Conservation and adaption of the former Royal High School, Edinburgh to form new premises for St Mary’s Music School including public performance space/concert venue

Environmental Statement Volume 1: Non-Technical Summary (NTS)

December 2015
1 Introduction

An Environmental Statement (ES) has been prepared to accompany an application by the Royal High School Preservation Trust (the Applicant) for planning permission and listed building consent1 for “conversion and adaption of the Former Royal High School, Edinburgh, to form a new public performance space/concert venue in conjunction with new premises for St Mary’s Music School, and demolition of later ancillary buildings essential to form new residential, teaching and practice facilities for the school” (hereafter the proposed development). The ES reports on the potential for significant environmental effects as a result of the proposed development. This document provides a Non-Technical Summary (NTS) of the ES.

The central purpose of the proposed development is to return the Former Royal High School to its original use as a place for educating young people from across Scotland and beyond and to create new performance spaces. In addition the proposed development offers the chance to improve the public space in the Calton Hill area of Edinburgh.

The proposed development would be fully funded by the philanthropic Dunard Fund, which has committed to underwrite the cost of a conservation and conversion that respects the application site’s original character, historic significance and location, securing the long term future of the buildings on site and the music school.

1.1 Purpose of the NTS

The purpose of the NTS is to summarise the content and main findings of the ES in a clear and concise manner to assist the public in understanding what the environmental effects of the proposed development are likely to be. The full ES (Volume 2: Main Report, Volume 3: Figures and Volume 4: Technical Appendices) provides a more detailed description of the proposed development and the findings of the Environmental Impact Assessment (EIA) process.

1.2 Viewing the ES

An electronic version of the reports supporting the application, including the ES, will be available to download from the City of Edinburgh Council planning portal (https://citydev-portal.edinburgh.gov.uk/) and on the Applicant’s dedicated website (http://www.rhspt.org/).

A copy of the ES and other planning documents will also be made available at the planning department at the CEC for review (Planning and Building Standards, The City of Edinburgh Council, Waverley Court, G3, 4 East Market Street, Edinburgh, EH8 8BG).

The ES is available at a cost of £350 in hard copy format (including postage and packaging) or on CD-ROM (price £10). Please contact Royal High School Preservation Trust, c/o Ramboll Environ, 7 Castle Street, Edinburgh, EH2 3AH.

Comments on the application can be made via the City of Edinburgh Council planning portal or to the address above. The consultation period for the application will be not less than four weeks. The timescales for representations to be made will be advertised by the City of Edinburgh Council in the local press.

---

1 Permission sought from City of Edinburgh Council (CEC) under the Town and Country Planning (Scotland) Act 1997, as amended.

Volume 1: Non-Technical Summary (NTS)
2  EIA Process and Methodology

EIA is a process that identifies the potential environmental effects (both beneficial and adverse) of a proposed development and proposes mitigation to avoid, reduce and offset any potential significant adverse environmental effects.

The EIA process adopted for the proposed development has followed best practice guidelines, asset out by the Institute of Environmental Management and Assessment Quality Mark scheme. The process involved a number of key steps, as follows:

2.2 Topics Included in the EIA

Key issues raised through the consultation process, investigated as part of the EIA and addressed in the ES are as follows:

- Air Quality;
- Noise and Vibration;
- Cultural Heritage; and
- Townscape, Landscape and Visual.

The ES provides an assessment of potential significant environmental effects on these aspects of the environment during demolition, construction, and operation of the proposed development.

2.3 Topics Excluded from the EIA

The EIA preliminary baseline assessment and consultation process proposed that certain issues could be scoped out of the ES, on the submission of information informing the design and demonstrating the effects arising would not result in significant environmental effects. More information is provided in Section 6 Potential Environmental Effects. Issues scoped out of further assessment included:

- **Access and transport** – The proposed development would give rise to low traffic numbers. Any effects could be controlled through a production of a Traffic Management Plan (for construction traffic) and Travel Plan (for operational traffic). Information on potential traffic generation is provided in a Transport Statement.

