Part One

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KW/HBBD/21/4066b

BLYTHE VALE DEVELOPMENT

STORM WATER DRAINAGE PROPOSALS

Presently, Stone Farm drains to the South corner of the site and then into a Highways Agency cut-off ditch on the NW boundary of the A50. From there the water drains to the southeast in the Highways Agency drain to a culvert under the A50 some 350m south east of the A50/A521 roundabout and then into the River Blythe.

The Highways Agency would have no objection to the developed site continuing to use this drain provided that the peak discharge does not increase from the existing. Therefore, a balancing pond will be constructed to attenuate the peak flow back down to green field site run-off (i.e. no more than 5 litres/second/Ha as set out within correspondence from the EA and STW – refer to attached correspondence at Appendix A).

The proposed storm water drainage layout for the current reserved matters application is shown on drawing KWHBBD/059 (attached).

The A521 junction bellmouth will be adopted by the highway authority and its drainage incorporated into the existing highway drainage system. It is proposed to offer the access road shown outside of the red-line boundary on drawing KWHBBD/059 for adoption and its drainage would be incorporated into the existing highway drainage system.

FOUL WATER DRAINAGE PROPOSALS

The Stone Farm site will be drained via a 150mm diameter pipe via the Main Access road and A521 to STWL chamber MH 9601 some 400m east of the Main Access (note that the STW letter attached wrongly labels the foul and storm manholes; MH 9601 is the correct reference for the connecting foul manhole)..

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INVESTOR IN PEOPLE

Cooper, Martin

From: Kodz, Margaret
Sent: 23 January 2008 10:11
To: Cooper, Martin
Subject: FW: Blythe Bridge Development

Martin

I have this email from the EA saying that 5l/s/ha is satisfactory. I also have a letter from STW quoting 5l/s/ha, but this technically relates to discharges into their SWS though obviously it will eventually get to a watercourse.

Margaret

From: Yates, Karen [mailto:karen.Yates@environment-agency.gov.uk]
Sent: 18 October 2007 16:03
To: Kodz, Margaret
Subject: RE: Blythe Bridge Development

Margaret

Thank you for your email of 5 October 2007 concerning land at Blythe Bridge.

The discharge rate that you have quoted is satisfactory as a greenfield value. Provided that the site drains to this culvert at present, then we have no objections to it being used as an outfall.

Sustainable Drainage Systems (SuDS) should be considered as the first method of surface water disposal for the site, provided that ground conditions are appropriate.

Surface water run-off should be controlled as near to its source as possible through a sustainable drainage approach to surface water management. This approach involves using a range of techniques including soakaways, infiltration trenches, permeable pavements, grassed swales, ponds and wetlands to reduce flood risk by attenuating the rate and quantity of surface water run-off from a site. This approach can also offer other benefits in terms of promoting groundwater recharge, water quality improvement and amenity enhancements. Approved Document Part H of the Building Regulations 2000 sets out a hierarchy for surface water disposal which encourages a SUDS approach.

Regards

Karen Yates

From: Kodz, Margaret [mailto:KodzM@halcrow.com]
Sent: 05 October 2007 15:30
To: Yates, Karen

Subject: Blythe Bridge Development

Karen

Attached is an extract from the OS map showing the location of the above site and the location of the culvert under the A50.

Please could you let me know whether it is likely to be acceptable to discharge the surface water run-off from the site, attenuated so that the flows are limited to 5 litres/sec/ha, to the ditch leading to this culvert. The site currently drains in this direction.

Regards

<<Location Plan.doc>> Margaret

Margaret Kodz CEng MICE
Engineer

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Thank you.

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Severn Trent Water

4 June 2007

Severn Trent Water Ltd
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Tettenhall
Wolverhampton
WV6 8RU
Tel 01902 793871
Fax 01902 793971
Contact K C Rogers
Our Ref KCR/WT17527
kenneth.rogers@severntrent.co.uk

Halcrow Group
227 London Road
Worcester
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Fao Ms S Brookes

Dear Ms Brookes

Proposed development at Uttoxeter Road, Blythe Bridge

I refer to your Development Enquiry Request in respect of the above and our telephone conversation today. I now understand that the on-site sewers are not proposed for adoption as public. Please find enclosed the sewer records that are included in the fee.

