

Local Plan Examinations
Cambridge City and South Cambridgeshire
Matter 9 – Areas of Major Change/Major Development Areas on the Edge of Cambridge
9A – General Principles; and West Cambridge; North West Cambridge and Orchard Park

Darwin Green 2 (DG2) is proposed as a development of some 1100 houses some within the Parish of Impington. Darwin Green 1 (DG1), which is already under development within The City of Cambridge Boundary has outline planning permission for 1593 dwellings. Together they will form a combined community with both a supermarket and a secondary school in the DG2 area serving both developments.

Histon & Impington Parish Council (HIPC) are not objecting to the selection of DG2 for development *per se*, but are very concerned about some aspects of the proposals which will have detrimental effects on the residents of Darwin Green, Histon & Impington and people travelling near to the development. We are seeking that the Inspector, if minded to accept the combined Darwin Green 1 and 2 as a major development site, should place conditions on that development so that the net result is beneficial to both new and existing residents.

Our concerns cover:

1. Inadequate drainage planning risking flooding in our village
2. Proposed vehicular access from the B1049 to DG causing unacceptable tail backs onto the A14.
3. Noise and pollution impact on our residents on the other side of the A14

Drainage in South Cambridgeshire District Council Area

Much of South Cambridgeshire District area is Fens and some parts are below sea level according to Ordnance Survey Data. The River Ouse is tidal as far as Brownhill Staunch near the village of Over; much of the area has to be drained by pumping. Almost the whole of the District drains into the River Cam or the River Great Ouse (West River).

The villages of Histon and Impington drain into the Award Drains 164ⁱ and 165. Award Drain 164 is also called Histon Brook after the confluence with Award Drain 165. Cambridgeshire County Council Surface Water Management Plan Histon & Impington Pre-Project Appraisal Report (PPR) recommended a flood attenuation pond (offline detention area) on Award Drain 165 upstream of Histon Brook; Award Drain 165 catchment is entirely within the old Impington parish and is not affected by Darwin Green developments; the Cawcutts Lake just North of the A14, has no surface outlet.

Award Drain 164 drains the location of the proposed Darwin Green development. An outline application for development of Darwin Green 2 (DG2) was submitted more than a year ago,

including the drainage proposals which were later withdrawn because of poor presentation. The proposed drainage attenuation ponds fall within the District. Applications for the ancillary works have been submitted but we have not yet been advised of the final location of the attenuation ponds. Initially the calculated discharge into Award Drain 164 was less than 10 litres/second, and it was proposed that a flow control structure should be built to limit the flow to that figure. The latest designs show the calculated discharge is 78.9 litres/second (for a 100 year return period of 100 years plus an allowance of 30 % for climate change), the allowable discharge rate is 78.2 litres/second. This is considerably above the initial calculation of less than 10 litres/second.

In view of the uncertainty of the above figures it is worth pointing out that the Report:

Darwin Green 1, Cambridge City Council Outline Planning Permission ref 07/0003.OUT, Condition 34 – Surface Water Strategy.

and

South Cambridgeshire District Council Planning Permission ref S/0001/07/F, Condition 6 – Surface Water Strategy was modified twice between January 2014 and April 2014, (Revision E)

These give indications of the lack of confidence in the calculations.

Apart from the recommended flood attenuation pond on Award Drain 165, (see above), the Surface Water Management Plan Histon & Impington Pre-Project Appraisal Report dated 14th September 2014 (PAR) also recommended '*Widening the cross-section of Award Drain 164 reaches upstream of the urban area to store flood flows and provision of a flow control structure to maximise upstream flood storage and reduce pass forward flows downstream*'. The PAR also stated that '*The A14 highway drainage system was not readily available so no representation has been made in the model for drainage along this road*'.

This further emphasises the doubts that remain on drainage. Moreover the Histon Brook flows into Beck Brook. Beck Brook is notorious for flooding in Girton and the connected Oakington Brook floods the village of Oakington. These do not appear to be considered in the simulation models (they are outside the area, even though the confluences are within 500 m of the parish boundary).

