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ARUN DISTRICT COUNCIL CM/1/17/OUT

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Prepared for: Parker Dann Ltd

Site Location: Land at Clymping, West Sussex

Title:	Foul Water Strategy Technical Note				
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1.0 Introduction

1.1 This *Technical Note* has been prepared by Cole Easdon Consultants on behalf of Ambiental Technical Solutions, in support of a planning application for development at land at Clymping, West Sussex.

2.0 Foul Water Strategy

2.1 The application site comprises some 270,908m^2 (27.091ha) of greenfield land located to the north of Crookthorn Lane. The development proposal comprises 300 dwellings.

2.2 Sewer records provided by Southern Water indicate the presence of a foul water rising main and a treated effluent rising main sewer flowing in a southerly and then easterly direction across the development site. A second foul water rising main crosses the south westerly site extent in a south easterly direction. Public foul water sewers are present to the south of the site within Crookthorn Lane and to the north of the site within the existing residential development and running along Horsemere Green Lane. Refer to the sewer records enclosed with this Report.

2.3 It is proposed to discharge foul water from the site to the existing foul water manhole (0302) to the north of the site within Horsemere Green Lane. No topographical survey has been provided however a review of the sewer records provided indicates that a pumping station may be required in order to connect to the existing sewer. A typical pumping station will require a compound area of 8m x 12m with a 15m offset distant from any habitable buildings to ensure protection from noise, odour or nuisance. The pumping station should have a safe and reasonable vehicular access. As far as practicable, the rising main from the pumping station should be laid in highways or public open space and be laid a minimum of 3m from any building or structure. An indicative rising main route is indicated on CEC Plan 4983/501 [*Proposed Foul Water Drainage*], enclosed with this Report.

2.4 It is proposed that all on-site foul water sewers and pumping stations will be offered for adoption by SW. The rising main will terminate at a point to be determined within Horsemere Green Lane, allowing foul flows to gravitate to the existing public foul water sewer manhole over a minimum 5m length. The extent of rising main will be determined during detailed design.

2.5 A pre-capacity check was submitted in February 2016 for 140 dwellings found that there was inadequate capacity within the foul water network to accommodate post development flow (6.5 l/s). Improvements to the existing network will be required in order to provide capacity in the future. Alternatively, a direct connection could be made to the Ford Watewater Treatment Works some 920m distant from the site. Refer to the capacity check results enclosed with this Report. The extent of works required to provide capacity for the development site can be obtained via Section 98 of the Water Industry Act 1991 (sewer requisition). This provides a legal mechanism through which appropriate infrastructure can be requested (by the Developer)

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and provided to drain a specific location, and includes any offsite reinforcement works in order to provide capacity for the proposed foul flow to be accommodated within the local sewerage system.

2.6 Alternatively, a private package treatment works could be implemented on the site. However, the suitability of such a facility would need to be assessed. A suitable discharge point to ground or watercourse would need to be identified for treated effluent. A nonmains assessment would need to accompany the planning submission. Environment Agency consent (post planning) would also be required.

Cole Easdon Consultants Limited
December 2016

Enclosures

CEC Plan 4983/501 Proposed Foul Water Drainage

Southern Water Sewer Records

Southern Water Capacity Check

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Proposed foul water connection at manhole 0302.

Gravity discharge from new manhole, discharging to existing foul water sewer.

Horesemere Green Lane

Insert: 1:2000 @ A1

Minimum 3m easement either side of the center line of the existing sewer to proposed buildings.

Proposed foul water rising main

Proposed foul water pumping station to be located a minimum 15m from existing or proposed development.

Crookthorn Lane

N

Key

- Site boundary (270908m²)
- Existing public foul water sewer
- Existing public foul water rising main
- Proposed foul water rising main

Notes:

1. All levels are in metres above ordnance datum.
2. All dimensions are in millimetres unless stated otherwise.
3. Sewer records provided by Southern Water.

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Ambiental Technical Solutions

Proposed Development
Land at Clymping
West Sussex

Proposed Foul Water Drainage

Drawn	Checked	Approved
NJ	NJ	DF

Date: November 2016 | Scale: 1:1000@ A1

Drawing No. 4983/501 | Rev.

ARUN DISTRICT COUNCIL CM/1/17/OUT

103019


Ford Aerodrome
(disused)
HM Prison
Rudford Industrial Estate
St Mary's Church
Church Farm
Vincent Cottage
Church Farm Barn
Church Farm Cottage
Church Farm Oast
Church Farm Barn
The Priory
Priory Cottage
Priory Barn
Church Cottage
Church Hall
Village Hall
Playing Field
Sports Field
Recreation Ground
Climping
Clymping
Clymping Primary School
Clymping Cemetery
Clymping Parish Church (Site of)
Clymping Parish Church (Ruins of)
Clymping Parish Church (Site of) Tomb
Clymping Parish Church (Site of) Vault
Clymping Parish Church (Site of) Graves
Clymping Parish Church (Site of) Tombstone
Clymping Parish Church (Site of) Tombstones
Clymping Parish Church (Site of) Grave

Southern Water

4983
Rec'd 2/3/16

Cole Easdon Consultants
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Aztec West
Almondsbury
Bristol
Gloucestershire
BS32 4TU

Developer Services
Southern Water
Sparrowgrove House
Sparrowgrove
Otterbourne
Hampshire
SO21 2SW

[redacted]

Your Ref:

Our Ref:
CC/002924

Date:
29 February 2016

F.A.O: Ms. Jess Pockett,

Site: Land South of Horsemere Green Lane, Climping, West Sussex, BN17 5GG.