- **Geology** – The application site is located adjacent to the Arthur’s Seat Volcano Site of Special Scientific Interest (SSSI) which is designated for its geological importance near the application site. In addition, the proposed development would require limited rock excavation underneath the Hamilton Building on site to construct a foyer, and the site is located close to Calton Hill Railway Tunnels. Therefore engineering controls were proposed to avoid geological impact as an integral part of the proposed development – including detailed pre-construction survey, consultation, assessment and monitoring. These measures would ensure adverse impacts on the SSSI rock exposure, Calton Hill Railway Tunnels and existing historic buildings on site would not occur.

- **Waste** – The level of waste generation would remain low and would be controlled through development of a Site Waste Management Plan (for construction waste) and a Waste Plan for operational waste to ensure waste is properly stored and disposed of and to encourage waste reduction, reuse and recycling.

- **Water Resources and Flood Risk** – The Surface Water Management Plan (SWMP) included in the ES considered proposed design measures such as green roofs, permeable paved areas and Sustainable Drainage Systems (SuDS) to ensure effects on water resources would be minimised, and there would be no potential for significant effects to occur.

- **Ecology** – The application site is of little existing ecological value. Surveys of the vegetation on site (Phase 1) and the potential for buildings on site to act as bats roosts were carried out, these reports are included in the ES. No bat roosts were identified, though further surveys would be carried out pre-development to ensure no bats would be disturbed.
3 Site Location and Surroundings

The application site is located on Regent Road, north east of Edinburgh City Centre and includes all land within the Former Royal High School site currently under the ownership of the CEC. The site location is shown in Figure 1.

The Former Royal High School occupies one of the most prominent sites within the Edinburgh Old and New Town World Heritage Site (WHS). The central feature of the application site is the Hamilton Building, considered to be one of the single most important buildings within the WHS. It was designed by Thomas Hamilton in the early 19th century, following the style of the Greek revival and was inspired by the Temple of Theseus which overlooks Athens.

Other buildings designed by Hamilton on the application site include two pavilions flanking the Hamilton Building (East and West Pavilions), and the Belvedere Tower in the north east of the site – currently hidden by the gymnasium which was a later addition. The walls and railings bounding the application site, and gateposts at the west entrance were also features of the original site.

Later additions to the application site include the West Gate Lodge, a gymnasium and classroom block (hereafter the gymnasium), a luncheon hall and a classroom block dating to 1946. All buildings on the application site are shown on Figure 2.

All of these buildings are listed in Category A, located in the New Town Conservation Area; New Town Gardens Historic Gardens/Designed Landscape; and within the boundary of the WHS.

The application site is mainly hardstanding, with a large car park with some mature trees in the west, and grassed areas to the south, east and west of the Hamilton Building. The site generally slopes from north to the south.

Calton Hill Drive runs along the northern boundary, and beyond this is a steep vegetated slope leading to the summit of Calton Hill with iconic monuments including the Nelson Monument, City Observatory, Playfair’s Monument and the national Monument of Scotland. Calton Hill itself, one of Edinburgh’s “Seven Hills”, is a volcanic hill and part of the Arthur’s Seat Volcano Site of Special Scientific Interest (SSSI). Terraces have been cut into the hill to allow development, though the natural profile of the hill is not dominated by existing development breaking the skyline.

Residences on Regent Terrace are located to the east of the application site beyond an area of woodland. Further trees are located to the south west, south of the boundary railings.

Regent Road (the A1) is located to the south and west of the application site. Further to the south at a lower elevation than Regent Road and the application site is Calton Road, and the rest of the Waverley Valley. Burns Monument is to the south east (at a similar elevation as Regent Road) and St Andrew’s House, the Category A Listed Scottish Government building is located nearby to the west.

Access to the application site is from a mini roundabout on Regent Road, at the west end of the site. There are many footpaths, and links to the public transport network (buses, trams and trains) around the site. However, Regent Road is not inviting for pedestrians, with poor crossing provision.

