

# MVM Scotland

St Andrews - Abbey Walk/ St Leonards

## **Daylight Impact Report**

v01 MVM Scotland, 20 December 2010

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## Introduction

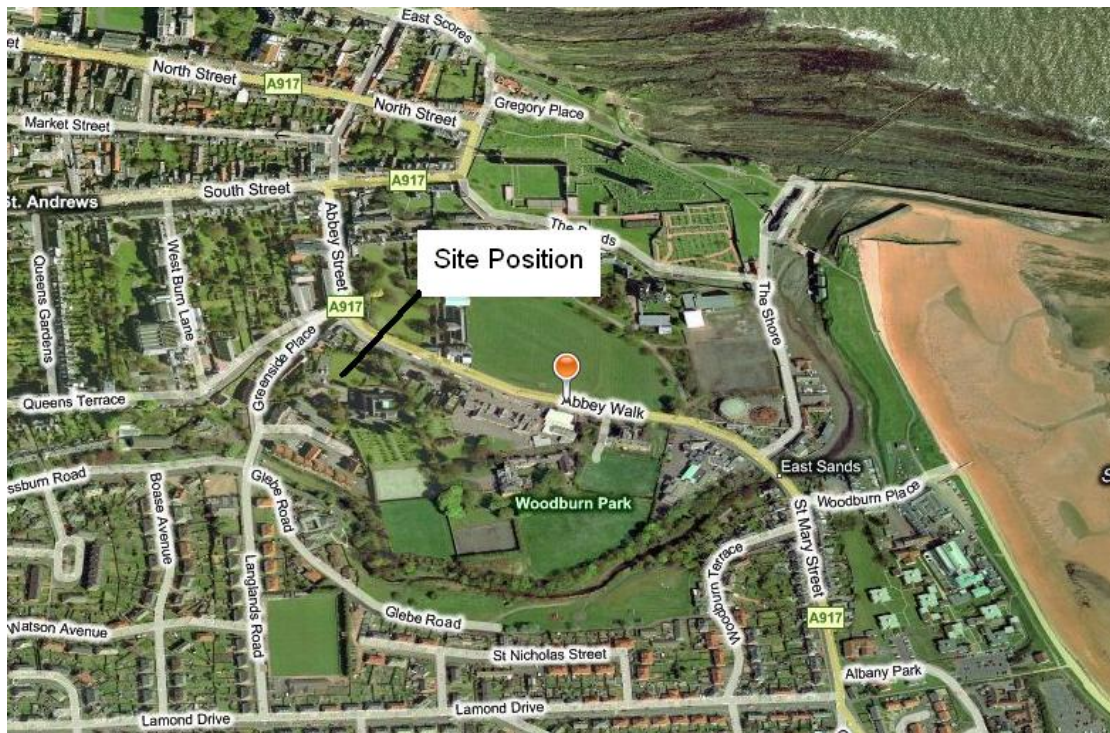
The following information is a solar impact study for a proposed development at Abby Walk, St Andrews. The objective of the study is to allow seasonal assessment of the site in terms of solar effects and shadowing. Of particular importance is the ability to appraise impact on existing properties and to make a comparison of solar effects before and after the proposals.

