

Chancerygate (Erdington) Limited

Solent Road, Industrial Units

Havant

BREEAM New Construction 2018

# BREEAM Pre-assessment Report



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## 1.0 Executive Summary

The predicted BREEAM score and rating for the proposed industrial development in Havant is shown in Table 1.1 below.

| Building Type           | BREEAM 2018 Rating |
|-------------------------|--------------------|
| Industrial (Shell Only) | 58.00% (Very Good) |

**Table 1.1 BREEAM score**

The results of this assessment have been based on credits assigned with the objective of ascertaining the feasibility of achieving a BREEAM 'Very Good' rating for the proposed Industrial Units in Havant. The BREEAM pre-assessment for the proposed scheme has an anticipated score of 58.00% therefore achieving a 'Very Good' rating which requires a percentage score greater than 55%. The score also allows for a 3.00% margin of contingency above the minimum score of 55% required.

All credits which can be investigated to deliver a higher BREEAM score have been highlighted within Section 5.0 of this report. If all these credits can be achieved the development could potentially achieve a BREEAM score of 64.99% which delivers a 'Very Good' rating with a 9.99% margin of contingency from the 55% minimum required for BREEAM 'Very Good'.

The credits that have not been achieved are highlighted in blue within the BREEAM assessment and the credits which have been achieved are highlighted in green in the Tables provided in Section 6.0 of this report.

This is a live document and the BREEAM score is subject to change throughout the development should the relevant criteria not be met or should further credits become achievable.

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## 2.0 Introduction

This report has been prepared by Cudd Bentley Consulting with regard to the development of Solent Road in Havant. The proposed development includes 4 industrial units and commercial space for 2 storey office. This pre-assessment is for the industrial development only and a separate pre-assessment report will be provided for the office assessment.

The development comprises of four warehouse units with ancillary mezzanine space as well as associated landscaping and car parking. The results of this assessment have been based on credits assigned with the objective of determining the BREEAM rating possible for the proposed development in Havant.

Sushil Pathak of Cudd Bentley Consulting Limited has been appointed to assist with the BREEAM 2018 UK (Non-Domestic & Industrial) Pre-assessment on the proposed development. Cudd Bentley Consulting and in particular the licensed assessor Sushil Pathak has been trained by the BRE to be able to undertake BREEAM assessments as an Accredited Professional (AP).

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## 3.0 BREEAM Overview

BREEAM schemes are an environmental assessment method for buildings. Each standard sets the best practice in environmental design and has become the de facto measure to describe a buildings environmental performance.

BREEAM has the following aims:

- To mitigate the impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits
- To provide a credible, environmental label for buildings
- To stimulate demand for sustainable buildings.

BREEAM has the following objectives:

- To provide market recognition to low environmental impact buildings
- To ensure best environmental practice is incorporated in buildings
- To set criteria and standards surpassing those required by regulations and challenge the market to provide innovative solutions that minimise the environmental impact of buildings
- To raise awareness of owners, occupants, designers and operators of the benefits of buildings with a reduced impact on the environment
- To allow organisations to demonstrate progress towards corporate environmental objectives.

Credits are awarded over 10 categories of sustainability consisting of a number of issues, summarised in Table 3.1 below.

## Solent Road, Industrial Units, Havant

|                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Management</b> <ul style="list-style-type: none"> <li>• Project Brief and Design;</li> <li>• Life Cycle Cost and Service Life Planning;</li> <li>• Responsible Construction Practices;</li> <li>• Commissioning and Handover;</li> <li>• Aftercare.</li> </ul>                                                                                                                              | <b>Materials</b> <ul style="list-style-type: none"> <li>• Environmental Impacts from Construction Products – Building Life Cycle Analysis;</li> <li>• Environmental Impact from Construction Products – EPD;</li> <li>• Responsible Sourcing of Construction Products;</li> <li>• Designing for Durability and Resilience;</li> <li>• Material Efficiency.</li> </ul> |
| <b>Health &amp; Wellbeing</b> <ul style="list-style-type: none"> <li>• Visual Comfort;</li> <li>• Indoor Air Quality;</li> <li>• Safe Containment in Laboratories;</li> <li>• Thermal Comfort;</li> <li>• Acoustic Performance;</li> <li>• Security;</li> <li>• Safe and Healthy Surroundings.</li> </ul>                                                                                      | <b>Waste</b> <ul style="list-style-type: none"> <li>• Construction Waste Management;</li> <li>• Use of Recycled and Sustainably Sourced Aggregates;</li> <li>• Operational Waste;</li> <li>• Speculative Finishes;</li> <li>• Adaptation to Climate Change;</li> <li>• Design for Disassembly and Adaptability.</li> </ul>                                            |
| <b>Energy</b> <ul style="list-style-type: none"> <li>• Reduction of Energy Use and Carbon Emissions;</li> <li>• Energy Monitoring;</li> <li>• External Lighting;</li> <li>• Low Carbon Design;</li> <li>• Energy Efficient Cold Storage;</li> <li>• Energy Efficient Transportation Systems;</li> <li>• Energy Efficient Laboratory Systems;</li> <li>• Energy Efficient Equipment;</li> </ul> | <b>Land Use and Ecology</b> <ul style="list-style-type: none"> <li>• Site Selection;</li> <li>• Identifying and Understanding the Risks and Opportunities for the Project;</li> <li>• Managing Negative Impacts on Ecology;</li> <li>• Change and Enhancement of Ecological Value;</li> <li>• Long Term Ecology Management and Maintenance.</li> </ul>                |
| <b>Transport</b> <ul style="list-style-type: none"> <li>• Transport Assessment and Travel Plan;</li> <li>• Sustainable Transport Measures.</li> </ul>                                                                                                                                                                                                                                          | <b>Pollution</b> <ul style="list-style-type: none"> <li>• Impact of Refrigerants;</li> <li>• Local Air Quality;</li> <li>• Flood and Surface Water Management;</li> <li>• Reduction of Night Time Light Pollution;</li> <li>• Reduction of Noise Pollution.</li> </ul>                                                                                                |
| <b>Water</b> <ul style="list-style-type: none"> <li>• Water Consumption;</li> <li>• Water Monitoring;</li> <li>• Water Leak Detection;</li> <li>• Water Efficient Equipment.</li> </ul>                                                                                                                                                                                                        | <b>Innovation</b> <ul style="list-style-type: none"> <li>• New technology, process and practices.</li> </ul>                                                                                                                                                                                                                                                          |

