



Flood Risk Assessment

Rev A

11 May 2023

Wes No. 1 Ltd - Whitehaven

Flood Risk Assessment

Introduction

InstaVolt Ltd are proposing to install eight electric vehicle charging stations at The Bridges Retail Park, Whitehaven, CA28 7RQ. InstaVolt is leading the way in Electric Vehicle (EV) charging infrastructure, helping to make the UK an easier place to own and operate an electric vehicle.

The proposed EV charging stations use the latest cutting-edge technology to provide rapid charging to any EV. They can charge a vehicle by up to 80 per cent within around 30 minutes and each charge point is supported by a 24-hour telephone helpline.

The Site

The Environment Agency Flood Map highlights the site on the boarder of being within flood zone 2 - an area with a medium probability of flooding.

Flood Risk Assessment

The proposed installation will not have any impact on the hydrodynamic regime which currently exists on the site or the surrounding area. The existing parking spaces are already tarmac and this will not be changed. There will be a small amount of concrete installed for the foundations of the units, however this will be less than 4m² in total and therefore will not have any impact on the surface runoff associated with the site. The drainage which already occurs on the site will continue to operate as normal and will not be effected by the development. Given the scale of the development is small and the change to surface materials is very minor, there will be no impact on the existing hydrodynamic regime and therefore no increase in flood risk to the surrounding area.

In addition, the proposed infrastructure is raised off the ground to increase flood resistance. Equipment in the feeder pillar is at least 500mm above ground level as dictated by DNO installation guidelines. Further to this, there are many safety features built into the chargers which mean they would shut down in the event of a flood to protect the equipment. We are also able to remotely shut down the chargers in the event of an emergency or a developing flood situation.

Conclusion

The eight proposed EV charging units at The Bridges Retail Park will provide essential infrastructure for the area and will utilise the latest technology which has been future proofed to ensure it is viable for years to come. The proposed site does not increase the flood risk in the surrounding area. The equipment has a certain level of built in flood protection and various safety measures installed as standard which means the equipment is protected in the event of a flood. Considering the information provided in this report, The Bridges Retail Park is a suitable location for the charging stations.