Kingston upon Hull City Council

Supplementary Planning Document:
Sustainable Surface Water Management in New Developments

Revised Draft
Date: November 2009
Halcrow Group Limited
## Contents Amendment Record

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1 Introduction

The aim of this Supplementary Planning Document (SPD) is to inform prospective developers and applicants of Kingston upon Hull City Council’s (the Council) requirements for the management of surface water in new developments across Hull. The SPD will be used by Council Officers, Members, developers and the general public in the assessment of developments which are the subject of planning applications. It outlines the technical measures which the Council will expect to see incorporated into development proposals to minimise the impact of developments on their surroundings in drainage terms. The policies contained within this document will be promoted in all instances where planning applications are made to the Council.

All relevant planning applications submitted to the Council are currently judged against the policies of the development plan which comprises the recently adopted Yorkshire and Humber Plan Regional Spatial Strategy to 2026 (the RSS), the saved policies of the Hull Local Plan, the emerging Hull Local Development Framework (the LDF) together with National Planning Policy Statements (PPSs). The national policy for dealing with flood risk, including the management of surface water, is contained within Planning Policy Statement 25: Development and Flood Risk (December 2006). The key RSS Policy which deals with the management of flood issues is ENV1 – Development and Flood Risk. RSS Policy ENV1 has strategic aims to reduce the causes of flooding across the Yorkshire and Humber region to existing and future development.

The Council has a Local Flood Risk Standing Advice statement in place (jointly prepared with the Environment Agency) which has the purpose of assisting applicants for development proposals more easily deal with the preparation of Flood Risk Assessments. It also has published a Strategic Flood Risk Assessment (SFRA) which has the purpose of directing large and small-scale development proposals to the most appropriate locations. This SPD will add support to flood resilience requirements identified in the Local Flood Risk Standing Advice to outline measures that will further assist with the attenuation of surface water run off from new developments in and around the City of Hull. It also builds on recommendations contained within the Strategic Flood Risk Assessment.
2 Scope and Purpose

In recent years, planning policy relating to flood risk has evolved to reflect the greater concern and awareness of the consequences of flooding has to the health and safety of the general public. National policy provided in PPS 1 advises that all forms of flooding and their impact on the natural and built environment are material planning considerations and it also sets out the Government’s objectives on how the planning system should facilitate and promote sustainable patterns of development, avoiding flood risk and accommodating the impacts of climate change.

PPS 25 requires development to avoid and manage flood risk and in this regard new development has to adhere to what is known as the Sequential Test to steer all new development to areas at the lowest probability of flooding. For new development which is deemed suitably located, the way in which the site is drained is also vitally important to avoid the risk of surface water flooding to it and existing development.

The integration of surface water flood risk management measures will influence the design of all development proposals. The installation and management of surface water measure will ensure that development proposals are potentially capable of reducing the level of surface water flooding to surrounding areas as well as being as resilient as possible to the impact of flooding.

In May 2007 the Council commissioned the production of a Strategic Flood Risk Assessment (SFRA) which was completed in November 2007. The SFRA provides a greater understanding of the flood risks from the River Hull, Humber Estuary, drains, groundwater and rainfall to the city. The SFRA assists the Council choose appropriate locations for new development and provides assurances to developers and investors as the city continues to grow that locational risks are avoided as far as can be practicably achieved.

Whilst the SFRA guides proposed development to supported locations within the city the main purpose of this SPD is to ensure that development proposals do not generate increased flood risk through inappropriate design of the surface water drainage systems.

In 2009 the Council undertook a surface water management plan (SWMP) for the city and this was based in part on surface water flooding experiences from the major flooding in June 2007. The June 2007 floods revealed areas of the city that were at a higher risk of surface water flooding than others. The SWMP modelled the Hull and Haltemprice catchment and confirmed some of these high risk locations, two of which were then studied in more detail. The SWMP has recommended investigating the feasibility of providing two surface water storage areas to intercept overland flows in the west of the city. In other areas it has been recommended that local drainage system capacity issues be studied and problems addressed as necessary.
This SPD will form part of the LDF and as such will be a material consideration in the determination of future planning applications. The measures to address surface water flooding will apply to all new development proposals promoted by the Council and to specifically consider the needs of Hull.

Flood Resilience

In addition to the surface water management measures outlined within this document the Council expects developers to ensure that resilience to flooding is incorporated into new developments. Likewise it will not be acceptable for developments in the City of Hull to only consider flood resilience measures in isolation to the way in which they are drained. Flood resilience measures should consider the impact on the function of flood plains in terms of their ability to store water and taking care to ensure that surface water flows are not prevented from dispersing.

In addition to the other sources of technical advice, the Association of British Insurers offers some further advice to home owners in the document entitled ‘Flood Resilient Homes’ with the aim of reducing damage to properties from flooding in terms of construction. This advice could be of use to prospective developers of the construction techniques for all buildings within areas of known flood risk.
3  Planning Policy Context

National planning policy in the form of Planning Policy Statements (PPSs), the policies of the Development Plan – to include the Regional Spatial Strategy and the Local Development Framework are material considerations in the process of determining applications for development proposals.

3.1  National Planning Policies

Planning Policy Statements and Guidance

PPS 1: Delivering Sustainable Development (2005) (PPS1) sets out the Government Objectives for the planning system and how planning should facilitate and promote sustainable patterns of development, avoiding flood risk and accommodating the impact of climate change.

Paragraph 42 of Planning and Climate Change confirms that Local Planning Authorities (LPAs) should give priority to the use of sustainable drainage systems paying attention to the potential contribution to be gained to water harvesting from impermeable surfaces and encourage layouts that accommodate waste water recycling.


3.2  Development Plan Policies

The Yorkshire and the Humber Plan: Regional Spatial Strategy to 2026 (May 2008) (the RSS)

The strategic policies set out within the RSS also form part of the Development Plan for the City of Hull. The RSS policy which specifically relates to the management of flooding and surface water is Policy ENV1: Development and flood risk. The policy is separated into three sections and the related part of the policy which directly impact on this SPD is reproduced below:

A. The Region will manage flood risk pro-actively by reducing the causes of flooding to existing and future development, especially in tidal areas, and avoid development in high flood risk areas where possible.

The Hull City Local Plan (saved policies) (May 2000) (the Local Plan)

The Local Plan sets out the view of the Council on a number of drainage issues and connected recreational benefit of water features in and around the city. In order to protect the natural flow of
surface water the culverting of watercourses will be resisted unless there are particular public safety issues. The Council also aims to harness the benefits of waterside recreation and in this regard it will work in conjunction with the Environment Agency to promote these aims.

The emerging Hull City Development Framework (June 2008)

Core Strategy

The Core Strategy is still in a draft stage and an Issues and Options paper was published for consultation in June 2008. This SPD has been produced in addition to the scheduled proposals for Development Plan Documents identified in the Council’s Local Development Scheme (January 2009).

The draft Core Strategy highlights that the impact of flooding in a general sense and on the perception of people moving to the area and that it is desirable to reduce vulnerability of Hull to flooding and potential impacts of climate change. In this regard one of the draft Core Strategy’s objectives within the section on Flood Risk is to avoid the risks to new development through appropriate location.

3.3 Other material considerations

Strategic Flood Risk Assessment (SFRA) and Hull Local Flood Risk Standing Advice

In addition to local plan policies the Council has jointly prepared a SFRA Local Flood Risk Standing Advice with the Environment Agency which advises applicants of the requirement for a Flood Risk Assessment in support of their proposals. It also advises of the need to consult the Council and the Environment Agency as well as the likely flood resilience measures that will be required.

The SFRA and Local Standing Advice reflect the most up to date material considerations on flood risk policy and have been recognised as good practice. As a consequence considerable weight is attached to these material considerations which have been endorsed by the city council.
4 Background to Flooding in Hull

4.1 Causes of Surface Water Flooding
The impervious nature of surfaces in developed areas cause water to run off the surface more quickly than from an undeveloped site which will slowly soakaway excess water. During or immediately after heavy rain surface water can lead to the inundation of drainage systems below ground causing the inability of surface water flows to be directed through the drainage network.

