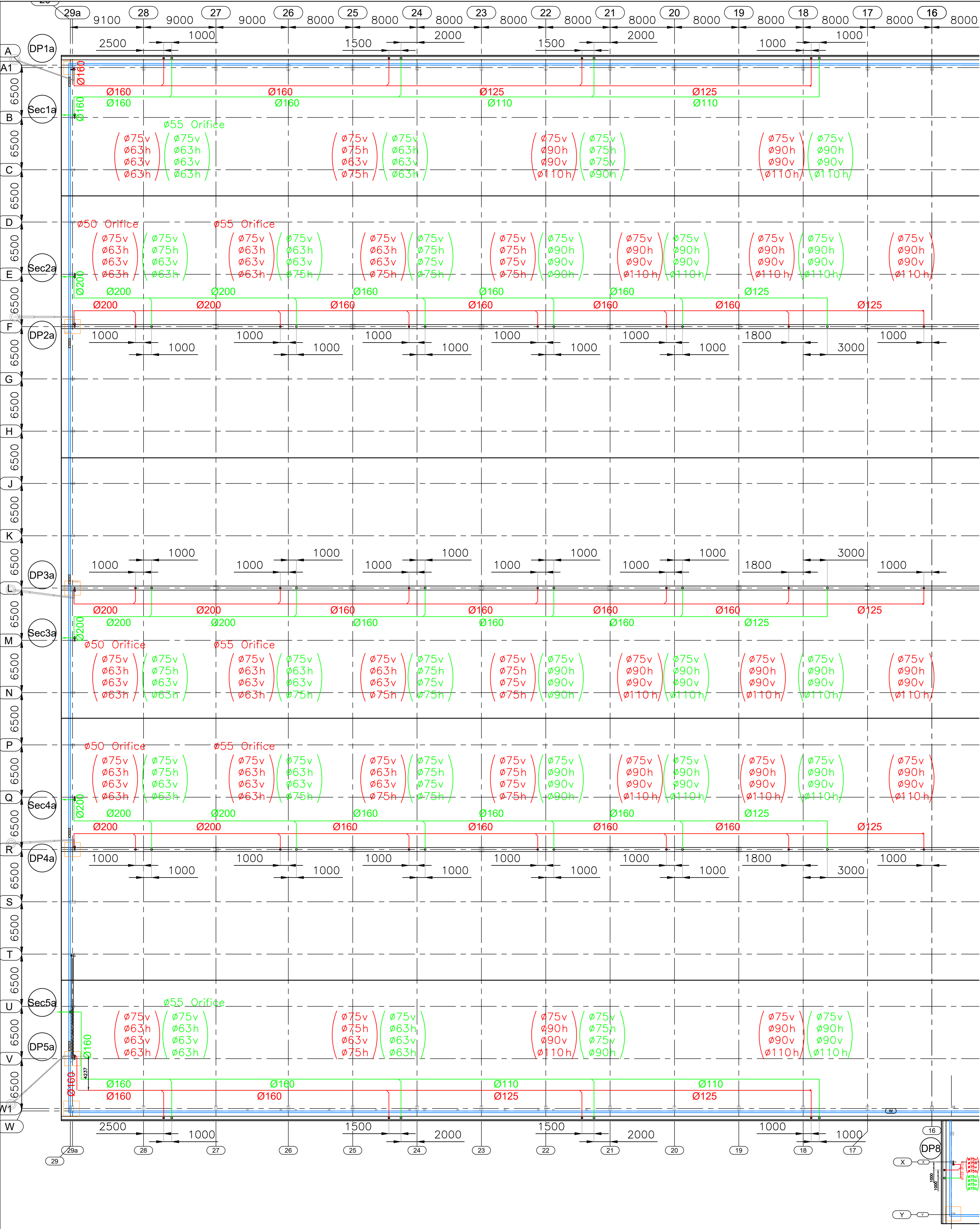


P21-024 Calder Park

Drawing Register: Sapoflow

**Works Completed: Siphonic
Drainage**

Drawing No.	Drawing Title	Rev
P21024-SAP-U1-XX-DR-X-0002	Siphonic Roof Drainage Plan 1 of 2	AB-01
P21024-SAP-U1-XX-DR-X-0003	Siphonic Roof Drainage Layout 2 of 2	AB-01
P21024-SAP-U1-XX-DR-X-0004	Underground Details Layout 1 of 2	AB-01
P21024-SAP-U1-XX-DR-X-0005	Siphonic Underground Details 2 of 2	AB-01
P21024-SAP-U1-XX-DR-X-0006	Isometric Layout	AB-01
P21024-SAP-U1-XX-DR-X-0007	Office Layouts	AB-01
P21024-SAP-U1-XX-DR-X-0008	Office Underground Details	AB-01



Do not scale from this drawing. Use figured dimensions only. All dimensions are to be verified on site. Pipe, outlet and fitting sizes and dimensions are subject to alteration in order to ensure optimum hydraulic performance. This drawing has been produced utilising information supplied by others for which Sapoflow Ltd can accept no responsibility. Any alterations to the scheme shown are to be notified to Sapoflow Ltd prior to commencement of installation. IF IN DOUBT, PLEASE CONTACT.

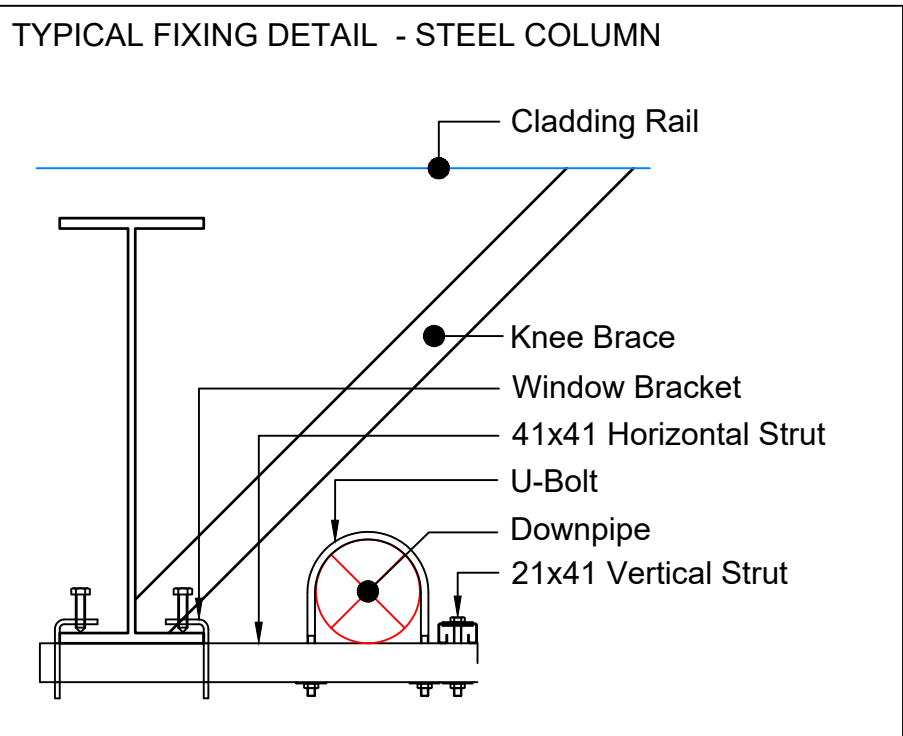
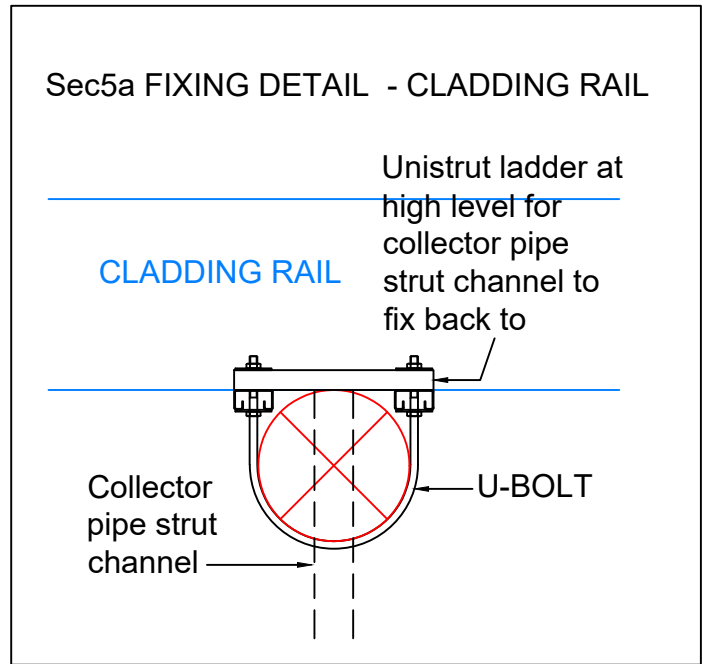
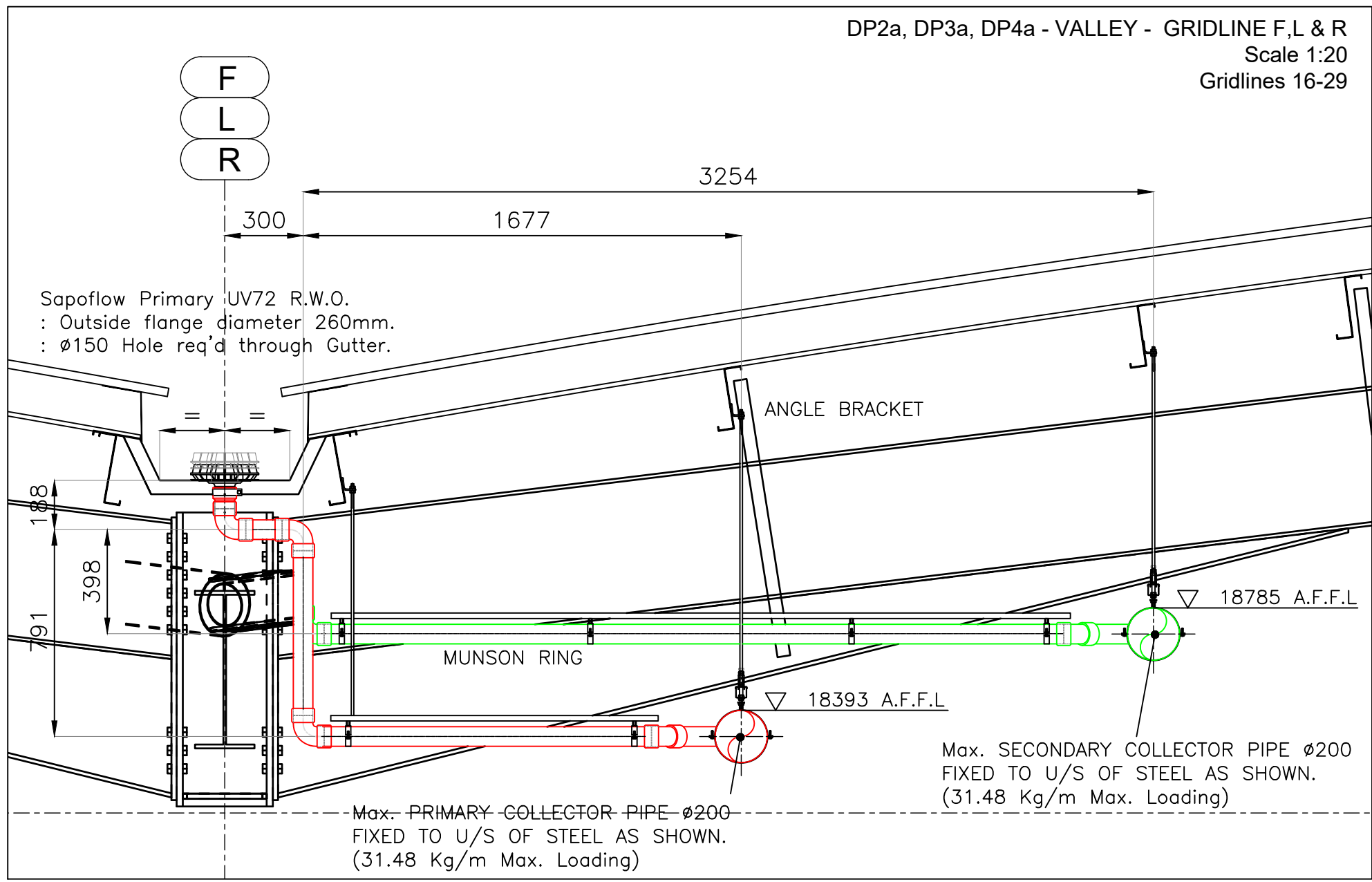
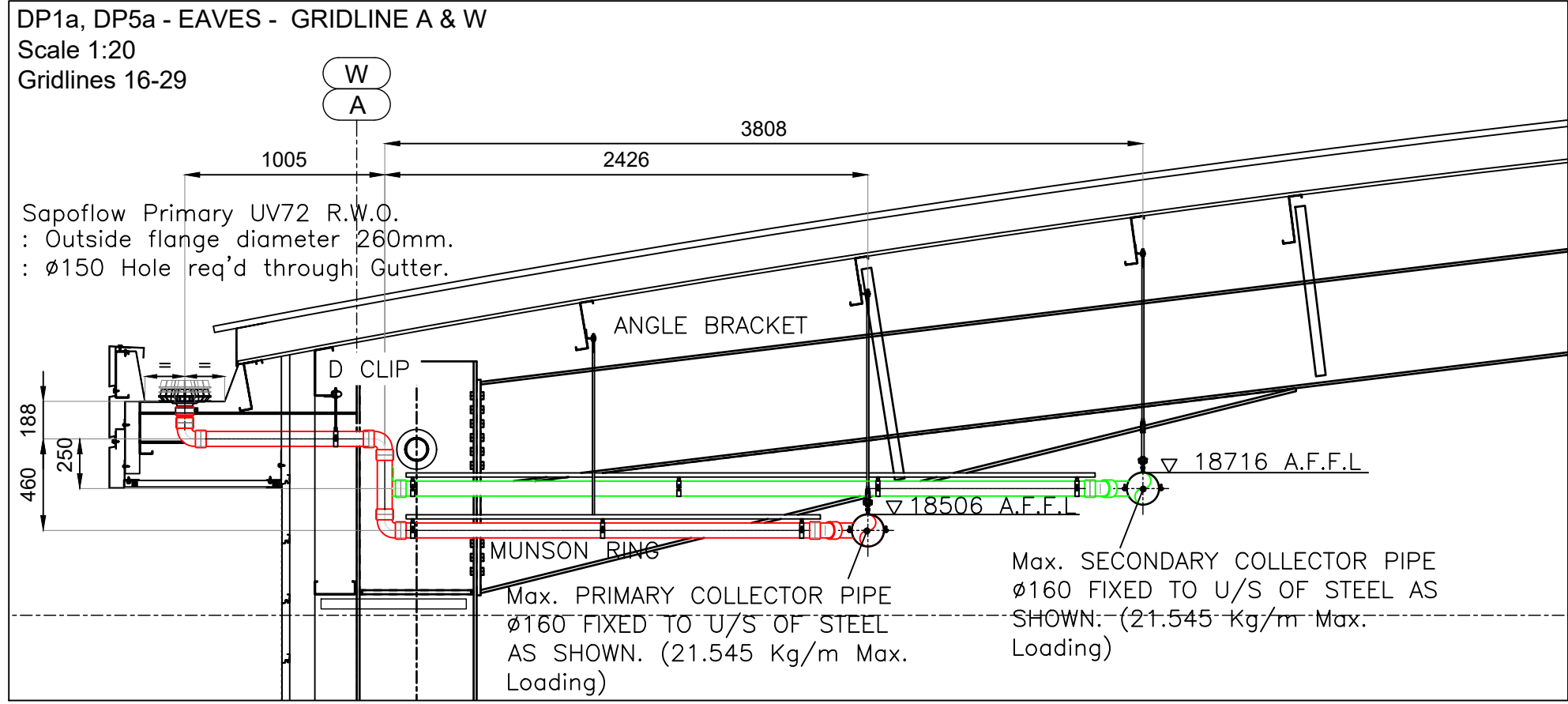
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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

