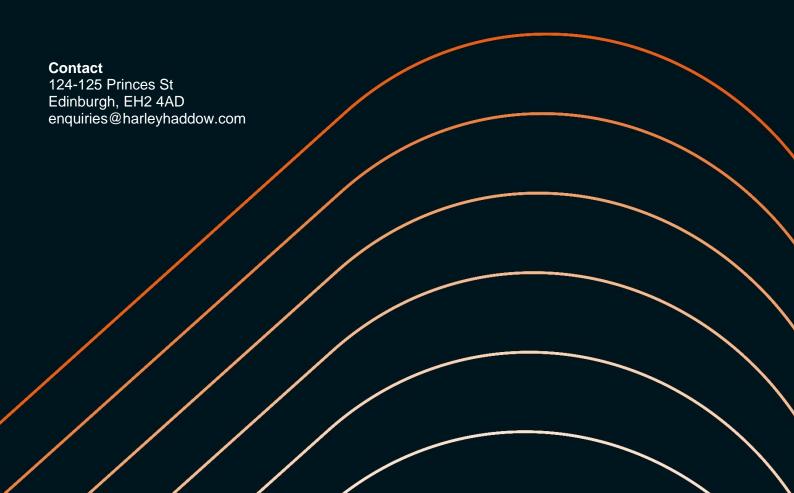


3-6 Spring Place, Kentish Town

BREEAM UK Refurbishment & Fit Out

Pre-Assessment Report

May 2020



Document Revision Control

Revisions	Date	Reason for Issue	By	Approved
0	26.05.2020	Draft for Information	SJP	SJP

Executive Summary

Harley Haddow have carried out a pre-assessment workshop for the 3-6 Spring Place, Kentish Town development, to review the potential credits and available BREEAM score for the project.

Individual credits considered achievable have been selected by the design team to ascertain the likely score that can be achieved, and the requirements need to achieve an "**Excellent**" BREEAM UK Refurbishment and Fit-out 2014 Assessment rating.

The following credits are mandatory for an 'Excellent' rating and have been included in the potential scoring.

Due to the scope and the limitations of the project, the Simple building has been utilised.

BREEAM Issue	BREEAM Rating/ Minimum number of credits
	Excellent Rating
Man 03: Responsible construction practices	1 credit (Considerate construction)
Man 04: Commissioning and handover	Criterion 9 (Building User Guide)
Man 05: Aftercare	Parts 2 & 3 only: 1 credit (seasonal commissioning)
Ene 01: Reduction of energy use and carbon emissions	6 credits
Ene 02: Energy monitoring	Parts 2, 3 & 4: 1 credit (First sub metering credit)
Wat 1: Water consumption	1 Credit
Wat 02: Water monitoring	Part 2: Criterion 1
Mat 03: Responsible sourcing of construction products	Criterion 1
Wst 03: Operational waste	1 credit

The initial assessment shows a final target score of **78.91%** was determined which is a "Excellent" rating.

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1.0 Introduction

1.1 General

The proposed Spring Place development is reviewing the opportunity to undergo assessment and certification against the BREEAM environmental assessment method. The preferred requirement for the project is to achieve a 'Excellent' rating under the BREEAM UK Refurbishment and Fit-out 2014.

A Pre-Assessment exercise has been carried out. This report summarises the potential credits that can be included.

Analysis of the Pre-Assessment results shows that a BREEAM rating of 'Excellent' can be achieved for this project, with an anticipated BREEAM score of **78.91%**.

1.2 Simple Building Criteria

The project is to be assessed utilising the Simple buildings method which is inline with the scope of works proposed.

The Simple buildings criteria can be used for the purposes of BREEAM UK Non-domestic Refurbishment and Fit-out 2014 scheme assessments, where the building services and their relationship to the building fabric are 'simple'.

Examples of buildings which could fall under the BREEAM definition of simple (depending on the remit of the works) include office, educational and community buildings, GP surgeries, basic industrial units, and extensions to existing buildings.

