Cullinan Studio	DAS received	2	As design stage			
	Liaison and implementation	2	2	-	Ecologist has liaised with representative local stakeholders to determine and implement relevant actions.	Credits agreed feasible in discussion with George from The Ecology Consultancy.	Ecology Report	The Ecology Consultancy	Ecology report and calculations	2	As design stage			2
	Measuring change in ecological value	8	4		Credits awarded for change in ecological value as a result of the development:- 2 credits - minimising loss of ecology 4 credits - no net loss of ecology 6 credits - net gain of ecology 8 credits - exceeds net gain	4 credits agreed feasible in discussion with George from The Ecology Consultancy and following updates on landscaping/planting plans	Ecology Report Updated landscaping plans	The Ecology Consultancy	Ecology report and calculations	4	Confirmation of planting	Bougyues		
2.4 Long Term Ecological Management and Maintenance	Landscape and ecology management plan	4	4	-	Landscape and ecological management plan for the development.	A landscape and ecological management plan is to be prepared.	Landscape and ecological management plan	Turkington Martin / The Ecology Consultancy	Email discussion Landscape management plan Ecological management plan	4	As design stage			4
	Monitoring and update	4	0	-	Formal commitment to ongoing management of landscape and ecology and maintaining ecological value of the site.	This credit is not currently targeted as there is no specific commitment to ongoing management and maintenance.	Credit not targeted							
2.5 Recreational Space	Accessible recreation spaces	4	4	-	Within walking distance of recreational space.	Credits achievable based on existing and proposed open space / play provision.	Existing and proposed site plans, including final details on provision of open space	Cullinan Studio	Plans confirming proximity to existing park	4	Site report confirming construction providing open space	Envision		
	Private space	6	0	up to +6	Up to 2 bedrooms:- 1 credit for 4m ² of private external space (including balconies with minimum depth of 1.5m) 3 credits for 6m ² 6 credits for 8m ² Additional bedrooms require additional 1m ² For 4bed Home - 1 credit if 30m ² of private external space	Based on info provided, the apartments will achieve at least 1 credit, some will achieve 3 or 6. However 5 bed home will not achieve any. Update - see breakdown on dwelling specific credits spreadsheet	Drawings confirming provision of private space	ECE	Stage 3 Plans Stage 4 Plans confirming locations of balconies Measurement details confirming balcony area Email confirmation of balcony minimum depth 1.5m	up to +6	Site report confirming construction providing private space	Envision		
	Communal space	7	0	+7 for some units	Apartments in close proximity to external communal space that is clearly associated with the development.	Feasible to achieve for apartments in Aspen Court and Aspen Villas, but not for Grafton Terrace.	Existing and proposed site plans, including final details on provision of open space	ECE-Turkington Martin	Stage 3 Plans Stage 4 plans confirming external communal space (confirming area of communal space, in m ² , and total GDA)	up to +7	Site report confirming construction providing open space	Envision		
	Growing space	5	0		Apartments in close proximity to area designated as 'growing space' (i.e. private gardens, allotments, community orchards).	Credit not targeted as landscape design does not include 'growing space'	Credit not targeted							
3 Safety and Resilience														
3.1 Flood Risk	Flood Risk	19	19	-	Minimum Requirement - site specific FRA completed. 19 credits for site confirmed in low flood risk zone.	Technical note for original planning provides suitable justification why no FRA produced and confirms site is at low risk of flooding.	Confirmation on low risk of flooding	Ramboll	Drainage design philosophy	19	As design stage			19
3.2 Managing Rainfall Impacts	Peak rate of runoff	5	3	-	3 credits - peak rate of runoff same as pre-development site. 5 credits - same as greenfield runoff rates.	3 credits available based on current proposals. Greenfield runoff rates not achievable without significant change to drainage design.	Calculations confirming peak rate of runoff same as pre-development site	Reuby & Stagg	Calculations	3	As design stage			3

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	
	Volume of run-off	9	6	-	6 credits -post development volume of runoff same as pre-development site. 9 credits - same as greenfield runoff rates.	6 credits available based on current proposals. Greenfield runoff rates not achievable without significant change to drainage design.	Calculations confirming post development volume of runoff same are pre-development site	Reuby & Stagg	Calculations	6	As design stage				6
	Water quality	3	0		Appropriate pollution prevention and treatment measures on surface water drainage systems	Credit not targeted due to complexity of linking development into existing drainage systems	Credit not targeted								
