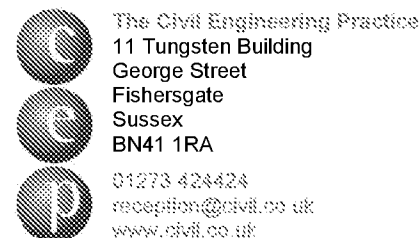


SuDS Maintenance and Management Plan



Project	Bonhams Field, Yapton
Project Number	23018
By	Stuart Magowan IEng MICE
Date	16 March 2023

1 Schedule of Maintenance

- 1.1 Upon completion of the development the management of the shared drainage facilities will be passed on to a Management Company who will be appointed by the developer on behalf of the new Residents.
- 1.2 The regular and corrective maintenance of all shared elements of the drainage system beneath the road, including the lined voided subbase will be managed by the Management Company on behalf of the Residents.
- 1.3 Regular maintenance of all private drainage, channels, gutters, rainwater pipes, driveways and connections will be the responsibility of the individual homeowner and should be undertaken every 3 months with private pipework also jetted every year.
- 1.4 Driveways and connections will be the responsibility of the individual homeowner and should be undertaken on an annual basis. Driveways which form part of the wider infiltration system include a legal covenant to ensure these remain part of the wider drainage system in perpetuity.
- 1.5 With adequate maintenance the working design life of permeable paving system is approximately 25 years. The extent of the permeable paving is shown on Drawing 1210 a copy of which is attached as part of this Drainage Maintenance Manual.
- 1.6 At a minimum interval of 25 years the permeable paving blocks shall be lifted and inspection undertaken as follows:
 - 3-6mm gravel bedding to be removed and the tarmac base and grit stone in the core holes inspected for any damage / deterioration.
 - The grit stone in the core holes is to be replaced and any damage to the tarmac base repaired.
 - Should the tarmac require replacement the subbase below shall be inspected and replaced as required where blocked or blinded.



Certificate No.87852002

- When subbase is inspected the distribution tanks shall be inspected and relaced if required. If the subbase requires replacement all distribution tanks will be replaced at that time.
- If the tarmac is replaced the permeable geotextile shall be replaced or repaired as required.
- The 3-6mm bedding shall be replaced with the permeable blocks reinstated after cleaning or where required replaced with new.
- Following block reinstatement 3-6mm grit shall be swept into the joints between the permeable blocks.

1.7 Any parts of the drainage management system that are damaged or worn will be repaired to full working order by the Management Company

1.8 Any parts of the drainage management system that has reached the end of their useful, serviceable design life and are no longer fit for repair will be replaced by the Management Company on a like for like basis as far as reasonably practicable.

1.9 Drawing 2001 H indicates the drainage ownership responsibilities.

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Remove sediment and debris from silt trap chambers, channel drains and inlet chambers	Monthly or as required
	Litter and debris removal – catch pits	Monthly or as required
	Surface and foul water pipework – jetting / rodding	Every year or as required
	Visual inspection of permeable paving for defects, weed growth and settlement	Annually, or after leaf fall.
	Sweeping / brushing / vacuuming of permeable paving, including the removal of weed growth and top up of grit stone by brushing in 3-6mm gritstone as required.	Annually, after leaf fall or on a more frequent basis based upon site-specific observations or evidence of clogging.
Corrective Maintenance	Repairs to access chambers / manhole covers	As required
	Replace any broken permeable blocks / surface, remedial works to any depressions or rutting	As required
	Inspect inlet, outlet from downpipe and gullies for blockages, standing water and clear	As required
	Full inspection and service of permeable paving system	Minimum of every 25 years

Table 1: Schedule of Regular and Corrective Maintenance

1.10 Any materials removed from the system that require disposal must be removed to a suitable disposal point in accordance with appropriate legislation at the time of removal.

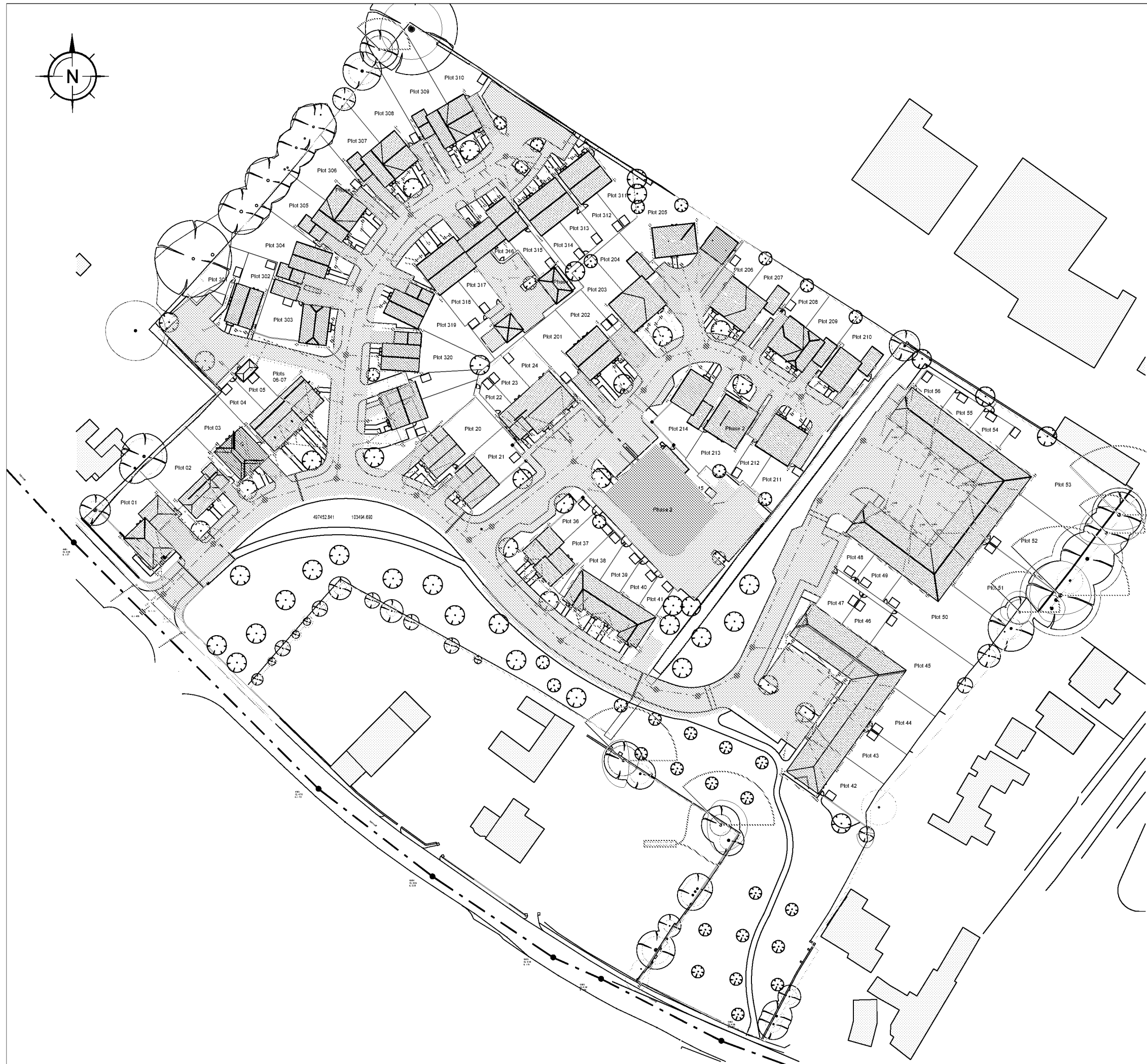
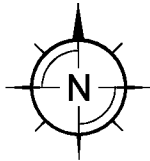
2 Financing

- 2.1 The regular maintenance of all private drainage, channels, gutters, rainwater pipes, driveways and connections will be the responsibility of the individual homeowner.
- 2.2 The regular and corrective maintenance of all shared elements of the drainage system will be managed and funded through the Management Company on behalf of the Residents who will fund the Management Company via a levied service charge.
- 2.3 In the event that the estate's Management Company becomes unable to discharge its duties within 2 years of first appointment the developer will endeavour to appoint an alternative on behalf of the Residents.