1.3 BREEAM Categories

The BREEAM UK Refurbishment and Fit-out 2014 scheme awards credits in 9 separate sections which relate to the construction, design and procurement decisions made on a project:

- **Management** project brief and design, life cycle costing and service life planning, responsible construction practices, commissioning and handover, aftercare.
- Health and Wellbeing visual comfort, indoor air quality, safe containment in laboratories, thermal comfort, acoustic performance, safety, and security.
- Energy energy reduction, carbon emissions, heating and lighting control, energy monitoring, low carbon design, external lighting, energy efficient cold storage, energy efficient transportation systems, energy efficient laboratory systems, energy efficient equipment, drying space.
- **Transport** sustainable transport solutions, proximity to amenities, cyclist facilities, maximum car parking capacity, travel plan.
- Water water consumption, water monitoring, water leak detection, water efficient equipment.
- **Materials** life cycle impact, hard landscaping and boundary protection, responsible sourcing of materials, insulation, designing for durability and resilience, material efficiency.

- **Waste** project waste management, recycled aggregates, operational waste, speculative floor and ceiling finishes, adaption to climate change, functional adaptability.
- Land Use and Ecology protection of ecological features, enhancing site ecology, long term impact on biodiversity.
- Pollution impact of refrigerants, NOx emission rates, flood risk management and reducing surface water run-off, reduction of night-time light pollution, reduction of noise pollution.

1.4 BREEAM Credits for Innovation

Innovation credits provide additional recognition for a building that innovates in the field of sustainable performance, above the level that is currently recognised in BREEAM. An additional 1% score can be added to a building's final BREEAM score for each innovation credit achieved, up to a maximum of 10%.

Innovation credits can be achieved by meeting exemplary performance requirements or by making an application to BRE based on a particular building feature, system, or process.

1.5 Explanation of Scoring

The following table indicates the typical BREEAM Refurbishment and Fit-out scheme assessment parts that are applicable depending upon the type of refurbishment or fit-out project being undertaken.

	Assessment parts typically applied						
Project Type	Part 1 Fabric and structure	Part 2 Core Services	Part 3 Local Services	Part 4 Internal Design			
Major Refurbishment	*	~	~	~			
First fit-out		✓*		~			
Secondary fit-out		✓*	~	~			
Shell Only	~						
Shell and core	~	✓					
Upgrade of central M&E plant		~					
Change of use	~	✓	✓*	★ *			
Listed building refurbishment	✓*	~	~	~			
Internal refresh/remodelling				~			

Table 1 Typical assessment parts applicable, depending on project type

*May be applicable depending on the scope of the project.

With the scope of the project it is proposed that it will be assessed using Parts 2, 3 and 4.

Each category is weighted differently to reflect the relative significance that it has on the environmental impact of the building as follows:

Environmental Section	Project specific weightings %							
	Core weightings	Part 1 Only	Part 2 Only	Part 3 Only	Part 4 Only	Parts 1 & 2	Parts 2 & 3	Parts 3 & 4
Management	12.0%	15.0%	16.7%	16.5%	20.0%	13.0%	16.5%	14.1%
Health & Wellbeing	15.0%	14.8%	14.4%	15.3%	19.9%	11.0%	15.3%	15.9%
Energy	19%	16.4%	24.5%	24.3%	2.5%	18.8%	24.3%	122.5%
Transport	8.0%	10.0%	11.2%	11.1%	13.4%	8.6%	11.1%	9.5%
Water	6.0%	0.0%	7.5%	7.4%	10.1%	5.7%	7.4%	7.1%
Materials	12.5%	15.6%	5.4%	5.3%	19.3%	13.4%	5.3%	13.7%
Waste	7.5%	9.4%	9.3%	9.2%	11.2%	8.1%	9.2%	7.9%
Land Use & Ecology	10.0%	12.5%	0.0%	0.0%	0.0%	10.7%	0.0%	0.0%
Pollution	10.0%	6.3%	11.0%	10.9%	3.6%	10.7%	10.9%	9.3%

Table 2 Project specific weightings

For each BREEAM section the number of credits achieved, as determined by the BREEAM Assessor, is converted into a percentage of the total credits available for the section. This percentage is then multiplied by the section weighting, giving the section score. Each section score is then added together to give the overall BREEAM score (as a percentage).