Dear Madam,

We have completed the capacity check for the above development site and the results are as follows:-

Foul capacity check:

There is currently inadequate capacity within the foul sewerage network to accommodate a foul flow of 6.5 l/s at manhole reference TQ00020302. The proposed development would increase flows to the public sewerage system, and existing properties and land may be subject to a greater risk of flooding as a result. Additional off-site sewers, or improvements to existing sewers, will be required to provide sufficient capacity to service the development.

The nearest point where capacity is currently available is at Ford WTW which is located approximately 920 m North West of the proposed development site. Rights are not issued for a direct connection to Wastewater Treatment Works. Please note that connection to the WTW will have to be agreed by Southern Water Services before being carried out.

Section 98 of the Water Industry Act 1991 provides a legal mechanism through which the appropriate infrastructure can be requested (by the developer) and provided to drain a specific location. Alternatively, carry out off site reinforcement works in order to provide

ARUN DISTRICT COUNCIL DEVELOPMENT Southern Water Services Ltd Registered Office: Southern House Yeoman Road Worthing BN13 3NX Registered in England No. 2366670

capacity for the proposed foul flow to be accommodated within the local sewerage system. The extent of the works required to provide capacity for the development site could be obtained via a level 2 Capacity Assessment (Application forms enclosed).

Unfortunately, it may be several years before adequate infrastructure is provided via a prioritised capital expenditure programme. Therefore, this proposed development would be considered premature until such time adequate sewerage infrastructure could be provided.

Before any connections are made to foul and surface sewerage network, an application form needs to be completed and approved by Southern Water Services.

Should you require any further information, please contact us at the above mentioned phone number or address.

Yours faithfully

[redacted]

Thomas Clark
Developer services
Please note: -
The information provided above does not grant approval for any designs/drawings submitted for the capacity analysis. The results quoted above are only valid for 12 months from the date of issue of this letter.

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LINE STYLES / COLOURS

Brown — Foul
Foul Syphon Sewer
Foul Vacuum Main
Foul Rising Main
Red — Combined
Combined Syphon Sewer
Combined Rising Main
Lateral Drain
Orange — Building Over Agreement Area
Dark Blue — Treated Effluent
Purple — Sludge
Sewer Catchment
Section 104 Area
Light Blue — Surface Water
Surface Water Rising Main
Yellow — Private
Green — Access Short
Decommissioned

MATERIALS

AK Alkathene
BAC Bonded Asbestos Cement
BRC Brick (Common)
BRE Brick (Engineering)
CC Concrete Box Culvert
CI Cast iron
CO Concrete (In-Situ)
CP Concrete (Pre-Cast)
CSS Concrete Segments (bolted)
CSU Concrete Segments (unbolted)
DI Ductile Iron
GRC Glass Reinforced Concrete
GRP Glass Reinforced Plastic
MAC Masonry in regular Courses
MAR Masonry in random Courses
PE Polyethylene
PF Pitch Fibre
PP Polypropylene
PVC Polyvinyl Chloride
RPM Reinforced Plastic Matrix
SI Spun Iron
ST Steel
VC Vitrified Clay
XXX Other
ZZZ Unknown

LEGEND - SEWERS

Manhole (SW)
Manhole (F&C)
Lamp hole (SW)
Lamp hole (F&C)
Pumping Station (SW)
Pumping Station (F&C)
Side entry manhole (SW)
Side entry Manhole (F&C)
Blind shaft (SW)
Blind shaft (F&C)
Ejector station (SW)
Ejector station (F&C)
Watertight door (SW)
Watertight door (F&C)
Flushing ch. No-e (SW)
Flushing ch. No-e (F&C)
Flushing ch. No-s (SW)
Flushing ch. No-s (F&C)
Depression Chamber
Washout (SW)
Washout (F&C)
Rodding Eye (SW)
Rodding Eye (F&C)
Gauging point (SW)
Gauging point (F&C)
Intercept chamber (SW)
Intercept chamber (F&C)
Storm Tank (SW)
Storm Tank (F&C)
Vortex chamber (SW)
Vortex chamber (F&C)
Lobed eclipse
Dummy/S24 manhole
Outfall
Penstock chamber
Overbreak
Storm Overflow
Backdrop manhole
Other (s)
Other
Change in sewer (s)
Change in sewer
Reflux valve
Flap valve
Cascade
Arrade
Valve
Closed Valve
Air Valve
Hatch box (SW)
Hatch box (F&C)
Direction arrow
Emptying valve
Catchpit
Soakaway
Inlet
Balancing Pond
Wastewater treatment works
Marine treatment works
Outfall/ treatment works
Vent
Vent column
Tidal storage tank
Blank end
Head of Public Sewer
Micro Pumping Station