The report takes the form of three parts:-

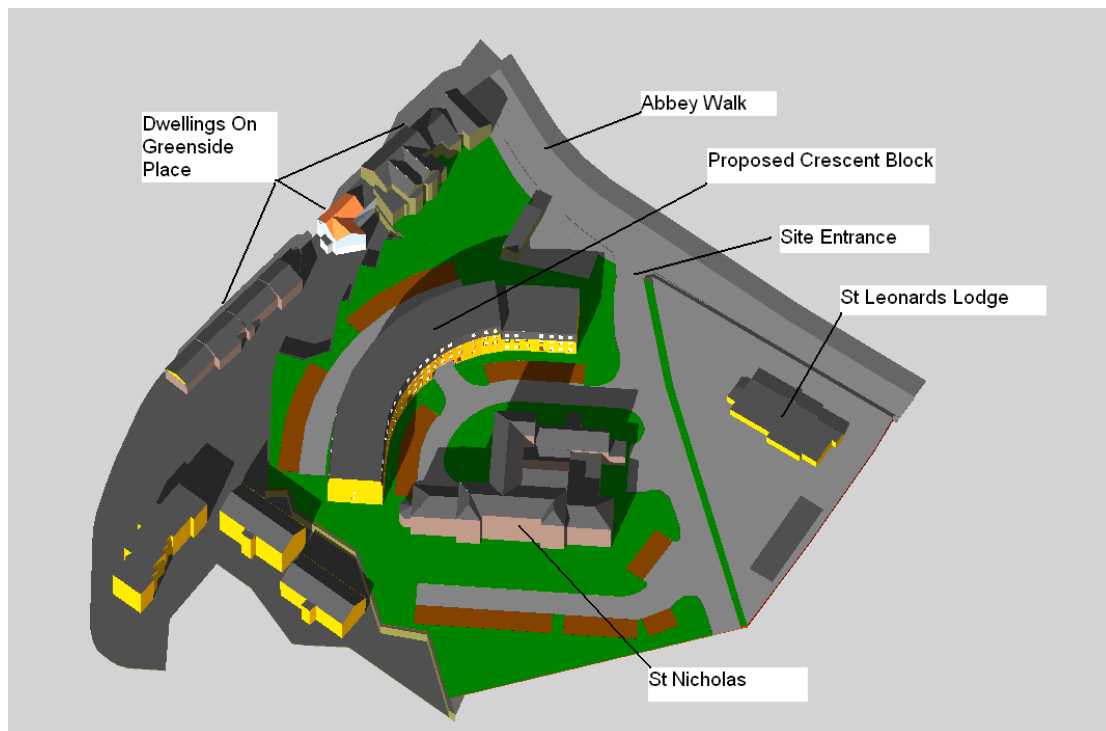
- Original Site
- New Development + Original
- New Development + Further Proposals

For each of the assessments there are plan view shadow studies as well as solar views. The plan view output shows how the shadows cast from a view above the area. The solar views are the view from the sun as it tracks around the site and as such no shadows are visible in the views.