Causes of the inability of surface water to enter enclosed drainage systems can sometimes be attributed by limited capacity of drainage inlets or the entire system which can also become blocked by debris. This can have additional implications to the above ground drainage systems particularly if enclosed systems cannot drain effectively because of inability to discharge at their downstream outfall. This will often be due to high levels in rivers which will ultimately receive rainwater. In lower lying areas the need to pump water through the network failure of the pumping station can contribute to flooding as the natural escape rout for run off becomes blocked.

4.2 The Nature of Flooding in Hull
The sub-strata beneath the city is composed of clay with a limited amount of natural soakaway effect for surface water and consequently the area of land closest to the surface can become rapidly water-logged. Moreover the low-lying nature of the city (with some areas being situated below sea level) provides additional risks.

The most recent flooding occurrences within the City of Hull were following heavy rainfall in 2007 because of the nature of the local topography resulted in standing water over a wide area of the city. The SWMP found a number of further reasons that contributed to the severity of flooding which included the magnitude of the event and the large quantities of overland flow coming into the city from higher land to the west.

4.3 Management of Storm Water
The findings of the SWMP demonstrated that some localised areas of Hull are considered to be at a higher risk of surface water flooding. Additional measures are required to address the interception and storage of large amounts of surface water to help avoid future flooding. These measures include the formation of two large detention areas to the south and to the east of Cottingham but are beyond the scope of this SPD and will be taken forward within planning policy through the Hull Development Framework.

This SPD is based on the findings of the SWMP and recommends how the interception and storage of flood water from new developments should be addressed through the planning system.
5 Surface Water Management in New Developments

This section of the SPD introduces the key objectives and concepts which the Council will expect to see in all developments across the city to manage surface water within new developments with the aim of reducing flooding in and around Hull.

The primary guidance for dealing with surface water is provided within Annex F of PPS25 which states that the effective disposal of surface water from development is a material planning consideration in determining proposals for the use of land.

5.1 Sustainable Urban Drainage Systems (SUDS)

Greenfield or undeveloped sites rely on natural drainage to absorb rainfall where water will naturally flow on or through the ground until it reaches the nearest watercourse. The development has the effect of reducing the permeability of some or all of the site and the way in which run off from buildings and surfaces is deployed by speeding up the rate in which water enters drainage systems or watercourses. PPS25 states that local planning authorities should promote the use of Sustainable Urban Drainage Systems as best practice for the management of surface water run off.

5.2 What are SUDS?

The measures which are termed as being Sustainable Urban Drainage Systems (SUDS) are also defined within PPS25 and comprise the following methods:

- source control measures including rainwater recycling and drainage;
- infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities;
- filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns;
- filter drains and porous pavements to allow rainwater and run off to infiltrate into permeable material below ground and provide storage if needed; and
- basins and ponds to hold excess water after rain and allow controlled discharge that avoids flooding.

The Council advocates the use of SUDS measures in all developments across the city. It is the case that not all will be appropriate for every development site, although the Council will expect to see consideration of SUDS in all planning applications for new development regardless of their scale.
It is expected that SUDS will be viewed as the normal means of surface water drainage in new development. The Council also would advise developers to integrate new highway drainage fully into new SUDS proposals.

5.3 General Policy Objectives

Surface water should also be managed in a sustainable manner to imitate the natural surface water flows arising from the site in its state prior to the proposed development, while reducing the flood risk to the site itself and elsewhere, taking climate change into account.

There are a number of general objectives which the Council will require to be met in the case of all new development as follows:

- the development must be safe from flooding over its whole lifetime, taking into account the impacts of climate change, and use all opportunities to reduce flood risk overall;

- the rate and volume of surface water run off is reduced to Greenfield run off rates for developments on Greenfield land and all developments on Brownfield sites should lead to a reduction in existing run off rates to a minimum of 50% of the existing run off rate;

- it is expected that surface water on development proposals will be entirely separated from foul drainage;

- SUDS should be used to control the rate and volume of run off. Pollution controls should be incorporated within them to protect and improve groundwater quality;

- surface water systems should cope with events that exceed the design capacity of the system so that excess water can be safely stored or conveyed from the site without adverse impacts;

- the long term management and responsibility for the maintenance of SUDS systems will be agreed prior to the granting of planning permission

- developments exceeding 0.5 hectares in area will encompass surface water storage options within the boundaries of the site.

It is recommended that developers enter into early discussions with Hull City Council, the Environment Agency and Yorkshire Water to confirm their requirements in terms of flood resilience as well as surface water issues.
5.4 Design Considerations

The developer of a new surface water drainage system has responsibility for designing and implementing it in a manner which is the most sustainable and will normally be required to submit detailed surface water drainage proposals to the planning authority as part of a planning application. The appropriateness of the drainage methods used should be confirmed by a Flood Risk Assessment for the development. It is important to ensure that a site is drained in the most sustainable manner possible taking account of the circumstances of the site.

Applicants should also take into account other good practice and incorporate natural site features into their drainage proposals. References to Good Practice Watercourses passing through the development site should be identified and measures specified to maintain their function as a means of conveying surface waters and as effective flood routes. This will normally mean the watercourses being retained as open features or as a contribution to open space provision.

The culverting of existing open watercourses will not normally be permitted except where essential to permit highways and other infrastructure to cross. Where culverted watercourses cross a development site then the planning authority will normally expect the watercourse to be reopened to a more natural condition although this will need to be considered on a case by case basis.

Development on Greenfield sites should attenuate run off to existing Greenfield rates for all events up to and including a 1% flood event. Developments on previously developed (Brownfield) sites should lead to a reduction in existing run off rates to a minimum of 50% of the existing run off rate.

Flood Risk Assessments should confirm that the drainage system should not cause surface flooding of the development site during a 1 in 100 year (1%) storm event and that any additional flows are attenuated within the application site boundary.

For all developments the documents produced in support of planning applications for them should demonstrate that appropriate agreements for the maintenance drainage systems are in place.

5.5 SUDS in detail and their benefits

SUDS often involve a combination of different techniques to manage run off on a development. The use of SUDS has a number of advantages over traditional drainage systems, including managing run off so that new developments do not increase run off rates and volumes, reducing the impact of new development on water quality, and the provision of amenity features.

Further detailed guidance on the implementation and adoption of SUDS can be found in the Interim Code of Practice for Sustainable Drainage Systems (National SUDS Working Group, July 2004).
Construction Industry Research and Information Association (CIRIA) also offers guidance on SUDS. A number of publications are available from CIRIA on the subject of the technical design of SUDS.

The following SUDS systems are advocated by the Council and should be considered in the design of all new development in Hull both singularly or in combination. Their particular application will be governed by the nature and scale of the development and the need to satisfy the general objectives of this SPD.

Developers should be aware that not all systems will be applicable to the prevailing conditions. Common limitations as low soil permeability and Groundwater Extraction Protection Zones are located around Hull precluding the use of some SUDS methods. Developers should identify the prevailing conditions of their site prior to drawing up a SUDS scheme for development proposals.

1. Reduced Paving

The first way in which run off can be minimised is through the avoidance of unnecessary paved areas. Runoff increases in proportion to the impervious area of the site. Avoiding interconnected areas of paving can cause additional overland flows. CIRIA advises that if less than 5 per cent of a site is paved or compacted, the impact on the quantity of the surface runoff will be negligible. Paved areas can be easily drained into the ground or they can be replaced by permeable surfaces. The Council will expect porous surfaces to be used in all circumstances unless there are technical reasons why they cannot be achieved.

2. Green Roofs

Green roof systems are living roofs which are becoming popular due to their potential amenity value in urban environments. A Green Roof system is comprised of a water tight roof which also forms a tray upon which a series of layers of matting, gravel, soils followed by the planting of vegetation. Green roofs can reduce surface water speeds falling on buildings together with assisting buildings adapt to a changing climate owing to their excellent thermal protection in hot summers.