The BREEAM score then determines the BREEAM rating as described in the table below:

BREEAM Rating	Minimum Score Required
Unclassified	<30%
Pass	≥30%
Good	≥45%
Very Good	≥55%
Excellent	≥70%
Outstanding	≥85%

Table 3 BREEAM RFO 2014 rating benchmarks

BREEAM rating benchmarks enable a client and all other stakeholders to compare the performance of a refurbishment or fit-out project with other BREEAM rated buildings, and the typical sustainability performance of a stock of existing non-domestic buildings in the UK. In this respect each BREEAM rating broadly represents performance equivalent to:

- 1. Outstanding: Less than the top 1% of UK refurbishment or fit-out projects (innovator)
- 2. Excellent: Top 10% of UK refurbishment or fit-out projects (best practice)
- 3. Very Good: Top 25% of UK refurbishment or fit-out projects (advanced good practice)
- 4. Good: Top 50% of UK refurbishment or fit-out projects (intermediate good practice)
- 5. Pass: Top 75% of UK refurbishment or fit-out projects (standard good practice

1.6 Minimum Performance

To achieve a BREEAM rating, the minimum percentage score must be achieved, as described above, and the minimum standards (i.e. number of credits achieved) applicable to that rating level complied with as outlined in the table below:

	BREEAM Rating/ Minimum number of credits					
BREEAM Issue	Pass	Good	Very Good	Excellent	Outstanding	
Man 03: Responsible construction practices	-	-	-	1 credit (Considerate construction)	2 Credits (Considerate construction)	
Man 04: Commissioning and handover	-	-	-	Criterion 9 (Building User Guide)	Criterion 9 (Building User Guide)	
Man 05: Aftercare	-	-	-	Parts 2 & 3 only: 1 credit (seasonal commissioning)	Parts 2 & 3 only: 1 credit (seasonal commissioning)	
Ene 01: Reduction of energy use and carbon emissions	-	-	-	Parts 1, 2, 3 & 4 (full assessments): 6 credits, varies for other assessment types	Parts 1, 2, 3 & 4 (full assessments): 10 credits, varies for other assessment types	
Ene 02: Energy monitoring	-	-	Parts 2, 3 & 4: 1 credit (First sub metering credit)	Parts 2, 3 & 4: 1 credit (First sub metering credit)	Parts 2, 3 & 4: 1 credit (First sub metering credit)	
Wat 01: Water consumption	-	1 credit (where applicable)	1 credit (where applicable)	1 credit (where applicable)	2 credits (where applicable)	
Wat 02: Water monitoring	-	Part 2: Criterion 1	Part 2: Criterion 1	Part 2: Criterion 1	Part 2: Criterion 1	
Mat 03: Responsible sourcing of materials	Criterion 1	Criterion 1	Criterion 1	Criterion 1	Criterion 1	
Wst 01: Construction waste management	-	-	-	-	1 credit	
Wst 03: Operational waste	-	-	-	1 credit	1 credit	

Table 4 Minimum BREEAM Standards

1.7 BREEAM Certification

The project will be assessed and verified at Design stage at which point an interim design certificate will be issued by BRE. Full certification will only be achieved following the Post Construction assessment.

2.0 Pre-Assessment Results

The information below summarises the potential credits that can be targeted by the team, to attain the required Excellent rating.

The main member of the design team responsible to provide the evidence for each credit is noted below.

