

Manchester Marriott Victoria & Albert Hotel Water Street Manchester M3 4JQ

Installation of Photovoltaic Solar Panels onto building rooftop

**DESIGN & ACCESS STATEMENT
INC. PLANNING STATEMENT**

October 2023



REPORT CONTROL

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/1 INTRODUCTION

- 1.1. PWA Planning is retained by Marriott Hotels Limited ('the Applicant') to progress an application for full planning and listed building consent for the installation of photovoltaic solar panels onto the rooftop ('Proposed Development') of the Manchester Marriott Victoria & Albert Hotel, Water Street, Manchester M3 4JQ ('the Application Site'). The planning application is made to Manchester City Council ('the Local Planning Authority') and relates to the red edge application site boundary, as defined on the Location Plan (Dwg. No. 001).
- 1.2. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the development plan unless material considerations indicate otherwise. This statement seeks to address matters relating to design and access, as well as demonstrate that the proposals accord with the provisions of the relevant policies of the development plan, and moreover that there are other significant material considerations which indicate that planning permission and listed building consent ought to be granted. In addition, the statement will seek to demonstrate that there are no technical reasons which could hinder the grant of planning permission.
- 1.3. This statement, alongside a review of the site's history and relevant policies, provides a description of the Proposed Development, together with an appraisal of the planning merits of the scheme, when taken as a whole. This statement should be read in conjunction with the submitted application package, which includes the following documents:
 - Application form, relevant certificates and notices;
 - Heritage Statement;
 - Visualisation of proposal
 - Drawings:
 - AN53 001 Location Plan
 - AN53 002 Existing and Proposed Site Plans
 - AN53 003 Existing and Proposed Roof Plans
 - AN53 004 Existing Elevations 1 and 2
 - AN53 005 Existing Elevation 3
 - AN53 006 Proposed Elevations 1 and 2
 - AN53 007 Proposed Elevation 3



/2 SITE DESCRIPTION & PLANNING HISTORY

Site Description

- 2.1. The application site comes in the form of part of the rooftop of the Victoria and Albert Warehouses. The hipped roof comprises six pitched sections and features slate rooftiles, coloured dark grey. The five-storey warehouses have a redbrick finish with dressed stone blocks. Victoria Warehouse is the larger L-shaped building which adjoins the smaller Albert Warehouse, located to the north-east. The warehouses are in use as the Victoria and Albert Hotel, operated by Marriot Hotels.
- 2.2. The site is bounded by the River Irwell to the north-west and Water Street to the southeast. The site is located in the dense urban setting of Manchester city centre, comprising mostly high-rise buildings of modern architecture. The surrounding area is the subject of major redevelopment works which, at the time of application submission, are in the advance stages of construction. Vehicle access to the site is from Water Street via two access points: the 'pump circle' at the main guest entrance and by a gate to the service yard.



Figure 1: Aerial Image of the site (Source: Google Earth)



2.3. The application site is a listed building:

- ALBERT WAREHOUSE QUAY ON WEST SIDE FRONTING RIVER IRWELL VICTORIA WAREHOUSE | List Entry Number: 1254727 | Grade II

2.4. The site is also located inside the Castlefield Conservation area, shown below in Figure 2.

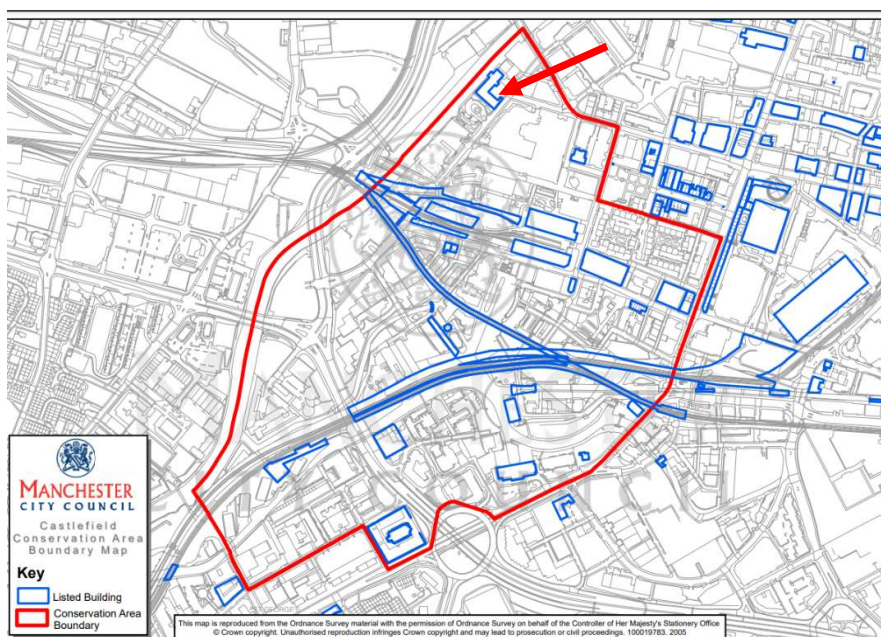


Figure 2: Castlefield Conservation Area Map (Red arrow denoting site)