	Designing for maintenance and operation	2	0		Agreements in place for ownership, long term operation and maintenance of SUDs for the design life of the development	Credit not targeted due to complexity of linking development into existing drainage systems	Credit not targeted								
3.3 Security	Security needs assessment and security features	9	9	-	Security needs assessment, carried out by Security Specialist, which sets recommendations to be included in design, and confirmation that 50% (4 credits) or 100% (9 credits) of recommendations are implemented.	SBD recommendations / schedule in previous DAS noted. Sbd Gold level targeted.	SBD Recommendations and confirmation on recommendations included in design	Cullinan Studio / ECE / Turkington Martin	SBD recommendations Drawings confirming window/door specification Confirmation on recommendations incorporated into design	9	Site report confirming security design incorporated in built form	Envision			
My Home															
4 Comfort															
4.1 Indoor Pollutants	Minimising emissions from space and water heating	pre-req	n/a	n/a	All combustion appliances have flues that discharge outdoors.	No individual combustion appliances in homes, and therefore meets requirement by avoidance of need.	Room data sheets (or equivalent information) confirming no individual combustion appliances	Ridge / ECE	Verbal confirmation Typical Kitchen layouts and M&E Specification	pre-req met	Site report confirming no individual combustion appliances	Envision			
	Minimising the effects of cooking	2	2	-	In mechanically ventilated homes, cooker hoods is specified as recirculating.	Specification includes cooker hoods as recirculating type. Confirmed specification applicable to all homes.	Cooker hood specification	Cullinan Studio / ECE	Typical kitchen layout confirming cooker hood specification - Zanussi slider control integrated 60cm cooker hood Manufacturer specification Email confirmation that will be recirculating.	2	Site report confirming cooker hoods installed	Envision			
	Minimising emissions from building product types	4	2	0	Paints, wood based products, flooring, building fabric insulation materials and adhesives/sealants meet criteria set out in Table 17 of HQM One technical manual. Credits awarded based on:- 1 product meets requirements - 1 credit 3 products - 2 credits All products - 4 credits If wood based products do not meet overall requirements, as a minimum all internal fixtures and fittings must be classified as formaldehyde E1 class.	Details included in prelims. Feasible to achieve 2 credits without incurring significant cost/placing onerous requirement on material specification.	Finishing schedules and manufacturer specs for:- Paints Wood based products, Flooring, Building fabric insulation materials Adhesives/sealants	ECE	Prelims Completed template with agreed finishing schedule and confirmation of VOC/formaldehyde emission compliance	2	Site report confirming finishes	Envision			
	Minimising airborne formaldehyde from all sources	3	0	0	Post construction testing for formaldehyde concentrations confirms do not exceed 0.1mg/m3.	Whilst commitment made to specify low VOC / formaldehyde products, would need additional commitment to post construction testing to confirm the levels in order to achieve credits.	Credit not targeted								
	Minimising airborne total volatile organic compounds (TVOCs)	3	0	0	Post construction testing for TVOCs confirms do not exceed 0.5mg/m3.		Credit not targeted								
4.2 Daylight	Average daylight factor	10	0	(up to +10 for some units)	5 credits for all kitchens achieve a minimum daylight factor of 2% Further credits for living rooms achieving following daylight factors:- 1.5% - 1 credit 1.8% - 3 credits 2.0% - 5 credits	Daylight and sunlight report indicates that some but not all units would achieve these credits.	Daylight calculations	ECE	Daylight and sunlight report And confirmation of room / window sizes in Stage 4 design in line with daylight calculations	(see detailed apartment breakdown)	As design stage				(see detailed apartment breakdown)

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Credit Title	Sub Title	Available Credits	Predicted Credits		Summary of Requirements (for details, see HQM One Technical Manual)	Project Specific Comment	Design Stage Assessment				Post Construction Assessment				
			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	
	View of sky	3	0	(+3 for some units)	80% of working plane in kitchen, living room, dining room, study receives direct light from the sky.	Daylight and sunlight report indicates that some but not all units would achieve these credits.	View of the sky calculations	ECE	Daylight and sunlight report And confirmation of room / window sizes in Stage 4 design in line with daylight calculations	(see detailed apartment breakdown)	As design stage				(see detailed apartment breakdown)