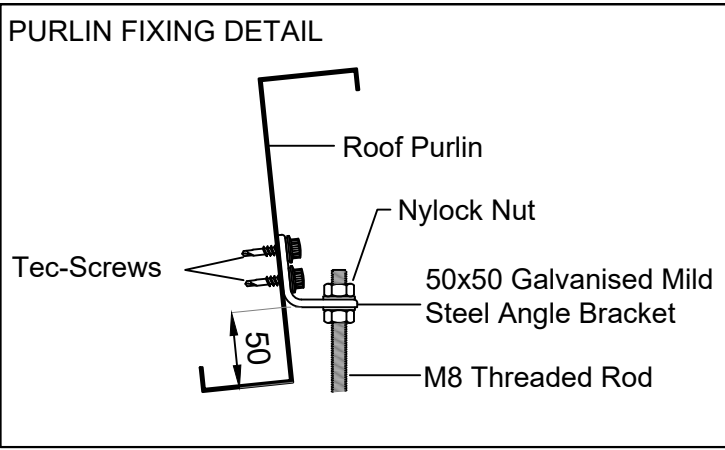
In addition to the Hazards / Risks normally associated with the type of work detailed on this drawing, note the following:

- Please refer to the O&M Manual for additional HSE Information



As Built

- KEY REFERENCE :-
- Sapoflow Primary System R.W.O.
 - Sapoflow Primary System Pipe Route.
 - Sapoflow Primary Down Pipe.
 - Sapoflow Primary Underground Pipe Route.
 - Sapoflow Secondary System R.W.O.
 - Sapoflow Secondary System Pipe Route.
 - Sapoflow Secondary Down Pipe.
 - Sapoflow Reducer location.



BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin					
PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)
Ø50	2000	6.76 Kg	Ø125	2000	27.40 Kg
Ø63	2000	9.07 Kg	Ø160	2000	43.09 Kg
Ø75	2000	11.68 Kg	Ø200	2000	62.96 Kg
Ø90	2000	15.58 Kg	Ø250	1500	73.71 Kg
Ø110	2000	21.87 Kg	Ø315	1500	120.0 Kg

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM UNISTRUT CHANNEL:
NOTE: 41x21 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160. 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)
Ø50	1000	3.38 Kg	Ø125	1500	20.55 Kg
Ø63	1000	4.54 Kg	Ø160	2000	43.09 Kg
Ø75	1000	5.84 Kg	Ø200	2000	62.96 Kg
Ø90	1500	11.69 Kg	Ø250	2000	98.28 Kg
Ø110	1500	16.40 Kg	Ø315	2000	160.0 Kg

RAINFALL INTENSITY 194 mm/hr
#90 DENOTES PIPE DIAMETER.
#63 DENOTES TAIL PIPE DIAMETER.

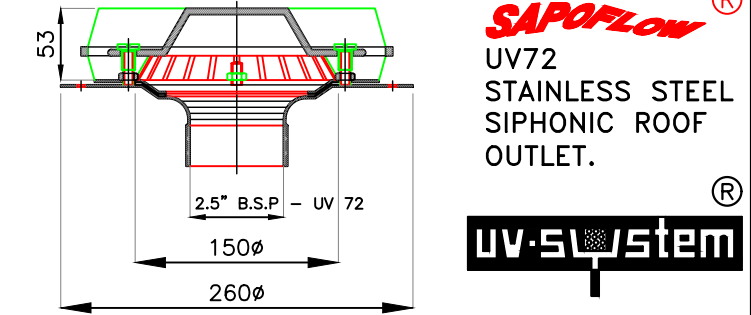
DOWNPIPE NUMBER	DIMENSION DATA	DISCHARGE FLOW (l/s)	DISCHARGE VELOCITY (m/s)
-----------------	----------------	----------------------	--------------------------

97 mm/hr Primary Systems.			
DP1a	See Isometric	52.60	3.07
DP5a	See Isometric	100.72	2.41

97 mm/hr Secondary Systems.			
Sec1a	See Isometric	52.60	3.07
Sec5a	See Isometric	93.77	3.50

AB01 04/07/22 As Built Issue
P01 11/11/21 Initial Issue

REV	DATE	DESCRIPTION
UNISTRUT CHANNEL PIPE FIXING		FIXING TOP OF DOWNPIPE TO UNISTRUT
ANGLE BRACKET FIXING TO UNISTRUT		ANGLE BRACKET FIXING TO UNISTRUT
PIPE STRAP ON EITHER SIDE OF SLEEVE MINIMUM EVERY 18m		PIPE STRAP
U-BOLTS		U-BOLTS



MIN GUTTER SOLE 300mm / HOLE Ø150mm

SAPOFLOW
Siphonic Roof Drainage Systems.