2.1 Management

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Man 01	Project Brief and Design	 Up to 4 credits available where the following is achieved: 1. Prior to completion of concept design the project delivery stakeholders have identified and defined their roles, responsibilities, and contribution. 2. Prior to completion of concept design all relevant interested party stakeholders have been consulted and covers the minimum consultation content. 3. Will a Sustainability Champion (BREEAM AP) be appointed at RIBA stage 1 and performance targets contractually agreed? 4. Will a Sustainability Champion (BREEAM AP) be appointed to monitor and report progress during concept, developed and technical design stages? ** Harley Haddow to carry out AP role alongside BREEAM assessor duties** 	2 (+2 for Innovation)	2 (+2 for Innovation)	Client
Man 02	Life cycle cost and service life planning	 credit available where the following is achieved: Will full capital cost reporting take place? 	1	1	QS
Man 03	Responsible Construction Practices	 Up to 4 credits available where the following is achieved: <i>Pre-Requisite – all timber and timber-based products are legally harvested and traded.</i> 1. Will the principal contractor operate a compliant Environmental Management System AND will the principal contractor adopt best practice pollution prevention policies and procedures? 	4 (+1 for Innovation)	4 (+1 for Innovation)	Contractor

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
		 Will the principal contractor evaluate the risks (on site and off site) and implement actions to minimise through responsible construction management in accordance with BREEAM criteria? Will site energy consumption be metered / monitored? Will site water consumption be metered / monitored? Will site water consumption be metered / monitored? Will the transport of construction materials and waste to / from site be measured / monitored? NOTE: Minimum standards apply **Credit information to be added to prelims** 			
Man 04	Commissioning & handover	 Up to 2 credits available where the following is achieved: 1. Will a schedule of commissioning be prepared and included in programme? Will a team member be nominated to monitor and programme commissioning? 2. Will building user guides and relevant user information be provided? NOTE: Minimum standards apply **Credit information to be added to prelims** 	2	2	M&E/ Contractor (info to be added to prelims)
Man 05	Aftercare	 Up to 3 credits available where the following is achieved: 1. Will aftercare support be provided? Will water and energy use be monitored for 12 months? 2. Will seasonal commissioning be undertaken? 3. Will a post occupancy evaluation be carried out? 	3 (+1 for Innovation)	2	M&E/ Contractor (info to be added to prelims)

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
		NOTE: Minimum standards apply			
		**Credit information to be added to prelims **			

2.2 Health and Well-being

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Hea 01	Visual Comfort	 Up to 7 credits available where the following is achieved: 1. Will the design provide adequate glare control for building users? 2. Will all relevant building areas be designed to achieve the appropriate daylight factor(s) and uniformity? 3. Will the design provide a compliant view out for building users? 4. Will internal / external lighting be specified in accordance with the relevant CIBSE / British Standards? 5. Will internal lighting have the appropriate zoning and occupant control? 	7 (+1 for Innovation)	1	M&E
Hea 02	Indoor Air Quality	Excluded from	Simple Building	gs Assessme	ent
Hea 04	Thermal Comfort	Excluded from	Simple Building	gs Assessme	ent
Hea 05	Acoustic Performance	Excluded from	Simple Building	gs Assessme	ent
Hea 06	Safety and Security	 One credit is available where the following is achieved: 1. Will a suitably qualified security consultant be appointed, and security considerations accounted for? 	1	1	Architect

1.3 Energy

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Ene 01	Reduction of energy use and carbon emissions	Up to 9 credits are available based on the elemental level energy model comparing performance pre and post development. NOTE: Minimum standards apply **Further credits may be available if the project design is net zero carbon**	Up to 9 (+5 for Innovatio n)	6	M&E
Ene 02	Energy Monitoring	 2 credits are available for the inclusion of BMS and or submetering: 1. Will a BMS or sub-meters be specified to monitor energy use from major building services systems? 2. Will sub-meters be installed to monitor high energy load and/or tenancy areas. NOTE: Minimum standards apply 	2	2	M&E
Ene 03	External Lighting	1 credit is available for a compliance external lighting specification.	1	1	M&E
Ene 04	Low Carbon Design	 Up to 3 credits available for Low carbon design. 1. Will a passive design analysis be undertaken? 2. Can free cooling be achieved for the building? 3. Will a low carbon feasibility study be carried out? ** Harley Haddow net zero study can be used for this credit** 	3	1	M&E
Ene 05	Energy Efficient Cold Storage	No cold storage assumed			

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Ene 06	Energy Efficient Transportation Systems	No lifts assumed.			