**Table 3.1 Summary of Categories Covered by BREEAM**

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## Scores and Rating

There are four main elements that determine the building rating: -

### 1.) BREEAM Rating Benchmarks

Table 3.2 below summarises the overall percentage score that is required to classify within each rating.

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

**Table 3.2 BREEAM Ratings**

### 2.) BREEAM Environmental Weightings

Table 3.3 below outlines the environmental weightings that are adopted in each section to convert the credits awarded into an overall percentage score.

| BREEAM Section          | Weighting (%) 2018 |                |            |
|-------------------------|--------------------|----------------|------------|
|                         | Fully Fitted       | Shell and Core | Shell Only |
| Management              | 11%                | 11%            | 12%        |
| Health & Wellbeing      | 14%                | 8%             | 7%         |
| Energy                  | 16%                | 14%            | 9.5%       |
| Transport               | 10%                | 11.5%          | 14.5%      |
| Water                   | 7%                 | 7%             | 2%         |
| Materials               | 15%                | 17.5%          | 22%        |
| Waste                   | 6%                 | 7%             | 8%         |
| Land Use & Ecology      | 13%                | 15%            | 19%        |
| Pollution               | 8%                 | 9%             | 6%         |
| Innovation (additional) | 10%                | 10%            | 10%        |

**Table 3.3 Environmental Section Weightings**

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## 3.) Minimum BREEAM Standards

To achieve a BREEAM rating, the minimum percentage score must be achieved (Table 3.2) and the minimum standards (number of credits) applicable to that rating level, Table 3.4 below.

| BREEAM Issue                                    | Minimum standards by BREEAM rating level |                 |                  |                                            |                                            |
|-------------------------------------------------|------------------------------------------|-----------------|------------------|--------------------------------------------|--------------------------------------------|
|                                                 | Pass                                     | Good            | Very Good        | Excellent                                  | Outstanding                                |
| Man 03 – Responsible Construction Practices     | None                                     | None            | None             | 1<br>(Responsible construction management) | 2<br>(Responsible construction management) |
| Man 04 – Commissioning and Handover             | None                                     | None            | None             | Criterion 11<br>(Building User Guide)      | Criterion 11<br>(Building User Guide)      |
| Man 05 – Aftercare                              | None                                     | None            | None             | 1 (Commissioning implementation)           | 1 (Commissioning implementation)           |
| Ene 01 – Reduction of CO <sub>2</sub> Emissions | None                                     | None            | None             | 4 Credits                                  | 6 Credits                                  |
| Ene 02 – Energy Monitoring                      | None                                     | None            | 1 (First credit) | 1 (First credit)                           | 1 (First credit)                           |
| Wat 01 – Water Consumption                      | None                                     | 1 Credit        | 1 Credit         | 1 Credit                                   | 2 Credits                                  |
| Wat 02 – Water Monitoring                       | None                                     | Criteria 1 only | Criteria 1 only  | Criteria 1 only                            | Criteria 1 only                            |
| Mat -3 – Responsible Sourcing of Materials      | Criteria 1 only                          | Criteria 1 only | Criteria 1 only  | Criteria 1 only                            | Criteria 1 only                            |
| Wst 01 – Construction Waste Management          | None                                     | None            | None             | None                                       | 1 Credit                                   |
| Wst 03 – Operational Waste                      | None                                     | None            | None             | 1 Credit                                   | 1 Credit                                   |

**Table 3.4 Minimum Standards**

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## 4.) BREEAM Credits for Innovation

Innovation credits provide additional recognition for a building that innovates in the field of sustainable performance, above and beyond the level that is currently recognised and rewarded within standard BREEAM issues.

### Current Assessment – Design Parameters

For this 2018 pre-assessment, the following design parameters were used within the BREEAM Calculator Tool to commence the assessment:

- Scheme - BREEAM UK New Construction (Non-Domestic Buildings) 2018;
  - Building Type – Industrial – Warehouse, Storage or Distribution.
- Project type – New Construction / Shell Only
- Functions/facilities specified in the building
  - Mezzanine office space
  - External hard and soft landscaped areas
  - No irrigation

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## 4.0 Site Analysis

The proposed development includes the provision of 4No. industrial units Use Class, E, B2 and B8 with ancillary mezzanine space as well as associated landscaping and car parking. The development is in Havant.