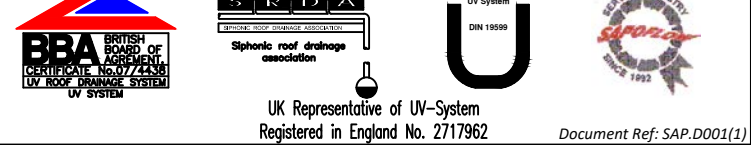
SAPOFLOW LIMITED, FALL BANK INDUSTRIAL ESTATE, DODD WORTH, BARNESLEY, SOUTH YORKSHIRE, S75 3LS.
Telephone 01226 297200
Fax 01226 204038
E-mail info@sapoflow.com
Website www.sapoflow.com

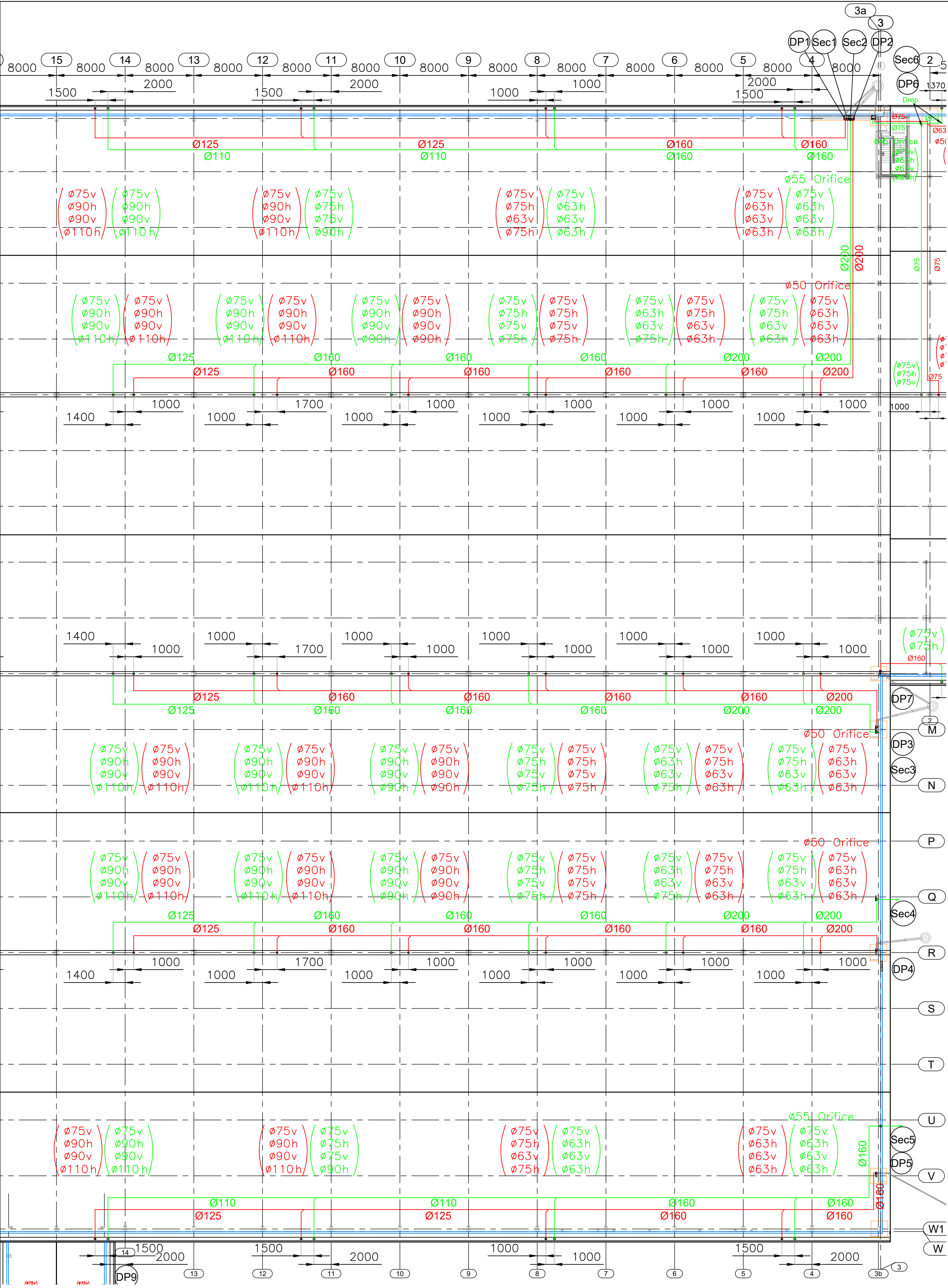
PROJECT
Calder Park Wakefield

TITLE
SIPHONIC ROOF DRAINAGE PLAN SHEET 1 OF 2

DESIGN D. Hernandez	DRAWN D.H./AutoCAD.	Checked J.L.
SCALE 1:300	DATE 11/11/21	

PROJECT No. 21092 P21024-SAP-U1-XX-DR-X-0002AB01
DRAWING No. 21092 P21024-SAP-U1-XX-DR-X-0002AB01
REV 11/11/21





FOR WELFARE OFFICE DETAILS SEE SIPHONIC ROOF DRAINAGE PLAN OFFICE & WELFARE OFFICE, LAYOUT 07

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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- Please refer to the O&M Manual for additional HSE Information

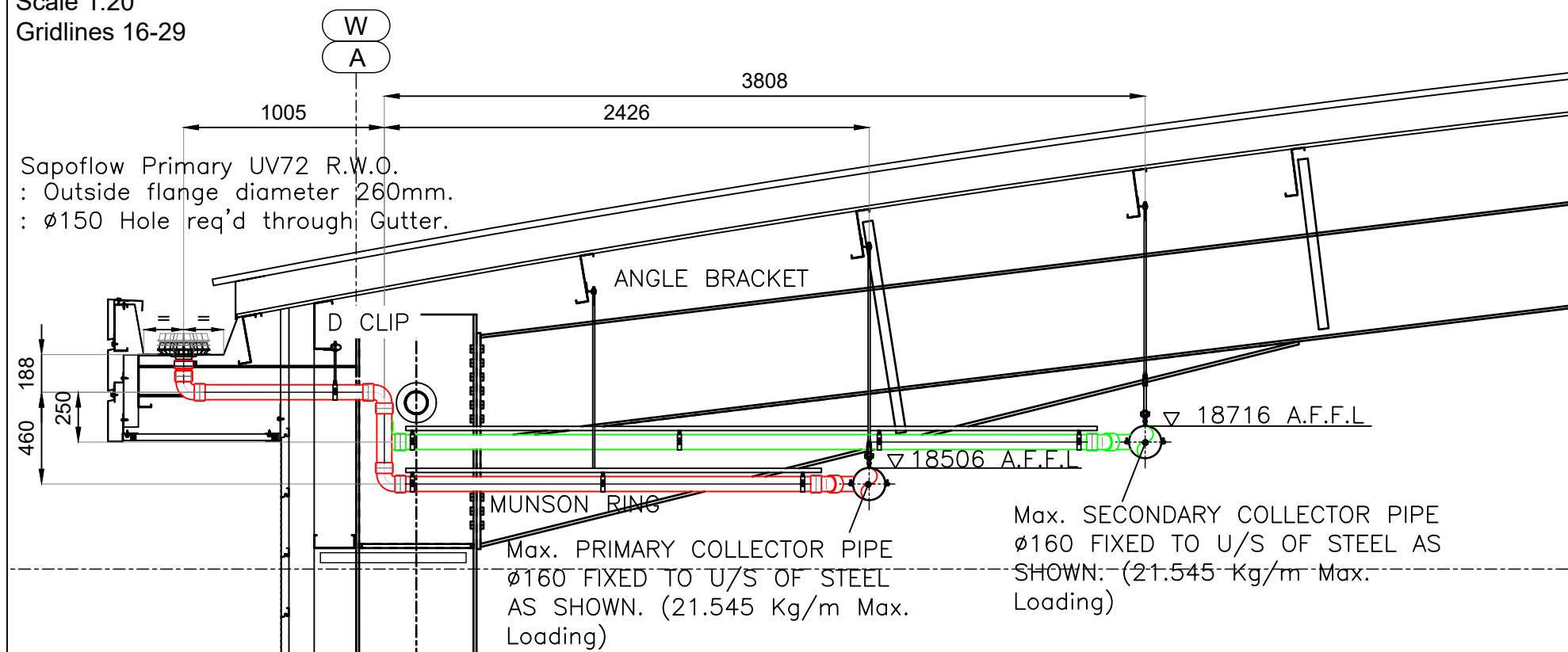
KEY REFERENCE :-

- Sapoflow Primary System R.W.O.
- Sapoflow Primary System Pipe Route.
- Sapoflow Primary Down Pipe.
- Sapoflow Primary Underground Pipe Route.
- Sapoflow Secondary System R.W.O.
- Sapoflow Secondary System Pipe Route.
- Sapoflow Secondary Down Pipe.
- Sapoflow Reducer location.

DP1a, DP5a - EAVES - GRIDLINE A & W

Scale 1:20
Gridlines 16-29

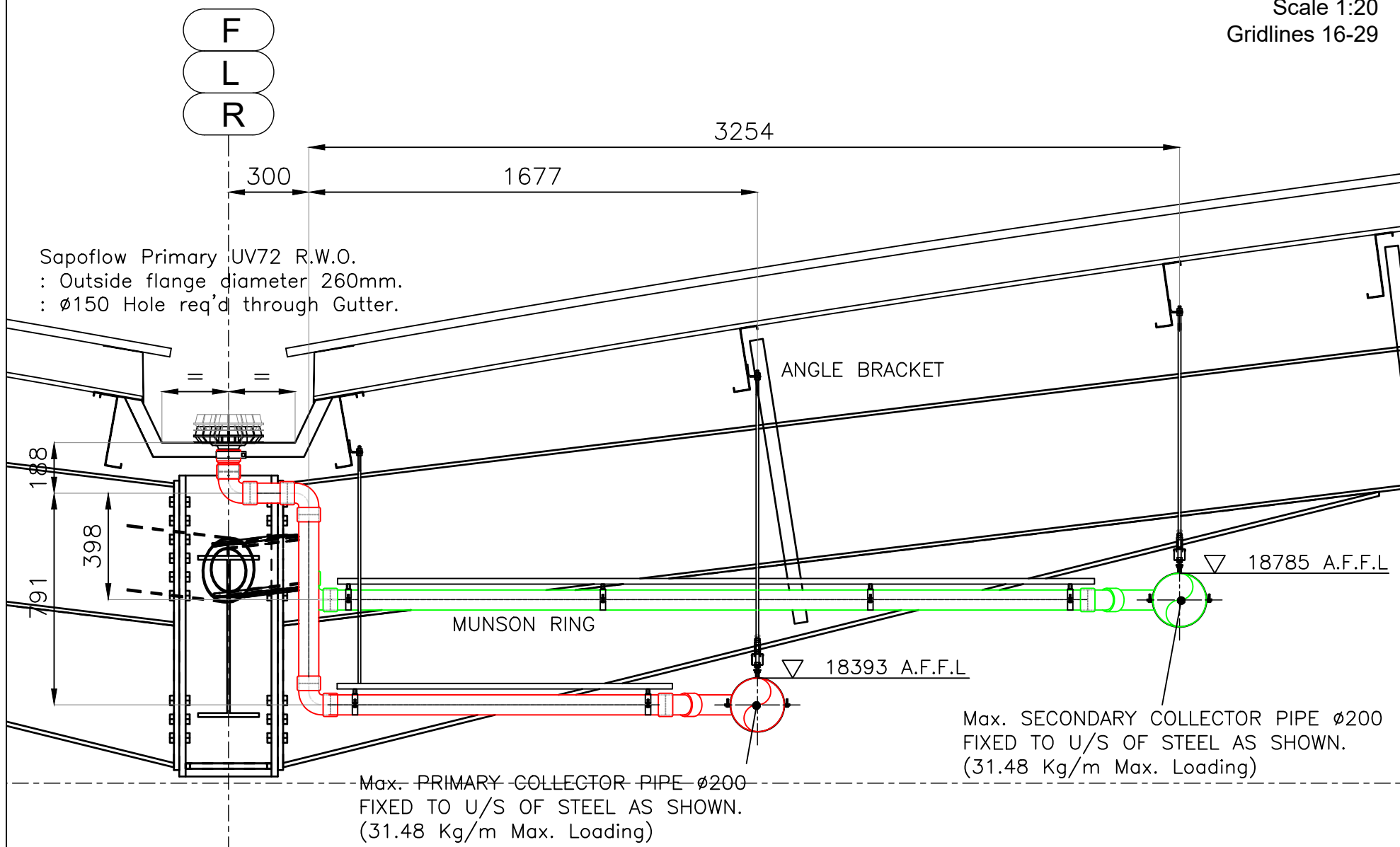
Sapoflow Primary UV72 R.W.O.
: Outside flange diameter 260mm.
: Ø150 Hole req'd through Gutter.