3 Maintenance Summary

Inspection / Action Required	Gullies, Channels and Gutters	Silt Traps, Channel Drainage and Inlet Chambers	Catchpit	Permeable Paving / Surfaces	Surface Water Pipework
Monthly		✓	✓		
3 Months	✓		✓	✓	
1 Year				✓	✓
After leaf fall in Autumn	✓		✓	✓	
2 Years					
5 Years					
25 Years				✓	

Table 2: Drainage System Maintenance Summary



- GENERAL NOTES:**
1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
 2. This drawing is to be read in conjunction with all relevant Architects and Engineer's drawings and specification.
 3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
 4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.
- DRAINAGE NOTES:**
1. All adoptable pipes, bends and junctions shall be verified clay in accordance with the current version of BS EN 295-1, with flexible joints and kilnmark certified.
 2. All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.5m elsewhere the pipe shall be laid with a class Z bedding.
 3. All private building drainage shall be constructed in strict accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
 4. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
 5. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
 6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreglass or polystyrene) shall be provided at a maximum of 5m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 35mm for pipes over 450mm nominal diameter.
 7. All spps shall have rodding access plates fitted at their bases (ground floor level).
 8. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
 9. Any discrepancy between the drawing and site should be reported immediately to the Engineer.
 10. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

Storm Drainage Maintenance Legend:

To be maintained by the homeowner

- Private Type 4 Storm Water Inspection Chamber
- Private Storm Water Rodding Eye

To be maintained by estates management Company

- Type 4 Storm Water Inspection Chamber

Permeable Drives under private ownership. Subject to legal covenant

Permeable Roads and Drives under private ownership

H:23.03.2023:PJR: Maintenance Drainage updated	SM
G:28.02.2022:MJP: Red line updated	MK
F:23.02.2022:MJP: Updated site plan and drainage to suit	MK
E:07.05.2001:MJP: Type corrected - permeable roads	MK
D:17.02.2021:MJP: Subbase thickness to Area F & H	MK
C:02.02.2021:MJP: Subbase thickness to catchments F, G & H	MK
B:05.01.2021:MJP: Subbase depths and baffles updated	MK
A:22.12.2020:MJP: Minor amendments to subbase depths	MK

Issue Status

INFORMATION

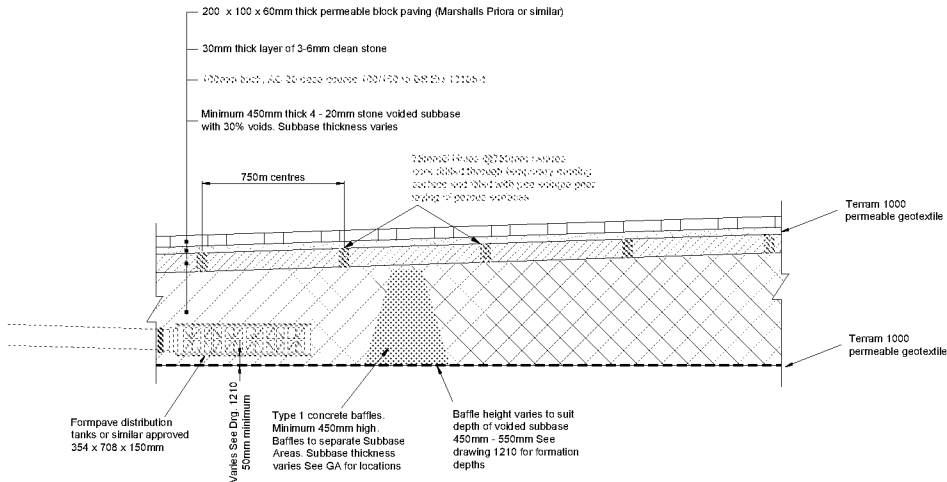
The Civil Engineering Practice
11 Tungsten Building
George Street
Fishergate
SUSSEX
BN41 1RA
01273 426626
01273 426626
www.civildesign.co.uk

CLIENT: Seaward Properties Limited

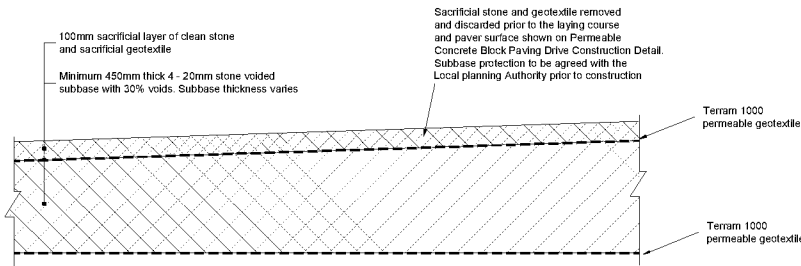
PROJECT: Bonhams Field, Main Road, Yapton

TITLE: Site Layout
Proposed Drainage Ownership Plan

DRAWN: P Reynolds	DATE: May 2020	PROJECT NO: 23018
ENGINEER: S Magowan	CHECKED: SRM	DWG NO: 2001 H
SCALE: 1:500 @ A1 / 1:1000 @ A3		



OPTION A PROTECTION - PERMEABLE CONCRETE BLOCK PAVING CARRIAGEWAY & DRIVE CONSTRUCTION DETAIL
Scale 1:20

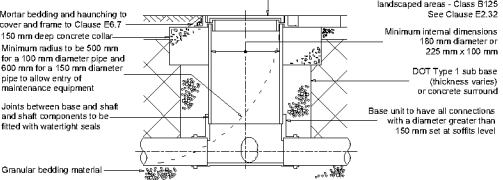


ALTERNATIVE SUBBASE PROTECTION DURING CONSTRUCTION
Scale 1:20

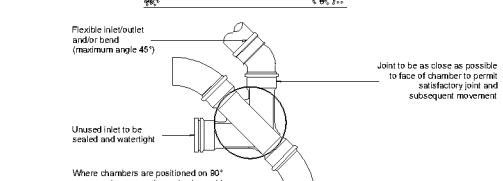
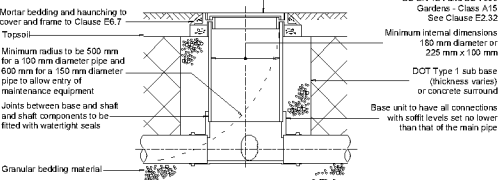
FIGURE B.21
TYPICAL INSPECTION CHAMBER DETAIL - TYPE 4 (Flexible material detail)
Maximum depth from cover level to soffit of pipe 2 m, non-entry

Plastic chambers and rings shall comply with BS EN 13398-1 and BS EN 13398-2 or have equivalent independent approval

Sited in driveways/paved areas



Sited in domestic gardens

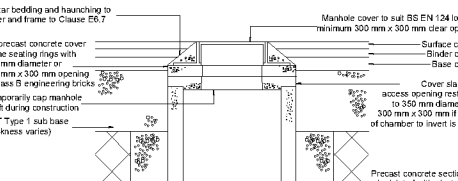


Note: Where the access chamber is in the highway the Highway Authority can have specific requirements
Not to scale

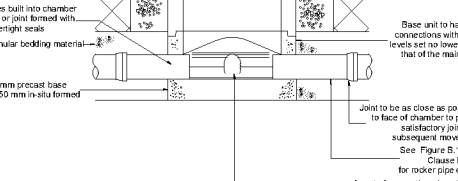
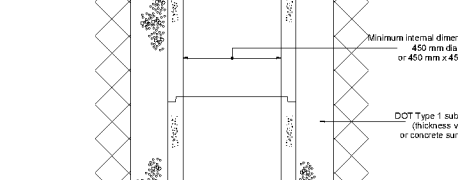
FIGURE B.18
TYPICAL INSPECTION CHAMBER DETAIL - TYPE 3 (Rigid material detail)
Maximum depth from cover level to soffit of pipe in areas subject to vehicle loading 3 m, non-entry

Plastic chambers and rings shall comply with BS EN 13398-1 and BS EN 13398-2 or have equivalent independent approval

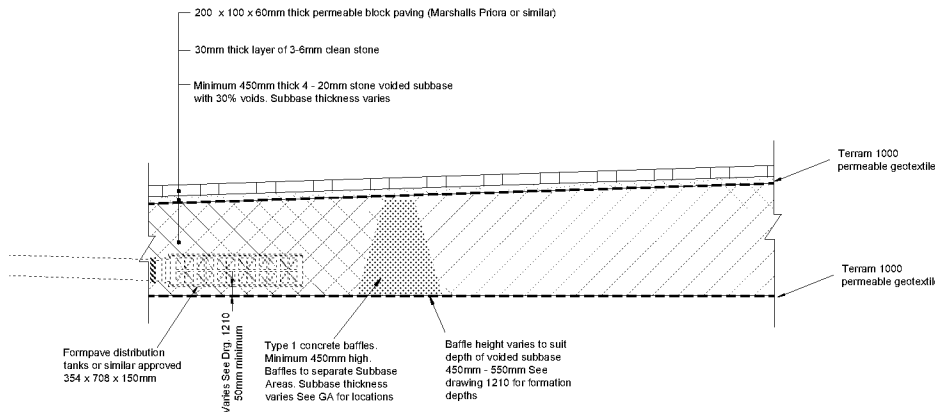
Sited in driveways/paved areas



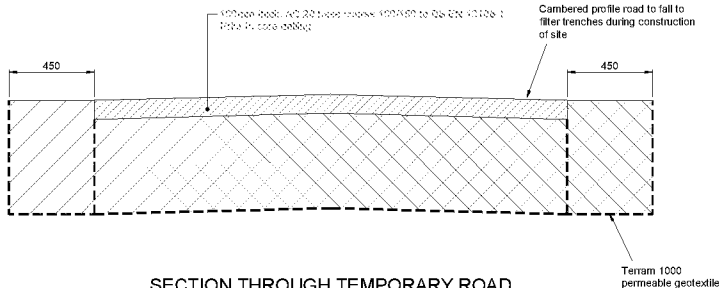
Sited in domestic gardens



Note: Where the access chamber is in the highway the Highway Authority can have specific requirements
Not to scale



