PORT DUNDAS BESS, GLASGOW

LANDSCAPE AND VISUAL APPRAISAL

TGP Landscape Architects Ltd
Suite 1.01, The Exchange
142 St Vincent Street
Glasgow
G2 5LA

12/12/2024

Table of Contents

1 Introduction

The Proposed Port Dundas BESS is located on industrial land near High Craighall Road in the Port Dundas area of Glasgow. This Landscape and Visual Appraisal (LVA) has been prepared by TGP Landscape Architects Ltd, a firm of independent consultants. The LVA report has been prepared with the aim of identifying the predicted landscape and visual effects of the Proposed Development, comprising Substation Compound, Site Offices and Stores, Battery Containers, Transformers, and ancillary works including fencing, CCTV, access / parking, and landscaping. The LVA is augmented by supporting text and graphics within the appendices. This includes the following figures within **Appendix C**:

- Figure 1 – Zone of Theoretical Visibility with Viewpoints;
- Figure 2 – Townscape Character Areas;
- Figure 3 – Landscape Designations and Recreational Routes; and
- Figure 4 – Landscape Mitigation Plan.

1.1 Scope of the LVA

The LVA seeks to identify the potential landscape and visual effects that would occur as a result of the Proposed Development and is organised in the following sections:

- Guidance and Methodology – outlines the general methodology, with reference to established guidance (full version in **Appendix A**);
- Planning Policy Context;
- Baseline Description – including the fabric, character and quality of the local landscape. This includes the special characteristics of landscape planning designations, and a description of the main visual receptors within the Study Area;
- Proposed Development and Mitigation – describes the aspects of the Proposed Development which have the potential to result in landscape or visual effects, and the measures incorporated into the project design to mitigate these potential effects;
- ZTV and Viewpoint Analysis – analysis of the geographic extents of visibility and the potential magnitude of change at a selection of viewpoints;
- Construction Stage Effects – assesses the effects of the Proposed Development during the temporary construction stage;
- Landscape Effects – assesses the effects of the Proposed Development on the landscape fabric, landscape character and quality of the landscape designations within the Study Area;
- Visual Effects – assesses the effects arising from the Proposed Development on the visual amenity of the receptors within the Study Area;
- Cumulative Effects – considers the combined effects of the Proposed Development in combination with other notable elements of infrastructure; and
- Conclusions – a summary of the LVA results.

1.2 Study Area

A 3km radius Study Area has been adopted from the Proposed Development for the assessment of

landscape and visual effects. This has been informed by analysis of Zone of Theoretical Visibility (ZTV) maps and an early appraisal of potential effects for a Proposed Development of this scale. Any notable landscape or visual effects would be confined within this geographical area.

2 Guidance and Methodology

2.1 Guidance

The methodology presented here is based on the following best practice guidance:

- *Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3);* Institute of Environmental Management and Appraisal and the Landscape Institute, 2013;
- *Landscape Character Assessment: Guidance for England and Scotland;* Prepared on behalf of the Countryside Agency and NatureScot, Land Use Consultants, 2002;
- *Landscape Sensitivity Assessment Guidance;* NatureScot, 2022; and
- *Visual Representation of Development Proposals;* Landscape Institute Technical Guidance Note 06/2019 (2019).

In addition, reference has been made to other published guidance and the LVA has drawn on the following relevant baseline information:

- Glasgow City Council City Development Plan 2017
- *National Landscape Character Assessment* (web-based interactive map), NatureScot, 2019;
- Ordnance Survey Land ranger (1:50 000) and Explorer (1:25 000) maps;
- Field surveys; and
- Aerial photography.

2.2 Methodology

The LVA aims to identify and evaluate the potential landscape and visual effects arising from the Proposed Development. Wherever possible, identified effects are quantified, albeit the nature of landscape and visual appraisal requires interpretation by professional judgement. In order to provide a level of consistency to the appraisal, the prediction of magnitude and appraisal of the residual landscape and visual effects have been based on pre-defined criteria.

GLVIA3 states that: “Professional judgement is a very important part of the LVIA.” (para 2.23) “In all cases there is a need for the judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others” (para 2.24).

Landscape and Visual Appraisals are distinct, though linked procedures. The appraisal of the landscape effects takes cognisance of the potential changes in the physical components of the landscape and associated changes in its character and how it is experienced, which may in turn affect the perceived value ascribed to the landscape.

Visual effects relate to changes in the composition of existing views as a result of changes to the landscape, to people’s responses to the changes and to the overall effects with respect to visual

amenity.

Level of Effect

The level of any identified landscape or visual effect is assessed in terms of being Major, Moderate, Minor or Negligible. Intermediate correlations are also possible and depend upon professional judgement, e.g. Major/Moderate. These categories are based on the juxtaposition of landscape or visual sensitivity with the predicted magnitude of change, as set out in Table 1.

Table 1: Landscape & Visual Effects Matrix

Receptor Sensitivity	Magnitude of Change				
		Substantial	Moderate	Slight	Negligible
	High	Major	Major/Moderate	Moderate	Minor
	Medium	Major/Moderate	Moderate	Moderate/Minor	Minor/Negligible
	Low	Moderate	Moderate/Minor	Minor	Negligible

This juxtaposition is not used as a prescriptive tool, rather it allows for the exercise of professional judgement. Thus, in some instances a particular parameter may be considered as having a determining effect on the analysis. Where the landscape or visual effect has been classified as Major or Major/Moderate this is considered to be notable. Where Moderate effects are predicted, professional judgement is applied to ensure that the potential for notable effects arising has been thoroughly considered. The complete appraisal methodology is set out in **Appendix A**.

3 Assumptions

The following assumptions have been made in respect to the LVA:

The following assumptions have been made in respect to the LVA:

- The Site – refers to the land located within the red line boundary.
- The Proposed Development - comprises of the main built elements: Substation Compound, Site Offices and Stores, Battery Containers, Transformers, and ancillary works including fencing, CCTV, water stores, access / parking, and landscaping.. All distances listed are in measured from the Proposed Development, unless otherwise stated.
- The main components likely to contribute to landscape and visual impacts are described in greater detail in Section 7.
- For the purposes of the LVA, the Proposed Development is regarded as being permanent. The construction stage would be temporary, approximately 12 months in duration.