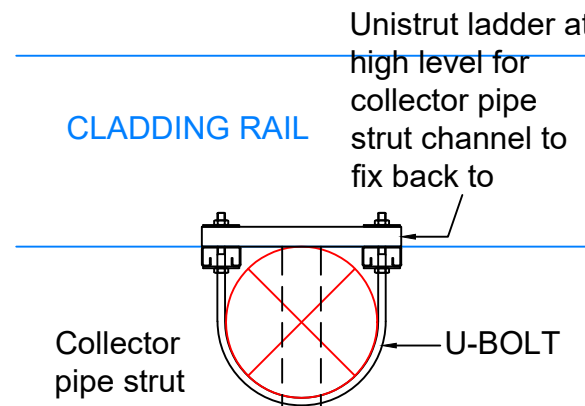
DP2a, DP3a, DP4a - VALLEY - GRIDLINE F,L & R

Scale 1:20
Gridlines 16-29

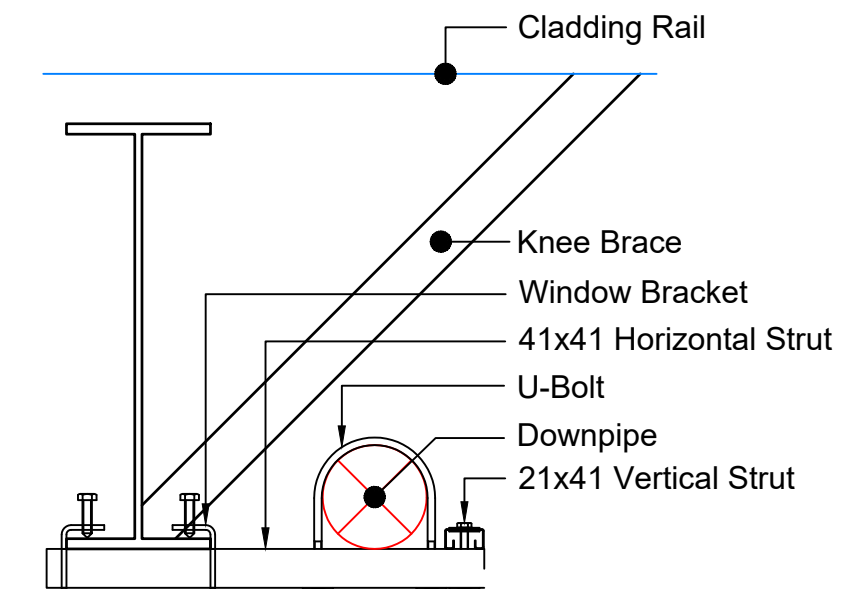
Sapoflow Primary UV72 R.W.O.
: Outside flange diameter 260mm.
: Ø150 Hole req'd through Gutter.



Sec5a FIXING DETAIL - CLADDING RAIL

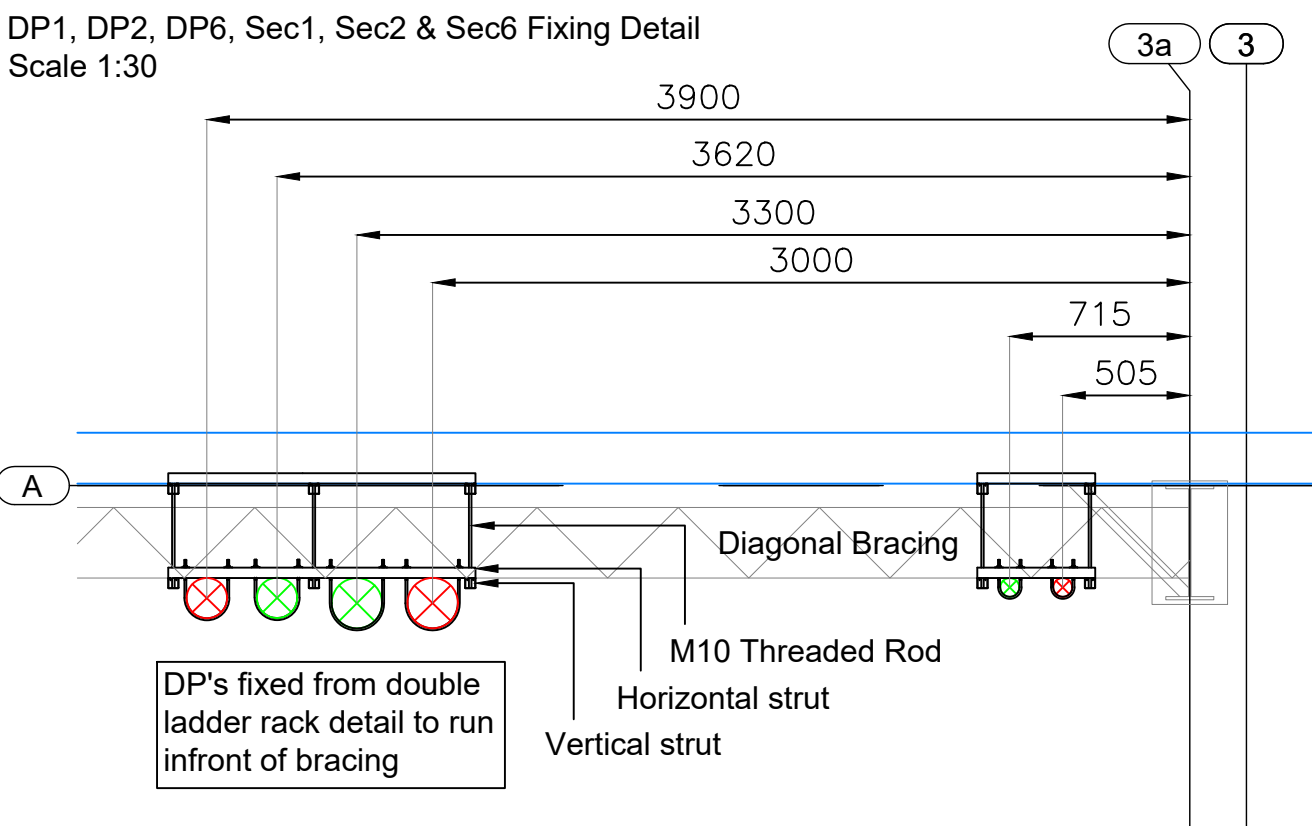


TYPICAL FIXING DETAIL - STEEL COLUMN



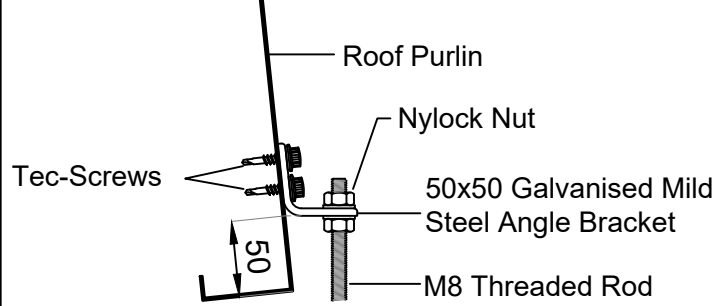
DP1, DP2, DP6, Sec1, Sec2 & Sec6 Fixing Detail

Scale 1:30



As
Built

PURLIN FIXING DETAIL



BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)
Ø50	2000	6.76 Kg	Ø125	2000	27.40 Kg
Ø63	2000	9.07 Kg	Ø160	2000	43.09 Kg
Ø75	2000	11.68 Kg	Ø200	2000	62.96 Kg
Ø90	2000	15.58 Kg	Ø250	1500	73.71 Kg
Ø110	2000	21.87 Kg	Ø315	1500	120.0 Kg

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM UNISTRUT CHANNEL:

NOTE: 41x21 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160. 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (Kg)
Ø50	1000	3.38 Kg	Ø125	1500	20.55 Kg
Ø63	1000	4.54 Kg	Ø160	2000	43.09 Kg
Ø75	1000	5.84 Kg	Ø200	2000	62.96 Kg
Ø90	1500	11.69 Kg	Ø250	2000	98.28 Kg
Ø110	1500	16.40 Kg	Ø315	2000	160.0 Kg

RAINFALL INTENSITY 194 mm/hr
#90 DENOTES PIPE DIAMETER.
#63 DENOTES TAIL PIPE DIAMETER.

DOWNPIPE NUMBER.	DIMENSION DATA	DISCHARGE FLOW (l/s)	DISCHARGE VELOCITY (m/s)
------------------	----------------	----------------------	--------------------------

97 mm/hr Primary Systems.

DP1 DP5	See Isometric	52.60	3.07
DP2 DP3 DP4	See Isometric	86.33	2.06

97 mm/hr Secondary Systems.

