1.0 SCOPING OPINION

1.1 This scoping opinion has been prepared in response to a request from Carter Jonas on behalf of Cambridgeshire County Council's (Major Infrastructure Delivery Team) received on 9 October 2012. The request comprised an EIA Scoping Report (with appendices) detailing the intended scope of the EIA and the content of the Environmental Statement (ES) which would accompany a future planning application for the Cambridge Science Park Station.

2.0 BACKGROUND

2.1 Cambridgeshire County Council is proposing to develop a new railway station and public transport interchange on land forming part of the existing Chesterton Sidings in north Cambridge. The Site is approximately 12 hectares in size and includes land lying within the administrative boundaries of both Cambridge City Council and South Cambridgeshire District Council.

2.2 It is intended to be a joint project with Network Rail under the Governance for Railway Investment Projects process. It is anticipated that a detailed application will be submitted to Cambridgeshire County Council (Planning), as the Local Planning Authority, under Regulation 3 of the Town and Country Planning General Regulations 1992, seeking planning permission for so much of the Development as is not authorised by the planning permission conferred in connection with the Cambridgeshire Guided Busway Order 2005 or by way of Part 11 permitted development rights in respect of Network Rail's statutorily authorised railway.

2.3 In due course the application will be determined by City Fringes Joint Development Control Committee, on which members of Cambridge City, South Cambridgeshire District and the County Council are represented.

3.0 PROPOSED DEVELOPMENT

3.1 The development is expected to include the items listed below, following demolition and clearance of existing features and capping of redundant sidings:

- **Railway Station**
  - 450m2 building (passenger waiting facilities; toilets, staffed ticket office; retail; amenity space; rail staff accommodation and facilities)
  - two main line platforms; bay platform
  - Pedestrian/cycle bridge linking station building and platforms over the main line (lift and stair access).
  - Operational times 05.30 am to 01.00 am every day
Interchange Facility
- Landscaped 450 space car park; 1000 space cycle parking
- New pedestrian and cycle links to the surrounding area including Discovery Way, Pippin Drive, Ribston Way, Long Reach Road and through Bramblefields Local Nature Reserve, and Nuffield Road industrial estate. No links are currently intended to be provided east of station/railway to existing development located along Fen Road
- Extension of a bus lane and cycle route from the Cambridgeshire Guided Busway into the site along the alignment of the former St Ives Branch Line
- Highway access from Cowley Road/Milton Road (new junction to station; limited works to Cowley Road/Milton Road junction). It is anticipated that the necessary upgrade works to existing junctions and road will be minor.
- Multi-modal choice of train, bus, cycle pedestrian and car routes.

3.2 The interchange facility will provide access onto the wider public transport and highway network. It will enable travellers to switch between all modes with access for pedestrians and cyclists, bus users, car drivers and passengers, and rail users. The interchange will be linked into the existing Busway, including the pedestrian and cycle way provided by the maintenance track. The existing Busway (including the part of disused railway that extends to the edge of the Site) has deemed planning approval under the Cambridgeshire Guided Busway Order 2005.

4.0 SCOPE OF THE ENVIRONMENTAL IMPACT ASSESSMENT

Air Quality
Baseline:

4.1 When considering a baseline (of existing air quality) and in the assessment and future monitoring of impacts this should include:
- consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)
- modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station, and use 1 years data (2011), and worst case conditions)
- modelling taking into account local topography.

Assessment Methodology:

4.2 The Environmental Statement should include an Air Quality Assessment. The assessment must cover both construction and operational phases; produce baseline, with and without the development scenarios using the model ADMS-Roads; use the latest available emission factors from Defra; use AADT traffic data; consider the air quality impact on the nearest receptor and the road network showing the results as contour plots. As the proposed use (from an air quality perspective) is a car park, cold starts should be included in the assessment.

4.3 Considerations should be given to the potential impacts on all receptors arising from emissions due to construction and decommissioning activities.

Mitigation:

4.4 The Environmental Statement should include the monitoring and mitigation arrangements. For construction and decommissioning stages this should be
contained in an effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)). Robust mechanisms must be put in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

**Health**

Assessment Methodology:

4.5 The Environmental Statement should appraise and describe the measures that will be used to control both point source and fugitive emissions (to air and water) and demonstrate that objectives, standards, guideline values or health based values will not be compromised. (This information could be incorporated into the respective chapters of the Environmental Statement).