3. Water Butts and Rainwater Harvesting Systems

Rainwater from downpipes are one of the most simple ways in which water directed from the roof can be attenuated on proposed and existing buildings. Downpipes can supply either water butts or on larger scale schemes underground holding tanks (under a building or a car park) to hold water temporarily to act as a storage reservoir. Water held in Water Butts can be used for irrigation whilst rainwater harvesting systems can provide water supply for a range of domestic uses including laundry and toilet flushing with simple treatment processes.
4. **Grey Water re-use**

Grey Water is term used to identify water which has not been taken through a water treatment system. Grey water can originate from the uses within the home such as baths or from the roofs of buildings. Systems to collect, cleanse and re-use grey water can be used on a range varying between a single dwelling and major developments. Grey water from baths, showers and hand basins is usually clean enough for flushing the toilet with only basic disinfection or treatment.

*The following two options may be restrictive in their application in some areas of Hull due to the presence of Groundwater Extraction Protection Zones.*

5. **Balancing Ponds and Wetlands**

There may be scope in some larger developments to include Wetlands and Balancing Ponds which can also be fed by piped drains or Swales. The purpose of a Balancing Pond is to hold surface water from on site drainage systems for a given length of time and most retain some water at all times depending on the level of the outflow in comparison to the inlet.

6. **Detention Basins**

Such a basin functions by allowing large flows of water to enter but limits the outflow by having a small opening at the lowest point of the structure. They can also serve as an amenity or wildlife habitat.

These are often designed to be dry in dry conditions in a similar way to swales and basins however they have a secondary purpose of removing sediment from surface water and there will be a consequent need for some maintenance in the form of removal of such deposits.

*The following four options could have limited application in Hull due to the presence of low permeability soils close to the surface.*

7. **Filter Drains**

Filter drains and permeable surfaces are devices that have a volume of permeable material below ground to store surface water. Run off flows to this storage area via a permeable surface.

Filter Drains are useful in all developments where underground drains are required and particularly along the roadside and underneath permeable surface treatments.
Swales and filter strips are effective at removing polluting solids through filtration and sedimentation. The vegetation traps organic and mineral particles that are then incorporated into the soil, while the vegetation takes up any nutrients. Filter strips like swales can be integrated into the surrounding open land uses or road verges. Wild grass and flower species can be introduced for visual interest and to provide a wildlife habitat.

8. **Swales and Basins**

These are grassland depressions, which lead water overland from the drained surface to a storage or discharge system. They provide temporary storage for storm water and reducing peak flows. During dry weather a swale will be dry. Basins and ponds of all sizes also provide temporary storage for storm water, reduce peak flows to receiving water courses and help to filter out pollutants, as well as aiding water infiltration directly into the ground.

A swale is shallow and relatively wide in comparison with a traditional drainage ditch and basins will also form characteristic depressions in open space. More popular uses of swales and basins are in road proposals where they reduce the need for expensive roadside drainage and gullies.

9. **Soakaways**

Storm water from buildings and paved areas can be directed straight into the ground rather than via underground drainage systems. Soakaways generally are formed within a pit which is filled with stone or gravel which allow water to permeate through and enter the soil.

10. **Infiltration Basins**

These are shallow artificial ponds designed to infiltrate storm water though permeable soils into the groundwater aquifer. Infiltration basins do not discharge to a surface water body under most storm conditions, but are designed with overflow structures (pipes, weirs, etc.) that operate during flood conditions.

Infiltration Basins must be carefully designed to infiltrate the soil on a given site, at a rate that will not cause flooding. They have been less effective in areas with high groundwater levels, close to the infiltrating surface; compacted soils; high levels of sediment in storm water; or high clay soil content (such as in the case of Hull). Infiltration basins are believed to have high pollutant removal efficiency, and can also help recharge the groundwater, thus restoring low flows to stream systems. Infiltration Basins can be problematic at many sites because of stringent soils requirements.
5.6 Design and Implementation of SUDS

Although the small scale measures detailed above are intended to be advocated by the Council in the promotion of new developments they may be suitable for retro-fitting to existing developments to assist with surface water management. In such instances Hull City Council will generally support such proposals.

Whilst SUDS measures outlined above are intended to be a full and up to date list of current measures, the Council will equally consider further sustainable surface water management measures as proposed by the applicant. Due to the strategic need to strategically detain surface water in and around the city, on proposed development sites of above 0.5 hectares applicants for planning permission should consider on-site surface water storage mechanisms which should be integrated of the site design. Where the site meets this criterion it is envisaged that the design requirements and constraints can be identified through early consultation with the planning authority.

This SPD will be kept under review to ensure it accords with current advice and sustainable surface water management and SUDS methods where practicable. However all applicants are advised to review current best practice in the field. The council therefore recommends that the following sources are fully reviewed when preparing sustainable surface water management systems to support development: Communities and Local Government Policy, the Construction Industry Research and Information Association, the Association of British Insurers, defra and the Environment Agency.

5.7 Limitations of SUDS

Health and Safety

The design and construction of all drainage systems must comply with the Construction (Design and Management) Regulations 1994. SUDS also need to comply with a whole range of health and safety legislation. The Companion Guide to PPS25 also advises that it is good practice to undertake a health and safety audit of a SUDS scheme before it is finalised to ensure all risks are minimised.

Land Take

As previously mentioned some of the drainage methods outlined in detail above may not be possible in some circumstances. Ultimately the land which is available to support adequate SUDS drainage systems, particularly in the case of ponds and wetlands is a restrictive factor. In some urban areas ponds may not be possible but the potential to utilise other means of attenuating surface water may still be possible and these would most certainly take the form of green roofs and permeable paving.
Designations

Where there are tighter legislative planning controls such as in conservation areas or where development impacts on a listed building the use of some SUDS techniques may not be appropriate.

Although there are stricter controls on development in conservation areas some SUDS may help with aims to improve and enhance their appearance. The English Heritage publication Climate Change and the Historic Environment (January 2008) advises that the design integrity of some historic buildings and landscapes could be damaged by the need to provide new and more effective rainwater disposal or storage systems or flood protection features.

Early consultation with Council’s Urban Design and Conservation section is advised to ascertain an appropriate solution in both historic environment and water management terms.

5.8 Flood Risk Assessments and Statements

Where a Flood Risk Assessment is not required for new development proposals as dictated by the Hull Local Flood Risk Standing Advice, the Council will require SUDS to be considered. The Council will expect the applicant to detail the way in which drainage matters have been addressed in a sustainable way whilst having regard to the scale of the development proposal. This could take the form of a Sustainable Drainage Statement.

The purpose of the Sustainable Drainage Statement in these scenarios will be to set out how the surface water run off from the site will be minimised and what steps will be taken to intercept, harvest and store water. It is expected that surface water on development proposals will be entirely separated from foul drainage. The Sustainable Drainage Statement will provide details of such steps taken to improve surface water control such as how porous surfaces or soakaways will be incorporated together with further measures which involve minimising water use grey water re-use.

The Flood Risk Local Standing Advice will be revised to clarify that a Sustainable Drainage Statement is required with all applications apart from Householder and Change of Use proposals. Changes will also be made to the Local Requirements of the Validation Checklist to ensure that this is addressed.
6 Responsibility for management of SUDs and Planning Mechanisms

6.1 Planning Conditions
Planning conditions will be used to ensure that the development is carried out in accordance with agreed details and timescales. In all cases where the Council is mindful to grant planning permission conditions will be attached to control the implementation, design and management of SUDS schemes. Should the developer fail to incorporate SUDS elements into the proposal then they would be in breach of the general requirement to carry out the development strictly in accordance with the approved plans and drawings.

The Planning Inspectorate provides a number of model conditions which the Council may impose on a planning permission and examples of these are attached to form Appendix 7.2.