The following section identifies the planning policy and other planning guidance material specifically relevant to the LVA. This includes consideration of the following:

- *National Planning Framework 4,* Scottish Government, 2023;

- *City Development Plan,* Glasgow City Council, 2017;

3.1 National Planning Framework 4 (NPF4)

NPF4 recognises the distinctive landscapes across the regions of Scotland and respective areas of high landscape quality. Its overarching policies seek to protect the integrity of key landscapes and landscape features from significant adverse effects. There is also general support for proposals to enhance, expand and improve woodland and tree cover.

Policy 11 focuses specifically on Energy, and sets out high-level support for all forms of renewable, low-carbon and zero emissions technologies. This includes both energy generation and energy storage developments, such as battery storage. NPF4 acknowledges that significant landscape and visual impacts are to be expected for some forms of renewable energy. Where these impacts re localised and/or appropriate design mitigation have been applied, they will generally be considered to be acceptable.

3.2 City Development Plan 2017

The City Development Plan sets out the Council's vision for the area to guide development. Relevant landscape-related policies from the City Development Plan are summarised as follows:

- *CDP1: The Placemaking Principle*
- *CPD 2 Sustainable Spatial Strategy*
- *CDP5: Resource Management*
- *CDP6: Green Belt and Green Network; states*
- *CDP7: Natural Environment*
- *CDP8: Water Environment.*

4 Baseline Description

4.1 Local Townscape / Landscape Context

Figure 1 illustrates the geographic location of the Proposed Development, which is located at North Craighall Road (near Craighall Business Park) within a former industrial site in the Port Dundas area of Glasgow. New residential area of Dundashill abuts The Site to the south and south east and directly to the north is the Port Dundas Substation, with associated over-head power lines. Pockets of brownfield land extend to the south and south east towards North Canal Bank Street. Craighall Business Park is located to the west and north, with further business and industrial areas located to the north east. The Site is located at an elevation of 70-75m AOD, overlooking Port Dundas canal basin, with some developing tree cover at the eastern boundary. The Forth and Clyde Canal and Speirs Wharf is located to the north-west and south-west of the proposed development which is orientated north-south and the canal basin continuing south-east to Pinkston Basin.

4.2 Townscape Character

Figure 2 illustrates the Townscape Character within the Study Area, as defined within Glasgow City Council City Map showing local neighborhoods (2017) and NatureScot's National Landscape Character Assessment (2019), which represents the most up-to-date assessment of townscape and landscape character across the Study Area. The Site is located prominently within the Glasgow City Urban Area.

4.3 Landscape Designations

Landscape planning designations and policies are considered in the determination of the sensitivity of landscape and visual receptors as they provide an indication of value ascribed to the landscape or visual resource. With reference to **Figure 3**, the site is not located within a landscape designation.

4.4 Visual Baseline and Receptors

The following section describes the visual receptors within the Study Area.

Local Residents

The Site is located within an urban and industrial setting with residential receptors located nearby at Dundashill and Speirs Wharf, residents within closest proximity to the Site comprise:

- Dundashill, is located adjacent the Proposed Development;
- Speirs Wharf, 320m to the southwest;
- Cowcaddens, 420m to the south; and
- Sighthill, 750m to the south east.

Recreational Receptors

With reference to **Figure 3**, recreational routes and outdoor destinations / attractions within the Study Area are listed below in order of increasing distance:

- Forth and Clyde Canal, Glasgow Branch, 320m to the southwest of the site,
- Core Path 13 network, located 320m to the south and southwest,
- Core Path 51 network, located 320m to the south,
- Forth and Clyde Canal, Port Dundas Canal Basin, 482m to the southeast of the site,
- Core Path 13a network, located 482m to the southwest,
- Core Path 44a network, located 965m to the northwest,
- Core Path 61 network, located 1.1km to the southeast,
- Core Path 52a network, located 1.2km to the southeast,
- Core Path 52 network, located 1.2km to the southeast,
- Local Nature Reserve, located 1.6km to the northwest,

Road Users

Potential road and rail users within the Study Area comprise those on the following key routes:

- A879 / Craighall Road, 160m to the north and southwest of the Site,
- A804, 643m to the south of the Site,
- M8, 800m to the south of the Site,

The A81 / Garscube Road (482m to the west) is located entirely outside the ZTV. Views from this route are therefore not considered further.

7 Proposed Development and Mitigation

This section describes the aspects of the Proposed Development with the potential to cause landscape and visual effects within in the Study Area.

7.1 Proposed Development Description

The location of the Proposed Development is illustrated on **Figure 1**. The Proposed Development would involve localised areas of ground clearance to facilitate construction within the Site, and the introduction of the following key elements:

- 36no. Battery Units,
- Substation,
- Control Room,
- Palisade fencing,
- CCTV cameras and security lighting; and
- Landscape planting, and biodiversity enhancement measures.

The LVA takes cognisance of each of these elements and makes reference to them within the appraisal where relevant.

7.2 Landscape Design and Mitigation

The Site selection process has chosen at the top of the landform, close to the existing Port Dundas Substation. The site is enclosed by existing buildings on the western side, existing substation on the northern side and native woodland with proposed/future residential flatted development on the eastern and southern side of the proposed development. The Site benefits from established screening via existing woodland and buildings across the landscape. The close geographic relationship with the existing substation minimises the length of the required grid connection and avoids the spread of infrastructure across wider parts of the surrounding landscape.

In terms of landscape design, the submitted proposals incorporate a comprehensive mitigation strategy that seeks to integrate the Proposed Development into the surrounding townscape/landscape as illustrated on **Figure 4**. This involves consideration of the location, scale and spread of the Proposed Development, and the most appropriate methods of lessening its potential influence on landscape and visual amenity. To this end, the Proposed Development has been designed to achieve the following landscape objectives:

- Land clearance and occupation would be limited to necessary areas only to minimise the geographic spread of built form and limit the potential impact on the local landscape fabric.

- In terms of colour and materials, the buildings and fencing would be painted with a recessive colour (RAL 6003 Olive Green, or similar approved) to soften the appearance of the Proposed Development.
- Proposed landscape works would incorporate the creation of native wildflower areas and tree planting within the Site. The boundary would be treated with native mixed species hedgerow interspersed with feathered trees along the site boundary. The planting approach would be based on mixed native species to provide visual containment and screening of the Proposed Development, whilst also reflecting and enhancing local landscape character, and contributing towards wildlife habitat and biodiversity targets. All trees would be of local provenance, with an emphasis on native broad-leaved species.

