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**Response to Planning application from Hertfordshire County Council (T and CP GDP Order 2015)**

**Simon Tucker**

David Tucker Associates  
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Henley In Arden,

Your ref:  
HCC ref: WH/162/2017  
HCC received: 28/06/2017  
Area manager: James Dale  
Case officer: Lindsay McCauley

**Location**

Birchall Garden Suburb  
Birchall Farm  
Welwyn Garden City

**Application type**

Pre application

**Proposal**

Scoping Request for a proposed mixed use urban extension

**Decision**

Other

**Description of the Proposal**

The proposal is for the redevelopment of a portion of land to provide a mixed use development. The mixed use development will include the following:

- Up to 2500 dwellings;
- Two primary schools including associated sporting facilities;
- One secondary school including associated sporting facilities;
- Two mixed use local centres including local retail and related uses (Class A1 ? A5), Business uses (B1), Hotel (C1), Residential institutions (C2), Housing (C3), Health services and community facilities (D1), and assembly and leisure uses (D2);
- Potential gypsy/traveller site for up to 15 pitches;
- Local green infrastructure, including playing fields, sports pitches and play areas;
- Informal open space;
- Allotments/community orchards;
- New access points from the A414, the B195 and Cole Green Lane, including realignment of the B195;
- Proposed new internal roadways, footpaths and cycleways; and,
- Sustainable drainage and provisions for floor mitigation.

The development 'Birchall Green Suburb' comprises 3 parcels of land. The parcels will consist of the following:

- 1) Birchall Farm (N): 1050 residential units, local centre, one primary school and one secondary school
- 2) Birchall Farm (S): 300 residential units
- 3) Cole Green: 1200 residential units, local centre and one primary school

The Gypsy and Traveller Site (15 units) will be located adjacent to the existing Civic Amenity Site and will be accessed from the existing access onto the A414.

#### Site Description

The site consists of 260 hectares of land to the south east of Welwyn Garden City. The site is situated to the north and west of A414 Hertford Road and land on both sides of B195 Birchall Lane/Cole Green Lane. The development straddles the boundary between Welwyn Hatfield Borough Council and East Herts Borough Council and will therefore be considered by both councils. B195 Birchall Lane/Cole Green Lane is a numbered classified B-road secondary distributor and is subject to a 50mph speed limit.

The site is bounded by a field to the northeast, Panshanger Aerodrome and Moneyhole Lane Park to the north, edge of Welwyn Garden City and Commons Wood Nature Reserve to the west, waste recycling facility to the south west and A414 to the south east. Land at Birchall Farm is currently arable farmland and Land at Cole Green is a former quarry.

#### Analysis

The applicant has provided a Draft Transport Assessment (DTA) for consideration by Hertfordshire County Council (HCC). The purpose of the TA is to ensure that minimal impacts to safety and functionality of the highway network occur as a result of the new development. The applicant will need to ensure the TA is prepared in accordance with the Roads in Hertfordshire Highway Design Guide 3rd Edition.

A Design and Access Statement (DAS) is required for all planning applications that have an impact on the highway, as outlined in Roads in Hertfordshire: Design Guide (3rd Edition). The DAS needs to include three potential aspects of access:

- Why the access points for the development have been chosen;
- How the site responds to road layout, road safety, and public transport provision; and
- How everyone can move through the place on equal terms regardless of age, disability, ethnicity or social grouping.

#### Policy Review

The applicant has provided a review of the following key policy documents in their DTA for the proposed development:

- Transport White Paper, DfT 2011
- National Planning Practice Guidance (2012)
- DfT, Smarter Choices - Changing the Way We Travel;
- Design Manual for Roads and Bridges (DMRB);
- Manual for Streets;
- East Herts Local Plan Second Review April 2007
- East Hertfordshire District Plan;
- Welwyn Hatfield District Plan (2005)
- Welwyn Hatfield Emerging Local Plan;
- Hertfordshire County Council (HCC) Local Transport Plan 3-2011-2031

This is acceptable; however, the absence of the following key documents should be addressed in the final TA:

- National Planning Policy Framework (2012); and,
- Roads in Hertfordshire Highway Design Guide 3rd Edition.

