



St Edmundsbury
BOROUGH COUNCIL

Replacement St Edmundsbury Borough Local Plan 2016

Planning Guidance Note: **Moreton Hall East Revised Masterplan**

Adopted February 2008



A Framework for Development

**REPLACEMENT ST EDMUNDSBURY
BOROUGH LOCAL PLAN 2016**

**MORETON HALL EAST
REVISED MASTERPLAN PLANNING GUIDANCE**

ADOPTION VERSION

FEBRUARY 2008

PREFACE

This masterplan has been prepared by the developers and their agents and provides more detailed guidance on how remaining land identified for housing development at Moreton Hall, Bury St Edmunds will be developed. The Masterplan has been prepared by the developers in accordance with Policy DS4 of the Replacement St Edmundsbury Borough Local Plan 2016 and the Council's protocol for the preparation of masterplans.

The masterplan has been the subject of consultation undertaken by the developers. Comments received as a result of the consultation have been considered and, where appropriate, the masterplan has been amended to resolve these issues. The masterplan will, along with the Replacement St Edmundsbury Borough Local Plan 2016, provide a basis by which any planning application for development on the area covered by it will be determined.

It was approved as non-statutory planning guidance by the Borough Council on 26 February 2008

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February 2008

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REVISED DRAFT

**MORETON HALL EAST,
BURY ST EDMUNDS**

MASTER PLAN REPORT

prepared on behalf of

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December 2007

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MORETON HALL EAST, BURY ST EDMUNDS

MASTER PLAN REPORT

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1.0 BACKGROUND

- 1.1 Policy PH3 of the St Edmundsbury Borough Local Plan (adopted 1998) allocated land at Moreton Hall East for residential and related development (750 dwellings).
- 1.2 The location of the allocated land is indicated on **Plan 1**.
- 1.3 The 1998 Local Plan included a ‘Development Framework’ for the site which contained a statement and illustration of the main development principles considered by the Borough Council to be applicable to the site.
- 1.4 An outline planning application for the comprehensive development of the land at Moreton Hall East was submitted to the Borough Council in October 1997 and approved (subject to the provisions of a Section 106 Agreement) in March 1999. The outline permission, which was renewed in April 2003, requires the approval of a Master Plan by the Borough Council prior to the submission and approval of reserved matters applications.
- 1.5 The current Moreton Hall East Master Plan was submitted to the Borough Council in May 1999 and approved in September 1999. The Master Plan takes on board the principles contained in the Local Plan ‘Development Framework’ and has been used to guide and determine reserved matters applications since September 1999.
- 1.6 To date, some 778 dwellings have been approved under the terms of the approved Master Plan, together with a primary school and open space areas. However, as a result of increased development densities, it has become apparent that the Local Plan 1998 figure of 750 dwellings is likely to prove to be an underestimate. Extant reserved matters planning applications for the remaining undeveloped

areas of the site suggest that the eventual number of dwellings at Moreton Hall East could be in the order of 1,000 dwellings.

- 1.7 In the light of this significant change in circumstances, the Borough Council requested the submission and approval of an Updated Master Plan in order to assist in the determination of the extant planning applications.
- 1.8 This Master Plan Report has been prepared in response to this request and in accordance with the Council's protocol for the preparation of masterplans. It is accompanied by an Updated Transportation Assessment prepared by Hannah Reed.
- 1.9 The Master Plan was the subject of extensive public consultation during September and October 2007 and has been amended, where appropriate, to reflect the comments received.

2.0 THE MASTER PLAN SITE

Site location

- 2.1 The site lies to the east of the Moreton Hall neighbourhood, which in turn lies to the east of Bury St Edmunds, separated from the town by the A14(T).
- 2.2 Mount Road, a rural distributor road linking Bury St Edmunds with a number of villages to the north-east, bisects the site.

Site history

- 2.3 The land to the south of Mount Road previously formed part of the war-time Rougham Airfield.

Site size

- 2.4 The Master Plan site is some 57 hectares in extent.

Site use

- 2.5 Prior to development, the site was primarily in agricultural use.

Physical characteristics

- 2.6 Topography - The site forms part of a gently undulating plateau area, and ranges in height from 55 metres AOD on its northern boundary to 66 metres AOD in the south.
- 2.7 Drainage - There are no watercourses within the site. Natural drainage is predominantly to the north.
- 2.8 Soils/geology - Soils comprise sandy loams or sandy clay loams over compacted sandy clay loam or loamy sand subsoils. Sands are generally calcareous in origin with a flint/stone content of 1-10%.

Adjoining land uses

- 2.9 To the west of the site beyond areas of perimeter landscaping and the small area of woodland (Oak Plantation) lie the Appledown Drive, Tassel Road and Drovers Mead residential development areas.
- 2.10 To the south is the Suffolk Park employment area. To the north, beyond the Cambridge to Ipswich railway line is open, agricultural land.
- 2.11 The land to the east of the site is similarly open agricultural land save for two residential properties (Ambleside and Cherry Trees) to the north of Mount Road, and the Flying Fortress Public House (formerly Cherry Tree Farm) to the south of Mount Road.
- 2.12 Further to the east of the site is the Rougham Airfield, which is used for a variety of annual events including airshows.

Community facilities

- 2.13 The Moreton Hall neighbourhood is served by a number of community facilities including
- The Mount Farm Local Centre, which comprises a Tesco Express, a doctors' surgery, a church, a public house, a hairdresser, a pharmacy and a community centre. A youth centre is currently under construction at the centre.
 - A Sainsbury superstore and a number of retail warehouses in Bedingfeld Way.
 - The Abbott's Green Community School on the Moreton Hall East site.
 - A Nursery School in Tassel Road.

Public transport

- 2.14 The Moreton Hall area is currently served by First Eastern Counties Service bus service 83 / 83A, which provides a half hourly service between Moreton Hall and Bury St Edmunds town centre, currently terminating at Appledown Drive / Tassel Road. Less frequent inter urban services run along Mount Road.

Footpath / cycleway network

- 2.15 An important feature of the Moreton Hall development is its comprehensive footpath / cycleway network, which provides safe and fully segregated links from the residential areas to the Mount Farm Local Centre, the Abbott's Green Community School and other community facilities in the area.

3.0 THE 1999 MASTER PLAN PROPOSALS

3.1 The 1999 Master Plan was substantially based upon the Development Framework contained within the adopted Local Plan 1998. A copy of the Master Plan is contained at **Appendix 1**.

3.2 The main proposals contained in the Master Plan are described below.

Highway access

3.3 Strategic road access to the new development area was proposed from 3 roads of Local Distributor standard.

3.4 These roads comprised

- The existing Mount Road.
- A new road link running eastwards from the existing Bedingfeld Way / Orttewell Road roundabout.
- A new north / south road link (Lady Miriam Way, formerly known as the Cherry Tree Link Road), linking the above two roads at new roundabout junctions and providing an eastern boundary to the new development area.

Residential development

3.5 Six areas of residential development with a combined area of 26.3 hectares and with an assessed capacity for around 750 dwellings were identified as follows:

- Area A - an area of some 3.3 hectares (8.1 acres) lying immediately to the south of Mount Road. This area was assessed in the Master Plan to have capacity for 100 dwellings.

- Area B - an area of some 2.2 hectares (5.5 acres), again lying immediately to the south of Mount Road and to the east of Area A. This area was assessed in the Master Plan to have capacity for 65 dwellings.
- Area C - an area of some 9.3 hectares (23.0 acres) lying between Mount Road and the Cambridge-Ipswich railway line. This area was assessed in the Master Plan to have capacity for 275 dwellings.
- Area D - an area of some 2.1 hectares (5.2 acres), also lying immediately to the north of Mount Road. This area was assessed in the Master Plan to have capacity for 50 dwellings.
- Area E - an area of some 1.5 hectares (3.7 acres) lying between Area D and the railway line. This area was assessed in the Master Plan to have capacity for 30 dwellings.
- Area F - an area of some 7.9 hectares (19.4 acres) lying to the south of the proposed development area. This area was assessed in the Master Plan to have capacity for 230 dwellings.