6.2 Planning Obligations
Planning obligations will be used when a condition is not appropriate such as where a sum of money is involved or for the dealing with the use or management of land which is situated outside the development site. They are the subject of an agreement between the applicant and the Council.

It may be the case that certain developments will in accordance with Circular 05/2005 Planning Obligations require a legal agreement to be entered into between the Council and the developer for improvements to infrastructure necessary to enable satisfactory development to take place.

Legal agreements may be necessary for dealing with a range of climate change issues. Those of relevance to addressing water-related climate change impacts provided by the Communities and Local Government include the following:

- Significantly reduce or remove the risk of flooding on and off site;
- Provide a financial contribution to the LPA or Environment Agency flood alleviation or management schemes or Internal Drainage Boards;
- Secure the long-term management of areas of a site so that they can provide flood protection/storage and/or mitigation in the long term;
- Secure land restructuring agreements so that land with development rights in areas at risk because of climate change can be exchanged for development rights at alternative sites;
Where a development has been specifically laid out and designed on climate change principles, secure the long-term maintenance of those features of the development that, if lost, would risk the undermining of the design principles of the development as a whole.

An example of a model agreement produced by CIRIA is attached to form Appendix 7.3 of this SPD. The aim of the model agreements is to facilitate uptake of SUDS by providing a mechanism for maintenance. The model agreements were developed for use with CIRIA Interim Code of Practice to encourage the implementation of SUDS schemes in new developments through the planning process.

6.3 Adoption and Maintenance

The developer should clearly identify the proposed ownership of and responsibility for the maintenance of all elements of the surface water drainage systems to the planning authority so that the latter can exercise effective oversight, its future and ongoing maintenance. This will ensure that the proposed ownership responsibilities are practical, in particular that the responsibilities for a SUDS system serving more than one property rests with a durable accountable organisation that could be expected to have the financial capacity to meet the long term responsibilities.

Programmes of maintenance of SUDS schemes may be assisted by the use of a SUDS maintenance framework agreement. A model maintenance agreement produced by CIRIA is attached to form Appendix 7.4 of this SPD.
7 Summary

Past flood occurrences have resulted in high levels of overland water flows in and around the City of Hull. This document will contribute to the effective management of surface water within the City of Hull by introducing controls on new developments. It is recommended that in all cases the General Policy Objectives contained within section 5.3 of this SPD are given particular attention.

In order to comply with the requirements of this policy document Hull City Council any application for planning permission for development proposal excluding a Change of Use or a Householder Development will be expected to be accompanied by a Sustainable Drainage Statement. Any application which does not include a Sustainable Drainage Statement will not be registered as a valid application until an acceptable statement is received by Hull City Council.

Sustainable Drainage Statements and Flood Risk Assessments should demonstrate that the development proposed would not lead to an increase in the run off rates of the site and, where possible, the development should seek to decrease run off with the purpose of reducing the wider risks of flooding to the City of Hull.

Where SUDS require ongoing maintenance in perpetuity Hull City Council will require the developer to enter into a Section 106 Agreement for such maintenance. A model planning agreement which could form the template is attached to Appendix 3 of this SPD. Developers and their agents should have regard to the Planning Obligations section of this SPD in the first instance. Where ongoing maintenance of SUDS is required it is advisable for the purposes of maintaining the speed of the application process that applications are submitted with draft Heads of Terms.

In drafting this SPD Hull City Council has mentioned the following methods which should be considered when proposing new development in the City of Hull, some of which may have limited application given prevailing conditions and constraints in the city:

- Reduced Paving;
- Green Roofs;
- Water Butts and Rainwater Harvesting Systems;
- Grey Water re-use;
- Balancing Ponds and Wetlands;
- Detention Basins;
- Filter Drains;
- Swales and Basins;
• Soakaways and;
• Infiltration Basins.

It may be the case that these methods can be used singularly or in combination to achieve the desired objective of maintaining or reducing surface water run off from a particular site. As also mentioned in section 5.5 of this SPD there may be other accepted methods and practices which can reduce surface water from development proposals and the list contained within this SPD is therefore not exhaustive.
8.1 References and Further information

Sources

www.environment-agency.gov.uk

www.ciria.org.uk

Technical manuals and books


Interim Code of Practice for Sustainable Drainage Systems, National SUDS Working Group, 2004

Preliminary rainfall runoff management for developments, DEFRA/Environment Agency

R&D Technical Report W5-074/A/TR/1 Revision D, July 2007, - Free download from EA


Flood Resilient Homes – What home owners can do to reduce flood damage, Association of British Insurers (Also contains a list of useful contacts)
8.2 Model Conditions

The Planning Inspectorate provides a number of model conditions which the Council may use:

**Sustainable Urban Drainage** (where an appropriate sustainable urban drainage scheme has been submitted with the application and it is accompanied by an agreed implementation, management and maintenance plan)

*No building hereby permitted shall be occupied until the sustainable urban drainage scheme for the site has been completed in accordance with the submitted details. The sustainable urban drainage scheme shall be managed and maintained thereafter in accordance with the agreed management and maintenance plan.*

**Sustainable Urban Drainage** (where an appropriate sustainable urban drainage scheme has been submitted with the application but without details of implementation, management and maintenance)

*No development shall take place until details of the implementation, maintenance and management of the sustainable urban drainage scheme have been submitted to and approved by the local planning authority. The scheme shall be implemented and thereafter managed and maintained in accordance with the approved details. Those details shall include:*

1. a timetable for its implementation, and

2. a management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable urban drainage scheme throughout its lifetime.*
8.3 Model planning Agreement
**Reference: ICoP SUDS MA1**

**Planning Obligation – Incorporating SUDS Provisions**

Town and Country Planning Act 1990

<table>
<thead>
<tr>
<th>Date of the agreement.</th>
<th>Details of parties to be inserted.</th>
</tr>
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<tbody>
<tr>
<td><strong>This AGREEMENT is made the day of 200</strong></td>
<td><strong>Date of the agreement.</strong></td>
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</table>

**BETWEEN (NAME) (“the Council”) of the First Part (NAME) [of (ADDRESS) or whose registered office is at (ADDRESS)] (“the Developer”) of the Second Part (NAME) [of (ADDRESS) or whose registered office is situated at (ADDRESS)] (“the Owner”) of the Third Part and (NAME) [of (ADDRESS) or whose registered office is situated at (ADDRESS)] (“the Mortgagee”).**

**WHEREAS**

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<td>()</td>
<td>The Council is the Local Planning Authority for the purposes of the Town and Country Planning Act 1990 (“the Act”) of the area within which the property described in the First Schedule hereto (“the Land”) and shown edged red on the plan (“the Plan”) attached hereto is situated.</td>
<td><strong>A plan showing the extent of the land should be attached to the Planning Obligation as First Schedule.</strong></td>
</tr>
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<td>()</td>
<td>The Owner is the registered proprietor under Title Number [blank] of the freehold interest in the Land.</td>
<td><strong>Any person who has an interest in the land is required to enter into the obligation and provide details of their interest.</strong></td>
</tr>
<tr>
<td>()</td>
<td>The Developer is the person interested in the Land under [ ].</td>
<td><strong>Insert details of the planning application.</strong></td>
</tr>
<tr>
<td>()</td>
<td>The Mortgagee is the registered proprietor of a charge dated [ ] made with [ ].</td>
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</tr>
<tr>
<td>()</td>
<td>By written application (dated) (“the Application”) the Developer applied to the Council for planning permission under reference number (blank) for permission to develop the Land for [set out the description of the development] (the “Development”).</td>
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<td>The Council resolved to grant planning permission for the Development in accordance with the Application subject to the making of this Deed without which planning permission for the Development would not be granted.</td>
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<tr>
<td>()</td>
<td>For the purposes of the determination by the Council of the Application the Developer and the Owner wish to enter into the planning obligations hereinafter specified pursuant to section 106 of the Act with the intention that if the Council approves the Application and grants planning permission for the Development pursuant thereto the Council will then be able to enforce the obligations pursuant to section 106 of the Act.</td>
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</table>
THIS DEED WITNESS AS FOLLOWS

This Agreement is a planning obligation made in pursuance of section 106 of the Act and to the extent that the covenants in this Agreement are not made under section 106 of the Act they are made under section 111 of the Local Government Act 1972 and all other powers so enabling.