The site is largely underlain by made ground overlying bedrock. The nearest surface water features are over 1 km distant in Holyrood Park and the closest watercourse is the Water of Leith, approximately 1.5 km to the north west. The entire application site is at low risk of flooding largely due to its relative elevation and topography.

The application site has effectively been vacant since 1968 when the Royal High School moved to a new location. The Hamilton Building was adapted for use as a debating chamber for the anticipated Scottish Assembly in 1977-80, with some internal modifications made at that time. Two buildings within the application site are in current use as offices - the West Gate Lodge (CEC security staff) and classroom block (CEC offices).
The Applicant has carried out a detailed design process to ensure the proposed development respects the sensitivity and international heritage importance of the application site, while delivering new premises for St Mary’s Music School and ensuring the continued use for public benefit of the iconic and important buildings and grounds.

The proposed development has been developed in collaboration with the music school, taking into account their space requirements, aspirational expansion and day-to-day working of the music school. Discussions were also undertaken with the CEC, Historic Environment Scotland (HES) and Edinburgh World Heritage (EWH), as well as other consultees.

The following essential characteristics were considered throughout the design process:

• To preserve the absolute primacy of the Hamilton Building within the site;
• To maintain the original buildings’ essential relationships with Calton Hill behind;
• To preserve key views into the site, particularly from the south and west;
• To maintain the Hamilton Building’s relationship to Regent Road; and
• To preserve the essential sculptural quality of the Hamilton Building.

Several stages were followed in the design, providing an indication of alternatives considered for the purpose of the EIA:

• An initial space planning exercise was undertaken by LDN Architects in April 2015. This suggested direct reuse of the existing buildings on site for the music school, with a foyer attached to the north of the Hamilton Building. Additional space was proposed through replacement of the gymnasium with a purpose-built building to provide the required residential and practice space.
• Public consultation on the LDN proposal indicated there was substantial public and stakeholder support for the proposed reuse. A desire to provide public use within the site was also expressed.
• Richard Murphy Architects (RMA) was appointed to progress the design. RMA developed the concept of a semi-subterranean foyer under the Hamilton Building to act as public space for three concert halls in the existing chambers on the upper ground floor. This freed space to the north to provide teaching space, allowing residential and further teaching accommodation be proposed on the east of the site with a much reduced massing compared to the existing gymnasium and luncheon hall.
• Massing options for delivery of the space required were developed and considered, addressing concerns regarding visibility from key viewpoints (especially from the north and west), the integrity of the Hamilton Building and the operation of the music school. Environmental, technical and acoustic issues formed part of the consideration of these massing options to determine a preferred option.
• Environmental input informed the evolving design, in relation to means by which construction impacts could be reduced, ecological and landscape design of the site, potential impacts on key receptors, and efficient and sustainable operation of the site – for example, measures to encourage sustainable travel and measures to ensure operational noise could be effectively minimised.
• A preliminary design was presented to the Edinburgh Urban Design Panel. This was well received and constructive feedback provided which informed the further refinement of the proposed development. Subsequently CEC and other consultees were consulted on the final design.
• Comments arising from the EIA scoping exercise and subsequent consultation also provided useful information regarding the content of the proposed development.

Examples of the design changes resulting from the design evolution process are as follows:

• Developing a semi-subterranean foyer rather than an above ground foyer, to increase effective space available.
• Using the natural slope of the application site to develop residential accommodation below ground in the south of the site, to further minimise massing requirements and restore the primacy of the Hamilton Building, which is currently somewhat compromised by the location and size of the Victorian gymnasium.
• Making the concert halls and public west garden an integral feature of the proposed development, including designating the west portion of the site and West Pavilion for public use.
• Establishing a new entrance to the Hamilton Building beneath the existing portico, in a manner so as not to change the appearance of the Hamilton Building from outside its precincts. This promotes the idea of “progression” into the concert venue and reopens the south entrance to the building (using the existing steps from Regent Road) as a distinct public benefit.
• Placing practice rooms in octagonal practice pavilions, grouped together, as new yet sympathetic architectural features reflecting existing octagonal rooflights on the Hamilton Building.
• Lowering of roof levels and the height of features to protect views from Queen’s Drive and Calton Hill Drive in particular.
• Use of the existing Belvedere Tower to provide access to heating and ventilation plant, including developing it for exhaust flues, hidden by a new louvred top.
Avoiding the requirement to extend the Hamilton Building. Existing spaces between buildings on the application site would be retained, with the new building to the east attached to the Hamilton Building by a covered glass walkway.