The proposed site elevation is shown in Figure 4.1



Figure 4.1 Proposed Site elevation (front-East)

The proposed site plan is shown in Figure 4.2 and 4.3 with the ground floor and mezzanine space.

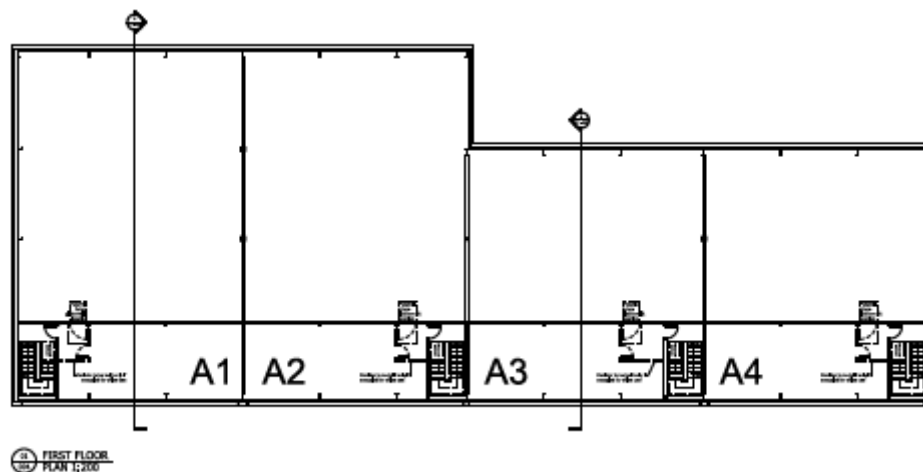


Figure 4.2 Proposed Site plan ground floor

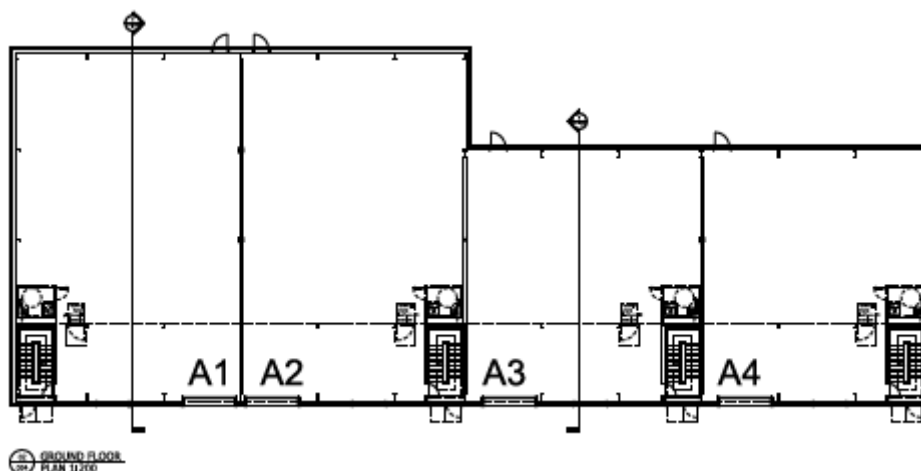


Figure 4.3 Proposed mezzanine plan

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## 5.0 Summary

In summary, the BREEAM pre-assessment for the proposed building has an anticipated score of 58% therefore achieving a 'Very Good' rating which requires a percentage score greater than 55%.

All credits which can be investigated to deliver a higher BREEAM score have been highlighted within the Table below. If all these credits can be achieved the development could potentially achieve a BREEAM score of 64.99% which delivers a 'Very Good' rating with a higher 9.99% margin of contingency over the 55% target. Both scores have been visually represented within Graph 5.1 below.

| Credit for Further Investigation                    | Requirement                                                                                                                            | % Contribution Score |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Man 04, Commissioning and Handover                  | Will a thermographic survey and air tightness testing be undertaken?                                                                   | 0.80%                |
| Hea 06 Security                                     | Will a suitably qualified security consultant (Architectural Liaison Officer) be appointed, and security considerations accounted for? | 1.00%                |
| Hea 07, Safe and Healthy Surroundings               | Will an outside amenity space be provided?                                                                                             | 1.00%                |
| Ene 01 Reduction of Energy use and Carbon Emissions | Will energy Performance ratio achieve increased efficiency values?                                                                     | 0.73% /per credit    |
| LE 01, Site selection                               | Is the site deemed to be significantly contaminated?                                                                                   | 1.46%                |
| Pol 3 Flood and Surface Water Management            | Will the site meet the BREEAM criteria for peak rate surface water run-off?                                                            | 1.00%                |
| Pol 3 Flood and Surface Water Management            | Will the site meet the criterial for surface water run-off volume, attenuation and/or limiting discharge?                              | 1.00%                |

