Kent International Gateway Ltd

Kent International Gateway

SUPPORTING LANDSCAPE & VISUAL INFORMATION

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Accompanying Drawings and Information

White Young Green Ground Modelling Drawings 231/P4, 232/P3, 233/P5 and 234/P3

Long Cross Sections (Drawing No. 3073/P/10 Rev A (comprising 3 x A0 sheets))

Photomontages (To be completed)

Theoretical Zone of Visual Influence (Drawing No. 3073/P/07)

Additional Lighting Information

Tree Survey (CBA Trees and WSP Environmental – dated March 2007) (submitted by RPS dated 6 February 2008 – not attached as part of this report)

Existing Vegetation – Conserved and Removed (Drawing No.s 3073/P/08 Rev A and 09 Rev A)

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1.0 INTRODUCTION

1.1 The following information and plans are provided in support of the existing outline planning application and accompanying Environmental Statement (ES) for the proposed Kent International Gateway development (KIG). It has been prepared in response to the request for additional "Landscape and Visual Effects" information made by Maidstone Borough Council (MBC) on the 21 May 2008. It does not cover any other specific requests or issues.

2.0 PROPOSED GROUNDMODELLING

2.1 The enclosed WYG plans show the existing and proposed levels of the KIG development using colour coded spot levels and contours.

2.2 The site plan, at a scale of 1:1000, is on four overlapping sheets at A0 size, numbered 231, 232, 233 and 234.

2.3 The existing landform has been topographically surveyed, and the drawings show the existing landform in contours at half metre intervals, coloured grey to distinguish them from the development proposals and levels.

2.4 The proposed scheme, as described in the Parameter Plans submitted previously and in the Design and Access Statement, is shown on the groundmodelling plans in sufficient detail for the buildings, service yards, car parks, distributor roads and landscaped areas to be identified. Roads, hard-standings and building plateaux are shown with spot levels to the same datum as the topographic survey, GPS Ordnance Survey Datum. Spot levels are used in preference to contouring on the built areas of the development for clarity. At retaining walls, top and bottom levels are indicated.

2.5 Those parts of the site subject to earthworks, generally around the perimeter, have been contoured on the groundmodelling plans, the contours shown coloured brown and their value indicated in the same convention as on Ordnance survey plans, again using the same datum as the topographic survey.

2.6 The design proposals for the earthworks around the site perimeter address numerous issues, including:-

- The need to reconcile existing and proposed levels taking into account the topographic level variation across the site
- Providing the large flat plateau required for each building
- Ensuring that the alignments of new railway sidings are level with the existing tracks
- Bringing the rail linked industrial units level with the adjacent railway siding dock levels
- Achieving as far as possible a balance of Cut and if Fill within the development
- Providing sympathetic mounding and earthworks around the site perimeter to assist in visual screening and assimilation of the proposals
- Accommodating existing watercourses
- Slopes generally at a maximum 1 in 3, subject to soil testing and earthworks specifications, but with variations of slope to achieve a suitably sympathetic appearance
- Profiling of embankments and cuttings with continual variations in line, as well as slope profiles, to achieve a suitably sympathetic appearance and assist in integrating the proposals.

2.7 In summary, by inspecting the plans, in conjunction with the FPCR Long Cross Sections and other included plans, the differences in the before and after landform can be appreciated using the colour coded contours and spot levels.The groundmodelling proposals would be refined as part of the detailed design process to ensure that (within the parameters set out) they are positively assimilated within the local landform. This may entail further minor variations in slope profiles and gradients and careful attention to the “tops” and “toes” of the slopes and mounds to achieve the optimum landscape solution.

3 LONG CROSS SECTIONS

3.1 5 Long cross sections are attached. These reflect the general location of the 3 long sections put forward by MBC and cover section lines extending through the site to the North Downs Way and escarpment to the north of

the site; from The Green at Bearsted through the western and central parts of the site; and south eastwards through to Leeds Castle.

3.2 The long sections are illustrated on Drawing No. 3073/P/10. This drawing comprises 3 A0 sheets.

4.0 PHOTOMONTAGES

4.1 Photomontages for the proposed development have been prepared based upon the suggested locations put forward by MBC. The methodology for the preparation of these photomontages is set out below:

4.2 The photomontages were prepared in accordance with accepted guidance set out in The Landscape Institute and The Institute of Environmental Management & Assessment's – *"Guidelines for Landscape & Visual Impact Assessment – Second Edition"* and the Landscape Institutes Advice Note 01/04 – *"Use of Photography & Photomontage in Landscape and Visual Assessment"*.