Affordable housing

- 3.6 In terms of affordable housing provision, the Master Plan simply noted that provision would be made in accordance with prevailing national and local policies.

Primary and Middle Schools

- 3.7 The Master Plan proposed a 4.85 hectare (12 acre) site for new primary and middle schools in the centre of the site, served from the same access road off Mount Road that was proposed to serve Areas A and B.

3.8 These schools were intended to serve both the existing development at Moreton Hall and the 750 additional dwellings proposed at Moreton Hall East.

Public open space

3.9 The Master Plan made provision for open space in accordance with Borough Council's Supplementary Planning Guidance No. 5, Open Space.

3.10 Provision was made for two major areas of open space to serve the new residential development areas as follows

- A major area of open space (3.25 hectares, 8.0 acres) was identified in the area to the south of Mount Road, between the school site and Lady Miriam Way. Within this area, a Neighbourhood Equipped Area for Play (NEAP) was proposed.
- A second major area of open space (1.2 hectares, 3.0 acres) was identified in the extreme north-west of the development site, to the north of Mount Road and adjacent to Oak Plantation. Within this area, a Local Equipped Area for Play (L.E.A.P.) was proposed.

3.11 Elsewhere, within the main residential areas, it was anticipated that Local Areas for Play (LAPs) would be provided on the basis of 1 LAP per approximately 25 dwelling units.

3.12 In terms of formal playing pitch provision, it was assumed that the proposed primary / middle school site would provide the opportunity for playing pitches to be used on a dual-use basis.

Footpaths and Cycleways

3.13 As a key element in the Master Plan proposals, it was proposed to create a network of landscaped footpath / cycleway corridors within and around the site, segregated from main vehicle routes.

3.14 This proposed network included

- The upgrading of Bridleway 13 / Footpath 31 which runs along the western boundary of the development, with the provision of a toucan crossing over Mount Road.
- A second toucan crossing further along Mount Road.
- Direct links to existing footpath / cycleway corridors within the Moreton Hall area, including the major west / east 'spine' route which passes under Orttewell Road and provides a direct link to the Mount Farm Local Centre.

3.15 Subway links under Lady Miriam Way plus a permissive footpath on the eastern side of that road were also proposed in order to provide access to the Flying Fortress Public House and the open countryside areas beyond.

Strategic landscaping

3.16 Substantial areas of new planting were proposed in the Master Plan in order to create a strong landscape framework for the new residential areas.

3.17 This new planting included three major interlinked elements:

- Perimeter planting alongside the 3 main distributor roads and alongside the Cambridge-Ipswich railway line.
- Planting within the footpath / cycleway corridors.
- Planting within the proposed open space areas.

3.18 The planting belts around the perimeter of the site were proposed to be some 15-20 metres in width, incorporating low mounding to accentuate their visual effect.

- 3.19 Subsequently, a separate Landscape Master Plan was prepared by James Blake Associates and agreed with the Borough Council.

Drainage and services

- 3.20 The main principles set out in the Master Plan for draining and servicing the site were as follows

3.21 Foul Drainage. All development areas were to be served by a new system of foul sewers designed to adoptable standards and running within the major road corridors. The sewers were to drain by gravity (pumping where appropriate) to Mount Road and thence to the existing main sewers linking Moreton Hall with the sewage treatment works at Fornham.

3.22 Surface Water Drainage. All development areas were to be served by a new system of surface water sewers designed to adoptable standards and running within the major road corridors. These sewers were to drain by gravity to a new balancing facility in the north-western corner of the site, adjacent to the existing balancing pond lying between the adjacent Appledown Drive development and the Cambridge-Ipswich railway line, and thence to the River Lark.

3.23 Services. All essential services (water, electricity, gas, telecom etc) were to be provided by the extension of existing facilities serving the Moreton Hall area (upgraded where necessary). Services within the site were to be located in service strips following road and footpath corridors, with additional easements being provided where necessary.

Public transport provision

- 3.24 The Master Plan recognised the potential for extending existing bus services through the Moreton Hall East development.

Moreton Hall Rail Halt

3.25 The Master Plan also identified a potential site for a new halt / station ('Moreton Hall Rail Halt') on the adjacent Cambridge – Ipswich railway line.

Off-site highway improvements

3.26 The Master Plan reflected the strategy set out in the accompanying Traffic Impact Assessment and proposed a number of off-site highway schemes in order to accommodate the proposed development.

3.27 These schemes were:

- Improvements to the Mount Road / Orttewell Road roundabout.
- Signalisation of the Orttewell Road / Barton Road priority junction.
- Improvements to the A143 Compiegne Way / Hollow Road junction.
- Improvements to the Orttewell Road / A143 Compiegne Way junction.
- Signalisation of the Bedingfeld Way/A14 roundabout.
- Improvements (white lining) to the A14 St Saviours interchange.

4.0 THE 1999 SECTION 106 AGREEMENT

4.1 The implementation of the 1999 Master Plan proposals was secured by the outline planning permission and accompanying Section 106 Agreement.

4.2 Key elements of the Section 106 Agreement were as follows

Highway infrastructure

4.3 The Section 106 Agreement set out a programme for the completion of the on- and off-site highway works as follows

- Signalisation of the A14 Moreton Hall interchange, improvements to the A14 St Saviours interchange and signalisation of the Orttewell Road / Barton Road junction was to be carried out prior to the commencement of development.
- All other improvements were to be carried out prior to the occupation of the 300th private market dwelling.

Affordable housing

4.4 The amount of affordable housing to be provided on the site was quantified in the Section 106 Agreement at 110 affordable dwellings, to be provided in 5 separate areas of at least 15 dwellings. This figure represents just under 15% of the total number of dwellings provided for in the Master Plan (750).

4.5 Provision was made in a separate Unilateral Undertaking for the affordable housing areas to be transferred to the ownership of a Registered Social Landlord.

School site provision

4.6 The Section 106 Agreement made provision for an Option agreement to be entered into between the landowner / developer and the County

Council requiring the defined school site to be provided with a road access and transferred to the County Council's ownership on demand.

Open space provision

- 4.7 The Section 106 Agreement required the landowner / developer
- To lay out and provide the main open space area / NEAP prior to the first occupation of the 375th market dwelling.
 - To lay out and provide the second open space area / LEAP prior to the occupation of the final market dwelling in Area C.
 - To lay out and provide the LAP's prior to the final occupation of the market dwellings of the areas in which they were located.
 - To transfer the open space areas to the Borough Council after a period of maintenance, together with specified commuted sums for on-going maintenance.

Structural landscaping

- 4.8 The Section 106 Agreement required the landowner / developer to lay out the structural landscaping areas in accordance with a specified programme and to transfer the areas to the Borough Council following a period of maintenance, together with a commuted sum for on-going maintenance.

Education contribution

- 4.9 The Section 106 Agreement required the landowner / developer to pay to the County Council a sum of £515,000 towards the construction of a new primary school on the school site, the payment of which was to be phased in accordance with the completion of market dwellings.

Community contribution

- 4.10 The Section 106 Agreement required the landowner / developer to pay to the Borough Council a sum of £400,000 towards the cost of providing an off-site recreation or leisure facility within or around the Moreton Hall estate, such payment to be made prior to the first occupation of the 375th market dwelling.

Public transport contribution

- 4.11 The Section 106 Agreement required the landowner / developer to pay to the Borough Council a sum of £125,000 towards the cost of extending bus services to the proposed development, such sum to be paid in 5 annual payments.

Off site cycleway contribution

- 4.12 The Section 106 Agreement required the landowner / developer to pay to the Borough Council prior to the first occupation of the 300th market dwelling a sum of £50,000 towards the cost of improving footpath / cycleway links between the site and the Bury St Edmunds town centre.

