



# Lighting Design and Assessment for Proposed Wedding Teepee at Bowland Wild Boar Park, Bowland Country Park, Chipping, Preston, PR3 2HB.

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## **1. Introduction**

- 1.1. Martin Environmental Solutions has been commissioned to undertake a lighting design and assessment of the potential impact from external lighting installed as part of the proposed wedding venue at Bowland Wild Boar Park, Bowland Country Park, Chipping, Preston PR3 2HB.

### **Site Location and Context**

- 1.2. The development site is situated to the northeast of the wild boar park and surrounded by woodland. The main access point to both sites is to the north. The nearest property is 610m to the southeast on the far side of the valley and the next closest being 630m west of the site. Camping is however, provided to the immediate south of the site.
- 1.3. An aerial Photograph is enclosed in Figure 1.
- 1.4. The report has been produced to identify the potential impact from the proposed development and to identify any mitigation measures to ensure no adverse impact is experienced from it.



## **2. Policy and Guidance**

- 2.1. The impact of intrusive lighting can be a material consideration in the determination of planning applications. The planning system has the task of guiding development to the most appropriate locations. It is recognised that on occasions it will be difficult to reconcile some land uses, such as housing, or hospitals, with other activities that may generate high levels of light pollution e.g., sports arenas, transport facilities. However, the planning system is tasked to ensure that, wherever practicable, sensitive developments are separated from major sources of light pollution.
- 2.2. The Government's publication of the National Planning Policy Framework (NPPF), updated in February 2019, states that planning policies and decisions should ensure that new development is appropriate for its location taking into account the effects of pollution on health... In doing so decisions should limit the impact of light pollution from artificial light on local amenity...
- 2.3. In addition, there exists several guidance documents on the design of lighting installations to avoid any adverse impact from installations including the minimisation of overspill from sites.
- 2.4. The Environmental Protection Act 1990 also includes artificial lighting emitted from premises as a potential statutory nuisance or prejudicial to health and action can be taken against any site causing a statutory nuisance due to light emissions.
- 2.5. Developments therefore need to be designed to ensure that lighting from the site or lighting that has the potential to impact on a new development will not result in a statutory nuisance, by way of design and/or mitigation measures.
- 2.6. The Institute of Lighting Engineers has provided guidance in the form of the "Guidance Note 1 for the reduction of obtrusive light" 2021. The guidance gives advice on the siting of lightings and the level of overspill, and upward light that is suitable for different areas.



### **3. The Design & Assessment**

- 3.1 The lighting design has been completed using the *Calculux* software, a modelling system provided by Philips Lighting an international leading lighting manufacturer. The software allows for light distribution to be calculated over a given area. This usual includes the area to be lit by the proposed lighting and an area outside of this or the overspill area. The software does not take account of existing lighting levels in the area.
- 3.2 The design is included within Appendix A. It consists of the Aluz, A5 Zozo Cone festoon luminaire. One or a number of string luminaires used for lighting outdoor areas.
- 3.3 A total of 211 A5-ZOZO-CON-27K-GSFL-3W luminaires have been used strung together in four sections to provide light coverage to the site. The height of the lights varies across the site. The majority area at a height of 2.5m above the ground, however around the proposed tent entrances and the other structures the height has been increased to 2.8m or 3m in accordance with the buildings.
- 3.4 The ILE guidance identifies the area as a dark E1 environmental zone, suggesting a pre-curfew illumination on neighbouring premises of 2Lux and a post curfew level of <0.1Lux.
- 3.5 The overspill plot included within section 3 of the attached assessment (Appendix A), enlarged in Appendix B shows minimal light across the site or beyond with levels generally below 0.1 lux beyond the site boundary, most of the site area surrounding the active site is also below this level.
- 3.6 Upward light ratio, the amount of light shining upwards into the night sky is 0.00.



## **4 Conclusion**

- 4.1 An assessment of the new lighting design has been undertaken. The purpose of the assessment was to identify the impact of the lighting on neighbouring land uses and the surrounding vegetation.
- 4.2 The calculations have not considered any existing ambient light, however in order to be obtrusive, the overspill light from the site would have to be greater than the existing sources of light in the area.
- 4.3 The design has confirmed that there will be minimal lighting over the wider development site and no overspill light. As such no significant adverse impact on the neighbouring properties including the camping site to the south will be experienced.
- 4.4 The design therefore complies with the requirements of the National Planning Policy Framework which states that

*“Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment,..... c) limit the impact of light pollution from artificial light on local amenity...”*