Sec1 Sec5	See Isometric	52.60	3.07
Sec2 Sec3 Sec4	See Isometric	93.77	3.50

AB01 04/07/22 As Built Issue

P01 08/12/21 Initial Issue

REV DATE DESCRIPTION

UNISTRUT CHANNEL PIPE FIXING

FIXING TOP OF DOWNPIPE

ANGLE BRACKET FIXING TO UNISTRUT

UNISTRUT CHANNEL

PIPE STRAP ON EITHER SIDE OF SLEEVE MINIMUM EVERY 18m

U-BOLTS

PIPE STRAP

UNISTRUT

UNISTRUT

UNISTRUT

UNISTRUT

UNISTRUT

UNISTRUT

UNISTRUT

UNISTRUT

UNISTRUT

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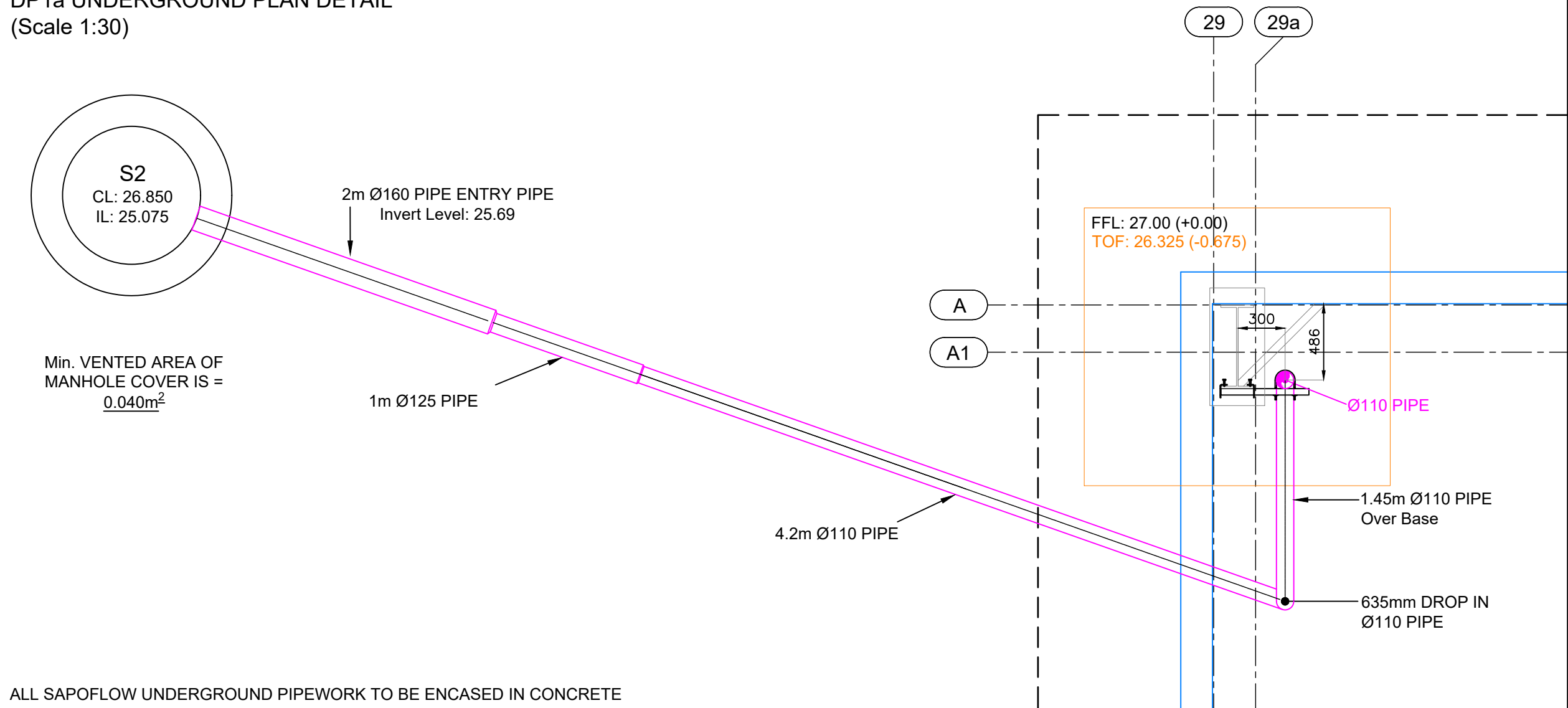
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UNISTRUT

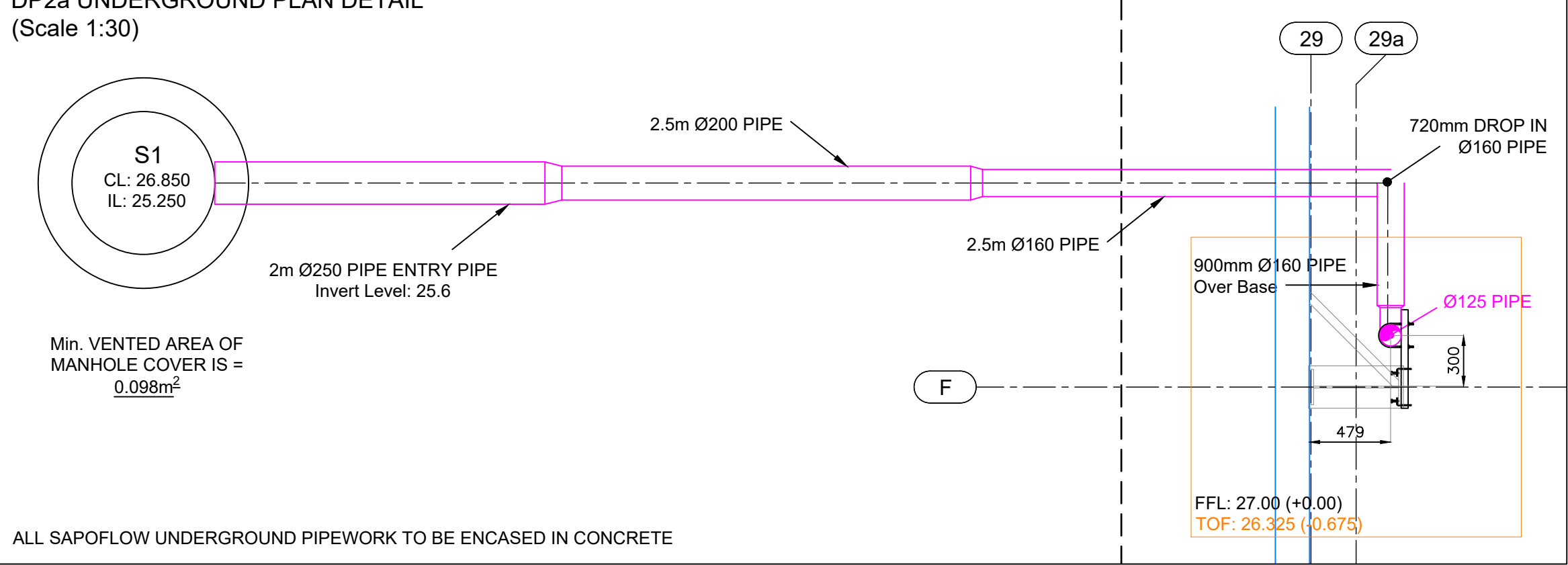
UNISTRUT

UNISTRUT

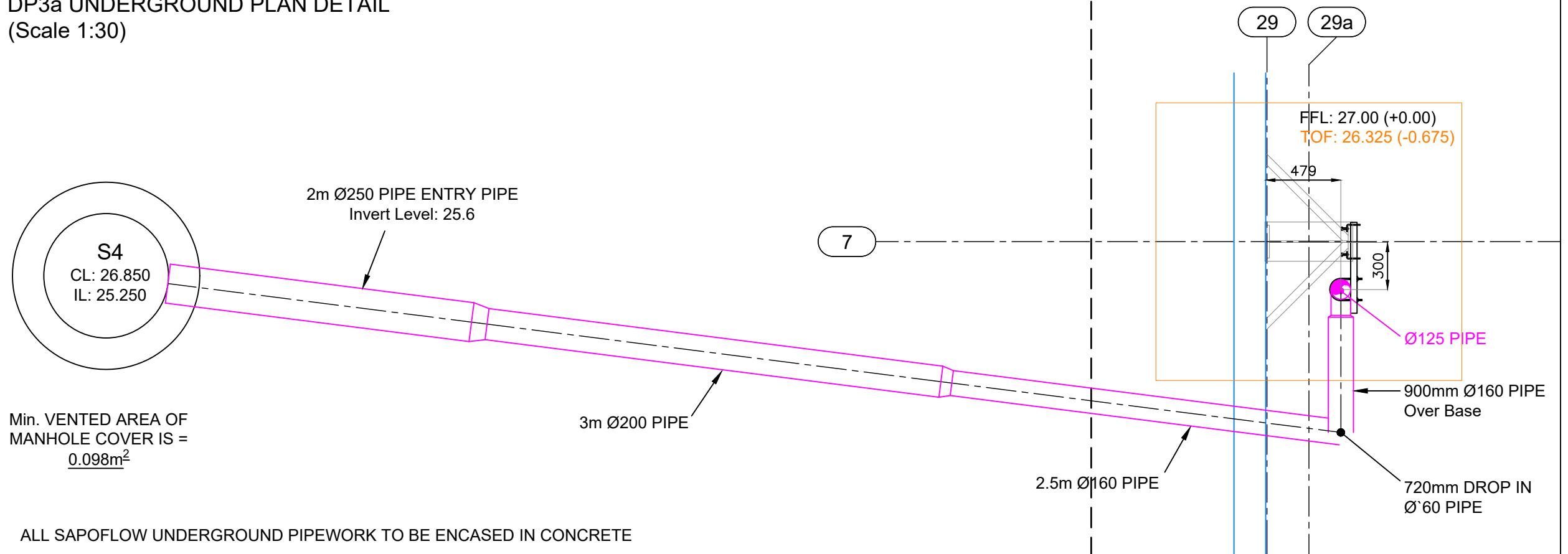
DP1a UNDERGROUND PLAN DETAIL
(Scale 1:30)



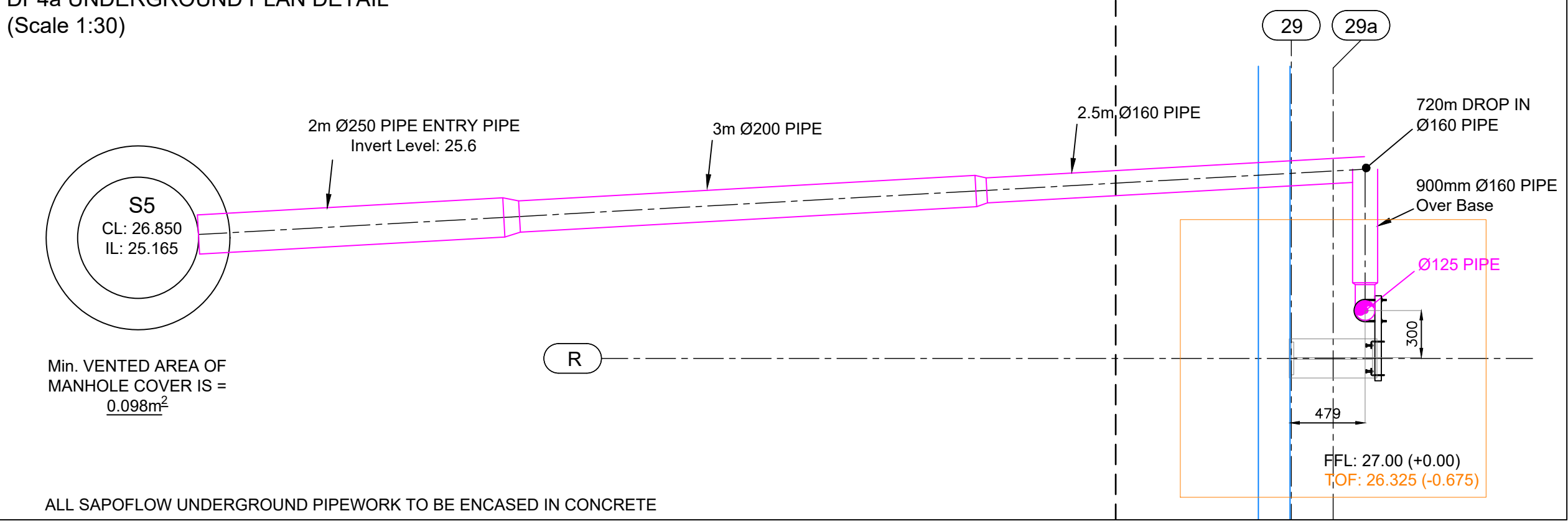
DP2a UNDERGROUND PLAN DETAIL
(Scale 1:30)