4.3 Noise Sources	Internal Noise Levels	2	2	0	Acoustician confirms units are designed to meet internal noise requirements as set out in Table 20 of HQM One technical manual	Acoustician confirms 2 credits feasible Acoustic Report included in MMA update - DAS confirms 2 credits feasible	Acoustic report confirming requirements met	Cole and Jarman	Acoustic report confirming Stage 4 design meets requirements	2	Pre completion test results	Cole and Jarman			
	2	2	1	0	Acoustician confirms units are designed to meet noise levels in external functional spaces (i.e. balconies) as set out in Table 21 of HQM One technical manual.	Acoustician confirms 1 credit feasible. Acoustic Report included in MMA update - DAS confirms 2 credits feasible	Acoustic report confirming requirements met	Cole and Jarman	Acoustic report confirming Stage 4 design meets requirements	1	Pre completion test results	Cole and Jarman			
4.4 Sound Insulation	Sound insulation between homes	5	3	0	Airborne and impact sound insulation levels for separating walls and floors set out in Table 22 of HQM One technical manual are confirmed through pre-completion testing (or Robust Details).	Acoustician confirms 3 credits feasible.	Acoustic report confirming requirements met	Cole and Jarman / BYUK	Acoustic report confirming Stage 4 design meets requirements Email confirming commitment to pre-completion testing	3	Pre completion test results	Cole and Jarman			
	Sound insulation between internal walls and floors	4	3	0	Airborne sound insulation levels for internal walls set out in Table 23 of HQM One technical manual are confirmed through pre-completion testing (or Robust Details).	Acoustician confirms 3 credits feasible.	Acoustic report confirming requirements met	Cole and Jarman / BYUK	Acoustic report confirming Stage 4 design meets requirements Require - commitment to pre-completion testing	3	Pre completion test results	Cole and Jarman			
4.5 Temperature	Temperature analysis - current conditions	11	11	-	Minimum Requirement - thermal analysis carried out in accordance with CIBSE TM59. 11 credits for homes confirmed to be designed to limit overheating in accordance with section 4.3 of CIBSE TM59.	TM59 overheating assessment to be carried out at next design stage.	TM59 overheating assessment results	Ridge	TM59 assessment results	11	As design stage				11
	Temperature analysis - predicted climate change environment	6	0	0	Further 6 credits available if thermal modelling includes projected climate change environments and thermal comfort criteria confirmed to be met/building can be easily adapted to achieve.	Credit not targeted as likely to require redesign of development to achieve additional criteria.	Credit not targeted								
4.6 Ventilation	Information Sign	n/a	n/a	n/a	Minimum Requirement - Information sign fixed inside air cupboard or equivalent and includes required information on ventilation system controls and maintenance.	Included in design	Specification of information sign	Ridge	Manufacturer's confirmation re. specification of information sign		Site report confirming installation of information sign	Envision			

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Credit Title	Sub Title	Available Credits	Predicted Credits		Summary of Requirements (for details, see HQM One Technical Manual)	Project Specific Comment	Design Stage Assessment				Post Construction Assessment			
			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
	Ventilation air intakes	4	0	0	Ventilation air intakes avoid drawing in pollution in accordance with CIBSE TM21. Further guidance from BRE confirms this includes considering:- - Provision of filtration - Positioning inlets to minimise impacts of traffic pollution - Positioning inlets to minimise impacts of other local sources of pollution - Positioning inlets to minimise recirculation from ventilation exhausts.	Not achievable intakes and discharge locations are not in accordance with CIBSE TM21 due to proximity of air intakes to road network .	Credit not targeted							
	Ventilation rates	5	5	0	Minimum Requirement - For system 4 (continuous mechanical supply and extract with heat recovery (MVHR) - assumed for this scheme), ventilation system has capacity to achieve minimum ventilation rates according to size of home set out in Table 26) and boost flow rates meet minimum requirement in Table 27 of HQM One technical manual. For 5 credits - Above air intakes credit achieved - For system 4 (continuous mechanical supply and extract with heat recovery (MVHR)), achieve applicable minimum ventilation rates set out in Table 26 and boost flow rates to achieve credits in Table 27 of HQM One technical manual. - For system 1 and 2 - The total equivalent area of background ventilators is sized in accordance with the relevant local Building Regulations for ventilation, and based on assumed worst case occupancy, i.e. two occupants in all bedrooms	Minimum requirement achieved and current design with the MVHR units, with local control boost in the utility cupboard and fully accessible filters meets requirements for credits.	Specification of ventilation system, confirming meeting minimum requirement and credit requirements	Ridge	Verbal confirmation Specification of ventilation system for apartments and house	5	As built drawings for ventilation system	Ridge		
