



PHOTOGRAPH OF TYPICAL DRAINAGE SWALE

Adjacent development
now approved

Existing pipework to be investigated and
cleaned as necessary

New 1.8 high close
boarded fence
along boundary

Existing boundary
trees and
hedgerows retained

Additional new
landscaping along
boundary to include
ornamental trees

Landscaped
access point

Proposed foul water connection
into existing public sewer (subject
to capacity improvements to be
agreed with the water authority)

Safe design of
access

New 1.8 high close
boarded fence
along boundary

Proposed foul water pump station.
Duty & standby pumps with high level
alarm. Sized to accommodate 24 hours
emergency storage
landscaping along
boundary to include
ornamental trees

Proposed swale / conveyance channel

Potential vehicle and
footpath access to
west

Existing boundary
trees and
hedgerows retained

Proposed swale / conveyance channel

Secured ditch
retained with
safety fencing

Proposed attenuation pond. Sized to
accommodate 1 in 100 year storm event
plus 30% climate change

Pond
Safety fencing
around pond

Seating

Existing boundary
trees and
hedgerows retained

New headwall connection into existing
ditch on southern boundary

Storm water

Outflow pipe, flow restricted by
hydro-brake manhole to greenfield run-off
rate

Existing ditch
enhanced

Proposed swale / conveyance channel

Outflow pipe, flow restricted by
hydro-brake manhole to greenfield run-off
rate

Circular walk with

Seating

Play area



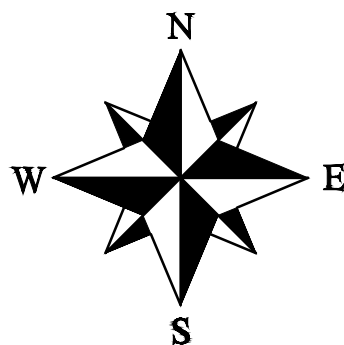
PHOTOGRAPH OF TYPICAL DRAINAGE SWALE

Drainage Notes

1. All materials and workmanship for public adoptable drainage shall be in accordance with the Sewers For Adoption 7th Edition as published by the Water Services Association and any subsequent revisions required by Southern Water.
2. All materials and workmanship for private drainage shall be in accordance with Part H of the Building Regulation and BS EN 752.
3. All Sustainable drainage shall be in accordance with The SUDS Manual - CIRIA Report C697

Key

- Existing Public Foul Water Drainage
- Proposed Surface Water Drainage
- Partial Infiltration Pipe
- Proposed Foul Water Drainage
- Rising Main
- Water Butt
- Porous Paving
- Swale



A	Scheme updated	17.03.15
REV	DESCRIPTION	DATE

Stilwell
PARTNERSHIP
SAFETY, TRAFFIC & HIGHWAY
ENGINEERING CONSULTANTS
SATELLITE HOUSE, 2 NEXUS PARK
ASH VALE, SURREY, GU12 5QE
Tel: 01276 700400, Fax: 01252 544 934
E-Mail: info@stilwell-ltd.co.uk
Web: www.stilwell-ltd.co.uk

PROJECT: Land off Burndell Road
Yapton, West Sussex

TITLE: Schematic Drainage Plan

SCALE: 1:500 @ A1	DRAWN: AJ
DATE: January 2014	CHECKED: DB

DWG No: TSP/BRO/P2551/07 A

THIS IS A CONTROLLED
DOCUMENT

APPENDIX G

Southern Water Capacity Check Response

P2551



RECEIVED
7994/14
21 MAR 2014

Stilwell Partnership
Satelliet House,
2 Nexus Park,
Lysons Avenue,
Ash Vale
Guildford
GU12 5QE

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

Tel: **0330 303 0119**

Email: **developerservices@southernwater.co.uk**

Your Ref:
DB/AJ/Brookworth/Yapton/
P2551/01
Our Ref:
CC/002077

Date:
19 March 2014

F.A.O: Mr. David Brooke,

**Site: Proposed Residential Development, Burndell Road, Yapton, Arundel, West
Sussex, BN18 0HR.**

Dear Sirs,

Further to your recent application for a level 2 enquiry regarding the above development site.