PERMEABLE CONCRETE BLOCK PAVING CARRIAGEWAY & DRIVE CONSTRUCTION DETAIL
Scale 1:20

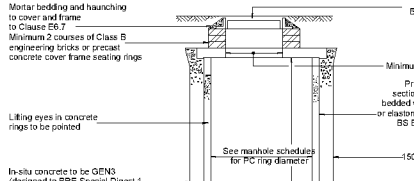


SECTION THROUGH TEMPORARY ROAD
Scale 1:20

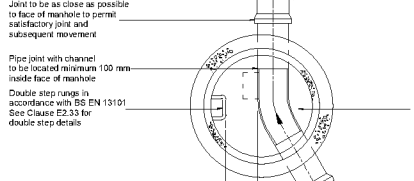
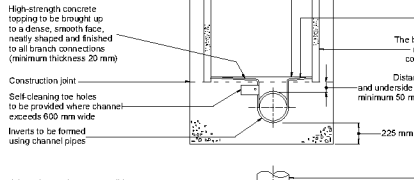
FIGURE B.12
TYPICAL MANHOLE DETAIL - TYPE 2
Maximum depth from cover level to soffit of pipe 3.0 m

Plastic chambers and rings shall comply with BS EN 13398-1 and BS EN 13398-2 or have equivalent independent approval

Sited in driveways/paved areas



Sited in domestic gardens



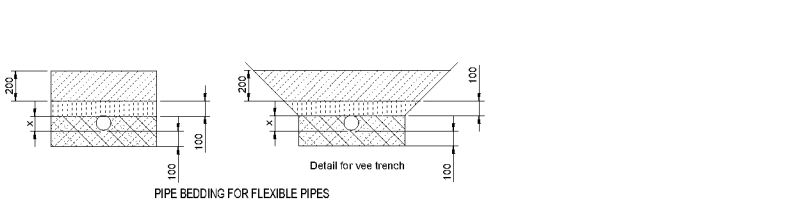
Note: Where the access chamber is in the highway the Highway Authority can have specific requirements
Not to scale

PIPE BORE	BEDDING CLASS	Fields and gardens		Light traffic roads		Heavy traffic roads	
		MIN	MAX	MIN	MAX	MIN	MAX
100mm	D or N	0.4	4.2	0.7	4.1	0.7	3.7
	F	0.3	5.8	0.5	5.8	0.5	5.5
	B	0.3	7.4	0.4	7.4	0.4	7.2
150mm	D or N	0.6	2.7	1.1	2.5	—	—
	F	0.6	3.9	0.7	3.8	0.7	3.3
	B	0.6	5.0	0.6	5.0	0.6	4.6
225mm	D or N	—	—	—	—	—	—
	F	0.6	2.5	1.2	2.1	—	—
	B	0.6	3.3	0.8	3.2	0.8	2.4

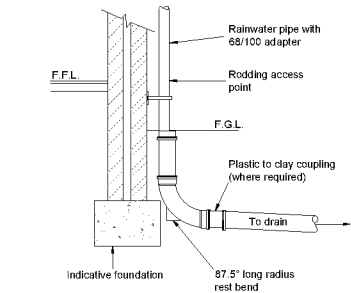
PIPE BEDDING FOR RIGID APPLIES (NON ADOPTIVE DRAINS)

LEGEND:

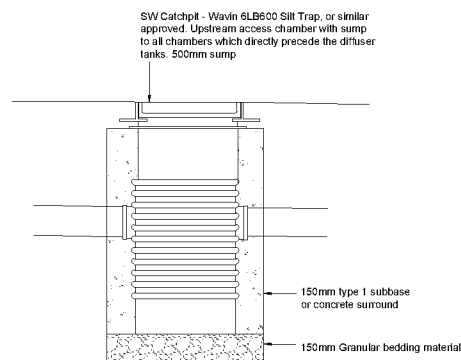
- Selected fill free from stones larger than 40mm, lumps of clay over 100mm, timber, frozen material and vegetable matter
- Granular material should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B
- Selected fill or granular fill free from stones larger than 40mm
- x - Denotes external pipe diameter



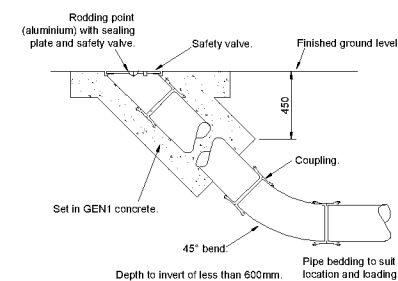
PIPE BEDDING DETAILS (NON ADOPTABLE DRAINS)
(Not To Scale)



TYPICAL RAINWATER PIPE DETAIL
Scale 1:25



CATCHPIT CHAMBER
Scale 1:20



DETAIL OF RODDING EYE
Scale 1:25

GENERAL NOTES:

- All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
- This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
- The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

DRAINAGE NOTES:

- All adoptable pipes, bends and junctions shall be verified clay in accordance with the current version of BS EN 295-1, with flexible joints and kilnmark certified.
- All adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.5m elsewhere the pipe shall be laid with a class 2 bedding.
- All private building drainage shall be constructed in strict accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
- Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
- Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick) in all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
- In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreglass or polystyrene) shall be provided at a maximum of 5m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 35mm for pipes over 450mm nominal diameter.
- All sumps shall have rodding access plates fitted at their bases (ground floor level).
- Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
- Any discrepancy between the drawing and site should be reported immediately to the Engineer.
- All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

E 26 04 2021 MJP: Subbase protection details updated	MK
D 17 02 2021 MJP: 50mm bedding shown to diffuser tanks	MK
C 02 02 2021 MJP: Subbase protection detail added	MK
B 05 01 2021 MJP: Baffle and subbase details updated	MK
A 26 06 2020 PJR: Details updated	MK

Issue Status

AS BUILT



CLIENT: Seaward Properties Limited

PROJECT: Bonhams Field, Main Road, Yapton

TITLE: Construction Details

DRAWN: M Padficio DATE: May 2019 PROJECT NO: 23018

CHECKED: S Magowan SRM

SCALE: As Shown @ A1

1501 E

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1501 E

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Pell Frischmann

Bonham's Field, Yapton

Drainage Verification Report

Project	Bonham's Field, Yapton
Document Title or Subject	Drainage Verification Report -- Plots 19-21
Document Reference	104367-PEF-ZZ-XX-RP-CD-000603
Revision Reference	S2-P03
Date	27 th January 2023

1 Introduction

1.1 Context

- 1.1.1 Pell Frischmann has been appointed by Seaward Properties Ltd to provide an independent drainage verification report in support of a planning application to Arun District Council (ref: Y/186/21/PL).
- 1.1.2 The work relates to a scheme that was consented under planning application Y/1/17/OUT. Conditions 12 and 14 of this application related to surface water drainage and maintenance and management of SuDS. Both these conditions were discharged under a discharge of conditions application ref Y/47/21/DOC.
- 1.1.3 The drainage design was carried out by The Civil Engineering Practice.
- 1.1.4 This Drainage Verification report aims to;
- Set out the principles of the drainage for the scheme according to the provided documentation.
 - Provide a commentary on the compliance of the proposed scheme with relevant standards and best engineering practice.
 - Summarise progress of work, any identified issues or remedial action following regular site visits
 - Provide recommendations for future investigation or remedial work.
- 1.1.5 This report has been prepared to review the surface water drainage installed for Plots 19-21 only. Site visits were carried out by representatives of Pell Frischmann on the following dates:
- 10/05/2022
 - 04/07/2022
- 1.1.6 Further information has been supplied by the drainage contractor, Parchow Groundworks Ltd on 27/07/22 following completion of additional works in relation to drainage of the study plots.

1.2 Provided Information

- 1.2.1 Pell Frischmann has been provided with the following documentation relating to the scheme;
- 'Proposed Drainage and Levels Layout Plan Phase 1 – Whole Site' – 23489 1-200 Revision N (The Civil Engineering Practice) Dated February 2022
 - 'Drainage Maintenance Manual' – 23018 (The Civil Engineering Practice) dated February 2022
 - 'Discharge of Condition Drainage Technical Note' – 23018 (The Civil Engineering Practice) dated February 2021

1.3 Limitations of Scope

- 1.3.1 Pelli Frischmann have completed an interim survey of drainage installed as of 29/03/2022 with a subsequent site visit to carry out a visual inspection on 10/05/2022.
- 1.3.2 Following this, several remedial works were carried out, with a follow-up site visit carried out on 04/07/2022. Parchow Groundworks Ltd, as the on-site drainage contractor then provided further details and photographs of this remedial work being carried out.
- 1.3.3 A subsequent survey of the installed and remediated drainage works has been provided as of 23/01/2023, discussed further below.
- 1.3.4 Pelli Frischmann were appointed following the installation of many drainage elements, and so supplementary information has been provided by the Client and groundworks contractor as necessary.

2 Drainage Principles

2.1 Surface Water

- 2.1.1 Pell Frischmann understands that the proposed development will incorporate a sustainable drainage system that aims to discharge surface water by infiltration into the ground via an infiltration blanket.
- 2.1.2 On site attenuation is provided via several sections of voided subbase under access roads and shared parking areas.
- 2.1.3 It is understood that the surface water infrastructure for the site will be privately owned and managed. CEP drawing 2001 Revision D included within the Drainage Technical Note shows that this ownership will be split between residents and a management company.