Flying Fortress links

- 4.13 The Section 106 Agreement required the landowner / developer to provide the permissive footpath link on the eastern side of Lady Miriam Way between the proposed subway crossings and the Flying Fortress public house, prior to the first occupation of the 300th market dwelling.

Moreton Hall Rail Halt

- 4.14 The Section 106 Agreement required the landowner / developer not to use the land required for the Moreton Hall Rail Halt for any other purpose unless planning permission was granted.

5.0 MASTER PLAN IMPLEMENTATION

5.1 Since 1999, as described below, significant progress has been made towards the implementation of the Master Plan and the discharge of the obligations contained in the Section 106 Agreement.

Highway infrastructure

5.2 All of the off-site highway improvements listed at paragraph 3.27 above are now complete and open.

5.3 The new road link running eastwards from the Bedingfeld Way / Orttewell Road roundabout is open and has been named Skyliner Way. Lady Miriam Way has been constructed but is not yet open to traffic. We understand that the County and Borough Councils have agreed to defer opening until the occupation of the 900th dwelling at Moreton Hall East.

Residential development

5.4 Some 778 dwellings have been completed or committed to date (December 2007) at Moreton Hall East as follows

- Area A – 175 dwellings.
- Area C – 296 dwellings.
- Area D – 83 dwellings.
- Area E – 67 dwellings.
- Area F – 157 dwellings.

5.5 Areas C, D and E (which lie to the north of Mount Road) are now substantially complete, as is the western part of Area A. The eastern part of Area A is currently under construction but the whole of Area B is still vacant. Whilst development is underway in the southern and

western parts of Area F, a significant area in the northern part remains vacant.

Affordable housing

5.6 Affordable housing has been provided / permitted to date as follows

- Area A – 16 dwellings (plus 52 units of very sheltered housing)
- Area C – 27 dwellings
- Area D – 17 dwellings.
- Area F – 15 dwellings.

School site provision

5.7 The school site has been transferred to the ownership of Suffolk County Council and the Abbots Green Community School was opened in September 2005, with capacity for 150 children.

5.8 The school is a first school, catering for children in the age range 5-9 years (Suffolk County Council currently operating a 3-tier education system). We understand that the school has been designed to allow for future expansion to 300 children if required.

5.9 The school includes a Specialist Support Centre for children with Moderate and Complex Learning Difficulties.

Open space provision

5.10 The open space area to the north of Mount Road is now open and includes equipped play areas for both young and older children.

5.11 This area will be formally transferred to Borough Council ownership following completion of a maintenance period.

5.12 The main open space area / NEAP has yet been laid out and will be provided as part of the remaining development on Areas A, B, and F.

- 5.13 LAP's have been provided in all the housing areas completed to date, in accordance with Borough Council standards.

Structural landscaping

- 5.14 Structural landscaping areas have been laid out within and around in all the housing areas completed to date in accordance with the Landscape Master Plan prepared by James Blake Associates.

- 5.15 The latest version of this Master Plan is contained on JBA drawings 99/248/04-01, 02 and 14.

Education contribution

- 5.16 The education contribution of £515,000 has been paid in full to the County Council in accordance with the provisions of the Section 106 Agreement.

Community contribution

- 5.17 The community contribution of £400,000 has been paid in full to the Borough Council and has been put towards the completion of a new Community Centre at the Mount Farm Local Centre.

Public transport contribution

- 5.18 The public transport contribution of £125,000 has been paid in full to the Borough Council in accordance with the provisions of the Section 106 Agreement.

Off site cycleway contribution

- 5.19 The off-site cycleway contribution of £50,000 has been paid in full to the Borough Council in accordance with the provisions of the Section 106 Agreement.

Flying Fortress links

- 5.20 The subway links and permissive footpath links on the eastern side of Lady Miriam Way have not been provided.

- 5.21 We understand that the County and Borough Councils have agreed to delete this requirement as a result of the eastwards extension that has been provided to the footpath / cycleway that runs along the southern side of Mount Road (part of the Sustrans network).
- 5.22 This footpath / cycleway now provides a convenient access to the Flying Fortress public house. In place of the subways, a toucan crossing will be provided to carry the footpath / cycleway across Lady Miriam Way.

Moreton Hall Rail Halt

- 5.23 The land required for the Moreton Hall Rail Halt has not been used for any other purpose in accordance with the provisions of the Section 106 Agreement.

6.0 REVISIONS TO THE 1999 MASTER PLAN AND SECTION 106 AGREEMENT

Updated residential development capacity

- 6.1 As stated earlier, it has become apparent that the Local Plan figure of 750 dwellings is likely to prove to be an underestimate.
- 6.2 The table below compares the Master Plan dwelling estimates with the likely outcome based on completions, permissions and remaining sites.
- 6.3 The table indicates that, after consideration of comments received during the consultation process, there is potential for around 1,000 residential units to be built at Moreton Hall East rather than the originally envisaged 750, with the originally assessed capacity of all areas being exceeded.

AREA	MASTER PLAN ASSESSED CAPACITY	COMPLETED / PERMITTED	ESTIMATED CAPACITY OF REMAINING SITES	TOTAL
A	100	175*	-	175*
B	65	-	86	86
C	275	296	-	296
D	50	83	-	83
E	30	67	-	67
F	230	157	144	301
TOTAL	750	778*	230	1,008*

* Figures include allowance for 52 unit Very Sheltered Housing Scheme.

- 6.4 The reason for the increased dwelling total lies in the national and local drive to make better use of land allocated for residential development.
- 6.5 The Local Plan Development Framework for Moreton Hall East envisaged an overall residential density on the site of around 28.5 dwellings per hectare (750 dwellings on 26.3 hectares). Shortly after the Local Plan was adopted in 1998, the Government issued Planning Policy Guidance Note No. 3 (Housing), which set a minimum density of 30 dwellings per hectare and encouraged development within the range of 30 – 50 dwellings per hectare. A more recent update encourages even higher densities.
- 6.6 On the basis of the figures set out in the above table, the eventual residential density at Moreton Hall East will be 38.3 dwellings per hectare (1,008 dwellings on 26.3 hectares) i.e. around the mid-point of the PPG 3 range.
- 6.7 In the light of the increase in the number of dwellings from 750 to 1,008, and the passage of time since the original Master Plan was prepared, we set out below an assessment of the implications for the 1999 Master Plan and related Section 106 Agreement.

MASTER PLAN

Highway infrastructure

- 6.8 The accompanying Updated Transportation Assessment prepared by Messrs Hannah Reed concludes that the introduction of around 250_ additional dwellings would not have a significant additional impact on the existing highway infrastructure provided as part of the Moreton Hall East development.
- 6.9 Mount Road, Lady Miriam Way and Skyliner Way would all have sufficient capacity to accommodate the increased dwelling numbers, as would the looped access roads with the main residential areas.

School site

- 6.10 In assessing the implications of an additional 250 dwellings at Moreton Hall East, we have taken into account Suffolk County Council's recently announced intention to replace the existing 3-tier education system with a 2-tier system of primary and secondary schools.
- 6.11 Primary schools are not normally built to cater for more than 2-forms of entry, such schools having capacity to accommodate the pupil product of around 1,800 dwellings (420 pupils).
- 6.12 A 2-form entry primary school would require a site area of around 2 hectares (5 acres). This could theoretically be accommodated on the current Abbots Green Community School site (2.10 hectares) provided under the terms of the 1999 Master Plan.
- 6.13 Secondary schools (depending on their size) generally require a site in excess of 10 hectares. The balance of the allocated school site would clearly be insufficient to cater for a new secondary school. If a new secondary school site were to be sought by Suffolk County Council in the Moreton Hall area, then we believe that sites outside the Moreton Hall East Master Plan area would need to be sought. This would leave the future use of the balance of the existing school site requiring a future re-evaluation.
- 6.14 We would thus conclude that the allocated school site is more than sufficient to accommodate the maximum size of primary school that is likely to be proposed under the County Council's school reorganisation proposals, but not a secondary school (should one be required in the Moreton Hall area).

