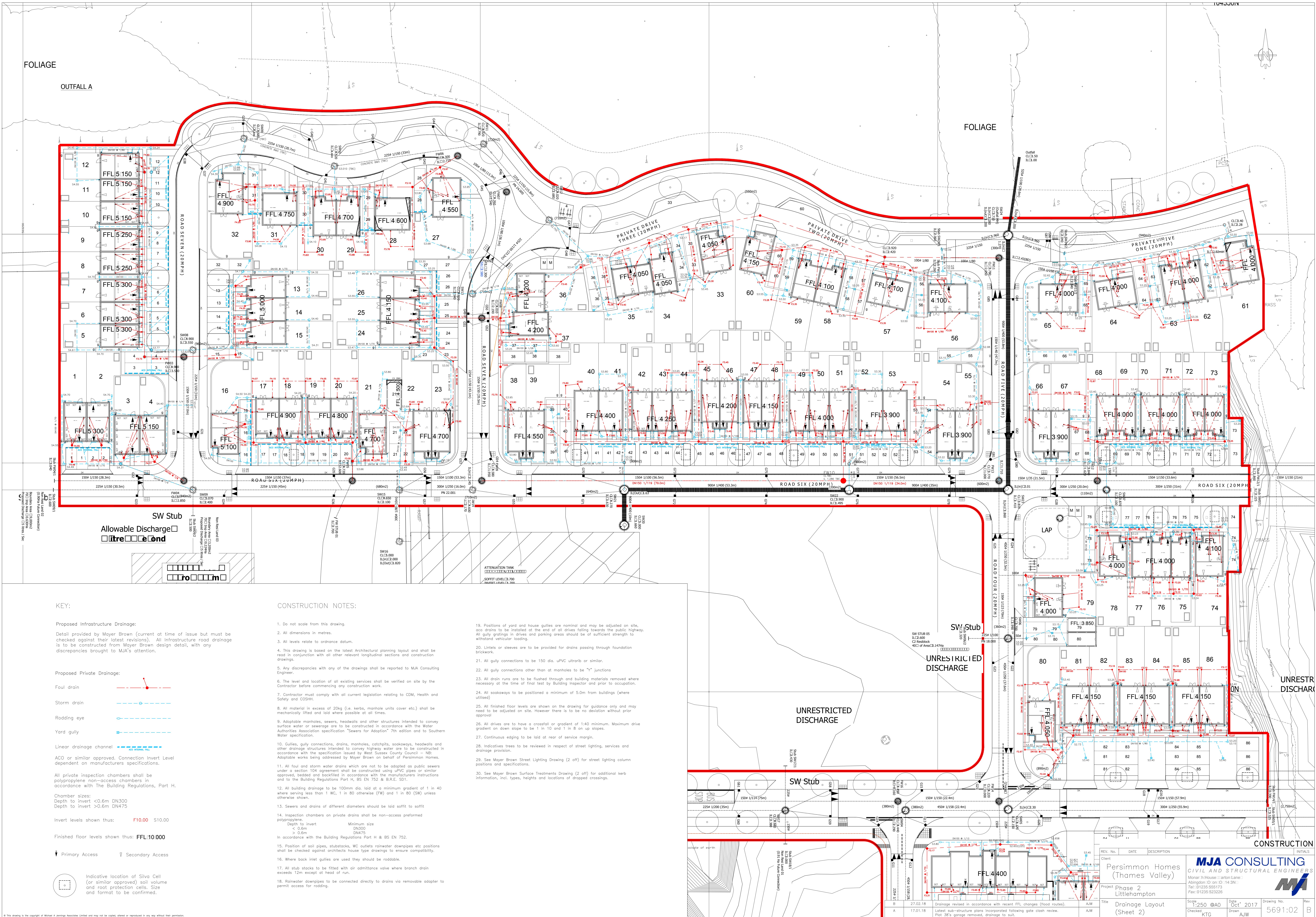




KEY:

Proposed Infrastructure Drainage:

Detail provided by Mayer Brown (current at time of issue but must be checked against their latest revisions). All Infrastructure road drainage is to be constructed from Mayer Brown design detail, with any discrepancies brought to MJA's attention.

Proposed Private Drainage:

Foul drain
Storm drain
Rodding eye
Yard gully

Linear drainage channel
ACQ or similar approved. Connection Invert Level dependent on manufacturers specifications.

All private inspection chambers shall be polypropylene non-access chambers in accordance with The Building Regulations, Part H.
Chamber sizes:
Depth to invert <0.6m DN300
Depth to invert >0.6m DN475

Invert levels shown thus: F10.00 S10.00

Finished floor levels shown thus: FFL10.000
Primary Access
Secondary Access

Indicative location of Silva Cell (or similar approved) soil volume and root protection cells. Size and format to be confirmed.

CONSTRUCTION NOTES:

- Do not scale from this drawing.
- All dimensions in metres.
- All levels relate to ordnance datum.
- This drawing is based on the latest Architectural planning layout and shall be read in conjunction with all other relevant longitudinal sections and construction drawings.
- Any discrepancies with any of the drawings shall be reported to MJA Consulting Engineer.
- The level and location of all existing services shall be verified on site by the Contractor before commencing any construction work.
- Contractor must comply with all current legislation relating to CDM, Health and Safety and COSHH.
- All material in excess of 20kg (i.e. kerbs, manhole units cover etc.) shall be mechanically lifted and laid where possible at all times.
- Adaptable manholes, sewers, headwalls and other structures intended to convey surface water or sewerage are to be constructed in accordance with the Water Authorities Association specification "Sewers for Adoption" 7th edition and to Southern Water specification.
- Gullies, gully connections, drains, manholes, catchpits, soakways, headwalls and other drainage structures intended to convey highway water are to be constructed in accordance with the specification issued by West Sussex County Council - NB: Adaptable works being addressed by Mayer Brown on behalf of Persimmon Homes.
- All foul and storm water drains which are not to be adapted as public sewers under a section 104 agreement shall be constructed using uPVC pipes or similar approved, bedded and backfilled in accordance with the manufacturers instructions and to the Building Regulations Part H, BS EN 752 & S.R.C. 5201.
- All building drainage to be 100mm dia. laid at a minimum gradient of 1 in 40 where serving less than 1 WC, 1 in 80 otherwise (FW) and 1 in 80 (SW) unless otherwise shown.
- Sewers and drains of different diameters should be laid soffit to soffit.
- Inspection chambers on private drains shall be non-access preformed polypropylene.
Depth to invert Minimum size
< 0.6m DN300
> 0.6m DN475
In accordance with the Building Regulations Part H & BS EN 752.
- Position of soil pipes, substacks, WC outlets rainwater downpipes etc positions shall be checked against architects house type drawings to ensure compatibility.
- Where back inlet gullies are used they should be roddable.
- All sub stacks to be fitted with air admittance valve where branch drain exceeds 12m except at head of run.
- Rainwater downpipes to be connected directly to drains via removable adapter to permit access for rodding.

- Positions of yard and house gullies are nominal and may be adjusted on site, s/s drains to be installed at the end of all drives falling towards the public highway. All gully grates in drives and parking areas should be of sufficient strength to withstand vehicular loading.
- Lintels or sleeves are to be provided for drains passing through foundation brickwork.
- All gully connections to be 150 dia. uPVC ultrab or similar.
- All gully connections other than at manholes to be "Y" junctions.
- All drain runs are to be flushed through and building materials removed where necessary at the time of final test by Building Inspector and prior to occupation.
- All soakways to be positioned a minimum of 5.0m from buildings (where utilised).
- All finished floor levels are shown on the drawing for guidance only and may need to be adjusted on site. However there is to be no deviation without prior approval.
- All drives are to have a crossfall or gradient of 1:40 minimum. Maximum drive gradient on down slope to be 1 in 10 and 1 in 8 on up slopes.
- Continuous edging to be laid at rear of service margin.
- Indicative trees to be reviewed in respect of street lighting, services and drainage provision.
- See Mayer Brown Street Lighting Drawing (2 off) for street lighting column positions and specifications.
- See Mayer Brown Street Treatments Drawing (2 off) for additional kerb information, incl. types, heights and locations of dropped crossings.

REV. No.	DATE	DESCRIPTION	INITIALS
1	27.02.18	Drainage revised in accordance with recent FFL changes (floor routes).	AJW
2	17.01.18	Latest sub-structure plans incorporated following gate clash review. Plot 38's garage removed, drainage to suit.	AJW

Client

Persimmon Homes (Thames Valley)

Project

Phase 2 Littlehampton

Title

Drainage Layout (Sheet 2)

Scale

1:250 @ A0

Date

Oct '2017

Drawing No.