Proposals for internal and external alterations were informed by detailed historical research to identify and recreate, where possible, Hamilton’s original vision for the site.

Aspirational proposals to redevelop Regent Road to be a more pedestrian-friendly area were developed, including narrowing the width of the road, and increasing paved areas and crossing points.

A further alternative would be development of the site as a hotel. A planning application for this use, on behalf of Duddingston House Properties & Urbanist Hotels is currently pending consideration by the City of Edinburgh Council. The proposed development is not being compared against the hotel application in the ES; both applications will require to be determined on their own merits. However, it is reasonable to consider the hotel application as a possible alternative site use to the proposed development. Both applications would result in different impacts on key receptors as a result of their construction and operation.

5 Proposed Development Description

The proposed development is shown in Figure 3, indicating key features of the proposals. The proposed development has included provision for the music school to increase from a capacity of approximately 83 pupils to approximately 120, with an increase in the number of boarders to approximately 70. It will also allow Saturday classes for local children to increase from provision for 150 students to up to 300. The proposed development will also provide public open space and three new concert halls for Edinburgh.

Aspects of the proposed development are indicated below:

5.1 Construction and Demolition

- There would be a requirement to demolish three buildings on site – the gymnasium, luncheon hall and classroom block – all of which were later additions to Hamilton’s original design. The Belvedere Tower would be retained. Removal of the gymnasium in particular would open the setting of the Hamilton Building and increase its prominence on site.

- A Construction and Demolition Environmental Management Plan would be developed before works on site commenced. This would outline measures which would be followed to minimise potential environmental impacts at this stage. It would include, for example, management plans relating to noise, vibration and dust minimisation, pre-construction ecology surveys to minimise disturbance to species in and around the site, and methods to be used to ensure rock excavation under the Hamilton Building was carried out safely with no impact on sensitive receptors.
5.2 Use of Existing Buildings

- The Hamilton Building would be adapted to provide three public concert halls; the largest for up to 300 people and the smaller two for approximately 80 people. These have been carefully designed to restore original architectural features such as panelling, seating and balcony arrangements. Seating in the concert halls would make use of a flexible seating array using a moveable floor and stage arrangement.
- The concert halls would be publicly accessed from a new foyer underneath the Hamilton Building. This would be accessed from a new glazed entrance developed under the portico to the south. A new glass floor to the portico (replacing non-original stone) would be installed to provide natural light. This entrance strategy would reopen the ceremonial southern entrance to the Hamilton Building from Regent Road.
- The remainder of the Hamilton Building, East Pavilion and West Gate Lodge would be developed as office, teaching, catering and facilities space for the music school. Staff and pupil access to the music school would be from the north.
- The West Pavilion would be adapted to form a public function room with kitchen.
- The Belvedere Tower would be retained as a folly within the proposed landscaping in the east of the application site. It would double as a screen for boiler and Combined Heat and Power (CHP) plant flues for the new accommodation in the east of the site.
- No proposed changes would be visible from Regent Road or from other key viewpoints in the City.