	Maintenance and controls	4	4	0	Minimum Requirement - ventilation system can be manually or automatically boosted in wet rooms. For 4 credits - All above requirements met, plus maintenance activities confirmed can be carried out safely, and MHVR controls are provided to control for varying occupancy levels within having to enable boost mode.	Minimum requirement achieved and current design with the MVHR units, with local control boost in the utility cupboard and fully accessible filters meets requirements for credits.	Specification of ventilation system, confirming meeting minimum requirement	Ridge	Verbal confirmation Specification of ventilation system for apartments and house	4	As built drawings for ventilation system	Ridge		
5 Energy														
5.1 Energy and cost	Energy performance	40	16	(+14 for some units)	Credits awarded dependent on SAP results demonstrating home energy performance ratio.	Current SAP results indicate between 16 and 31 points achievable. GT102 = 31 credits GT303 = 16 credits AC302 = 20 credits AC310 = 16 credits Minimum 16 credits included in targeted, with a number of dwellings achieving higher ratings.	SAP results	Ridge	Initial/ draft SAP results Require - as designed SAP results	16+	As built SAP results	Ridge		
	Towards carbon negative	6	0	0	Max 40 credits achieved plus % of unregulated operational energy provided by on site or near site carbon neutral sources.	Not feasible with current energy strategy. Would require significant redesign	Credit not targeted							
	Cost	14	0	(up to +2 for some units)	Credits awarded based on above calculations automatically translated to energy cost within HQM tool.	SAP results indicate some units achieve 2 points but not all.	SAP results	Ridge	Initial/ draft SAP results Require - as designed SAP results	0	As built SAP results	Ridge		
5.2 Decentralised Energy	Feasibility study and implementation	8	8	-	Low and zero carbon technology feasibility study undertaken, and findings implemented.	Energy Statement will meet requirements.	Energy Statement	TGA	Energy Statement	8	As design stage			8
5.3 Impact on Local Air Quality	Impact on local air quality	15	15	-	All heating and hot water supplied by non-combustible appliances such as those powered by electricity OR Heating and hot water generating systems meet relevant NOx emission levels set out in Table 35 of HQM One technical manual.	Credits achievable as supply via ASHP.	Confirmation of ASHP specification	Ridge	Stage 3 report Stage 4A Building Services Specification	15	Site report confirming ASHPs installed	Envision		
6 Materials														
6.1 Responsible Sourcing	Legally harvested and traded timber	pre-req	n/a	n/a	All timber and timber based products meets definition of legally harvested and traded timber.	Included in prelims	Finishes schedule / Employers requirements confirming timber specification	ECE	Prelims NBS confirming timber specification		Confirmation all timber suppliers meet definition	Bouygues		

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
	Product procurement policy	2	0	0	By end of RIBA Stage 2, product procurement policy in place.	No indication this was in place by end of RIBA Stage 2, therefore not assumed.	Credit not targeted							
	Responsible sourcing of construction products	23	9	0	Credits achievable based on increasing proportion of construction products sourced from suppliers with responsible sourcing certification (e.g. ISO14001/BES6001).	Credits achievable for proportion of construction products sourced according to requirements. Supply chain currently being analysed to ensure minimum 9 credits achieved, maybe feasible to achieve more.	Completed HQM Materials tool, based on:- - Material quantities - Supply chain - Responsible sourcing certification	ECE / Reuby & Stagg / Turkington Martin / BYUK	Completed template, with info from ECE/Reuby & Stagg/TM/ BYUK	9	Confirmation that material quantities and suppliers as per design stage	Bouygues		
6.2 Environmental Impact of Materials	Product procurement policy	2	0	0	By end of RIBA Stage 2, product procurement policy in place.	Not in place by end of RIBA Stage 2, therefore not achievable.	Credit not targeted							
	Product environmental information	4	0	0	Credits achievable based on increasing proportion of construction products with Environmental Product Declaration (EPD) certification.	EPD is a new certification with only limited materials/suppliers being able to confirm accreditation. No credits assumed at present, will be kept under review as suppliers confirmed.	Credit not targeted							
	Building Lifecycle Assessment (LCA)	19	0	0	Credits achievable for carrying a Lifecycle Assessment (LCA) using an IMPACT compliant tool.	No LCA carried out. Technically feasible to carry out now but limited benefit to design process as too far developed and would add additional cost for analysis	Credit not targeted							