Foul Water Drainage

The enclosed sewer records show a 150mm dia public foul sewer to the east of the site at starting at mh7601. A foul connection to that manhole would be acceptable. In the absence of a Section 104 Agreement in respect of the on-site sewers, any connecting sewer in the publicly maintainable highway will be adopted under the Company's Section 106 procedures (see later) and would have to be constructed to Sewers for Adoption (6th Edition) standards.

Surface Water Drainage

The enclosed sewer records show a 375mm dia public storm sewer to the east of the site at mh9601. In the absence of a Section 104 Agreement in respect of the on-site sewers, any connecting sewer in the publicly maintainable highway will be adopted under the Company's Section 106 procedures (see later) and would have to be constructed to Sewers for Adoption (6th Edition) standards. A storm connection to mh9601 would be acceptable to the Company **subject** to the following matters:

As you may be aware the Government has issued national advice in the form of "Planning Policy Statement 25: Development and Flood Risk" that seeks to reduce the impact of development on surface water runoff. Annex F of PPS25 is particularly relevant. This advice is generally followed by Local Authorities through both the Building Regulations (Approved Document H) and the imposition of appropriate planning conditions. STWL seeks to implement this advice by requesting such planning conditions and imposing flow restrictions for sewer connections (Section 106).

I note that the use of SUDS principles is proposed. STWL encourages the use of SUDS as an environment-friendly approach to the disposal of surface water runoff from development sites. This is consistent with the weight now given to such principles in the Building Regulations (Approved Document H, April 2002). In accordance with current guidance, disposal of storm runoff from the development is to be dealt with as follows:

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Registered Office: 2297 Coventry Road Birmingham B26 3PU

CONTINUATION

Severn Trent Water

1. By soakage into the site's subsoil, subject to suitable ground soakage capacity and any contamination present. As you may know, in addition to traditional soakaways, a popular approach is the use of permeable pavements or storm cells located under parking areas. Soakage capability is to be determined in accordance with Section 2 of Approved Document H3 (2002 Edition) of the Building Regulations and so certified by a suitably qualified person. If ground soakage proves inadequate, the relevant test results are to be submitted to Severn Trent Water Limited for inspection (see later). **A connection to the public sewerage system will then be considered with flows as:**

2 Brown field development site: If storm runoff from the existing development is connected to the public sewerage system, then peak storm flows from the proposed development up to that deriving from the previous connected impermeable area may be connected to the public sewerage system subject to both the details of the existing storm connection arrangements and hydraulic calculations, including any attenuation (tank sewers, storage cells etc)/associated control devices (Hydrobrake, orifice plate etc for 30 year design) being submitted to Severn Trent Water Limited (see later). For existing storm connections to the public foul sewerage system, any new storm connection to the public storm sewerage system (if available) will be limited to 5 litres/sec/ha (option A) OR a peak flow to be determined by the Company from its developer-funded hydraulic modelling of the public storm sewerage system (option B). The developer may choose either option.

3 Green field development site: If the site is a green field development ie not involving any demolition of buildings or paved areas connected to the public sewerage system, then the storm runoff from the proposed development may be connected to the public sewerage system subject to peak storm flows (30 year design storm) being limited to a green field runoff of 5 litres/sec/ha (subject to a minimum of 5 litres/sec), applied to the gross area of the site. Hydraulic calculations including any attenuation (tank sewers, storage cells etc)/associated control devices (Hydrobrake, orifice plate etc) must be submitted to Severn Trent Water Limited (see later).

From the information provided, the site is considered to be a green field development site as defined above, with paragraphs 1 & 3 applying. Thus, subject to paragraph 1 (test results and/or SI report extract required), any storm flows to be connected to the public sewerage system must be restricted to 5 litres/sec/ha.

For any new connections into the public sewer network or the re-use of existing sewer connections, you will need a Section 106 pack that includes guidance notes and an application form. Our Developer Services Team handles new connections. To contact them for an application pack please call 0116 234 3811 (or visit www.stwater.co.uk) and quote the reference number above. **The relevant details identified above must be submitted with the completed Section 106 pack.** For the avoidance of doubt, it is suggested that a copy of this letter, highlighting this paragraph is submitted with the future Section 106 submission.

Please quote WT 17527 in any future correspondence (including e-mails) with STWL.

Yours sincerely

K C Rogers

K C Rogers
Asset Protection (Waste Water) West