Open space

- 6.15 **Appendix 2** contains our detailed assessment of the need for additional open space at Moreton Hall East arising from an increase in

the total number of dwellings from 750 to 1,000 based on the standards set out in Appendix E of the Replacement St Edmundsbury Local Plan 2016.

6.16 Our assessment concludes that the existing Master Plan open space provisions are sufficient to cater for the proposed increase in the number of dwellings at Moreton Hall East in terms of

- Informal open space provision.
- Amenity open space provision.
- Playing fields.

6.17 In terms of sports grounds, courts and greens, a financial contribution to the enhancement of off-site provision may be justified.

6.18 In terms of children's play spaces, a commensurate increase in the number of LAP's will be required. This requirement could be aggregated to provide larger open space areas within Area B or Area F.

Structural landscaping

6.19 The extent of the structural landscaping areas shown on the James Blake Associates Landscape Master Plan has been dictated by environmental considerations rather than by dwelling numbers. As a result, we consider that the increase in dwelling numbers from 750 to 1,000 has no implications for these areas and no amendments are required.

Footpath and cycleway links

- 6.20 Similarly, we believe that the increase in the dwellings numbers will have no implications for the number and location of footpath and cycleway links indicated on the 1999 Master Plan.

Flying Fortress links

- 6.21 As noted earlier, it has been agreed that the proposed subway links under Lady Miriam Way and the permissive footpath on the eastern side of the road are no longer required.

- 6.22 An amendment to the Master Plan is required to reflect this changed circumstance and to make provision for the proposed replacement toucan crossing.

Balancing facility

- 6.23 We understand that the balancing facility (underground tanks) in the north-western part of the Master Plan site has sufficient capacity to cater for the increased surface water run-off from 1,000+ dwellings.

Foul drainage and services

- 6.24 Similarly, we understand that the foul drainage and service infrastructure of the area has sufficient capacity to cater for the increased demand from around 1,000 dwellings.

SECTION 106 AGREEMENT

Highway works

- 6.25 The accompanying Updated Transportation Assessment prepared by Messrs Hannah Reed concludes that the introduction of an additional 250 dwellings would not have a significant additional impact on the local highway network, particularly since more recent information indicates that the previous assessment over-estimated the level of traffic generation from the site.

6.26 No amendment to the Section 106 Agreement is thus required in respect of additional highway works.

6.27 However, an amendment to the Section 106 Agreement is required to reflect the agreement to open Lady Miriam Way prior to the occupation of the 900th dwelling at Moreton Hall East (rather than prior to the occupation of the 300th private market dwelling).

Car parking

6.28 Car parking provision is to be made at an average of 2 spaces per dwelling across the remainder of the site. Although this is higher than the adopted standards, it recognises the suburban location of the Master Plan area.

Affordable housing

6.29 The provision for 15% affordable housing in the 1999 Master Plan and accompanying Section 106 Agreement was made in the context of the affordable housing policy set out in the Local Plan 1998.

6.30 Policy H3 of the Replacement Local Plan sets out a revised requirement for 40% affordable housing on all new housing developments in excess of 0.5 hectares / 15 dwellings.

6.31 The increased number of houses in the Master Plan will be required to make appropriate affordable housing provision.

6.32 An amendment is required to the Section 106 Agreement and accompanying Unilateral Undertaking to secure this provision.

Education contributions

6.33 The County Council has estimated that the 150 additional open market dwellings within the Master Plan area will generate the following number of pupils

- Primary – 27

- Middle – 21
- Upper – 16
- 6th form - 6

6.34 The catchment schools for the Moreton Hall area are Abbot's Green Primary, Hardwick Middle and King Edward VI Upper, all of which are over capacity.

6.35 Based on current cost multipliers, the County Council has thus indicated that it will seek an additional education contribution of £6,373 per dwelling.

Other County Council Services

6.36 In addition, the County Council has indicated that it will seek a financial contribution towards other areas of service provision as follows

- Early Years Education - £500 per dwelling
- Libraries - £216 per dwelling
- Waste disposal - £469 per dwelling

6.37 In respect of waste, the Borough Council will also require each new dwelling to be provided with 3 wheelie bins, a water butt and compost bin.

Open space area

6.38 As mentioned previously, the main open space area / NEAP has not yet been laid out. Sufficient funds will be provided by the developers to ensure a high quality provision as part of the remaining development on Areas B, and F.

- 6.39 An amendment is required to the Section 106 Agreement to reflect this change of circumstance.

Footpath and cycleway links

- 6.40 An amendment to the Section 106 Agreement is also required in respect of the deletion of the Flying Fortress subways and permissive footpath and the substitution of a toucan crossing over Lady Miriam Way.

Community contribution

- 6.41 Given that the Moreton Hall East development has already provided funding for the provision of a new community centre at the Mount Farm Local Centre, we believe that the payment a further Community Contribution would only be justified if the Borough Council were to be able to demonstrate a need for further facilities arising directly from the construction of an additional 250+ dwellings on the Moreton Hall East site.

Public transport contribution

- 6.42 The importance of providing the Moreton Hall East development with an adequate public transport service is acknowledged, in order to reduce the impact of additional traffic on the highway network.
- 6.43 It is recognised that the Borough Council may seek to secure further public transport contributions to achieve the extension of Bus Service 83 / 83A to the Moreton Hall East development and therefore minimise the need for short car journeys to the town centre.

Off-site cycleway contribution

- 6.44 In our view, the increase in the dwellings numbers will have no implications for the capacity of the off-site cycleway network.