**Ecology**

Baseline:

4.6 Stourbridge Common was designated as a Local Nature Reserve in September 2012.

Assessment Methodology:

4.7 Any potential impacts (e.g. footpaths and increased visitor pressure) upon local wildlife sites including Bramblefields Local Nature Reserve (LNR) will need to be assessed. Some species may be using both Chesterton Sidings and adjacent habitats such as Bramblefields LNR, or the allotments.

4.8 The wider Chesterton Sidings area is an ecological unit of district importance for its bio-geographical species. The ecological impacts of removing the proposed station site from the wider brownfield site should be considered in the Environmental Statement, which should also include the Phase 1 Habitat Survey of the wider Chesterton Sidings site which gauges:

- habitats present
- potential species it may support (including preliminary assessment for invertebrates)
- possible impacts of the development.

4.9 The Environmental Statement should also consider the ecological connectivity between Bramblefields Local Nature Reserve, the proposed Station site and the north eastern area of the Chesterton sidings, as well as the Sewage Works and River Cam Corridor. The links between the various sites are crucial to preserving the habitat network in this area of the City.

4.10 The Environmental Statement must include all survey results and must assess the impacts on all key ecological features including:

- Open mosaic habitats on previously developed land*;
- Invertebrate assemblage;
- notable plants;
- Breeding birds;
- Reptiles;
- Great Crested Newts;
- Water Vole;
- Bats;
and any other protected species discovered to be on site or potentially using the site.

*n.b. the phase 1 habitat report confirms that the site is potentially of significant ecological value, but it should recognise that the habitats present fall under the category of “open mosaic habitats on previously developed land” (species-rich brownfield sites in plain English), which are listed as a habitat of principal importance for biodiversity under s41 of the NERC Act 2006.

4.11 The Environmental Statement should include the rationale for the extent of the ecological survey work undertaken e.g. why species were / were not selected for detailed assessment and the different methodologies chosen, particularly in respect to invertebrates and bats. This rationale should make reference to the recommendations of the Phase 1 Habitat Survey and good practice guidelines e.g. Bat Survey Good Practice Guidelines – 2nd edition (Bat Conservation Trust). All raw data upon which the Environmental Statement is based must be submitted as part of the Environmental Impact Assessment submission.

4.12 The botanical analysis does not adequately acknowledge the importance of the plant species found. Sites supporting nationally rare / scarce plants (e.g. *Verbascum pulverulentum*) or locations supporting populations of species which occur in three or fewer sites in the county (e.g. *Teurcrium scorodonia* - rare in Old Cambridgeshire), are capable of being designated as County Wildlife Sites and would be classed of county importance.

Mitigation:

4.13 Adequate mitigation and / or compensation must be provided for the development, which should also seek to deliver biodiversity enhancement, in accordance with the National Planning Policy Framework, Natural Environment White Paper and the Council's biodiversity duty (NERC Act 2006).

4.14 Mitigation should take into account the effect of the ecological truncation of the brownfield Chesterton Sidings site. In evaluating potential options / areas for habitat creation, enhanced management and species translocation etc, the northern section of this site should be considered. If practicable habitat creation should be of a similar type to that lost i.e. open sward, brownfield habitat, and complement if possible retained habitat.

4.15 The proposed buffer zones and habitat creation areas should be plotted on a map, to ensure features can be maintained that are of real value for key species, offering viable, linked habitat for common lizards etc. This should assist in determining whether sufficient area will be available for retaining the current reptile population or if additional translocation receptor sites need to be identified and assessed. It should be noted that the original Phase 1 survey details that Bramblefields has already been used as a receptor site for individuals from a nearby development. Therefore this site may not be viable for additional relocation.

4.16 Opportunities to ecologically enhance the watercourse (part of East Cambridge Main Drain) that crosses the site and runs adjacent to the Cowley Access road should also be explored. There may also be opportunities for provision for nesting swifts within the new station buildings.
4.17 Mitigation proposals should also address any adverse impacts and if appropriate propose compensation measures for the Bramblefields Local Nature Reserve. The proposed pedestrian access is likely to increase footfall on the reserve and disturbance, both during and post construction, should be kept to a minimum. One possibility for enhancement would be the existing small pond currently on site that could benefit from extension and invasive weed (Crassula helmsii) control.