2.2 Foul Water

- 2.2.1 The development proposes to discharge all foul water generated onsite into an existing public sewer running under Main Road to the southwest of the site.
- 2.2.2 It is understood that all foul water drainage infrastructure on site will be privately owned aside from a connection leg (and associated chamber) used to connect to the existing Southern Water sewer. It is understood that this section will be adopted under a Section 104/106 agreement.
- 2.2.3 The Drainage Verification Report does not include a review of the foul drainage work constructed on site, except where it is of relevance to the surface water drainage proposals.

3 Drainage Compliance

3.1 Relevant Guidance

- 3.1.1 It is proposed that as the network is largely private, Pell Frischmann will therefore give commentary on how the drainage proposals comply with Part H of Building Regulations (2010) and CIRIA SuDS Manual C753.

3.2 Surface Water Conveyance

- 3.2.1 The impermeable areas that require positive drainage are the roofs of proposed properties and garages and associated access roads and parking areas.
- 3.2.2 Proposed access roads and parking are to be of permeable construction, meaning no surface drainage elements are required as runoff will filter through surface construction directly into the storage provided within the subbase.
- 3.2.3 Water from rainwater down pipes is conveyed to diffuser tanks located within areas of voided subbase under the access roads via a series of pipes and polypropylene inspection chambers.
- 3.2.4 Under Part H of Building Regulations, it is recommended that the minimum gradients for 100mm and 150mm Surface Water Drains are 1:100 and 1:150 respectively.
- 3.2.5 The 'As Built' drainage plan (included as **Appendix A**) shows both 100mm and 150mm surface water pipework are designed to a general minimum of 1:167. It is understood that this has been used to ensure cover is achieved at the upstream end of each surface water run as connections into diffuser tanks located within voided subbase are approximately 600mm deep for the most part.
- 3.2.6 However, The Civil Engineering Practice has confirmed that designs have been provided in line with minimum gradients outlined in BS EN 752-2008 which states *"For small diameter drains and sewers (less than DN300) self-cleansing can generally be achieved by ensuring either that a velocity of 0.7m/s occurs daily, or that a gradient of at least 1:DN is specified"* [paragraph 9.6.3.1]. It goes on to state that *"Where self-cleansing conditions cannot be achieved provision should be made for adequate maintenance activities"*.
- 3.2.7 There are several surface water pipe runs that would fall under private homeowner ownership that do not meet the Building Regulations requirement, but do meet with the BS EN 752-2008 requirement, where a 1:150 diameter pipe is laid as a 1:167 gradient, giving a maximum velocity of 0.77m/s.
- 3.2.8 The Drainage Maintenance Manual supplied by The Civil Engineering Practice recommends jetting/rodding all surface water pipework at least every 2 years, or as required.
- 3.2.9 Proposed cover levels for surface water pipes are generally lower than optimal e.g. 1.2m under trafficked highway and 0.9m elsewhere however guidance has been given to provide Class Z bedding for pipes within less than this cover and GEN 3 concrete encasement for pipes with less than 450mm of cover. Details for construction of these beddings has not been provided within the construction details in the technical note provided, nor could it be verified during the site visit.
- #### 3.3 Surface Water Storage
- 3.3.1 Surface Water storage is provided within a voided subbase under the shared parking areas and access roads for the development. A 30% void ratio has been assumed for the volumes used for storage. This is a common assumption for such material however no data or investigation has been provided into the properties of the material used on site.
- 3.3.2 The 'Proposed Drainage and Levels Layout Plan' (ref. 23489 1-200 Rev N) shows the development is divided into 8 catchments with separate storage provided for each.

- 3.3.3 Causeway Flow results provided within the drainage technical note appendices show that adequate storage is provided for each catchment under the 100 year + 40% climate change events within the volume of subbase provided that the impermeable areas and gross volume of subbase have been calculated correctly.
- 3.3.4 Concrete baffles have been used to ensure separate storage areas for each catchment. The construction details for these have been provided on drawing 1501 Revision D.
- 3.3.5 As part of the discharge of condition application, the drainage engineer (Civil Engineering Practice) agreed certain design principles with Arun District Council with respect to the invert level of the diffusion tanks, setting them at or above the modelled 10 year+40% water level within the infiltration system. This resulted in the following minimum invert levels being agreed in the respective catchments:
- Catchment E - 5.775m AOD
 - Catchment F - 5.980m AOD
 - Catchment G - 5.980m AOD
 - Catchment H - 6.000m AOD
- 3.3.6 On the as-built drawings, there is a minor variation from this, with the invert level of the diffuser tank in Catchment E set to 5.735m AOD (40mm lower than agreed) and Catchment F set to 5.935m AOD (45mm lower than agreed). Catchment G and H are reported on the as built drawings as per the agreed levels.
- 3.3.7 It is understood that this has been raised with Arun District Council by Civil Engineering Practice and an agreement reached that these levels are agreeable.

3.4 Surface Water Disposal

- 3.4.1 The Ground and Water soakage letter report provided within the drainage technical note show the infiltration tests carried out to BRE 365 guidance for 9 trial pits. Results provided show infiltration rates between 1.71×10^{-6} m/s and 1.509×10^{-6} m/s.
- 3.4.2 It is shown in table 1 of the drainage technical note that the most appropriately located infiltration test value has been used for each catchment calculation.
- 3.4.3 Calculations show storage is sufficient for the runoff generated by the impermeable areas of the developed site. Where sufficient half drain-down times in line with policy cannot be met (catchments F and H), further calculations demonstrate half drain down times for the 10 year event +40% in line with a previous agreement between The Civil Engineering Practice and Arun District Council.
- 3.4.4 The trial pit logs provided as part of the Ground and Water ground investigation show that no groundwater was encountered up to a depth of 700mm for any trial pit.

3.5 Foul Water Conveyance

- 3.5.1 Foul Water produced by the dwellings on site requires conveyance to the existing Southern Water sewer to the south west of the site.
- 3.5.2 Conveyance is provided via pipes, PPICs and PCC manholes across the site.
- 3.5.3 Under Table 6 of Building Regs Part H, the minimum recommended gradients for foul drains are 1:150 for a 150mm pipe serving at least 5 WCs and 1:80 for a 100mm pipe serving at least 1 WC.
- 3.5.4 It is considered that where gradients are shown on the 'As Built' drainage plan, foul drains proposed for the site accord with the above guidance with main run sewers largely proposed to a 1:150 gradient.

- 3.5.5 Construction details for pipe bedding, manholes and inspection chambers have been provided in technical note appendices and are in general accordance with common practice.

4 Site Visit Observations

4.1 Drainage Survey 1

- 4.1.1 A drainage survey of the works constructed as of 29th March 2022 is included for reference as **Appendix B**. The survey picked up limited elements of surface water drainage covering plots 19-21, and so where appropriate any survey information relevant to the scope of this report will be referenced accordingly.
- 4.1.2 With respect to foul drainage connections, the survey shows the position of FW102 serving Plot 2 has moved to the southern corner of the plot. The manhole was noted a 'Unable to Lift' (UTL) and so incoming pipes or invert levels could not be verified.
- 4.1.3 An assumed route to manhole F02 was noted on the survey, connecting to the main spine drainage network under the access road. The survey confirms this pipe run between F01 and F04 is in place (extending further into the site, but not part of the scope of this report). A 150mm pipe has been constructed in line with the as-built drawings, although the invert level of F01 has been constructed with an invert level of 3.44m AOD compared to an as-built design level of 3.082m AOD.
- 4.1.4 This will require rectifying prior to connecting to the public sewer assets and connecting Plots 2 and 3 due to the fact the main sewer run between F03 and F01 is at an inadequate gradient.
- 4.1.5 Surface water information for Plots 19-21 was limited at the time of the survey, although it did record the position of surface water manholes SW29 and SW32. The invert level of SW29 was surveyed as 5.46m AOD compared to an as-built level of 5.432m AOD (+0.028m) and SW32 was surveyed as 5.28m AOD compared to an as-built level of 5.435m AOD (-0.155m).