The provisions and obligations of this Agreement are conditional upon and shall not take effect until

(i) Grant of planning permission ("the Permission") for the Development by the Council and

(ii) The implementation of the Permission by the commencement of the Development on the Land and that in the event that development not being so commenced (in accordance with sections 56 and 91–93 of the Act) so that the Permission shall lapse this Agreement shall absolutely determine and be of no effect.

SAVE THAT any work of or associated with demolition, site clearance, remediation work, environmental investigations, site and soil surveys, erection of contractors work compound, erection of site offices, erection of fencing to site boundary shall not constitute such a material operation and commencement of the Development shall not be construed accordingly.

The Owner with the intent to binding its successors in title hereby covenants with the Council to perform the obligations (and that the Land shall be permanently subject to the restrictions and provisions) specified in the Second Schedule hereto such obligations being planning obligations for the purposes of section 106 of the Act.

The Council hereby covenants with the Owner with the intention of binding their successors in title (including statutory successor) as set out in the Third Schedule hereto.

Any notice, communication or payment required to be given hereunder shall be sufficiently served if forwarded by Special Delivery or Recorded Delivery post to it at its registered office stated herein and on the Council if forwarded by Special Delivery or Recorded Delivery post to its (details to be inserted) at its address stated herein and a notice so sent by post shall be deemed to have been given when it ought in due course to have been delivered at the address which it is sent.

Nothing herein shall prohibit or limit the right to develop any part of the Land in accordance with planning permission (other than the Permission relating to the Development as specified in the Application) granted after the date of this Agreement.

The expressions the [Owner], [the Council], [the Developer] and [the Mortgagee] shall include their successors and assigns.

In so far as the provisions hereof shall require any party to

Relationships between the parties and the commencement of their respective obligations once any planning permission is implemented.

This defines what material operation constitutes implementation of the Development thereby activating the terms of the Agreement.

Binding of successors to the obligation.

Requirements for communications.

It is important to inform any parties of a change of address.

Binding of successors to the obligation.
obtain the consent or approval of another party and such consent or approval shall not be unreasonably withheld.

Once a Party has disposed of its particular interest in the Land it will be no longer liable for any subsequent breach of the Agreement but will retain liability for any breach occurring during its ownership.

No party shall be liable for any breach of the covenant, restrictions or obligations contained within this Agreement occurring after they have parted with their interest in the Land or the part of the Land in respect of which such breach occurs.

Include this clause if a Mortgagee is party to the Agreement.

The Mortgagee hereby consents to the execution of this Deed and declares that subject as herein provided the Land shall be bound by the obligations contained in the Second Schedule hereto and his legal charge on the Land Property shall take effect as if such legal charge had been executed after the date of this Deed.

It is important for the parties to ensure that a copy of the Agreement is registered with the Local Land Charges Register.

This Agreement is a local land charge for the purpose of the Local Land Charges Act 1975 and shall be registered as such by the Council.
FIRST SCHEDULE

Required for Options 1, 2 and 3

(Description of Land)

The boundaries of the site should be clearly marked in red, and all pertinent details of the SUDS described, including the type of drainage system, the outfall location (if any) and any control structures or pollution control devices.
SECOND SCHEDULE

Option 1 – SUDS to be maintained by the Council

Definitions

Within this Schedule the following definitions and interpretations apply:

“the Specification” means any guidance notes on design and construction of SUDS from time to time published by CIRIA including:

- Book 14 Design of flood storage reservoirs
- Report I56 Infiltration drainage
- C522 Sustainable urban drainage systems – design manual for England and Wales
- C523 Sustainable urban drainage systems – best practice manual
- C582 Source control using constructed pervious surfaces
- C609 Sustainable drainage systems – hydraulic, structural and water quality advice

or revisions or updates to the above.

“Planning Agreement” means any agreement made pursuant to section 106 of the 1990 Act in respect of the Land.

“SUDS” means the sustainable drainage system comprising all treatment and drainage systems including any pipework, swales, reed beds, ponds, filter trenches, attenuation tanks and detention basins.

Covenants by the Owner (Developer) to the Council.

The Owner and the Developer hereby covenant with the Council:

- To observe and perform all the obligations of the Developer [Owner] under the Permission and hereby indemnify the Council in respect of any leases, claims, demands, costs or expenses arising out of any breach or non-performance thereof.

- To pay to the Council the sum of [ ] (“the Periodic Sum”) on the completion of the SUDS and thereon on each subsequent anniversary [until the 30th anniversary] in respect of maintenance costs of the SUDS.

- The Periodic Sum shall be increased annually from the date of this Agreement by the same percentage as the increase in the Retail Price Index produced by National Statistics or any different publication substituted for it to the date of payment.

- [calculation of Periodic Sum]
Alternatively, the Local Planning Authority and Developer may agree a single amount.

Parties should be aware that other consents may be required in addition to planning permission, in connection with flood defence or land drainage from the Environment Agency for example.

Council must approve the design and construction of the SUDS.

Transfer of obligations to successive owners.

( ) Alternative

To pay to the Council the sum of [ ] (“the Sum”) on the completion of the SUDS in respect of repair maintenance costs.

( ) That the works have been completed in accordance with all Environmental Laws.

( ) Construct the SUDS to the satisfaction of the Council and in accordance with plans and specifications to be approved in writing by the Council.

( ) That if at any time after the date of this Deed the Owner shall enter into any lease, agreement or transfer confirming that part of the land comprising as including and part of the SUDS it shall in each case procure the lessee, transferee or assignee (as the case may be) to enter into direct covenants with the Council identical to those contained in this Schedule.
THIRD SCHEDULE

Option 1 – SUDS to be maintained by the Council

The Council hereby covenants with the Owner:

( ) From the date of completion of the SUDS and payment of [the Periodic Sum] (the Sum) maintain and keep in a good state of repair the SUDS in accordance with the specification for maintenance and management of the SUDS.

( ) To use the [Periodic Sum] (the Sum) for the maintenance and repair of the SUDS.

( ) To ensure that although the right to flood granted under this Agreement shall be exercisable at any time without previous notice the Council will use its best endeavours to give notice of intention to exercise such right.

IN WITNESS WHEREOF
SECOND SCHEDULE

Option 2 – Sustainable Drainage System to be vested in the Council

Definitions

Within this Schedule the following definitions and interpretations apply:

( ) “the Specification” means any guidance notes on design and construction of SUDS from time to time published by CIRIA including:

- Book 14 Design of flood storage reservoirs
- Report I56 Infiltration drainage
- C522 Sustainable urban drainage systems – design manual for England and Wales
- C523 Sustainable urban drainage systems – best practice manual
- C582 Source control using constructed pervious surfaces
- C609 Sustainable drainage systems – hydraulic, structural and water quality advice

or revisions or updates to the above.

( ) “Planning Agreement” means any agreement made pursuant to section 106 of the 1990 Act in respect of the Land.

( ) “SUDS” means the sustainable drainage system comprising all treatment and drainage systems including any pipework, swales, reed beds, ponds, filter trenches, attenuation tanks and detention basins.

( ) “Engineer” means such officer as may be designated by the Council.

( ) “the Drawings” means all plans, drawings, sections and the design or working documents listed in schedule [ ] [and attached to this Agreement].

( ) “the final Certificate” means the final certificate issued by the Engineer in connection with the SUDS construction.

The Council shall (subject to the Developer/the Owner complying with the terms of this Agreement and in particular the terms of clause [ ] below) by declaration vest the SUDS in the Council.