5.3 New Buildings

- All new building would be located in the east and north of the application site.
- The key consideration in developing the new buildings was to ensure their massing would not overwhelm the Hamilton Building and other historically important buildings to be retained. The overall scale of the new buildings follows the strongly horizontal nature of Hamilton’s designs, with a low, horizontal design which is substantially lower than the buildings proposed for demolition.
- Residential boarding accommodation would be developed at lower ground level, requiring some excavation of made ground. These rooms would be constructed around two garden courtyards. The lower ground level of these rooms would reduce the overall massing of the proposed new buildings.
- The residential accommodation would be joined to the dining room in the Hamilton Building at lower ground level by a glass walkway.
- Classrooms and music teaching rooms would be developed on top of the residential block, and at ground level to the north of the site. A corridor of music teaching rooms would be developed along the northern retaining wall of the application site (stood away from the wall itself).
- Three octagonal practice pavilions would be the most prominent features on site. These would comprise music teaching rooms on the ground floor and glazed practice rooms on the first floor. They would be topped with a glazed lantern. The octagonal shape reflects the octagonal rooflights on the Hamilton Building.
- New buildings would be constructed of sandstone base, with much use of glass to provide natural light, ventilation and views into and out of the school.

5.4 Landscaping

- Landscaping would increase vegetation cover and permeability of the site compared to the current situation. Green roofs would be developed to increase the extent of vegetation. As well as benefitting landscaping and ecology, vegetation will decrease the rate of water runoff from the site, and support improved sustainable management of surface water runoff.
- The main playground for the music school would be in the east of the application site, enclosed by the existing wall and railings. It would be located on the green roof of the accommodation block making use of the natural fall of the land from north to south. There would also be private garden courtyards within the residential block.
- Existing railings and walls would be retained as boundary features for the proposed development. Where these would require temporary removal for construction works, such as the railings along the south east boundary wall, they would be replaced.
- A new west garden, with public access, would be developed in the west of the application site. This would lead to a paved seating area to the north of the West Pavilion and would be terraced and planted with native trees and shrubs. The public and music school areas would be segregated by fencing and a line of tress.
- Access to the music school would use the existing access from the mini roundabout. Existing gateposts would be retained, though they would be moved to allow a segregated entrance for pedestrians and cyclists. Pedestrian access to the west garden would also be provided through new gates in the existing south west boundary railings.
- Lighting of the Hamilton Building would be primarily silhouette lighting. The east of the site would be lit by low intensity downlighters illuminating the courtyards and recreation areas when in use, or by bollard height lighting. Corridor light from the glazed corridors of the accommodation floor would also provide light to the courtyards.
6 Potential Environmental Effects

The designs of the proposed development were carefully considered to avoid key areas of environmental sensitivity and impact. The design was modified in response to stakeholder feedback, in particular to reduce potential effects on the townscape and visual environment and cultural heritage as addressed in Chapter 3 of the ES: Design Evolution and Alternatives.

The following presents a summary of the key potential environmental effects identified in the EIA process. Further detail is contained within Chapters 4-7 of the ES Volume 2: Main Report.

6.1 Air Quality

The potential for air quality impacts was considered to arise from the following activities:

- During the demolition and construction phase from plant activity and the movement of construction vehicles. These impacts would be avoided through implementation of a Dust Management Plan within the Construction and Demolition Environmental Management Plan (CDEMP).

- As a result of exhaust emissions arising from vehicle emissions associated with the operation of the proposed development. The site is located close to an Air Quality Management Area and is sensitive to increases in nitrous oxides (NOx). However, the number of vehicles predicted to arise as a result of the proposed development would be small, and no significant impact was predicted. The proposed school Travel Plan would aim to reduce the number of trips made by car, which would further reduce emissions.

- Exhaust emissions arising from the energy centre (boilers and CHP) associated with the operation of the proposed development were modelled using conservative assumptions for the plant specification and operation. It was concluded that air quality would remain within relevant objectives at all receptors. Although there would be increases in nitrogen dioxide (NO₂) at four receptors on Regent Terrace, no significant effects on air quality were predicted. Choice of energy plant to minimise NOx emissions, and ensuring its efficient operation (such as by efficient insulation) would further reduce emissions.