#### Transport Assessment

##### Trip Generation

A trip generation profile for the existing site and proposed development has been provided as part of the DTA.

##### Existing Situation

The existing site is formed of land formerly used for mineral extraction, land fill and agricultural purposes. Therefore, it is expected that the existing trip generation for the site would be nil..

##### Proposed Development

The proposed development will comprise up to 2500 residential dwellings, two primary schools, a secondary school, mixed use local centres including retail, commercial, health, leisure and business uses and gypsy trailer sites.

As part of previous pre-application advice provided, the applicant was advised to consider the trip rates provided in WHaSH, a transport model adopted by Welwyn Hatfield. The applicant has utilised these trip rates and has also considered other methodology for determining trip rates for the site. This is considered acceptable.

The WHaSH trip rates provided in the DTA are as follows:

##### AM Peak

- Residential: 0.420 generation, 0.163 attraction
- Student Accommodation: 0.005 generation, 0.007 attraction
- Retail - Town Centre: 0.005 generation, 0.096 attraction
- Retail - Edge of Town Centre: 0.026 generation, 0.086 attraction
- Retail Food & Drink: NA
- Office: 0.086 generation, 1.153 attraction
- General Industry: 0.082 generation, 1.011 attraction
- Storage or Distribution: 0.051 generation, 0.099 attraction

##### PM Peak

- Residential: 0.221 generation, 0.399 attraction
- Student Accommodation: 0.013 generation, 0.002 attraction
- Retail - Town Centre: 0.209 generation, 0.029 attraction
- Retail - Edge of Town Centre: 0.174 generation, 0.160 attraction
- Retail Food & Drink: 1.388 generation, 2.065 attraction
- Office: 0.994 generation, 0.060 attraction
- General Industry: 0.829 generation, 0.723 attraction
- Storage or Distribution: 0.091 generation, 0.033 attraction

It should be noted that generation trips are departure trips where attraction trips are arrival trips.

##### Residential Trip Rates Only

In addition to the WHaSH trip rates detailed above, the applicant has provided trip rates for the residential land use by determining the trip rates for sites within close proximity to the proposed

development location. The sites are Thistle Grove residential estate (332 dwellings) and Shackleton Way / Lysander Way residential estate (916 dwellings).

The average of the vehicle trip rates established for these sites are as follows:

AM Peak (08:00 - 09:00): 0.149 arrivals and 0.392 departures  
PM Peak (17:00 - 18:00): 0.375 arrivals and 0.118 departures

The applicant has provided a comparison of the vehicle trip rates from the WHaSH program, the traffic surveys and the applicant has also interrogated TRICS, an industry standard online database, for trip rates.

The TRICS trip rates are as follows:

AM Peak: 0.163 arrivals, 0.402 departures  
PM Peak: 0.376 arrivals, 0.233 departures

It was determined that the TRICS and WHaSH trip rates were higher than those obtained from the traffic counts, with the WHaSH trip rates providing the most robust scenario. The applicant has used the WHaSH trip rates for the purposes of this assessment. This is considered acceptable.

#### Gypsy and Traveller Site

The applicant has undertaken traffic surveys at a gypsy and traveller site at the junction of A414/B1455 to obtain the trips for the proposed gypsy and traveller site. The site at this junction generated approximately 43 two-way movements in the AM and PM peaks. Therefore, it was considered that the proposed site would generate 20 two-way trips in each peak hour as it is approximately half the size. This assumption is considered acceptable for the purposes of this assessment.

#### Other Land Uses

It is not clear in the DTA why trip rates for other land uses have not been considered in the trip generation section. Please make it clear in the TA any assumptions or agreed methodology.