The Council shall not be required to vest or to take over responsibility for the SUDS or any part of them until the following have occurred:

( ) The Engineer shall have issued a certificate in writing certifying that:

( ) The SUDS have been constructed and completed in accordance with the Drawing and the Specification to the reasonable satisfaction of the Engineer and have been maintained by the Owner during any defects correction period and any defects arising or work required in connection with the SUDS during that period and prior to the date of the Final Certificate of
the make good or carried out by the Owner to the reasonable satisfaction of the Engineer.

( ) No building structure or act has been erected or carried out so as to impair the proper operation of the Works.

( ) All requisite consents have been obtained and provided to the Engineer.

[Periodic or Commuted Sum to be provided]

IN WITNESS WHEREOF
SECOND SCHEDULE

Option 3 – Sustainable Drainage System to be maintained by a Third Party

The Owner and the Developer hereby covenant with the Council:

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<td>( )</td>
<td>To implement a maintenance scheme with a company to be approved in writing by the Council to repair and maintain the SUDS (the Maintenance Scheme).</td>
</tr>
<tr>
<td>( )</td>
<td>The Owner will not commence development on the Land until the Maintenance Scheme has been approved in writing by the Council.</td>
</tr>
<tr>
<td>( )</td>
<td>The Owner will not commence development on the Land until the Maintenance Scheme set out in the Third Schedule hereto [to incorporate National Model] has been entered into and a copy provided to the Council.</td>
</tr>
<tr>
<td>( )</td>
<td>To provide a bond in the sum of [£......] (“the Bond Sum”) for the projected maintenance of the SUDS in accordance with the Maintenance Scheme. Such form of Bond to be agreed in writing between the Owner and the Council before commencement of the Development.</td>
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</table>

*Detail of the Maintenance Scheme to be set out in the Third Schedule.*

*Bond provision.*
THIRD SCHEDULE

Option 3 – Sustainable Drainage System to be maintained by a Third Party

[Maintenance Provisions to be drafted]  

Detail of the Maintenance Scheme to be completed in the Third Schedule.

Note that this could be the "Maintenance Framework Agreement" but not necessarily so.

IN WITNESS WHEREOF
8.4 Model Maintenance Agreement
SUDS Maintenance Framework Agreement

This AGREEMENT is made the day of 200
BETWEEN

(1) Developer [as necessary]
(2) Owner
(3) Council
(4) Highway Authority [as necessary]
(5) Sewerage Undertaker
(6) Surety [as necessary] IT IS

AGREED as follows:

1. Definitions and Interpretation

1.1 “the 1972 Act” means the Local Government Act 1972 (as amended).

1.2 “the 1990 Act” means the Town and Country Planning Act 1990 (as amended).

1.3 “the 1991 Act” means the Water Industry Act 1991 (as amended).

1.4 “the 1980 Act” means the Highways Act 1980 (as amended).

1.5 “Above Ground Drainage” means that part of the SUDS on or above ground level such as grass swales, retention ponds and ancillary structures shown coloured or edged blue on the Plan.

1.6 “Below Ground Drainage” means that part of the SUDS situated below ground level such as piped systems (including perforated pipes and surrounding material), soakaways, catchpits, filter drains and ancillary structures shown coloured or edged green on the Plan.

1.7 “Completion” means the date of issue of the final certificate.

1.8 “the Defects Correction Period” means the period of [ ] months after the date of issue of the Provisional Certificate issued under Clause [ ].

1.9 “the Drawings” means all plans, drawings, sections and the design or working documents listed in schedule [ ] [and attached to this Agreement].

1.10 “Engineer” means such officer as may be designated by the

Date of the agreement.
Details of relevant parties to be inserted.
Include this clause if the Highways Authority is party to the Deed.

Duration of defects correction period to be inserted.
All relevant drawings should be listed or attached to the Agreement.
Council.

1.11 “the Final Certificate” means the certificate defined in clause [ ].

1.12 “Highways Agreement” means any agreement made pursuant to section 38 or 278 of the 1980 Act.

1.13 “the Land” means land at [ ] shown in [ ] on the Plan.

1.14 “the Plan” means the attached plan ([reference number]).

1.15 “Planning Agreement” means any agreement made pursuant to section 106 of the 1990 Act in respect of the Land.

1.16 “Planning Authority means the relevant local authority or statutory body responsible for planning in respect of the area in which the Land is situated.

1.17 “Planning Permission” means the relevant planning permission in respect of development of the Land granted by the Planning Authority with any variation thereof or supplementary permission issued in respect thereof and or any Planning Agreement.

1.18 “the Sewerage Undertakers Works” means those part of the SUDS that will be vested in the Sewerage Undertaker under the Undertakers Agreement.

1.19 “the Specification” means any guidance notes on design and construction of SUDS from time to time published by CIRIA or others including:

- Book 14 Design of flood storage reservoirs
- Report I56 Infiltration drainage
- C522 Sustainable urban drainage systems – design manual for England and Wales
- C523 Sustainable urban drainage systems – best practice manual
- C582 Source control using constructed pervious surfaces
- C609 Sustainable drainage systems – hydraulic, structural and water quality advice

or revisions or updates to the above.

1.20 “the SUDS” means the sustainable drainage system comprising all treatment and drainage systems including any pipework, swales, reed beds, ponds, filter trenches, attenuation tanks and detention basins.

1.21 “the Works” means the construction of those parts of the Above Ground Drainage or the Below Ground Drainage shown on the Drawings that will vest in the Council.

1.22 “Undertakers Agreement” means any agreement made
If the “Developer” is the “Owner” of the land at the time of entering into this Agreement alternative clause 2.1B should be used and subsequent clauses amended as necessary.

Vesting of below-ground SUDS.
Amend as necessary given the parties entering into the Deed.

Vesting of above-ground SUDS.
Amend as necessary given the parties entering into the Deed.

2. Ownership and Responsibility for SUDS

2.1A The Developer is [details of title]

2.1B The Owner is [details of title]

2.2 The Developer/the Owner proposes to construct the SUDS in connection with the development of the Land and has agreed to carry out such construction on the terms set out in this Agreement.

2.3 The Developer/the Owner desires that on completion [or at the end of the Maintenance Period] the Council the Highway Authority or the Undertaker (as the case may be) shall be responsible for agreed parts of the Below Ground Drainage and that in the case of the Undertaker they become public works vested in either the Highway Authority or Undertaker pursuant to a Highway Agreement or Undertakers Agreement which agreements the Owner (if different from the Developer) and/or the Developer hereby covenants to enter into as soon as reasonably practicable following the completion of this Agreement.

2.4 The Developer/the Owner desires that on completion (or at the end of the Maintenance Period) the Council or the Highway Authority (as the case may be) shall be responsible for agreed parts of the Above Ground Drainage and that in the case of the Highway Authority they become public works vested in the Highway Authority pursuant to a Highway Agreement (or in the case of the Council by the provisions contained in this Agreement) which agreement the Owner (if different from the Developer) and/or the Developer hereby covenants to enter into as soon as reasonably practicable following the completion of this Agreement.

2.5 If any part of the Sewerage Undertakers Works discharges into or receives drainage from any other part of the SUDS which is not to be vested in the Sewerage Undertaker then the Owner (if different from the Developer) and/or the Developer hereby
covenants with the Sewerage Undertaker to enter into a Deed of Grant of Easement and Rights to Discharge in Perpetuity as soon as reasonably practicable following the completion of this Agreement.

2.6 [The Surety has agreed at the request of the Developer/the Owner to be a party to this Agreement].

3. **Construction of the Works**

   The Developer/the Owner shall construct the Works at its own expense and complete the Works in accordance with the Drawings and Specification and any Planning Permission (as may be varied in accordance with clause [4]) to the reasonable satisfaction of the Engineer in the position and to the extent shown in the Drawings.

4. **Minor Variations**

   Without prejudice to clause [3] the Engineer may on the written request of the Developer/the Owner give consent (such consent not to be unreasonably withheld) to the Developer to construct the Works or any part of them otherwise than in strict conformity with the Drawings and the Specification subject to:

   4.1 The written request by the Developer/the Owner being accompanied with such information and Drawings that the Engineer will require and the consent of the Engineer shall be in writing.