FOUL WATER

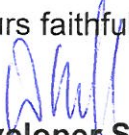
Please find enclosed the report which details the extent of works required in order for your proposed development site to be accommodated within the local sewerage infrastructure. It should be noted that the report is only a hydraulic solution to provide capacity for the proposed development site. There are other options available to you/ your client in discharging your proposed flows from the site such as making a connection application/requisition to a sewer at a point where capacity is currently available. 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.

As you are aware the owner or occupier of the premises or private sewer or drain must give the sewerage undertaker notice of the proposed works. Upon receipt of the notice the undertaker may, within 21 days, refuse to allow him to make the connection if it considers that the mode of construction or the condition of the connecting sewer or drain either does

not satisfy the standards reasonably required by the undertaker, or is such that the making of the communication would be prejudicial to its sewerage system.

The right of refusal is limited to these criteria alone and the undertaker cannot refuse to allow the connection on the grounds that the sewerage system is inadequate to take the extra liquid that the connection will discharge into it. This is a matter that should be dealt with at the planning stage.

Yours faithfully



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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2994/14
21 MAR 2014

Site Name	Residential Development at Burndell Road, Yapton, West Sussex.	
Our Ref:	SWS.CC.002077 (1008549)	Date
		18/03/2014
Property Numbers	Number of residential units on proposed development	50
Preferred point of connection	SU98025902	
Wastewater Discharge Rate	Wastewater discharge from residential properties	2.3 l/s
	Wastewater discharge from commercial or industrial processes	-
	Total Wastewater discharge	2.3 l/s

Results		
Wastewater Capacity Assessment	Is capacity available at your preferred connection point for the entire discharge rate?	No
	Is capacity available at your preferred connection point for 50% of the entire discharge rate?	No
	Is capacity available at your preferred connection point for 20% of the entire discharge rate?	No
The nearest point on the wastewater network at which capacity exists for the entire demand is;		Lidsey WTW
Distance to and direction of the nearest point of available capacity:		3.9 km West
Note – - Alternatively, the developer can discharge foul flow into the existing foul system on condition that an equivalent amount of surface water runoff is disconnected, if "proved to be connected" and that there is no overall increase in flows into the foul system. - The applicant is advised that, due to issues related to the ingress of surface water and ground water into the public foul sewerage network, the measures outlined in the document "Practical measures to reduce the potential adverse impacts of development", issued by Southern Water, should be considered for implementation		

This hydraulic analysis has been carried out based on the information contained within your application and in accordance with the terms and conditions specified in Southern Water's capacity check application form and guidance notes.

Notes:

- 1** The results of capacity checks are for information only and are neither an acceptance nor rejection of your proposal.
- 2** The results given above are only valid for 12 months from the date of issue of this letter.

Job No	SWS.CC.002077 (1008549)
Author	Shreya Purandara
Checked	Prakash Thammadihalli
Reviewed	Alex Ludbrook

Study into the Options for Foul Drainage Provision along Burndell Road, Lidsey.

Table 1 – Development Details

Proposed Development Flow l/s		Proposed Connection Manhole	Location
Foul water	2.3	SU98025902	Burndell Road
Surface Water	-	-	-
Commercial Flow	-	-	-