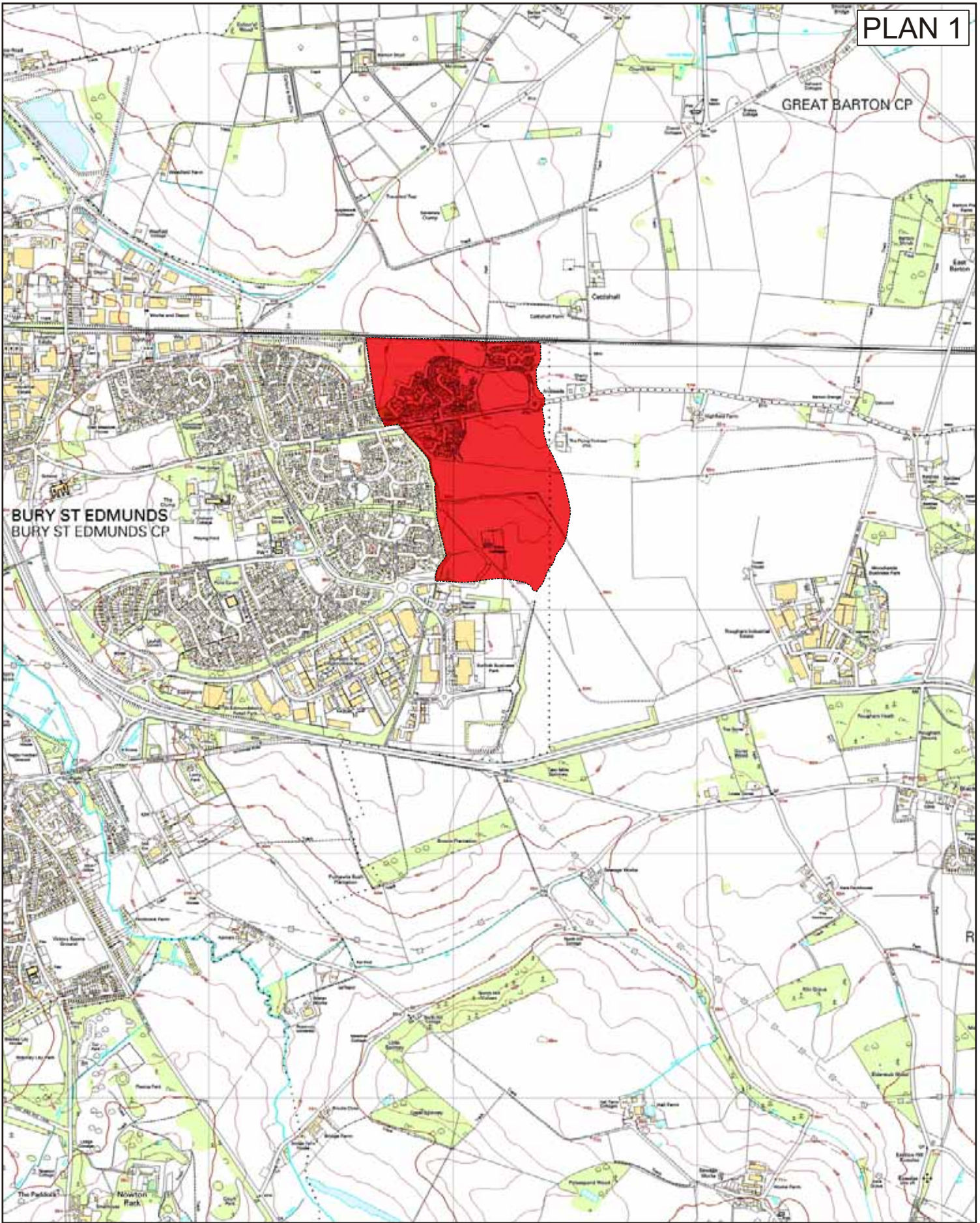
Moreton Hall Rail Halt

- 6.45 We do not consider that the proposed increase in the number of dwellings at Moreton Hall East has any implications for the Moreton Hall Rail Halt, which remains a proposal of the Replacement St Edmundsbury Borough Local Plan 2016.

7.0 SUMMARY

- 7.1 The 1999 Master Plan for the Moreton Hall East development contains sufficient flexibility to cater for the proposed increase in the number of dwellings from 750 to 1,008 arising from increased residential densities.
- 7.2 No major change is proposed to the Landscape Master Plan prepared by James Blake Associates.
- 7.3 An updated Master Plan layout diagram is attached at Plan 2 which reflects the progress made to date towards the implementation of the Moreton Hall East development.
- 7.4 The updated Master Plan deletes the proposed subway links under Lady Miriam Way and the permissive footpath on the eastern side of the road plus the addition of the agreed replacement toucan crossing.
- 7.5 It is recognised that the future use of the school site by Suffolk County Council is likely to change from that originally envisaged as a result of the proposed switch from a 3-tier to a 2-tier education system. A consequential adjustment to the Master Plan may be required in due course. This will be the subject of further consultation.
- 7.6 The main implications of the proposed increase in dwelling numbers relates to the provisions of the Section 106 Agreement that accompanied the 1999 Master Plan and subsequent outline planning application. In this respect, a variation to the Section 106 Agreement is required in order to provide for the following items
- The deferment of the opening of Lady Miriam Way until the occupation of the 900th dwelling at Moreton Hall East.

- The provision by Taylor Wimpey of a high quality main open space area / LEAP in conjunction with the remaining uncommitted housing areas in Areas B and F.
- The provision of individual LAP's within the new housing areas or aggregated areas within Areas B and F.
- The provision by Taylor Wimpey of appropriate affordable housing provision within the remaining uncommitted housing areas in Areas B and F in accordance with the existing Section 106 Agreement and the policies of the adopted Replacement Local Plan.
- The deletion of the obligation to provide the subway links under Lady Miriam Way and the permissive footpath on the eastern side of the road.
- The provision by Taylor Wimpey of the agreed replacement toucan crossing over Lady Miriam Way.
- The payment by Taylor Wimpey to the County Council of an additional Education Contribution, together with financial contributions towards Early Years Education, Libraries and Waste Disposal.
- The payment by Taylor Wimpey of a further Public Transport Contribution.



PROJECT TITLE
**Moreton Hall East
 BURY ST EDMUNDS**

DRAWING TITLE
Site location plan

SCALE	DATE	CHECKED
NOT TO SCALE	APRIL 2007	
PROJECT No.	DRAWN	DATE
4584	HNA	
	N	002

VINCENT AND GORBING
 CHARTERED ARCHITECTS AND TOWN PLANNERS
 STERLING COURT NORTON ROAD STEVENAGE HERTS
 TELEPHONE: 01438 316331 FAX: 01438 722035



PROJECT TITLE
**Moreton Hall East
 BURY ST EDMUNDS**








DRAWING TITLE
Updated master plan

SCALE NOT TO SCALE	DATE SEPTEMBER 2007	CHECKED
PROJECT No. 4584	DRAWN HNA	DATE
	N	001^E

VINCENT AND GORBING
 CHARTERED ARCHITECTS AND TOWN PLANNERS
 STERLING COURT NORTON ROAD STEVENAGE HERTS
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APPENDIX 1

PLAN 8

-  Application site boundary
-  Residential areas
-  Open space
-  Middle & Primary Schools
-  Cycle / footpath network
-  Subway crossing
-  Toucan crossing

SCHEDULE OF AREAS

AREA	ac	ha
A	8.10	3.28
B	5.46	2.21
C	23.03	9.32
D	5.20	2.10
E	3.72	1.50
F	19.41	7.86
RESIDENTIAL TOTAL	64.92	26.27
OPEN SPACE	8.03	3.25
SCHOOLS	12.06	4.88
TOTAL	85.01	33.40

N.B.
Areas exclude strategic landscaping, footpath corridors and major roads.

PROJECT TITLE
**Moreton Hall East
BURY S' EDMUNDS**

DRAWING TITLE
Master plan

SCALE	DATE	BY	CHKD
1:5000	MAY 1999	HNA	
PROJECT NO	4106		107A

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STERLING COURT, NOTTON ROAD, STEVENAGE, HERTS
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APPENDIX 2

MORETON HALL EAST, BURY ST EDMUNDS

REVIEW OF OPEN SPACE PROVISION BASED ON AN INCREASE IN DWELLING NUMBERS FROM 750 TO 1,000+

Introduction

1. An assessment of the need or otherwise for additional open space at Moreton Hall East arising from an increase in the total number of dwellings from 750 to 1,000+ has been carried out based on the standards set out in Appendix E of the Replacement Local Plan 2006, as set out below.

Informal open space provision

2. Appendix E does not specify a numerical standard for informal open space provision. Rather, it requires provision to be made by reference to qualitative considerations including site and its setting and the nature of the development proposal.
3. Two areas informal open space areas were proposed in the 1999 Master Plan
 - A main open space area to the east of the proposed school site and south of Area B (3.25 hectares).
 - A secondary open space area comprising the proposed balancing pond area in the north-west corner of the site (1.2 hectares).
4. Given the location of the site on the urban edge, with easy access to the open countryside beyond, we consider that the areas of informal open space in the 1999 Master Plan are equally appropriate to a development of 1,000+ dwellings.

Amenity open space provision

5. Appendix E sets out a minimum standard for amenity open space provision of 25 square metres per dwelling, which is exclusive of highway verges, structural planting, shelter belts, woodland and areas of open water. 1,000+ dwellings would thus generate a minimum requirement for 25,000 square metres of amenity open space.
6. The 1999 Master Plan met the prevailing amenity open space requirement by the provision of a number of footpath / cycleway corridors throughout the development, linking existing and proposed community facilities, open space areas and residential development areas.

7. The total length of the proposed corridors is some 2,500 metres and their average width is around 20 metres, giving a total amenity space provision of around 50,000 square metres. This level of provision thus comfortably meets the requirement generated by 1,000± dwellings (25,000 square metres).