   4.2 The Developer/the Owner shall not allow any variation without such written consent being first obtained.

   4.3 Nothing within this clause shall permit or authorise the breach of the Specification.

   4.4 The grant of consent by the Engineer under this Clause shall not in any way prejudice any rights of the Council, the Highway Authority and the Sewerage Undertaker against the Developer/ the Owner [or the Surety] in respect of any breach or non-observance of any part of this Agreement [and the duties and obligations of the Surety shall apply in respect of the Works as varied as they apply to the Works shown on the Drawings.]

   4.5 The Developer/the Owner shall pay on demand the Engineers reasonable costs incurred in connection with the operation of this clause.
5. **Notification of intended Commencement of the Works**
The Developer/the Owner shall:

5.1 Give to the Engineer 4 weeks written notice of the date on which it proposes to commence the Works or any part of them and;

5.2 At the same time submit to the Engineer for inspection such additional plans, drawings and other design or working documents not previously submitted to him which relate to the carrying out of the Works as the Engineer may require and;

5.3 Notwithstanding the notice previously given give the Engineer 48 hours notice in writing of its intention to start the Works or any part of them.

6. **Period of Construction**
The Developer/the Owner shall:

6.1 Construct and complete the Works within a period of [ ] from this Agreement (unless the Engineer shall in writing agree to an extension of that period) and in any event;

6.2 Ensure that before any building or property forming part of the development on the land which has the benefit of Planning Permission is brought into occupation such part of the Works as are necessary to drain those buildings or property shall be completed and in working order.

7. **Easements**
The Developer shall at its own expense prior to commencement of the works obtain or ensure that they have been fully executed and enforce the following deeds and agreements:

7.1 Easements from third parties having interests in land through and on which the Above Ground Drainage and Below Ground Drainage are to be located for the Developer, [the Owner], the Council, the Highway Authority and the Sewerage Undertaker their servants and agents to enter upon such land after the vesting in the Council, the Highway Authority and the Sewerage Undertaker for the purpose of inspection, repair, maintenance, reconstruction, replacement or cleansing the form of and easements to be approved by the Council, the Highway Authority and the Sewerage Undertaker.

7.2 Easements and consents in favour of the Developer, [the Owner], the Council, the Highway Authority and the Sewerage Undertaker their servants and agents for the Works and the free flow and passage of water with or without other matter through them.

7.3 Easements and consents in favour of the Developer, [the Owner], the Council, the Highway Authority and the Sewerage Undertaker for the discharge of water with or without such other matter to any part of the SUDS, canal, pond or watercourse (as defined by section 219 (1) of the 1991 Act), to

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**Notification of the start of construction.**

**Period to be agreed bearing in mind the provision that planning permission is granted for the development.**

**SUDS to be ready before occupation of the dwellings on the site.**

**Easements between parties as necessary to be provided before commencement of work.**
Parties are advised to contact the Environment Agency at an early stage of any project to obtain the necessary consents which will be required in addition to any planning permission granted.

7.4 Easements and consents in favour of the Developer, [the Owner], the Council, the Highway Authority and the Sewerage Undertaker for the right to have in the water entering the SUDS soil and litter detritus or other matter or thing such that the same shall (as conditions from time to time may require) pass through and discharge from the SUDS or to be held in suspension in the water deposited in the SUDS and settle out upon the surface sides or walks of or elsewhere within the SUDS.

7.5 Easements and consents in favour of the Developer, [the Owner], the Council, the Highway Authority and the Sewerage Undertaker for the right of support for the SUDS from the subjacent and adjacent land and soil including minerals.

7.6 A Highways Agreement.

7.7 An Undertakers Agreement.

7.8 Such Statutory consents as may be required for the discharge of flood drainage works.

8. Restriction of Other Works and Structures

A. The Developer shall ensure that:
B. The Owner shall ensure that:

8.1 No building or structure is erected or acts or operation carried out so as to impair the proper operation of the Works.

8.2 No access to the Works is in any way obstructed.

8.3 Support for the SUDS is not withdrawn.

8.4 Ground levels within the Land are not altered such that the SUDS may function less well or less adequately for the storage or dispersal of water (as the case may be) than at the date hereof and in this regard the opinion of the Council, the Highway Authority and the Sewerage Undertaker shall be final and binding.

8.5 In any transfer, conveyance or other disposition of the Land or any part thereof appropriate covenant as approved by the Council, the Highway Authority and the Sewerage Undertaker are contained therein in that respect binding upon the Land.

9. Compensation

The Council, the Highway Authority and the Sewerage Undertaker shall not be liable to make any payment in respect of liability.
9. Approval of the SUDS through Provisional and Final Certificates.

9.1 Any diminution in value of the interest of the Owner, tenant or occupier of the Land by reason of the exercise of any rights in relation to the SUDS.

9.2 Any claim, demands, losses, costs, charges and expenses in respect of or arising out of the exercise of any rights in relation to the SUDS, otherwise than arising in part or in whole from any act or default of the Council, the Highway Authority and/or the Sewerage Undertaker.

10. Certificates

10.1 When the Developer/the Owner is of the Opinion that the Works have been completed it shall serve written notice on the Engineer to that effect.

10.2 After receiving such a notice the Engineer shall satisfy himself as to whether or not the Works have been completed and if he is so satisfied shall issue a certificate on behalf of the Council, Highways Authority or the Sewerage Undertaker to that effect ("the Provisional Certificate") in respect of the whole or substantial part of the Works as considered appropriate.

10.3 For the purposes of this clause the Works shall be deemed to have been completed when they have been substantially constructed in accordance with the preceding clauses of this Agreement.

10.4 If during the Defects Correction Period or until the Works vest in the Council, Highways Authority or the Sewerage Undertaker as appropriate (whichever is the longer) any defect, damage or blockage shall appear, arise or occur in the Works the Developer shall at its own expense and within [ ] months after such defect, damage or blockage has appeared, arisen or occurred (or immediately if required in writing by the Engineer) make good to the reasonable satisfaction of the Engineer and;

10.5 Without prejudice to clause [ ] the Developer shall during the period prior to the works being vested in the Council as appropriate in accordance with clause [ ] maintain the Works to the satisfaction of the Engineer.

11. Access

11.1 The Developer shall allow and arrange for the Engineer to have access to the works and the Land at all reasonable times for the purpose of ensuring compliance with this Agreement.

12. Inspections

12.1 At any time before vesting of the Works in accordance with clause 14 the Developer/the Owner shall on being so requested in writing by the Engineer open up for inspection any part of the Works which may have been covered up.

12.2 Should the Developer/the Owner fail to comply with any such request under 12.1 (and without prejudice to any other rights accruing on a breach of any part of this Agreement by the Developer/the Owner) the Engineer may arrange to open up the works.
the Works or any part of them.

12.3 In the event that any part of the Works is found to be defective, obstructed or otherwise failing to conform with the requirements of this Agreement the cost of such opening up rectification and reinstatement shall (subject to clause 12.4 below) be borne by the Developer/the Owner.

12.4 In any case other than mentioned in clause 12.3 above such costs shall be borne by the Council except that in any case where the Engineer has not been given reasonable notice and facilities by the Developer/the Owner in accordance with this Agreement to inspect any part of the Works and did not inspect them the cost of the opening reinstatement and rectification (if any) in relation to any part of the Works which shall have been opened up shall be borne by the Developer/the Owner whether or not such opening up reveals any defect, obstruction or other failure to comply with the requirements of this Agreement.