The adoption of Sustainable Urban Drainage Systems (SUDS) may reduce the intensity of flooding by local storage. However in this area the groundwater table is so high that little surface water seeps downwards. SUDS do not make the water disappear, the maximum flood level is reduced, but the length of time of flood is extended; the water has still to flow away. Therefore one storm may overlap with the effects of the previous storm causing the water levels to rise above the levels projected by the model of a single event. Most simulation models do not consider this situation. There is great uncertainty about the effectiveness of SUDS in this locality.

Finally it must be borne in mind that the District is mainly in one catchment and must be considered as a whole, events in Linton or Ashwell may raise water levels in the River Cam which, in turn raise water levels in the Great Ouse and Cottenham Lode.

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Vehicular Access

The proposal is for the already granted permission for access from Cambridge Road, Impington (mistakenly labelled as Histon Road, Cambridge in many of the documents) to be built as per the plan for DG1 only. For clarity, we will always refer to the road as B1049.

The plan stated that the main entrance to the DG community would be from Huntingdon Road with a subsidiary access from Cambridge Road. The plans indicate this to be so in the scale of the proposals (two lines of exit traffic at Huntingdon Road, one onto B1049). We contend it is where people want to travel which will determine which access is used most. Since the DG1 permission in 2007 there have been considerable developments that will shift that balance. We also comment that the designed layout will considerably reduce traffic flows into Cambridge in peak hours and lead to tail backs on the A14

The area of the proposed junction is shown in the following from Google Earth.



The picture (which is quite dated but the road layouts are current) shows the roundabout over the A14 with the B1049 crossing over. 120m south of the roundabout is a major traffic controlled

junction with inwards traffic splitting 80/20 percent further on down the B1049 and left onto Kings Hedges Road.

80m further on there is a white line in the picture on the B1049 showing the line of the proposed access road into the combined DG site. The superimposed white arrow points to the location of the proposed junction.

Currently:-

1. Entering onto the A14 roundabout from the B1049 in the morning the traffic is heavier than on the A10 junction onto the A14 which is 2km west
2. Traffic moving southwards to the Kings Hedges Road traffic lights frequently on a normal morning backs up to the roundabout on the A14.
3. On wet days many who use bicycles transfer to cars and the traffic is much worse: the vaunted high use of cycles to work is much reduced in wet weather.

It is clear, not requiring any vehicle counts that the current arrangement is close to capacity.

With the same volume of traffic as current, adding an extra junction with traffic lights so close beyond the Kings Hedges Road junction would of itself cause further delays and backing up to the A14. If the traffic light sequence on the new lights allows for traffic to access and exit DG then impact will be greater. Additionally the new development will inevitably increase the traffic flows down and across the B1049.

Currently the back-ups do on occasion cause backing of traffic beyond the access ramps from the A14 and on to the main carriageway of the A14. The current proposals for improving the A14 will only partially alleviate the situation and HIPC believes the net effect of the DG junction, the extra traffic and the A14 upgrade will be a worsening of the current situation. Planning to have dangerous tail backs onto a major trunk road is not acceptable.

The planning permission (S/0001/07/F) for the access for DG1 was granted '*without having to take into account other proposed but not yet granted developments*'

We note, since that date, the proposals on DG and other sites have been progressed:

1. There will be a secondary school on DG2 and many pupils (and staff) will come from outside DG
2. There will be a supermarket, with both deliveries and customers from such areas as our villages, Orchard Park and North Cambridge
3. Orchard Park has been developed, not as originally intended to include commercial development but almost solely as residential with two hotels and a few shops, causing greater out traffic flows through the Kings Hedges Road junction
4. The new Northern Cambridge Railway Station, we are told will create 15,000 jobs but have very little residential accommodation
5. The Science Park and more notably the areas on the other side of Milton Road have considerably expanded the employment opportunities
6. The North West Cambridge site is being developed and anybody working or visiting there

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from east of the B1049 junction will naturally pass through DG to get there to avoid a considerable detour, having a 20mph speed limit and a dog leg junction in the site will have minimal impact on the advantage of this direct route.

