

3 ANALYSIS OF SITE CHARACTERISTICS

3.1 The Landuse Brief

- 3.1.1 The Babergh Employment Land Study 2002 (Chestertons Plc,2002) prepared for the Babergh District clearly indicates that the “supply of employment land in the district” is facing considerable risk due to land allocation and availability (Babergh Local Plan Alteration No.2 – Economy and Employment Topic Paper, August 2004). This in part is due to the boundaries for the built up areas, or what is referred to as BUAB’s. It is also noted that existing land supply for Babergh at Sudbury and Hadleigh is limited and that the Ipswich Fringe / IPA is becoming increasingly important for local and regional requirements.
- 3.1.2 In order to assess site viability relative to use, a clear understanding of the likely acceptable site uses and context needs to be stated. We have termed this the planning brief and have used this as the basis for analysis and assessment of the commercial potential of **The Site**.
- 3.1.3 Regional policies E3, E7 and HG1 combined with Suffolk Econ5 and Babergh Policy EM04 clearly indicate the over-riding first preference for **The Site** is employment use.
- 3.1.4 **The Site** has excellent accessibility, being located just off the A14. **The Site** is bounded by other industrial operations, the A14, the London to Norwich railway and the River Gipping Valley, with no immediate adjoining residential land use, which may enable longer operational working hours (perhaps even 24 hour operation) suiting various commercial sectors.
- 3.1.5 A commentary of potential Use Classes for **The Site** is attached in Appendix 2.
- 3.1.6 Based on an analysis of **The Site**’s former use and site characteristics, including site constraining issues such as contamination and planning policy relevant to **The Site**, it is clear that employment uses (particularly B8 and B2) are key contenders for land use on **The Site**.
- 3.1.7 Of these uses, storage and distribution (B8) is the most appropriate due to its proximity to the international port and A14, adjacent rail line, size of **The Site** and the in combination intermodal transport opportunities. It is also clear that use of **The Site** for storage and distribution (B8) would compliment and provide a clear opportunity to address the overflow and future land use pressures at the International port of Felixstowe, and would support a vitally important local sector that is growing fast and employs many local people.

3.2 Transport

3.2.1 **The Site** is clearly located in a prime location, next to the A14 and alongside the Norwich to London rail line. Road and rail opportunities will significantly inform any use of **The Site**, given emerging drives to increase sustainable development and reduce road trips, travel times and overall increase the accessibility and connectedness of developments. Indeed Figure 3-2 (overleaf) prepared by the Freight Transport Association (FTA) indicates that the road congestion of major A roads surrounding **The Site** is significant, whereby reductions in road freight could alleviate this to some degree through greater use of the rail freight network and the ability to manage road freight to aid times.



Figure 3-1 Site Location within the Regional Rail Network

East of England Regional Development Agency, A Shared Vision, 2004, Pp64, Figure 6. © ESRI (UK) Ltd, © Ordnance Survey Crown Copyright, ©Bartholomew.

3.2.2 Proximity of the Norwich to London Railway line provides further opportunities to capitalize upon the freight potential and linkages to Felixstowe, Harwich and other ports, by providing both rail and road options. Network Rail has confirmed that inter-modal traffic to and from ports is expected to grow and as a result proposals for gauge enhancements and capacity upgrades on the Felixstowe to Nuneaton route will occur by 2015.

Road

- 3.2.3 The A14 is part of the Trans European Road Network and direct access to this provides **The Site** with key advantages for commercial enterprises and in particular for the distribution and warehousing sectors.
- 3.2.4 The proximity of the A14 ensures very little generation of traffic congestion within the Ipswich Town Centre and supports a move towards more sustainable modes of transport within the Town Centre. In this respect, the junction of **The Site** with Sroughton Road and the onward connection to the A14 has been identified as having sufficient capacity to accommodate HGV's, subject to a further detailed TIA via a comparison of historical British Sugar activities and proposed detailed schemes.
- 3.2.5 **The Site** provides a prime opportunity to provide an inter-modal connection due to rail and road linkages. In this respect, the opportunity to move containers via re-instatement of the rail connection or use of existing strong road links to the ports of Felixstowe and Harwich provide an opportunity for flexibility of transportation based on economic drivers and cargo type. Figure 3-2 below indicates the congested sub-regional freight roads.