4.2 Site Visit 1

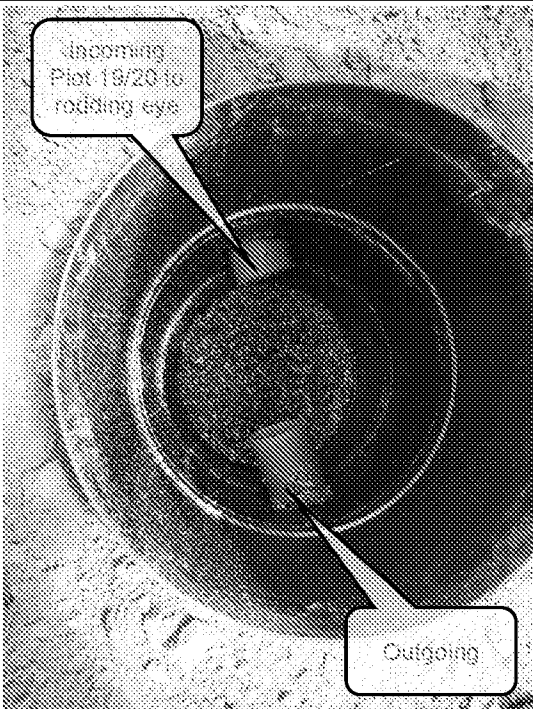
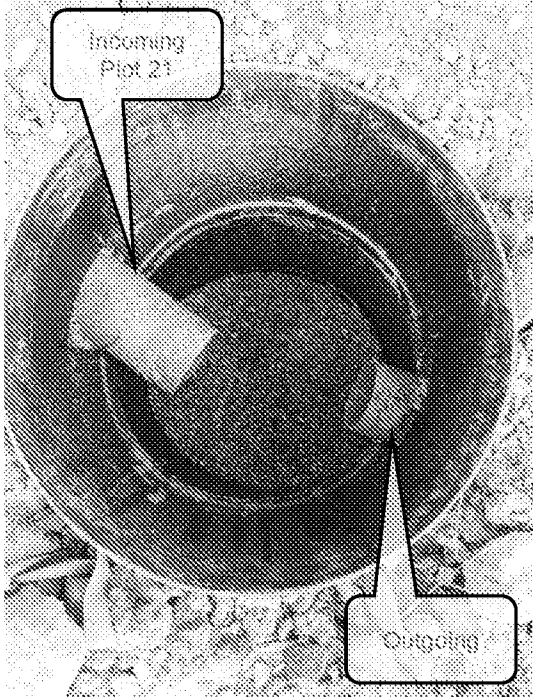
- 4.2.1 A site visit was carried out by a Pell Frischmann representative on 10th May 2022 to observe other drainage elements rectified since the March survey. However, limited access to plots 19-21 meant the majority of the system could not be inspected.
- 4.2.2 Connections to the various voided sub-bases downstream of the catchpit manholes could not be verified as part of the site visit. However, the groundworks contractor has confirmed that these were installed, and quality controlled by others at the time of construction (prior to Pell Frischmann's commission). An email to this effect is included as **Appendix C**.

4.3 Site Visit 2

- 4.3.1 A second site visit was carried out by Pell Frischmann on 04th July 2022, where more of the surface water drainage had been constructed.
- 4.3.2 As before, connections to the various voided sub-bases downstream of the catchpit manholes could not be verified as part of the site visit. However, the groundworks contractor has confirmed that these were installed, and quality controlled by others at the time of construction (prior to Pell Frischmann's commission). An email to this effect is included as **Appendix C**.
- 4.3.3 Photographs of the installed drainage, with commentary on their configuration and compliance with the approved drawings is provided in the tables below.
- 4.3.4 **Table 4.1** provides a review of the surface water drainage for Plot 19-21 inclusive, which is designed to drain to a total of 6 diffuser box positions. 5 of these drain to Voided Subbase Area D, and 1, serving part of Plot 21 drains to Voided Subbase Area E.

- 4.3.5 It should be noted for these plots, that part of the drainage for Plot 19 draining to SW77 was not in place due to ongoing construction works in the area. Furthermore, the configuration between plots 20 and 21 around SW29 and SW32 was misaligned and appeared to be misconnected so will review a thorough review, survey and replacement.

Table 4.1 Photographs of SW Drainage for Plots 19-21 from Site Visit on 04/07/2022

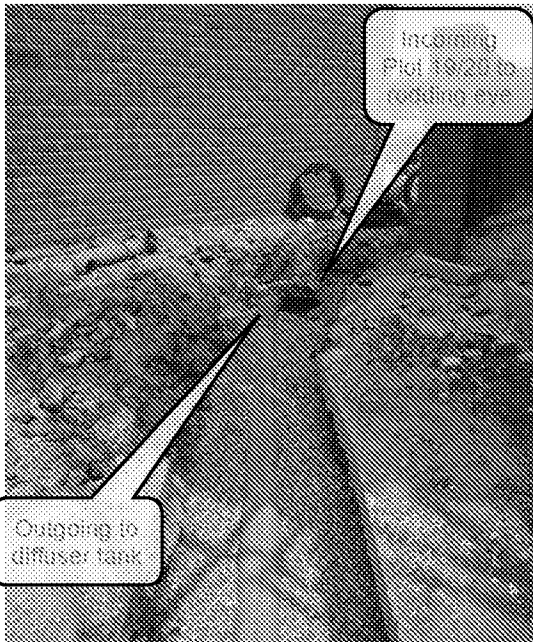
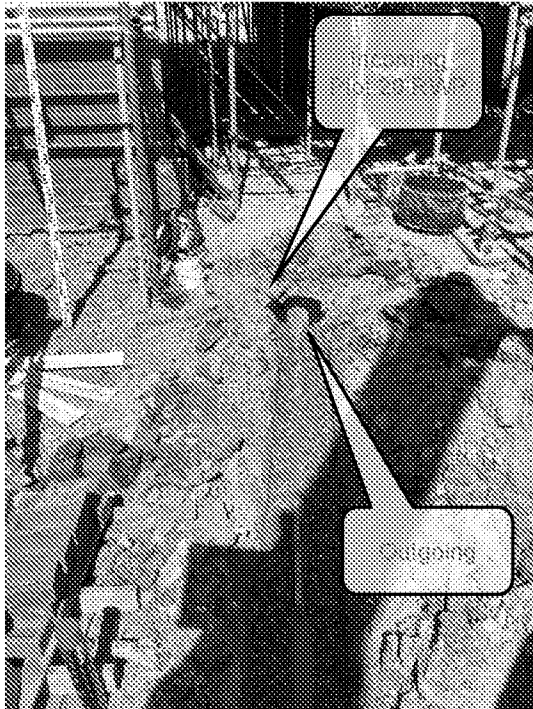
Photograph	Manhole ref (refer to 'as-built' drawing)	Comments
	SW26	SW26 configuration, observed as a catch pit arrangement. Incoming pipe from rodding eye observed as 100mm diameter, as-built drawing notes this as 150mm diameter. Incoming pipe direct to manhole from RWP on Plot 20 not present, could not be confirmed whether this was put online of upstream pipe. Outgoing pipe observed as 100mm diameter, as-built drawing specifies 150mm diameter. It was also noted that the invert level of the outgoing pipe appeared higher than incoming pipe. Survey will be needed to confirm correct invert levels and/or relay as required.
	SW35	SW35 manhole configuration, catch pit arrangement. Incoming pipe assumed from RWP at Plot 21 as 100mm diameter pipe. Outgoing pipe to diffuser tank observed as 100mm diameter, as built drawing specifies this as 150mm diameter.

4.4 Parchow Groundworks Update

4.4.1 Following feedback from the Pell Frischmann site visit, Parchow Groundworks Ltd has relaid key elements of the drainage system around Plots 19-21. Photographs are included in Table 4.2.

Table 4.2 Photographs of SW Drainage for Plots 19-21 from Parchow Groundworks Ltd on 27/07/2022

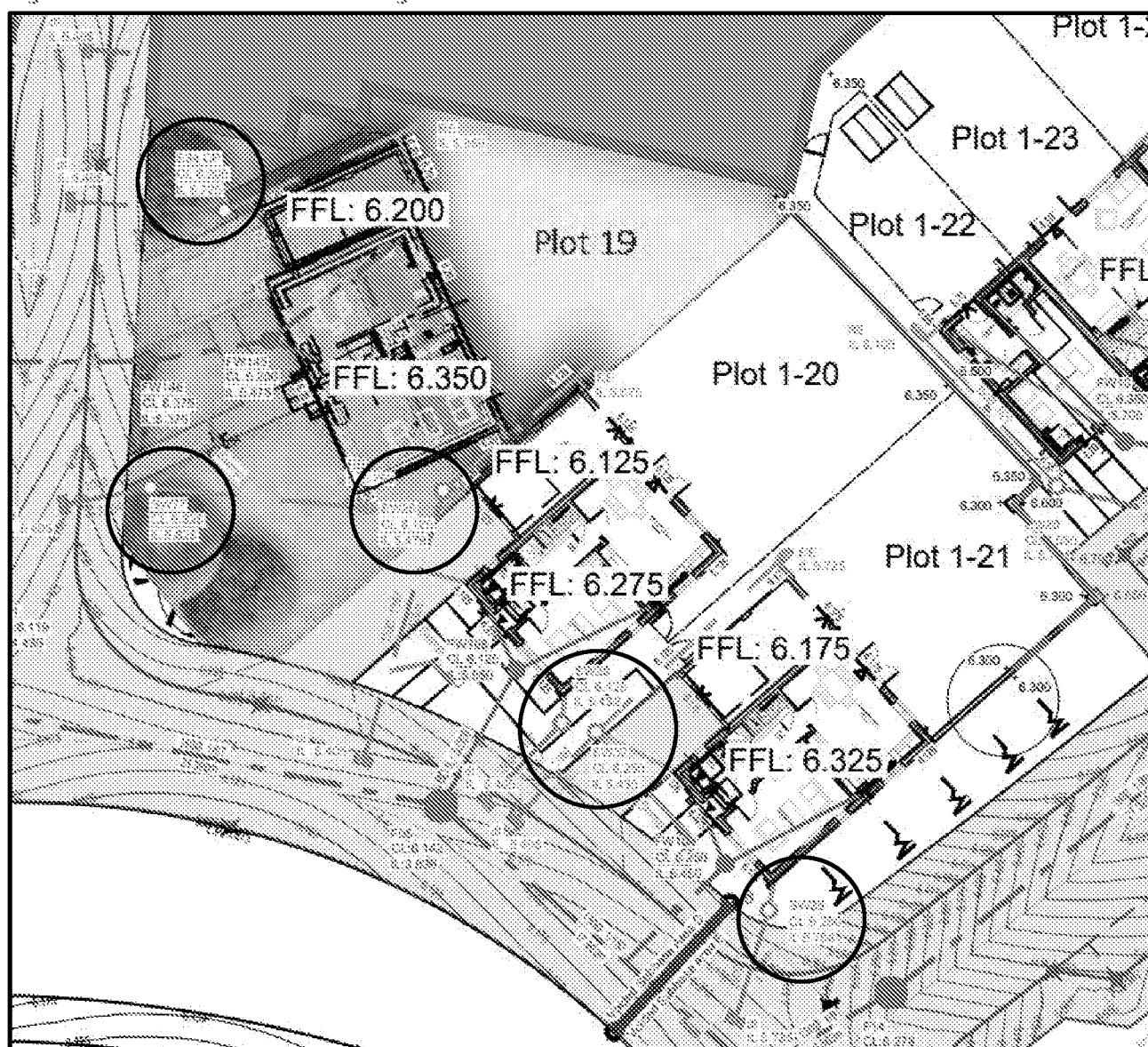
Photograph	Manhole ref (refer to 'as-built' drawing)	Comments
	S34 CP	S34 CP configuration, observed as a catch pit arrangement. Incoming pipe from rodding eye, second incoming pipe direct to manhole from RWP on Plot 19 rather than upstream connection as per drawings. Outgoing pipe to diffuser tank.
	SW77	SW77 manhole and pipe run to diffuser tank.

