

CHAT POINTS ON THE REVISED DRAINAGE PLAN -

INTERNAL ROADS - STREET LIGHTING - FUTURE SITE MANAGEMENT

NEW REVISED DRAINAGE PLAN (NOV 2016) – NOT YET PUBLISHED

On the 21st October 2016 the DCC Flood and Coastal Risk Management Team advised that the Developer was now looking at the option of a new **“Attenuation-based surface water drainage management system with an off-site discharge point”** instead of the original **“Infiltration-based, soakaway management system with on-site discharge”**. We understand their appointed Consulting Drainage Engineers (Cole Easdon Consultants) is currently in the process of designing this new alternative strategy. We also understand that:

- The Existing Land Drain is being replaced by 150mm diameter pipework, which will now be re-routed along the western and southern boundaries of the proposed development site.
- The shallow open channel shown on the Drainage Plan (Sep 2016) will actually be closed 150mm pipework, but whether it is still the intention to have an infiltration trench / swale on the western and southern boundaries for any exceedance flows from upslope (in addition to the 150mm pipework) is not known at this stage.

When the new Plan is formally submitted to the SHDC Planning Case Officer, we request it is published on the SHDC LPA planning portal as quickly as possible. This will give our specialist independent civil engineer, CHAT and the Chillington residents an opportunity to study and comment on the proposal.

Until this new Attenuation Based Drainage Plan is published we cannot really comment on its suitability however historically the drainage of this site has always been a problem area. The Agricultural Land Classification (para3.2.3) states **“Agricultural land at the site is predicted to be at field capacity (i.e. near saturation point) for 226 days per year, respectively, over the late autumn, winter and early spring”**. Things have not changed as the flood experienced on the 16th June 2016 clearly demonstrated.

Surface water run-off and flood risk on this site is a major problem especially if at least 40% (if not more) of the grassed fields are covered by houses, estate roads, garages and tarmac drives. Drainage and flood risk is of great concern to the Chillington residents therefore we look forward to seeing the new Attenuation Based Drainage Plan proposal (with off-site discharge) as soon as possible.

THE DRAINAGE PLAN PRELIMINARY DESIGN LAYOUT (SEP 2016) 4660/501 REV C PUBLISHED ON THE SHDC PLANNING PORTAL ON THE 28TH SEPTEMBER 2016

Although this plan is now being revised, we believe it would be prudent at this stage to make you aware of the areas we are concerned about.

Swales & Infiltration Trenches Along the Southern Boundary. Have these swales and infiltration trenches now been deleted from the plan or just replaced by the new Cut-off Drain?

New Cut-off Drain along the Southern Boundary.

- What are the dimensions of this Cut-off Drain?
- Is this an infiltration trench / soakaway or an open shallow drain?
- As this is on public land will it be adopted by DCC and maintained by them?

Highway Soakaways.

- These must be at least 5 meters from the road. Is there enough space at the single entry / exit junction to meet this criteria?
- Will DCC Highways really adopt a road when 100% of the highway drainage is to soakaways?
- What happens if DCC will not adopt the soakaways? Who will maintain them?

New Infiltration Trench. This trench is 60m long x 1m wide x 1.6m deep. Although it has now been moved northwards away from the southern boundary, it appears to be very close to / over the SWW 6" Trunk Water Main running through the site.

- SWW will not permit any development within 3m of the water main and has confirmed that ground cover should not be substantially altered.
- We believe the water main is only 1.2m (approximately 4ft) from the surface. Any 1.6m deep infiltration trench within 3m must substantially alter the ground cover.

Connection into Foul Water Sewer. One option to dispose of surface water run-off is to connect a new Surface Water Sewer into the existing SWW Foul Water Sewer.

- SWW has stated on a number of occasions that **no surface water from the proposed development will be permitted to discharge into the public combined or foul sewerage network.**
- Surely the developer is fully aware of the SWW policy and current position therefore this "option" is a non-starter and should never have been proposed.

Cellular Infiltration System. This system is only 10m x 9m x 1.2m and surely too small for the volume of surface water from the dwellings to the north and east of the proposed un-adopted road.

- Surface water could just overflow into the gardens of at 4 houses (47/49/51/53) in GPW.
- Even if it does not overflow and infiltrates through the ground, the severe slope in this area will direct the water through the ground towards the same 4 houses in GPW. The sloping land near the properties could be destabilised and there is a flood risk potential.
- It appears from the revised drawing that the Cellular Infiltration System must be located at least 3m from the un-adopted road. The surface water feeder drain runs under the un-adopted road therefore who is responsible for its maintenance, SWW / DCC or the new property owners?
- Will this system really be adopted by DCC for maintenance purposes? If not, who will be responsible for the maintenance and eventual replacement of the system?

Northern Boundary Wall. The Revised Drainage Plan (Sep 2016) shows that surface water from fields to the north of the existing ancient stone wall, will flow downwards towards the wall (which is now part of the developers proposed flood prevention scheme) and then westwards towards Port Lane or eastwards towards Coleridge Lane.

- We are all aware of the existing flooding problems down Port Lane and Coleridge Lane which will not be improved by the proposed Drainage Plan.
- The existing ancient stone wall will remain in the ownership of the Developer until completion of the development. Following completion this wall will form the properties' northern boundary and will be required to be maintained by individual property owners. Not a very good selling point, especially if the ancient stone wall (now part of the proposed flood prevention scheme) needs expensive repair & maintenance to divert surface water from the fields so that gardens are not flooded.

