

Land South East of 18 Midford Lane, Limpley Stoke
Discharge of condition 8 of PL/2023/10970 (Drainage)

In response to the Wiltshire Council drainage consultation letter dated 24th February 2026, providing comment on condition 8 (Drainage), we provide the following response to each condition item raised.

“Planning Advisor comment”

M2 provided response.

Item 1 –

“The applicant is required to provide further information related to the soakaway proposal:

- Calculations to demonstrate the soakaway is appropriately sized to manage the 1 in 100yr+climate change flows.*
 - Each soakaway has a half drain time of <24hrs.*
 - An appropriate factor of safety has been applied in line with CIRIA C753 (Table 25.2) guidance has been included.”*

Factor of safety

Refer to enclosed Infodrainage calculations.

- A FOS of 3 is applied in accordance with table 25.2.

TABLE 25.2 Suggested factors of safety, F, for use in hydraulic design of infiltration systems (designed using Bettess (1996). Note: not relevant for BRE method)			
Size of area to be drained	Consequences of failure		
	No damage or inconvenience	Minor damage to external areas or inconvenience (eg surface water on car parking)	Damage to buildings or structures, or major inconvenience (eg flooding of roads)
< 100 m ²	1.5	2	10
100–1000 m ²	1.5	3	10
> 1000 m ²	1.5	5	10

Half drain time

Half drain for the 30yr event = 1335 mins.

The soakaway has been designed to accommodate surface water runoff for up to the 100year + 45% climate change event in line with the EA guidelines.

In accordance with the CIRIA SuDS guidance, soakaways can be designed to satisfy the half drain time of 24 hours up to the 30yr event, whilst also having storage available to accommodate up to the 100yr + 45% event.

Item 2 –

“The applicant must provide calculations related to the surface water drainage strategy:

- The 1 in 30 year rainfall event is contained within the drainage system without causing flooding to any part of the site.*
- The 1 in 100 year plus climate change rainfall event does not cause flooding to any building (including a basement) or utility plant.*
- The site has been designed to ensure that flows in excess of the 1 in 100 year rainfall event are managed in exceedance routes that minimise the risks to people and property.*
- Calculations which demonstrate that the proposed drainage design provides a sufficient level of water treatment.”*

Refer to the enclosed Infodrainage calculations and surface water drainage layout.

Both the 30yr event and 100yr+45% climate change events are contained wholly within drainage system and soakaway.

Overland flow routes are directed around the properties to lower level open green spaces.

Water quality has been assessed in line with the Simple Index approach from Chapter 26 of CIRIA C753 The SuDS Manual:

1. Step 1 – Allocate suitable pollution hazard indices for the proposed land use.
2. Step 2 – Select SuDS with a total pollution mitigation index that equals or exceeds the pollution hazard index.

Pollution Hazard Indices

Below figures are obtained from Table 26.2 CIRIA C753 The SuDS Manual ‘*Pollution hazard indices for different land use classifications*’

Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydrocarbons
1) Residential roofs	Very low	0.2	0.2	0.05
2) Individual property driveways, residential car parks and low traffic roads	Low	0.5	0.4	0.4

Pollution Mitigation Indices

Below figures are taken from Table 26.3 & 26.4 CIRIA C753 The SuDS Manual ‘*Indicative SuDS mitigation indices for discharge to surface waters and groundwater*’

SuDS Feature	Total suspended solids (TSS)	Metals	Hydrocarbons
1) A soil with good contaminant attenuation potential of at least 300mm depth beneath the proposed soakaway	0.4	0.3	0.3
2) Constructed permeable pavement	0.7	0.6	0.7

The pollution mitigation indices for the proposed drainage system therefore exceed the pollution hazard indices and provide suitable pollutant removal

Item 3 –

“The applicant has proposed a filter strip in the north west of the site to intercept overland flow:

- The applicant must provide standard sections of this feature, detailing whether the filter strip is connected to the surface water drainage network, or permeably lined.”*

Refer to the enclosed drainage construction details. The filter strip is not connected to the drainage network and is self draining.

- The applicant must justify why there is no filter strip proposed in the northeast of the site. Observing the overland flow routes, it appears flow may be directed offsite towards Warminster Road.”*

There is no bank to intercept, other than the existing bank arrangement. Everything upstream of this is contained within the new drainage system.

Item 4 –

“The applicant must submit a maintenance plan detailing the frequency of maintenance and who is responsible for undertaking maintenance.