No significant cumulative effects with other developments in the area were predicted. It was concluded that there would be no significant residual environmental effects on air quality.
6.2 Noise and Vibration

The activities associated with the proposed development with potential to give rise to significant noise and vibration effects were identified as follows:

- Construction and Demolition impacts, including rock excavation under Hamilton Building. Modelling concluded that although noise would have the potential to impact on Noise Sensitive Receptors (NSRs) on Regent Terrace, levels would not exceed relevant standards and could be reduced to non significant levels through implementation of a Noise and Vibration Management Plan within the CDEMP. Vibration – especially in relation to the Hamilton Building could be controlled to acceptable levels and building condition monitoring undertaken.

- Operation of ventilation and heating installations. This plant would be located in internal rooms which can be acoustically insulated through the use of standard mitigation measures. All internal plant rooms were sized to ensure adequate space was provided for acoustic attenuation. Potential noise from fixed plant installations was therefore assessed to result in no significant effects.

- Music breaking out from practice rooms, rehearsals and concert events. The calculated music break-out levels were below the relevant criterion at NSRs. Music break-out noise was therefore assessed to result in no significant effects.

- Changes in road traffic noise. The proposed development would result in only a small increase in traffic levels, with a non significant increase associated traffic noise. Mitigation would be achieved through the proposed Travel Plan to reduce car journeys.

No significant cumulative effects with other developments in the area were predicted. It was concluded that there would be no significant residual environmental effects resulting from noise and vibration.

6.3 Cultural Heritage

The potential for impacts on the cultural heritage resource was considered to arise from the following activities:

- During the demolition phase there would be significant permanent effects on the listed buildings to be demolished. However, their loss would improve the setting of retained buildings of more historical importance, and improve views to Calton Hill from off site receptors, so mitigation of recording the buildings to be demolished would reduce the effect to not significant.

- During the construction/alteration phase there would be temporary impacts on historic buildings on site (the Hamilton Building and other retained buildings) and the setting of receptors off site (for example nearby listed buildings, Conservation Areas, Scheduled Monuments, Gardens and Designed Landscapes and the World Heritage Site) as a result of construction plant within the setting. These impacts would be localised, temporary and reversible and not significant.

- Alterations made to the Hamilton Building and other retained buildings, such as the introduction of the new south entrance, new glass floor to the portico and internal changes would result in significant effects on buildings of international importance. However, overall the interventions are not considered to be adversely significant as many effects would be beneficial, and adverse impacts would be offset by improvements.
• During the operation of the proposed development there would be minor changes to the setting of off site receptors. Given the careful design, very few changes to the application site would be apparent (as assessed in the Townscape, Landscape and Visual Assessment) and changes to setting would not be significant.

• There was considered to be negligible potential for buried artefacts on site given the location and use of the site, but a scheme for recording any finds would be developed.

Key means by which significant effects on cultural heritage would be avoided include mini-mising external changes to listed buildings on site, with demolition and external refurbishment restricted only to those necessary for operation of the proposed development, and development of a sensitive design to maintain the setting and pre-eminence of the Hamilton Building. Where features and buildings would be lost, recording them prior to demolition was considered to reduce effects to non significant.

No significant cumulative effects with other developments in the area were predicted. It was concluded that there would be no significant residual effects on cultural heritage assets on site and in the surrounding area.

6.4 Townscape, Landscape and Visual

Receptors for this assessment included townscape character areas, landscape designations (such as Conservation Areas, Special Landscape Areas, Gardens and Designed Landscapes, greenbelt and Edinburgh World Heritage Site) and individual viewpoints. Receptors within 3 km of the application site with potential visibility of the application site were assessed.

Viewpoints were chosen following a screening assessment of the hotel application. Fifteen viewpoints were taken forward for a detailed assessment.

The potential effects on the townscape, landscape and visual receptors that would arise as a result of the proposed development could include:

• Effects relating to demolition and construction activities. Cranes and construction plant would be introduced into the setting of the application site. The vertical scale of the cranes and their movement would make them a prominent feature from close range receptors, especially where they would encroach onto the important skyline of Calton Hill and they would detract from the historic character of the application site. This could result in temporary and localised significant effects on some close range receptors. Seven of the 15 viewpoints would be significantly affected, four representative of Regent Road and three of Calton Hill. Character areas and designations would not be significantly affected as impacts would occur across only a small proportion of the wider designated area.