5691:02

Rev

B

Checked

KTG

Drawn

AJW

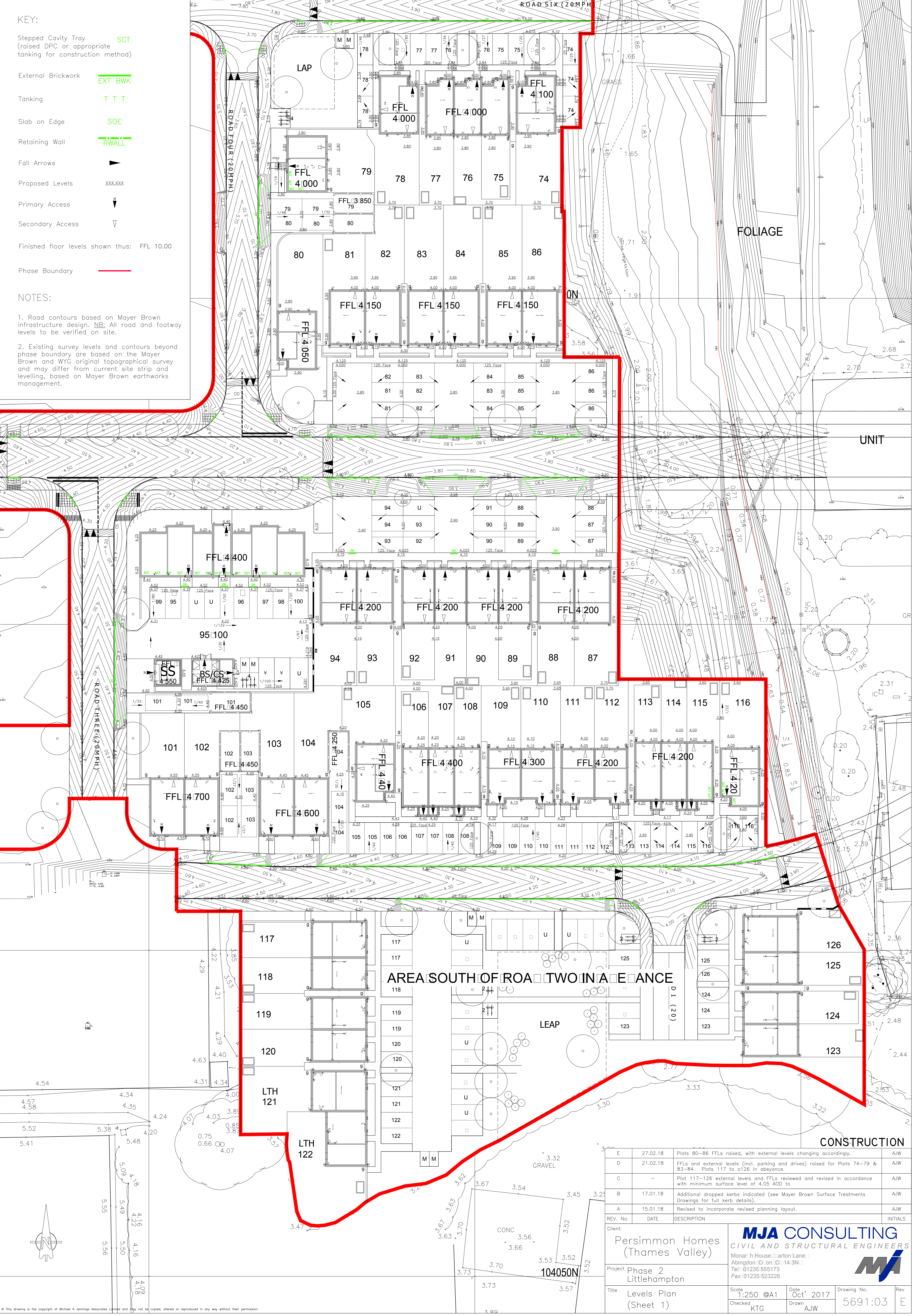
MJA CONSULTING

CIVIL AND STRUCTURAL ENGINEERS

Monter House, Barton Lane, Abingdon OX14 3N

Tel: 01235 555173

Fax: 01235 523226



- KEY:
- Stepped Cavity Tray (raised DPC or appropriate tanking for construction method) SCT
 - External Brickwork EXT BWK
 - Tanking T T T
 - Slab on Edge SOE
 - Retaining Wall RWALL
 - Fall Arrows
 - Proposed Levels XXX.XXX
 - Primary Access
 - Secondary Access
 - Finished floor levels shown thus: FFL 10.00
 - Phase Boundary

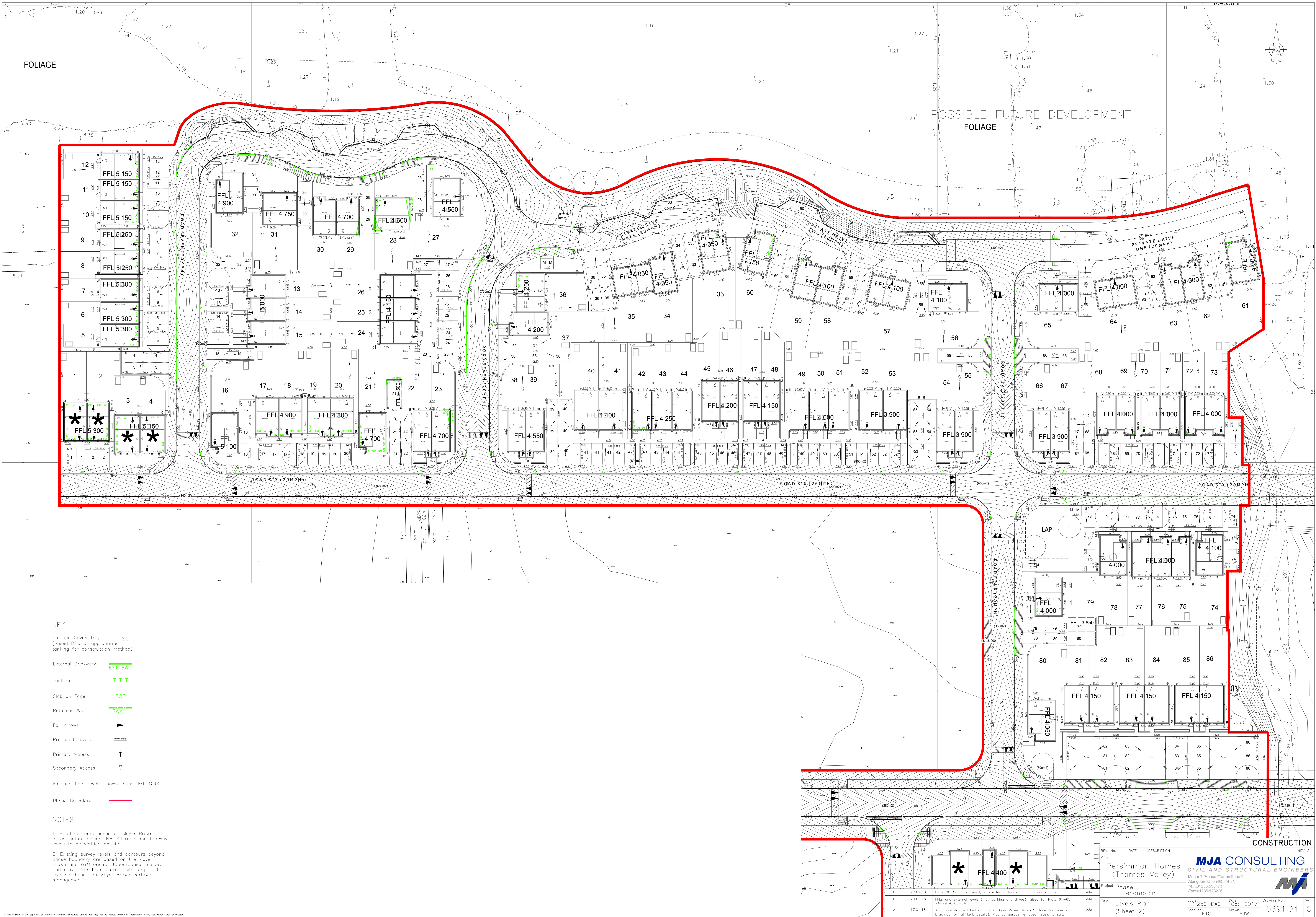
NOTES:

1. Road contours based on Mayer Brown infrastructure design. NB: All road and footway levels to be verified on site.

2. Existing survey levels and contours beyond phase boundary are based on the Mayer Brown and WYG original topographical survey and may differ from current site strip and levelling, based on Mayer Brown earthworks management.

AREA SOUTH OF ROAD TWO IN A E PLANCE

E	27.02.18	Plots 80-86 FFLs raised, with external levels changing accordingly.	AJW
D	21.02.18	FFLs and external levels (incl. parking and drives) raised for Plots 74-79 & 83-84. Plots 117 to 0126 in obeyance.	AJW
C	-	Plot 117-126 external levels and FFLs reviewed and revised in accordance with minimum surface level of 4.05 AOD to	AJW
B	17.01.18	Additional dropped kerbs indicated (see Mayer Brown Surface Treatments Drawings for full kerb details).	AJW
A	15.01.18	Revised to incorporate revised planning layout.	AJW
REV. No.	DATE	DESCRIPTION	INITIALS
Client			
Persimmon Homes (Thames Valley)		MJA CONSULTING CIVIL AND STRUCTURAL ENGINEERS Monar: h House, Barton Lane Abingdon, O on: O 143N Tel: 01235 555173 Fax: 01235 523226	
Project		Phase 2 Littlehampton	
Title		Levels Plan (Sheet 1)	
Scale	1:250 @A1	Date	Oct 2017
Checked	KTG	Drawn	AJW
Drawing No.			5691:03
Rev			E



KEY:

Stepped Cavity Tray (raised DPC or appropriate tanking for construction method) SCT

External Brickwork EXT-BWK

Tanking T T T

Slab on Edge SOE

Retaining Wall RWALL

Fall Arrows

Proposed Levels XXX.XXX

Primary Access

Secondary Access

Finished floor levels shown thus: FFL 10.00

Phase Boundary

NOTES:

1. Road contours based on Mayer Brown infrastructure design. All road and footway levels to be verified on site.

2. Existing survey levels and contours beyond phase boundary are based on the Mayer Brown and WYG original topographical survey and may differ from current site strip and levelling, based on Mayer Brown earthworks management.