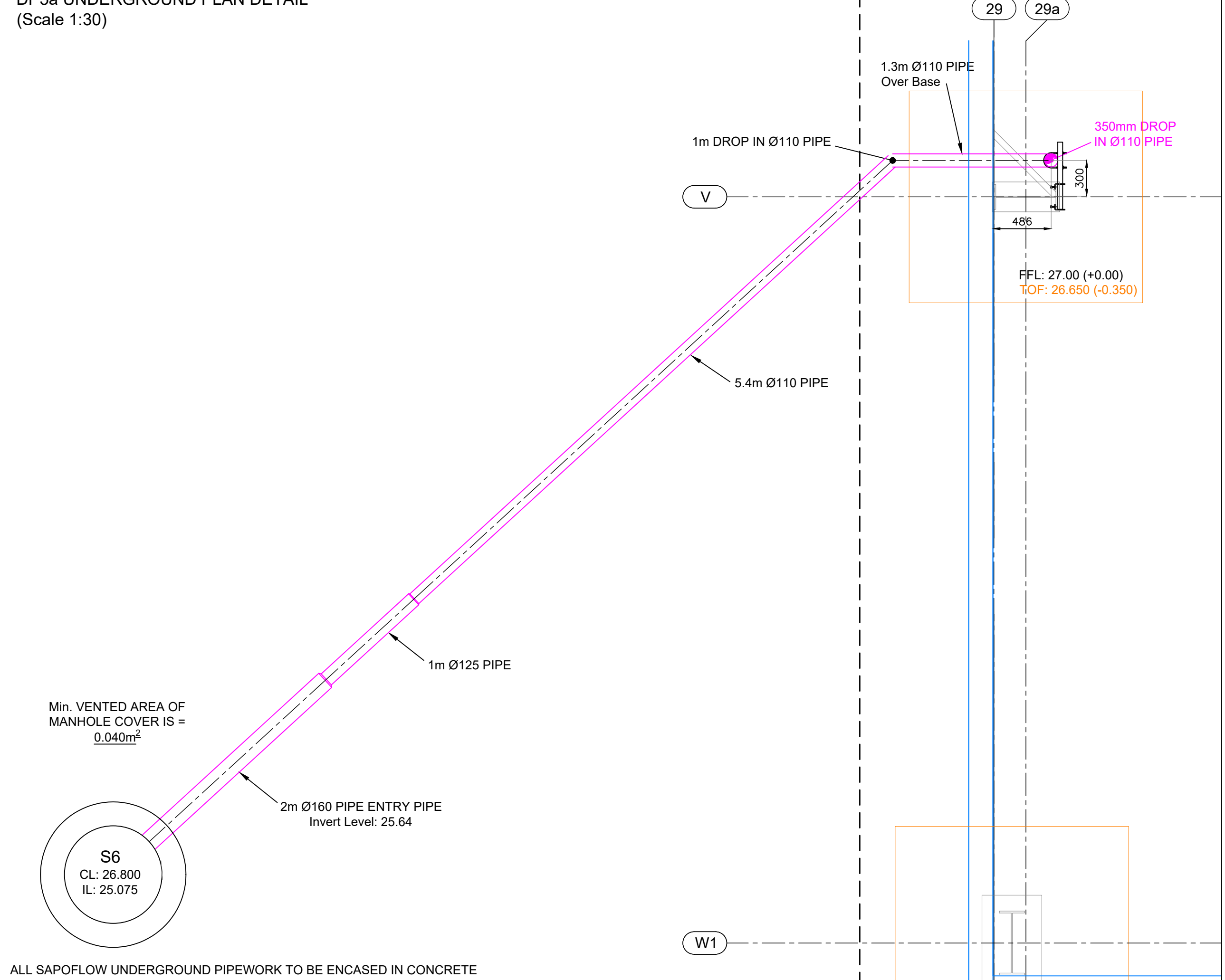
DP3a UNDERGROUND PLAN DETAIL
(Scale 1:30)



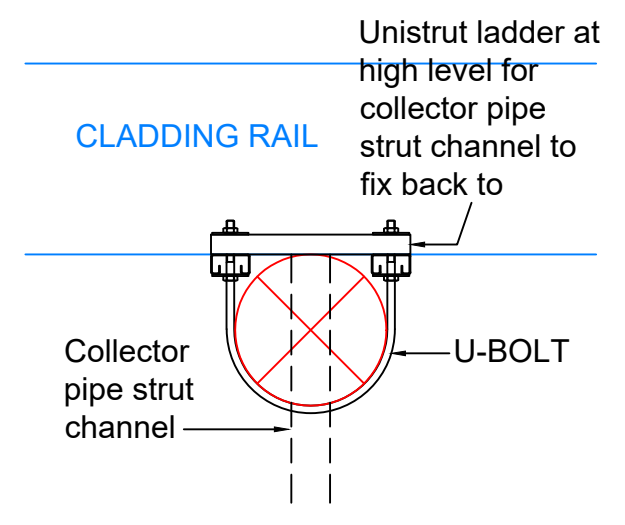
DP4a UNDERGROUND PLAN DETAIL
(Scale 1:30)



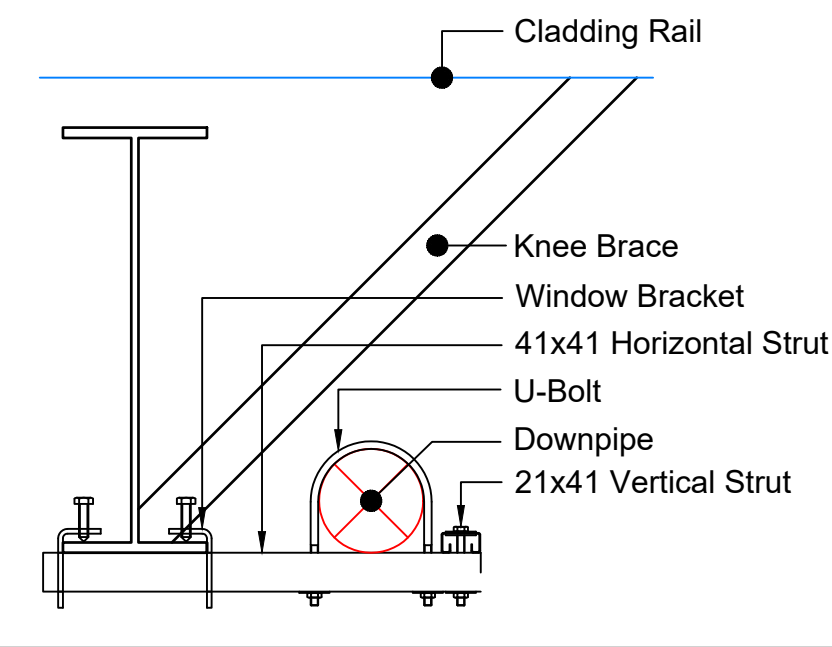
DP5a UNDERGROUND PLAN DETAIL
(Scale 1:30)



Sec5a FIXING DETAIL - CLADDING RAIL



TYPICAL FIXING DETAIL - STEEL COLUMN



As
Built

KEY REFERENCE :-

- Sapoflow Primary System R.W.O.
- Sapoflow Primary System Pipe Route.
- ⊗ Sapoflow Primary Down Pipe.
- Sapoflow Primary Underground Pipe Route.
- Sapoflow Secondary System R.W.O.
- Sapoflow Secondary System Pipe Route.
- ⊗ Sapoflow Secondary Down Pipe.
- ▶ Sapoflow Reducer location.

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE
SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET
ø50	2000	6.76 Kg	ø125	2000	27.40 Kg
ø63	2000	9.07 Kg	ø160	2000	43.09 Kg
ø75	2000	11.68 Kg	ø200	2000	62.96 Kg
ø90	2000	15.58 Kg	ø250	1500	73.71 Kg
ø110	2000	21.87 Kg	ø315	1500	120.0 Kg

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE
SUPPORTED FROM UNISTRUT CHANNEL:
NOTE: 41x21 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160. 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET
ø50	1000	3.38 Kg	ø125	1500	20.55 Kg
ø63	1000	4.54 Kg	ø160	2000	43.09 Kg
ø75	1000	5.84 Kg	ø200	2000	62.96 Kg
ø90	1500	11.69 Kg	ø250	2000	98.28 Kg
ø110	1500	16.40 Kg	ø315	2000	160.0 Kg

RAINFALL INTENSITY	194 mm/hr	ø90 DENOTES PIPE DIAMETER. (ø63) DENOTES TAIL PIPE DIAMETER.
DOWNPIPE NUMBER.	DIMENSION DATA.	DISCHARGE FLOW (l/s) DISCHARGE VELOCITY (m/s)

AB01 04/07/22 As Built Issue

P01 11/11/21 Initial Issue

REV DATE DESCRIPTION

UNISTRUT CHANNEL PIPE FIXING

FIXING TOP OF DOWNPIPE

ANGLE BRACKET FIXING TO UNISTRUT

UNISTRUT CHANNEL

PIPE STRAP ON EITHER SIDE OF SLEEVE MINIMUM EVERY 18m

PIPE STRAP

U-BOLTS

MIN GUTTER SOLE 300mm / HOLE ø150mm

SAPOFLOW®

UV72 STAINLESS STEEL SIPHONIC ROOF OUTLET.

uv-system®

MIN GUTTER SOLE 300mm / HOLE ø150mm

SAPOFLOW®

Siphonic Roof Drainage Systems.

SAPOFLOW LIMITED , Telephone 01226 297200

FALL BANK INDUSTRIAL ESTATE , Fax 01226 204038

DODWORTH , BARNSLEY E-mail info@sapoflow.com

SOUTH YORKSHIRE , S75 3LS Website www.sapoflow.com

PROJECT

Calder Park Wakefield

TITLE

UNDERGROUND DETAILS LAYOUT SHEET 1 OF 2

DESIGN D.HERNANDEZ DRAWN D.H./AutoCAD. Checked J.L.

SCALE 1:30 DATE 11/11/21

PROJECT No. DRAWING No. REV

21092 P21024-SAP-U1-XX-DR-X-0004AB01

UK Representative of UV-System Registered in England No. 2717962

Document Ref: SAP-000211

Do not scale from this drawing. Use figured dimensions only.

