

*Appendix C – Correspondence*

<b>Essex County Council Drainage Review – St John’s Nursery Site, St John’s Road, Earls Hall Drive, Clacton On Sea</b>	
<b>Planning application:</b>	<b>18/01779/FUL</b>
<b>District:</b>	<b>Tendring</b>
<b>Our ref:</b>	<b>M01762-03-DG385-01</b>
<b>Date:</b>	<b>23 November 2018</b>

### **Essex County Council SuDS Consultation Response**

Thank you for your email which provides Essex County Council (ECC) with the opportunity to assess and advise on the proposed surface water drainage strategy for the aforementioned planning application.

As the Lead Local Flood Authority (LLFA) ECC provides advice on SuDS schemes for major developments. ECC have been statutory consultee on surface water since the 15th April 2015.

In providing advice this Council, and their appointed consultants, looks to ensure sustainable drainage proposals comply with the required standards as set out in the following documents:

- Non-statutory technical standards for sustainable drainage systems
- Essex County Council’s (ECC’s) adopted Sustainable Drainage Systems Design Guide
- The CIRIA SuDS Manual (C753)
- BS8582 Code of practice for surface water management for development sites.

### **Lead Local Flood Authority position**

Having reviewed the Flood Risk Assessment and Drainage Management Strategy, and the associated documents which accompanied the planning application, we wish to issue a holding objection to the granting of planning permission based on the following:

- The proposals to achieve 20% betterment on existing brownfield run-off rates are unacceptable. Discharge rates should be limited as close as reasonably practicable to the 1 in 1 year greenfield run-off rate for the site for all events up to and including all 1 in 100 year events with allowance made for climate change; or to an absolute minimum of 50% betterment on existing runoff rates with reasoning for this approach.

In the event that updated information was supplied by the applicants then the County Council may be in a position to withdraw its objection, once it has considered the additional clarification/details that are required.

Any questions raised within this response should be directed to the applicant and the response should be provided to the LLFA for further consideration. If you are minded to approve the application contrary to this advice, we request that you contact us to allow further discussion and/or representations from us.

### **Summary of Flood Risk Responsibilities for your Council**

We have not considered the following issues as part of this planning application as they are not within our direct remit; nevertheless these are all very important considerations for managing flood risk for this development, and determining the safety and acceptability of the proposal. Prior to deciding this application you should give due consideration to the issue(s) below. It may be that you need to consult relevant experts outside your planning team.

- Sequential Test in relation to fluvial flood risk;
- Safety of people (including the provision and adequacy of an emergency plan, temporary refuge and rescue or evacuation arrangements);
- Safety of the building;
- Flood recovery measures (including flood proofing and other building level resistance and resilience measures);
- Sustainability of the development.

In all circumstances where warning and emergency response is fundamental to managing flood risk, ECC advise local planning authorities to formally consider the emergency planning and rescue implications of new development in making their decisions.

Please see Appendix 1 at the end of this letter with more information on the flood risk responsibilities for your council.

### **INFORMATIVES:**

- Essex County Council has a duty to maintain a register and record of assets which have a significant impact on the risk of flooding. In order to capture proposed SuDS which may form part of the future register, a copy of the SuDS assets in a GIS layer should be sent to [suds@essex.gov.uk](mailto:suds@essex.gov.uk).
- Any drainage features proposed for adoption by Essex County Council should be consulted on with the relevant Highways Development Management Office.
- Changes to existing water courses may require separate consent under the Land Drainage Act before works take place. More information about consenting can be found in the attached standing advice note.
- It is the applicant's responsibility to check that they are complying with common law if the drainage scheme proposes to discharge into an off-site ditch/pipe. The applicant should seek consent where appropriate from other downstream riparian landowners.