REV. No.	DATE	DESCRIPTION	INITIALS
C	27.02.18	Plots 80-86 FFLs raised, with external levels changing accordingly.	AJW
B	20.02.18	FFLs and external levels (incl. parking and drives) raised for Plots 61-65, 74-79 & 83-84.	AJW
A	17.01.18	Additional dropped kerbs indicated (see Mayer Brown Surface Treatments Drawings for full kerb details). Plot 38 garage removed, levels to suit.	AJW

Client

Persimmon Homes
(Thames Valley)

Project

Phase 2
Littlehampton

Title

Levels Plan
(Sheet 2)

Scale

1:250 @ A0

Date

Oct '2017

Drawing No.

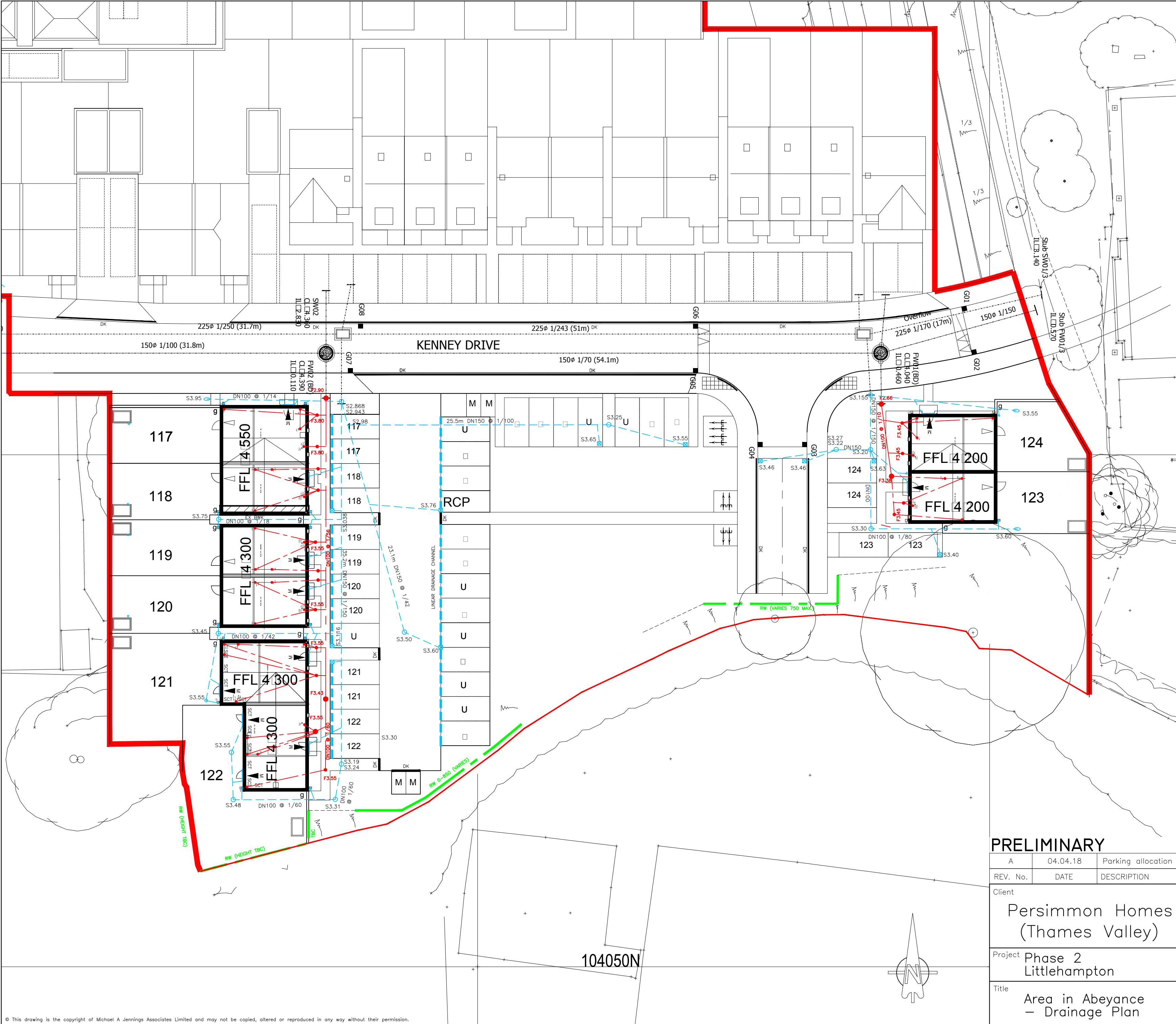
5691:04

Rev

C

MJA CONSULTING
CIVIL AND STRUCTURAL ENGINEERS

Monter House, Barton Lane,
Abingdon OX14 3N
Tel: 01235 555173
Fax: 01235 523226



KEY:

Proposed Infrastructure Drainage:
Detail provided by Mayer Brown (current at time of issue but must be checked against their latest revisions). All Infrastructure road drainage is to be constructed from Mayer Brown design detail, with any discrepancies brought to MJA's attention.

Proposed Private Drainage:

Foul drain

Storm drain

Rodding eye

Yard gully

Linear drainage channel

ACO or similar approved. Connection Invert Level dependent on manufacturers specifications.

All private inspection chambers shall be polypropylene non-access chambers in accordance with The Building Regulations, Part H.

Chamber sizes:
Depth to invert <0.6m DN300
Depth to invert >0.6m DN475

Invert levels shown thus: F10.00 S10.00

Finished floor levels shown thus: FFL10.000

Primary Access

Secondary Access

PRELIMINARY

A	04.04.18	Parking allocation revised for parking adjacent to Plots 117-122.	AJW
REV. No.	DATE	DESCRIPTION	INITIALS
Client		Persimmon Homes (Thames Valley)	
Project		Phase 2 Littlehampton	
Title		Area in Abeyance - Drainage Plan	
Scale	Date	Drawing No.	Rev
1:250 @A2	Mar' 2018	5691:05	A
Checked	Drawn		
	AJW		