- The applicant must include who is responsible for pump chambers, and whether the foul feature will be adopted or remain privately owned.”*

All drainage will be privately owned and responsibility of maintenance lies with the property owners. Regular inspection and maintenance are important for the effective operation of the SuDS systems. The regular maintenance of SuDS should be carried out in line with C753 The SUDS Manual (CIRIA, November 2015) or as per manufacturer's specification.

Pipework and Catchpits

It is not envisaged that silt build up within the pipework systems will require rigorous maintenance. Notwithstanding this, a suitable maintenance regime for the systems will comprise of routine inspection (every six months) and silt removal as necessary.

Soakaway Trench

It is not envisaged that silt build up within the infiltration trench will require maintenance regime so long as silt is removed from upstream catch pits and inspection chambers on a regular basis.

Six monthly, or as required, removal of litter and debris from the surface will maintain surface inflow. Should a pollution event occur, the surface stone and top geotextile should be lifted and cleaned or replaced with new.

"Item 5 –

The applicant must provide a construction management plan to demonstrate how flood risk to people & property, and pollution to groundwater will be mitigated during construction."

The proposals are relatively small in scale therefore the risk of discharge of significant quantities of surface water runoff, suspended solids and other contaminants is relatively low. Notwithstanding this, the temporary measures outlined below are proposed to prevent off site runoff for the duration of the works. These measures should be incorporated into the wider Construction Management Plan.

Construction activities on site will mainly comprise stripping of the existing surface and excavation for the construction of building foundations, external surfacing and proposed SuDS features.

Site should be stripped in phases, to maintain existing vegetated surfaces which will intercept runoff until construction in the area is necessary.

Runoff will then be retained within excavated trenches and is unlikely to move offsite. Retained water will infiltrate at source and the contractor should monitor the performance of soil infiltration and increase pit sizes as required on the basis of the quantity of dewatering flow generated.

Dewatering of foundation excavations while being worked on will be pumped to temporary gravel pits for dispersion by infiltration.

Any sediment gathered will be removed regularly and stockpiled onsite.

Any existing gullies to be retained which are situated in the vicinity of the works will be temporarily covered with geotextiles in order to prevent construction sediments entering the existing attenuation tank. Textiles should be replaced periodically to maintain flows to the sewer network.

All necessary precautions will be taken by the contractor to prevent pollutants from construction activities entering the drainage system. Fuels, chemicals and materials containing cement should be stored in accordance with current guidance.