SHAPES (S)

A Arched — R Rectangular
B Barrel — S Square
C Circular — T Trapezoidal
E Egg — U U Shape
H Horseshoe — X Other

NODE REFERENCING SYSTEM

1st digit: Number means existing identifier
2nd digit: Number means nothing identifier
sewer type identifier
3rd digit: S = Foul/Combined
S S = Surface Water
4th digit: next sequential node

WARNING: BAC pipes are constructed of Bonded Asbestos Cement

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement

Drawn by: clarkth	O.S.Ref: TQ0002SW
Scale: 1:2500	TITLE: Southern Water Services Ltd
Date: 01/03/2016	

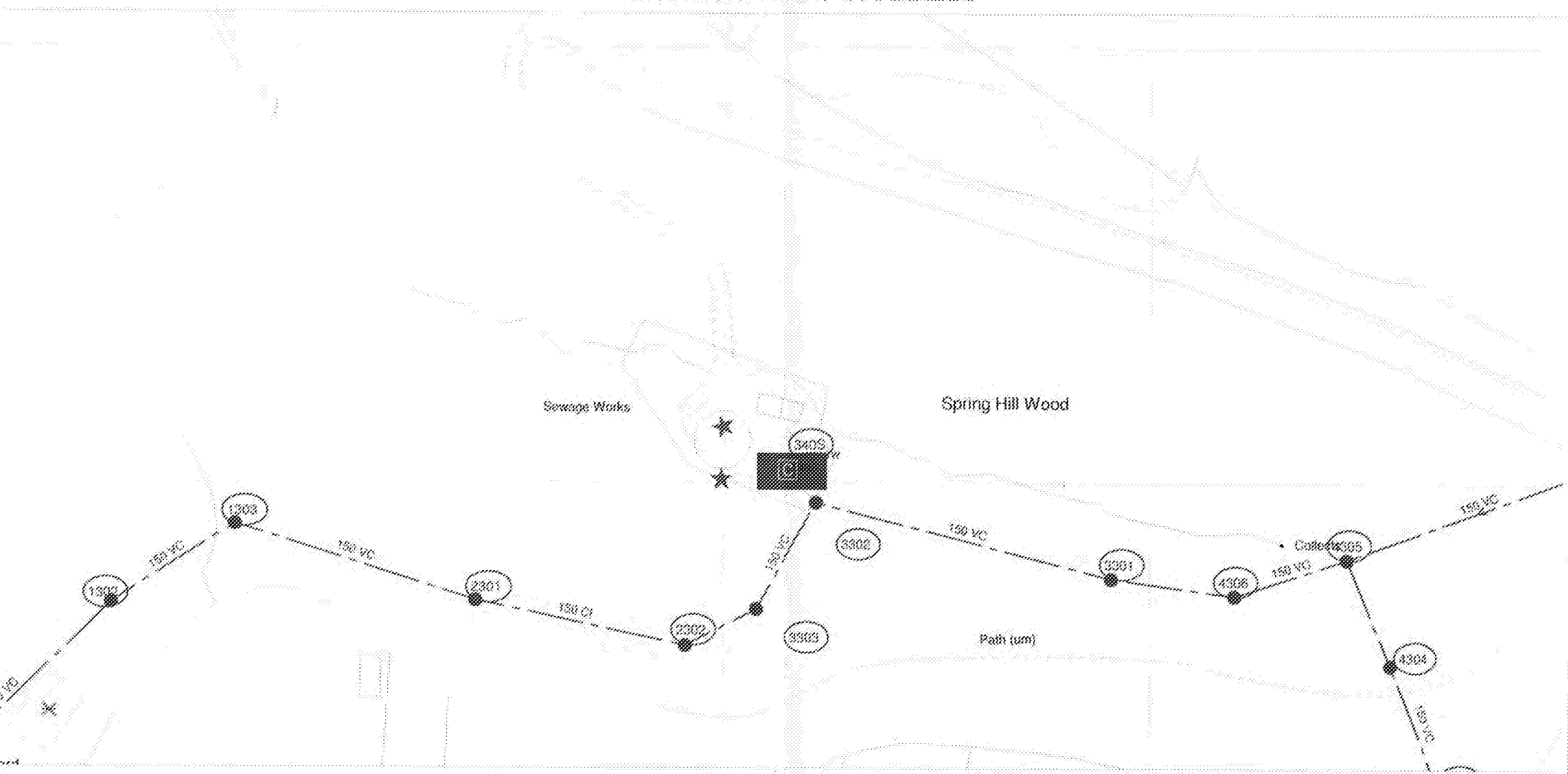
The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd. accept no responsibility in the event of inaccuracy. The actual positions of pipes should be determined on site.

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Southern Water

N

SOUTHERN WATER



The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site.

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O.S. REF: TQ5240SW

Scale: 1:1250

Screen Print

WARNING: RAC pipes are constructed of Reinforced Asbestos Cement

WARNING: Unknown (UNK) materials may include Reinforced Asbestos Cement

Printed By: krishmo

Date: 29-2-2016

Nearest point of available capacity

Requested By:

Southern Water

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