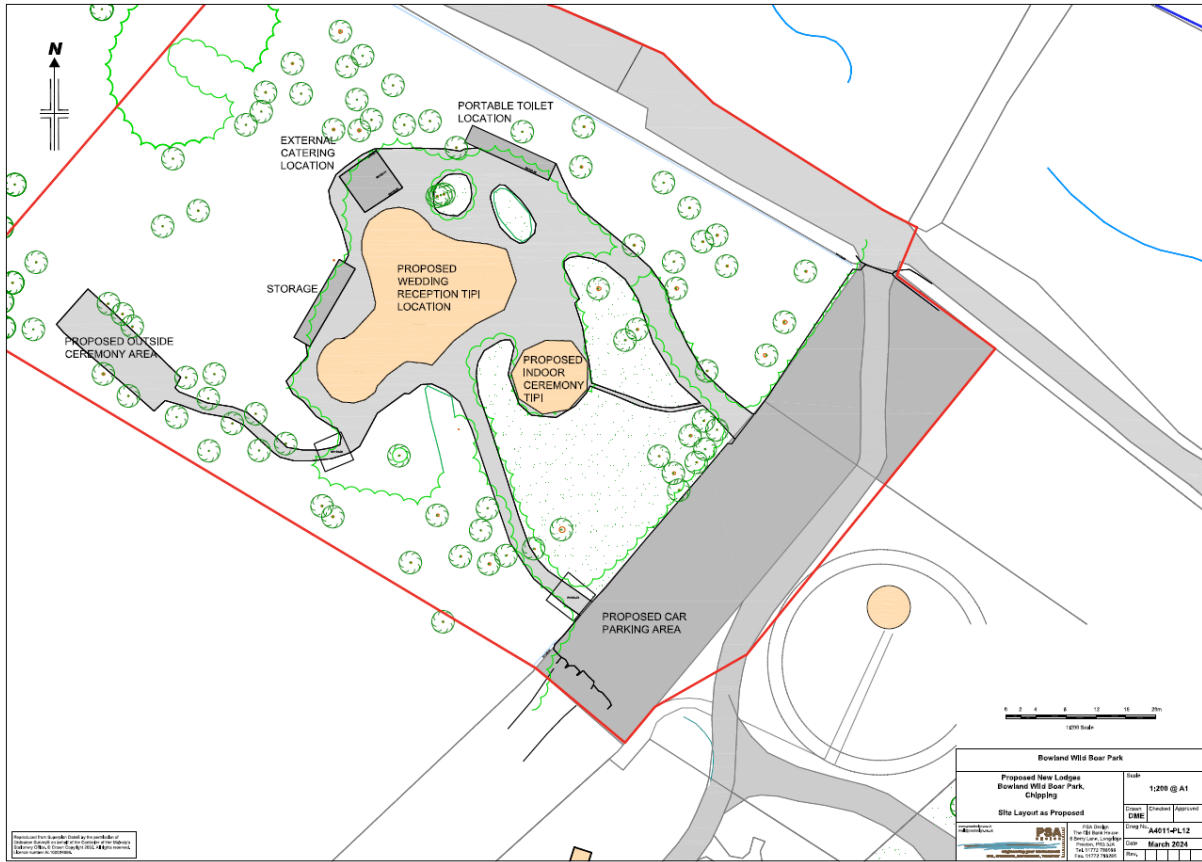


**Figure 1 – Aerial Photograph**





**Figure 2 – Proposed Layout**





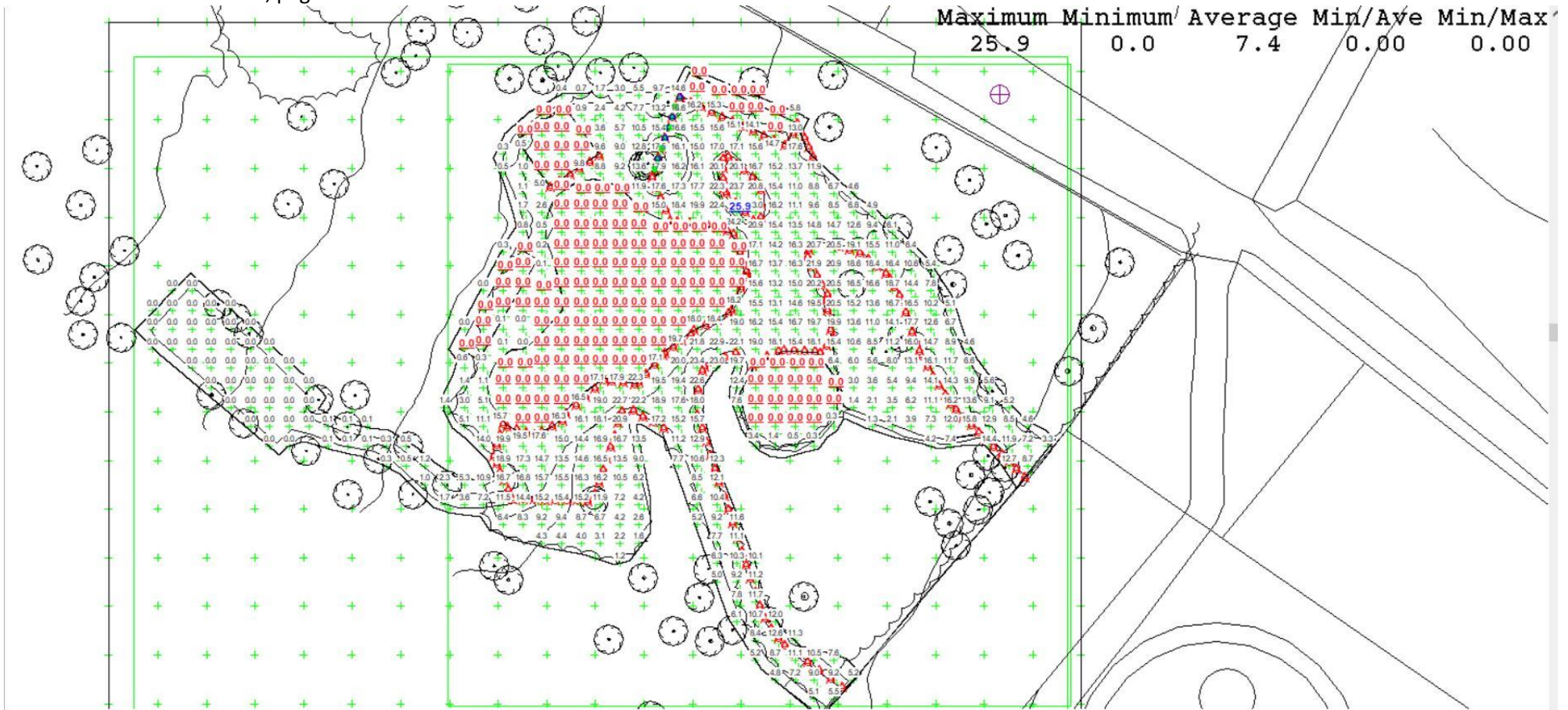