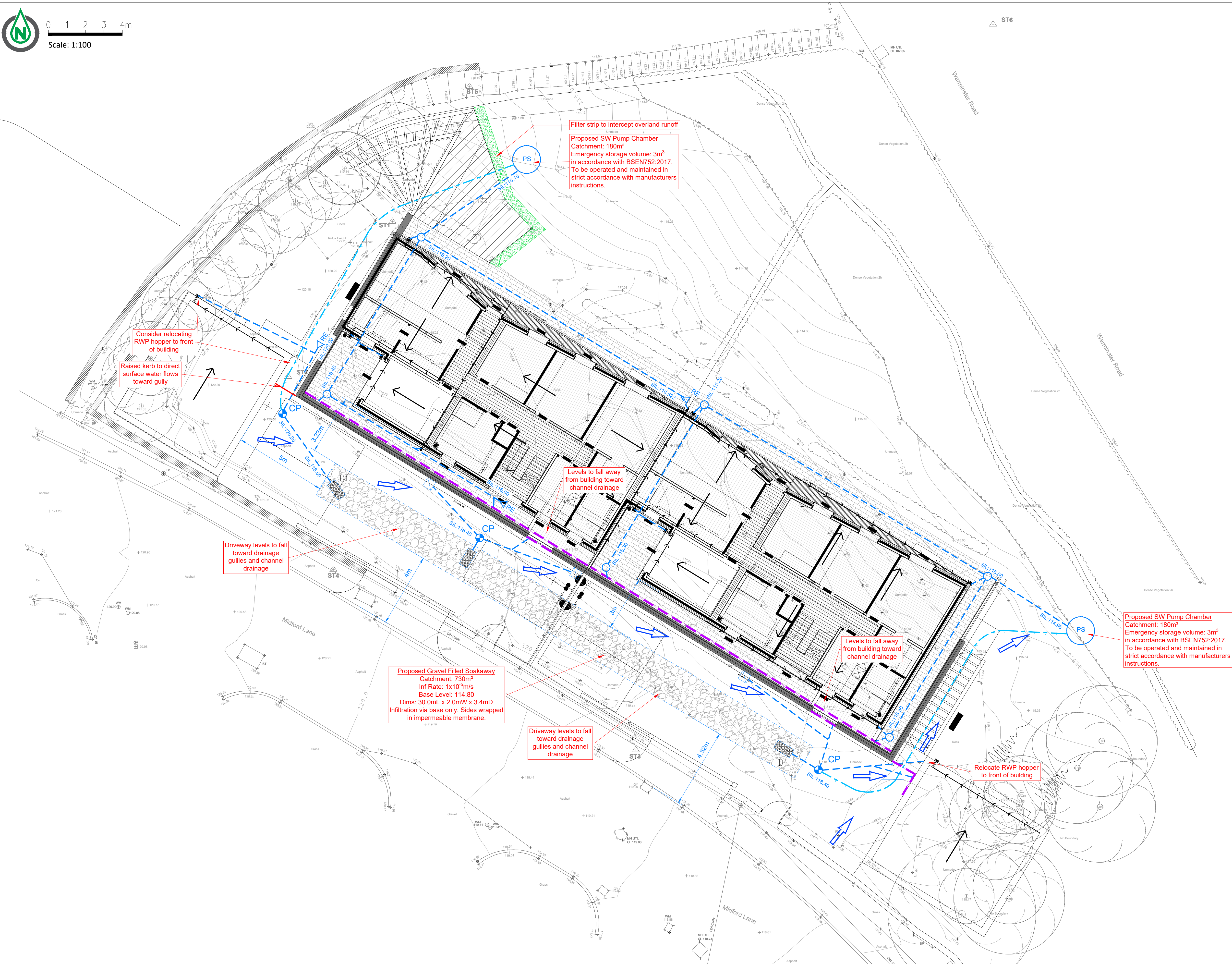
Issue 1 - March 2026

Enclosures

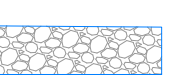
Drawing ref. M2-2801-SK-602 P4	SW Drainage Layout
Drawing ref. M2-2801-SK-605 P2	Drainage Construction Details
Surface Water SuDS Calculations	



0 1 2 3 4m
Scale: 1:100



KEY:



Gravel Filled
Soakaway Trench



Private Surface Water
Drain & Inspection
Chamber



Channel Drain



Gully



Surface Water Catchpit
Chamber



Surface Water Pump
Station



Surface Water Rising Main



Distribution Tank



Filter Trench



Ground Level Fall Direction /
Flood Flow Route (Over
1:100yr+45% storm event)

NOTES

- At the commencement of works on site the contractor is to carry out trial pits and liaise with Utility Companies in order to establish the exact position of all existing statutory utility plant in the vicinity of works and take adequate precautions for their protection.
- All existing manhole covers/valves/inspection covers to be adjusted where necessary to suit design levels.
- Prior to construction of any drainage works, the Contractor is to confirm the invert levels of existing manholes and sewers. Any variations from the designed levels shown on the drawings shall be reported to the Engineer in advance of construction works commencing.
- All drainage to be laid soffit to soffit, unless shown otherwise.
- All specified products to be installed in accordance with the Construction Details Drawing (Drg No. M2-2801-GA-605).
- Do not scale from this drawing. Work only from stated dimensions or setting out details.
- All levels are in metres above Ordnance Datum.
- All drainage that is not subject to adoption as public sewers must be constructed in accordance with the latest Building Regulations, BS8301, and, where appropriate, the relevant agreement certificates.
- Private drainage pipework to be 100mm $\varnothing$ unless shown otherwise on Engineering Layout Plans.
- 100mm $\varnothing$ foul water shall be laid no flatter than 1 in 80 & 100mm $\varnothing$ storm water drainage shall be laid no flatter than 1 in 100. 150mm $\varnothing$ pipework shall be laid no flatter than 1 in 150.