The assessment of potential impacts presented in the following text takes cognisance of the proposed new areas of tree planting within the determination of levels of effect, on the basis that they form an integral part of the Proposed Development. However, taking a 'worst case scenario' the assessment is based on the initial appearance of the Site immediately after completion of construction (prior to full establishment of the proposed planting).

8 ZTV and Viewpoint Analysis

The potential landscape and visual effects arising from the Proposed Development have been analysed in two ways:

- Zone of Theoretical Visibility (ZTV) map analysis, to provide a general overview of the geographical extent of visibility of the Proposed Development within the Study Area; and
- Analysis of the potential effects at key viewpoints.

8.1 Zone of Theoretical Visibility Analysis

Theoretical visibility mapping of the Proposed Development is illustrated in **Figure 1**. The ZTV has been prepared on the basis of 'bare ground' (excluding the screening effects of surrounding buildings or vegetation) and illustrates the maximum overall visibility of the proposed buildings.

With reference the ZTV, the geographical extent of potential visibility would be focused within areas at close range and at longer distances in areas to the south and south east. Intervening landform limits spared to the west and north west.

8.2 Viewpoint Analysis

Viewpoint analysis has been carried out on a selection of key viewpoint locations to assess the likely level of effects arising as a result of the Proposed Development. A total of four viewpoints have been selected as being representative of the main views from publically accessible locations within the Study Area (see **Figure 1**). The Viewpoints are illustrated as photo sheets, showing the approx. extent of the view, the Proposed Development would occupy.

<u>Viewpoint 1: View north Port Dundas Canal Basin-</u>

This viewpoint is located approx. 300m to the south the proposed development, adjacent to Port Dundas Canal Basin (North Canal Bank Street). This viewpoint is located within the commercial area

of Port Dundas near Core Path (C52) representative of views experienced by local road users and walkers.

Existing View

The existing view is characterised by brownfield, industry and residential with the canal basin visible to the north east (outwith the view). To the south and south east is the M8 corridor and the district of Cowcaddens.

Predicted View

The Proposed Development would be partially visible in views to the north west, occupy a small proportion of the view and heavily filtered by trees on the immediate landform rising from North Canal Bank Street. In addition, all ground-based infrastructure such as tracks would be screened by landform.

Effects on Visual Amenity

The sensitivity of road users at this location is assessed as being Medium with walkers being High. The Proposed Development would represent the addition of a relatively discreet new element within views that would be filtered by tree cover. The magnitude of change would be Slight and level of effect would be Moderate for walkers and Moderate / Minor for road users

Landscape Effects

The Proposed Development would represent an introduction of new built form to the local landscape/townscape, which is assessed as being of Medium-Low sensitivity and the magnitude of change would be Negligible and the effect on landscape would be Minor.

<u>Viewpoint 2: View northeast from Speirs Wharf</u>

This viewpoint is located approx. 320m to the southwest of the Proposed Development on a footpath (Core Path 13) adjacent to Speirs Wharf Canal and representative of views experienced by walkers, cyclists.

The existing view to the northeast is characterised by industry, commercial and residential zones, with the canal basin visible to the left and M8 corridor to the right (outwith the view).

Predicted View

There would be limited views of the Proposed Development due the concentration of tree cover at High Craighall Road.

Effects on Visual Amenity

The sensitivity of walker/cyclists at this location is assessed as being High. Based on winter views / leaf fall, there may be glimpses of Proposed Development and the magnitude of change would be Slight and the level of effect would be Moderate and not notable.

Landscape Effects

There would be no effect on townscape / landscape character.

Viewpoint 3: View south-east from Claypits – Local Nature Reserve

This viewpoint is located on high ground at Claypits Nature Reserve approx. 1600m north-west of the Proposed Development and is representative of views experienced by tourists and walkers. The existing views to the south are characterised by the canal basin and scrub / grassland with longer range views over the city. Views to the south east are partially screened by vegetation and electricity infrastructure.

Predicted View

The Proposed Development would be fully screened by intervening tree cover, and buildings. There would be no discernible views of the proposed infrastructure, and no effect on visual amenity or townscape/landscape character.

Viewpoint 4: View north-west from footpath near Sighthill bridge

This viewpoint is located at Core Path 52 near the Sighthill Bridge (M8 Corridor), approx. 800m south-east of the Proposed Development. The viewpoint is located on promoted recreational route near Sighthill housing development, representative of views experienced by recreational walkers.

The existing views to the north-west are characterised by the road network M8, industrial area, and Pinkston Water Sports. The landform at the viewpoint is flat with a gradual rise towards the proposed development. The pedestrian footbridge of Sighthill is a promoted walking route (Core Path 51) and leads towards the proposed development.

Predicted View

The Proposed Development would be predominantly screened by built features at Dundashill, with the potential for views of the battery units at the western edge of the Site, viewed against the existing built features and tree cover

Effects on Visual Amenity

The sensitivity of walkers/cyclists at this location is assessed as being High. The magnitude of change would be Slight based on the limited extent of views affected. The resultant effect experienced by would be Moderate. Townscape/ Landscape Effects

There would be no effect on townscape character.

9 Construction Stage Effects

Whilst it is the operational stage of the Proposed Development that would give rise to prolonged landscape and visual effects, temporary effects at the construction stage would also occur based on the following operations:

- Erection of temporary perimeter fencing;
- Installation of temporary construction compound (including office and welfare facilities);
- Creation of temporary laydown areas;
- Site clearance and earthworks;

- Excavation works for foundations;
- Increased vehicular movement within the Site;
- Gradual introduction of proposed buildings / infrastructure; and
- Reinstatement works, including the removal of the temporary accommodation.

The works detailed above would give rise to some landscape and visual effects. The detailed construction programme is not known at this stage, albeit is anticipated to be of 12 months duration. The associated effects would be temporary, and limited in extent and duration.

9.1 Construction Stage Townscape/Landscape Effects

During the construction stage, there would be localised clearance of the existing concrete plant within the Site, and the gradual introduction of material in order to create the raised platform for the main compound and the associated access route. These activities would coincide with a short term, temporary increase in vehicle movements / human activity within the Site, alongside temporary elements such as laydown areas, construction compound, site office and welfare facilities.