6.3 Life Cycle Costing	Occupant's life cycle cost report	6	0	0	By end of RIBA Stage 2, element level life cycle cost (LCC) analysis to PD156865: 2008 carried out.	No LCC carried out before end of RIBA Stage 2	Credit not targeted							
	Component level life cycle cost optimisation	6	0	0	By end of RIBA Stage 4, a component level LCC carried out.	No LCC carried out. Technically feasible to carry out now but limited benefit to design process as too far developed and would add additional cost for analysis (circa £4k)	Credit not targeted							
6.4 Durability	Integral elements	5	5	-	Appropriate measures incorporated to limit degradation of materials integral to the building.	Credits achievable based on design proposals.	Material specifications for substructure, superstructure, services and external works confirming measures designed to limit degradation	ECE / Reuby & Stagg	Completed template and referenced specifications/drawings	5	Site report confirming as built in line with design stage	Envision		
	Finishing elements	2	2	-	Appropriate measures incorporated to limit degradation of surface / finishing materials integral to the building.	Credits achievable based on design proposals.	Finishes schedule for internal and external finishes confirming measures designed to limit degradation	ECE	Prelims Completed template	2	Site report confirming as built in line with design stage	Envision		
7 Space														
7.1 Drying Space	External drying	1	0	0	External drying facilities provided in secure space.	Requires external drying facilities (e.g. rotary drier) to be provided. Not included in design.	Credit not targeted							

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
	Internal drying	2	0	(+1 for some units)	2 credits - tumble drier specified with A+ rating. 1 credit - washer drier specified with A rating.	Credit only achievable for private units.	Manufacturer Specification of tumbler dryer and washing machine	ECE	GT / AV - Typical Kitchen layout (Type A) confirming specification of Siemens automatic washer dryer iQ500 WD15G421GB Siemens Manufacturer specification confirming A rating	(+1 for some units)	Site report confirming installation	Envision		
7.2 Access and Space	Nationally described space standards	5	0	(+5 for some units)	Apartments meet Technical Housing Standards - Nationally Described Space Standard. Any built in storage shows an improvement over standard by 0.5m2.	Requires improvement for built in storage above standard to be achieved for all apartments to achieve credits. See derogations schedule which notes where dwellings and or storage do not meet London Housing Design Guide but will meet NDSS	Confirmation of compliance with Technical Housing Standards - Nationally Described Space Standard. Confirmed size of built in storage	ECE	DAS confirms of compliance with Technical Housing Standards Apt Type Drawings confirm size of built in storage	(+1 for some units)	Site report confirming as built in line with design stage	Envision		
	Accessible and adaptable design	6	0	0	Internal and external functional space meets Approved Doc M, and Accredited Access Consultant appointed at RIBA Stage 2 to conduct assessment/confirm compliance.	No appointment at RIBA Stage 2 of Accredited Access Consultant therefore not feasible	Credit not targeted							
7.3 Recyclable Waste	Consultation with the waste collection authority	2	2	-	Waste collection authority consulted to determine waste collection strategy.	Achievable based on consultation undertaken to date with relevant department at Camden.	Confirmation of consultation with waste collection authority	Cullinan Studio	Copies of email correspondence	2	As design stage			
	Internal waste storage	5	5	-	Internal recyclable waste storage with fixed units, minimum 30 litres capacity for 1-2 beds, and 40 litres for 3+ beds, + 10 litres for food waste.	Requirements included in design.	Internal waste storage design details	ECE	Stage 3 design Kitchen Layout / GF Plans confirm location of bins email confirmation Kitchen elevation drawings	5	Site report confirming as built in line with design stage	Envision		
	Composting facilities and management	3	3	-	All homes provided with composting facilities.	Requirements included in design.	Confirmation of composting facilities	ECE	Stage 3 design Kitchen Layout / GF Plans confirm location of bins email confirmation Kitchen elevation drawings	3	Site report confirming as built in line with design stage	Envision		

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	