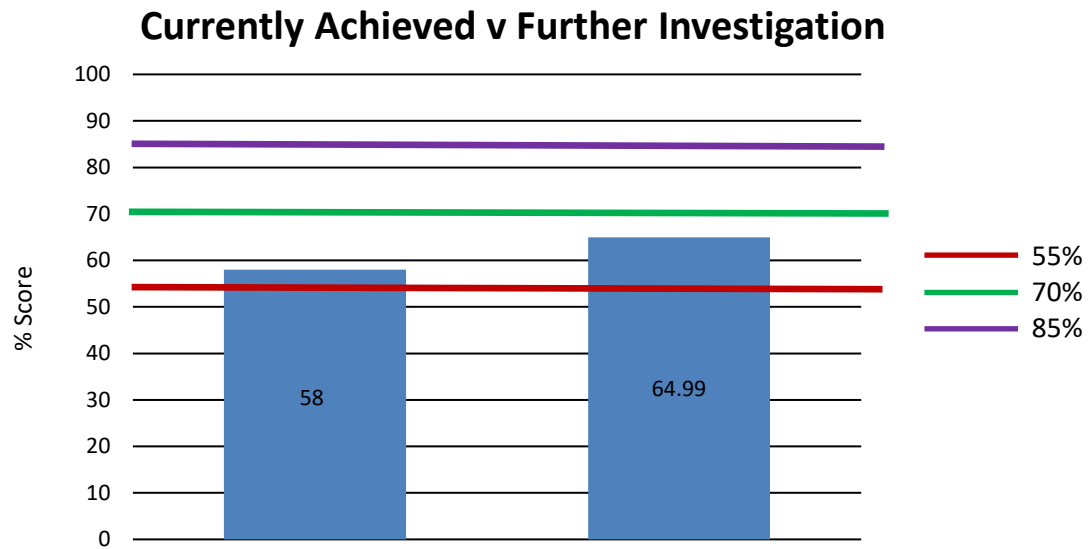
**Table 5.1 Credits for Further Investigation**

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Graph 5.1 Currently Achieved Vs Further Investigation

### 6.0 BREEAM Assessments

The following section highlights the BREEAM credits that have been awarded for Havant Industrial development and the corresponding percentage score.

The design stage assessment and subsequent interim BREEAM Certification represents the performance of the building at the design stage of the assessment, typically prior to the beginning of operations on site. Certification at this stage does not, therefore, represent the buildings final 'as built' BREEAM performance.

The post construction stage assessment and subsequent BREEAM Certification represents the final 'as built' performance and BREEAM rating. A final post construction stage assessment is completed and certified after practical completion of the building works.

| 5606                                            | Solent Road, Havant (Industrial)                                                                                                                                                                              | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                                                                        |          |                                              |  |  |              |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                          | Description                                                                                                                                                                                                   | Requirements                                                                                                                                                    | Achieved | Comments                                     | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Management                                      |                                                                                                                                                                                                               |                                                                                                                                                                 |          |                                              |                                                                                    |                                                                                    |              |
| Man 1 Project Brief and Design                  | To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.                                                                         | Project delivery planning - Will roles and responsibilities defined in accordance with BREEAM and set a project delivery for stakeholder contributions?         | Y        | Action at concept design Stage 2             | 1                                                                                  | 1                                                                                  | 0.80%        |
|                                                 |                                                                                                                                                                                                               | Stakeholder consultation - Will all relevant third parties been consulted with comments influencing the outcomes of the concept design?                         | Y        | Action at concept design Stage 2 & 4         | 1                                                                                  | 1                                                                                  | 0.80%        |
|                                                 |                                                                                                                                                                                                               | BREEAM AP (Concept Design) - Will a Sustainability Champion be appointed during the preparation and brief stage to facilitate BREEAM performance targets?       | Y        | Action at concept design Stage 2             | 1                                                                                  | 1                                                                                  | 0.80%        |
|                                                 |                                                                                                                                                                                                               | BREEAM AP (Developed Design) - Will the Sustainability Champion monitor progress throughout the design process?                                                 | Y        | Action at concept design Stage 2             | 1                                                                                  | 1                                                                                  | 0.80%        |
| Man 2 Life Cycle Cost and Service Life Planning | To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through life maintenance and operation. | Will and elemental life cycle cost analysis be carried out at RIBA stage 2 (concept design)?                                                                    | N        |                                              | 2                                                                                  | 0                                                                                  | 0.00%        |
|                                                 |                                                                                                                                                                                                               | Will a component level plan be developed by the end of RIBA stage 4 (technical design)?                                                                         | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                                 |                                                                                                                                                                                                               | Will the predicted capital cost for the building be reported?                                                                                                   | Y        |                                              | 1                                                                                  | 1                                                                                  | 0.80%        |
| Man 3 Responsible Construction Practices        | To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.                                                           | Will the principal contractor operate under an Environmental Management System, use responsibly sourced timber and best practice pollution prevention policies? | Y        |                                              | 1                                                                                  | 1                                                                                  | 0.80%        |
|                                                 |                                                                                                                                                                                                               | Will a Sustainability Champion be appointed to monitor the project during construction, handover and close out stages?                                          | Y        |                                              | 1                                                                                  | 1                                                                                  | 0.80%        |
|                                                 |                                                                                                                                                                                                               | Will the principal achieve the minimum requirements and six additional requirements of Table 4.1 (BREEAM 2018 manual V1.0)?                                     | Y        |                                              | 2                                                                                  | 2                                                                                  | 1.60%        |
|                                                 |                                                                                                                                                                                                               | Will responsibility be assigned for monitoring energy, water and transport data?                                                                                | Y        |                                              | 2                                                                                  | 2                                                                                  | 1.60%        |
| Man 4 Commissioning and Handover                | To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.                                                                                         | Will a thermographic survey and air tightness testing be undertaken?                                                                                            | FI       | Credit highlighted for further investigation | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                                 |                                                                                                                                                                                                               |                                                                                                                                                                 |          | Total                                        | 15                                                                                 | 11                                                                                 | 8.80%        |

