

## 5.0 VISUAL AND LANDSCAPE IMPACTS

### 5.1 ASSESSMENT METHODOLOGY

Section 39 (2)(b)(ii) of the Transport (Railway Infrastructure) Act 2001 requires that proposed developments are examined in terms of their likely significant impacts on the landscape.

The analysis of the route alignment, taken together with its hinterland, was based on an examination of available aerial photography, Ordnance Survey mapping data, and a detailed survey of the route alignment itself. A number of visual inspections of the site were undertaken during April and May 2006, and a photographic survey of the receiving environment was compiled.

The method of determining the visual impact of any development in a landscape is important, in order that an objective view on the “carrying capacity” in visual terms is achieved. The significance of visual/ landscape impacts on the perceived environment will depend partly on the number of people affected, but also on value judgements about how much the changes will matter.

The methodology and terminology used is based on the ‘Guidelines on the information to be contained in Environmental Impact Statements’ prepared by the Environmental Protection Agency (EPA) 2002 and ‘The Landscape Institute Guidelines for Landscape and Visual Impact Assessment’.

### 5.2 RECEIVING ENVIRONMENT

#### 5.2.1 Topography

The route corridor traverses an essentially flat landscape, with little or no topographical relief. The only elevated topography in the vicinity is the man made screen mounding or embankment to the Belgard Quarry. In the extreme west of the corridor there are slight undulations in topography, adjacent to the Citywest campus around Fortunestown Road, as it approaches the Saggart Road. These are not visually significant.

#### 5.2.2 Contiguous Land Use

Figure 5.1 illustrates existing land use patterns on and immediately adjacent to the proposed route corridor. The route corridor consists primarily of derelict backlands, some agricultural lands, and lands which are undeveloped but likely to be developed as part of the ongoing urbanisation of the area.

To the east of Cookstown road the route corridor is bounded to the north by Belgard Heights housing estate and to the south by the Cookstown Industrial Estate. To the west of Cookstown Road the route corridor is bounded to the north by Belgard quarry and to the south by the housing developments of Cairnwood, Belgard Green, Fettercairn and Kilmartin (Section A).

At Fortunestown the site traverses areas of derelict backlands, agricultural land, and development sites, some related to the existing Citywest business campus, until finally aligning itself with Fortunestown Lane at the new Citywest Shopping Centre (Section B).

Along the final part of the proposed route (Section C), lands to the north of Fortunestown Lane are largely undeveloped, with the Citywest business campus as a backdrop. To the south of Fortunestown Lane the land is rapidly developing as a series of mixed uses – retail, residential and recreational open space.

### 5.2.3 Vegetation

The main vegetative cover within the route corridor is wild grasses and other invasive species forming rough meadows – a landscape in transition. Contiguous open spaces adjacent to the subject site also consist of rough meadow grasses and invasive species, with some patches of bare ground.

There are no significantly developed trees or woodland in the area. There is tree planting to the screen mounding at Belgard quarry, planting within the Citywest campus and along Fortunestown Lane. Isolated clumps of decorative tree planting can be found around institutional buildings, such as St. Mark's School and in some of the housing estates. There is considerable amenity planting at the extreme western end of the route associated with the Citywest hotel and golf course.

The main three dimensional vegetative cover in the area consists of poorly developed hedgerow structures. The hedgerows include hawthorn, blackthorn, ash, elder and bramble predominantly and are described in more detail in Chapter 6.0 - Flora and Fauna.

### 5.2.4 Circulation

Figure 5.2 defines the main circulation patterns within the area at present.

The main vehicular circulation in the area is along Fortunestown Lane/ Fortunestown Way/ Fettercairn Road connecting Saggart to Tallaght from east to west, Citywest Road (N82) linking the Blessington Road (N81) to the Naas Road (N7) from north to south, Saggart Road, also on a north-south axis at the extreme western end, and the Cookstown Road which traverses the proposed route at its eastern end.

Within this structure of major distributor roads, there is a network of local access roads serving the various housing groups. Within each housing group a system of cul-de-sacs defines the residential structure in each case.

Pedestrian movement is generally directly associated with the road network, and normally takes the form of flanking footpaths. There are also some informal off-street pedestrian links through the various open spaces and backlands.

### 5.2.5 Visual Analysis

Figure 5.3 presents the visual analysis. In overall terms the proposed development site presents as a visually - degraded landscape, characterised by dumping, dereliction, vandalism etc., traversing a contiguous landscape of varying visual quality.

The large housing groups to the south of the corridor have a relatively low level of visual amenity, due to the lack of variation in house form and the absence of any significant amenity planting or developed open spaces. To the north of the proposed Luas Line A1 the twin foci of the Belgard quarry towards the eastern end, and the Citywest campus to the west provide a strong visual enclosure and a high - amenity "borrowed" landscape, respectively.

Towards the extreme western end of the site, the amenity level is heightened by the presence of the mature landscape associated with the Citywest Hotel and its associated golf courses.

### 5.2.6 Lighting

Lighting along the Luas Line A1 corridor is limited to the street lighting in areas where the line passes close to the adjacent roads and footpaths at Fortunestown Lane, N82 CityWest Road and at Cookstown Way. There is no public lighting in the derelict backlands / agricultural lands to the rear of Cairnwood, Fettercairn and Ardmore Housing Estates.

### 5.2.7 Summary

In overall terms, the receiving environment for the proposed Luas Line A1 is of a generally poor visual quality, principally due to the transitional state of the sub-urban development landscape, and the extent of dereliction. There are no significant visual or landscape focuses within, or adjacent to the subject site. The principal areas of visual quality in the general area are contained within the Citywest campus and at the Citywest Hotel complex.