Playing fields, sports grounds, courts and greens

8. Appendix E sets out a minimum requirement of 1.6 hectares of playing pitch space per 1000 population and 0.6 hectares of courts, greens and miscellaneous facilities.
9. No public playing fields, sports grounds, courts and greens were proposed in the 1999 Master Plan. However, it was noted that the primary and middle school developments would provide the opportunity for dual use of the school playing fields.
10. A development of 1,000± dwellings would generate a population of around 2,400 people. Based upon the Appendix E standard, a minimum playing pitch area of 3.84 hectares would be required and 1.44 hectares of courts and greens etc.
11. We consider that the playing pitch requirement remains capable of being met by dual use of the playing pitch area within the 4.85 hectare school site. In terms of courts and greens, we believe that the additional demand arising from the increase in the development from 750 to 1,000± dwellings can similarly be met by existing facilities in the wider Bury St Edmunds area, enhanced as appropriate.

Children's play spaces

12. Appendix E sets out a minimum requirement for children's play spaces of
 - 1 NEAP per 2,800 residential units.
 - 1 LEAP per 450 residential units.
 - 1 LAP per 25 residential units.
13. The 1999 Master Plan proposed
 - A NEAP within the main open space area (to serve the whole development).
 - A LEAP within the secondary open space area (to serve the residential areas to the north of Mount Road).

- The provision of LAP's throughout the development in accordance with the prevailing standard of 1 LAP per approximately 25 units.
14. Under the current proposals, some 446 dwellings are proposed to the north of Mount Road and 562 dwellings to the south of Mount Road. Given that the NEAP on the main open space area will also serve as a LEAP for the residential areas to the south of Mount Road, we believe that the 1999 Master Plan proposals for children's play spaces remain appropriate for a 1,000+ dwelling development.

Conclusion

15. We consider that the existing Master Plan open space provisions are sufficient to cater for an increase in the number of dwellings at Moreton Hall East from 750 to 1,000+.

APPENDIX 3

PROPOSED RESIDENTIAL
DEVELOPMENT,
MORETON HALL,
BURY ST. EDMUNDS

UPDATED
TRANSPORTATION
ASSESSMENT

Taylor Woodrow Developments Ltd
Unit 1 Craven Court
Willie Snaith Road
Newmarket
Suffolk
CB8 7FA

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CB21 5HB

C-205155 / 3 May 2007

**Proposed Residential Development
Moreton Hall, Bury St. Edmunds
Transportation Assessment**

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3. Proposed Development
 - 3.1 Description of Development
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 - 3.4 Public Transport
 - 3.5 Car Parking Provision
 - 3.6 Delivery/ Emergency Vehicle Provision
 - 3.7 Traffic Forecasts
 - 3.8 Gravity Model
 - 3.9 Traffic Impact
4. Conclusions

Appendices

- A Drawing No. 205155 / Sk01
- B Plan Drawing No. 205155 / Sk02 – Local Highway Network
- C Bus Times
- D Traffic Counts
- E Residential Traffic Flows Diagrams
- F Suffolk Park Traffic Generation & Distribution
- G Traffic Generation and Traffic Matrix
- H Gravity Model & Distribution
- I A14 junction 60 – Saturation Flows
- J CD containing junction modelling results

**Proposed Residential Development
Moreton Hall, Bury St. Edmunds
Transportation Assessment**

1. Introduction

- 1.1 Hannah, Reed and Associates were commissioned to carry out an assessment of the impact on the transportation network likely to arise from a proposal to introduce a further 276 dwellings to a residential development in Moreton Hall, Bury St. Edmunds. The site location is shown in relation to principal roads in the vicinity on drawing number 205155/SK01 attached as Appendix A.
- 1.2 Prior to submission of this Transportation Assessment a Traffic Impact Assessment was carried out by The Dennis Wilson Partnership consultants in conjunction with the Moreton Hall East Master Plan (1999) to assess the impact of the introduction of 750 houses to the Moreton Hall area. This assessment was submitted to the relevant authorities in 1997 with supplements submitted in 1998. This Transportation Assessment reviews progress of the development of this site as well as subsequent committed developments and the proposed addition of 274 further dwellings.
- 1.3 Since permissions were received for 750 residential units St. Edmundsbury Borough Council have granted planning permission of 663 units.
- 1.4 With respect to traffic counts taken in 2007 which represent the traffic generated by already built residences at Moreton Hall, this Transportation Assessment will address the likely impact of the proposed further development together with permitted developments and houses under construction. Committed developments such as Suffolk Park will also be included within this assessment.
- 1.5 In preparing this Transportation Assessment, reference has been made to national policy guidance, PPS3 and PPG13. This stresses the importance of new housing being located close to town centres, employment areas, and education facilities where there will be sustainable travel choices, thereby reducing the need to travel by car.

- 1.6 Traffic counts were taken at numerous locations within Moreton Hall and the local highway network. These counts will be described in detail within this report.
- 1.7 Included within the assessment is a description of the existing transportation network including cycle and pedestrian facilities, and public transport availability.
- 1.8 For the purpose of the assessment, an opening year of 2009 has been taken for the residential developments.

2. Existing Transport Network

2.1 Highway Network

- 2.1.1 The proposed development site is located in the eastern part of the Moreton Hall area of Bury St. Edmunds. The location of the site is indicated on drawing number 205155/Sk01 attached as Appendix A. A plan of the adjacent road network area is attached as Appendix B.
- 2.1.2 The Moreton Hall development site lies adjacent to Mount Road which connects with Eastgate Street to the West, and subsequently Bury St Edmunds town centre. Mount Road is a two way single carriageway road of some 7.3m width providing access to a large proportion of residential developments within the Moreton Hall area of Bury St. Edmunds.
- 2.1.3 Of the original proposal for 750 houses, 554 houses have been constructed (as of March 2007). 512 of these houses are accessed from both sides of Mount Road via priority junctions with Bradbrook Close, Airfield Road and a roundabout, known as the Cherry Tree roundabout. A further 42 houses are accessed from Skyliner Way. The remainder of the 663 permitted housing units will be accessed from Skyliner Way.
- 2.1.4 The Cherry Tree Roundabout will eventually connect to Skyliner Way to the south via the Cherry Tree Link Road by means of a recently constructed roundabout. The planning conditions relating to the present development require that this connection be completed and opened to traffic prior to occupation of the three hundred and first house however St. Edmundsbury Borough Council are not upholding this condition.

- 2.1.5 To the west of the proposed site, the junction of Mount Road with Orttewell Road is in the form of a four-arm roundabout. Orttewell Road runs between Compeigne Way (A143), to the north and Bedingfeld Way to the south, forming a five arm roundabout at its junction with Bedingfeld Way. The fourth arm of this roundabout, Skyliner Way, forms the connection to the Cherry Tree Link.
- 2.1.6 Suffolk Park lies to the south of the Moreton Hall residential areas and comprises of B1, B2 and B8 type developments. It is currently 50-60% complete with construction on-going. Suffolk Park is accessed by Kempson Way which connects with the Bedingfeld Way/ A143 roundabout as the fifth arm. Suffolk Park can also be accessed from Skyliner Way.
- 2.1.7 Bedingfeld Way runs between Orttewell Road and the A14 Trunk Road. There are various retail and warehouse developments accessed from Bedingfeld Way, accesses off the road being in the form of T-junctions, mini-roundabouts and a four arm roundabout at the entrance to the Sainsbury supermarket. The fourth arm of this roundabout is Symonds Road which gives access to residential areas to the north west of the roundabout.
- 2.1.8 The A14 junction with Bedingfeld Way is in the form of a grade separated roundabout with Rougham Road providing the fourth arm to the south west.

2.2 Pedestrian and Cycling Movements

- 2.2.1 There is an existing footway/cycleway that runs along Mount Road adjacent to the site. The Cherry Tree roundabout located on Mount Road serves a proportion of the existing 300 dwellings and has adjacent pedestrian crossing facilities.
- 2.2.2 There are three pedestrian crossings along Mount Road between the roundabout with Orttewell Road and the Cherry Tree Roundabout. These crossings facilitate pedestrian movement between the residential areas north and south of Mount Road.
- 2.2.3 There are also good pedestrian links connecting the Moreton Hall residential areas east of Orttewell Road to residential areas west of Orttewell Road in the forms of an underpass and footbridge.