Figure 1 - Proposed Development

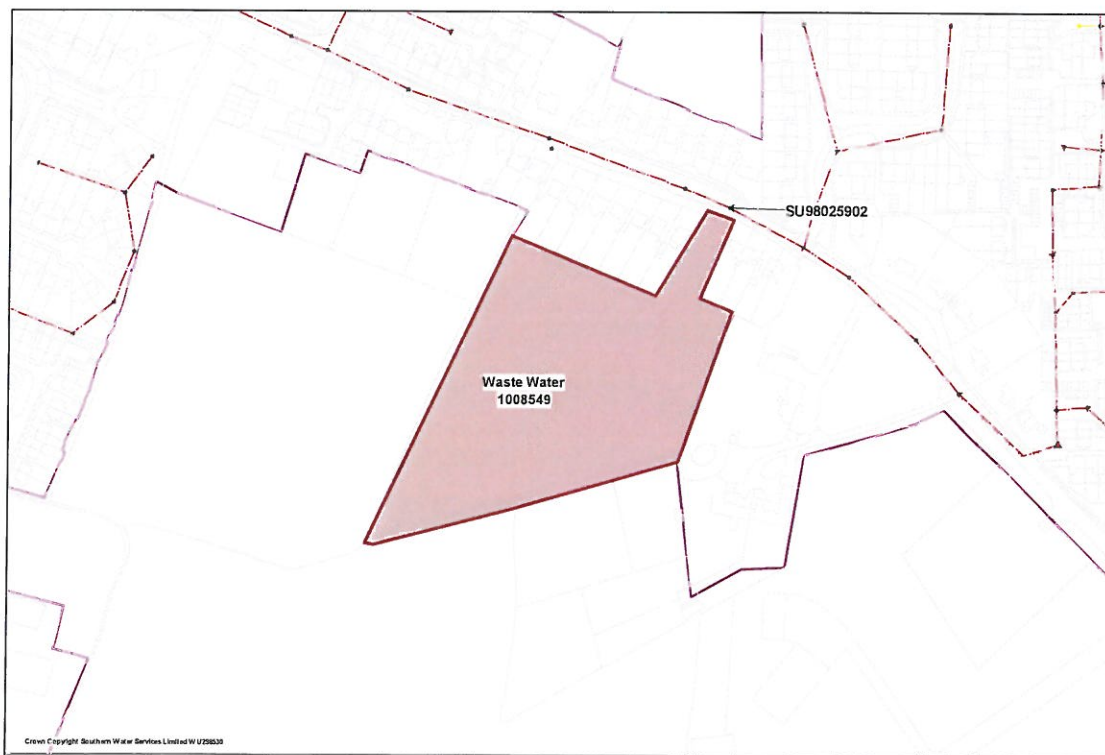


Figure 2 - Proposed Improvements – Foul system

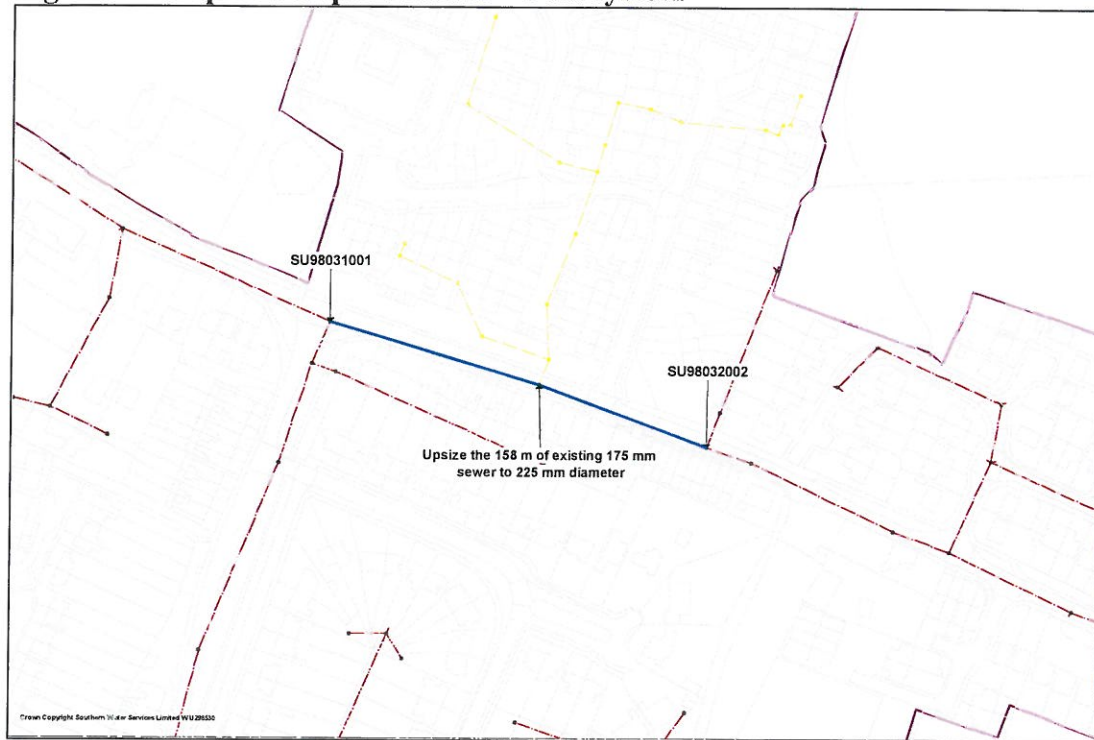


Figure 3 - Proposed Improvements – Foul system

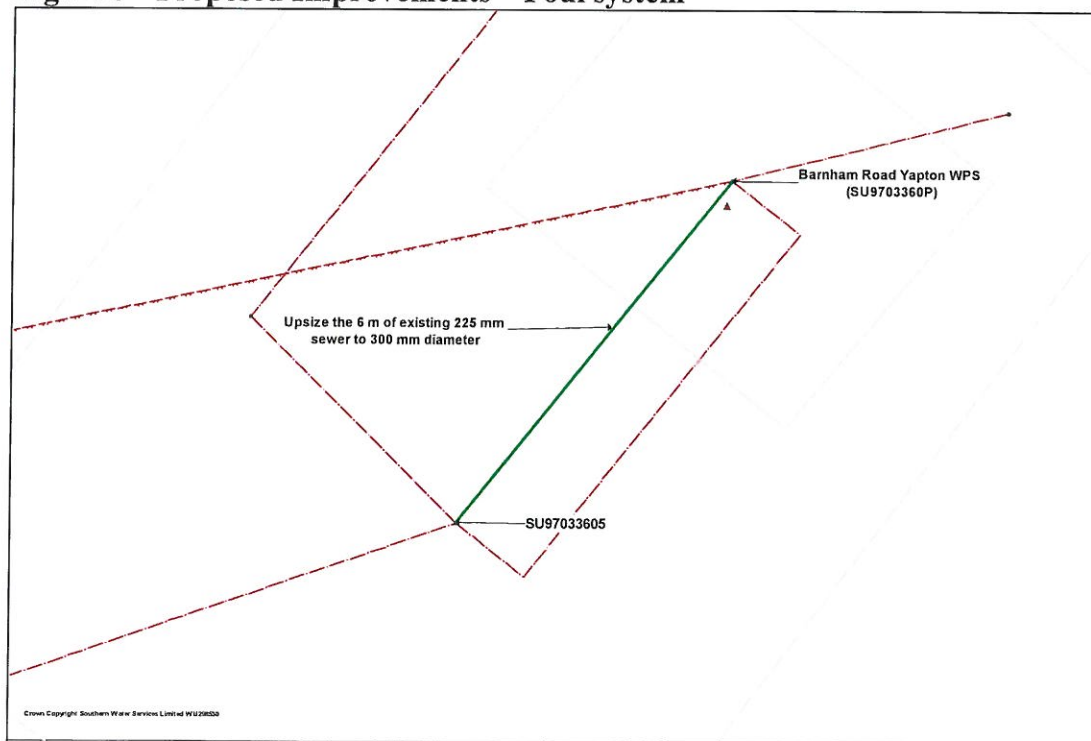


Figure 4 - Proposed Improvements – Foul system

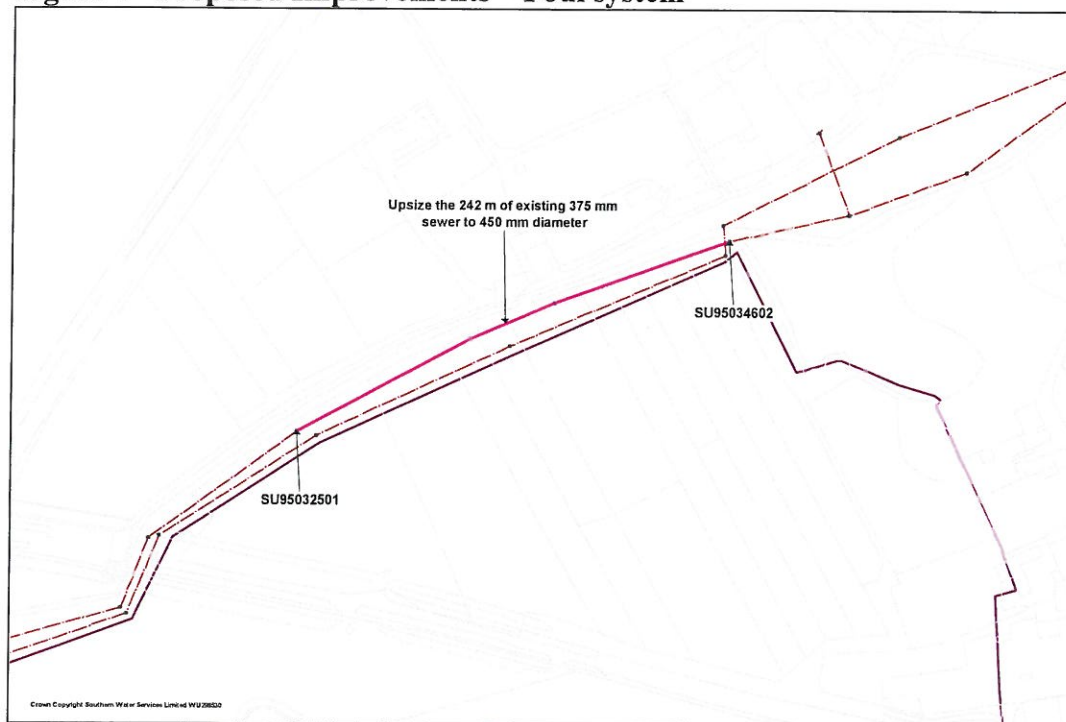


Figure 5 - Proposed Improvements – Foul system

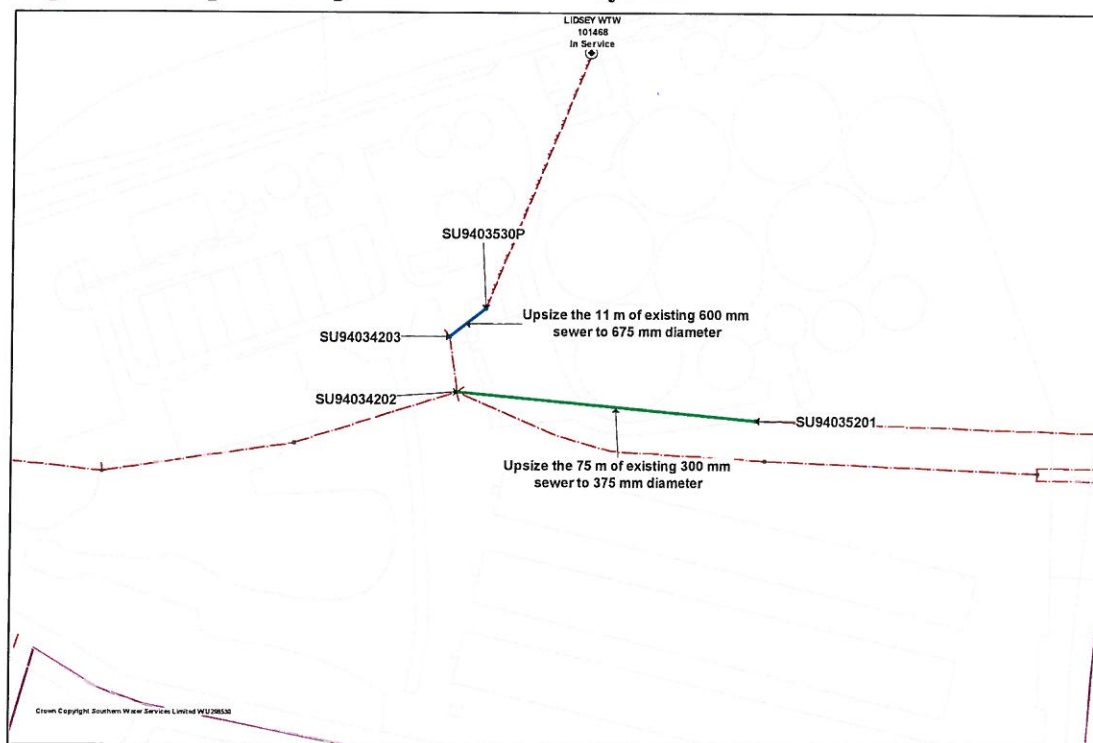


Table 2 Proposed Improvements Schedule

U/S Manhole	D/S Manhole	Sewer Diameter (mm)		Avg. Depth (m)	Length (m)
		Existing	Proposed		
SU98032002	SU98031001	175	225	2.6	158
SU97033605	Barnham Road Yapton WPS (SU9703360P)	225	300	3.3	6