8.1 Water Efficiency	Water efficient fittings	11	0	0	5 credits - 6 of water fittings achieve optional standards specified in Table 52 of HQM One technical manual and overall modelled consumption less than 110l/p/d 8 credits - all water fittings meet optional standard and consumption less than 110l/p/d 11 credits - all water fittings meet advanced standards in Table 52 and consumption less than 100l/p/d.	Specification of sanitary appliances achieves overall modelled consumption less than 110l/p/d. However to achieve minimum 5 credits, HQM One also requires 6 of water fittings to achieve the following optional standards: WCs - <4/2.6l dual flush Showers - <8l/min Basin taps - <5l/min Kitchen sink taps - <6l/min Dishwashers - <1.25l/place setting Washing machines and washer dryers - <8.17/kg Dishwashers are not provided, therefore all other optional standards need to be achieved, and whilst the WC is a water efficient specification, at 4.5l flush volume, this does not meet the above requirement. There are significant maintenance issues with specifying a lower flush toilet and this would incur additional cost to achieve, therefore credits are not targeted. Minimum requirement for Level 4 of My Estimator is not achievable for reasons stated.	Credit not targeted								
	Water recycling	6	0	0	Rainwater or greywater recycling systems specified for 50/100% of WC flushing.	Not achievable without significant redesign.	Credit not targeted								
Delivery															
9.1 Project Preparation	Feedback from previous projects	4	0	0	Demonstrate lessons learnt from previous projects has been incorporated in design At Design Brief (RIBA Stage 1), an Outline Delivery Plan has been developed and kept up to date.	Credit not targeted as Outline Delivery Plan, meeting HQM requirements, not in place at RIBA Stage 1.	Credit not targeted								
	Project delivery plan	n/a	n/a	n/a	Minimum Requirements - Before detailed design (typically RIBA Stage 3), the Project delivery stakeholders (i.e. client, design team, principal contractor if appointed) have met to discuss requirements, roles/responsibilities, HQM performance targets - Before commencement of work on site, including demolition, construction management and inspection process established, meeting all requirements set out in HQM One technical manual (criteria 4a to 4g).	Requirement in place	Meeting minutes confirming:- - Project design and client requirements for HQM; - Roles and responsibilities for HQM; - Confirmed HQM targets Demolition, construction management and inspection procedures	BYUK	Meeting minutes Demolition Management Plan Construction Management Plan "Delivering Quality Product at Bouygues UK"		As design stage				
	Product procurement and substitution policy	n/a	n/a	n/a	Minimum Requirement - client or principal contractor has a product procurement policy, including substitution clauses.	Requirement in place	Product procurement policy	BYUK	"Delivering Quality Product at Bouygues UK"		Evidence demonstrating policy followed during construction (e.g. evidence of agreement on substitutions)	Bouygues			
	Dissemination of information	n/a	n/a	n/a	Minimum Requirement - processes in place to ensure project delivery plan and construction management processes above are communicated to all relevant trades - through toolbox talks/subcontractor briefings.	Requirement in place	Communication and training procedures for all relevant trades	BYUK	"Delivering Quality Product at Bouygues UK"		Evidence of dissemination of information during construction	Bouygues			
	Site worker feedback	2	0	0	Client or principal contract has documented policy and procedure for staff to make protected disclosures, which is displayed with contact details on construction site.	Credit not targeted as too onerous for contract.	Credit not targeted								
9.2 Commissioning and Testing	Commissioning building services and control systems	n/a	n/a	n/a	Minimum Requirement - Management of commissioning in line with best practice, including appointment of specialist commissioning manager for complex systems.	Requirement in place	Confirmation commissioning plan meeting HQM requirements	BYUK	Letter confirming compliance with HQM requirements		Commissioning certificates for all building services	Bouygues			

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
	Fabric pre-testing	4	0	0	Inspection and pre-testing methods established for the site.	Credit not targeted as pre-testing fabric too onerous/costly.	Credit not targeted							
	Post construction testing	7	3	0	3 credits - Air leakage testing Additional 4 credits - Thermographic survey post construction as well.	Air leakage testing assumed as will be required to complete EPCs. Additional credit thermographic surveying not achievable as too costly.	Confirmation of commitment to air leakage testing	Ridge BYUK	letter of commitment confirming air leakage testing	3	Air leakage test results	Bouygues		
9.3 Inspections and Completion	Visual defects inspection	n/a	n/a	n/a	Minimum Requirement - visual defects inspection prior to occupation.	Requirement in place	Confirmation of visual defects inspection	BYUK	Letter of commitment confirming visual defects inspection		Visual defects inspection report including any outstanding remedial work, with confirmation issued to occupants prior to moving in	Bouygues		