MJA CONSULTING

CIVIL AND STRUCTURAL ENGINEERS

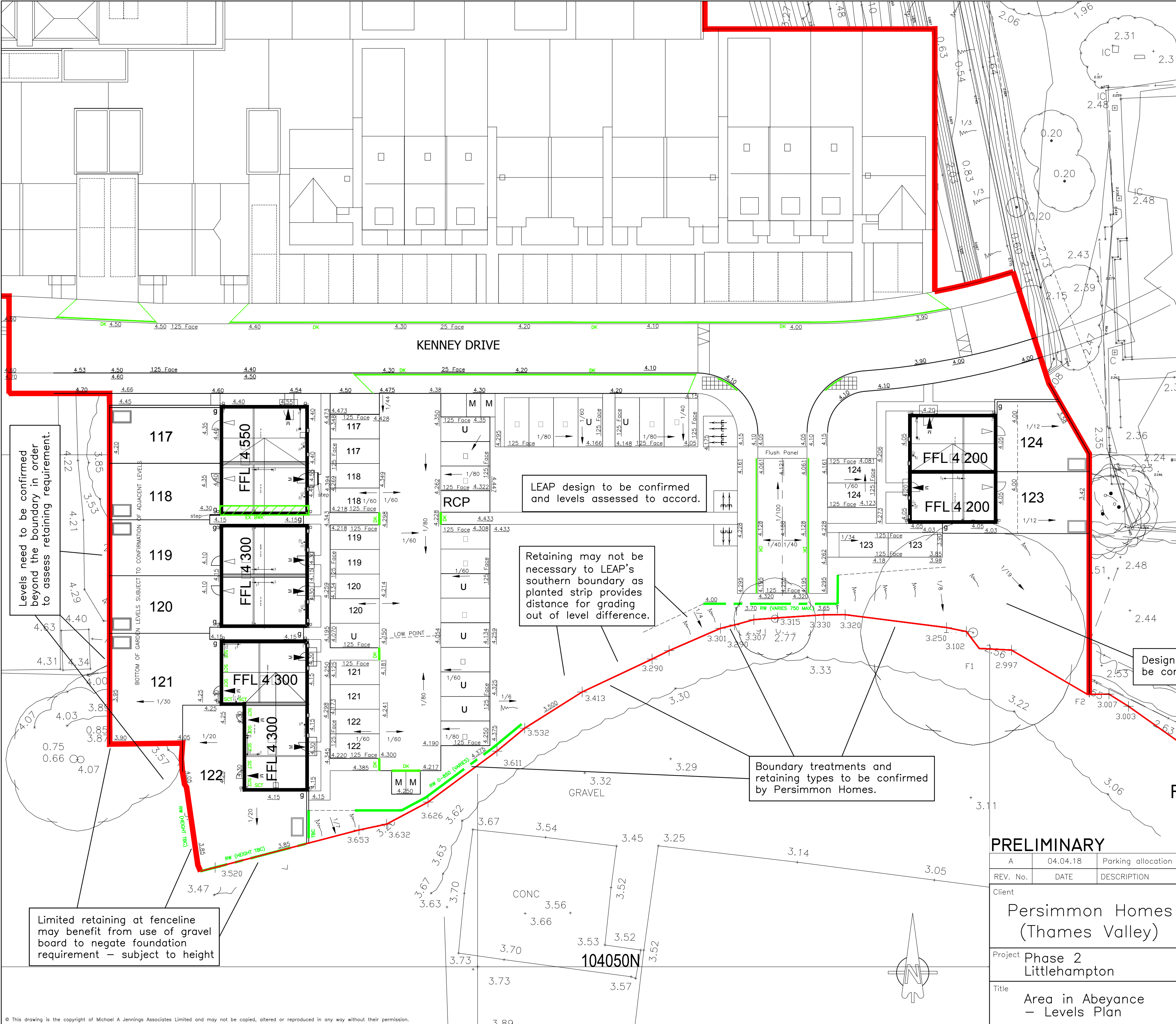
Monarch House Barton Lane

Abingdon Oxon OX14 3N

Tel: 01235 555173

Fax: 01235 523226

MJA



- KEY:**
- Stepped Cavity Tray (raised DPC or appropriate tanking for construction method) SCT
 - External Brickwork EXT BWK
 - Tanking T T T
 - Slab on Edge SOE
 - Retaining Wall RWALL
 - Fall Arrows
 - Proposed Levels XXX.XXX
 - Primary Access
 - Secondary Access
 - Finished floor levels shown thus: FFL 10.00
 - Phase Boundary

- NOTES:**
- Road contours based on Mayer Brown infrastructure design. NB: All road and footway levels to be verified on site.
 - Existing survey levels and contours beyond phase boundary are based on the Mayer Brown and WYG original topographical survey and may differ from current site strip and levelling, based on Mayer Brown earthworks management.

Limited retaining at fenceline may benefit from use of gravel board to negate foundation requirement – subject to height

LEAP design to be confirmed and levels assessed to accord.

Retaining may not be necessary to LEAP's southern boundary as planted strip provides distance for grading out of level difference.

Boundary treatments and retaining types to be confirmed by Persimmon Homes.

Design / use to be confirmed.

PRELIMINARY

A	04.04.18	Parking allocation revised for parking adjacent to Plots 117–122.	AJW
REV. No.	DATE	DESCRIPTION	INITIALS
Client		Persimmon Homes (Thames Valley)	
Project		Phase 2 Littlehampton	
Title		Area in Abeyance – Levels Plan	
Scale	1:250 @A2	Date	Mar' 2018
Checked		Drawn	AJW
Drawing No.		5691:06	
Rev		A	

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CIVIL AND STRUCTURAL ENGINEERS

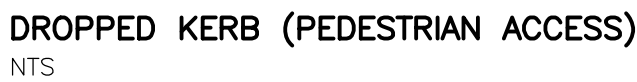
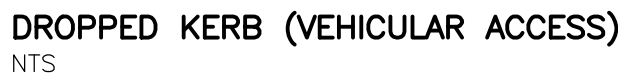
Monarch House, Barton Lane
Abingdon, Oxfordshire OX14 3N
Tel: 01235 555173
Fax: 01235 523226



TABLE 1	Capping layer(mm)
CBR >5%	150mm thick DTp Type 1 Granular Sub base
CBR 2%~5%	350mm thick DTp Class 6F1 or 6F2
CBR <2%	600mm thick DTp Class 6F1 or 6F2

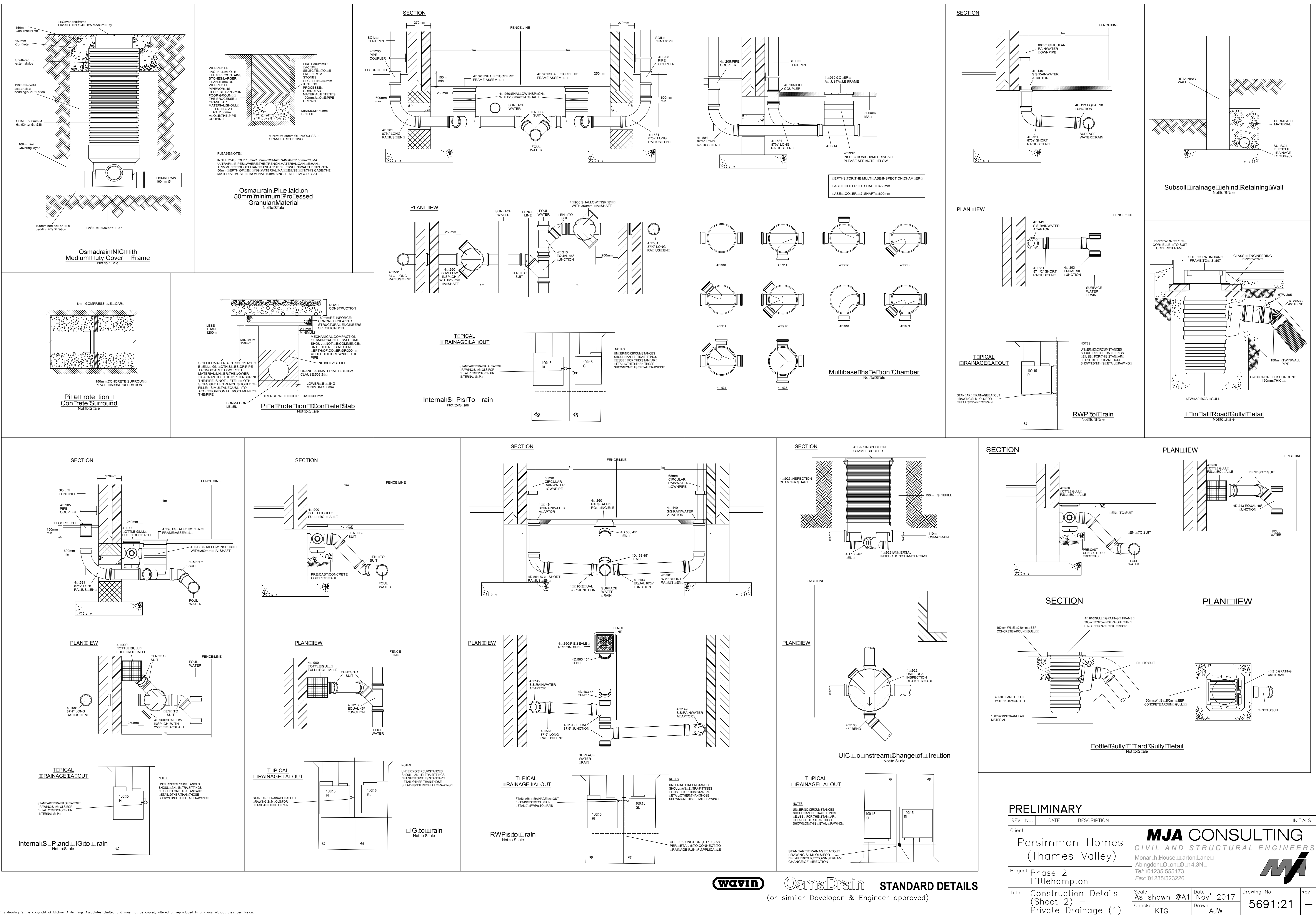
Capping layer in accordance with DTp Spec. Part 2 Table 6/2 class 6F1 or 6F2.