Green - Achieved  
Blue - Not Achieved  
Orange - To be Investigated

| 5606                                               | Solent Road, Havant (Industrial)                                                                                                                                                  | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                                               |          |                                                                                       |  |  |              |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                             | Description                                                                                                                                                                       | Requirements                                                                                                                           | Achieved | Comments                                                                              | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Health and Wellbeing                               |                                                                                                                                                                                   |                                                                                                                                        |          |                                                                                       |                                                                                    |                                                                                    |              |
| Hea 1 Visual Comfort                               | To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.                                   | Will all relevant building areas be designed to achieve the appropriate daylight factor(s) as per Table 5.1 (BREEAM 2018 manual v1.0)? | Y        |                                                                                       | 1                                                                                  | 1                                                                                  | 1.00%        |
|                                                    |                                                                                                                                                                                   | Will the design provide adequate view out for building users?                                                                          | Y        |                                                                                       | 1                                                                                  | 1                                                                                  | 1.00%        |
|                                                    |                                                                                                                                                                                   | Will external lighting be specified in accordance with the SLL Code for Lighting 2012, CIBSE Lighting Guide 7 and BS 5489-1?           | Y        |                                                                                       | 1                                                                                  | 1                                                                                  | 1.00%        |
| Hea 5 Acoustic performance                         | To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.                                                         | Will the building meet the relevant acoustic performance standards and testing requirements?                                           | Y        |                                                                                       | 1                                                                                  | 1                                                                                  | 1.00%        |
| Hea 6 Security                                     | To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.                                        | Will a suitably qualified security consultant (Architectural Liaison Officer) be appointed and security considerations accounted for?  | FI       | Credit highlighted for further investigation<br>Action by RIBA Concept Design Stage 2 | 1                                                                                  | 0                                                                                  | 0.00%        |
| Hea 7 Safe and Healthy Surroundings                | To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.                                                        | Where external site areas are present, will safe access be designed for pedestrians and cyclists?                                      | N        |                                                                                       | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                                    |                                                                                                                                                                                   | Will an outside amenity space with seating be provided?                                                                                | FI       | Credit highlighted for further investigation                                          | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                                    |                                                                                                                                                                                   |                                                                                                                                        |          | Total                                                                                 | 7                                                                                  | 4                                                                                  | 4.00%        |
| Energy                                             |                                                                                                                                                                                   |                                                                                                                                        |          |                                                                                       |                                                                                    |                                                                                    |              |
| Ene 1 Reduction of Energy Use and Carbon Emissions | To minimise operational energy demand, primary energy consumption and CO2 emissions.                                                                                              | A target number of BREEAM credits to be achieved have been defined                                                                     | FI       | Credit highlighted for further investigation                                          | 9                                                                                  | 2                                                                                  | 1.46%        |
| Ene 3 External Lighting                            | To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.                                                  | Will external light fittings have a luminous efficacy of no less than 70 lumens per circuit Watt, as well as suitable controls?        | Y        |                                                                                       | 1                                                                                  | 1                                                                                  | 0.73%        |
| Ene 4 Low Carbon Design                            | To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems. | Will Hea 4 (Thermal Comfort) be achieved?                                                                                              | N        | Hea 04 not in scope of Shell only but required if Ene 04 credit targeted              | 3                                                                                  | 1                                                                                  | 0.73%        |
|                                                    |                                                                                                                                                                                   | Will an analysis of the buildings passive design features be carried out?                                                              | N        | Action at concept design Stage 2                                                      |                                                                                    |                                                                                    |              |
|                                                    |                                                                                                                                                                                   | Will the building use a BREEAM compliant free cooling strategy?                                                                        | N        |                                                                                       |                                                                                    |                                                                                    |              |
|                                                    |                                                                                                                                                                                   | Will a feasibility study be undertaken and recommended LZC technology installed?                                                       | Y        | Action at concept design Stage 2                                                      |                                                                                    |                                                                                    |              |
|                                                    |                                                                                                                                                                                   |                                                                                                                                        |          | Total                                                                                 | 13                                                                                 | 4                                                                                  | 2.92%        |