- The Ministerial Statement made on 18th December 2014 (ref. HCWS161) states that the final decision regarding the viability and reasonableness of maintenance requirements lies with the LPA. It is not within the scope of the LLFA to comment on the overall viability of a scheme as the decision is based on a range of issues which are outside of this authority's area of expertise.
- ECC will advise on the acceptability of surface water and the information submitted on all planning applications submitted after the 15<sup>th</sup> of April 2015 based on the key documents listed within this letter. This includes applications which have been previously submitted as part of an earlier stage of the planning process and granted planning permission based on historic requirements. The Local Planning Authority should use the information submitted within this response in conjunction with any other relevant information submitted as part of this application or as part of preceding applications to make a balanced decision based on the available information.

Whilst we have no further specific comments to make at this stage, attached is a standing advice note explaining the implications of the Flood and Water Management Act (2010) which could be enclosed as an informative along with your response issued at this time.

Yours faithfully,

JD

On behalf of

Team: Development and Flood Risk  
Service: Waste & Environment  
Essex County Council



## **Appendix 1 - Flood Risk responsibilities for your Council**

The following paragraphs provide guidance to assist you in determining matters which are your responsibility to consider.

- **Safety of People (including the provision and adequacy of an emergency plan, temporary refuge and rescue or evacuation arrangements)**

You need to be satisfied that the proposed procedures will ensure the safety of future occupants of the development. In all circumstances where warning and emergency response is fundamental to managing flood risk, we advise LPAs formally consider the emergency planning and rescue implications of new development in making their decisions.

We do not normally comment on or approve the adequacy of flood emergency response procedures accompanying development proposals as we do not carry out these roles during a flood.

- **Flood recovery measures (including flood proofing and other building level resistance and resilience measures)**

We recommend that consideration is given to the use of flood proofing measures to reduce the impact of flooding when it occurs. Both flood resilience and resistance measures can be used for flood proofing.

Flood resilient buildings are designed to reduce the consequences of flooding and speed up recovery from the effects of flooding; flood resistant construction can help prevent or minimise the amount of water entering a building. The National Planning Policy Framework confirms that resilient construction is favoured as it can be achieved more consistently and is less likely to encourage occupants to remain in buildings that could be at risk of rapid inundation.

Flood proofing measures include barriers on ground floor doors, windows and access points and bringing in electrical services into the building at a high level so that plugs are located above possible flood levels. Consultation with your building control department is recommended when determining if flood proofing measures are effective.

Further information can be found in the Department for Communities and Local Government publications '[Preparing for Floods](#)' and '[Improving the flood performance of new buildings](#)'.

- **Sustainability of the development**

The purpose of the planning system is to contribute to the achievement of sustainable development. The NPPF recognises the key role that the planning system plays in helping to mitigate and adapt to the impacts of climate change, taking full account of flood risk and coastal change; this includes minimising

vulnerability and providing resilience to these impacts. In making your decision on this planning application we advise you consider the sustainability of the development over its lifetime.

Essex County Council  
**Development and Flood Risk  
Waste & Environment**  
E3 County Hall  
Chelmsford  
Essex CM1 1QH



Susanne Chapman-Ennos  
Tendring District Council  
Planning Services

Date: 23<sup>rd</sup> November 2018  
Our Ref: SUDS-003152  
Your Ref: 18/01779/FUL

Dear Sir/Madam,

**Consultation Response –18/01779/FUL – St John’s Nursery Site, St John’s Road,  
Earls Hall Drive, Clacton On Sea**

Essex County Council as the Lead Local Flood Authority (LLFA) has received the above planning application on 9/11/2018. This application has been reviewed for surface water drainage aspects in accordance with our statutory consultee role.

Currently, consultants from **McCLOY CONSULTING** are working on behalf of the Flood Risk Management team to provide comments.

These have formed the basis of our recommendation to this planning application, as follows:

Should further correspondence be required, please contact the SuDS team directly using the below details.