4.3 A Canon 400D digital SLR, with lens calibrated to the standard 50mm setting, was used to take a series of adjoining photographs, with an adequate overlap. At the same time as the photos were taken, the position of each of the viewpoints together with a series of reference "markers" (features within each of the viewpoint frames) were accurately surveyed and recorded on site.

4.4 A 3D model (created using LSS software) of the existing landscape and built environment has been created based upon a detailed topographic survey and Ordnance Survey data. A 3D LSS model was subsequently prepared for the proposed built development, earthworks and Landscape Framework proposals and this model was then accurately positioned in the existing model.

4.5 The proposed 3D LSS model was then accurately positioned in the photo viewpoints using the surveyed viewpoint locations and reference markers. Having set the 3D model accurately into the photo viewpoint, the model has then been rendered using Adobe Photoshop software. Various

textures and painting techniques have been employed to create a montage that is photo realistic.

4.6 As discussed and agreed with MBC not all of these viewpoints have been fully rendered. Some have effectively been shown as “working” technical views, to simply illustrate the position and extent of the proposed building units within these views. They are nevertheless accurately prepared based upon the proposed Site Layout.

4.7 Each of the viewpoint frames have been modelled and are included in on the attached plans. In addition, these frames have been “stitched” together using appropriate software to provide a representative and complete view from each location. Locational and other technical information is included on the respective plans

5.0 3D COMPUTER MODELLING – THEORETICAL ZONE OF VISUAL INFLUENCE

5.1 As part of the visual impact assessment process a computer modelled Theoretical Zone of Influence (ZVI) (also known as the Zone of Theoretical Visibility (ZTV)) was prepared for the proposed scheme. This was used as part of the design process and as part of the visual impact assessment. In particular, it was used to inform the preparation of the ZVI and viewpoints for the proposed development as set out on Figure 6.5 of the Environmental Statement (ES).

5.2 The preparation of the computer modelled Theoretical ZVI follows the guidelines set out in the “Guidelines for Landscape and Visual Impact Assessment (GLVIA)” (The Landscape Institute and IEMA, 2002). Appendix 7 of the guidelines specifically addresses the use of computer-based techniques for landscape and visual impact assessment.

5.3 The Theoretical ZVI has been prepared using AutoCAD and LSS software and Ordnance Survey (OS) digital surface model (dsm) data. The Theoretical ZVI as illustrated on the accompanying plan is based solely upon contour (ie landform) data and as such represents the potential visible extent of the proposed development, taking only the surrounding landform into account. In reality, it does not therefore

represent the actual ZVI for the proposed development as it does not take account of any existing surface features such as buildings, settlement, woodland, hedgerows and trees, fencing or any other surface features in screening views.

5.4 As clearly reiterated in the final sentence of the GLVIA Appendix 7 (Pg 148 – 150), "*It is also important to remember that a ZVI is a theoretical model and that since its provenance lies purely with contour data, the screening effect of above ground site features such as plantations or buildings has not been allowed for."* It is however useful as a basis for "testing" and refining the ZVI, principally through detailed on-site appraisals and cross sectional analysis, which then take into account the existing surface features.

5.5 The ZVI for the proposed development is set out on Figure 6.5 of the ES. Further to the computer modelled Theoretical ZVI, this has been sufficiently accurately defined by the on-site and cross sectional analysis. However, given the nature of the surrounding topography, settlement and vegetation we recognise that this cannot be guaranteed to include no slight discrepancies or inaccuracies and therefore as required by the EIA Regs we acknowledge this fact and have stated on Figure 6.5 that *"it is approximate and should only be used as a guide…"*

5.6 We would however be happy to check any locations that MBC or their consultants believe should be located within the ZVI (or outside the ZVI) or to meet with them on site to review this work in greater detail.

6.0 ADDITIONAL LIGHTING INFORMATION

6.1 Additional illustrations of the night time effects of the lighting are attached.

7.0 TREE SURVEY

7.1 A Tree Survey for the site has been carried out in accordance with BS5837 2005, Trees in relation to Construction. This has already been submitted to MBC, under cover of letter from RPS dated 6 February 2008.

8.0 EXISTING VEGETATION – CONSERVED OR REMOVED

8.1 The attached Drawings (3073/P/08 Rev A and 09 Rev A) detail the existing woodland, trees and hedgerows within the site to be either conserved or removed as part of the proposed development.