## Location



## Site Features

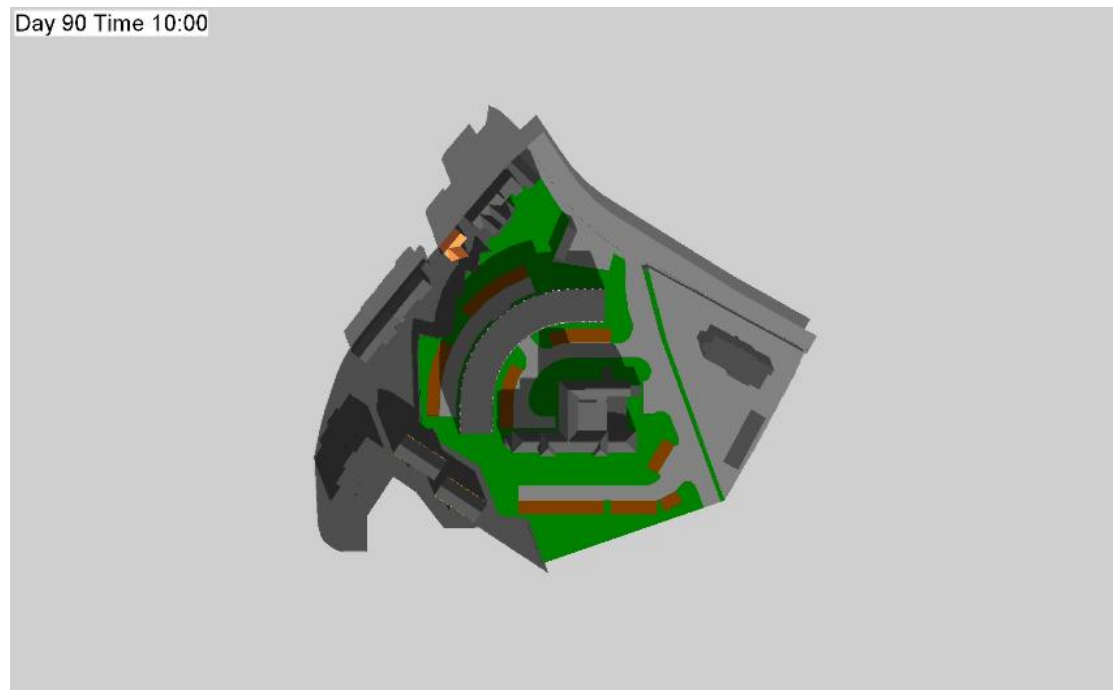
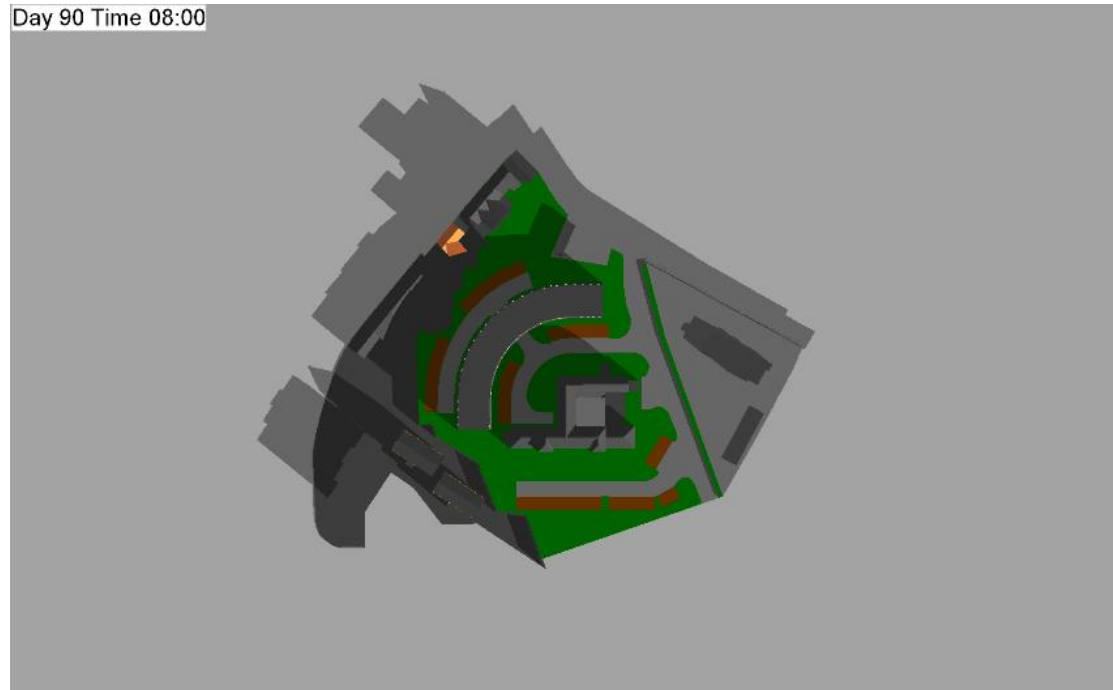


## Software

The software adopted for the assessment is TAS which is a three dimensional modelling and thermal analysis system. The modeling part of the system is capable of dealing with solar effects of shading and self shading at any position world wide. This allows the effects of solar altitude and azimuth to be properly accounted for. TAS is a fully approved software package for use under Section 6 of the Building Regulations and comes under the classification of Dynamic Simulation Models. It is also used to assess larger and more complex buildings under the technical standards.