In terms of landscape fabric, the existing site is considered to be of Low sensitivity to the Proposed Development. This is due to its relative commonality in the surrounding area, the lack of any notable features of landscape value, and its ability to regenerate in a relatively short period of time. On balance, the magnitude of change associated with the construction operations would be Slight, and the resultant level of effect on landscape fabric would be Moderate/Minor.

In terms of townscape character, the construction stage effects would be focused within an urbanised city centre. In summary, the urbanised townscape character is assessed as being of Low sensitivity to the Proposed Development. The magnitude of change on local landscape character during the construction stage would be Slight, resulting in a Moderate/minor level of effect. These effects would be temporary in nature. Effects across wider parts of the townscape character would be extremely limited, not notable.

9.2 Construction Phase Effects on Visual Amenity

The visual effects of the activities during the construction phase would be temporary, intermittent and limited to localised areas. This is based on the containing effect of surrounding trees and buildings around the Site, in combination with the low-lying nature of activities associated with site clearance, earthworks and excavation.

Along with the site clearance, earthwork activities, excavation activities, material storage and an increase in traffic movement at the Site, the visual effects would occur primarily from the gradual appearance of the buildings and associated infrastructure (which are considered below under ‘Operational Effects’). The influence of construction activities on existing views would be tempered by the introduction of new areas of planting within peripheral parts of the Site.

In more open views, the construction activities would be experienced within a local urban and industrial context comprising large-scale infrastructure at Port Dundas Substation, and the associated

overhead lines. Furthermore, construction activities would be experienced below the skyline, back-clothed by the landform and tree cover in the adjoining landscape. As such, views would be predominantly limited to adjacent residents on upper floors of properties at Dundas Hill. The magnitude of change from residents at Dundashilll (Upper Floors) would be Moderate, resulting Major/Moderate effects, which would be notable. The effects would be further reduced through good site management and the temporary nature of the construction activities. The visual magnitude of change experienced by local road users during the construction phase would be Slight at most. The resultant level of effect would be Moderate/Minor, not notable.

10 Operational Landscape Effects

This section examines the effects arising as a result of the Proposed Development with reference to landscape fabric within the Site, landscape character and landscape designations.

10.1 Effects on Landscape Fabric

As described above, the local urban landscape surrounding The Site incorporates hard standing and industrial features, as such, the landscape fabric within the Site is assessed as being of Low sensitivity to the Proposed Development.

There would be localised earthworks to re-grade parts of the Site to a more level plateau, and further excavation works to facilitate construction of the parking and access areas, foundations of the buildings and cable routes. This would result in a change to the current landscape fabric within the Site. There would also be a short term, temporary increase in vehicle movements to and from the Site.

The Proposed Development would also incorporate new areas of native woodland, and species-rich grassland / wildflower meadow (as described in Section 7) and would represent the addition of beneficial landscape features to the locality that would exert increasing influence over time as they become more established.

On balance, the magnitude of change upon the fabric within the Site would be Moderate at most, giving rise to a Moderate/Minor level of effect. This is assessed as being not notable in this instance based on the introduction of new areas of woodland planting, which would represent beneficial landscape features.

10.2 Effects on Townscape/Landscape Character

The effect of the Proposed Development on landscape character largely depends on the key characteristics of the receiving environment; the degree to which the development may be considered to be consistent with or at odds with it; and how the proposal would be perceived within its setting.

<u>Effects on the Urban Townscape Character</u>

The Proposed Development would be located within the urbanized Glasgow. With reference to sensitivity analysis within **Appendix B**, the local landscape character at the Site is assessed as being of Low sensitivity to the Proposed Development. The effects on townscape character would be direct

(predominantly affecting the Site itself) and indirect (affecting the visual and perceptual characteristics of the surrounding area).

In terms of direct effects, existing ground cover within the Site comprises of an operational concrete plant. Other than some very localised loss of trees to facilitate the battery containers there would be no loss of valued natural features. The Proposed Development would incorporate native tree planting and wildflower meadow, represent beneficial elements within the local landscape. The influence of these new habitats upon landscape character would steadily increase over time in accordance with their establishment.

10.3 Effects on Landscape Designations

The effects of the Proposed Development on landscape designations are described below. Sensitivity to the Proposed Development is assessed as being High.

Glasgow Necropolis GDL

The Glasgow Necropolis GDL is located 1.6km to the south east of the Proposed Development. With reference to the ZTV, there would be fragmented visibility from higher ground which would be subject to intervening tree cover. The magnitude of change would be Negligible, and the level of effect would be Negligible, not notable. The vast majority of the Glasgow Necropolis GDL would be unaffected.

Kelvingrove Park GDL is located approx. 1.4km to the west and there would be no views due to the concentration of built features around the park.

11 Operational Visual Effects

This section examines the visual effects based on changes to the existing view as experienced by people within the surrounding landscape (as described in Section 6.4). This process draws on the results of the ZTV and viewpoint analysis.

11.1 Visual effects experienced by Local Residents

The appraisal below considers the effects experienced by local residents in closest proximity to the Site. In all cases, sensitivity is deemed to be High.

Dundashill

The Dundashill housing development is located adjacent to The Site and extends approx. 200m to the north east. Views would be applicable to those residents located in upper floors, there would be views from the ground floor due to intervening landform. Views to the north west would be in the context of existing built features and magnitude of change would be Slight and level of effect Moderate.

Speirs Wharf

Speirs Wharf is located 320m to the west of the Proposed Development. Views from the upper floors would be screened by a combination of landform and built features (Craighall Road). In addition, there is existing tree cover at the west and south western edge of The Site which would filter views. The

magnitude of change would be Negligible and the level of effect would be Minor, not notable.

Cowcaddens (Stewart Street)

The district of Cowcaddens is located at 430m at the closest point near the M8 corridor. Views would be confined to upper floors of flats at Stewart Street, due to raised nature of the M8. There would be partly screened / filtered views from some upper floors, the and magnitude of change would be Slight and level of effect Moderate.

Sighthill (Sighthill Circus)

Sighthill is located 850m to the south east of the Proposed Development and centered around the Sighthill Circus area. Views would be predominantly screeded by built elements at Dundashill

11.2 Visual effects experienced by Recreational Receptors

The appraisal of effects experienced by recreational receptors is described below, listed in order of increasing distance from the Proposed Development. Recreational receptors are considered to be of High sensitivity unless stated otherwise.

Pinkston Water Sports Centre

Pinkston Water Sports Centre is located 360m southeast of the Proposed Development. Views would be screened by built elements at Dundashill.