13. **Right to Repair**

If at any time before the Works shall become vested in the Council in accordance with clause 14 the Developer/the Owner shall fail to construct, complete, make good and maintain the Works or any part of them in accordance with this Agreement:

13.1 The Council shall be entitled at its discretion to construct, complete, make good and maintain such parts of the Works as may be necessary in the opinion of the Engineer for the proper operation of the Works and may do so either by their own employees or by contract or in such other matter as they think fit after first giving reasonable notice in writing to the Developer/the Owner and the Surety of such intention and;

13.2 The Developer/the Owner shall upon demand pay to the Council the cost as certified by the Engineer of undertaking such part of the Works referred to in clause 13.1 including the cost of preparation and service of notices of administration.

14. **Vesting**

14.1 The Council shall (subject to the Developer/the Owner complying with the terms of this Agreement and in particular the terms of clause 7) by declaration vest the Above Ground Drainage Works in the Council in accordance with the provisions contained in the 1972 Act.

14.2 The Council shall not be required to vest or to take over responsibility for the Works or any part of them until the following have occurred:

14.2.1 The Engineer shall have issued a certificate in writing certifying that:

14.2.1.1 The Works have been constructed and completed in accordance with the Drawing and the Specification to the reasonable satisfaction of the Engineer and have been maintained by the Developer/the Owner during the Defects Correction Period and any defects arising or work required in connection with the Works during that
14.2.1.2 No building structure or act has been erected or carried out so as to impair the proper operation of the Works.

14.2.1.3 All requisite consents have been obtained and provided to the Engineer.

14.2.2 All payments required by clause (19) have been paid.

14.2.3 All requirements of clause [7] have been complied with.

14.2.4 The Engineer shall not be obliged to issue the Final Certificate whilst any dispute exists between the Developer/the Owner and a third party concerning the right of the Developer/the Owner to construct the works or any part of them in the position and the manner in which they have been constructed.

14.2.5 To ensure that the Works shall so soon as practicable after the Defects Correction Period receive the Final Certificate:

14.2.5.1 The Developer/the Owner shall give [ ] months notice before the end of the Defects Correction Period.

14.2.5.2 Whether or not the Engineer shall have received notice as required under clause 14.2.5.1 above any inspection which the Engineer may require to make shall be made prior to the expiry of the Defects Correction Period and shall within [ ] days after such inspection advise the Developer/the Owner in writing of any defects arising or work required in connection with the Works and which require to be rectified or done before the issue of the Final Certificate.
15. Duty to Developer

15.1 Nothing in this Agreement shall imply any obligation on the part of the Engineer or the Council, the Highway Authority or the Sewerage Undertaker to the Developer/the Owner or to any other person to ensure that the Works or any part them are properly constructed.

16. Indemnity

16.1 The Developer/the Owner shall indemnify the Council and the Undertaker against all claims, costs, losses or expenses which may be made against them in connection with the construction and completion of the Works and any defect in title.

17. Termination

17.1 A. If the Developer shall:
   B. If the Owner shall:

   17.1.1 Fail to perform any of its obligations under this Agreement.

   17.1.2 (be adjudicated bankrupt or) shall go into liquidation voluntarily or otherwise or shall execute a deed of assignment for the benefit of or otherwise compound with its creditors (except for the purpose of reconstruction or amalgamation)

17.2 The Council and/or the Highway Authority and/or the Sewerage Undertaker may without prejudice to their other rights, remedies and powers against the Developer/the Owner for such breach of notice in writing to the Developer/the Owner (and the Surety) determine this Agreement and upon such notice being served this Agreement shall immediately determine but without prejudice to the obligations of [the Surety to the Council, the Highway Authority and the Sewerage Undertaker under clause 17 and of] the Developer/the Owner to the Council, the Highway Authority and the Sewerage Undertaker under this Agreement.

18. Surety’s Obligation

18.1 If the Developer/the Owner fails to perform any of its obligations under this Agreement the Surety shall (subject to this clause) pay to the Council and/or the Highway Authority Sewerage Undertaker any expenditure which the Council and/or the Highway Authority and/or the Sewerage Undertaker may incur in accordance with this Agreement by reason of the failure of the Developer/the Owner to perform whether or not this Agreement has been determined.

18.2 The Surety shall in no circumstance be liable to pay a sum greater than [ ] for which such the Surety binds itself and its successors and assigns to the Council, the Highway Authority and the Sewerage Undertaker.

18.3 The amount of any expenditure referred to in clause 18.1 shall be that certified by the Engineer, the Highways Authority or the Sewerage Undertaker whose certificate shall be final.
18.4 The Surety shall be discharged or released from the covenant in clause 18.1 when the Works become vested in the Council, the Highways Authority and the Sewerage Undertaker (as the case may be), but it shall not be discharged or released from this covenant by any arrangement between the Developer and the Council, the Highways Authority and the Sewerage Undertaker (as the case may be) or by the execution of any amended extra or substituted works authorised by clause [ ] or by any other whether as to payments, performance, time or otherwise whether made with or without the assent of the Surety.

19. Bond in relation to Works that remain in the ownership of the Owner or the Developer

19.1 If any part of the SUDS are to remain in the ownership of the Owner or the Developer then a bond in the sum of £ shall be made in favour of the Council.

20. Disputes

20.1 All questions, disputes or differences which may arise at any time between the parties hereto in relation to the construction of the SUDS shall be referred in the first instance to a senior manager of each party who will attempt in good faith to resolve any issue arising out of this Agreement but failing resolution within 14 days may be referred with the agreement of all affected parties to mediation in accordance with the Centre for Dispute Resolution (CEDR) Model Mediation Procedure. If such parties do not agree upon mediation within 7 days thereof or have not settled a dispute by mediation within 42 days from the initiation of the mediation the dispute shall be referred to the decision of a single arbitrator mutually agreed upon or failing such agreement within 14 days to be appointed by the President for the time being of the Chartered Institute of Arbitrators on the application of any of the affected parties and such arbitration shall be carried out in accordance with and subject to the application provisions of the Arbitration Act 1996.

21. Notices

21.1 Any notice to be served or document to be supplied or submitted under this Agreement shall be delivered or posted in respect of the Council to [details to be inserted], to the Highway Authority [details to be inserted] to the Sewerage Undertaker [details to be inserted] and any notices to be served on the Developer/the Owner may be delivered or posted to its/his last known address or its registered office.

22. Fees and Charges

A. The Developer shall:
B. The Owner shall:

22.1 On the execution of this Agreement pay the costs incurred in preparation and completion of the same.

22.2 (Engineer’s costs).

(Commuted Sum).

It is important that any change of address is notified to the other parties.

Insert details of parties.

Amend as required.

Insert details of the Engineer’s costs and the Commuted Sum as required. All costs should be shown exclusive of...
23. **Transfer of Rights**

23.1 The Developer/the Owner shall prior to the Works becoming vested in the Council in accordance with clause 14:

23.1.1 At the request of the Council execute or secure the execution of a conveyance or transfer to the Council and/or the Undertaker (and at no cost to them) vesting in them the freehold estate free from encumbrances of any land comprising the SUDS and upon which structures are erected for the proper operation of the Works and or amenity areas and to pay the costs of the preparation, completion and any stamp duty in respect of the same.

23.1.2 At the request of the Council secure at no cost to them the transfer or grant to them of the rights referred to in clause [ ] as they may require so such rights will vest in them.

24. **Assignment**

24.1 The Developer/the Owner shall not assign any interest or responsibility under this Agreement without the express written consent of the Council, the Highway Authority and the Sewerage Undertaker and upon such conditions and terms as they may impose.

25. **Statutory Rights**

25.1 Nothing in this Agreement shall in anyway prejudice the exercise by the Council, the Highway Authority or the Sewerage Undertaker of any of their statutory rights and powers arising otherwise than by virtue of this Agreement.

26. **Third Party Rights**

26.1 A person who is not a party to this Deed has no rights under the Contract (Rights of Third Parties) Act 1999 to enforce or have the benefit of any term of this Deed save where this Deed expressly provides otherwise but none of the foregoing provisions of this clause affect any right or remedy of a third party which exists or is available apart from the Act.

27. **Application**

27.1 This Agreement shall be governed by the laws of England and Wales.

**IN WITNESS WHEREOF**