## Outcome – New Development & Original / Impact

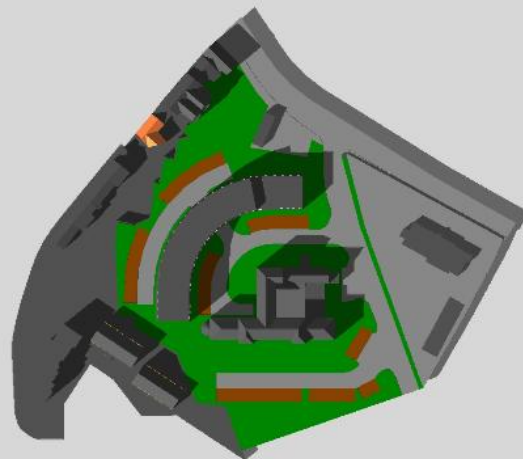
Spring – Plan View



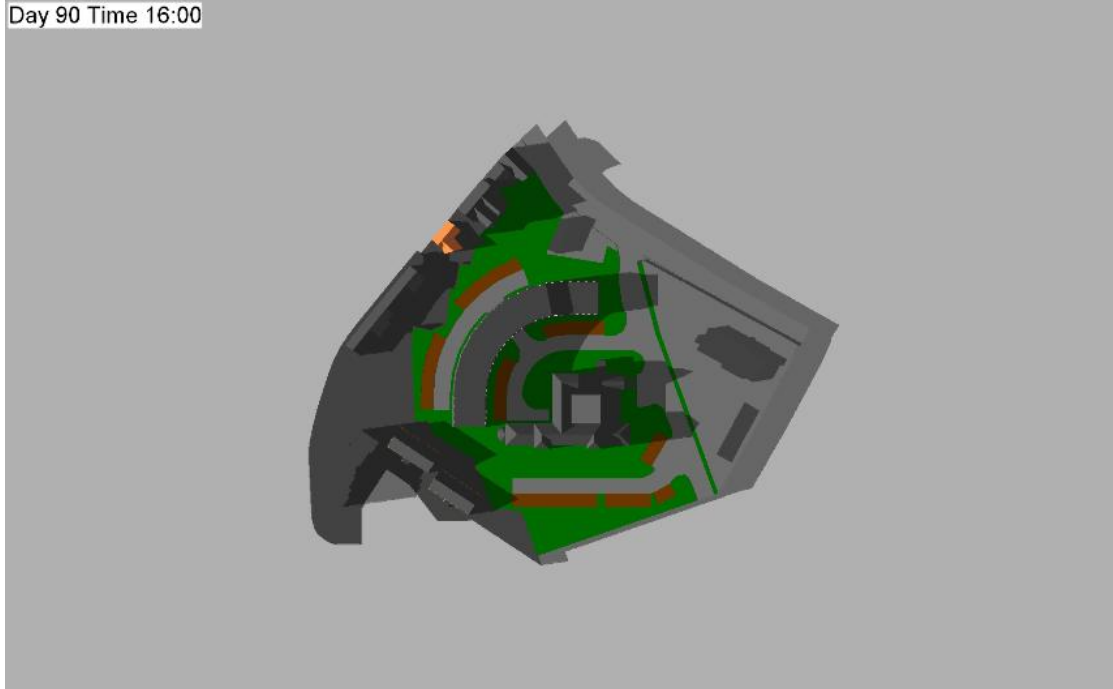
Day 90 Time 12:00



Day 90 Time 14:00



Day 90 Time 16:00

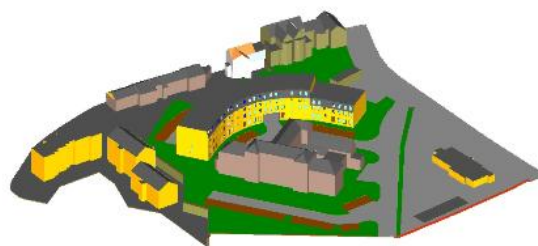


## Spring – Sun View

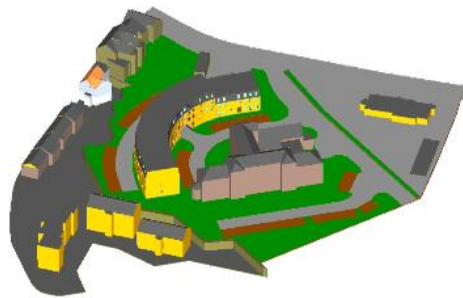
Day 90 Time 08:00