1.4 Transport

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility	
Tra 01	Sustainable transport solutions	 Up to 3 credits are available where the following is achieved: 1. The public transport Accessibility Index (AI) for the assessed building is calculated and BREEAM credits awarded according to the building type and facilities. 	3	3	Architect	
Tra 02	Proximity to amenities	One credit is available where a building is located within close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants.	1	1	Architect	
Tra 03	Cyclist facilities	 Up to 2 credits are available where the following is achieved: 1. Compliant cycle storage spaces that meet minimum number of spaces are provided. 2. Where applicable at least two types of the following compliant cyclist facilities are provided: a) Showers b) Changing facilities c) Lockers d) Drying spaces 	2	2	Architect	
Tra 04	Maximum car parking capacity	Excluded from Simple Buildings Assessment				
Tra 05	Travel plan	Excluded from Sir	nple Buildir	igs Assessm	ent	

1.5 Water

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Wat 01	Water Consumption	Up to 5 credits are available for domesticwater-consuming components that reduce the water consumption for the building:% improvementNo.of BREEAM credits12.5125240350455565Exemplary Is a greywater or rainwater system to be specified and installed?NOTE: Minimum standards apply	5 (+1 for Innovation)	3	Architect
Wat 02	Water Monitoring	 One credit can be awarded where the following is met: 1. Will there be a water meter on the mains water supply to the building(s)? 2. Will metering / monitoring equipment be specified on the water supply to any relevant plant/building areas? 3. Will all specified water meters have a pulsed output? NOTE: Minimum standards apply 	1	1	M&E
Wat 03	Water Leak Detection	 Up to 2 credits are available for leak detection systems: 1. Will a mains leak detection system be installed on the building's mains water supply? 2. Will flow control devices be installed in each sanitary area/facility? 	2	2	M&E

1.6 Materials

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Mat 01	Life Cycle Impacts	Up to 2 credits are available where the following is provided:Will an elemental assessment of the environmental performance information be carried out?% of BREEAM Mat 01 calculator pointsIndustrial achieved101401601751851 +1 Exemplary	1 (+1 for Innovation)	1 (+1 for Innovation)	Architect
Mat 03	Responsible sourcing of materials	851 +1 ExemplaryUp to 4 credits are available where the following is provided:Pre-requisite - Are all timber and timber-based products used on the project legally harvested and traded?1. Will materials be sourced in accordance with a documented sustainable procurement plan?2. Can applicable building elements demonstrate they have been responsibly resourced?NOTE: Minimum standards apply	4 (+1 for Innovation)	3	Design Stage: Architect Construction Stage: Contractor
Mat 04	Insulation	 One credit is available where the following is provided: 1. Any new insulation specified for use is assessed. 2. The insulation index for the building fabric and services insulation is the same or greater than 2.5. 	1	1	Architect/ M&E
Mat 05	Designing for Durability and Resilience	One credit is available where the following is provided:	1	1	Architect

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
		 Are protection measures incorporated into the building's design and construction to reduce damage to the building's fabric or materials in case of accidental or malicious damage occurring? Have key exposed building elements been designed and specified to limit long and short- term degradation due to environmental factors? **Design team to determine vulnerable areas for this credit** 			
Mat 06	Material efficiency	One credit is available where opportunities have been identified, and measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance, and end of life.	1	1	Architect

1.7 Waste

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility
Wst 01	Project Waste Management	 Up to 4 credits available where the following is provided: 1. The client shall ensure that a pre-refurbishment audit of all existing buildings, structures, or hard surfaces within the scope of the refurbishment or fit-out zone is completed. 2. Where specific types of waste material types are either directly re-used on site or off-site or are sent back to the manufacturer for closed loop recycling. 3. Develop and implement a compliant resource management plan covering the waste arising from the refurbishment or fit-out project. 4. What level of Nonhazardous construction waste, demolition waste and excavation waste will be diverted from landfill? NOTE: Minimum standards apply **Credit information to be added to prelims** 	4 (+1 for Innovation)	3	Contractor (info to be added to prelims)
Wst 03	Operational Waste	One credit is available for the provision of dedicated space(s) is provided for the segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s), and activities. NOTE: Minimum standards apply	1	1	Architect