Site History

2.5. A search of Manchester City Council's online Planning Application Register has been undertaken to better understand the planning history of the site. The following applications have been lodged for the site:

- 126823/LO/2020 | Listed building consent for the alteration and refurbishments of the interior of the building | Approved 10/09/2020
- 118953/LO/2018 | LISTED BUILDING CONSENT Refurbishment of the reception and conference break out areas at the Victoria & Albert Hotel | Approved 18/04/2018
- 106151/AO/2014/C1 | Installation of 3no. freestanding illuminated signs fixed to existing support structure, and 1no. freestanding non illuminated post sign | Approved 26/08/2014



/3 PROPOSED DEVELOPMENT

- 3.1. It is proposed to install solar photovoltaic cells onto part of the rooftop of the host site, which will generate renewable electricity to supply the hotel. The cells come in panels which would be arranged on either side of the pitched roof sections, except for one of the roof sections which would remain undeveloped.

Models show that the system would produce over 140,000 kWh of renewable electricity per annum, saving over 32, 000kg of carbon dioxide emissions each year and tens of thousands in energy costs.

- 3.2. It is proposed to install 'Hi-Mo 5m' solar panels, manufactured by LONGi. The panels have been selected for their higher power and reliability, and low degradation. The panels are coloured dark grey/black and measure 1722 x 1134 x 30mm. See enclosed '4.2 Module Datasheet' for design specification. The panels would rest on top of the roof tiles and be secured to the existing roof purlins via small cut-outs through the roof tiles. Electrical cabling would run from behind the panels and into the roof-space, concealed from public view.
- 3.3. The proposed installation would enable the hotel to become more self-sufficient in meeting its energy needs, significantly reducing the current reliance on electricity imported from the National Grid. The feasibility/viability of exporting surplus generation onto the National Grid is being explored. This would further increase the economic and environmental benefits of the proposal. There is already a sub-station on the site which should aid the delivery of this ambition.
- 3.4. The Manchester Marriott Victoria & Albert Hotel is a part of the Westmont Hospitality Group, who to date have invested over a million pounds into installing renewable technologies across their UK sites. This proposal would be their fifth hotel to have solar PV installed, allowing onsite generation. The group is committed to sustainability and has invested £40,000 into voltage optimization at the application site, which is a technology that minimizes onsite energy consumption. The group's other decarbonization projects include solar PV car ports and EV charging facilities. The application proposal is therefore part of a raft of sustainability measures being taken at the site.