#### Trip Profile

Based on the above trip rates, the applicant has provided a trip generation profile for the site as follows:

#### Land at Birchall Farm

##### AM Peak

- (WHaSH) Residential: 171 arrivals, 441 departures for 612 two-way trips
- S. School: 214 arrivals, 141 departures for 355 two-way trips.
- Total: 385 arrivals, 582 departures for 967 two- way trips

##### PM Peak

- (WHaSH) Residential: 419 arrivals, 232 departures for 651 two-way trips
- S. School: 20 arrivals, 34 departures for 54 two-way trips.
- Total: 439 arrivals, 266 departures for 705 two- way trips

#### Birchall Farm South

##### AM Peak

- (WHaSH) Residential: 49 arrivals, 126 departures 175 two-way trips

##### PM Peak

- (WHaSH) Residential: 120 arrivals, 66 departures for 186 two-way trips

Land at Cole Green

AM Peak

- (WHaSH) Residential: 196 arrivals, 504 departures for 700 two-way trips

PM Peak

- (WHaSH) Residential: 479 arrivals, 265 departures for 744 two-way trips

Total Development

AM Peak: 630 arrivals, 1212 departures for 1842 two-way trips

PM Peak: 1038 arrivals, 598 departures for 1635 two-way trips

They have also provided a trip profile for the first phase of development which would consist of 600 residential dwellings, this is as follows:

AM Peak

- (WHaSH) Residential: 98 arrivals, 252 departures for 350 two-way trips

PM Peak

- (WHaSH) Residential: 239 arrivals, 133 departures for 372 two-way trips

This is considered acceptable for the secondary school and residential land uses. However, further details are required in the TA to justify the lack of trip rates for the other land uses. In particular, the business land use and trips associated with staff arriving to the site and external pupils attending the schools.

Committed Development

Committed development sites have been considered and have been previously agreed. Previously, HCC was concerned with the trip rates used in Table 17, now Table 21, for the Howlands committed development site. The employment trip generation rates used were not in line with the WHaSH trip rates; however, this has since been amended with the exception of the PM Peak trip rates for B1a office use. These need to be revised in order to be in line with the WHaSH trip rates.

Trip Distribution

In addition to trip generation, trip distribution assumptions for the proposed development traffic have been previously presented and agreed. The DTA provides two means of providing a trip distribution profile. In the first instance, the applicant has considered the WHaSH modelling assumptions. These assumptions were established based on the following parameters as agreed with HCC:

- Trip proportions determined based on Journey to Work (JTW) origins and destinations.
- Correspondence table created with JTWs MSOAs and WHaSH zones. Census data used for splitting the MSOAs covering more than one WHaSH zone.
- Trip distribution applied to AM Peak traffic to and from the development.
- Transposed distribution to be applied to the trips to and from the development in the PM Peak. This assumes same people leaving in AM arrive in PM and vice versa.

The applicant has provided the agreed parameters in the DTA with the outputs for the WHaSH model in the DTA as well.

The second methodology used for assigning trips was the DTA Trip Assignment which is based on the individual assessment of each trip purpose (i.e. commuting, recreational, health, school, etc.).

The DTA approach assumed the following:

- JTW movements assigned in line with 2011 Census data (applies to residential generated work trips).
- Education trips for primary school assume 90% internal and 5% to the Panshanger and Howlands Ward where there are existing schools. Please note there is a missing 5% to be considered. This needs to be addressed in the revised TA.
- Secondary school trips assume that all employee trips are external and 90% of pupil trips are internal to the site. This would equate to approximately 130 external trips in the AM Peak which are applied in accordance with 2011 journey to work data.
- Leisure trips assume 30% internal and the remainder per 2011 Census distribution.
- Shopping and personal business assumes 20% internalisation, 30% to Haldens and the remainder distributed in accordance with the main locations as identified in the DTA.