Forth and Clyde Canal

Forth and Clyde Canal, (Glasgow Branch) is located 320m to the southwest of the Proposed Development at the closest point. With reference to the ZTV, the main coverage is located beyond 1km to the north west and views would be subject to screening by intervening buildings. There would be no discernible views of the proposed infrastructure and no effect.

Claypits - Local Nature Reserve

Hamiltonhill Claypits Local Nature Reserve is located 1,600m to the northwest of the Proposed Development, near the Forth and Clyde Canal. The ZTV indicates limited ZTV coverage, and confined to areas of high ground in the east (Ref to Viewpoint 4).

Core Path network

C52

This path is routed adjacent to the M8 corridor between Port Dundas and Townhead, via the Sighthill Bridge crossing. Views from the closest sections would be predominately screened by buildings at Dundashill (as illustrated at Viewpoint 1). As route travels further south west, views would be fully screened by intervening buildings at Townhead St and adjacent tree cover. There would be glimpsed views as route users continue east toward Sighthill Bridge. The magnitude of change would be Slight and level of effect would be Moderate.

C13

This path is routed between Craighall Road and Cowcaddens near the M8 Corridor. There would be partially screened and filtered views from the closest sections of the route adjacent to canal basin and Craighall Road. Views from other sections of the route would be more limited due to a combination of intervening buildings, tree cover and M8 corridor (bridge). From closest sections of the route the magnitude of change would be Slight and level of effect would be Moderate. From other route sections the effects would typically be Minor or less.

Views from other core paths within the ZTV would be limited due to the screening effects of buildings and are not considered further.

11.3 Visual effects experienced by Road

Views from parts of the road network would typically be experienced transiently and at speed. Accordingly, the sensitivity of road users is considered to be Medium.

A879/Craighall Road

The A879/Craighall Road extends north-south through the Study Area between Possil Park and Cowcaddens (Dobbies Loan), and located approx. 160m at the closest point from the Proposed Development. Views of the Proposed Development would be confined to a short section of the road near the Canal (refer to Viewpoint 1). From these closest sections the magnitude of change would be Slight and level of effect would be Moderate. From other route sections the effects would typically be Minor or less.

M8

The M8 extends east-west of the Study Area, and is located 350m to the south of the Proposed Development at the closest point. ZTV coverage is intermittent with the main focus of views between Junction 15 and 16). Views towards the Proposed Development would be partially screened by buildings and landform, there is also intervening tree cover. From these closest sections the magnitude of change would be Slight and level of effect would be Moderate/Minor. From other route sections the effects would typically be Minor or less.

12 Cumulative Effects

This section considers the potential cumulative effects of the Proposed Development in combination with other notable elements of electricity infrastructure within the Study Area. The assessment includes consideration of the following key developments:

- Existing Port Dundas Substation, abutting The Site to the north of the Proposed Development, with associated transmission tower and overhead power lines
- Craighall Business Park, to the west and north of the Proposed Development,
- Existing Residential Flatted Development (located adjacent to the Proposed Development);
- Proposed Dundashill Phase 4a Residential Flatted Development *(24/02547/MSC)*

This section considers the potential cumulative effects of the Proposed Development in combination with other notable development within the Study Area.

In addition to the Proposed Development, there are a high concentration of built elements in and around The Site and in Port Dundas generally. Based on the scale of development proposed within this urban context there would be no notable cumulative effects in association with the Proposed Development. The potential cumulative effects of these developments are therefore not considered further.

13 Conclusions

The Proposed Development would be located to the north of the urbanised Glasgow City Centre to the west of the Forth and Clyde Canal, Dundas Canal Basin. The Proposed Development would occupy an existing brownfield site next to the existing Port Dundas Substation. It would also introduce new areas of native broadleaved tree planting, native wildflowers and hedgerows.

The site location within an urban context (commercial, industrial and residential) would limit any townscape effects. Visual effects would also be restricted based on the Site location, which exhibits a degree of enclosure based on landform and built features. There would be notable effects applicable to those residents (on upper floors) located in the adjacent Dundashill Development. There would be no notable effect on views experienced by any other residents, recreational receptors or road users.

In conclusion, it is assessed that the Proposed Development could be accommodated at the Site with limited and localised effects on townscape / landscape character and visual amenity.

References

Publications

Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3); Institute of Environmental Management and Appraisal and the Landscape Institute, 2013.

Landscape Character Assessment: Guidance for England and Scotland; Prepared on behalf of the Countryside Agency and NatureScot, Land Use Consultants, 2002.

Landscape Sensitivity Assessment Guidance; NatureScot, 2022.

Visual Representation of Development Proposals; Landscape Institute Technical Guidance Note 06/2019 (2019).

National Landscape Character Assessment (web-based interactive map), NatureScot, 2019.

National Planning Framework 4, Scottish Government, 2023.

Glasgow City Council City Development Plan 2017.
City Development Plan Supplementary Guidance, Glasgow City Council, 2017.
City Development Plan: IPG6 Green Belt and Green Network, Glasgow City Council, 2017.

Appendix A: LVA methodology

Landscape Effects

The starting point for the assessment of landscape effects was a desk-based review of published landscape assessments.

The sensitivity of the landscape to change resulting from a Proposed Development is not absolute and varies according to the existing landscape, the nature of the Proposed Development and the type of change being proposed. Good practice guidance differentiates between baseline sensitivity of the landscape and the sensitivity of a landscape to a specific development proposal. Accordingly, the concept of 'sensitivity to change' to new development, as described within the baseline published landscape character assessments, is distinct from the consideration of landscape sensitivity to the specific development proposal.

The baseline for consideration of landscape effects is the established landscape character. The landscape effects of a Proposed Development are considered against the key characteristics of the receiving landscape. The degree to which the Proposed Development may change 'the distinct and recognisable pattern that makes one landscape different from another, rather than better or worse' (Countryside Agency and NatureScot, 2002), enables a judgement to be made as to the significance of the effect in landscape character terms. This involves consideration of where the Proposed Development may give rise to a different landscape character type or sub-type.

In general terms, a distinctive landscape of acknowledged value (e.g. covered by a designation) and in good condition is likely to be more sensitive to change than a landscape in poor condition and with no designations or acknowledged value. General guidance on the evaluation of sensitivity is provided below; however, the actual sensitivity would depend on the attributes of the landscape receiving the proposals and the nature of those proposals.