Figure 3: Visualisation of proposed installation

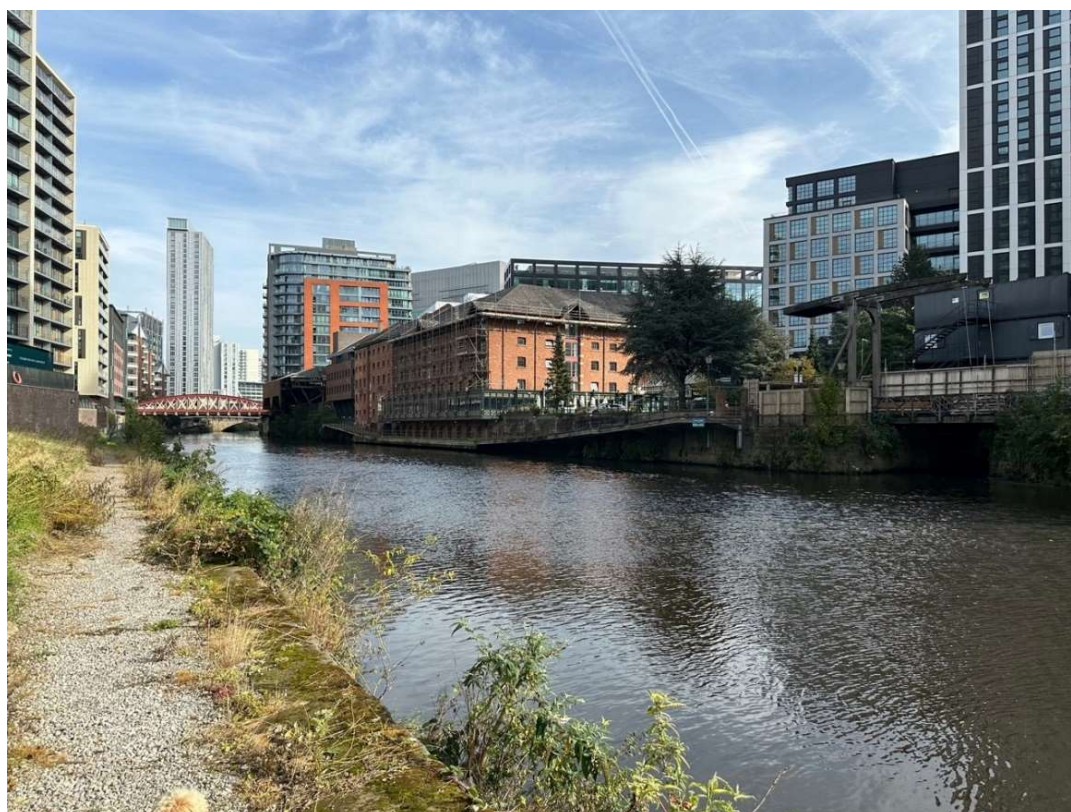


Figure 4: Photograph of application site, taken from south-west of the sit



/4 PLANNING POLICY CONTEXT

- 4.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that: *'If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise.'*
- 4.2 The development plan for the area comprises the Manchester Core Strategy ('the Core Strategy' which was adopted in 2012. The Manchester Unitary Development Plan ('the UDP') is also a consideration but contains no saved policies relevant to the proposed development. Material considerations include the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).

The Development Plan

Manchester Core Strategy

- 4.3 Insofar as the policies within the Core Strategy that are relevant to the proposal, these include:
- Policy CC1: Primary Economic Development Focus – City Centre and Fringe
 - Policy CC9: Design and Heritage
 - Policy EN3: Heritage
 - Policy EN4: Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development
 - Policy EN14: Flood Risk
- 4.4 **Policy CC 1: Primary Economic Development Focus - City Centre** states that this area, which the application site forms part of, is suitable for the consideration of high-density buildings and commercially led mixed use schemes. It continues that *'New, and the enhancement of existing, infrastructure provision which supports the agglomeration role of the City Centre and Fringe will be supported. Proposals will be expected to show how they contribute to decentralised low and zero carbon energy infrastructure.'*
- 4.5 **Policy CC 9: Design and Heritage** encourages the highest design standards in terms of appearance and function, with particular consideration being given to city centre context and character. The supporting text of paragraph 8.54 states that *'the scale and density of*



development anticipated in the City Centre will require that different uses co-exist in close proximity and new development sits alongside some of the City's best built heritage.'

- 3.5. **Policy EN3: Heritage** states that *'new developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including scheduled ancient monuments, listed buildings, registered parks and gardens, conservation areas and archaeological remains.'* And that *'proposals which enable the re-use of heritage assets will be encouraged where they are considered consistent with the significance of the heritage asset.'*
- 4.6 **Policy EN4: Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development** states that *'the Council will seek to reduce fuel poverty and decouple growth in the economy, growth in CO₂ emissions, and rising fossil fuel prices [...] to meet residual energy requirements through the use of low or zero carbon energy generating technologies'* and that, wherever possible, retrofit energy projects should be used to allow low carbon energy supplies to existing buildings.
- 4.7 **Policy EN14: Flood Risk** states that development should be directed away from sites at the greatest risk of flooding, and towards sites with little risk of flooding. A flood risk assessment is only required when the site is 0.5ha or larger and within a Critical Drainage Area or Canal Hazard Zone, as identified within the SFRA.