## **Appendix A - Lighting Design and Assessment**



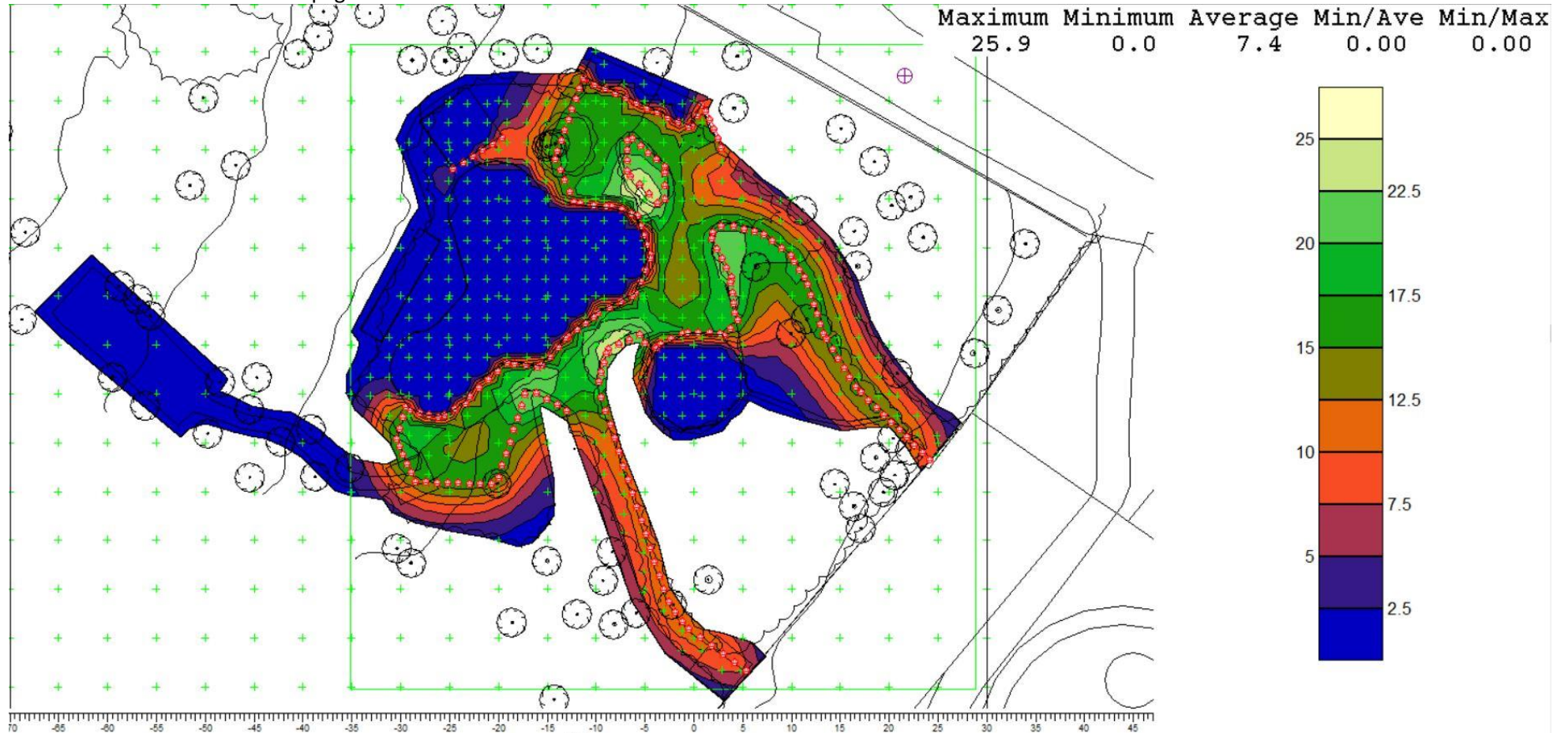
**Appendix B - Enlarged sections for the Appendix A**