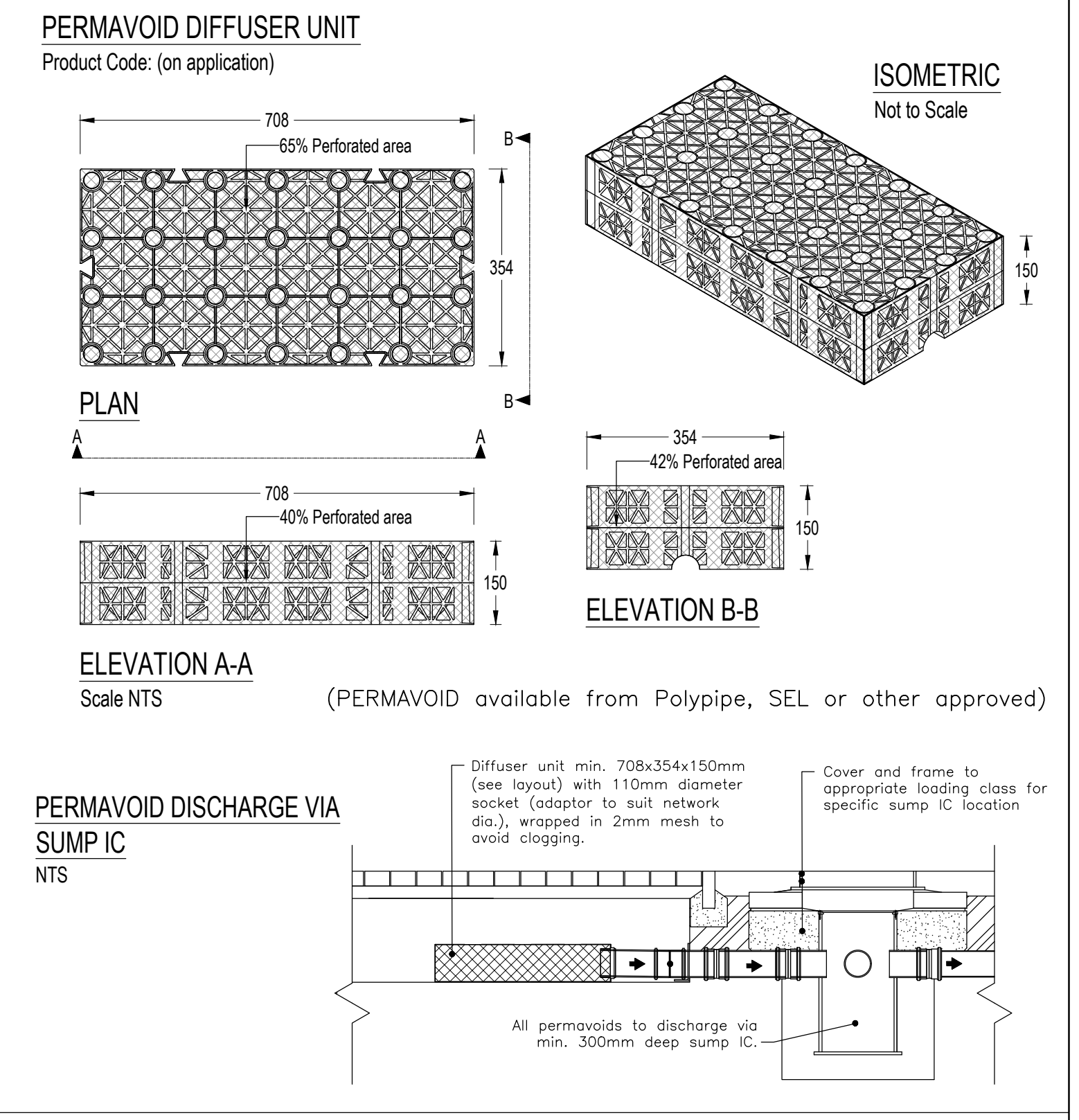
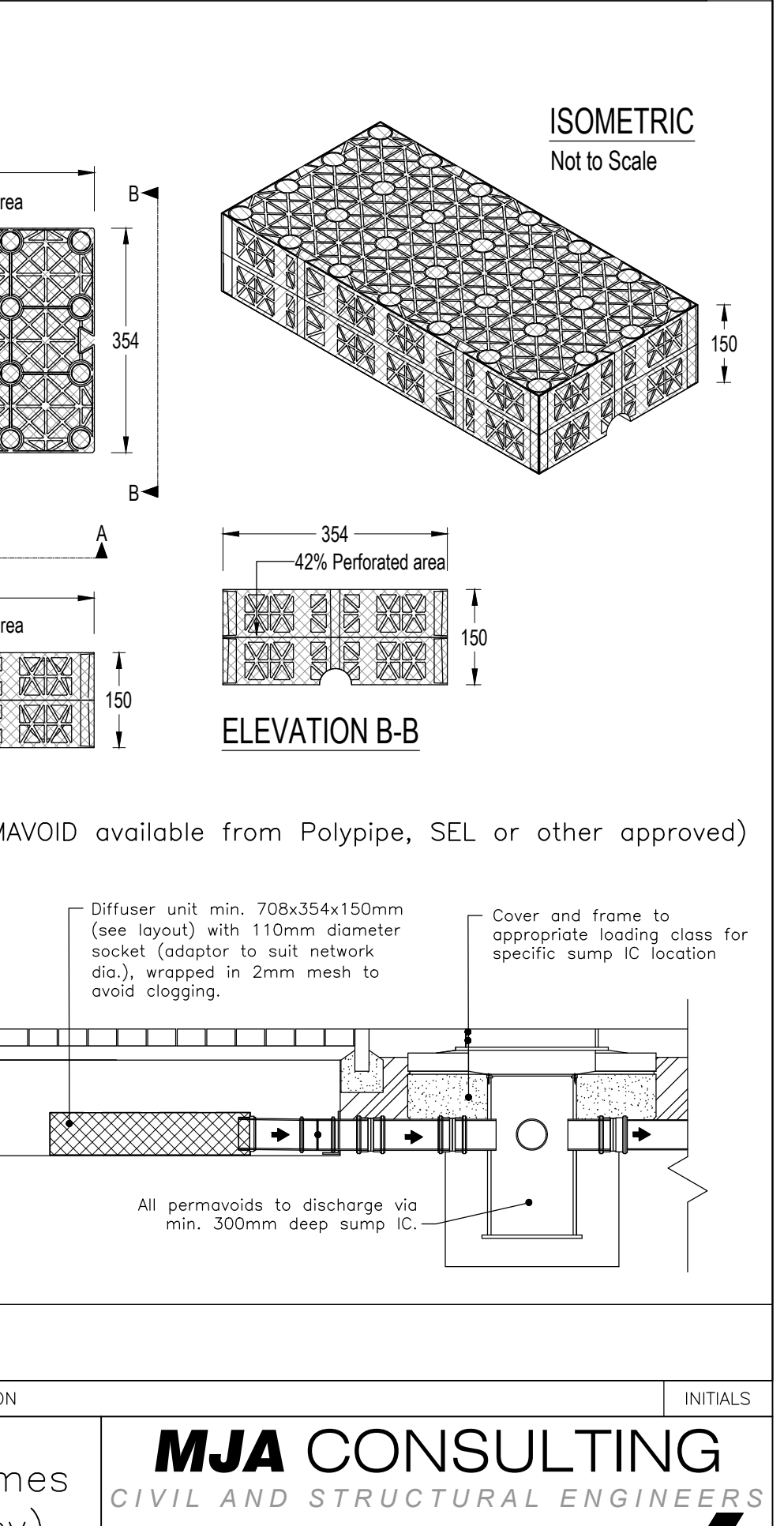
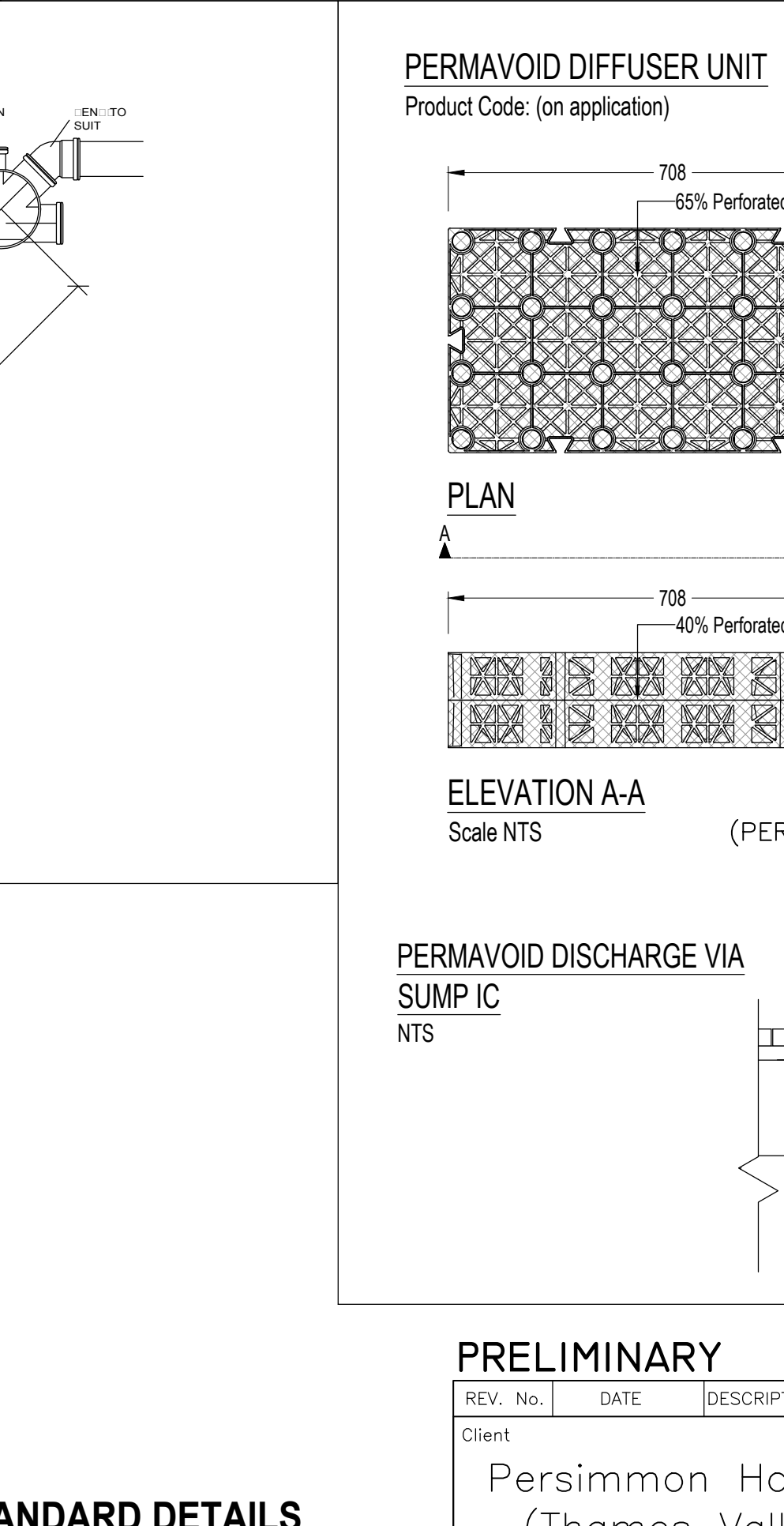
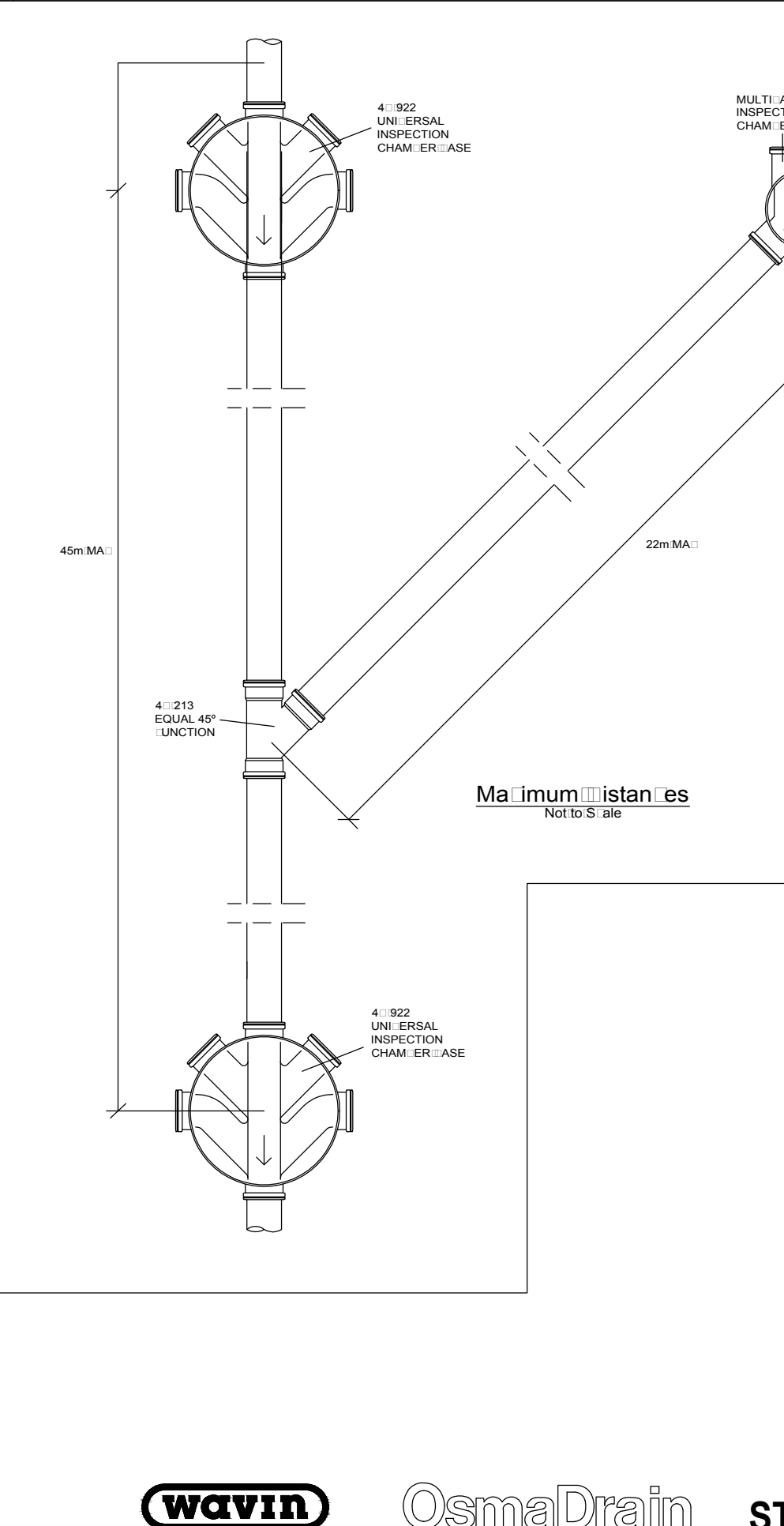
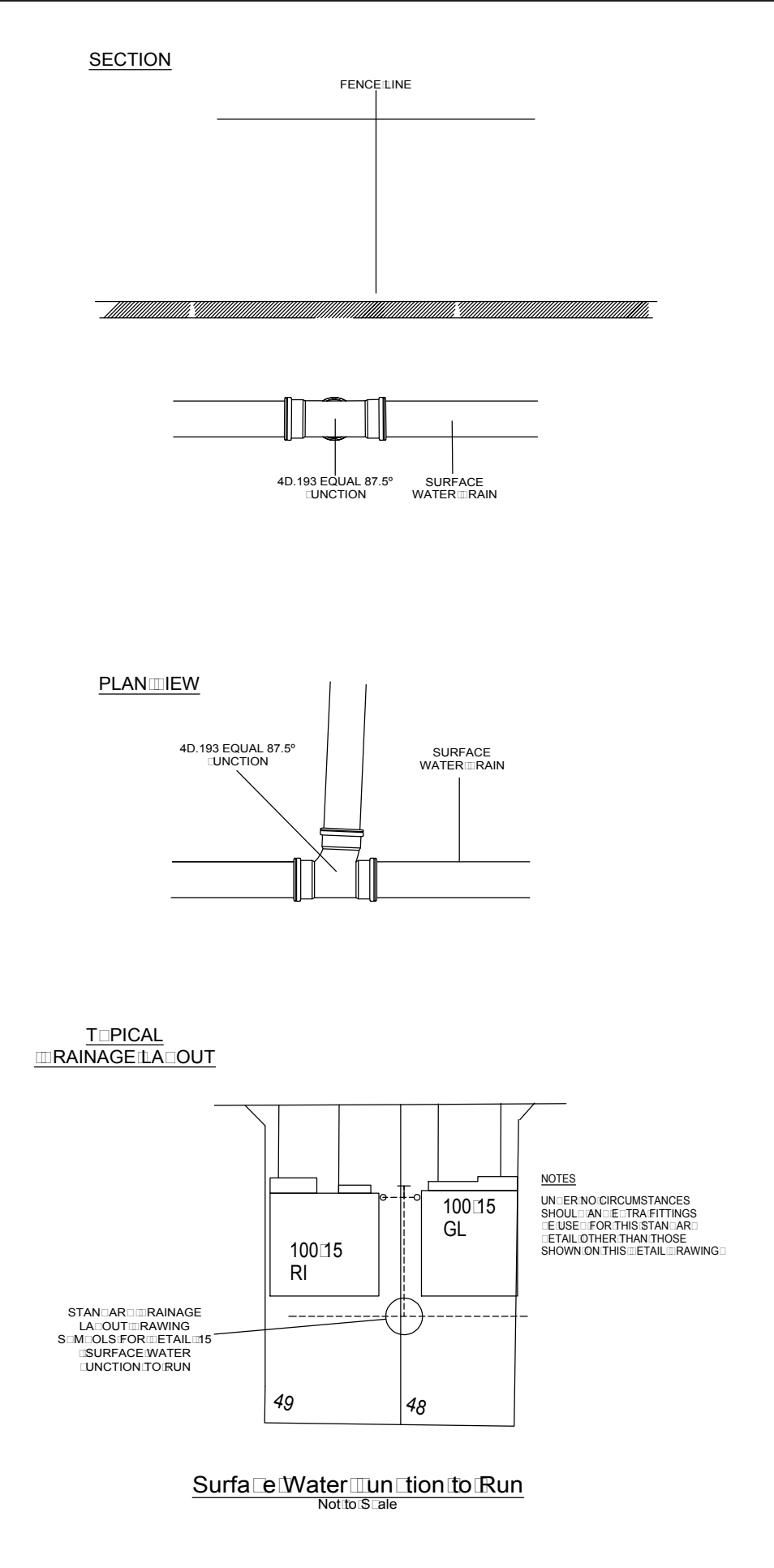