**Water Quality, Flood Risk and Drainage**

Baseline & Assessment Methodology:

4.18 When considering a baseline of existing water quality, and in the assessment and future monitoring of impacts, any assessment should:

- include assessment of potential impacts on human health and not focus solely on ecological impacts
- identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; sewers; geological routes etc.)
- assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- include consideration of potential impacts on recreational users of water bodies (e.g. from fishing, rowing etc.) alongside assessment of potential exposure via drinking water.

4.19 Considerations should be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and location of drinking water supplies such as local wells, boreholes and water abstraction points.

4.20 The Environmental Statement should include a Surface Water Drainage Strategy accompanied by a full detailed investigation of any watercourses within the area and their future use within the development. In particular investigations are required to confirm if there is an unused culverted section of watercourse within the site; and if so, and if this is to be removed, it must be demonstrated that no contributing areas will have drainage problems as a result.

4.21 The development may also impact on an Award Drain downstream of the Station site. It may be necessary to comply with South Cambridgeshire District Council’s land drainage byelaws in relation to rates of surface water run-off from the development. It is understood that possible drainage solutions are being explored and the results of this work will determine which drainage route is used. This must be covered in the Environmental Statement.

4.22 As required by the National Planning Policy Framework, the Environmental Statement should include SuDS designs for the site which will be required to control the increased runoff from the proposed impermeable areas. Gradients and gravity feed must be considered; it is essential that SuDs features can gravity drain. Land levels and drainage should be considered at the earliest opportunity; and advice should be obtained from the County Council’s Floods and Water Team.
Mitigation:

4.23 SuDS that demonstrate benefits to the downstream watercourse system are encouraged as mitigation and improvement should be possible and effective.

Ground Conditions
Assessment Methodology:

4.24 The Environmental Statement should provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report. Emissions to and from ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with contaminated land and/or the migration of material off-site should be assessed and the potential impact on nearby receptors and control and the scope of mitigation measures should be outlined. The results must be presented in the Environmental Statement.

4.25 The findings of any ground contamination investigation could impact upon surface water drainage and construction methodology. Infiltration drainage will not be permitted in contaminated land and likewise piling may also be inappropriate for construction. These issues will require further investigation and verification prior to the construction of any development.

Heritage
Baseline:

4.26 The site is located in an area of high archaeological significance, as indicated in the screening documentation and scoping report.

Assessment Methodology:

4.27 The potential impact of the proposed development on the historic environment must be considered as part of the Environmental Impact Assessment of the proposal. The Environmental Statement should include the results of the archaeological ground surveys and proposals to mitigate the impact of the development on surviving heritage assets, should this be necessary. This should include consideration of the impact on any surviving structures of significance to the historic railway industrial use of the site.

4.28 The Environmental Statement should consider any increase in the height of development on site, as it has the potential to affect settings of the following heritage assets. Sections and viewpoints will be needed to relate the development to the Conservation Area of Fen Ditton which abuts the river’s edge and incorporates much of the meadows and valley slope facing this. Important views from the Conservation Area and from around important groups of Listed Buildings at Hall Farm and Ditton Hall (and possibly also the grade II listed Riverside Cottage) are predominately rural and with a wooded tree-line. The recently extended Cambridge City Centre Conservation Area comes relatively close to the south of the site and any potential impact on this part of the conservation area will need to be assessed. The existing development between the development site and the heritage assets is low key and predominately hidden beyond the trees. Any increase in height may be very visible on the skyline above this and the character of the proposal would contrast with these wooded rural views. It is recommended
that the views to be assessed are agreed with the relevant officers from Cambridge City and South Cambridgeshire District Council.

**Landscape and Visual Impact**

**Assessment Methodology:**

4.29 The Environmental Statement should provide details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The Environmental Statement should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography. The Environmental Statement should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. This should be informed by the good practice guidelines produced jointly by the Landscape Institute and the Institute of Environmental Assessment in 2002.

4.30 Visual impact will need to be assessed, this will occur as the site is opened up and views become possible between areas and buildings to the west and east of the site e.g. between Fen Road and dwellings to the east of Fen Road, across the new car parks to Cowley Road and the Commercial areas to the west. Lighting of the areas between may also become visually prominent.