It would be foolish to assume everybody was able to live in the most advantageous place for work. Some families will have two or more work locations, some will change employment (without moving house) House buying economics and availability will mean even newcomers to the area will often have to live a distance from work. Hence, those moving to DG will include many who need to access employment sites along the northern City boundary to the east, and there will be many living due east who will access the North West Cambridge site through DG (and hence need to traverse the new junction)

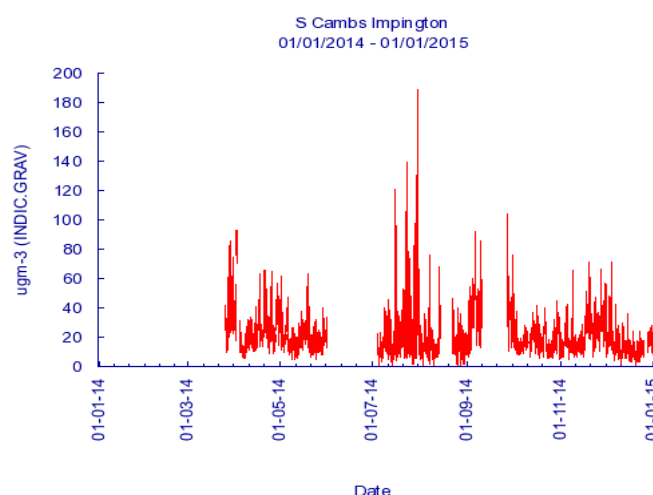
All of the above indicates to us that the traffic volumes at the existing Kings Hedges Road junction on B1049 and the proposed new junction will increase significantly. The B1049 access to DG will be used significantly.

Given the inevitability of the proposed junction being proved to be inadequate, HIPC earnestly requests that the development of DG2 demands a better design access from the outset.

Noise and Pollution

Many of our current residents are already suffering from the impact of the increased traffic since development of the A14 in the 1970's.

Lone Tree Avenue is already a Noise Priority Area and in an Air Quality Management Area. The figures from the monitoring station by the A14 roundabout show persistent dramatic levels of PM₁₀ pollution. The data for 2014 is shown in the following graph (blanks indicate no data available) from the web set for the official monitoring station.



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A figure of $40\mu\text{gm}^{-3}$ is considered to the maximum acceptable level. Peaks at nearly five times that limit are concerning.

There are concomitant professional readings of the noise levels but the residents close to the monitoring site can not site in their gardens.

The Highways Agency (HA) have undertaken to provide improvements to the noise protection as part of the A14 upgrade. SCDC is still to publish an effective plan for the AQMA.

When Orchard Park was built a noise barrier was erected to protect the residents thereof. The plans showed this to be an “absorptive barrier” but the barrier built was reflective. This barrier has dramatically increased the noise north of the A14 that is in our villages, with people claiming they can no longer open their windows at night (an interesting observation given the basis of the World Health Organisation (WHO) Noise Pollution Standard).

We are concerned that the HA will put in noise barriers that are adequate for the open fields to the south, only for these to be negated by those erected by the DG2 developers. Our residents have suffered too long, unable to sleep at night or use their gardens. If DG2 proceeds, these residents as well as those on DG2 need protection.

Conclusion

HIPC repeats that it is not opposed in principle to the development of DG2 but considers there are traffic, noise, pollution, and drainage considerations.

All developments should be undertaken properly with due regard to the knock on effects on others and that harmful effects are mitigated fully during the development.

(2175 word count)

ⁱ Award Drain 164 and 165 – Awarded Drains are watercourses maintained by South Cambridgeshire District Council