REV	DESCRIPTION	DRAWN	CHK'BY	DATE
P1	PRELIMINARY ISSUE	AD	MC	03.02.25
P2	SW PIPES MOVED TO ACCOMMODATE FOUL DESIGN	AD	MC	06.03.25
P3	DRIVEWAY CHANNELS REPLACED WITH GULLIES	AD	MC	10.06.25
P4	CHANNEL DRAINAGE REMOVED FROM REAR DOOR THRESHOLD	AD	MC	16.07.25

CLIENT:
Alex Feilden-Cook & Daniel Jones

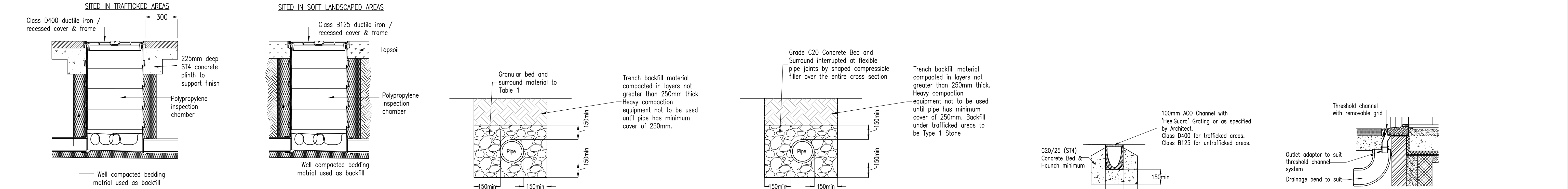
PROJECT REF: M2-2801
FILE: SK
DRG NO.: 603
REV: P4
SCALE (A1): 1:100 @ A1
DRAWN: AD
CHECKED: MC
DATE: FEB 2025