Photograph	Manhole ref (refer to 'as-built' drawing)	Comments
	SW26	SW26 drainage infrastructure. Base of catch pit installed, upper ring to be installed with pipes to be set in. Incoming pipe from RWP's on Plot 19/20, confirmed by Parchow Groundworks Ltd to be 150mm diameter. Outgoing pipe noted as 150mm diameter as specified on 'as-built' drawing.
	SW29	SW29 manhole in situ. Incoming pipe from RWP on Plot 20, confirmed by Parchow as 100mm diameter. Outgoing pipe to diffuser tank. Noted as 150mm diameter as per 'as-built' drawing.

4.5 Updated Drainage Survey

- 4.5.1 Following the recommended remedial works, Parchow Groundworks Ltd has provided a subsequent survey of the surface water drainage infrastructure for Plots 19-21 (see **Appendix D**). This included invert levels of the 6 manholes required to serve these plots, as shown on the extract from the CEP design drawings in **Figure 4.1**.

Figure 4.1 Surface Water Drainage for Plots 19-21



4.5.2 The surveyed levels have been compared to the design levels for this infrastructure, as set out in Table 4.3.

Table 4.3 Updated Survey Compared to Design Levels

Manhole Ref	Design Level (mAOD)	Surveyed Level (mAOD)
S34 CP (Plot 19)	5.725	5.736 (+0.011m)
SW77 (Plot 19)	5.825	5.831 (+0.006m)
SW26 (Plot 20)	5.479	5.487 (+0.008m)
SW29 (Plot 20)	5.432	5.441 (+0.009m)
SW32 (Plot 21)	5.435	5.432 (-0.003m)
SW35 (Plot 21)	5.764	5.772 (+0.008m)

4.5.3 In all cases the surveyed manhole invert levels accord with the design levels prepared by CEP, and gradients are likely to remain as per the designs, subject to suitable installation of the diffuser tanks. The installed drainage will therefore likely operate in accordance with the pipework design gradients as discussed within Section 3.2 of this report,

- 4.5.4 It is also confirmed that the permeable sub-base for the entire voided subbase Area D, serving plots 19-20 has been constructed in its entirety. Whilst construction was not observed by Pell Frischmann, invoices have been supplied for the suitable material types, included for reference as Appendix E.

5 Conclusions

- 5.1.1 Pell Frischmann agree that the principles set out in the provided documentation are sound in principle and are in line with Buildings Regulations, BS EN 752-2008 and the previously agreed principles in the reserved matters application.
- 5.1.2 Below-ground surface water drainage elements have been observed for Plots 19-21. Several remedial actions were recommended to bring the constructed work in line with the principles of the approved applications. Parchow Groundworks Ltd has since carried out these works, and have confirmed the drainage has been constructed in line with the updated drainage plan for these plots.
- 5.1.3 At the last inspection, further finishing is required, to ensure rodding eyes, inspection chambers, covers and other manholes are finished correctly, and the system is cleared and jetted to remove any accumulation of construction debris observed within several elements.
- 5.1.4 The client has confirmed a final survey will take place to identify any defects that will be captured and rectified ahead of final handover and signed off by Local Authority Building Control.
- 5.1.5 Due to the timing of Pell Frischmann's involvement, any work associated with the voided subbases for infiltration of surface water could not be observed or verified. This has been agreed between the Client and Arun District Council due to the time at which the policy was updated.

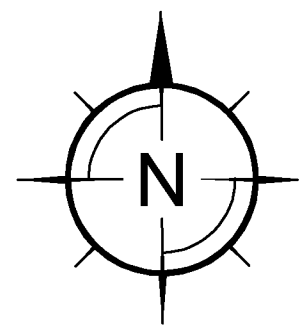
This report is to be regarded as confidential to our Client and is intended for their use only and may not be assigned except in accordance with the contract. Consequently, and in accordance with current practice, any liability to any third party in respect of the whole or any part of its contents is hereby expressly excluded, except to the extent that the report has been assigned in accordance with the contract. Before the report or any part of it is reproduced or referred to in any document, circular or statement and before its contents or the contents of any part of it are disclosed orally to any third party, our written approval as to the form and context of such a publication or disclosure must be obtained.

Report Ref. 104387-PEF-ZZ-XX-RP-CD-000603

Suit	Rev	Description	Date	Originator	Checker	Approver
S2	P01	Preliminary Issue	28/07/2022	D. Allum-Pooney	R. Holmes	D. Allum-Pooney
S2	P02	Updated from Client Comments	01/08/2022	D. Allum-Pooney	R. Holmes	D. Allum-Pooney
S2	P03	Additional Survey Information Added	24/01/2023	D. Allum-Pooney	H. McColl	D. Allum-Pooney

Ref. reference Suit suitability Rev revision.

Appendix A As Built Drainage Drawing



- Notes:
- 1 Drawing shows FFLs from 23489/1210K
 - 2 The Phase 2 and 3 site layout is based on APM drawing: 20082 / P302 B - received 1 July 2021
 - 3 The Phase 1 site layout is based on: 20-202 x site 02072021.dwg - received 2 July 2021 with updated foundation level block plans to Plots 20 21 & 22-24
 - 4 Plot 1-22 & Plots 1-142 to 1-156 inc have flush threshold to the rear
 - 5 Site layout adjusted to accommodate new block plan for plots 1-22 - 1-24

- GENERAL NOTES:
1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
 2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
 3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
 4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

- DRAINAGE NOTES:
1. All adoptable pipes, bends and junctions shall be verified clay in accordance with the current version of BS EN 295-1, with flexible joints and kilnmark certified.
 2. All Adoptable sewers shall be in strict accordance with the SSG Appendix C - Design and Construction Guidance. Unless otherwise stated adoptable sewers shall be 150mm diameter and shall be laid in a class S bedding. Where the depth to soffit is less than 1.2m under a public highway or 0.9m elsewhere the pipe shall be laid with a class 2 bedding.
 3. All private building drainage shall be constructed in strict accordance with the current version of BS EN 752:2017. Unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of 1 in 40 for foul drains and 1 in 80 for surface water drains. All building drains shall be laid in class B bedding unless otherwise specified.
 4. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN 3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN 3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN 3 concrete.
 5. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN 3 concrete encasement (150mm thick). In all other cases the pipes shall be bedded and surrounded with 100mm thick granular material.
 6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. Compressible boards (fibreglass or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). The boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. A board thickness of 18mm for pipes up to 450mm nominal diameter and 35mm for pipes over 450mm nominal diameter.
 7. All sumps shall have rodding access plates fitted at their bases (ground floor level).
 8. Where existing pipes are to be abandoned they shall be dug out together with any abandoned manholes.
 9. Any discrepancy between the drawing and site should be reported immediately to the Engineer.
 10. All manhole and chamber sizes are given as a minimum to meet the SSG Appendix C-Design and Construction Guidance

Legend:

- Site Boundary
- Existing Foul Sewers
- Adoptable Type 2 Foul Water Manhole and lateral connection from proposed site
- Private Type 2 Foul Water Manhole
- Private Type 4 / 3 Foul Water Inspection Chamber
- Private Type 4 or catchpit Storm Water Inspection Chamber
- Private Storm Water Rodding Eye
- Single Diffuser Tank up to 200m² 0.354m x 0.708m x 0.150m
- Double Diffuser Tank up to 350m² 0.708m x 0.708m x 0.150m
- Aco channel with sump and outfall
- Area of voided subbase for storm water storage
- Type 1 Concrete baffles in voided subbase. Baffle separates areas.