SU95034602	SU95032501	375	450	2.5	242
SU94035201	SU94034202	300*	375	4.8	75
SU94034203	SU9403530P	600	675	6.2	11

*Asset miner indicates a sewer diameter of 375 mm at this location

Conclusion

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

Foul Water

There is currently inadequate capacity within the local foul sewerage network to accommodate a foul flow of 2.3 l/s at manhole references SU98025902. The proposed development would increase flows to the local network and as a result existing properties and land may be subject to a greater risk of flooding. Additional off-site sewers or improvements to existing sewers will be required to provide sufficient capacity to service the proposed development as indicated in Figures 2, 3, 4 & 5 and Table 2.

The nearest point where capacity is currently available is at Lidsey WTW located approximately 3.9 km west of the proposed development site. 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.

Note -

- Alternatively, the developer can discharge foul flow into the existing foul system on condition that an equivalent amount of surface water runoff is disconnected, if "proved to be connected" and that there is no overall increase in flows into the foul system.
- The applicant is advised that, due to issues related to the ingress of surface water and ground water into the public foul sewerage network, the measures outlined in the document "Practical measures to reduce the potential adverse impacts of development", issued by Southern Water, should be considered for implementation

Surface Water System

As a surface water capacity check has not been requested it is assumed that Surface Water will be disposed of by alternative means i.e. Soakaway or any local drainage watercourses, subject to all interested parties approval.

Before any connections are made, an application form needs to be completed and approved by Southern Water 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.

