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GHB

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THE IRON WORKS AT HAMLET END
HAVERHILL - PROPOSED RESIDENTIAL
DEVELOPMENT.

FEASIBILITY AND ASSESSMENT OF
CULVERTING EXISTING RIVER IN
ASSOCIATION WITH PROPOSED
REDEVELOPMENT OF THE SITE

GHB Reference: 124/2004/REP

PLANNING AND
28 MAR 2006
TRANSPORTATION

1.0 INTRODUCTION

- 1.1 This report has been prepared following instructions received by Messrs JAP Architects on behalf of the owners of the site, who have prepared concept schemes for the proposed redevelopment of the Iron Works site in Hamlet Road Haverhill. A scheme would involve either culverting the length of the existing Stour Brook which crosses the site or providing minimal bridging where necessary.
- 1.2 The alternative concept schemes are shown on drawings numbered 02037-01,02 reproduced in **Appendix A**.

2.0 SITE LOCATION

- 2.1 The site is situated to the west of the road junction between Ehringhausen Way and Hamlet Road. The main river Stour Brook divides the site.
- 2.2 The site is shown, by the Environment Agency, **not** to lie within an **area** of indicative flood risk. Flooding of the site has not been formally recorded.

3.0 THE STOUR BROOK

- 3.1 The Stour Brook, at this location, is a 'main river' and falls under the various controls of the Water Resources Act 1991, the Land Drainage Act 1991 and associated bylaws.
- 3.2 Any works in, over or under the main river will require the prior written consent from the Environment Agency under the Water Resources Act 1991. Any works, including planting and fencing, within 9.0m of the river edge will require prior written consent from the Environment Agency under the Land Drainage Act 1991 and associated bylaws. Consents or permissions given under any other legislation do not diminish the requirements of the Water Resources Act, Land Drainage Act or associated bylaws.

- 3.3 Whilst the Environment Agency controls and sometimes maintains the Stour Brook, the legal responsibility for maintenance remains with the riparian owners. Similarly, the responsibility to receive and discharge waters unaltered in quality or quantity remain with the riparian owners.
- 3.4 Consented structures such as bridges, culverts, outfalls and amenity features, constructed or formed within the main river constraints would remain in the ownership of the riparian owner and would not become the responsibility of the Environment Agency.

4.0 BRIDGING THE STOUR BROOK

- 4.1 Clear span bridges that do not modify the cross-sectional area of the main river are likely to receive the approval of the Environment Agency if they are restricted to normal carriageway plus footpath widths. The ownership of the bridge cannot be passed to the Environment Agency. If any bridge is proposed over which public highway rights are to be established it will need to be designed and constructed to exacting highway standards.

5.0 CULVERTING THE STOUR BROOK

- 5.1 Culverting of the main river is likely to be strongly resisted by the Environment Agency under their current policy to resist all culverting except for access. The accommodation works associated with long lengths of culverting may render the proposal impracticable as all flows will be required to pass the installation, this usually means the construction of a temporary bypass system as over pumping will not be countenanced.
- 5.2 Any culvert constructed will not alter the status of the main river. The culvert will remain the responsibility of the riparian owners. (i.e. owners of the site.) The culvert: in order to demonstrate that flows will not be modified and that an interaction with other, nearby structures does not occur; will necessarily be larger than the existing river dimensions. At this stage, it is probable that a 6.0m wide x 4.0m high box-culvert would be demanded if consent were to be granted contrary to policy.

6.0 MODIFICATIONS TO EXISTING RIVER BANK

- 6.1 In view of the previous and existing riverbank usage, it is unlikely that the Environment Agency would resist hard landscaping of both left and right banks although their preference is always for soft landscaping. The responsibility for riverside features, revetments and all forms of landscaping would remain the responsibility of the riparian owners.

7.0 INDICATIVE FLOOD MAPPING

- 7.1 The Environment Agency has zoned the site as falling outside an area of indicative flood risk, however, it is probable that the Local Planning Authority will require that a Flood Risk Assessment accompanies any application for approval under the Planning Acts in accordance with the recommendations contained in Planning Policy Guidance Note 25. The Flood Risk Assessment will also be required to address the methods of foul and surface water drainage.

8.0 SUMMARY

- 8.1 Culverting of the Stour Brook is the most expensive option with costs estimated at over £250,000. The culverting would not allow buildings to use the surface area created and adjacent owners would have both a maintenance and structural responsibility for the culvert. This would deter potential purchasers of adjacent dwellings.
- 8.2 Clear span bridging or short box-culverting of the Stour Brook is the most cost effective way to provide access over the river at an estimated cost of £30000. However the cost is dependant on whether the structure would become a public structure if it carried the public highway. An opportunity to develop the river as a feature of the site could be also be realised with this option. As the usage and maintenance of such a bridge could be reasonably ascribed to a 'management group', if it remained private it is more probable that the issues of ownership and maintenance could be reduced to 'ongoing charges' rather than the threat of huge future maintenance or even replacement costs.

APPENDICES

APPENDIX A - Alternative Site Layouts.

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