Both approaches are considered acceptable for the purposes of this assessment.

The overall development traffic assignment profile has been provided for the first phase of development, comprising 600 residential units at Cole Green, and for the full development. This is considered acceptable.

#### Impact on the Highway Network Junction Assessment

The applicant has provided individual junction assessment for site accesses and local junctions on the A414, as agreed through pre-applications with HCC. Therefore, this is considered acceptable. The applicant has agreed to assess the following junctions:

- B195 / A414 roundabout;
- A414 / B1455 roundabout;
- A414 / Hertingfordbury Road / Thieves Lane roundabout; and,
- Cole Green Lane / B195 junction.

As part of the DTA the applicant has undertaken junction capacity assessments for the following scenarios:

- 2017 - Base Conditions;
- Forecast year 2021 - Base + Committed Development;
- Forecast year 2021 - Base + Committed Development + Proposed Development Phase 1;
- Forecast year 2033 - Base + Committed Development; and,
- Forecast year 2033 - Base + Committed Development + Full Development.

This is considered acceptable. The applicant has also provided a general review of sections of the A414 and A1(M) for consideration.

#### Impact on the A414 through Hertford

The applicant has stated that the impact of the proposed development on the network for Phase 1 would be less than 25 trips in each direction in the peak hours. This would increase incrementally until project completion in 2033. The applicant has stated that HCC is undertaking assessment of the impact on the A414 and this outcome would be reported separately. This will need to be included as part of any formal application submission.

#### Impact on the A1(M)

This is undergoing ongoing review in the WHaSH model; however, appropriate improvements to Junction 4 of the A1M and the adjacent network have been identified in the Infrastructure Delivery

Plan and it is expected that the development will contribute to these improvements. This is considered acceptable for the purposes of the assessment.

#### Birchall Farm Western Roundabout (Highlands Roundabout)

This is a proposed new junction which would be located taking into account the requirements of DMRB TD16/07. The proposed roundabout would be within Highways land and/or land controlled by the applicant. Detailed design drawings for the proposed roundabout will be required for consideration by the DM Implementation team as part of any future planning application submissions.

The proposed roundabout has been modelled using ARCADY, an industry standard software used for modelling roundabouts. This is acceptable. The junction modelling outputs indicated that the proposed roundabout would operate well within capacity for all scenarios. This is considered acceptable, subject to detailed design review.

#### Birchall Roundabout

The proposed roundabout would be located close to an existing priority T-junction. This is a new junction which has been designed by taking into account the requirements of DMRB TD16/07. The proposed roundabout would be within Highways land or land controlled by the applicant. Detailed design drawings for the proposed roundabout will be required for consideration by the DM Implementation team as part of any future planning application submissions. The designs would also take account of HCC's request for a west to south bypass lane from A414 to Birchall Lane.

The proposed roundabout has been modelled using ARCADY. The junction modelling results confirm that the proposed roundabout would operate well within capacity for all scenarios. This is considered acceptable, subject to detailed design review.

#### Cole Green Lane Priority T-junction

This new access has been provided in order to avoid the use of Holwell Hyde Lane. This is acceptable and any designs will be subject to detailed design review.

The proposed priority junction was modelled using industry standard PICADY software. The results demonstrate that for all scenarios, the proposed junction would operate within capacity. This is considered acceptable, subject to detailed design review.

#### Cole Green Lane Roundabout

This is an existing junction with Birchall Lane, Cole Green Lane and Black Fan Road and is currently priority controlled. It was considered that the current layout would result in delays on Cole Green Lane, therefore, the applicant has proposed to provide a roundabout in place of the priority junction. The proposed roundabout would be designed by taking into account the requirements of DMRB TD16/07. The proposed roundabout would be within Highways land or land controlled by the applicant. Detailed design drawings for the proposed roundabout will be required for consideration by the DM Implementation team as part of any future planning application submissions.