N	28.02.22	MJP	Garden Levels added	SRM
M	28.02.22	MJP	Red line updated	SRM
L	23.02.22	MJP	Constructed roads added to phase 1	SRM
P	03.02.22	MJP	Plots 33-35 moved to phase 2	SRM
K	08.02.22	PJR	Plots 33-35 added.	SRM
J	04.02.22	MJP	Updated block plans and drainage to suit	SRM
H	04.02.22	MJP	Drainage connections added to plots 22-24	SRM
G	06.01.22	MJP	Purple lines to plot 1 drive removed	SRM
F	01.10.21	MJP	Aco added to key, coloured orange	MK
E	30.09.21	MJP	Plot 19 added	MK
D	22.09.21	MJP	Minor amendments	MK
C	09.09.21	PR	Minor amendments	MK
B	07.07.21	MJP	Minor amendments	MK
A	06.07.21	MJP	Surface finishes updated to suit new site layout	MK

REV	DATE	BY	DESCRIPTION	CHK
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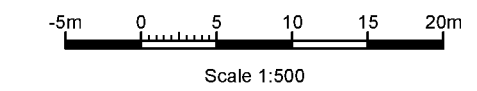
Issue Status AS BUILT

The Civil Engineering Practice
11 Tungsten Building
George Street
Fishergate
SUSSEX
BN41 1RA
01273 424424
reception@civil.co.uk
www.civil.co.uk

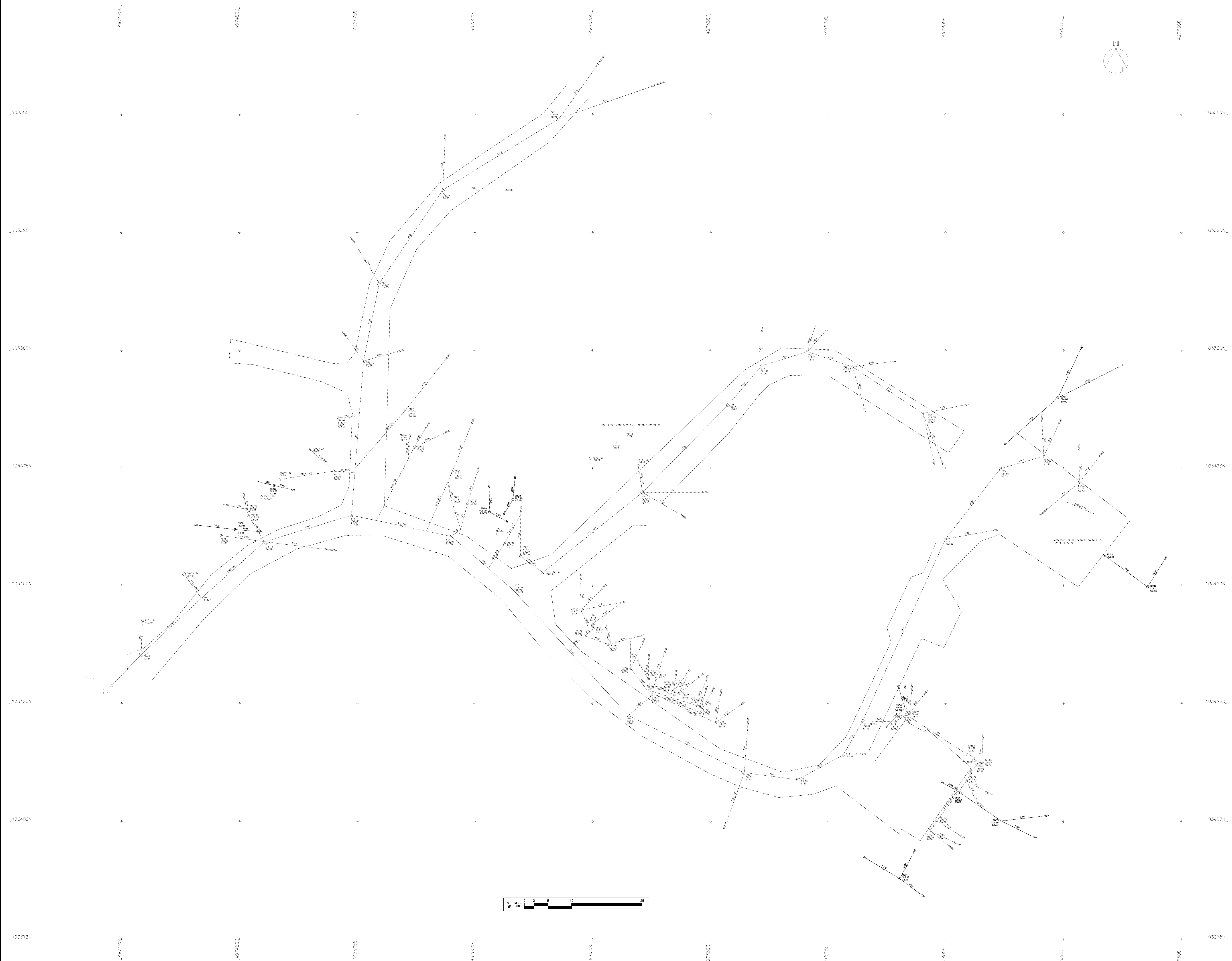
CLIENT Seaward Properties Limited
PROJECT Bonhams Field, Yapton
75 Dwellings
TITLE Proposed Drainage and Levels Layout Plan
Phase 1 - Whole Site
DRAWN M Pacifico
DATE July 2021
PROJECT NO. 23489
ENGINEER S Magowan
CHECKED SRM
SCALE 1:500 @ A1 / 1:1000 @ A3
1-200 N

Levels Legend

- Retaining wall over 300mm high
- Gravel board up to 300mm high
- Extra facing brickwork
- Tanked brickwork



Appendix B Drainage Survey



GENERAL NOTES

G1. DO NOT SCALE THIS DRAWING.

G2. ANY DIMENSIONAL DISCREPANCIES SHOULD BE NOTIFIED TO THE ENGINEER IMMEDIATELY.

G3. ALL DIMENSIONS ARE IN MILLIMETRES - (mm)
ALL LEVELS ARE IN METRES - (m) AND ARE ABOVE ORDNANCE DATUM AT NEWLYN, CORNWALL UNLESS NOTED OTHERWISE.

G4. NORTH SHOWN INDICATIVE ONLY

G5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, DRAWINGS, DETAILS AND OTHER DESIGN INFORMATION.

G6. ALL DRAWINGS AND WRITTEN MATERIAL CONTAINED WITHIN, CONSTITUTE ORIGINAL AND UNPUBLISHED WORK OF THE ENGINEER AND MAY NOT BE DUPLICATED, USED, REPRODUCED OR DISCLOSED WITHOUT WRITTEN CONSENT OR EXPRESS PERMISSION FROM THE ENGINEER.

G7. ALL INFORMATION CONTAINED IN THIS DOCUMENT IS COPYRIGHT ©

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Abbreviations (Where Applicable)

AR	Assumed Route
CL	Cover Level
IC	Inspection Cover
IL	Invert Level
SA	Sockaway
SL	Sump Level
SW	Switch Toe
UTL	Unable To Lift

P01	-	JB	JB	00.00.00	
REV	DESCRIPTION	DRN	CHK	APP	DATE

Pell Frischmann

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Email: pfrischm@pellfrischmann.com
www.pellfrischmann.com

Architect/Client/Contractor

Project

YAPTON

Drawing Title

DRAINAGE CHECK SURVEY

Drawing Status			
INFORMATION			
Name	Date	Status Code	
Drawn T SHAW	11.05.22	S0	
Designed		Scale	1:250
Eng Chk		Revision	
Approved A.MUR	XX.11.05.22	X01	
Drawing No.			

104376 - PEL-XX- XX - UG - SU -00001

Appendix C Groundworks Contractor Confirmation

Daniel Allum-Rooney

From: Henry McColl
Sent: 01 August 2022 11:26
To: Daniel Allum-Rooney
Subject: FW: Yapton drainage verification
Attachments: 20220720_132202503_iOS.heic; 20220714_144945857_iOS.heic

From: Andrew Musselwhite <[REDACTED]>
Sent: Thursday, July 28, 2022 12:21:22 PM
To: Daniel Allum-Rooney <[REDACTED]>; Andy Mckeown-Mundy <[REDACTED]>
[REDACTED]
Cc: Paul Cranley <[REDACTED]>; Tudor Watkins <[REDACTED]>; Andy Howe <[REDACTED]>; Kieran Shalloe <[REDACTED]>; Bjorn Murphy <[REDACTED]>
Subject: RE: Yapton drainage verification

Hi Dan

Image 144945857 is SW29, image 132202503 is SW77, pipe diameters in red below

Kind regards,

Andrew Musselwhite



Commercial Manager

**Parchow
Groundworks Ltd**

W: parchowgroundworkshampshire.co.uk

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Parchow Groundworks

New Down Lane
Waterlooville
Hampshire
PO7 5SE

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From: Daniel Allum-Rooney <[REDACTED]>
Sent: 28 July 2022 11:13

[REDACTED]

Subject: RE: Yapton drainage verification

Hi Andrew,

Pulling together the report for Plots 19-21. Your markup notes a photo for SW77 as 132202503 but can't find this within the images you sent. Can you send across please?

Also, there is no photo noted for SW29 noted.