PROJECT TITLE:
18 Midford Lane
Limpley Stoke

DRAWING TITLE:
Surface Water Drainage Layout

M2 CIVIL & STRUCTURAL
CONSULTING ENGINEERS

W: www.m2structural.co.uk
E: info@m2structural.co.uk
T: 01225 285073



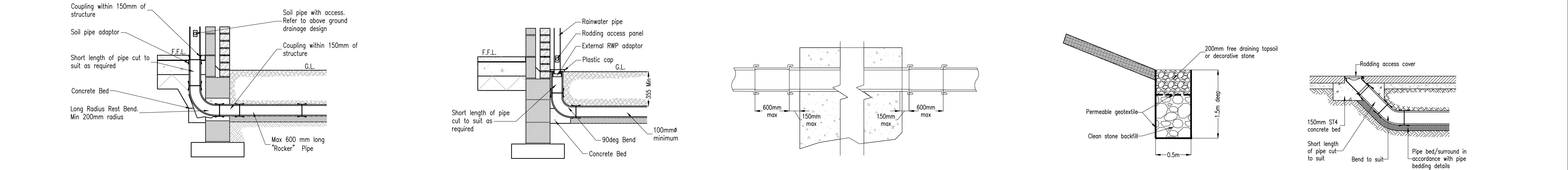
POLYPROPYLENE INSPECTION CHAMBER

GRANULAR PIPE BEDDING AND SURROUND FOR UNLOADED APPLICATIONS

CONCRETE BEDDING AND SURROUND FOR TRAFFICKED AREAS <1.2M DEEP

ACO DRAINAGE CHANNEL M100PPD

TYPICAL THRESHOLD DRAIN
Refer to manufacturer specific detail



SVP / STUB STACK CONNECTION

RWP DOWNPIPE CONNECTION

ROCKER PIPE FOR DRAINAGE PASSING THROUGH FOUNDATIONS

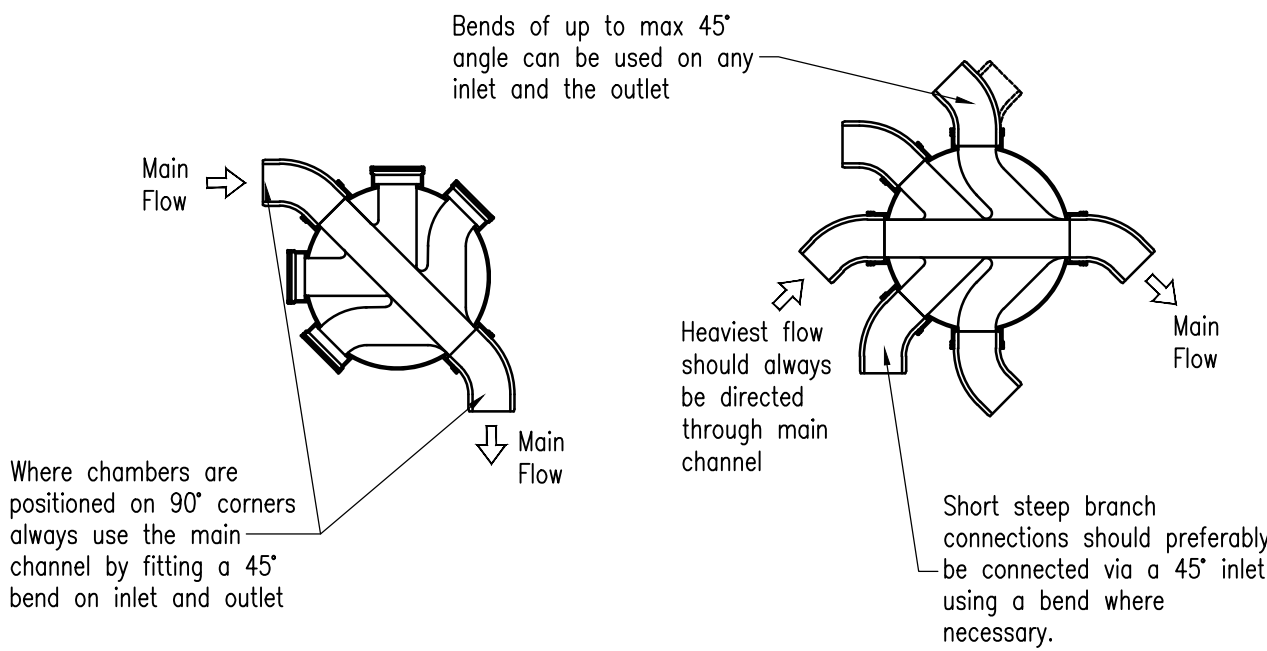
OVERLAND SW RUNOFF INTERCEPTION FILTER TRENCH

RODDING POINT

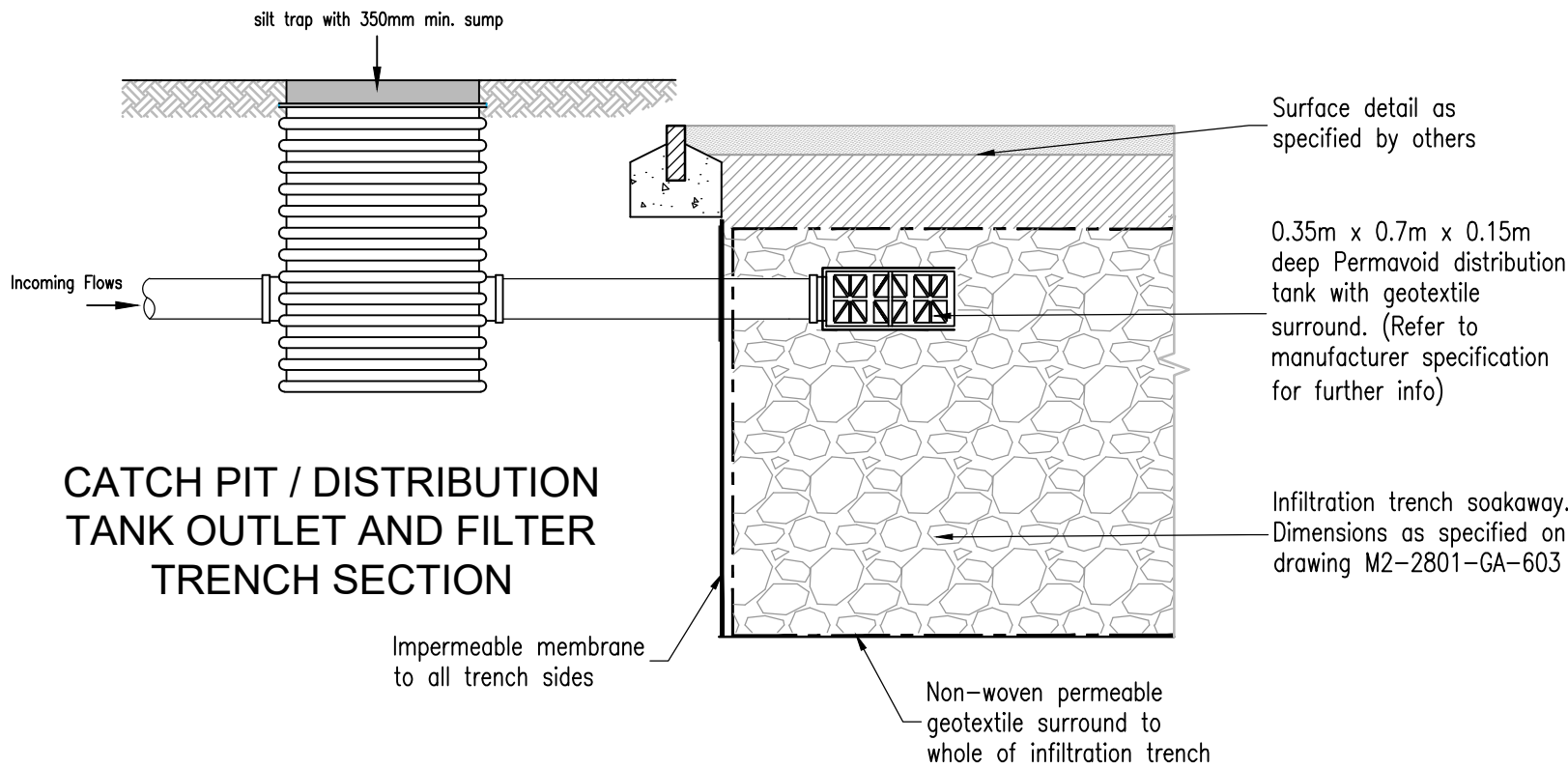
TABLE 1: PROCESSED AND AS-DUG GRANULAR BEDDING AND SIDEFILL MATERIALS FOR RIGID PIPES