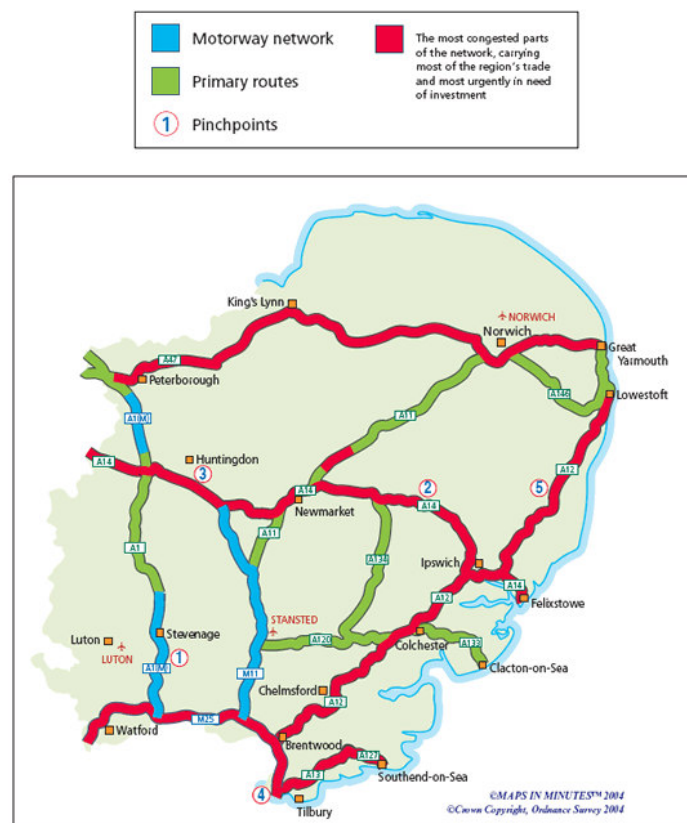


Figure 3-2 Road Network Congestion

Freight Transport Association, 2007, Retrieved from World Wide Web:

http://www.fta.co.uk/information/keycampaigns/tenyearplan/traderoutes/eastengland_road.htm;

Rail and Freight Opportunities

3.2.6 **The Site** is bounded on the eastern side by the London to Norwich mainline Railway and has previously been rail connected. A rail atlas published in 1980 (Baker 3rd Edition) shows a rail spur connection to the British Sugar Site (Sproughton road) running from the north to the west. This spur appears to have been removed by the time another atlas was published in 1988 (Quail Rail Map) possibly at the time the railway was electrified in the mid 1980's.



1. From Felixstowe through Peterborough to Scotland
2. The West Coast main line running from Tilbury
3. Midlands main line from Tilbury
4. From Harwich and Ipswich through to Wales and the South West

Figure 3-3 Site Location within the Rail Network

1. 2006 Great Britain National Rail Passenger Operators, Fifth Edition, June 2006.

2. Freight Transport Association, 2007, Retrieved from World Wide Web:

http://www.fta.co.uk/information/keycampaigns/tenyearplan/traderoutes/eastengland_rail.htm

- 3.2.7 The expansion of the Port of Felixstowe is understood to be placing increasing pressure on container storage and servicing facilities in the immediate vicinity of the port where the availability of land is constrained.
- 3.2.8 One option for **The Site** may therefore be to provide satellite container storage and or servicing facilities for the international Ports. If a rail connection were provided to **The Site** then movements of containers between the Port and Sproughton or onward in country could be by rail 'bridge', thereby minimising the impact of HGV movements on the A14 Trunk Road. Depending on volumes this could be achieved with wagons and motive power that may be available in slack periods, possibly during the day when fewer long distance freight services run. Alternatively a more dedicated shuttle service could be provided.
- 3.2.9 Points to bear in mind however include:
- A feature of container traffic through UK ports is that inbound (imported) containers are usually loaded whereas many outbound (exported) containers are empty.
 - Stored empty containers are therefore likely to be required for export when a ship docked, this would generate 'peaky' flows which would require careful management or potentially wasteful provision of rail facilities to cope
 - Planning and environmental restrictions may limit the periods when the facility could operate- particularly at night- due to noise and lighting.
 - The proposed container terminal at Bathside Bay in Harwich may further concentrate container rail services in the locality.
 - The recent train derailment in Cumbria has brought into focus additional derailment risks associated with facing turnouts in running lines. There may therefore be greater reluctance to introduce a new facing connection
 - The ground conditions and profile over **The Site** are unknown but lagoons and embankments associated with the sugar refining process are known to be present. Railway sidings can tolerate some settlement but should be nominally level within the terminal. Settlement would be more critical for pavements and ground beams that support container handling equipment.