The proposed roundabout has been modelled using ARCADY. The junction modelling results confirm that the proposed roundabout would operate within capacity for all scenarios. This is considered acceptable, subject to detailed design review.

#### A414 / Birchall Lane Roundabout

This junction has been previously identified by HCC as requiring improvement, including provision of a left turn lane into Birchall Lane. However, the junction has been modelled as part of the DTA without the proposed improvements. The junction modelling demonstrates that the junction, in its current form, can accommodate the full development traffic, in addition to any traffic growth. This is acceptable.

#### A414 / B1455 / Southern Site Access Roundabout

This junction was previously assessed in WHaSH and was found to operate within capacity. However, the applicant also modelled the junction using ARCADY software which demonstrated the junction would operate over capacity for the 2033 with development scenario, with an RFC of 0.95 on the Holwell Lane junction arm in the AM Peak. Mitigation would be required at the junction in order to ensure that it operates satisfactorily in future scenarios.

#### Black Fan Road / HERN Lane Double Mini-Roundabout

The applicant has noted that there are existing congestion and capacity issues at this junction. However, the applicant has not provided an assessment of the junction. This was not requested by HCC and is therefore considered acceptable.

#### A414 / Thieves Lane Roundabout

The applicant notes that modelling undertaken by AECOM for HCC has confirmed that this junction has no future capacity constraints. The results of this junction modelling should be provided in the TA.

#### New or Altered Junctions

The applicant should be aware that as part of any future application submission, detailed designs are required for any new or improved junctions for consideration by HCC's DM Implementation team. Any proposed changes to the local highway may be subject to Road Safety Audits and would be subject to appropriate highways agreements.

#### Highway Safety

The applicant has provided review of collision data in the DTA for a 5 year period from 1 April 2010 to 31 March 2015 for the surrounding road network of the site. This is acceptable; however, the applicant is recommended to obtain most recent collision data to supplement the data included in the DTA in order to ensure that the most current and relevant information is considered as part of any future planning application submission.

#### Refuse and Service Delivery

It is assumed that service and delivery vehicles will be using the road network through the development site. The applicant will need to provide details on the number of service vehicles that will access the site, the size of the vehicles and the likely times of use.

#### Highway Layout

##### Vehicle and Pedestrian Access

All new or altered site accesses will be required to be designed in accordance with Roads in Hertfordshire: Highway Design Guide 3rd Edition and will be subject to S278 agreements.

Where there is a primary or secondary school, details with regards to site access for teachers, pupils being dropped off/picked up and school buses will need to be provided.

The applicant is required to include details with regards to emergency access to the sites. Emergency access requirements should be designed in line with the Guidance on Fire Service Emergency Access Requirements found on the Hertfordshire County Council's webpage.

The internal layout will need to be provided and the design will need to provide appropriate parking provisions in line with the Welwyn Hatfield and East Herts parking standards and must provide appropriate arrangements to allow the largest vehicles accessing the development site to enter and exit the proposed access in forward gear. Therefore, the internal layout must provide sufficient space to ensure all vehicles using the proposed site are able to safely manoeuvre through, turn around and re-enter the highway in a forward gear. The proposed site access arrangements must be supported

by a Stage 1 Road Safety Audit. If the roads of the internal layout are to be adopted by HCC, the roads must also be designed in accordance with Roads in Hertfordshire: Highway Design Guide 3rd Edition.

#### Swept Path Analysis

The applicant will need to provide swept path assessments of the proposed development for the internal layout and for the access proposals to ensure that servicing and refuse vehicles, and the largest delivery vehicles, can access and safely manoeuvre through the proposed development site.

#### Road Safety Audit

A Stage 1 Road Safety Audit will be required, at a minimum, to illustrate that proposed access arrangements are safe and appropriate. The Safety Audit should consider the road network through the site as well due to the interactions with pedestrians. Road Safety Audits will be required for all new or improved junctions as well.