If you're able to confirm pipe diameters for all pipes incoming and outgoing from the following as it's difficult to tell on some photos:

- S34 CP 150mm/150mm
- SW77 150mm/150mm
- SW26 150mm/150mm
- SW29 100mm/150mm
- SW32 150mm/150mm

Many thanks

Daniel Allum-Rooney

Drainage and Flood Risk Technical Director

Suite 4.2 - 1
4th Floor, The Poynt
Wollaton Street

Nottingham

NG1 5FW

Pell Frischmann

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 www.pellfrischmann.com

From: Andrew Musselwhite <[REDACTED]>

Sent: 27 July 2022 07:27

[REDACTED]

Hi Dan

Apologies for the delay in sending, see attached

Kind regards,

Andrew Musselwhite



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New Down Lane

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Hampshire

PO7 5SE

Commercial Manager

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From: Daniel Allum-Rooney <[REDACTED]>

Sent: 22 July 2022 14:27

[REDACTED]

Subject: RE: Tapton drainage verification

Andy,

I've been reviewing as photos come in but need a plan for context to confirm. Plots 19-21 needed SW77 installing and the configuration around SW29 and SW32 reworking, while plots 4-7 needed some rework and an additional drainage run installing along the front.

If the final information is to come through on Monday we can review fully and then feed back.

Cheers

Daniel Allum-Rooney

Drainage and Flood Risk Technical Director



Suite 4.2 · 1
4th Floor, The Poynt
Wollaton Street

Nottingham

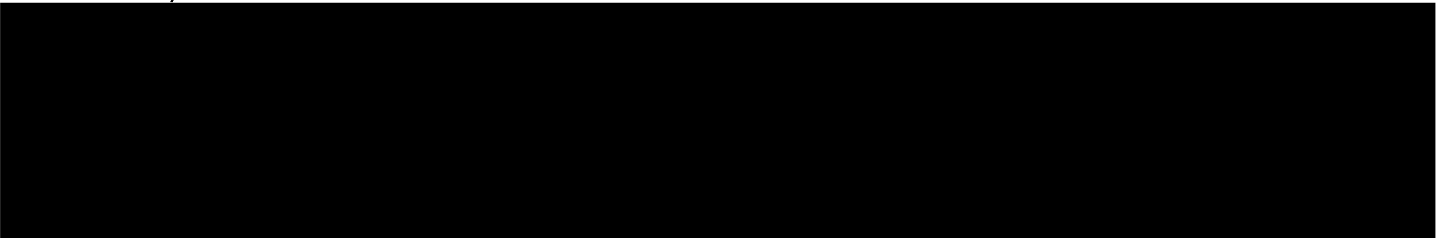
NG1 5PW

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From: Andy Mckeown-Mundy <

Sent: 22 July 2022 14:09



Spot on @Andrew Musselwhite thanks!

@Daniel Allum-Rooney – any update please?

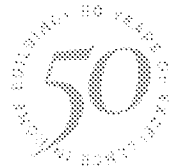
Thanks

A

Andy McKeown-Mundy / Technical Manager



Metro House, Northgate, Chichester, West Sussex, PO19 1BE



www.seawardproperties.co.uk

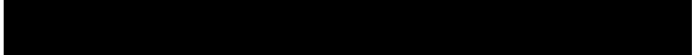


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From: Andrew Musselwhite

Sent: 22 July 2022 11:38



Hi Andy

I've sent over more images today and I'll send the mark-up showing the MH's/images Monday am. Additionally our site team is targeting the remediation as a matter of urgency so follow up supporting evidence should start to come through strongly again next week too

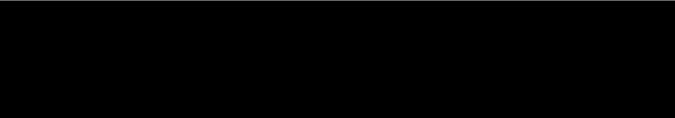
Kind regards,

Andrew Musselwhite



Commercial Manager

**Parchow
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W: parchowgroundworkshampshire.co.uk

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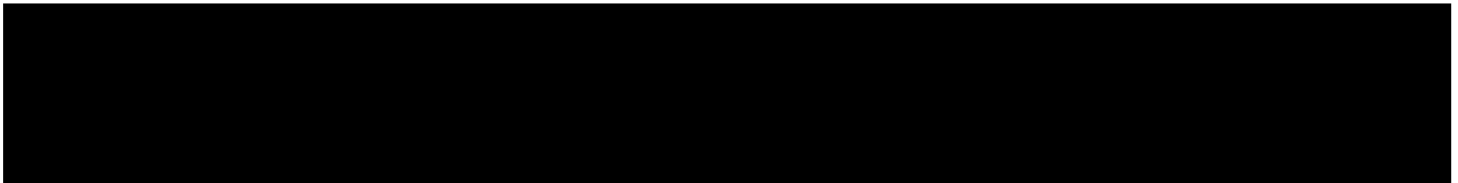
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Hampshire
PO7 5SE

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From: Andy McKeown-Mundy <[REDACTED]>

Sent: 22 July 2022 11:32



Hi Dan/Andrew,

Where are we at please re info below and the next verification report for plots 4-7 and 19-21?

Thanks

A

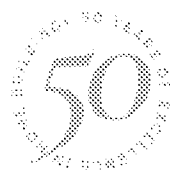
Andy McKeown-Mundy / Technical Manager



Metro House, Northgate, Chichester, West Sussex, PO19 1BE



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Company Registration No. 02595439

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From: Daniel Allum-Rooney <[REDACTED]>

Sent: 19 July 2022 09:00

[REDACTED]

Many thanks Andrew,

Can you mark up a plan of where the photos are taken, or as a minimum note the manhole references?

Many thanks,

Daniel Allum-Rooney

Drainage and Flood Risk Technical Director

[REDACTED]

Suite 4.2 - 1
4th Floor, The Poynt
Wollaton Street

Nottingham

NG1 5FW

Pell Frischmann
Excellence through innovation

From: Andrew Musselwhite

Sent: 19 July 2022 07:31

Morning all

Please see link see below to more images that include other Plot 19 & 20 remediation works

<https://www.dropbox.com/t/gcgJPtnUrq3VHvp8>

Kind regards,

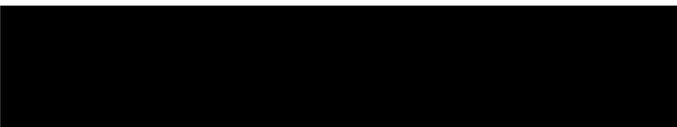
Andrew Musselwhite



AS RECOGNISED BY
SAFETY
SCREENING IN
PROLIFERATION

Commercial Manager

**Parchow
Groundworks Ltd**



W: parchow@groundworkshampshire.co.uk

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Parchow Groundworks

New Down Lane
Waterlooville
Hampshire
PO7 5SE

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From: Andrew Musselwhite

Sent: 18 July 2022 15:16

Subject: RE: Yapton drainage verification

Hi Gents

See the link below with Plot 19's remediation images showing the 100mm installation being removed and replaced with the correct 150mm pipework

<https://www.dropbox.com/t/BmP32zXf5YrivTtr>

Kind regards,

Andrew Musselwhite



Commercial Manager

**Parchow
Groundworks Ltd**



W: [parchowgroundworks.co.uk](mailto:info@parchowgroundworks.co.uk)

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Parchow Groundworks

New Down Lane

Waterlooville

Hampshire

PO7 5SE

Appendix D Further Survey as of January 2023



Appendix E Bedding Material Conveyance Note

Conveyance Note

Description of Transfer

Driver

Ticket Number	210668	Full Name	Richard Butcher
Material Description	70/30mm Track Ballast SUDS	Company Name and Address	TJ Transport Limited 127 Wickham Road, Fareham, Hampshire, PO17 5BP
Weight in Tonnes	18.90 Tonnes		
Transfer Date and Time	05-Jan-2022 12:50:26	Driver Signature	
Waste Carrier Registration Number	CBDU133054	Vehicle Registration Number	V22 TJT
Order Number	388		

From

To

Full Name	Jess	Full Name	Matt Ware
Weighbridge number	119063	Weighbridge number	119063
SIC Code			
Company Name and Address	T J Transport Ltd. TJ - Butser Greenaway Lane Petersfield GU31 5SX	Company Name and Address	Parchow Groundworks Limited Seawood Homes Main Road - B2233 Yapton BN18 0DX
Time and Date	05-Jan-2022 12:50:26 50.981903076172 -0.965632915497	Time and Date	05-Jan-2022 13:43:52 50.8224535 -0.6175063
Signature		Signature	

Conveyance Note

Description of Transfer

Driver

Ticket Number	189420	Full Name	Richard Craft
Material Description	5/20mm Limestone SUDS	Company Name and Address	TJ Transport Limited 127 Wickham Road, Fareham, Hampshire, PO17 5BP
Weight in Tonnes	29.16 Tonnes		
Transfer Date and Time	20-Oct-2021 15:12:44	Driver Signature	
Waste Carrier Registration Number	CBDU133054	Vehicle Registration Number	L16 TJT
Order Number	388		

From

To

Full Name	Parchow Groundworks	Full Name	Parchow Groundworks Bucko
Weighbridge number	1203351854	Weighbridge number	1203351854
SIC Code			
Company Name and Address	Tarmac Tarmac - Halecombe Quarry Somers Hill Frome BA11 3RD	Company Name and Address	Parchow Groundworks Limited Seawood Homes Main Road - B2233 Yapton BN18 0EA
Time and Date	20-Oct-2021 15:12:44 51.225284576416 -2.427741289139 7111	Time and Date	21-Oct-2021 08:13:04 50.8224362 -0.6178868
Signature		Signature	