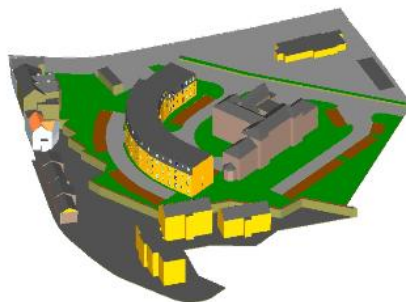
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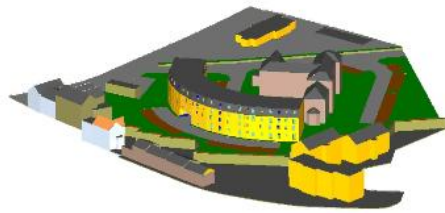
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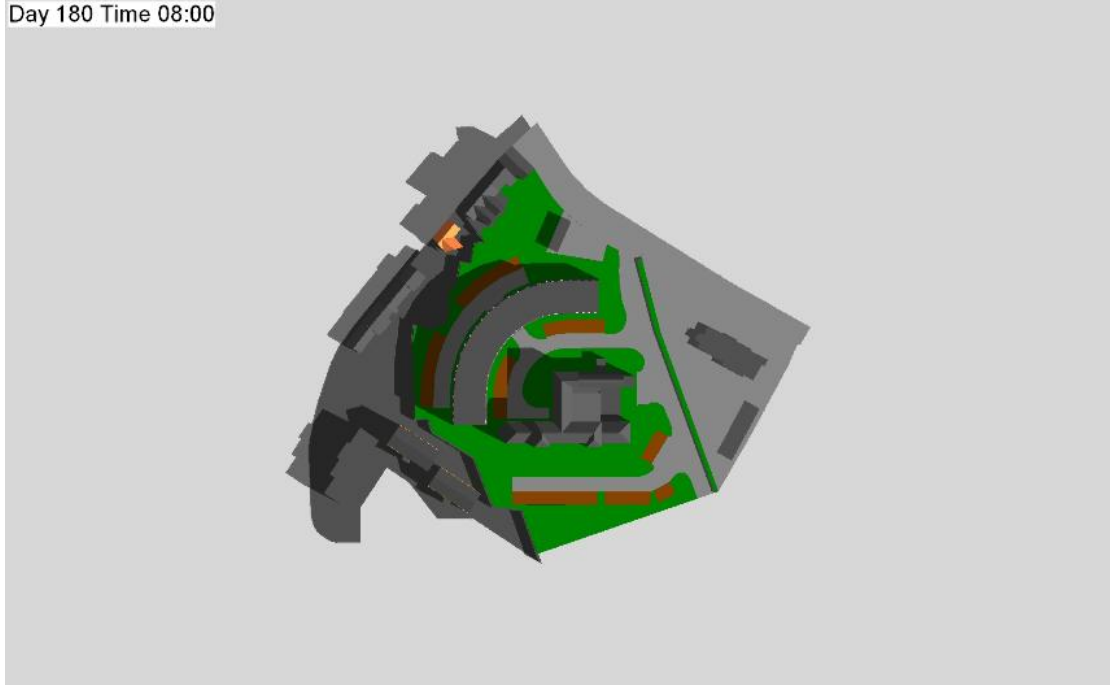


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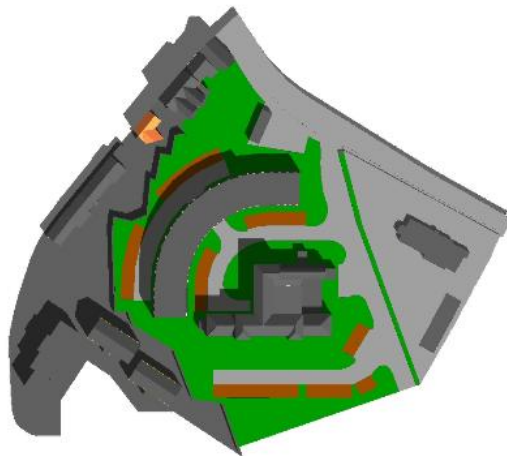