In order to reach an understanding of the effects of development upon the landscape it is necessary to consider different aspects of the landscape as follows:

- Landscape Fabric / Elements: The individual features of the landscape, such as hills, valleys, woods, hedges, tree cover, vegetation, buildings and roads for example which can usually be described and quantified;
- Landscape Quality: The state of repair or condition of elements of a particular landscape, its integrity and intactness and the extent to which its distinctive character is apparent;
- Landscape Value: The importance attached to a landscape, often used as a basis for designation or recognition which expresses national or regional consensus, because of its special qualities/attributes including aesthetic or perceptual aspects such as scenic beauty, tranquillity or wildness, cultural associations or nature conservation interest; and
- Landscape Key Characteristics: The particularly notable elements or combinations of elements which makes a particular contribution to defining or describing the character of an area, which may include experiential characteristics such as wildness and tranquillity.

The sensitivity of the landscape to a particular development considers the susceptibility of the landscape and its value. The overall sensitivity is described as High, Medium or Low. This is assessed by taking into account the existing landscape quality, landscape value, and landscape capacity or susceptibility to change, which often vary depending on the type of development proposed and the particular site location, such that sensitivity needs to be considered on a case-by-case basis. This should not be confused with 'inherent sensitivity' where areas of the landscape may be referred to as inherently of 'high' or 'low sensitivity.

For example, a National Park may be described as inherently of high sensitivity on account of its designation, but it may prove to be less sensitive to particular development and/or the design of that development.

Alternatively, an undesignated landscape may be of high sensitivity to a particular development and/or the design of that development regardless of the lack of local or national designation. The main factors to consider are discussed as follows:

Landscape susceptibility according to GLVIA3 means "the ability of the landscape to accommodate the Proposed Development without undue consequences for maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies". Judgements on landscape susceptibility include references to both the physical and aesthetic characteristics and the potential scope for mitigation that would be in character with the landscape.

The judgements regarding susceptibility and value of the landscape character are identified within the sensitivity table included within **Appendix B**. These relationships can be complex and value alone does not automatically or by definition have high susceptibility to all types of change. Examples and on the evaluation of landscape sensitivity are provided below:

Table A.1: Landscape sensitivity criteria

High Sensitivity	Landscape character, characteristics and elements which would generally be of lower landscape capacity or scope for landscape change, and of notable landscape value and quality. These are landscapes that may be considered to be of particular importance to conserve and which may be particularly sensitive to change if inappropriately dealt with.
Medium Sensitivity	Landscape character, characteristics and elements where there would be a moderate landscape capacity or some scope for landscape change. Often include landscapes of moderate landscape value and quality which may be locally designated.
Low Sensitivity	Landscape Character, characteristics and elements where there would be higher landscape capacity or scope for landscape change to accommodate the proposed type of development. Usually applies to landscapes with of lesser landscape susceptibility or higher landscape capacity for the Proposed Development.

The level of landscape effects is not absolute and can only be defined in relation to each development and its location. It is for each assessment to determine the assessment criteria and thresholds using well informed and reasoned judgements.

The magnitude of landscape change arising from the Proposed Development at any particular location is described as Substantial, Moderate, Slight or Negligible based on the interpretation of a combination of largely quantifiable parameters, as follows:

- degree of loss or alteration to key landscape features/elements or characteristics;
- distance from the development;
- duration of effect;
- landscape backdrop to the development; and
- landscape context of other built development, particularly vertical elements.

In order to differentiate between different levels of magnitude the following definitions are provided:

Table A.2: Landscape magnitude of change definitions

Substantial	Total loss or extensive alteration to key landscape elements/features/ characteristics of the baseline, or introduction of uncharacteristic elements which would give rise to a fresh characterising effect.
Moderate	Partial loss or alteration to one or more key landscape elements/features/ characteristics of the baseline and/or introduction of elements that may be prominent, but not necessarily substantially uncharacteristic with the attributes of the receiving landscape (which could co-characterise parts of the landscape).
Slight	Minor loss or alteration to one or more key landscape elements/features/ characteristics of the baseline and/or introduction of elements that may not be uncharacteristic with the surrounding landscape or may not lead to a characterising or co-characterising effect.
Negligible	Very minor loss or alteration to one or more key landscape elements/features/ characteristics of the baseline and/or the introduction of elements that are not uncharacteristic of the surrounding landscape. Change would be barely distinguishable approximating to no change.

Having established where the observation of varying levels of change to the landscape baseline may occur, the geographical extent of the change can be identified and a judgement made as to the level of effect in landscape character terms at varying scales.

The importance of the effect on the landscape resource may be determined by correlating the magnitude of the landscape change (Substantial, Moderate, Slight or Negligible) with the sensitivity of the landscape resource (High, Medium or Low). The following table sets out the main correlations between magnitude and sensitivity.

Table A.3: Landscape effects matrix

Landscape sensitivity	Magnitude of Change				
		Substantial	Moderate	Slight	Negligible
	High	Major	Major/Moderate	Moderate	Minor
	Medium	Major/Moderate	Moderate	Moderate/Minor	Minor/Negligible
	Low	Moderate	Moderate/Minor	Minor	Negligible

Visual Effects

The sensitivity of potential visual receptors will vary depending on the location and context of the viewpoint, the activity of the receptor and importance of the view. Visual receptor sensitivity is defined as High, Medium, or Low in accordance with the criteria in Table A.4.

Table A.4: Visual sensitivity criteria

High Sensitivity	Residents within the curtilage of their homes; users of outdoor recreational facilities including footpaths, cycle ways and recreational road users; people experiencing views from important landscape features of physical, cultural or historic interest, beauty spots and picnic areas.
Medium Sensitivity	Road users and travelers on trains experiencing views from transport routes. People engaged in outdoor sport other than appreciation of the landscape, e.g. nature conservation, golf and water-based recreation.
Low Sensitivity	Workers, users of facilities and commercial buildings (indoors) experiencing views from buildings.

The magnitude of visual change arising from the Proposed Development at any particular location is described as Substantial, Moderate, Slight or Negligible based on the interpretation of a combination of largely quantifiable parameters, as follows:

- distance of the viewpoint/receptor from the development;
- duration of effect;
- extent of the development in the view;
- angle of view in relation to main receptor activity;
- proportion of the field of view occupied by the development;
- background to the development; and
- extent of other built development visible, particularly vertical elements.