Material Considerations

National Planning Policy Framework (NPPF; as updated 2023)

- 4.8 The NPPF sets out the Government's planning policies for England and how these should be applied, and it is a material consideration in planning decisions as per Paragraph 2 of the Framework and Section 38(6) of the Planning and Compulsory Purchase Act 2004.
- 4.9 Sustainable development is broadly defined in Chapter 2, Paragraph 8 of the NPPF as having three overarching objectives:
- *an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at*



the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure

- *a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*
- *an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.*

- 4.10 Chapter 12 Achieving Well-designed Places, at paragraph 130 advises that decisions should ensure that developments are *'sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change' and 'optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development'.*
- 4.11 Chapter 14 deals with the challenge of climate change and paragraph 152 states that the planning system should *'contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.'*
- 4.12 Paragraph 158 states that when determining planning applications for renewable and low carbon development, the LPA should *'not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and approve the application if its impacts are (or can be made) acceptable.'*



Planning Practice Guidance (PPG)

- 4.13 PPG sets out how the government envisages the day to day working of the planning system in England to operate. It supports the NPPF and is a material consideration in determining planning applications.
- 4.14 The 'renewable and low carbon energy' section elaborates on the NPPF, with respect to the importance of planning for renewable energy:

'Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.'(paragraph 001)

- 4.15 Paragraph 012 advises on particular planning considerations relating to the design of solar power installations. This includes the importance of '*siting systems in situations where they can collect the most energy from the sun and the need for sufficient area of solar modules to produce the required energy output from the system.*'

National Design Guide

- 4.16 Published by the Ministry of Housing, Communities and Local Government (January 2021), the guide forms part of the government's PPG and it is therefore a material consideration. The National Planning Policy Framework makes clear that creating high quality buildings is fundamental to what the planning and development process should achieve. This National Design Guide illustrates how well-designed buildings that are greener and more enduring can be achieved in practice.
- 4.17 In the 'Resources – Efficient and Resilient' section, paragraph 137 advises that well-designed places should be adaptable over time and adopt technologies to minimise their environmental impact. One such technology would be solar power.
- 4.18 The guide continues that well-designed buildings should '*maximising renewable energy especially through decentralised sources, including on-site generation and community-led*



initiatives, specifically encouraging the use of photovoltaic arrays' (paragraphs 138 & 140). The guide recognizes that 'good developments minimise the cost of running buildings and are easy and affordable for occupants to use and manage' (paragraph 142).

UK Solar PV Strategy: Roadmap to a Brighter Future

- 4.19 The strategy, published by Department of Energy and Climate Change in 2013, states that Solar Photovoltaic (PV) is one of the eight key renewable technologies that can help create a clean and balanced energy mix in the UK. The strategy states that Solar PV has many advantages; namely that it is versatile, scalable, and easily developable, including on buildings. A principle of the strategy is that '*support for solar PV should allow cost-effective projects to proceed and to make a cost-effective contribution to UK carbon emission objectives in the context of overall energy goals*' (paragraph 6, Road Map).
- 4.20 In relation to building mounted solar PV, the strategy states '*there are a range of commercial and non-domestic properties in the UK that vary in size and category. These include, but are not limited to, offices, industrial property, hospitals, schools, hotels, retail, farm buildings, and warehouses... PV systems for commercial use have similar benefits to those of domestic systems but with the added advantage of generating larger amounts of electricity and generally being able to better match on-site generation with on-site demand*' (paragraph 18, Road Map).



/5 PLANNING POLICY ASSESSMENT

Principle of Development

- 5.1 The principle of the proposal is strongly supported in both local and national policy. By 2050, the UK is legally required to have reduced its greenhouse gas emissions by 100% from 1990 levels. This 'net zero' target aims for economic growth whilst also increasing energy security and affordability for consumers and businesses.
- 5.2 This proposal would generate over 140,000 kWh of renewable electricity, saving over 32,000kg of carbon dioxide emissions going into the atmosphere every year. There are therefore clear environmental, economic and social benefits associated with the proposal.

Environmental Considerations

- 5.3 There is unambiguous policy support for new renewable energy development, in the context of the global climate emergency. This support is expressed in paragraph 152 of the NPPF where the need for additional renewable energy infrastructure is discussed, including with respect to increasing the country's energy resilience. Support is echoed at the local level in Policy EN4, which also explicitly encourages opportunities to retrofit buildings with onsite low carbon energy generation. The site is inside the designed city centre zone where Policy CC1 requires contribution to decentralised low and zero carbon energy infrastructure. This is exactly what is being proposed.
- 5.4 The proposal is one such small-scale generator which paragraph 158 recognises as providing a 'valuable contribution' to cutting greenhouse gas emissions. The same paragraph is clear that applications for renewable energy development should be approved if impacts are (or can be made) acceptable.
- 5.5 The proposal would allow this large hotel to start receiving a significant proportion of its electricity demand from a source that is guaranteed to be zero carbon. At present, the hotel's electricity demand is met entirely by a conventional supply from the National Grid, which is supplied by a mix of energy generators, including fossil-fuel plants.