## Summer – Plan View

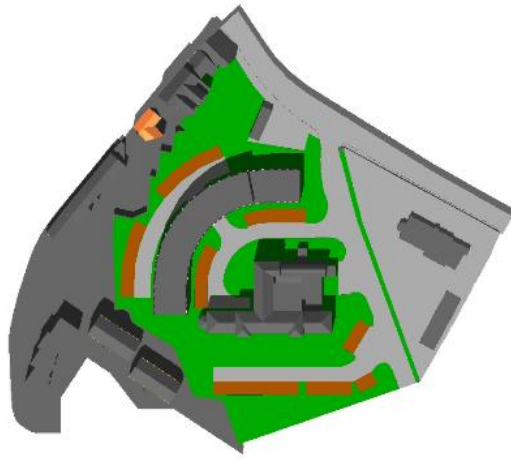
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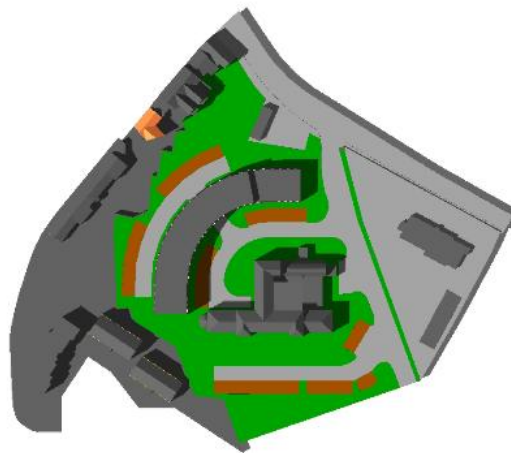
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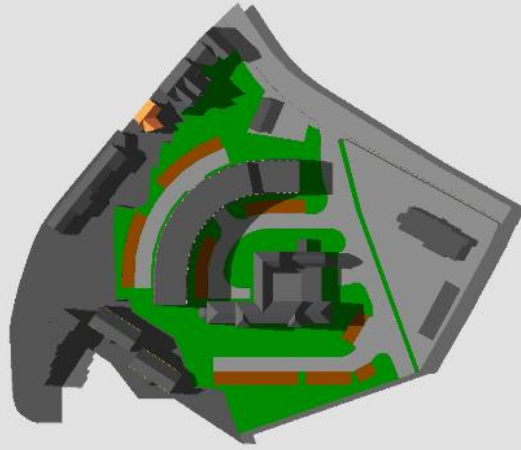
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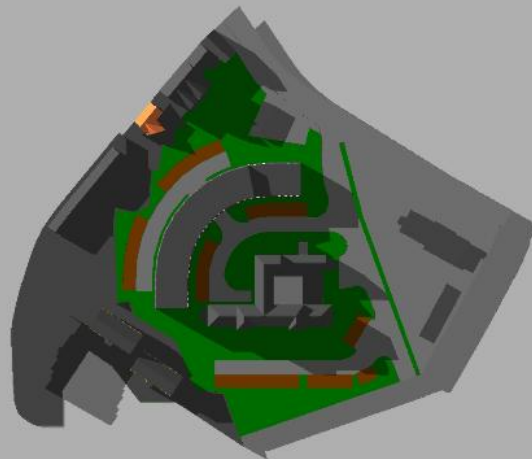
Day 180 Time 14:00