**Mitigation:**

4.31 A mitigation strategy will be required, this should address the following:
- measures for establishing a successful landscape in harsh conditions that will establish quickly and thrive to mitigate any negative visual effects
- careful landscape treatments of site edges and land which may be developed in later phases
- landscape on approaches to the site – e.g. the Cambridge Guided Bus and Cowley Road
- landscape of an appropriate character (different to the general site character) around the car parks, station buildings and between the buildings and the platform
- measures to integrate the high quality landscape around the buildings and the less formal existing and new planting elsewhere on the site.

**Lighting**

4.32 A Lighting Assessment should be prepared, further information on the content is contained in the Council’s Local Validation List (available on the website). Lighting impacts need to be considered, at different times of day and from the perspective of sensitive receptors. Mitigation measures should be proposed where necessary e.g. back shields.

**Noise**

**Baseline:**

4.33 The baseline noise conditions have already been measured in the form of an environmental noise survey at six locations and these locations appear to be suitably representative of local residential amenity. The reported levels appear to be consistent with the type of area the development is located within. However, it should still be demonstrated that the duration of surveys e.g. over two days the 13th
and 14th of June 2012, are robust and representative baseline noise levels on which to base any significance of impact assessment.

Assessment Methodology:

4.34 To assist in understanding the noise impact it is recommended that noise prediction modelling is undertaken and noise contour maps are provided in accordance with best practice and International Organisation Standards / British Standards e.g. ISO 9613-2:1996- Acoustics - Attenuation of sound during propagation outdoors -- Part 1 & 2: General method of calculation.

4.35 Comparison of predicted conditions with the existing baseline conditions - baseline versus predicted future contour maps comparisons are recommended. Review and assessment of any residual impacts/effects (as appropriate) - baseline noise levels versus predicted versus predicted residual with mitigation and modelled noise contour maps. Any input assumptions should be clearly detailed and justified.

Operational Noise Assessment (General):

4.36 The assessment of the significance of any emissions should include assessment against the Institute of Environmental Management Assessment (IEMA)/Institute of Acoustics (IOA) Working Party Consultation Draft Guidelines for Noise Impact Assessment (IEMA/IOA, 2002). Although the guidelines are still only a consultation draft at this stage, they are of assistance in this exercise. The Working Party provides advice on how changes in noise level can be categorised by significance. This is shown in Table 1 below. The bands of values and effects are very similar to those published in the Design Manual for Roads and Bridges, referred to in the scoping report.

<table>
<thead>
<tr>
<th>Noise Change (dB)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>No impact</td>
<td>Slight impact</td>
</tr>
<tr>
<td>0.1 - 2.9</td>
<td>Moderate impact</td>
</tr>
<tr>
<td>3.0 - 4.9</td>
<td>Substantial impact</td>
</tr>
<tr>
<td>5.0 - 9.9</td>
<td>Severe impact</td>
</tr>
<tr>
<td>10.0 or more</td>
<td></td>
</tr>
</tbody>
</table>

Station Noise Assessment

4.37 The use of BS 4142:1997 to assess station related noise is the most appropriate industry standard available, but agreement needs to be reached regarding any target noise level. Parity of Rating Level with background is a common suggestion and would be acceptable. Since background noise levels vary throughout a 24 hour period it will usually be necessary to assess the acceptability of noise levels for separate periods (e.g. day, evening, night and weekend) chosen to suit the hours of operation of the proposed development in addition to day and night as detailed in BS 4142.

4.38 It should be acknowledged that BS 4142 offers no planning and noise test of acceptability in terms of suitability of a site for industrial / commercial development. The BS 4242 “likelihood of complaint” assessment does not necessarily equate to an appropriate significance of impact conclusion to avoid noise from giving rise to
significant adverse impacts on health and quality of life as per the National Planning Policy Framework.

4.39 In addition to any BS 4142 noise rating level assessment for the time intervals of 1 hour - day time and 5 minutes – night time, consideration should also be given to the intensity / level and frequency of any individual discrete peak / maximum impact noise events (measured with F time-weighting) which should not normally or regularly exceed 45 dB $L_{A_{max}}$ at noise sensitive premises during the night time hours 2300hrs to 0700hrs.