Pipe nominal size (DN)	Nominal maximum particle size (mm) See note (c)	Class of bedding See note (d)	Either Maximum CF value for acceptability See note (b)	Suitable Materials OR Materials specified in British Standards See note (a)
100	10	S B F N	0.15 0.30 0.15 0.30	10mm nominal single-size Fine aggregate
Over 100 to 150	16	S B F N	0.15 0.30 0.15 0.30	10mm or 14mm nominal single-size or 14mm to 5mm graded
Over 150 to 300	20	S B F N	0.15 0.30 0.15 0.30	10, 14 or 20mm nominal single-size or 14mm to 5mm graded or 20 to 5mm graded All-in aggregate or fine aggregate
Over 300 to 550	20	S B F N	0.15 0.30 0.15 0.30	14mm or 20mm nominal single-size or 14mm to 5mm graded or 20 to 5mm graded All-in aggregate or fine aggregate
Over 550	40	S B F N	0.15 0.30 0.15 0.30	14, 20 or 40mm nominal single-size crushed rock or 14mm to 5mm, 20 to 5mm or 40 to 5mm graded All-in aggregate or fine aggregate

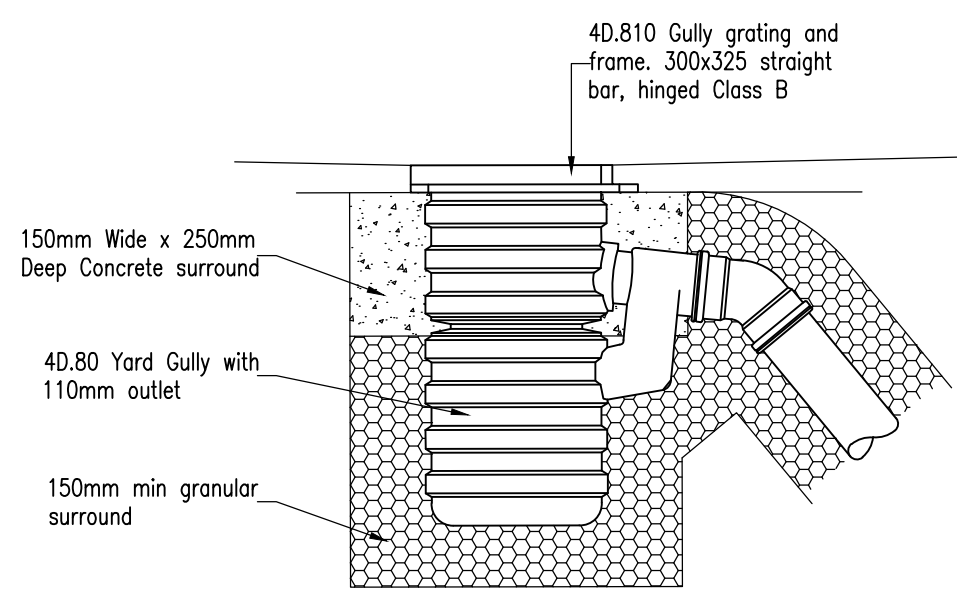
- Notes:
- (a) Processed granular materials to include aggregates to BS EN 12422.
- (b) Compaction Fraction value (CF), see Appendix B of Wis IGN No. 4-08-02.
- (c) The nominal maximum particle sizes apply both to processed and as-dug materials (see Section 4 of IGN No. 4-08-01 Issue 4 and No.4-08-01 Amendment (Nov 2008)).
- (d) Bedding classes are defined in:-
BS EN 12951-1:1997 Structural Design of Buried Pipelines under various conditions of loading.
TRRL - Simplified Table of External Loads on Buried Pipelines.
- (e) The sulphate content of bedding and sidelfill materials for use with cementitious pipe should not be greater than 0.3% as sulphur trioxide.