• Effects relating to the operational phase. There would be no significant effects during the operational phase, with the exception of the very close range receptor of Calton Hill Drive where the effects would be significant, albeit the nature of this effect would be neutral owing to the responsive design of the proposed new building to the historic and landscape contexts.

The low level of significant effect during operation relates to the low lying nature of the proposed development, and the fact it is set back from and to the rear of the predominant Hamilton Building. The application site is also well screened with tree cover and the retention of existing buildings, railings and walls means there would be a sense of continuity and a moderation of the degree of change.

No significant operational cumulative effects were predicted with development of the Caltongate or St James’ proposals. The proposed development would appear as a small addition in the context of the larger sites.

Figure 5: Photomontage view from Radical Road
6.5 Other Environmental Aspects

Environmental considerations were addressed throughout the design evolution stage, and it was considered that there would be no significant environmental impacts arising on the following aspects.

- **Access and transport** – The proposed development would generate small numbers of vehicles during operation – in the region of 88 car/minibus movements per day as a result of school operation, and 150 movements when the large concert hall is filled to capacity (75 cars). Numbers would be managed through production of a Travel Plan, to encourage travel by more sustainable methods. Construction traffic would be managed through a Transport Management Plan, to be included within the proposed CDEMP to control issues such as routeing and driver behaviour.

- **Ecology** – The proposed development would result in loss of trees and some shrub/grass habitat, but this would be of no more than local importance. There is no evidence of the application site being used as a roost site for bats, though a pre-construction roost search would be undertaken. Benefit to the ecology on site would be gained through incorporation of an increased variety of native species in the proposed planting, development of habitats on green roofs and in drainage areas, and incorporation of bat and bird boxes into trees on site.

- **Geology** – Rock excavation is a critical part of the proposed development to create the new foyer. Potential for this to be undertaken is discussed in an Engineering Report presented in the Design and Access Statement. The proposed development would incorporate a rock extraction methodology to be agreed in consultation with the British Geological Survey, Scottish Natural Heritage, Network Rail and the City of Edinburgh Council. Findings from this, and method statement for rock extraction would be included within the CDEMP. This would also include a monitoring plan for excavation including geological vibration and building condition monitoring. Therefore in spite of the proximity of sensitive receptors including buildings on site, the geological SSSI and railway tunnels, the proposed development has designed out risk to these receptors so there is no potential for significant effect.

- **Surface Water** – The application site is not at risk of flooding due to its topography and elevation, and flood risk elsewhere would not be increased by the proposed development as the site is currently largely hardstanding. Pollution risk to watercourses would be minimised by measures to be outlined in the CDEMP, albeit the nearest waterbody is over 1 km from the site. Permeability of the site would be increased, which would mean runoff from the proposed development, through green roofs, permeable paving and vegetated areas would be reduced compared to present, reducing pressure on the existing sewer system.

- **Waste** – A Site Waste Management Plan would be produced to ensure waste arising from construction and operation is handled correctly, and waste is minimised, reused and recycled in preference to being sent to landfill. No significant amounts of waste would be produced as a result of the proposed development.

7 Conclusion

Overall the ES demonstrates that significant residual effects would be limited to one identified visual receptor (Calton Hill Drive at very close range to the application site) once the proposed development is operational. There would be temporary significant effects during the construction phase at more viewpoints, relating to the presence of cranes and construction plant which would contrast with the historic landscape around Calton Hill.

There would be no significant residual effects on air quality, cultural heritage or noise and vibration, assuming identified mitigation measures were implemented. Similarly there would be no significant impacts on transport, ecology, geology, surface water or waste, as impacts would be designed out of the proposed development by physical and operational/management means.

It is considered therefore that the proposed development represents, in environmental terms, a sensitive and acceptable use of the application site.