Car Park Noise Assessment

4.40 It is suggested that the noise from the car park can be assessed using BS8233 Sound Insulation and Noise Reduction for Buildings – Code of Practice, (1999). This is not appropriate as BS 8233 specifically states that its criteria and limits are primarily intended to guide the design of new or refurbished buildings undergoing a change of use, rather than to assess the effect of changes in the external noise level, as is the case with the proposed development.

4.41 In addition, it also states that the recommended noise levels are only applicable to anonymous noise such as free flowing traffic. As the standard states occupants will usually tolerate higher levels of anonymous noise, such as that from road traffic, than noise from neighbours which may trigger complex emotional reactions that are disproportionate to the noise level. Noise from car park does not easily equate with free flowing diffuse traffic noise on a public highway.

4.42 The standard also gives criteria for internal noise levels and external noise being transmitted into buildings, including amenity areas such as gardens, balconies etc. This will require a separate assessment using appropriate criteria that take into account the changes in noise likely to be produced.

4.43 It should also be noted that some of the noise sensitive premises are predominantly traditional caravans and mobile type / modular home structures. There is likely to be greater noise transference through the walls / gazing of trailers and caravans than through the walls of conventional housing and there are limited options to provide additional noise insulation or alternative ventilation to their building fabric.

4.44 Consideration must also be given to the intensity / level and frequency of any individual discrete peak / maximum impact noise events (measured with F time-weighting) which should not normally exceed 45 dB $L_{A_{max}}$ at noise sensitive premises during the night time hours e.g. door / boot slamming, acceleration and drive off during 2300 hrs to 0700 hrs.

4.45 A more appropriate assessment of the significance of any emissions should include assessment against the Institute of Environmental Management Assessment (IEMA)/Institute of Acoustics (IOA) Working Party Consultation Draft Guidelines for Noise Impact Assessment (IEMA/IOA, 2002) (see general section above). In addition, and as a comparison, a BS 4142 assessment should be considered.
Railway and Busway Noise Assessment

4.46 It is not clear if only a single Calculation of Railway Noise (CRN) noise indicator (the 18-hour LAeq noise level between 06:00 and 24:00 hrs) will be undertaken e.g. as used in the assessment of eligibility for sound insulation for new railways under the 'Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1995.

4.47 It should be noted that the 18-hour LAeq noise level is one of the noise indices that forms the basis for noise mapping procedure under the Environmental Noise Regulations and its use is set out in DfT WebTAG guidance for the assessment of different transport proposals. However, the principal noise indicators set out in the Environmental Noise Regulations for the assessment of community response to railway noise during day, evening and night-time hours are the Lden (with 5 and 10 dB penalties for evening and night-time periods) and Lnight noise levels, with other indicators such as the LAeq,18h noise level being included under Schedule 3 supplementary noise indicators.

4.48 Eligibility under the Noise Insulation Regulations does not fully equate with determination of any significance of impact.

4.49 The assessment should include appropriate noise indicators for day, evening and night and an appropriate assessment of the significance of any emissions could include assessment against the Institute of Environmental Management Assessment (IEMA)/Institute of Acoustics (IOA) Working Party Consultation Draft Guidelines for Noise Impact Assessment (IEMA/IOA, 2002) (see general section above).

4.50 Consideration should also be given to the intensity / level and frequency of any individual discrete peak / maximum impact noise events associated with trains stopped in the station e.g. compressors, exhausts, horns, shunting, locomotive pulling away etc which may not be included in CRN methodology (measured with F time-weighting). They should not normally exceed 45 dB LAmx at noise sensitive premises during the night time hours e.g. door / boot slamming, acceleration and drive off during 2300hrs to 0700hrs.

Road Traffic Noise Assessment

4.51 The understanding of the significance of any noise effect /impact detailed in relation to the magnitude / scale of impact detailed in Table 4.5 - Classification of Impacts could be improved by clear descriptions. It is recommended that the criteria detailed for the quantitative assessment (noise changes) be complemented by a more informative qualitative assessment.