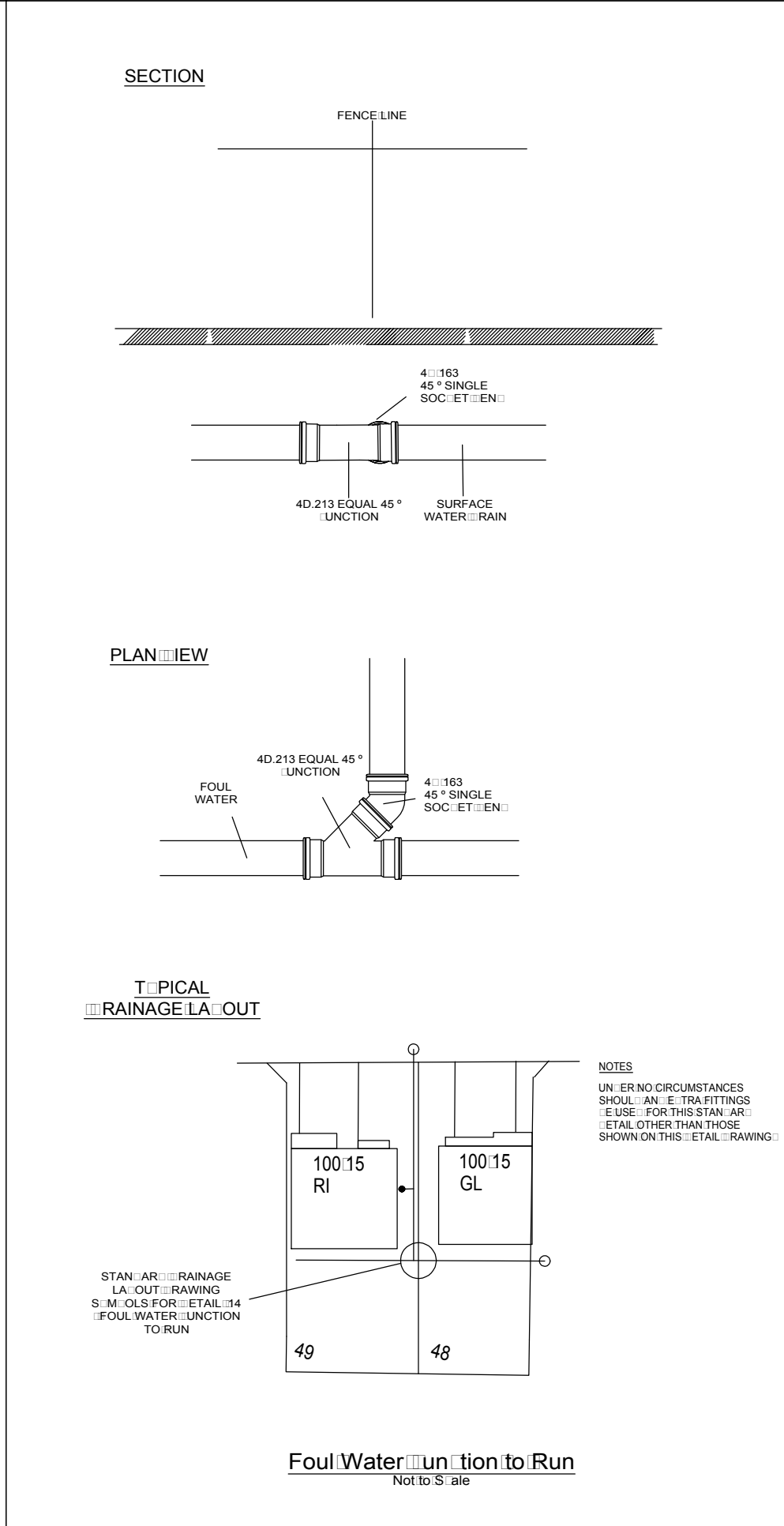
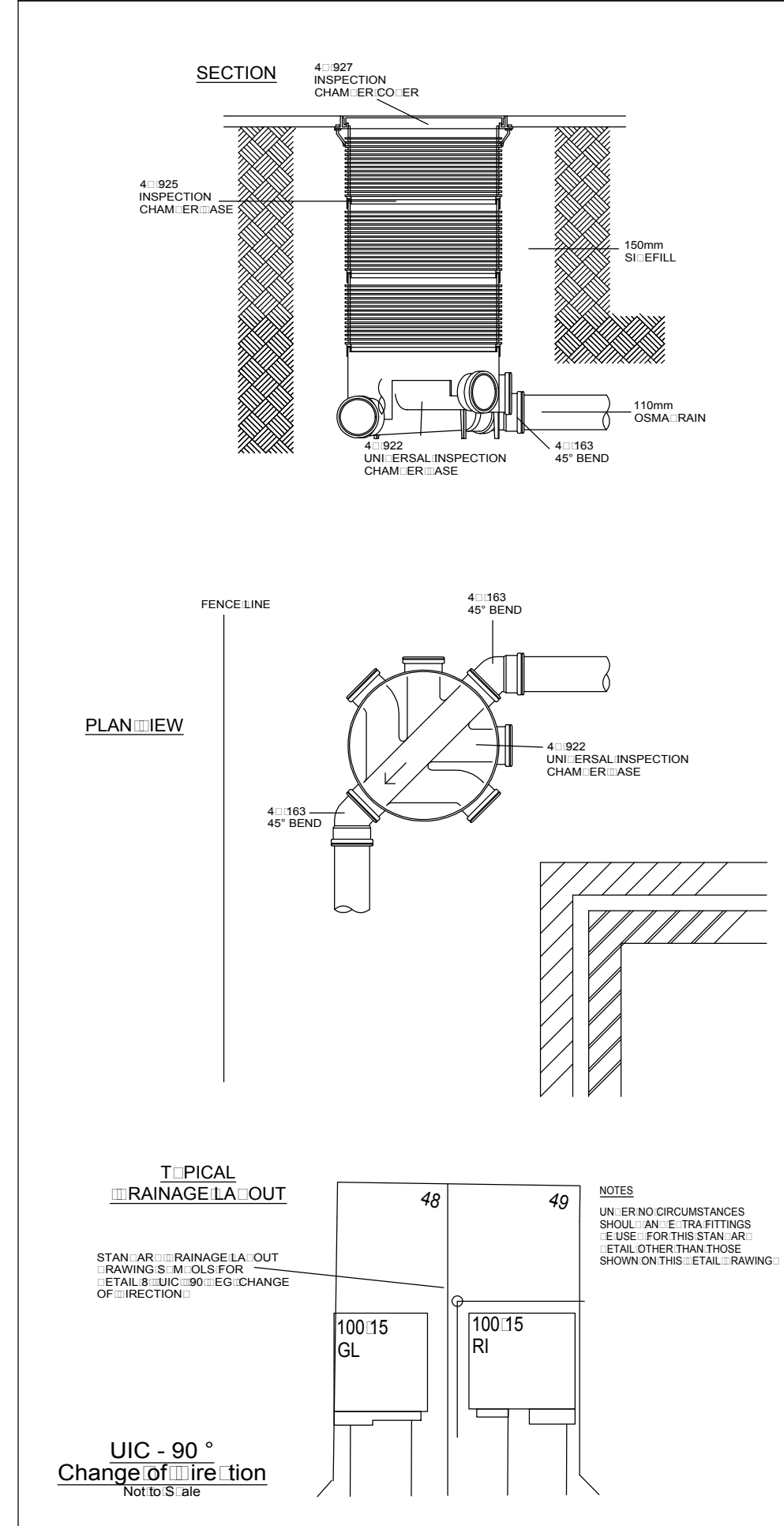
TYPICAL SECTION THROUGH MACADAM SHARED DRIVE HAVING INFREQUENT USE BY COMMERCIAL VEHICLES.
(e.g. Units 95-100 Courtyard/Access)
Scale 1:25