Green - Achieved  
Blue - Not Achieved  
Orange - To be Investigated

| 5606                                       | Solent Road, Havant (Industrial)                                                                                                                      | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                                                                                            |          |                                              |  |  |              |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                     | Description                                                                                                                                           | Requirements                                                                                                                                                                        | Achieved | Comments                                     | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Transport                                  |                                                                                                                                                       |                                                                                                                                                                                     |          |                                              |                                                                                    |                                                                                    |              |
| Tra 1 Transport Assessment and Travel Plan | To reward awareness of existing local transport and identify improvements to make it more suitable.                                                   | Will a site specific Transport Assessment be undertaken?                                                                                                                            | Y        | Action at concept design Stage 2             | 2                                                                                  | 2                                                                                  | 2.42%        |
|                                            |                                                                                                                                                       | Will a Travel Plan be implemented based on the findings of the Transport Assessment?                                                                                                | Y        | AI<25                                        |                                                                                    |                                                                                    |              |
|                                            |                                                                                                                                                       | Buildings indicative Accessibility Index                                                                                                                                            | <25      |                                              |                                                                                    |                                                                                    |              |
| Tra 2 Sustainable Transport Measures       | To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site. | Is the existing Accessibility Index for the site >8?                                                                                                                                | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                            |                                                                                                                                                       | Will the development itself demonstrate an increase in the site's Accessibility Index?                                                                                              | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                            |                                                                                                                                                       | Will a public transport information system be provided in a public place?                                                                                                           | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                            |                                                                                                                                                       | Will electric car charging stations be provided for at least 10% of the total car parking?                                                                                          | Y        | Tra 01 needs to be achieved as pre-requisite | 1                                                                                  | 1                                                                                  | 1.21%        |
|                                            |                                                                                                                                                       | Will a car sharing scheme be developed?                                                                                                                                             | Y        | Tra 01 needs to be achieved as pre-requisite | 1                                                                                  | 1                                                                                  | 1.21%        |
|                                            |                                                                                                                                                       | Will consultation with the Local Authority regarding the local cycle network and pedestrian routes for the site, with improvement proposition agreed with the LA being implemented? | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                            |                                                                                                                                                       | Will compliant cycle storage spaces be provided?                                                                                                                                    | Y        | Tra 01 needs to be achieved as pre-requisite | 1                                                                                  | 1                                                                                  | 1.21%        |
|                                            |                                                                                                                                                       | Will compliant cyclist facilities be provided, in the form of either showers, changing facilities, lockers or drying spaces?                                                        | Y        | Tra 01 needs to be achieved as pre-requisite | 1                                                                                  | 1                                                                                  | 1.21%        |
|                                            |                                                                                                                                                       | Will suitable existing amenities be available to building users?                                                                                                                    | Y        | Tra 01 needs to be achieved as pre-requisite | 1                                                                                  | 1                                                                                  | 1.21%        |
|                                            |                                                                                                                                                       | Will the development provide additional suitable amenities for building users?                                                                                                      | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                            |                                                                                                                                                       |                                                                                                                                                                                     |          | Total                                        | 12                                                                                 | 7                                                                                  | 8.46%        |
| Water                                      |                                                                                                                                                       |                                                                                                                                                                                     |          |                                              |                                                                                    |                                                                                    |              |
| Wat 2 Water Monitoring                     | To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.                     | Will there be a water meter on the mains water supply to the building(s)?                                                                                                           | Y        | Minimum standard for a Very Good rating      | 1                                                                                  | 1                                                                                  | 0.67%        |
|                                            |                                                                                                                                                       | Will metering/monitoring equipment be specified on the water supply to any relevant plant/ building areas?                                                                          | N/A      |                                              |                                                                                    |                                                                                    |              |
|                                            |                                                                                                                                                       | Will all specified water meters have a pulsed output?                                                                                                                               | Y        |                                              |                                                                                    |                                                                                    |              |
|                                            |                                                                                                                                                       | If the site/building has an existing BMS connection, will all pulsed meters be connected to the BMS?                                                                                | N/A      |                                              |                                                                                    |                                                                                    |              |
| Wat 3 Water Leak Detection                 | To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.                                            | Will a mains water leak detection system be installed on the buildings mains water supply?                                                                                          | N        |                                              | 1                                                                                  | 0                                                                                  | 0.00%        |
| Wat 4 Water efficient equipment            | To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.                             | Will all water demands outside sanitary use be identified and mitigated?                                                                                                            | Y        |                                              | 1                                                                                  | 1                                                                                  | 0.67%        |
|                                            |                                                                                                                                                       |                                                                                                                                                                                     |          | Total                                        | 3                                                                                  | 2                                                                                  | 1.33%        |

Green - Achieved  
Blue - Not Achieved  
Orange - To be Investigated

| 5606                                                                                         | Solent Road, Havant (Industrial)                                                                                                                                                                                                                                              | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                                           |          |                                                 |  |  |              |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                                                                       | Description                                                                                                                                                                                                                                                                   | Requirements                                                                                                                       | Achieved | Comments                                        | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Materials                                                                                    |                                                                                                                                                                                                                                                                               |                                                                                                                                    |          |                                                 |                                                                                    |                                                                                    |              |
| Mat 1 Environmental Impacts from Construction Products - Building Life Cycle Assessment      | To reduce the burden on the environment from construction products by recognising and encouraging measure to optimise construction efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building. | Has a target number of BREEAM credits been defined using the Mat 01 calculator?                                                    | Y        | Information required at Concept Design, Stage 2 | 7                                                                                  | 2                                                                                  | 3.14%        |
| Mat 02 Environmental Impacts from Construction Products - Environmental Product Declarations | To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.                                                                                                                                                 | Will construction products with EPD be specified to achieve a total EPD points of 20 (as calculated within the Mat 01 calculator)? | N        |                                                 | 1                                                                                  | 0                                                                                  | 0.00%        |
| Mat 3 Responsible Sourcing of Construction Products                                          | To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.                                                                           | Will all timber used on the project be 'Legally harvested and traded timber'?                                                      | Y        | Minimum standard for a Very Good rating         | 4                                                                                  | 3                                                                                  | 4.71%        |
|                                                                                              |                                                                                                                                                                                                                                                                               | Will a sustainable procurement plan be developed?                                                                                  | Y        | To be developed at Concept Design Stage 2       |                                                                                    |                                                                                    |              |
|                                                                                              |                                                                                                                                                                                                                                                                               | Will materials specified for relevant elements will be responsibly sourced?                                                        | Y        |                                                 |                                                                                    |                                                                                    |              |
| Mat 5 Designing for Durability and Resilience                                                | To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.                                                                                                                                                   | Will suitable durability/ protection measures be specified and installed to vulnerable areas of the building?                      | Y        |                                                 | 1                                                                                  | 1                                                                                  | 1.57%        |
|                                                                                              |                                                                                                                                                                                                                                                                               | Will exposed building elements incorporate measures to limit degradations due to environmental factors?                            | Y        |                                                 |                                                                                    |                                                                                    |              |
| Mat 6 Material Efficiency                                                                    | To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.                                                                                                                 | Will all appropriate parties be consulted in optimising the use of materials throughout the course of the project?                 | Y        | Targets to be set at Stage 1 and Stage 2        | 1                                                                                  | 1                                                                                  | 1.57%        |
|                                                                                              |                                                                                                                                                                                                                                                                               |                                                                                                                                    |          | Total                                           | 14                                                                                 | 7                                                                                  | 11.00%       |