Train Length

- 3.2.10 The prospects for Rail freight through the Channel tunnel prompted Railtrack and then Network Rail to adopt a normal maximum train length of 700m in their planning and in the provision of new or lengthened loops and sidings and with signalling.
- 3.2.11 Local restrictions such as siding length in the terminal at Felixstowe and in the yard at Ipswich together with haulage constraints for single locomotives presently limit train lengths working out of Felixstowe to 24 wagons or about 500m. However the proposed new northern freightliner terminal at Felixstowe could handle trains of up to 650m and Network Rail's Freight Route Utilisation Strategy envisages making provision in the long term for 650m long 30 wagon container trains through Ipswich. Haulage capacity is unlikely to be an issue if containers were empty.

3.2.12 Thus it would be prudent to make provision for any container facility to be able to handle at least 30 wagon trains and better still 700m long trains if working to and from outside the area.

3.3 Rail Facility

3.3.1 Assuming access would be by a single facing connection into **The Site** from the adjacent northbound (down) line then the facility should allow a full length train to be accepted or marshalled clear of the running line. However it is common to split 700m long trains into 2 sections to reduce the length of terminal where containers are handled by cranes or stackers. It is also preferable for the track to be straight in the handling area.

3.3.2 At its simplest, from the connecting turnout a single track would curve into **The Site**, a sensible minimum radius would be 200m. The connection curve would start some 25m northwest of the bridge over the River Gipping so geometry would require the rail facilities to be located in the middle or northern half of **The Site** depending upon site requirements and agreements with Network Rail. Analysis of the impact of rail track areas and land for non-rail use would be required to determine both the optimum land sales figures as well as the technical specifications for such a spur.

3.3.3 Loops would then be provided. A single loop track would be provided if the train was kept as one section, at least two if the train were to be split. If the latter then in operation an arriving train would stop clear of the main line, the train would be split and the front portion drawn into a loop (track 1). The locomotive would then uncouple from the front portion, and run back along track 2 or 3, couple to the rear portion and draw it forward into the second loop (track 2). The locomotive would then escape via track 3 to either take another train out, return to the yard or wait until the train was ready to be formed up to depart.

3.3.4 The overall length required for these two arrangements is similar. In either case it would be prudent to assume the rail facilities project a minimum of 1250m into **The Site**, which is accounted for in the phasing of **The Site** as indicated in the land assembly options (Section 6). This would give sufficient length to allow for multiple tracks that would be required if more than one train were to be present on site at once.

3.3.5 There are however a number of issues (identified in Appendix 4) that will need to be considered if a rail connection is to be re-established.

3.4 Environment

3.4.1 Commercial activity at **The Site** ceased in 2001 following the closure of British Sugar's operations. Shortly thereafter remediation of **The Site** was initiated to an extent which is still inconclusive. Whilst this contamination does not provide a barrier towards re-use, it is clear that potential commercial uses of **The Site** are more amenable and more easily facilitated than residential.

3.4.2 Previous site activities have resulted in contamination by various compounds including arsenic and ammonia due to the processing of sugar beet. Historical landfill activities on **The Site** also provide a risk of subsidence for parts of **The Site**, and will likely require specific geotechnical surveys to ensure both loading regimes are appropriate and

surface treatments reflect future loading. A detailed review of existing environmental reports on contamination is attached in Appendix 3.

- 3.4.3 Clearly further investigations are required to identify, treat and manage **The Site** contamination and these will need to be based on the expected land use – as remedial criteria vary relative to future end-use i.e. residential, employment and public amenity uses require different levels of remediation.
- 3.4.4 Proximity to the River Gipping will require environmental management plans to ensure that flood risks are managed appropriately and that no source point pollution occurs. Appendix 8 Figure 1 identifies that the entire site lies within the flood plain and as such benefits to development of **The Site** must be achieved to reduce the potential for flood impacts.

3.5 Spatial Design

- 3.5.1 Critical spatial design issues that require resolution are the indicative massing, integration with the adjoining sites and the treatment of **The Site**'s public realm. In order to inform a commercial appraisal of **The Site**, a clear design framework is required to ensure options are focused towards delivery of a realistic scheme for **The Site** which does not create negative impacts outside of **The Site** (i.e. traffic, noise, light etc). Commercial viability will be impacted by a delay in the agreement of the design particularly if initial criteria do not address both phased implementation, technical specifications of intended uses or high quality design requirements of the LPA.