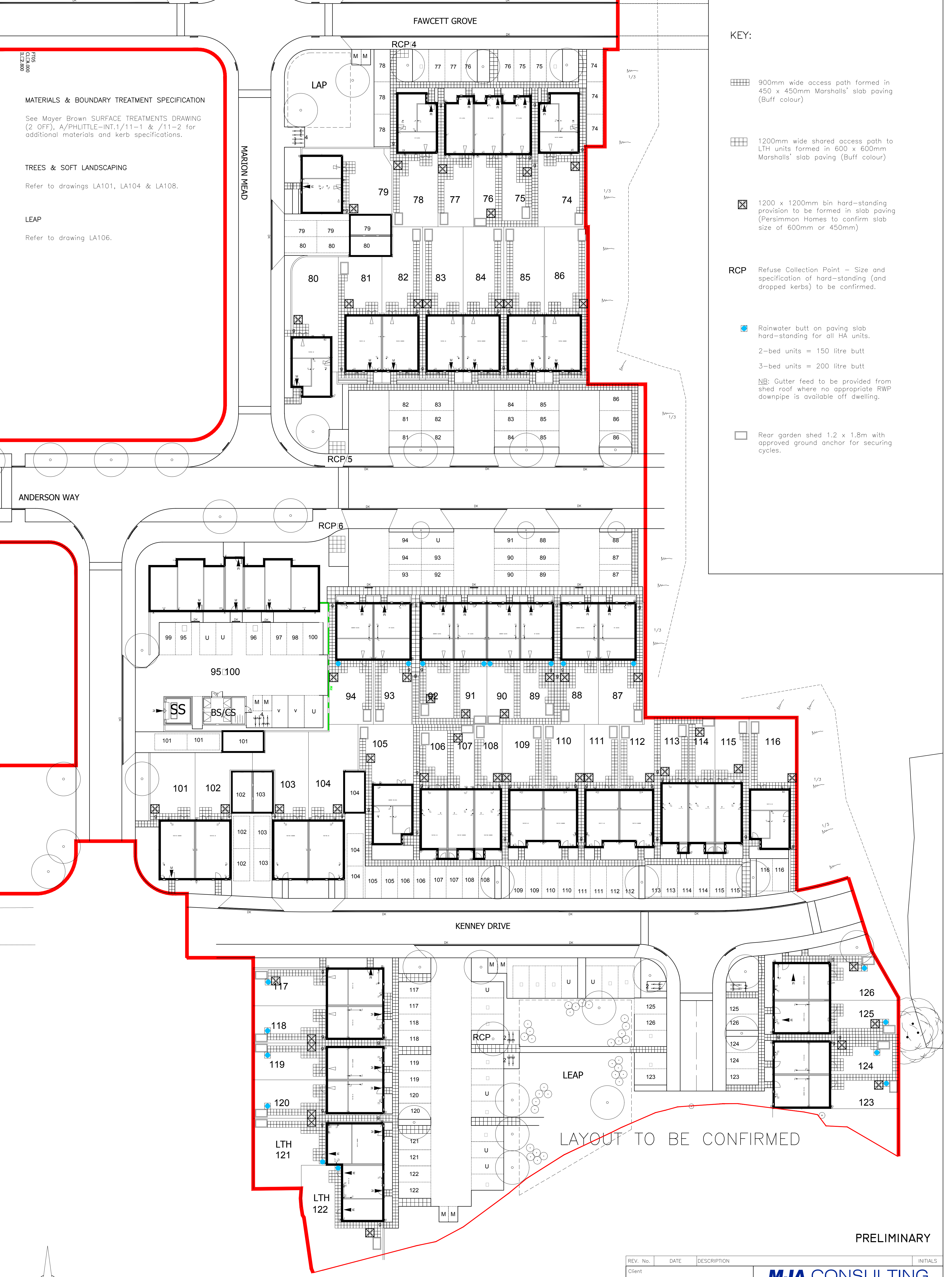
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A	08.03.18	Private and shared drive construction changed to traditional impermeable construction in accordance with drainage strategy. Birco detail added.		AJW	
REV. No.	DATE	DESCRIPTION		INITIALS	
Client		Persimmon Homes (Thames Valley)  MJA CONSULTING <i>CIVIL AND STRUCTURAL ENGINEERS</i> Monar: h House Barton Lane Abingdon OX10 14 3N Tel: 01235 555173 Fax: 01235 523226 			
Project	Phase 2 Littlehampton				
Title	Construction Details (Sheet 1) – Hard Standing Areas		Scale As shown @A1 Checked KTG	Date Nov, 2017 Drawn AJW	Drawing No. 5691:20 Rev A