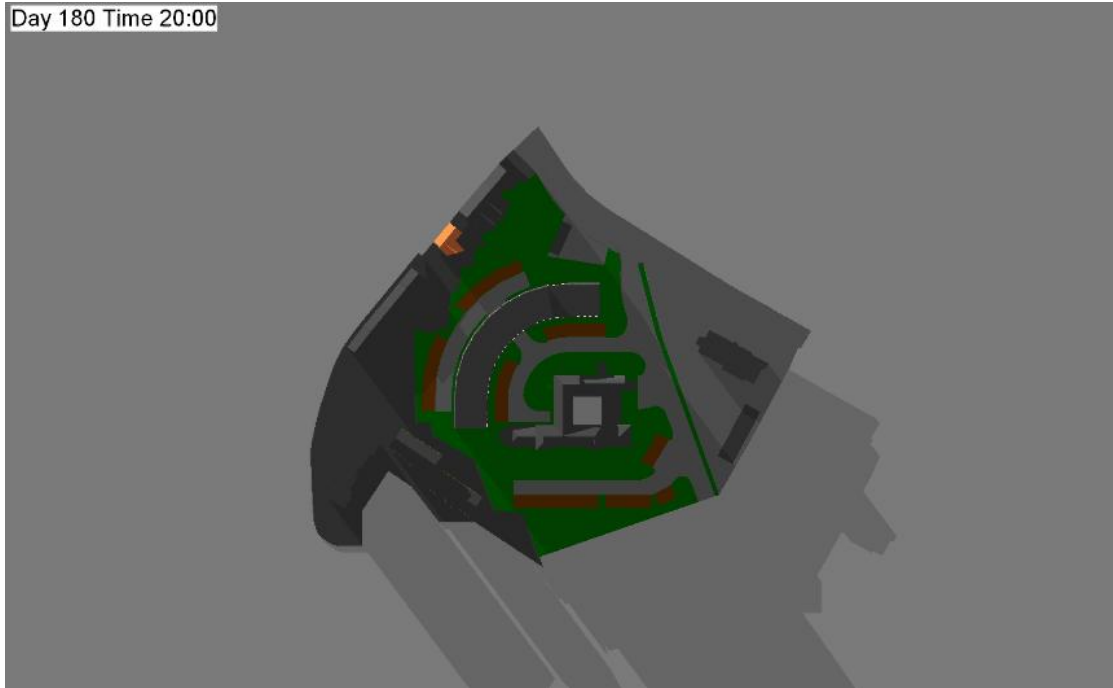
Day 180 Time 16:00



Day 180 Time 18:00

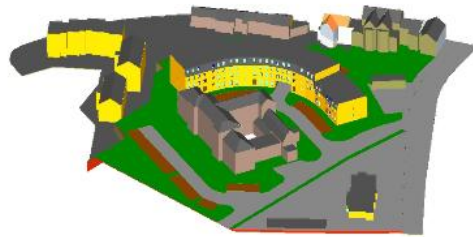


Day 180 Time 20:00

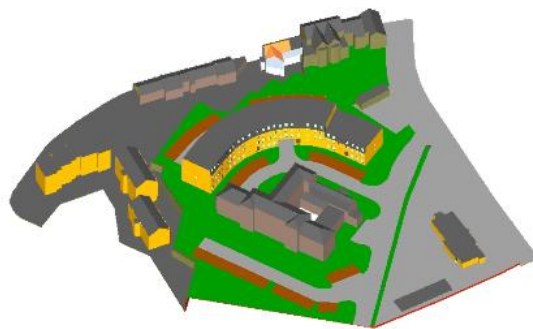


## Summer – Sun View

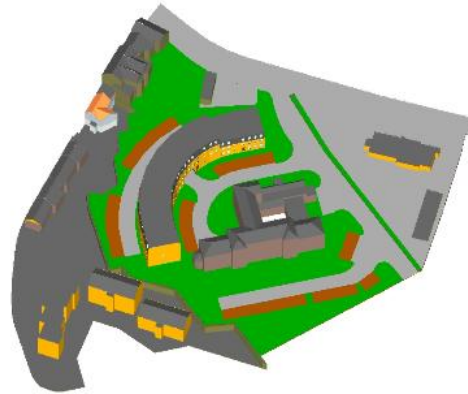
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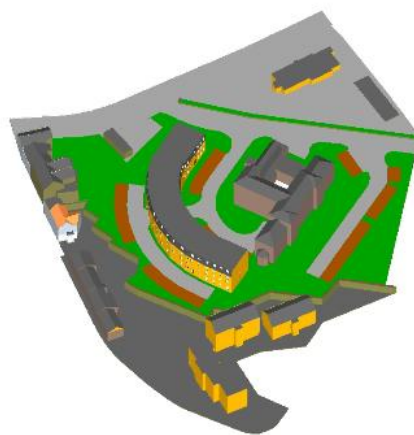
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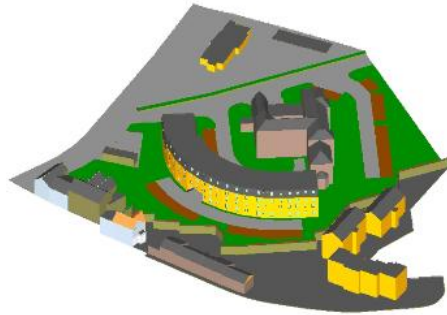
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Day 180 Time 14:00



Day 180 Time 16:00



Day 180 Time 18:00



Day 180 Time 20:00