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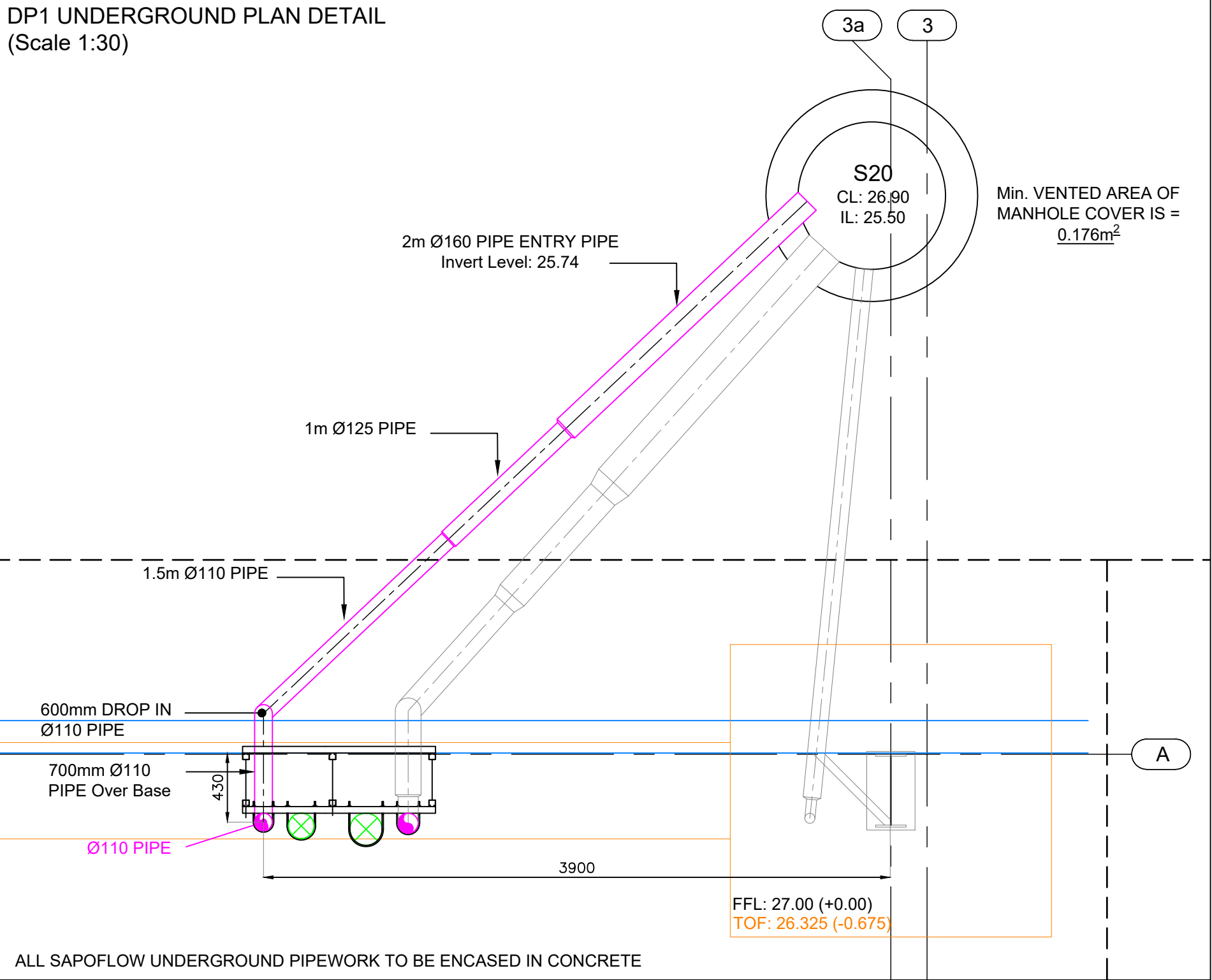


SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

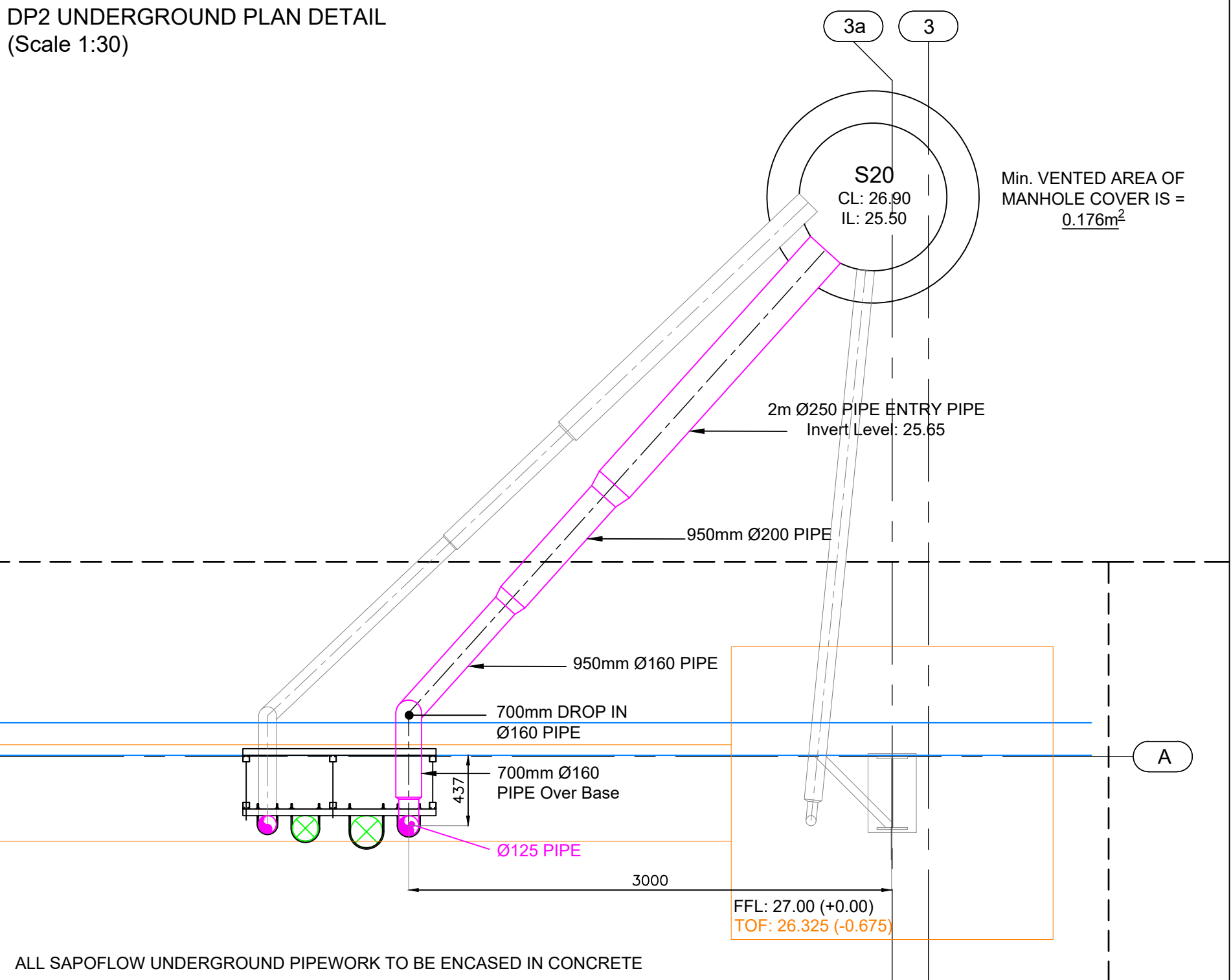
In addition to the Hazards / Risks normally associated with the type of work detailed on this drawing, note the following:

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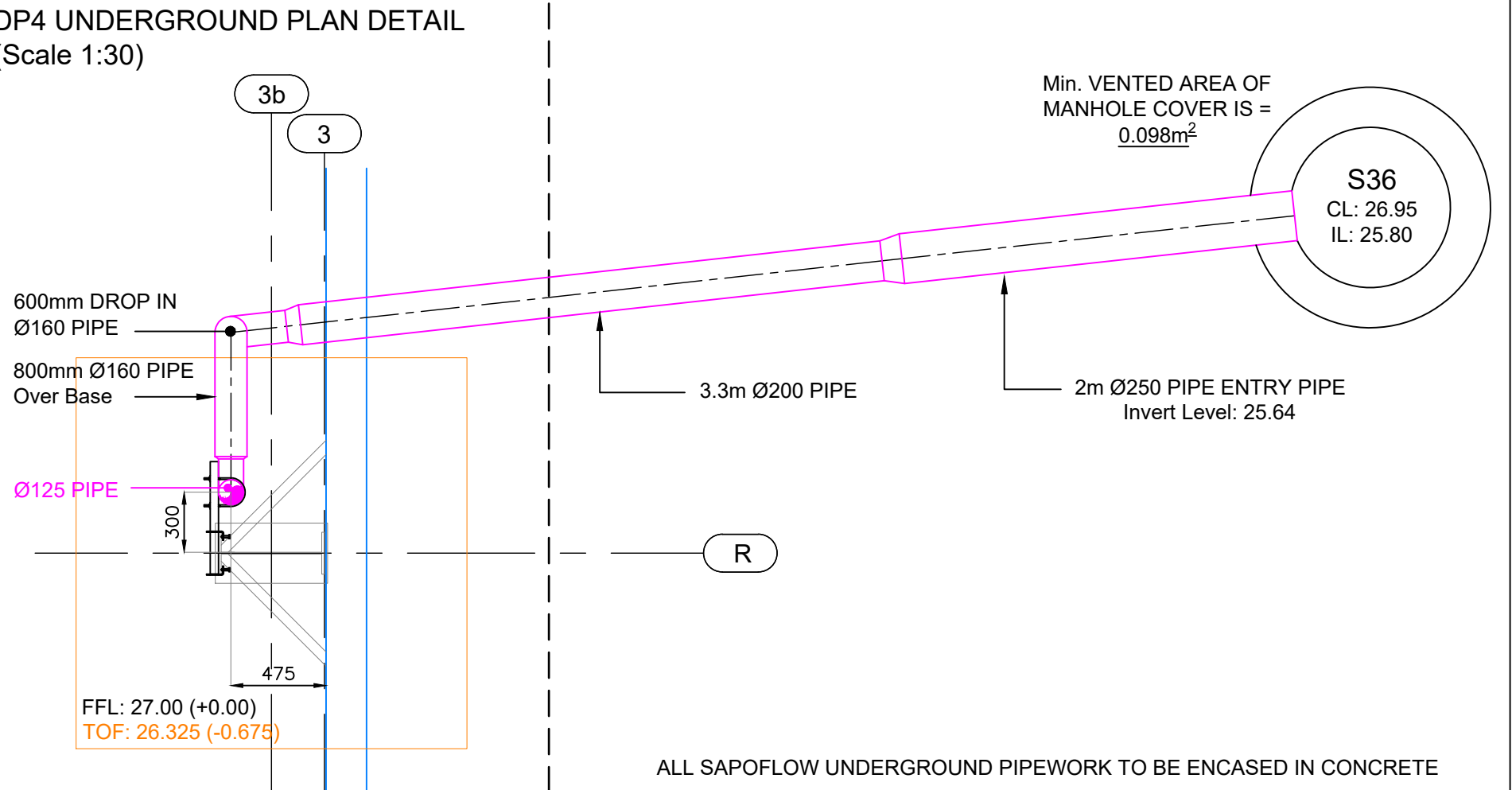
DP1 UNDERGROUND PLAN DETAIL
(Scale 1:30)