	Construction inspection	n/a	n/a	n/a	Minimum Requirement - appropriately qualified site based person carries out systematic and scheduled inspections of build quality.	Requirement in place	Confirmation of site person with responsibility for site inspections; Planned strategy for site inspections; Commitment to included HQM requirements in site inspections and ensure design variations are appropriately managed	BYUK	Letter confirming responsibilities for construction inspections and inspection plan		Site inspection reports	Bouygues		
	Construction record	n/a	n/a	n/a	Minimum Requirement - Construction record is kept demonstrating quality assurance measures taken.	Requirement in place	Commitment to keep construction record with dissemination, all in line with HQM requirements	BYUK	Letter of commitment to keep construction record		Copy of Construction record and evidence of dissemination	Bouygues		
	Right to inspect	2	0	0	Potential owners given right to carry out own non-invasive inspection, and any snagging issues resolved within 28 days.	Credit not targeted as too onerous for contract.	Credit not targeted							
	Feedback dissemination	1	0	0	Feedback on lessons learnt provided to client and project team for future projects.	Credit not targeted as too onerous for contract.	Credit not targeted							
	Third party verification	5	0	0	Person appointed to carry out construction inspections is an independent third party.	Credit not targeted as too onerous for contract.	Credit not targeted							
	Early inspection visit	4	0	0	Contracted commitment for early inspection 4-6 weeks after occupants moving in.	Credit not targeted as too onerous for contract.	Credit not targeted							
	Seasonal inspection visit	4	0	0	Contracted commitment for seasonal inspection between 8 and 12 months after occupation.	Credit not targeted as too onerous for contract.	Credit not targeted							

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
10 Construction Impacts														
10.1 Responsible Construction Practices	Responsible Construction Management	5	5	-	Responsible Construction Management based on Considerate Contractors Scheme score of: >25 to <35 - 2 credits >35 - 5 credits (plus BRE specific requirements that are good site management practices).	Credits assumed for targeting score of >35 for CCS, plus additional BRE requirement to ensure clear and safe access in and around buildings at point of handover.	Confirmation of commitment to achieving CCS score >35 plus agreement to meeting additional BRE requirements	BYUK	Letter confirming commitment to CCS + BRE requirements	5	CCS site report	Bouygues		
10.2 Construction Energy Use	Contractor's energy efficiency checklist	2	2	-	Contractor completes energy efficiency checklist prior to commencement on site and carries out relevant onsite energy efficiency management measures.	Requirement in place	Completed energy efficiency checklist	BYUK	Project Environmental and Energy Management Plan	2	As design stage			2
	Energy monitoring and reporting	2	2	-	Target, monitor and report energy data during construction.	Requirement in place	Confirmation of commitment to target, monitor and report energy data	BYUK	Letter of commitment and Project Environmental and Energy Management Plan	2	Copy of energy data	Bouygues		
	Weekly detailed monitoring and reporting	1	0	0	Have system in place to collect data on a weekly basis.	Weekly data collection considered too onerous - not standard practice.	Credit not targeted							
10.3 Construction Water Use	Contractor's water efficiency checklist	2	2	-	Contractor completes water efficiency checklist prior to commencement on site and carries out relevant onsite water efficiency management measures.	Requirement in place	Completed water efficiency checklist	BYUK	Project Environmental and Energy Management Plan	2	As design stage			2
	Water monitoring and reporting	2	2	-	Target, monitor and report water data during construction.	Requirement in place	Confirmation of commitment to target, monitor and report water data	BYUK	Letter of commitment and Project Environmental and Energy Management Plan	2	Copy of water data	Bouygues		
	Weekly detailed monitoring and reporting	1	0	0	Have system in place to collect data on a weekly basis.	Weekly data collection considered too onerous - not standard practice.	Credit not targeted							
10.4 Site Waste Management	Product procurement policy	1	0	0	By end of RIBA Stage 2, product procurement policy in place.	Not in place by end of RIBA Stage 2, therefore not achievable.	Credit not targeted							
	Construction resource efficiency	8	2	0	Carry out pre-demolition audit. Resource Management Plan (equivalent to SWMP) developed for site, and sets/meets relevant waste target for total volume of non-hazardous construction waste generated on site <13.9m3/100m2 GIFA = 2 credits <8.1 = 4 credits <4.8 = 6 credits <3.5 = 8 credits.	2 credits previously targeted. Will need to ensure requirements included in demolition and principal contractor requirements.	Copy of pre-demolition audit	BYUK	Pre-demo audit report; SWMP Commitment to target	2	Final version of Resource Management plan and waste records, confirming target achieved	Bouygues		