## 5.3 CONSTRUCTION IMPACTS AND MITIGATION

### 5.3.1 Construction Impacts

An impact on the existing landscape is inevitable during construction. The insertion of the track bed with its rails, kerbs, edges and paved surfaces could have a moderately negative impact on segments of the route. A small portion of the existing, poorly developed, hedgerows along the route corridor will be removed to allow for the insertion of the proposed Luas Line A1. The landscape impact of this insertion will be slight and neutral.

The construction visual/ landscape impacts fall into a number of categories:

- The enclosure of the main contractor's compounds and assembly areas and their use as temporary storage and welfare areas. Where necessary, to ensure continuous public access to properties, temporary road carriageways, paths and footbridges will be provided.
- The construction phase will involve considerable movement of machinery and goods, and enclosure of temporary works. Site activities will include excavation, clearance, materials storage, concrete pouring, fabrication, erection and fixing sequences. Where appropriate, there will be segregation of the various elements of the proposed Luas Line A1 alignment while the main construction work is carried out.
- The intermittent work involved in equipping the line and erecting the Overhead Line Equipment (OHLE).
- The final grading, finishing and landscaping of the route, stops and park and ride area following completion of construction.
- During the construction phase it may be necessary to provide temporary lighting for work that may take place during hours of darkness. This light source will be directed towards the work area and can be managed, in terms of hours of work, so as to minimise disruption to the public. Therefore the visual impact will be slight and neutral. Temporary lighting, as necessary, will be provided where public access is required on or close to the works e.g. at road crossings, footpaths etc. for public safety.

All of these are temporary, some are intermittent. They are all construction impacts that are normal in the urban scene, though irregular in the sub-urban environment. In the context of this project these are not regarded as being significant in terms of impact upon landscape.

There is the possibility of the construction works for the Embankment Road taking place at the same time as the Luas Line A1 works. The visual / landscape impact of these construction works will be similar to that for the Luas Line A1, but the visual impact will impinge on the receiving environment over a wider area.

### 5.3.2 Mitigation Measures

Mitigation during construction will be achieved by the implementation of necessary management / planning measures to minimise disruption and dust from compounds and assembly areas, and particularly along the track bed. These measures are detailed further in Chapter 10 (Air Quality and Climatic Factors).

Damage to property, to grassland, trees, planting and carriageways will be minimised with the necessary protection / hoarding put in place. Where damage cannot be avoided, it will be repaired or replaced.

## 5.4 OPERATIONAL IMPACTS AND MITIGATION

### 5.4.1 Operational Impacts

In operation the proposed Luas Line A1 alignment will provide positive impacts by:

- Enlivening the suburban setting by the proposed Luas Line A1 travelling through well-designed reservations, notably where it adjoins built-up areas.
- The long-term impact of improved transport in raising perception of environmental quality.

The provision of Overhead Line Equipment (OHLE), with its power lines supports and masts could be seen to have a slightly negative impact on the suburban townscape and landscape. This could be particularly so where the alignment crosses open land, were the OHLE to cross the line of vision of road / footpath users. However, the negative impact of the OHLE and its supports will be outweighed by the positive impacts of the other parts of the system and by the anticipated long term benefits that will accrue to the visual environment. In addition, the open and relatively large scale nature of the receiving landscape will easily visually accommodate the line insertion.

The increase in the use of the Luas alignment as a safe and environmentally attractive movement corridor will have a positive impact on the area. The provision of the overall proposed Luas Line A1 alignment from Cookstown Road to Saggart will have a continuing positive effect on the amenity of the areas and underpin gradual environmental improvement.

The most significant visual intrusion at night will be the lighting at the Park and Ride facility and at the various stops. This will be mitigated by the provision of hooded light fittings to direct lighting onto the ground plane and to avoid glare.

There will be a certain amount of side-spill into immediately adjoining areas, however the lighting will be seen against a backdrop of the existing extensive street lighting grid. Therefore, the visual impact of lighting will be moderate and neutral.

### 5.4.2 Mitigation Measures

Primary amelioration of the line will be achieved through the design co-ordination by the respective design teams of the proposed Luas Line A1 alignment with the adjoining carriageways, boundaries and paths, and through careful design of road crossings and stops.

The visual integration of the OHLE with the landscape will be achieved by the careful choice of the support systems - generally comprising one line of central poles with cantilevered arms in both directions. Following amelioration and mitigation the OHLE and the supports will have slight and neutral visual impact.

All elements of the proposed stops will be similar to those on the existing Red Luas Line, with the exception of the Belgard Stop which will have a canopy structure covering the platform. All finishes will be in high quality materials and will incorporate appropriate planting. Planting will be incorporated where possible and appropriate.

Where possible, mitigation will be achieved by planting trees and shrubs along the corridor in the limited space available within the landtake, and to assist in absorbing the alignment into the future design of new developments. The relationship of the route to the proposals for Embankment Road and development areas within Citywest Business Campus and north of Fortunestown Lane means that the landscape design associated with these adjacent developments has the potential to further mitigate the visual impact in the future. During the operational phase the landscape elements, including grassing, trees and shrub planting, will require planned maintenance and replacement, to ensure their health and long term growth.

Figure 5.1: Land Use Map



Figure 5.2: Circulation



Figure 5.3: Visual Analysis



Figure 5.4: Existing Vegetation