Yours sincerely,

**Tim Simpson**  
**Development and Flood Risk Manager**  
Team: Development and Flood Risk  
Service: Waste & Environment  
Essex County Council



*Appendix D – Anglian Water sewer records*





This plan is provided by Anglian Water pursuant to its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. This plan is produced by Anglian Water Services Limited (c) Crown copyright and database rights 2017 Ordnance Survey 100022432. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

- Foul Sewer
- Surface Sewer
- Combined Sewer
- Final Effluent
- Rising Main (Colour denotes effluent type)
- Private Sewer (Colour denotes effluent type)
- Decommissioned Sewer (Colour denotes effluent type)
- Outfall (Colour denotes effluent type)
- Inlet (Colour denotes effluent type)
- Manhole (Colour denotes effluent type)
- Sewage Treatment Works
- Pumping Station

	[Redacted]
	St Johns Road



*Appendix E - Hydrological calculations*

# Quick Storage Estimates with infiltration

Variables		
FSR Rainfall	Cv (Summer)	0.750
Return Period (years)	Cv (Winter)	0.840
Region	Impervious Area (ha)	4.500
Map	Maximum Allowable Discharge (l/s)	0.0
M5-60 (mm)	Infiltration Coefficient (m/hr)	0.20160
Ratio R	Safety Factor	2.0
	Climate Change (%)	0

**Results**

Global Variables require approximate storage of between 1925 m<sup>3</sup> and 1925 m<sup>3</sup>.

With Infiltration storage is reduced to between 167 m<sup>3</sup> and 602 m<sup>3</sup>.

These values are estimates only and should not be used for design purposes.

Variables		
FSR Rainfall	Cv (Summer)	0.750
Return Period (years)	Cv (Winter)	0.840
Region	Impervious Area (ha)	4.500
Map	Maximum Allowable Discharge (l/s)	0.0
M5-60 (mm)	Infiltration Coefficient (m/hr)	0.20160
Ratio R	Safety Factor	2.0
	Climate Change (%)	0

**Results**

Global Variables require approximate storage of between 3543 m<sup>3</sup> and 3543 m<sup>3</sup>.

With Infiltration storage is reduced to between 409 m<sup>3</sup> and 1330 m<sup>3</sup>.

These values are estimates only and should not be used for design purposes.

### Variables

FSR Rainfall		Cv (Summer)	0.750
Return Period (years)	100	Cv (Winter)	0.840
Region	England and Wales	Impermeable Area (ha)	4.500
Map	M5-60 (mm)	Maximum Allowable Discharge (l/s)	0.0
	Ratio R	Infiltration Coefficient (m/hr)	0.20160
		Safety Factor	2.0
		Climate Change (%)	20

### Results

**Global Variables require approximate storage of between 5209 m<sup>3</sup> and 5209 m<sup>3</sup>.**

**With Infiltration storage is reduced to between 641 m<sup>3</sup> and 2078 m<sup>3</sup>.**

**These values are estimates only and should not be used for design purposes.**

## Quick Storage Estimates

Variables		
FSR Rainfall	Cv (Summer)	0.750
Return Period (years)	Cv (Winter)	0.840
Region	Impervious Area (ha)	4.500
Map	Maximum Allowable Discharge (l/s)	8.8
M5-60 (mm)	Infiltration Coefficient (m/hr)	0.00000
Ratio R	Safety Factor	2.0
	Climate Change (%)	0

### Results

Global Variables require approximate storage of between 600 m<sup>3</sup> and 934 m<sup>3</sup>.

These values are estimates only and should not be used for design purposes.

Variables		
FSR Rainfall	Cv (Summer)	0.750
Return Period (years)	Cv (Winter)	0.840
Region	Impervious Area (ha)	4.500
Map	Maximum Allowable Discharge (l/s)	8.8
M5-60 (mm)	Infiltration Coefficient (m/hr)	0.00000
Ratio R	Safety Factor	2.0
	Climate Change (%)	0

### Results

Global Variables require approximate storage of between 1662 m<sup>3</sup> and 2302 m<sup>3</sup>.