4.52 Any significance of impact should be considered in the context of the magnitude of noise change and the sensitivity of the receptor. Descriptors for qualitative impacts on individuals that correspond with those used for assessing the magnitude of impacts should be assigned. Examples of typical qualitative descriptors are given in the Scottish Technical Advice Note (TAN, 2011) - Assessment of Noise.
Station Facilities Noise Assessment (including announcements, plant etc)

4.53 The noise level from all plant and equipment, vents etc (collectively) associated with this development should not raise the existing background level ($L_{90}$) by more than 3 dB(A) (i.e. the rating level of the plant needs to match the existing background level). This requirement applies both during the day (0700 to 2300 hrs over any one hour period) and night time (2300 to 0700 hrs over any one 5 minute period), at the boundary of the premises subject to this development and having regard to noise sensitive premises. Tonal/impulsive noise frequencies should be eliminated or at least considered in any assessment and should carry an additional 5 dB(A) correction. This is to guard against any creeping background noise in the area and prevent unreasonable noise disturbance to other premises.

Construction Noise Assessment

4.54 In respect of construction noise the scoping report proposes that the impact is assessed using BS5228:2009, which is considered to be a satisfactory methodology.

Vibration

Baseline:

4.55 The scoping report does not include any details of the measurement of baseline vibration levels although it mentions the issue of vibration from various sources a number of times. Other than in respect of construction activities, which are relatively short term, the only likely source of ground borne vibration from the development is the movement of trains and this is only likely to be significant where dwellings are close to the track.

4.56 The Environmental Statement should provide details of the measurement of baseline vibration levels. If the development is likely to result in changes to the speed, numbers or composition of trains passing nearby dwellings then it may be appropriate to determine the baseline ground borne vibration levels at potentially affected dwellings in order to assess the significance of changes in the context of the existing conditions.

Assessment Methodology:

4.57 There are several instances where vibration assessment is mentioned but there is very limited information within the scoping report on how this is to be assessed and there are inconsistencies between the various sections of the report.

4.58 The section of the report at paragraph 4.253 is entitled “Operations Phase Noise and Vibration Assessment” but at no point following this is there any information regarding what may be the sources of vibration impacts and how these are to be assessed. Clearly there is the possibility that changes in the speed, composition and number of passing trains may result in changes to ground borne vibration levels but this is the only operational source that may result in such changes. It is unlikely that slow moving cars and guided buses will give rise to detectable ground borne vibration.

4.59 This above needs to be addressed and a consistent and clear methodology agreed. This methodology should reflect that contained in BS 6472-1:2008, Guide to evaluation of human exposure to vibration in buildings. It is important that the
changes in vibration levels are assessed in addition to comparison of measured or predicted values with the acceptable levels given in the standard.

4.60 The only process where significant ground borne vibration would be likely to be generated is piling for foundations and there is no indication within the report that this is to be carried out. The report indicates that assessment of vibration from construction works will be carried out in accordance with BS5228:2009 and this is a satisfactory methodology. Information advising if impact or vibratory piling is likely to be necessary should be made available at an early stage.

**Transport and Access**
Assessment Methodology:

4.61 Arrangements for the Cambridge Guided Bus (CGB) crossing of Milton Road may well be able to be implemented without further permission. The scoping document notes that this is not part of the TA. However, providing high quality bus access to the interchange will be critical so it should be demonstrated that adequate bus services to CSI will be provided; if this suggests that the Milton Road crossing will be implemented to facilitate this, there will be a need for sensitivity tests to examine the impact (if any) that implementation of the crossing would have on local network performance. This should also include use of the Busway maintenance track where pedestrian / cycle access crosses the A1309.

4.62 Quantitative assessment of the impact of the proposals on 'sustainable transport users' needs to be clarified, does this mean non-car modes? All-mode trip generation estimates (bus, taxi, car, cycle, pedestrian) will be required and likely flows on key desire lines so that the adequacy of existing provision can be assessed. In addition potential bus demand should be addressed, and it should be demonstrated that, for example, adequate capacity at the right time of day exists, or can be provided, to support this demand.

4.63 A LINSIG assessment of Cowley Road / Milton Road will be required by Cambridgeshire County Council's signals engineers.

4.64 The proposed junctions for assessment are acceptable but consideration should also be given to examining the Arbury Road junction - although the changes in flow appear to be less than 5% from the model tests this appears to be as a result of the model assigning traffic via Scotland Road / Green End Road which should be discouraged.