It is assumed that the change would be seen in clear visibility and the assessment is carried out on that basis. Where appropriate, comment may be made on lighting and weather conditions. In order to differentiate between levels of magnitude the following definitions are provided in Table A.5:

Table A.5: Visual magnitude of change definitions

Substantial	Where the proposals would have a defining influence on the view. Change very prominent leading to substantial obstruction or complete change in character and composition of the baseline existing view.
Moderate	Where the proposals would be clearly noticeable and an important new element in the view. It may involve partial obstruction of existing view or partial change in character and composition of the baseline existing view
Slight	The proposals would be partially visible or visible at sufficient distance to be perceptible and result in limited or minor changes to the view. The character and composition, although altered will be similar to the baseline existing situation
Negligible	Change would be barely perceptible. The composition and character of the view would be substantially unaltered, approximating to little or no change.

The threshold for different levels of visual effects relies to a great extent on professional judgement. Criteria and local circumstances require close study and careful judgement.

Beneficial effects upon receptors may result from a change to a view by the removal of eyesores or through the addition of well-designed elements which add to the sense of place in a beneficial manner.

The following Table A.6 sets out the main correlations between magnitude and sensitivity.

Table A.6: Visual effects matrix

	Magnitude of Change				
Visual sensitivity		Substantial	Moderate	Slight	Negligible
	High	Major	Major/Moderate	Moderate	Minor
	Medium	Major/Moderate	Moderate	Moderate/Minor	Minor/Negligible
	Low	Moderate	Moderate/Minor	Minor	Negligible

Level of Effect

As per the matrices in Table A.3 and Table A.6; the level of any identified landscape or visual effect has been assessed in terms of Major, Moderate, Minor or Negligible. Intermediate correlations are also possible and depend upon professional judgement, e.g. Major/moderate. These categories are based on the juxtaposition of viewer or landscape sensitivity with the predicted magnitude of change. This matrix should not be used as a prescriptive tool but must allow for the exercise of professional judgement. Effects which area judged to be Major/Moderate or Major are considered to be notable. Where Moderate effects are predicted, professional judgement is applied to ensure that the potential for notable effects arising has been thoroughly considered.

Type of Effect

Landscape and visual effects are described with reference to type (direct, indirect, secondary or cumulative), timeframe (short, medium, long term, permanent, and temporary) and whether they are beneficial or adverse (beneficial or adverse). The various types of effect are described as follows:

Temporary / Residual Effects

If a proposal would result in an alteration to an environment whose attributes can be quickly recovered, then judgements concerning the significance of effects should be tempered in that light. Commercial development applications typically include permanent, long-term elements as well as minor alternations to landform resulting in residual landscape and visual effects.

Direct/Indirect

Direct and indirect landscape and visual effects are defined in Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Direct effects may be defined "result directly from the development itself" (para 3.22). An indirect (or secondary) effect is one that results "from consequential change resulting from the development" (para 3.22) and is often produced away from the site of the Proposed Development or as a result of a complex pathway or secondary association. The direct or physical landscape effects of the Proposed Development would generally be limited to an area around the development itself. Any indirect landscape effects are concerned with the view of the changes from outside the local landscape.

Beneficial/Adverse

Landscape and visual effects can be beneficial or adverse, and in some instances may be considered neutral. Beneficial effects upon landscape receptors may result from changes to the landscape involving beneficial enhancement measures or through the addition of well-designed elements, which add to the landscape experience or sense of place in a complementary manner.

The landscape impacts of the Proposed Development have been considered against the landscape baseline, taking account of the landscape characteristics. Taking a precautionary approach, changes to rural landscapes involving construction of man-made objects of a large scale are generally considered to be adverse, as they are not usually actively promoted as part of a district wide landscape strategy and therefore in the assessment of landscape effects, they are assumed to be adverse, unless specified otherwise in the text.

It is important to recognise that for the same development, some may consider the visual effects for a development of this nature as adverse or beneficial. This depends to some extent on the viewer's predisposition towards landscape change but also the principle of commercial building features in the landscape. Taking a precautionary approach in making an assessment of the 'worst case scenario', the assessment considers that all effects on views which would result from the construction and operation of the Proposed Development to be adverse, unless specified otherwise in the text. It is noted, however, that not all people would consider the effects to be adverse.

Visualisation Methodology

Zone of Theoretical Visibility Maps

Computer generated Zone of Theoretical Visibility (ZTV) Maps have been prepared to assist in viewpoint selection and to indicate the potential influence of the Proposed Development in the wider landscape.

The ZTV in **Figure 1** has been prepared at 1:30,000 scale to indicate the extent of potential visibility on the basis of bare ground, and does not include the screening effects of intervening established tree cover or buildings. The ZTV indicates areas from which it might be possible to secure views of part, or parts, of the Proposed Development (based on its maximum height / elevation). However, use of the Visibility Maps needs to be qualified on the following basis:

- There are a number of areas within the Visibility Maps from which there is potential to view parts of the proposal, but which comprise open moorland, farmland, or other land where the general public do not appear to exercise regular access;
- The ZTV does not account for the screening effects and filtering of views as a result of intervening features, such as buildings, trees and forestry;
- The Visibility Maps do not account for the likely orientation of a viewer – for example when travelling in a vehicle.

In addition, the accuracy of the Visibility Maps has to be considered. The ZTV is generated from Ordnance Survey (OS) Landform Panorama digital data based on a gridded terrain model with 5m cell sizes. The resolution of this model cannot accurately represent small-scale terrain features, which can therefore give rise to inaccuracy in the predicted visibility. This can lead to underestimation of visibility (e.g. a raised area of ground permitting views over an intervening obstruction), or can lead to overestimation of visibility (such as where a roadside embankment obscures a view).

Viewpoint Assessment and Visualisations

The assessment of landscape and visual effects was carried out from a representative selection of viewpoints. The viewpoint analysis is illustrated with reference to illustrative material, comprising photographs, wirelines and photomontages. The photography was undertaken in accordance with accepted good practice and the Landscape Institute's Guidance. All photographs included in the assessment were taken with a digital SLR camera with full size sensor, using a 50 mm focal length lens, mounted on a level panoramic head tripod.