#### Parking Provision

##### Standard and Disabled Parking

It is stated in the DTA that parking requirements for the proposed development would be determined based on the standards set out in Welwyn Hatfield District Plan Supplementary Planning Guidance Parking Standards (January 2004) and East Herts Adopted Vehicle Parking Provision at New Development SPD (June 2008).

Special considerations and provisions should be made where required. For instance, in the event that the Sport Pitches will be used for tournaments, provisions for coach parking should be accommodated on-site. Furthermore, where school buses are intending to park at the primary or secondary schools, appropriate parking provisions should be accommodated on-site.

#### Cycle Parking

The anticipated cycle parking requirements for the proposed development are to be provided based on the standards set out in Welwyn Hatfield District Plan Supplementary Planning Guidance Parking Standards (January 2004) and East Herts Adopted Vehicle Parking Provision at New Development SPD (June 2008).

#### Accessibility

##### Public Transport

The site is serviced by Welwyn Garden City Rail Station within a 2.5 mile distance from the proposed development location. The station is accessible by public transport and is reasonable cycling distance.

The closest bus stops for the north section of the proposed development site are within close proximity to the Cole Green Lane/B195 junction. The bus stops at this location are serviced by bus route 201 to Welwyn GC and Welham Green, 242 to Welwyn GC and Waltham Cross, and 388 to Stevenage and to Presdales. Bus stops near the A414 and B195 roundabout are also within close proximity to the north parcel of the site. The bus stops here are serviced by route 388 to Stevenage and to Presdales and 641 to Hatfield Business Park and Broxbourne.

The closest bus stops for the south section of the proposed development site are within close proximity to the Hatfield Road / B1455 / Hertford Road roundabout junction. The bus stops at this junction as serviced by routes 201 to Welwyn GC and Welham Green, 341 to Hatfield and Ware and 641 to Hatfield Business Park and Broxbourne.

#### Walking and Cycling

There are no footway or cycle provisions along B195/Cole Green Lane/Birchall Lane. Footway and Cycle provisions along B195 will likely be required as part of future planning obligations, to be determined as part of future planning application responses.

#### Travel Plan

A Full Travel Plan will be required to encourage sustainable transport modes and to reduce the reliance on private vehicles to ensure minimal impact to the highway safety and function as a consequence of the development. A Framework Travel Plan should be incorporated into the TA. Travel Plans should be prepared in accordance with Hertfordshire's Travel Plan Guidance.

#### Construction

The applicant has provided a section in the DTA relating to Construction Issues. This is considered acceptable.

A Construction Traffic Management Plan (CTMP) will be required to ensure construction vehicles will not have a detrimental impact on the vicinity of the site and a condition will be required to provide adequate parking for construction vehicles on-site to prevent on-street conflict and impacts to the highway safety.

Due to the scale of the proposed development, it is anticipated that the construction will be carried out in phases. The applicant is required to consider the various phases and provide appropriate consideration of the likely interactions between construction vehicles and development generated traffic (residents, school traffic, neighborhood centers, etc.) for each phase. Appropriate expected trip generation profiles and trip distribution profiles will need to be considered in the CTMP for each of the trip types, construction and development traffic. Size, number and frequency of construction vehicles used will need to be discussed in detail within the CTMP and likely routing will need to be provided.

#### Planning Obligations/Community Infrastructure Levy (CIL)

Planning obligations will be determined at the planning application stage.

#### Summary

Hertfordshire County Council as Highway Authority have no objection to the proposed development in principle, subject to additional information to support that the proposed development would not have a detrimental impact on the local highway network.

The contents of this letter are an informal officer opinion and should not be taken as a formal response to a planning application. It may not reflect the contents of any formal reply made by the Highway Authority in response to an official consultation from the LPA on a planning application for a similar proposal.

**Signed**

**Date** 22/08/2017