These values are estimates only and should not be used for design purposes.

Variables		
FSR Rainfall	Cv (Summer)	0.750
Return Period (years)	Cv (Winter)	0.840
Region	Impervious Area (ha)	4.500
Map	Maximum Allowable Discharge (l/s)	8.8
M5-60 (mm)	Infiltration Coefficient (m/hr)	0.00000
Ratio R	Safety Factor	2.0
	Climate Change (%)	20

### Results

Global Variables require approximate storage of between 2857 m<sup>3</sup> and 3801 m<sup>3</sup>.

These values are estimates only and should not be used for design purposes.

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Date 29/11/2018 11:06  
File

Designed by heatherpjones  
Checked by

Innovyze Source Control 2016.1

ICP SUDS Mean Annual Flood

Input

Return Period (years)	1	Soil	0.300
Area (ha)	7.500	Urban	0.000
SAAR (mm)	550	Region Number	Region 6

**Results 1/s**

QBAR Rural 10.3  
QBAR Urban 10.3

Q1 year 8.8

Q1 year 8.8  
Q30 years 23.4  
Q100 years 32.9

*Appendix F – Outline Drainage Strategy*



IMPROVEMENT OF SITE PERMEABILITY DUE TO SIGNIFICANT INCREASE OF PERMEABLE AREAS, LANDSCAPING, GARDENS AND AREAS OF PUBLIC OPEN SPACE.

FOR RATES AND VOLUMES PLEASE SEE THE CHAPTER 5 OF THE FRA & DMS REPORT

DRY POND TO ACCOMMODATE INFREQUENT EVENTS I.E. 30 YEAR AND 100 YEAR EVENTS

USE OF SWALES AS CONVEYANCE SUDS TO BE ASSESSED AT DETAILED DESIGN.

POND TO ACCOMMODATE FREQUENT EVENTS I.E. 1 YEAR AND 5 YEAR EVENTS

PROPOSED FOUL NETWORK TO USE EXISTING CONNECTIONS TO PUBLIC FOUL SEWER

OPTION 2 OUTFALL TO WATERCOURSE. USE EXISTING OUTFALLS TO WATERCOURSE NETWORK AT A RESTRICTED RATE.TBC

PROPOSED FOUL NETWORK TO USE EXISTING CONNECTIONS TO PUBLIC FOUL SEWER

- Notes:**
- All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
  - This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications.
- Key:**
- Existing Public FW Sewer
  - Proposed FW Sewer
  - Proposed SW Sewer
  - Proposed Attenuation Pond
  - Proposed Detention Basin ("Dry Pond"/Multi-purpose area only in use during extreme and infrequent events (30 yr, 100 yr))

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDOUS MATERIALS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING	
CONSTRUCTION	
MAINTENANCE / CLEANING	
DECOMMISSIONING / DEMOLITION	
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT	

Rev	Date	Description	By	Ckd
P7	13.05.2021	Updated to comments	TF	CF
P6	10.05.2021	Updated masterplan	TF	CF
P5	19.04.2021	Updated masterplan	TF	CF
P4	23.12.2019	Updated masterplan	BP	JW
P3	03.11.2019	Updated to suit new masterplan	BP	JW
P2	11.11.2019	Preliminary Issue	TF	JW
P1	08.10.2018	First Issue	HPJ	JW

Chetwoods

Dutchess Farm

Hydrock Consultants Ltd  
239 Ashway Road  
Wals, Cheshire  
WA7 5BE

Client: Kelsworth Ltd.

Project Title: Clacton

Drawing Title: Outline Drainage Strategy

Drawing Status: PRELIMINARY

Hydrock Job No: 10898

Drawn	Checked	Scale @ A1	Date	Issue Date
HPJ	JW	NTS	08.10.2018	08.10.2018

Revision Number: 10898-HYD-XX-XX-DR-C-0210

Revision: P7