Appendix B: Landscape Figures

Port Dundas BESS

Figure 1 - Zone of Theoretical Visibility and Viewpoints

Key

- Site Boundary
- Predicted Visibility
- Viewpoints

1. View north-west from Old Swinger (Dundashill)
2. View north-east from Speirs Wharf
3. View south east from Hamiltonhill Claypits - Local Nature Reserve
4. View north-west from Sighthill bridge

Notes:

The calculations of this map are based on the 'bare earth' model of the landform and do not allow for any effects of screening from obstacles such as buildings and vegetation. The landform data was taken from Ordnance Survey Terrain 5 digital terrain model (gridded height data at 5m intervals).

Figure Data:

This figure has been based on the following data:

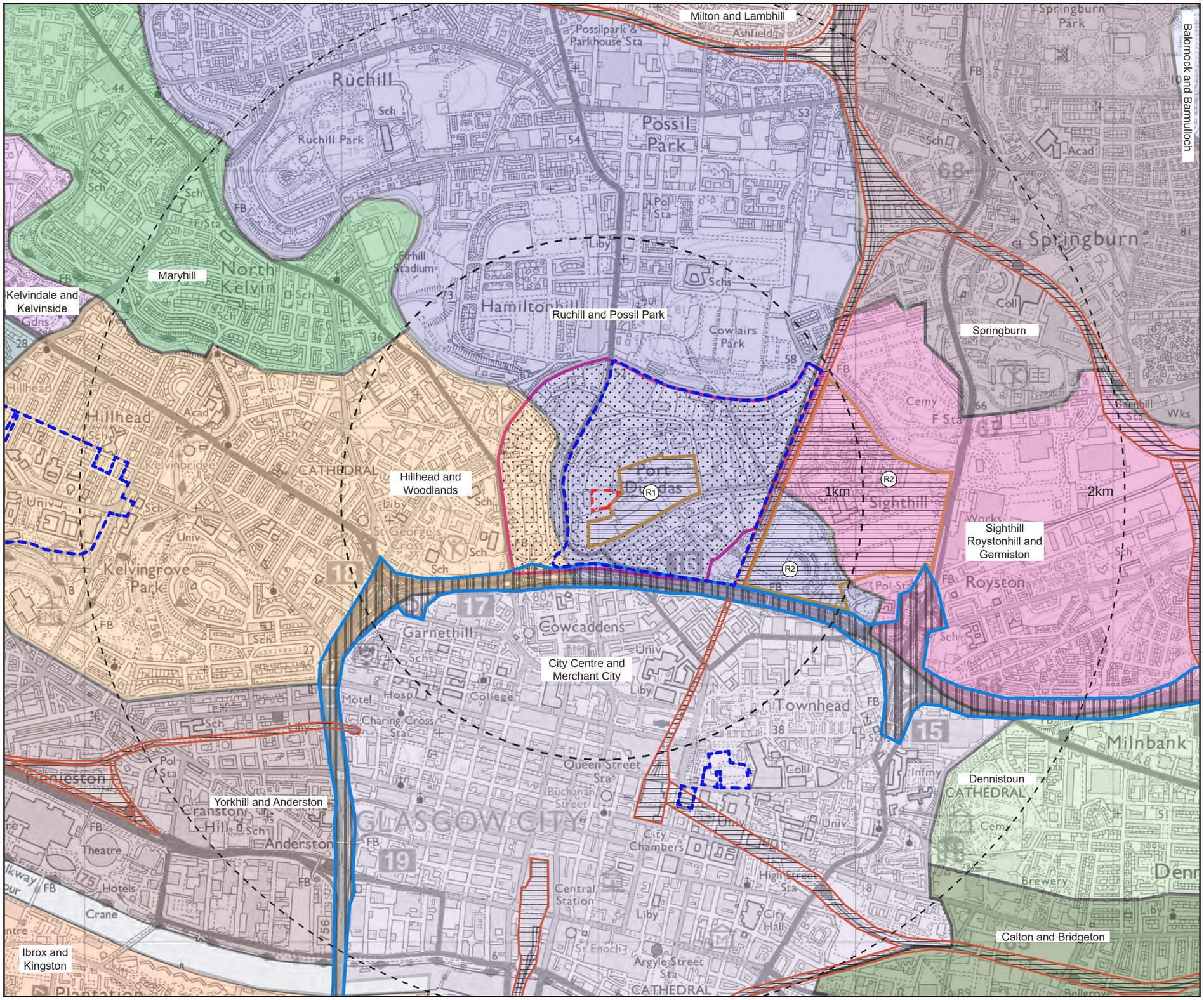
Easting Grid Ref:	259029
Northing Grid Ref:	666721
Height:	2.896m

0 250 500m

Date	Scale@A3	Produced By	Checked By	Rev.
21/11/24	1:15,000	RPD	GS	-

Port Dundas BESS

Figure 2 - Townscape Character Areas



Key

- Site Boundary

Neighborhood Areas (within 2km) - Glasgow City Urban Area

- Ruchil and Possil Park
- Sighthill Roystonhill and Germiston
- City Centre and Merchant City
- Hillhead and Woodlands
- Maryhill
- Milton and Lambhill
- Springburn
- Dennistoun
- Calton and Bridgeton
- Yorkhill and Anderston
- Future Masterplan Areas
- Road Infrastructure : M8 / M74
- Rail Infrastructure
- Industrial
- Residential
- Dundashill (R1)
- Sighthill (R2)

0 250 500m

Date	Scale@A3	Produced By	Checked By	Rev.
21/11/24	1:15,000	RPD	GS	-

Port Dundas BESS

Figure 3 - Landscape Designations and Recreational Routes

TGP LANDSCAPE ARCHITECTS

Key

- Site Boundary
- National Cycle Route 7
- National Cycle Route 75
- National Cycle Route 754
- National Cycle Route 756
- Kelvin Way
- Core Path
- Core Path (Aspirational)
- Conservation Area
- Ancient Woodland
- Listed Buildings
- Garden and Designed Landscapes
  - A Kelvingrove Park
  - B Glasgow Necropolis
  - C Glasgow Botanic Gardens
- Scheduled Monument
  - 1 Forth And Clyde Canal: Glasgow Branch
  - 2 Forth And Clyde Canal, Port Dundas Canal Basin, Glasgow
  - 3 Glasgow, Remains Of Bell'S Pottery, Kyle Street
  - 4 Glasgow Cathedral, Precinct And Graveyard
- Hamiltonhill Claypits Local Nature Reserve

0 250 500m

Date	Scale@A3	Produced By	Checked By	Rev.
21/11/24	1:15,000	RPD	GS	-