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility	
Wst 05	Adaption to Climate Change	Excluded from	Excluded from Simple Buildings Assessment			
Wst 06	Functional adaptability	 One credit is available where the following is provided: 1. Will a building-specific functional adaptation strategy study be carried out at concept stage which includes recommendations for measures to be incorporated to facilitate future adaptation? 2. Will the measures be implemented in the design? **Study to be undertaken ** 	1	1	Architect	

1.8 Land Use and Ecology

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed
LE 02	Protection of ecological features			
LE 04	Enhancing site ecology	Not assessed – no external landscaping		
LE 05	Long term impact on biodiversity			

1.9 Pollution

Ref.	Issue Title	BREEAM Criteria	No. Credits Available	No. Credits Proposed	Evidence Responsibility	
Pol 01	Impact of Refrigerants	Excluded from Sir	Excluded from Simple Buildings Assessment			
Pol 02	NO _x emissions	1 credit is available where all heating and hot water is supplied by non-combustion systems or alternatively low NO _x space heating and hot water systems have been specified.	1	1	M&E	
Pol 03	Flood risk management and reducing surface water run-off	 Up to 2 credits are available if the following is met: 1. Has flood risk been identified? 2. Adopting flood resilience or resistance measures through refurbishment or fit out works. 3. Surface water run-off is managed to be no worse as a result of refurbishment works. 	2	2	Civils	
Pol 04	Reduction of Night-time Light Pollution	One credit is available where the external lighting specification meets the BREEAM criteria.	1	1	M&E	
Pol 05	Reduction of Noise Pollution	Excluded from Simple Buildings Assessment				

1.10 Innovation

Ref.	Issue Title	No. Credits Available	No. Credits Proposed
Man 01	Project Brief and Design	2	2
Man 03	Responsible construction practices	1	1
Man 05	Aftercare	1	0
Hea 01	Visual comfort	1	0
Hea 02	Indoor air quality	2	0
Ene 01	Reduction of energy use and carbon emissions	5	0
Wat 01	Water consumption	1	0
Mat 01	Environmental impact of materials	1	1
Mat 03	Responsible sourcing of materials	1	0
Wst 01	Project waste management	1	0

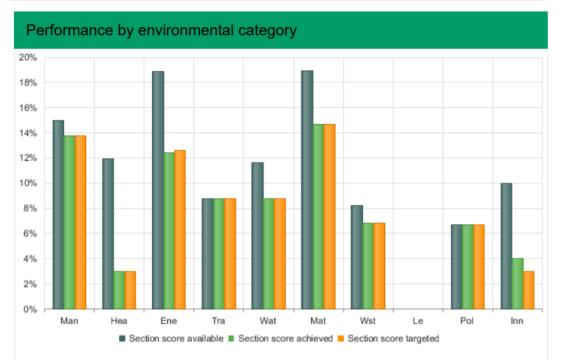
Up to a maximum of 10 credits are available in aggregate from a combination of the following:

1.0 Summary

The results of the initial pre-assessment indicate a predicted BREEAM score for the Spring Place development of **78.91%** a 'Excellent' rating.

The information below summarises the scoring and results of the Pre-Assessment exercise.

BREEAM Rating						
	Credits available	Credits achieved	% Credits achieved	Weighting	Category score	
Man	12.0	11.0	91.67%	14.98%	13.73%	
Неа	8.0	2.0	25.00%	11.92%	2.97%	
Ene	15.0	9.9	66.00%	18.87%	12.45%	
Tra	6.0	6.0	100.00%	8.74%	8.74%	
Wat	8.0	6.0	75.00%	11.65%	8.74%	
Mat	9.0	7.0	77.78%	18.91%	14.70%	
Wst	6.0	5.0	83.33%	8.19%	6.82%	
Le	0.0	0.0	0.00%	0.00%	0.00%	
Pol	4.0	4.0	100.00%	6.72%	6.72%	
Inn	10.0	4.0	40.00%	10.00%	4.00%	
Total	78.0	54.9	70.38%	-	78.91%	
Rating	-	-	-	-	Excellent	



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