PRELIMINARY										
REV. No.		DATE			DESCRIPTION	INITIALS				
Client			MJA CONSULTING CIVIL AND STRUCTURAL ENGINEERS Monar h House Barton Lane Abingdon OX1 1DN Tel: 01235 555173 Fax: 01235 523226 							
Persimmon Homes (Thames Valley)										
Project										
Phase 2 Littlehampton										
Title			Scale		Date		Drawing No.		Rev	
Construction Details (Sheet 3) – Private Drainage (2)			As shown @A1		Nov' 2017		5691:22		–	
			Checked KTG		Drawn AJW					



KEY:

900mm wide access path formed in 450 x 450mm Marshalls' slab paving (Buff colour)

1200mm wide shared access path to LTH units formed in 600 x 600mm Marshalls' slab paving (Buff colour)

1200 x 1200mm bin hard-standing provision to be formed in slab paving (Persimmon Homes to confirm slab size of 600mm or 450mm)

RCP Refuse Collection Point – Size and specification of hard-standing (and dropped kerbs) to be confirmed.

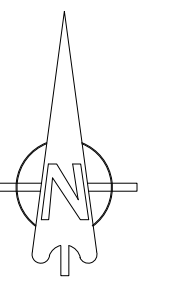
Rainwater butt on paving slab hard-standing for all HA units.
2-bed units = 150 litre butt
3-bed units = 200 litre butt

NB: Gutter feed to be provided from shed roof where no appropriate RWP downpipe is available off dwelling.

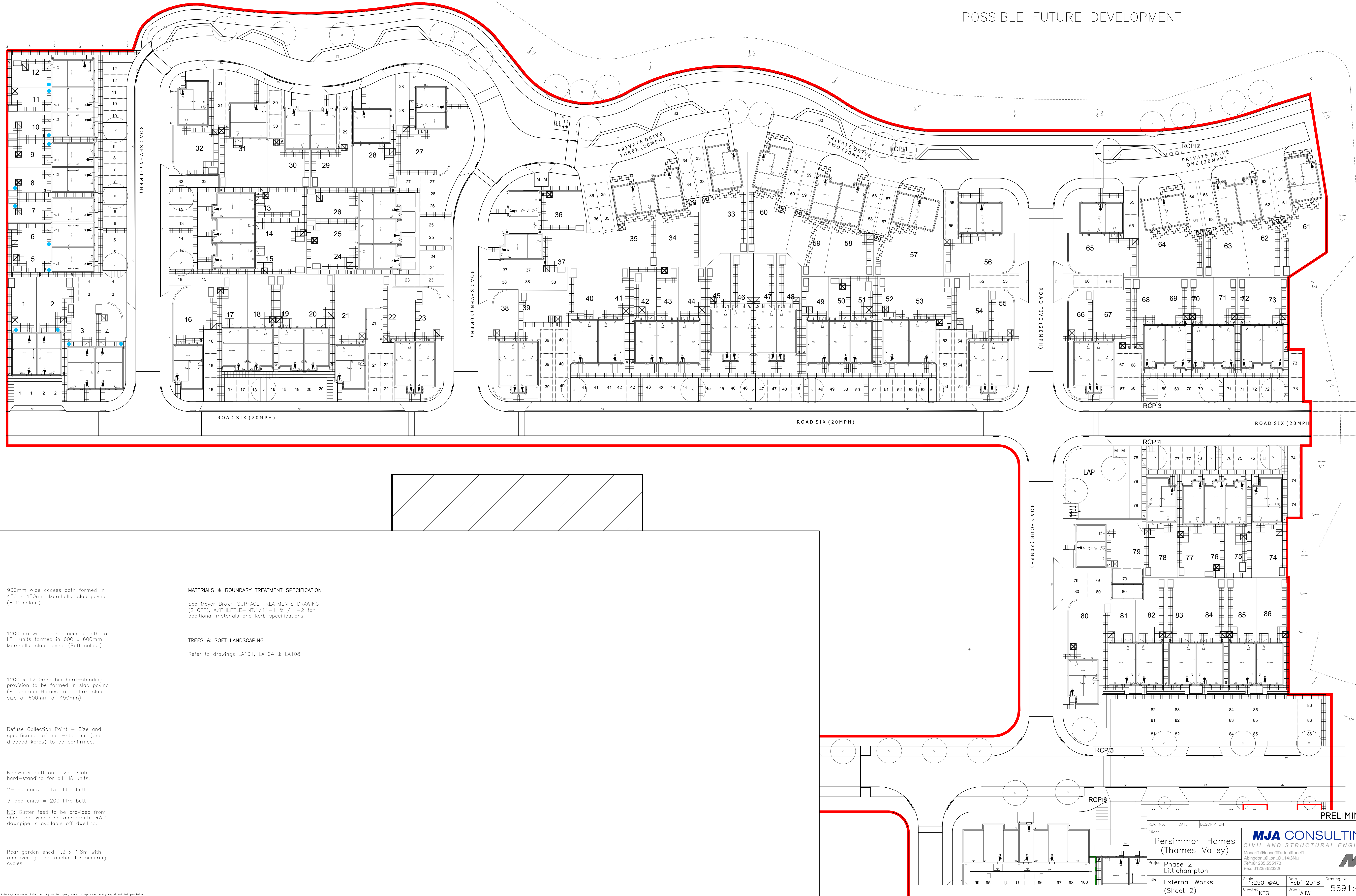
Rear garden shed 1.2 x 1.8m with approved ground anchor for securing cycles.

PRELIMINARY

REV. No.	DATE	DESCRIPTION			INITIALS
Client			MJA CONSULTING CIVIL AND STRUCTURAL ENGINEERS Monarch House, Barton Lane, Abingdon, Oxford OX14 3N Tel: 01235 555173 Fax: 01235 523226 MJA		
Persimmon Homes (Thames Valley)					
Project					
Phase 2 Littlehampton					
Title		Scale	Date	Drawing No.	Rev
External Works (Sheet 1)		1:250 @A1	Feb' 2018	5691:40	—
		Checked KTG	Drawn AJW		



POSSIBLE FUTURE DEVELOPMENT



KEY:

900mm wide access path formed in 450 x 450mm Marshalls' slab paving (Buff colour)

1200mm wide shared access path to LTH units formed in 600 x 600mm Marshalls' slab paving (Buff colour)

1200 x 1200mm bin hard-standing provision to be formed in slab paving (Persimmon Homes to confirm slab size of 600mm or 450mm)

RCP Refuse Collection Point - Size and specification of hard-standing (and dropped kerbs) to be confirmed.

Rainwater butt on paving slab hard-standing for all HA units.
2-bed units = 150 litre butt
3-bed units = 200 litre butt

NG: Gutter feed to be provided from shed roof where no appropriate RWP downpipe is available off dwelling.

Rear garden shed 1.2 x 1.8m with approved ground anchor for securing cycles.

MATERIALS & BOUNDARY TREATMENT SPECIFICATION

See Mayer Brown SURFACE TREATMENTS DRAWING (2 OFF), A/PHUTLE=INT.1/11-1 & /11-2 for additional materials and kerb specifications.

TREES & SOFT LANDSCAPING

Refer to drawings LA101, LA104 & LA108.

REV. No.	DATE	DESCRIPTION	INITIALS
Client			
Persimmon Homes (Thames Valley)			
Project		Phase 2 Littlehampton	
Title		External Works (Sheet 2)	
Scale	1:250	0A0	
Checked	KTG		
Drawn	AJW		
Date	Feb' 2018		
Drawing No.	5691:41		
Rev			

MJA CONSULTING
CIVIL AND STRUCTURAL ENGINEERS
Monar: h House - arton Lane
Abington O on O-14 3N
Tel: 01235 555173
Fax: 01235 523226

PRELIMINARY

APPENDIX O: Drawings, Parcel B4, C1, C2 & C4: Civil & Drainage (MBL)