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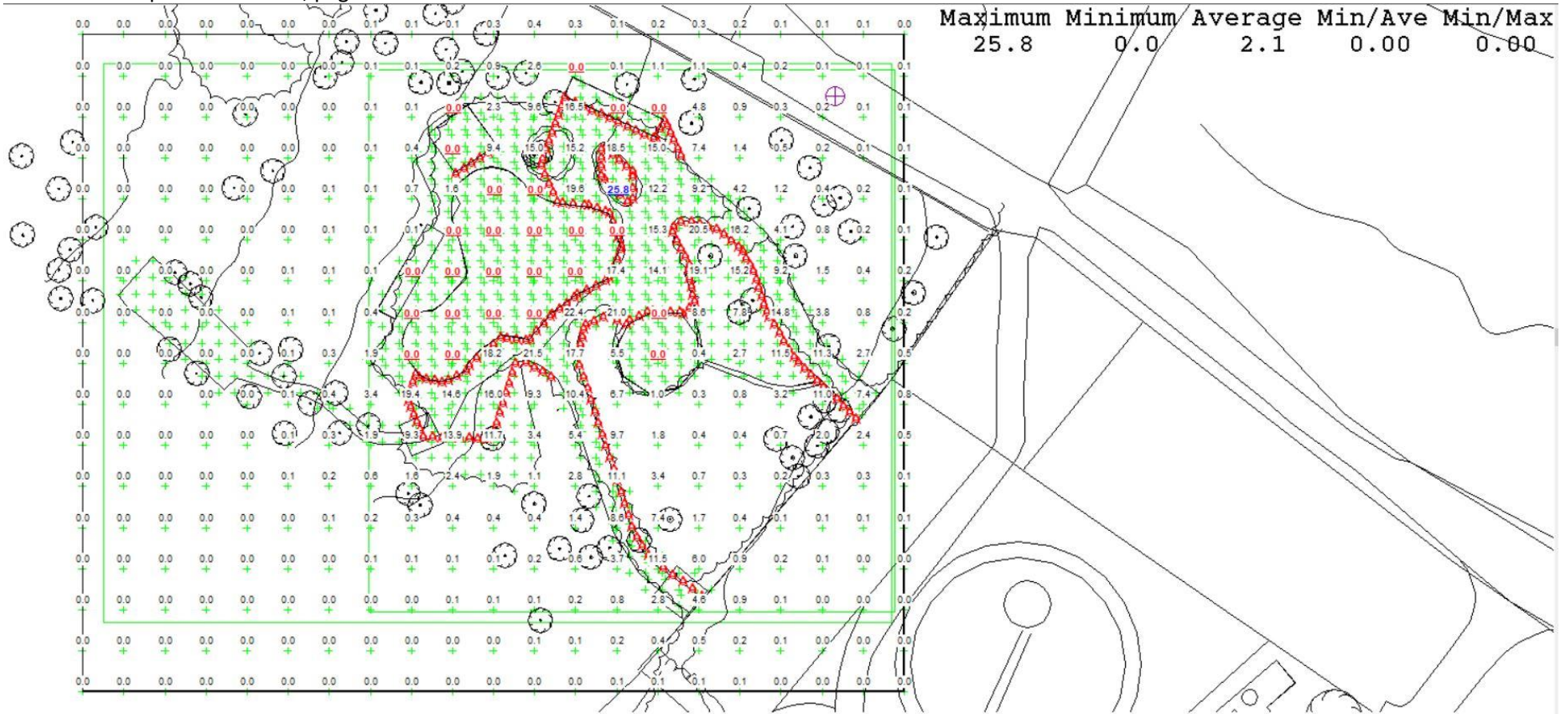
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