Ground Water Monitoring. The Developer has now agreed that groundwater monitoring will be undertaken to record ground water fluctuations over a 12 month period. When will this monitoring start and finish?

- The developer has advised that if high ground water is encountered during this monitoring period, then the infiltration SuDS drainage proposal will be reassessed with a view to seeking alternative outfalls i.e. public sewers!
- Surely the Developer is by now aware that SWW will not permit any surface water from the proposed development to be discharged into the public combined or foul sewerage network.

INTERNAL ROADS

Estate Roads. In an email to Cole Easdon Consultants on the 15th April 2015 DCC Highways stated:

“ Obviously on a site of this size the Highway Authority would welcome S38 adoption of internal estate roads”.

- Looking at the current Drainage Plan Preliminary Design Layout (Sep 2016) it seems incredible that only around **30% (20) of the proposed dwellings are on an adopted road.**
- It would appear that around **70% (45) of the proposed dwellings are planned to be on an un-adopted road.** With all the future maintenance, financial and managerial problems this will bring with it, why is DCC Highways allowing the developer to proceed with this un-adopted road approach?
- We are aware that an un-adopted road is not built to the same specification as an adopted road and is therefore financially more attractive, but surely on a site of this size, DCC Highways should be insisting that **all internal estate roads should be built to a specification that will enable them to be adopted.**

- Will the un-adopted road have two pavements along which pedestrians can walk in safety now the proposed **Pedestrian Access** routes into the village centre have been withdrawn by the developer?
- Is SWW and DCC responsible for the maintenance of new surface water drains and foul water sewers on un-adopted roads or will this be down to the new property owners?

Un-adopted / private roads invariably fall into disrepair through lack of maintenance, financial and management problems, creating an air of neglect. CHAT considers it inappropriate (possibly even irresponsible) for this type of road to be permitted on such a large scale development. **We strongly recommend that DCC Highways look at this aspect again and inform the developer that all estate roads are to be constructed to a specification that will allow them to be adopted.**

Entry / Exit Junction. Now that Port Lane and Coleridge Lane pedestrian and cyclist access points have been withdrawn by the developer, **all pedestrians and cyclists** will have to use the **single vehicle entry / exit road junction into Green Park Way** for access to the village centre.

- Not only does this confirm our view that this is a car dependent site but it makes the junction a critical point from a highway safety aspect.
- On the 18th May 2016 (published on the planning portal on the 11th August 2016) DCC Highways stated that **“in terms of a highway safety reason there is no reason to dispute the revised submission”**. We can only assume this revised submission was the withdrawal of the pedestrian / cyclist access points to the village centre along Port Lane and Coleridge Lane, therefore we request they look again at highway safety at this critical single vehicle entry / exit junction.

STREET LIGHTING

In April 2016 (early in the planning stage) it was identified that **“street lighting is likely to be a sensitive issue given the rural location”**. This point is especially important because the site is on elevated land outside the established rural edge of the village and is clearly visible from within the AONB.

- When will details of the proposed type of street lighting be forthcoming, especially as it has been identified as a sensitive issue?
- Will there be the same type of street lighting on the proposed un-adopted road?

RIPERIAN RIGHTS

SHDC LPA is aware there is a natural fresh water spring (watercourse) on the site which was piped some 50 years ago and flows under the side garden of 17 Green Park Way (close to the proposed vehicle and pedestrian entry / exit junction), then under Green Park Way (GPW). Full details and a sketch map can be seen on page 13-14 of the CHAT response to planning application reference: 0771/16/OPA published on the SHDC LPA planning portal.

If the current underground Land Drain is being replaced by 150mm pipework, re-routed down the western and southern boundaries and under the new site entry / exit junction, it can only be assumed it is being **connected to the old existing 100mm clay pipework** which runs under the side garden of 17 Green Park Way.

SHDC LPA is aware (from the objections already submitted and published on the planning portal), that if the developer **intends to divert any surface water run-off** from the site into this pipework some of the 15 x Land Owners with Riparian Rights have already **formally refused Discharge Consent**.

It would appear the developer is considering **connecting the new 150mm pipework to the old and smaller butt jointed 100mm clay pipework**. It is more than a little surprising that nobody has contacted or discussed this aspect with the Land Owners who have Riparian Rights, **especially as the watercourse is being diverted and the regular flow may be disrupted or polluted**. Riparian Owners have Rights as well as Responsibilities.

FUTURE SITE MANAGEMENT

Experience has taught us that the management of those parts of a development not conveyed to individuals (65 x dwellings), must be set down in a legally enforceable document to ensure that individuals are made to meet their financial responsibilities as and when required.

Even though this is only an Outline Planning Application, if it is approved we would strongly recommend the **introduction of a Site Management Plan as a pre commencement planning condition**. This Site Management Plan should clearly identify the maintenance and future replacement responsibility for areas such as:

- Un-adopted / private road (affecting approximately 70% (40) of the dwellings)
- Common areas of ground (including shared drives and permeable paving)
- Ancient stone wall / bunds on the northern boundary (part of the flood prevention scheme)
- Infiltration Trenches / Swales (western and southern boundary)
- Cut-off Drain (southern boundary)
- Cellular Infiltration System
- Highway soakaways (close to the single vehicle / pedestrian entry and exit road junction)
- Attenuation based surface water drainage management system and off-site discharge point

Without a formal Site Management Plan (which should include all flood prevention controls requiring regular inspection and maintenance), neglect and non-maintenance could result in the eventual failure of the overall plan and water flooding the properties of residents in Green Park Way and the village centre below.