Green - Achieved  
Blue - Not Achieved  
Orange - To be Investigated

| 5606                                                     | Solent Road, Havant (Industrial)                                                                                                                                                                                                                                                    | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                                                                                                                   |          |                                                                        |  |  |              |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                                   | Description                                                                                                                                                                                                                                                                         | Requirements                                                                                                                                                                                               | Achieved | Comments                                                               | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Waste                                                    |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                            |          |                                                                        |                                                                                    |                                                                                    |              |
| Wst 1 Construction Waste Management                      | To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.                                                                                                                                       | Will a compliant Resource Management Plan and Pre-demolition Audit (where required) be implemented?                                                                                                        | Y        | Pre-demolition audit to be confirmed for tennis courts?                | 4                                                                                  | 3                                                                                  | 2.40%        |
|                                                          |                                                                                                                                                                                                                                                                                     | Has a target resource efficiency per 100 m2 of gross internal area been agreed?<br>One credit = <13.3 m3 or <11.1 tonnes<br>Two credits = <7.5 m3 or <6.5 tonnes<br>Three credits = <3.4 m3 or <3.2 tonnes | Y        |                                                                        |                                                                                    |                                                                                    |              |
|                                                          |                                                                                                                                                                                                                                                                                     | Will at least 70% of non-demolition waste and 80% of any demolition waste (by volume) be diverted from landfill?                                                                                           | Y        |                                                                        |                                                                                    |                                                                                    |              |
| Wst 2 Use of Recycled and Sustainable Sourced Aggregates | To encourage the use of more sustainable sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.                                                                                          | Will a review of all reused and sustainably sourced aggregates be undertaken?                                                                                                                              | N        |                                                                        | 1                                                                                  | 0                                                                                  | 0.00%        |
| Wst 3 Operational Waste                                  | To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.                                                                                                                                                                    | Will appropriate facilities for the storage of operational recyclable waste volumes be provided?                                                                                                           | Y        |                                                                        | 1                                                                                  | 1                                                                                  | 0.80%        |
|                                                          |                                                                                                                                                                                                                                                                                     | If relevant, will a static waste compactor(s) or baler(s) be specified/installed?                                                                                                                          | N/A      |                                                                        |                                                                                    |                                                                                    |              |
|                                                          |                                                                                                                                                                                                                                                                                     | If relevant, will a vessel for composting suitable organic waste be specified/installed?                                                                                                                   | N/A      |                                                                        |                                                                                    |                                                                                    |              |
| Wst 5 Adaptation to Climate Change                       | To minimise the future need of carrying out workshop adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.                                                                                                | Will a Climate Change Adaptation Strategy appraisal be carried out by the end of RIBA Stage 2 (Concept design)?                                                                                            | Y        | To be developed at Concept Design Stage 2                              | 1                                                                                  | 1                                                                                  | 0.80%        |
| Wst 6 Design for Disassembly and Adaptability            | To avoid unnecessary material use, cost and disruption arising from the need for future adaption works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy. | Will a Functional Adaptation Strategy appraisal be carried out by the end of RIBA Stage 2 (Concept design), as will the recommendation be implemented?                                                     | Y        | To be developed at Concept Design Stage 2 and to be updated at Stage 4 | 2                                                                                  | 2                                                                                  | 1.60%        |
|                                                          |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                            |          | Total                                                                  | 10                                                                                 | 8                                                                                  | 6.40%        |