Economic Considerations

- 5.6 The hotel operator is making a capital investment at the site which, in addition to the environmental benefits discussed, will save tens of thousands of pounds of energy costs every year. The UK Solar PV Strategy identifies that solar technology is one of the most cost-effective ways of contributing to UK emission reduction objectives, in the context of overall energy goals. The proposal is in accordance with paragraph 142 of the National Design Guide which stipulates that the running costs of buildings should be minimised, wherever possible.
- 5.7 The proposal represents a financial investment which will positively contribute to the economic viability of a business that operates in Manchester. A business which is an important employer – both directly and indirectly – and a business which contributes to the city’s hospitality economy. The hotel provides 148 guest rooms, accommodating a range of visitors to the city which support the city’s tourist economy. It’s in the city’s interest that the hotel continues to adapt and to be resilient.
- 5.8 More widely, Planning Practice Guidance highlights that increasing the amount of energy generated from renewable technologies will stimulate investment in new jobs and businesses. This relates to energy cost savings enabling the growth of the host business, as well as growth of the low carbon economy with respect to investment in manufacturing of technologies and the professional services sector. It should also be remembered that failure to mitigate the effects of climate change, such as through renewable energy generation, will result in economic and social impacts on an unprecedented scale.

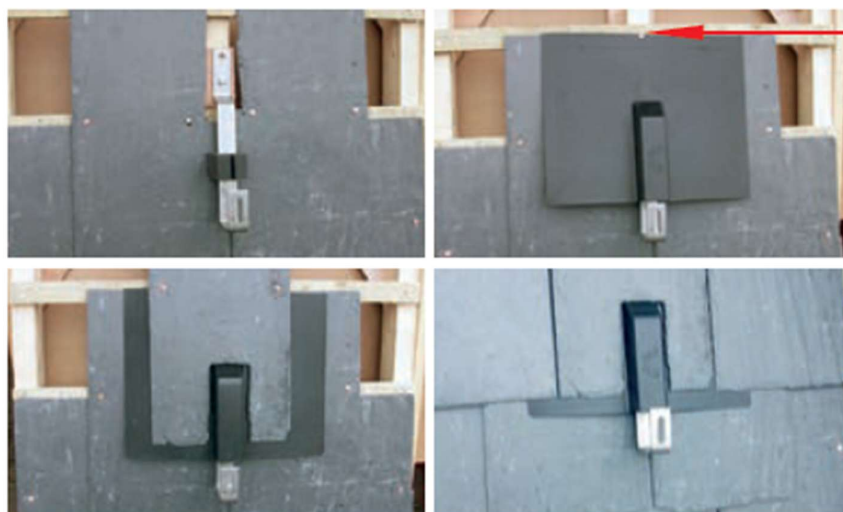
Design & Access

Design

- 5.9 The proposed design is largely led by the technical requirements of the technology, and the need for the system to maximise energy generation. Accordingly, it is proposed to install solar panels across 5No. of the building’s roof sections because they provide the required pitched surface and are facing a direction which will ensure a viable return, with respect to energy generation. These roof areas would have maximum feasible coverage of panels.



- 5.10 This design principle is advocated by paragraph 012 of PPG which states that installations should be sited in such a way that they can collect the most energy from the sun. The guidance also recognizes *'the need for sufficient area of solar modules to produce the required energy output from the system'*.
- 5.11 With respect to the detailed design, this has been influenced by Historic England guidance document 'Energy Efficiency and Historic Buildings - Solar Electric (Photovoltaics)'¹ (October 2018). Specifically, the design proposes an "over the roof covering" which is detailed as a design option in the Historic England guidance, which states *'A PV array can be fixed over the existing roof covering, so it sits above the tiles or slates. Roof anchors are fixed to the rafters supporting a mounting rail for the PV panel to sit in and clamps used to hold the panels in place... On slate roofs, the roof anchors again fix to the rafter below, but a proprietary clamp or lead flashing component is required to weather-proof the penetration through the slates'* (section 2.1, p5).
- 5.12 The afore quoted description is the proposed method to secure the solar panels to the roof. To summarise, the anchor/bracket to affixed to the rafters, the existing roof slates are then reinstated (with a small cutout to accommodate the bracket) and specialist solar flashing is added to seal the roof, before the final slates are re-instated. The proposed steel rail can then be secured to the bracket, and the solar panels are then clamped to the railing. Please refer to enclosed 'Solar Flash Instructions' document and see extract image below, showing the principle installation method just discussed. See 'Proposed Section' for how solar panels are clamped to railing.