APPENDIX H

Environment Agency Website Flood Map

Map legend

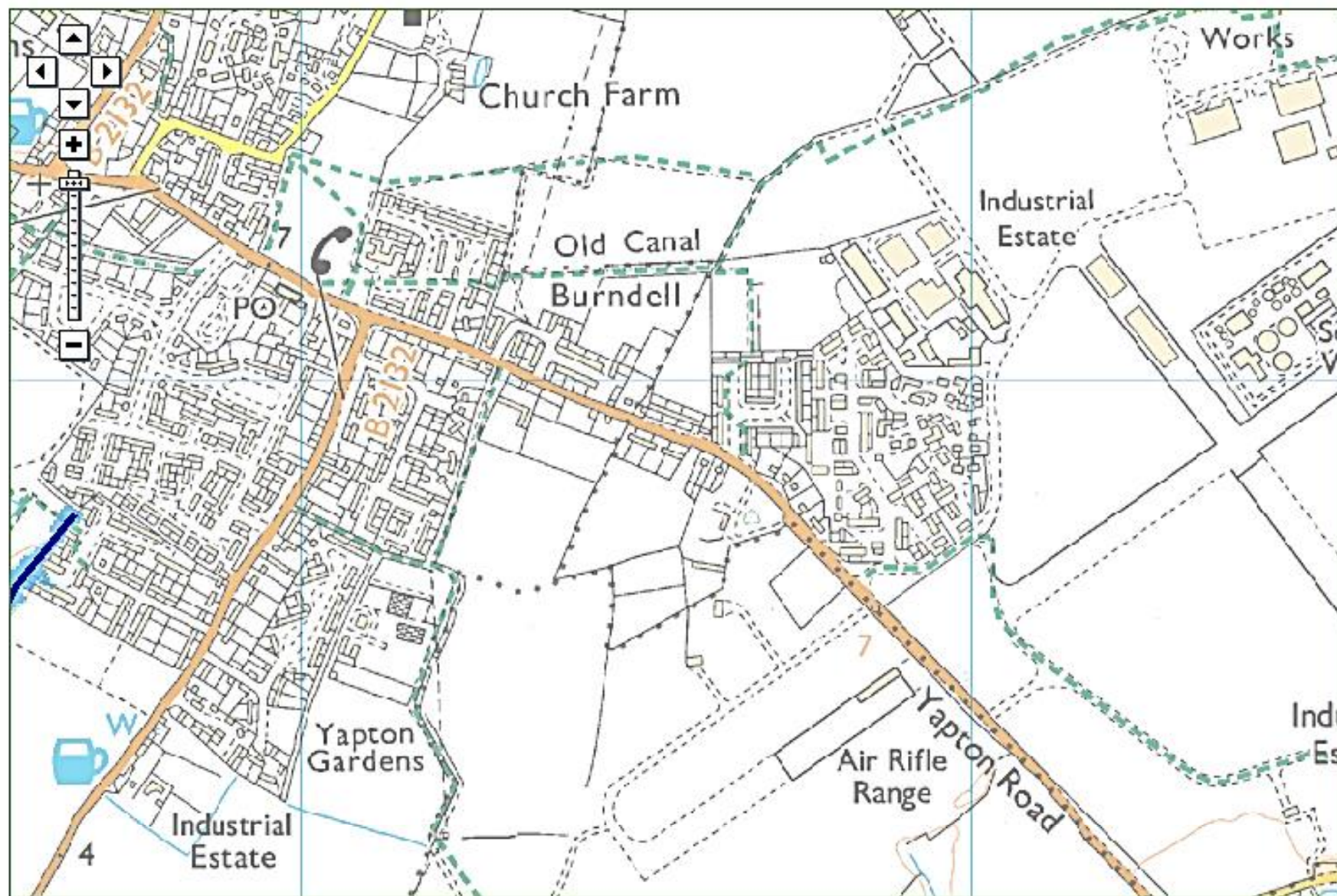
Click on the map to see what Flood Zone (National Planning Policy Guidance definitions) the proposed development is in.

☒ Flood Map for Planning (Rivers and Sea) ⓘ

- Flood Zone 3
- Flood Zone 2
- Flood defences (Not all may be shown*)
- Areas benefiting from flood defences (Not all may be shown*)
- Main rivers

BN18 0HR at scale 1:10,000

Data search  Text only version 



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