2.2.4 The town centre is accessible by foot, and walking at a speed of 4mph, the journey would take approximately 20 minutes. By cycle, it would take around 10-13 minutes at a speed of 7mph.

2.2.5 Footways are being provided along the Bedingfeld Way extension allowing ready access by foot to the adjacent industrial / retail area and subsequently Suffolk Park.

2.2.6 There are currently no cycle routes traversing the proposed residential site but cycle connections exist at the periphery of the site.

2.3 Mobility Impaired Persons

2.3.1 The footways within the vicinity of the proposed site are good and will facilitate movement by persons of impaired mobility. There is good footway links with adequate surfacing, dropped kerbs, tactile paving and street lighting.

2.4 Public Transport

2.4.1. A list of bus services is attached as Appendix C detailing the frequency of service, operators and last known update of information.

2.4.2. There are 3 bus services serving the Mount Road area. The timetable of these services is such that a service passes along Mount Road every 20 minutes.

2.5 Delivery/ Emergency/ Refuse Vehicle Provision

2.5.1 Accesses for delivery and emergency vehicles will be provided as appropriate throughout the site allowing delivery/ emergency/ refuse vehicles to access and egress the site in forward gear.

3. PROPOSED DEVELOPMENT

3.1 Description of Proposed Developments

- 3.1.1 The proposed development comprises a residential development of an additional 276 housing units on top of the original 750 houses which received planning permission in 2000. Currently 663 units of the 750 units have been granted planning permission however further traffic analysis is required to increase the housing units to 1026.
- 3.1.2 A middle school is proposed to be introduced at Moreton Hall. This will provide a new school to cater for the increased housing within the area.
- 3.1.3 The means of access to the additional housing will connect with existing road infrastructure providing access to the wider network. In relation to the Master Plan this proposed housing is located in areas A, B and F.

3.2 Pedestrians & Cyclists

- 3.2.1 The proposed residential development areas will still include the provision of safe, clearly signed pedestrian footways traversing the site from all access points to the residential units as originally intended. Direct pedestrian linkages will be provided to existing bus stops, where practical. The Master Plan indicates the extent of pedestrian and cycleway linkages throughout the site.
- 3.2.2 Accesses from the surrounding pedestrian network to the proposed residential developments as yet to be identified in the revised housing layouts will be designed in accordance with the Department for Transport's "*Inclusive Mobility*" guidance.

3.3 Mobility Impaired Persons

- 3.3.1 The development of the proposed residential site will incorporate facilities to enable persons of impaired mobility to access local amenities. Adequate paving surfaces with appropriate gradients will be introduced with suitable street lighting along their length.

3.3 Public Transport

3.4.1 There are bus routes that run adjacent to the site along Mount Road which has frequent services to and from Bury St Edmunds town centre.

3.4.2 Current transport policy is to make best use of existing accessibility. This supports the notion to make use of existing bus routes that serve Bury St Edmunds. The layout of the proposed residential site lends itself to the potential of having a bus route running around it by way of Skyliner Way, Cherry Tree link, and Mount Road, therefore increasing patronage and reducing vehicular travel.

3.5 Car Parking Provision

3.5.1 Car parking will continue to be provided in accordance with Local Authority standards.

3.6 Delivery/Emergency Vehicles Provision

3.6.1 The proposed accesses will continue to allow easy access for delivery/ emergency/ refuse vehicles. These vehicles will be able to access and egress the site in forward gear.

3.7 Traffic Forecasts

3.7.1. In order to check the original Dennis Wilson (DW) assumptions on trip rates, traffic counts were taken at the access points for the Appledown Drive estate which connects with Mount Road adjacent to the site to provide trip rates per house which would be considered appropriate for further housing. These traffic counts along with all traffic counts taken are attached as Appendix D.

3.7.2. From these counts the following peak hour trip rates were derived:

	Morning Peak (8-9am)		Evening Peak (5-6pm)	
	In	Out	In	Out
Residential Site	0.13	0.52	0.51	0.22

3.7.3. These trips rates were then utilised to predict flows from the proposed residential units. In addition to these trip rates a count was made at the Bradbrook Close residential area off Mount Road in January 2007 which yielded the following trip rates:-

	Morning Peak (8-9am)		Evening Peak (5-6pm)	
	In	Out	In	Out
Bradbrook Close	0.13	0.41	0.43	0.18

These trips rates derived from the Bradbrook Close counts are considerably lower than the Appledown Drive derived rates. However, for the purpose of this assessment and to allow for a robust analysis the trip rates derived from the Appledown Drive counts will be used to predict proposed flows from developments.

3.7.4. Traffic counts were taken in 2005 and 2007 at various locations on the local highway network. These traffic counts are attached as Appendix D. The following table indicates the date and location of all counts taken:-

Location of Count	Date of Count
Appledown Drive/Mount Road (Western access)	8 September 2005
Appledown Drive/Mount Road (Eastern access)	8 September 2005
Mount Road/ Orttewell Road roundabout	8 November 2005
Orttewell Road/ Barton Road junction	8 November 2005
Orttewell Road/ A143 roundabout	8 November 2005
A14/ Bedingfeld Way/ Rougham Road junction	8 November 2005
Bradbrook Close/ Mount Road (western access)	30 January 2007
Airfield Road/ Mount Road junction	30 January 2007
Mount Road/ Cherry Tree Link/ Bradbrook Close roundabout	30 January 2007
Orttewell Road/ Kempson Road/ Bedingfeld Way roundabout	13 March 2007
Mount Road/ Orttewell Road roundabout (updated count on Mount Road in and outs only)	29 March 2007

3.7.5. Traffic counts taken in 2007 included traffic generated by 554 newly opened houses of which 452 units are accessed from Bradbrook close; 60 units are located on Airfield Road and 42 units are accessed from Skyliner Way. This existing number of units subtracted from the permitted 663, yields 109 residential units still to be constructed or are in the

process of being constructed. A further 87 units will then take the total up to 750 as per the original planning permission.

3.7.6. Taking into consideration the 109 residential units under construction the total number of units to be assessed for impact is 472. The DW Transportation Report assessed the impact of 750 units on the network. It is considered that with updated traffic counts and knowledge of habited residences on site that assessing the impact of 472 units on the highway network is reasonable.

3.7.7. Traffic generated by the all the considered development of 472 residential units was derived using the Appledown Drive trip rates and is broken down as follows:

Zone	No. of Units	AM		PM	
		In	Out	In	Out
A	119	19	42	37	20
B	90	12	47	46	20
F (under Construction)	109	14	57	56	24
F (further permitted dev)	154	20	80	79	34
Totals	472	65	225	217	98

The distributions of the traffic generated by these developments are indicated on flow diagrams attached as Appendix E.

3.7.8. Traffic generated by the proposed Middle School is considered to predominantly remain localised to Moreton Hall. The effect of the introduction of this school may reduce outward bound trips from the Moreton Hall area and generate more sustainable trips by foot and cycle.

3.7.9. It is considered that the robust study undertaken for the Moreton Hall area describes a worst case scenario and with an introduction of the middle school may alleviate traffic on the adjacent road network.

3.7.10. The traffic generated by Suffolk Park was ascertained from the Orttewell Road/ Kempson Road/ Bedingfeld Way roundabout counts which took into account traffic accessing and egressing Skyliner Way and Kempson Way. Traffic generated by existing housing

accessed from Skyliner Way was deducted from the counts in order to reflect traffic generated by Suffolk Park developments.