¹ Historic England solar PV guidance: <https://historicengland.org.uk/images-books/publications/eehb-solar-electric/>



- 5.13 The Historic England guidance also advises *'The colour of the PV panel, reflectance, and finish should be chosen to complement the colour of the existing roof covering. PV panels tend to be of a dark blue or black colour although there are different finishes and tones available. Careful selection and design of the colour, contrast, framing, size and symmetry of PV panels can reduce the visual impact'* (p6). The guidance includes the following best practice example:



Extract from HE best practice guidance, with the description: 'Panels arranged symmetrically and evenly spaced between chimneys and eaves tend to look better'

- 5.14 Accordingly, the proposed panels that are coloured dark grey/black provide the most sympathetic finish available, which aims to minimise contrast with the slate roof tiles which they would be viewed against. In accordance with the best practice guidance, the panels are arranged symmetrically and evenly.

Alternative options

- 5.15 The alternative installation method would be "roof integrated" which would require the vast majority of the slate tiles to be removed from the roof... *'It is also possible to integrate solar PVs into the roof covering, replacing tiles or slates with PV panels. These roof-integrated PV panels are the same size as normal PV panels. The PV panels are integrated with the roof tiles or slates with flashing much like a dormer window in a roof'* (HE guidance). This would require significant alterations to the fabric of the building and is considered to be less preferable for heritage conservation.



- 5.16 Other than dark grey/black, solar panels also come in a dark blue colour. Again, this would not be an appropriate finish for the host building.



Photograph of example solar panels, coloured blue

- 5.17 With respect to design policy, the proposal is 'appropriate innovation or change' respecting local character, which should not be prevented in accordance paragraph 130 of NPPF. In accordance with the NPPF, it would 'optimise the potential of the site' to enable the building to be used as both a hotel, and as a host for renewable energy infrastructure.
- 5.18 The National Design Guide dedicates a whole section to the efficiency and resilience of buildings and places. In accordance with paragraph 137, the proposal would enable the host building to adapt and adopt technologies which will minimise its environmental impact.

Access

- 5.19 The proposed installation would not create any new pedestrian or vehicle access points, nor would it alter any of the existing access arrangements. Once installed, the solar panels should only require to be accessed on an occasional basis.



Heritage

- 5.20 A separate professional Heritage Statement has been provided. The statement concludes that the proposal would result in a low to negligible impact on heritage assets. In terms of local policy, paragraph 8.54 of Policy CC9 acknowledges that due to the density of development in the city center, that it will be necessary for new development to sit alongside some of the City's built heritage. The heritage assessment found that the proposal would preserve heritage assets, and therefore it is in accordance with Policy EN3.

Flood Risk

- 5.21 The site is primarily within Flood Zone 2, with a small portion of the site within Flood Zone 3. Policy EN14 states that a Flood Risk Assessment is only required if the site falls within the Critical Drainage Area or the Canal Hazard Zone. The site falls within neither of these boundaries and as a result it is not expected that a Flood Risk Assessment is necessary.
- 5.22 Notwithstanding this, the proposed development would not increase the flood risk of the building given the solar panels would be sited five-stories high, on the building rooftop. As a result, the development would not increase flood risk at the site or in the wider area.

/6 CONCLUSION

- 6.1 PWA Planning is retained by Marriott Hotels Limited to progress an application for full planning and listed building consent for the installation of photovoltaic solar panels onto the rooftop of the Manchester Marriott Victoria & Albert Hotel.
- 6.2 The proposed development would contribute to the local and national objectives of increasing the amount of energy generated from renewable technologies, helping to ensure that the hotel has a secure and low-cost electricity supply, reducing greenhouse gas emissions to slow down climate change, and stimulating investment in low-carbo jobs and businesses.
- 6.3 The proposal is in accordance with policies in the development plan and the scheme is considered to constitute sustainable development. There is support from the National Planning Policy Framework, Planning Practice Guidance and the National Design Guide which also weighs heavily in favour of the proposal. There would be no significant harm as



a result of the proposals that would outweigh the advantages of the scheme, which include notable environmental and economic benefits.

- 6.4 On balance, the public benefits of the proposal would outweigh the visual changes at the site and, as such, the application should be approved without delay.



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