PPIC CONNECTION LAYOUT



CATCH PIT / DISTRIBUTION TANK OUTLET AND FILTER TRENCH SECTION



YARD GULLY

Project: 18 Midford Lane Limpley Stoke	Date: 12/03/2026		
	Designed by: AD	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Infiltration Trench Design:		





Development Catchment Area

Type : Catchment Area

Area (ha) 0.073

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100



Filter Strip Catchment

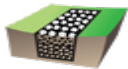
Type : Catchment Area

Area (ha) 0.01

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	50

Project: 18 Midford Lane Limpley Stoke	Date: 12/03/2026			
	Designed by: AD	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Infiltration Trench Design:			



Gravel Filled Soakaway

Type : Infiltration Trench

Dimensions

Exceedance Level (m)	120.000
Depth (m)	4.500
Base Level (m)	115.500
Freeboard (mm)	0
Porosity (%)	33
Length (m)	30.000
Long. Slope (1:X)	1000.00
Width (m)	2.000
Total Volume (m³)	89.100

Inlets

Inlet

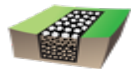
Inlet Type	Point Inflow
Incoming Item(s)	Development Catchment Area
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.036
Safety Factor	3.0
Conductivity (m/hr)	1000.0

Project: 18 Midford Lane Limpley Stoke	Date: 12/03/2026		
	Designed by: AD	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Infiltration Trench Design:		





Filter Strip

Type : Infiltration Trench

Dimensions

Exceedance Level (m)	117.500
Depth (m)	1.500
Base Level (m)	116.000
Freeboard (mm)	0
Porosity (%)	33
Length (m)	11.000
Long. Slope (1:X)	10000.00
Width (m)	0.500
Total Volume (m³)	2.723

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Filter Strip Catchment
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.036
Side Infiltration Rate (m/hr)	0.036
Safety Factor	3.0
Conductivity (m/hr)	1000.0

Project: 18 Midford Lane Limpley Stoke	Date: 12/03/2026		
	Designed by: AD	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Infiltration Trench Design:		





FSR: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Gravel Filled Soakaway	FSR: 100 years: +45 %: 1440 mins: Winter	118.930	118.925	3.400	3.425	2.4	67.572	0.000	33.572	0.0	0.000	2868	24.162
Filter Strip	FSR: 100 years: +45 %: 240 mins: Winter	117.500	117.500	1.499	1.500	0.7	2.722	0.000	2.561	0.0	0.000	249	0.030

Project:: 18 Midford Lane Limpley Stoke	Date: 12/03/2026			
	Designed by:	Checked by:	Approved By:	
	AD			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Infiltration Trench Design:			

Status
OK
OK

Project: 18 Midford Lane Limpley Stoke	Date: 12/03/2026			
	Designed by: AD	Checked by:	Approved By:	
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Infiltration Trench Design:			



FSR: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Gravel Filled Soakaway	FSR: 30 years: +0 %: 960 mins: Winter	117.110	117.098	1.580	1.598	1.8	31.444	0.000	21.966	0.0	0.000	1335	64.709
Filter Strip	FSR: 30 years: +0 %: 180 mins: Winter	116.751	116.751	0.750	0.751	0.4	1.362	0.000	1.177	0.0	0.000	206	49.958

Project:: 18 Midford Lane Limpley Stoke	Date: 12/03/2026			
	Designed by:	Checked by:	Approved By:	
	AD			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Infiltration Trench Design:			

Status
OK
OK