3.7.11. Potential traffic generated by the remaining plots on Suffolk Park to be constructed and occupied have been derived using the TRICS database. This data is attached as Appendix F and has provided the following number of trips:

	Morning Peak (8-9am)		Evening Peak (5-6pm)	
	In	Out	In	Out
Suffolk Park (remaining)	428	82	85	395

3.7.12. These predicted flows have been distributed onto the network as indicated in the flow diagrams attached as Appendix F and are summarised below splitting the traffic between Skyliner Way and Kempson Way:-

	Morning Peak (8-9am)		Evening Peak (5-6pm)	
	In	Out	In	Out
Skyliner Way	99	17	22	92
Kempson Way	329	65	63	303

3.7.13. A re-count taken on the Mount Road/ Orttewell Road roundabout in March 2007 has indicated that since the count in 2005 the amount of traffic accessing and egressing Mount Road at this point has decreased significantly. In the Am peak period this difference is a reduction of around 590 vehicles both ways. Counts taken along Mount Road in January 2007 have corroborated this reduction in traffic. In light of this information traffic numbers counted on the Mount Road/ Orttewell Road junction have been adjusted to suit.

3.7.14. Distributions of traffic onto the local highway network and through neighbouring junctions have been based on a combination of a gravity model and existing traffic movements at those junctions. The gravity model is discussed below.

3.7.15. Distributions of traffic generated by proposed residential areas have been based on appraisals of the local highway network and existing counts taken at various adjacent

junctions. Distributions for the remaining elements of Suffolk Park have been based on counts taken at the Bedingfeld Way/ Orttewell Rd/ Skyliner Way roundabout.

3.7.16. NRTF central growth factors were used to forecast traffic growth on the local highway network. These growth rates are indicated on the traffic matrix sheets attached to Appendix G.

3.7.17. The results of the assessment of trip generations and distribution are provided in the traffic matrix sheets attached as Appendix G.

3.8 Gravity Model

3.8.1 A gravity model was constructed to determine potential routes for traffic between the site and various workplaces using statistical data obtained from 2001 census data for the Moreton Hall area. The DfT's report 'Focus on Personal Travel' was also consulted from which distributions from the proposed site to areas of employment were derived. These distributions are indicated on the diagrams attached as Appendix H.

3.9 Traffic Impact

3.9.1 Generally the additional housing on the development will be accessed from the highway system being constructed as part of the existing development proposals. The traffic generated by the additional housing will be dissipated onto the local highway network at three points; Skyliner Way, Mount Road East and Mount Road West.

3.9.2 In preparation of the original submission for Moreton Hall housing, the operation of the A14 / Bedingfeld Way junction with the traffic that would be generated by the development was of prime concern to the Highways Agency and Suffolk County Council, as the Highway Authority. In discussions with Suffolk County Council regarding a possible increase in housing numbers, this concern was re-affirmed because the original assessment had suggested that this junction would be near capacity with the present development proposals.

3.9.3 It was noted that, arising from the concerns regarding capacity in the vicinity in general, the Local and Highway Authorities have indicated that a relief road be provided at some

stage between the Moreton Hall area and the A14 at the Rookery crossroads to the east. This latter junction has recently been improved to provide grade separation, and a link to the west of it to Skyliner Way would provide relief to the west end of Skyliner Way and the adjacent A14 junction.

- 3.9.4 As a result of this, it was suggested that by increasing the number of housing units on the Moreton Hall site, it may be necessary to introduce this link at this stage. However, this proposed link road is still at concept stage so the main focus of the effect of the traffic impact has been on checking whether existing adjacent junctions will operate within capacity with the increased number of houses.
- 3.9.5 The A14 / Bedingfeld Way junction is signal-controlled and, in order to assess the junction using the Department for Transport's TRANSYT computer programme, saturation flow measurements were taken on each arm of the junction. The results are presented in Appendix I.
- 3.9.6 For the purpose of assessment, the year 2009 has been taken as opening year for capacity checking. As required by the Highways Agency, the situation at the A14 / Bedingfeld Way junction at 15 years hence is also checked for capacity using NRTF central growth factors.
- 3.9.7 Of particular note in comparing the results with those of the original traffic impact assessment, the trip generation for housing is lower in the present assessment. It is considered that the trip rates being used are more likely to be appropriate than the original rates as they are based on counts taken for housing adjacent to the development site. As a result of the lower rates and the more comprehensive traffic distribution information now available, the increase in traffic at the A14 / Bedingfeld Way junction is not significantly higher than the originally projected flows for the 750 housing development.
- 3.9.8 The results of the junction assessments are included on a CD attached as Appendix J. These indicate that the additional traffic can be accommodated on the existing highway network.
- 3.9.9 With respect to the A14 / Bedingfeld Way junction, the TRANSYT analysis has indicated that with adding committed development traffic only to this junction the capacity in the

Pm peak 2019 is at 96% saturation and exceeds 100% in the 2024 Pm peak. The addition of the traffic generated by the housing will add around 2% to this junction thus increasing the saturation percentage to 98% in the 2019 Pm peak and will exceed 100% in the 2024 Pm peak. This junction has been tested using 2005 counts as a base in which the affect of the Rookery crossroads opening has not been considered.

3.9.10 The TRANSYT results have indicated that with a robust scenario at the Pm peak 2024, the additional traffic from the housing and committed developments may increase the degree of saturation on the Bedingfeld Way arm to in excess of 100%.

3.9.11 With respect to the A14 / Bedingfeld Way junction analysis, no allowance has been made for the opening of the Rookery crossroads as it is considered that full operation of that junction is likely to have caused some re-distribution of traffic in the area providing some relief for the A14 / Bedingfeld Way junction. As such, it is considered that the assessment carried out is a worst case scenario.

3.9.12 At the other junctions in the vicinity, the improvements originally proposed are sufficient to accommodate the additional traffic flows from the greater number of houses. However, the traffic generated by the committed developments has been underestimated and the A143/ Compeigne Way roundabout exceeds its capacity at a 2009am peak period on the Barton Road arm.

3.9.13 Adequate turning facilities will be provided within the site curtilage to enable refuse/emergency vehicles and cars to access and egress the sites in forward gear.

4.0 Conclusions

4.1. It is proposed to introduce a greater density of housing at the Moreton Hall development presently under construction. 554 units have already been constructed with a further 109 currently under construction. This assessment addresses the impact of increasing the total number to 1,026 from the original 750 outlined in the Dennis Wilson TA; which totals an additional 363 units from the already permitted 663 to 1026.

- 4.2. The introduction of the additional 363 units will not have a significant impact on the highway network over and above that expected from the previous assessment carried out for the development.
- 4.3. It is evident that the trip rates used in the original assessment were higher than is presently being experienced in housing adjacent to the development. With these updated trip rates, the increase in traffic from a further 363 units will not be as high as would otherwise have been expected. Furthermore, a traffic count on Bradbrook Close carried out in 2007 has indicated the trip rates should be even lower than the trips used in this assessment.
- 4.4. The existing road network has been checked for capacity at the proposed year of opening of 2009 and 5 years hence. The capacity analysis has revealed that the junctions within the vicinity of the Moreton Hall proposals can accommodate the extra traffic with the original highway improvements suggested by Dennis Wilson alleviating any highway concerns.
- 4.5. In the case of the A14 / Bedingfeld Way junction, the modelling has indicated that 15 years after opening the Bedingfeld Way arm will run in excess of 100% of its total capacity in the 2024 Pm peak period. This capacity will be exceeded with the addition of the committed developments prior to the addition of the extra housing traffic. The opening of the Rookery crossroads has not been considered in this modelling and therefore the analysis can be considered robust.
- 4.6. The updated traffic counts taken on junctions adjacent to the Moreton Hall developments have revealed a change in traffic movements on the local highway network which may be attributed to the opening of the Rookery crossroads. Where indicated it has been possible to account for this change and it has been indicated where it has not. It is considered though, that a very robust analysis has been carried out to assess the impact of traffic generated by these residential developments on the local highway network including the addition of the Suffolk Park permitted developments.
- 4.7. The sustainable nature of the housing already occupied on the Moreton Hall has not been quantified within this assessment and it is considered that good pedestrian links, cycleways and bus routes are providing residents with infrastructure to allow alternative modes of transport to be utilised.