	Diversion of construction waste from landfill	2	2	0	Waste target met for % construction / demolition waste diverted from landfill 70% construction / 80% demolition = 2 credits 85% construction / demolition = 4 credits.	2 credits previously targeted. Will need to ensure requirements included in demolition and principal contractor requirements.	copy of draft Resource Management Plan with confirmed waste target (70% construction / 80% demolition diverted from landfill)	BYUK	SWMP Commitment to target	2	Final version of Resource Management plan and waste records, confirming target achieved	Bouygues		
	Diversion of excavation waste from landfill	3	0	0	Maximum credits achieved for above, plus 95% excavation waste diverted from landfill.	Maximum credits above not targeted therefore not feasible.	Credit not targeted							
11 Customer Experience														
11.1 Aftercare	Building Warranty	n/a	n/a	n/a	Minimum Requirement - home covered by a Building Warranty.	Requirement met by registering with NHBC.	Confirmation of requirement to register with NHBC	BYUK	Commitment letter with confirmation of requirement		As design stage			
	Handover visit	n/a	n/a	n/a	Minimum Requirement - contracted commitment for Handover visit.	Requirement in place	Confirmation of contract requirement for handover visit, meeting defined HQM requirements	Arcais / BYUK	Commitment letter with confirmation of requirement		As design stage			
	On-call support	4	0	0	Contracted commitment to provide oncall support for minimum 2 years (3 credits) or 3 years (4 credits).	Credit not targeted as too onerous for contract.	Credit not targeted							
11.2 Home Information	Home information	n/a	n/a	n/a	Minimum Requirement - Home Building User Guide to be prepared, including all contents set out in table 63 of HQM One technical manual, and provided to home occupants.	Requirement in place	Commitment to produce Home BUG, including agreement on content	BYUK	Commitment letter with confirmation of requirement		Copy of Home BUG and confirmation of issue to occupants	Bouygues		

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			Targeted	Additional			Evidence Requirements	Responsibility	Evidence Received	Credit Achieved	Evidence Requirements	Responsibility	Evidence Received	Credit Achieved
11.3 Smart Homes	Connectivity to the home	2	1	0	Provision of broadband to the home:- 1 credit - superfast broadband (24Mbit/s) 2 credits - ultrafast broadband (100Mbit/s).	1 credit assumed feasible for good broadband provision. Additional credits not feasible without incurring additional cost.	Specification confirming provision of broadband	Ridge	Broadband specification details	1	Site report confirming installation of broadband	Envision		
	Connectivity within the home	1	0	0	PHDS in place, with cable ducting.	Credits not feasible without incurring additional cost.	Credit not targeted							
	Smart Heating	2	0	0	Smart home devices installed at no additional cost to occupant to provide smart heating functionality.	Meeting strategy under review. Once agreed, will confirm if additional 1 credits are achieved. Unlikely to affect overall HQM star rating achieved.	Credit not targeted							
	Smart lighting	1	0	0	Smart home devices installed at no additional cost to occupant to monitor and control lighting.	Credits not feasible without incurring additional cost.	Credit not targeted							
	Smart energy management	1	0	0	Smart home devices installed at no additional cost to occupant to monitor and control energy use of individual devices, additional lighting functionality, and display status/availability of LZC technologies where installed.	Meeting strategy under review. Once agreed, will confirm if additional 1 credits are achieved. Unlikely to affect overall HQM star rating achieved.	Credit not targeted							
	Additional smart solutions	1	0	0	Smart home devices installed at no additional cost to occupant to monitor air quality, humidity, ventilation.	Credits not feasible without incurring additional cost.	Credit not targeted							
11.4 Post Occupancy Evaluation (POE)	Occupant satisfaction feedback and bill data	2	0	0	Commitment made for occupants invited to participate in POE and POE carried out 12-18months after occupation.	Credit not targeted as too onerous for contract.	Credit not targeted							
	Energy and temperature monitoring	3	0	0	Above credits achieved, plus energy and temperature data collected for one year to compare actual and predicted energy consumption.	Credit not targeted as too onerous for contract.	Credit not targeted							
	Advanced POE and independent third party	5	0	0	POE includes different audit types (see Table 65 of HQM One technical manual) and as carried out by an independent third party.	Credit not targeted as too onerous for contract.	Credit not targeted							