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| 5606                                                                           | Solent Road, Havant (Industrial)                                                                                                                                       | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                                                                                                                          |          |                                                    |  |  |              |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                                                         | Description                                                                                                                                                            | Requirements                                                                                                                                                                                                      | Achieved | Comments                                           | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Land Use and Ecology                                                           |                                                                                                                                                                        |                                                                                                                                                                                                                   |          |                                                    |                                                                                    |                                                                                    |              |
| LE 1 Site Selection                                                            | To encourage the use of previously developed and/or contaminated land and avoid land which has not been previously disturbed                                           | Will at least 75% of the proposed developments footprint be located on previously developed land?                                                                                                                 | N        |                                                    | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                                                                |                                                                                                                                                                        | Is the site deemed to be significantly contaminated?                                                                                                                                                              | FI       |                                                    | 1                                                                                  | 0                                                                                  | 0.00%        |
| LE 2 Identifying and Understanding the Risks and Opportunities for the Project | To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.                            | Will a Suitably Qualified Ecologist be appointed to assess the value of the site? Additionally, will the Client or Contractor confirm that compliance will be monitored against relevant UK and EU legislation?   | Y        |                                                    | 2                                                                                  | 2                                                                                  | 2.92%        |
|                                                                                |                                                                                                                                                                        | Will the Ecologist report on current and potential ecological value, risks to the ecological value and capacity for enhancement?                                                                                  | Y        | To be carried at Stage 1                           |                                                                                    |                                                                                    |              |
|                                                                                |                                                                                                                                                                        | Will the ecological outcome from the development be determined, considering avoidance, protection, reduction of negative impacts, on site compensation and enhancement?                                           | Y        | Liaison with stakeholders be at Stage 2            |                                                                                    |                                                                                    |              |
| LE 3 Managing Negative Impacts on Ecology                                      | To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.                       | Will the project team liaise with relevant stakeholders to consider collated and shared data in order to implement the best solutions during site preparation and construction works to prevent negative impacts? | Y        | Ecology credits will be confirmed by the ecologist | 1                                                                                  | 1                                                                                  | 1.46%        |
|                                                                                |                                                                                                                                                                        | Will negative impacts on site be limited to allow for no overall loss of ecological value, or to be limited as much as possible?                                                                                  | Y        |                                                    | 2                                                                                  | 1                                                                                  | 1.46%        |
| LE 4 Change and Enhancement of Ecological Value                                | To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.                              | Will the project team liaise with relevant stakeholders to consider collated and shared data in order to implement the best solutions during site preparation and construction works to enhance site ecology?     | Y        |                                                    | 1                                                                                  | 1                                                                                  | 1.46%        |
|                                                                                |                                                                                                                                                                        | Will site ecology be enhanced inline with BREEAM Guidance Note 35?                                                                                                                                                | Y        |                                                    | 3                                                                                  | 2                                                                                  | 2.92%        |
| LE 5 Long Term Ecology Management and Maintenance                              | To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term? | Will the design team liaise with stakeholders to ensure effective management and maintenance systems are implemented?                                                                                             | Y        |                                                    | 1                                                                                  | 1                                                                                  | 1.46%        |
|                                                                                |                                                                                                                                                                        | Will a landscape and ecology management plan be implemented?                                                                                                                                                      | Y        |                                                    | 1                                                                                  | 1                                                                                  | 1.46%        |
|                                                                                |                                                                                                                                                                        |                                                                                                                                                                                                                   |          | Total                                              | 13                                                                                 | 9                                                                                  | 13.15%       |

Green - Achieved  
Blue - Not Achieved  
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| 5606                                          | Solent Road, Havant (Industrial)                                                                                                                                                                                                | BREEAM New Construction 2018 Pre-Assessment (Shell Only)                                                 |                               |                                                                             |  |  |              |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------|
| Credit                                        | Description                                                                                                                                                                                                                     | Requirements                                                                                             | Achieved                      | Comments                                                                    | Credits Available                                                                  | Credits Achieved                                                                   | Percentage % |
| Pollution                                     |                                                                                                                                                                                                                                 |                                                                                                          |                               |                                                                             |                                                                                    |                                                                                    |              |
| Pol 3 Flood and Surface Water Management      | To avoid, reduce and delay the discharge of rainfall to public sewers and watercourse, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage. | What is the actual/likely annual probability of flooding for the assessed site?                          | High                          | Engagning with an appropriate consultant is a pre-requisite for this credit | 2                                                                                  | 1                                                                                  | 1.00%        |
|                                               |                                                                                                                                                                                                                                 | Will a Flood Risk Assessment be undertaken and ground level of the building/access meet BREEAM criteria? | Y                             |                                                                             |                                                                                    |                                                                                    |              |
|                                               |                                                                                                                                                                                                                                 | Will the site meet the BREEAM criteria for peak rate surface water run off?                              | FI                            | Credit highlighted for further investigation                                | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                               |                                                                                                                                                                                                                                 | Will the site meet the criteria for surface water run off volume, attenuation and/or limiting discharge? | FI                            | Credit highlighted for further investigation                                | 1                                                                                  | 0                                                                                  | 0.00%        |
|                                               |                                                                                                                                                                                                                                 | Will the site be designed to minimise watercourse pollution in accordance with the BREEAM criteria?      | N                             |                                                                             | 1                                                                                  | 0                                                                                  | 0.00%        |
| Pol 4 Reduction of Night Time Light Pollution | To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties               | Will the external lighting be designed to reduce light pollution?                                        | Y                             |                                                                             | 1                                                                                  | 1                                                                                  | 1.00%        |
|                                               |                                                                                                                                                                                                                                 |                                                                                                          |                               | Total                                                                       | 6                                                                                  | 2                                                                                  | 2.00%        |
|                                               |                                                                                                                                                                                                                                 |                                                                                                          | Total BREEAM Percentage Score |                                                                             |                                                                                    |                                                                                    | 58.00%       |

Green - Achieved  
Blue - Not Achieved  
Orange - To be Investigated