4.65 The CSRM outputs should be discussed with the Highways Agency to confirm whether changes to traffic patterns could turn out to be problematic on the A14 or its junctions. This discussion will determine if additional junction-specific modelling (e.g. Transyt, LinSig, Paramics etc) is required in order to adequately understand the likely impacts and devise mitigation measures accordingly.

4.66 There must be an evidenced justification for the level of proposed car parking; this could be based on a first principles arrivals/departures/accumulation assessment based on anticipated train service patterns and also derived from other local stations. This approach could also be used to examine vehicular trip generation and to validate any approach adopted using CSRM
4.67 Consideration should be given to drawing on evidence of cycle parking demand based on existing Cambridge Station. A lot of the bikes that are at Cambridge station are left there over night and used by commuters to get to and from work. This means that a lot of the spaces are already taken up already so that any additional rail users can't find a space. A good management plan should be put forward to ensure any bikes that have been discarded at the station for a certain period of time and not used again should be removed to free up the spaces for other users.

4.68 Clarification is required as to the extent to which in the "operational phase" assessment it will be possible to estimate the environmental pollution savings through car traffic (mostly from the north and west) accessing the new station rather than journeying through Cambridge to the central station.

4.69 Consideration should also be given to any construction traffic related issues. It is anticipated that this new station will provide wider benefits to the rest of Cambridge, particularly around the congested existing station area. The likely scope of this benefit should be quantified.

**Cumulative and in-combination effects**

*Assessment Methodology:*

4.70 The EIA should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The impact of the following types of projects should be included in such an assessment. (Subject to available information):

a. existing completed projects
b. approved but uncompleted projects
c. ongoing activities
d. plans or projects for which an application has been made and which are under consideration by the consenting authorities
e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.
f. cumulative impacts of the vehicle movements associated with construction and decommissioning

It is recommended that the applicant contact Cambridge city Council and South Cambridgeshire District Council in respect of items a - e above.

4.71 The Environmental Statement should include an assessment and a response to off site emissions such as flooding, fires, spills or leaks.

5.0 **DETAILED MATTERS / COMMENTS:**

5.1 As part of this Scoping Opinion exercise Anglian Water were consulted, and has advised that the applicant should consider submitting a pre-planning enquiry, following which information will be provided in respect of Anglian Water assets
affected and the ability to drain the site and provide connection points. Any forthcoming advice must be taken into account and addressed as appropriate.

6.0 OTHER MATTERS:

Additional Guidance

6.1 Additional guidance can be found in the following:
- District Design Guide: High Quality and Sustainable Development in South Cambridgeshire, March 2010, South Cambridgeshire District Council
- Control of Dust and Emissions from Construction and Demolition – best practice guidance produced by the London Councils
- Lighting in the Countryside: Towards Good Practice, July 1977, DCLG
- Guidance produced by the Institute of Lighting Professionals e.g. Guidance Notes for the Reduction of Obtrusive Light GN01:2011

Operating Times

6.2 It is noted that an operating time for the station is given, but not one for the interchange. The operating time for the interchange (including the guided bus / car parks etc) needs to be clarified and taken into account as impacts may arise at different times from the station, and these need to be quantified and addressed.

Watercourses / Water Usage

6.3 Any changes to any watercourses within the site or bordering it must be discussed with the Lead Local Flood Authority (Cambridgeshire County Council) at the earliest opportunity. The LLFA has taken over the responsibility for consenting certain works done to ordinary watercourses under the Land Drainage Act 1991 (as set out in the Flood and Water Management Act 2010).

6.4 The site should look to be an exemplary for water usage and recycling and where possible rainwater should be reused on site as much as possible.

Rail Depots

6.5 Para 4.14 and 4.20 – it is proposed that the freight use on the Station sites (at the Freightliner / Frimstone) will be relocated elsewhere on Chesterton Junction Yard. Use of diesel locomotives will not therefore be reduced, although it will take place at a slightly different location. This site is currently active, being served by trains directly into the Frimstone site, but also uses adjacent sidings outside the site.

6.6 Any environmental impacts arising from active rail depots and aggregate stockpiles in proximity to the site e.g. dust emissions will need to be taken into account.

Health Impact Assessment

6.7 A Health Impact Assessment need not be included in the Environmental Statement. However, one is required under this Council’s Local Validation List (as the site is over 1 ha); and by the policies of the South Cambridgeshire Local Development Framework (which include a supplementary planning document on this matter).