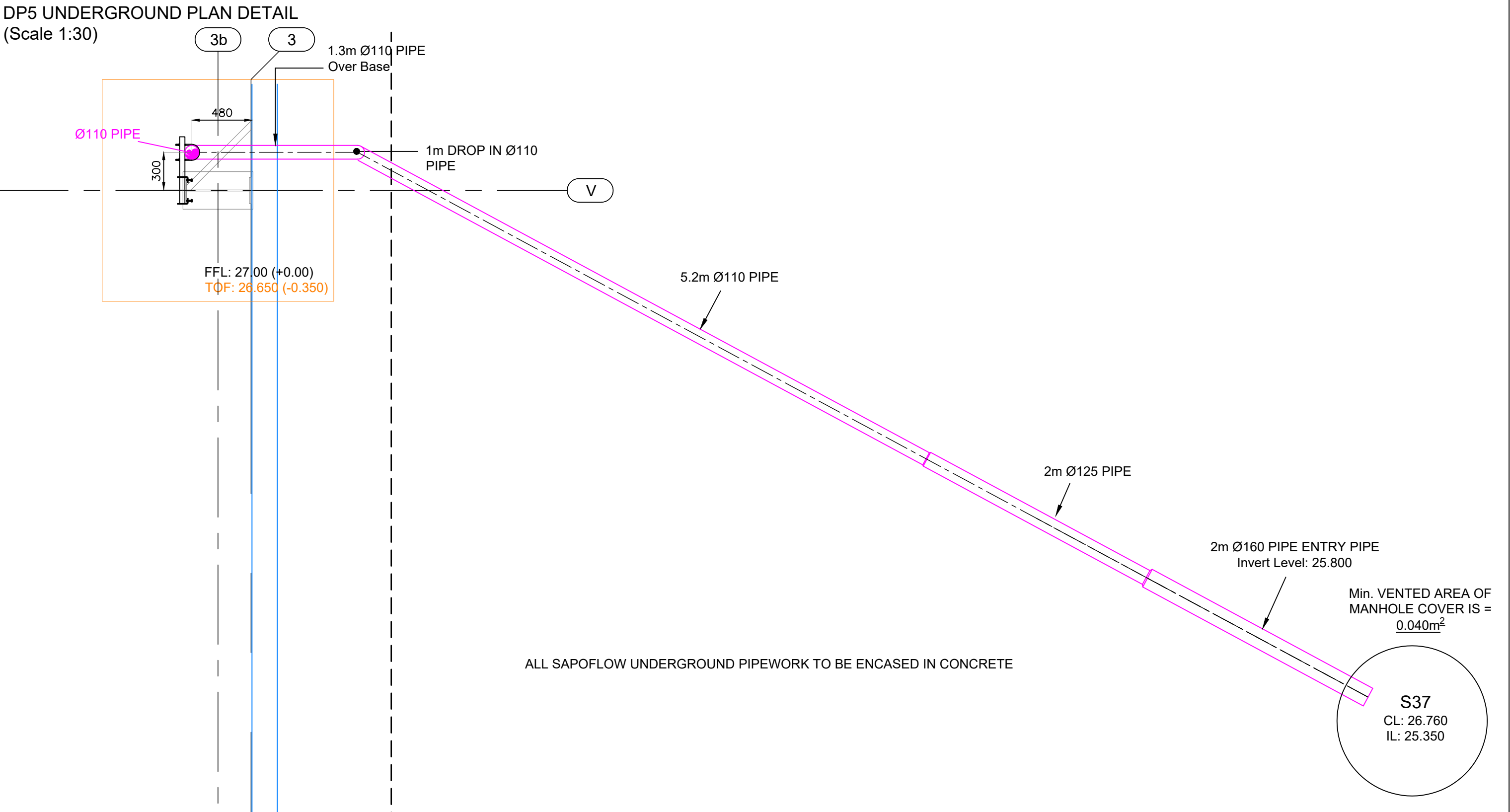
DP2 UNDERGROUND PLAN DETAIL
(Scale 1:30)



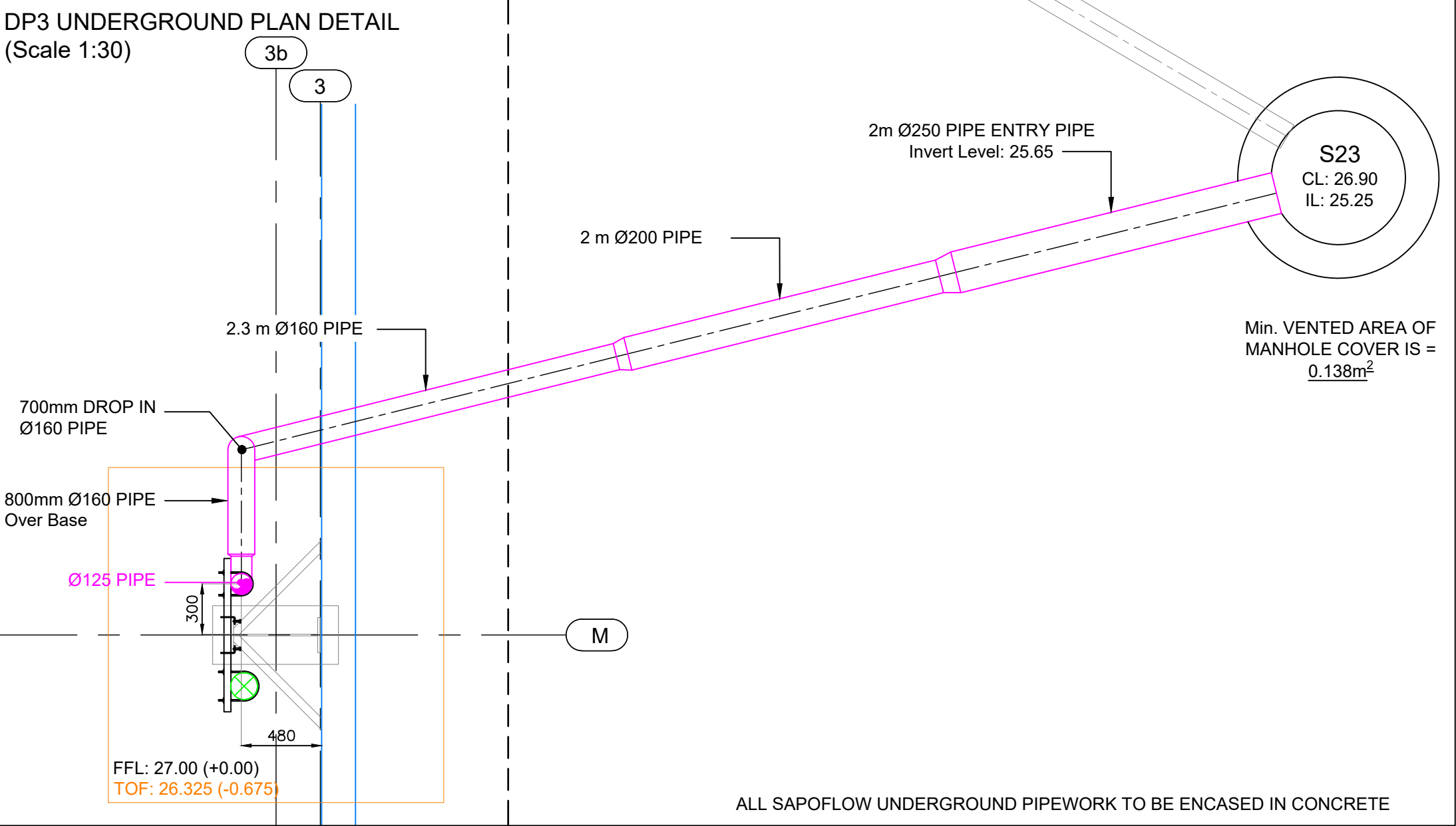
DP4 UNDERGROUND PLAN DETAIL
(Scale 1:30)



DP5 UNDERGROUND PLAN DETAIL
(Scale 1:30)

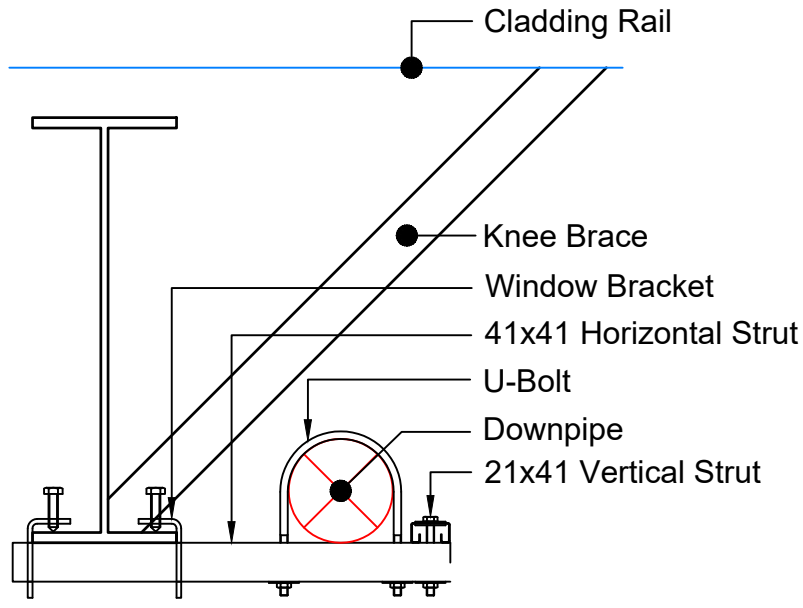


DP3 UNDERGROUND PLAN DETAIL
(Scale 1:30)

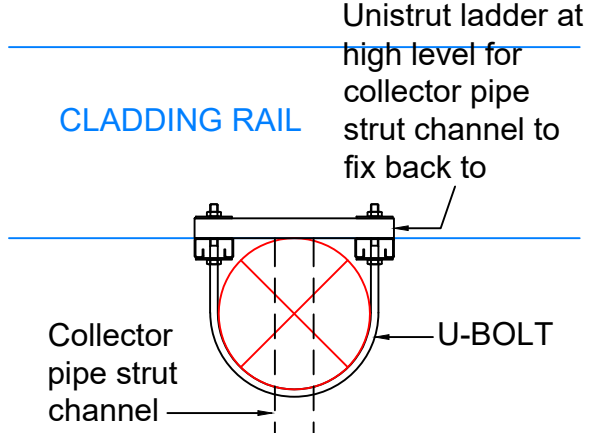


As
Built

TYPICAL FIXING DETAIL - STEEL COLUMN



Sec5a FIXING DETAIL - CLADDING RAIL



KEY REFERENCE :-

- Sapoflow Primary System R.W.O.
- Sapoflow Primary System Pipe Route.
- ⊗ Sapoflow Primary Down Pipe.
- Sapoflow Primary Underground Pipe Route.
- Sapoflow Secondary System R.W.O.
- Sapoflow Secondary System Pipe Route.
- ⊗ Sapoflow Secondary Down Pipe.
- ▶ Sapoflow Reducer location.



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
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BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin					
PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET
Ø50	2000	6.76 Kg	Ø125	2000	27.40 Kg
Ø63	2000	9.07 Kg	Ø160	2000	43.09 Kg
Ø75	2000	11.68 Kg	Ø200	2000	62.96 Kg
Ø90	2000	15.58 Kg	Ø250	1500	73.71 Kg
Ø110	2000	21.87 Kg	Ø315	1500	120.0 Kg

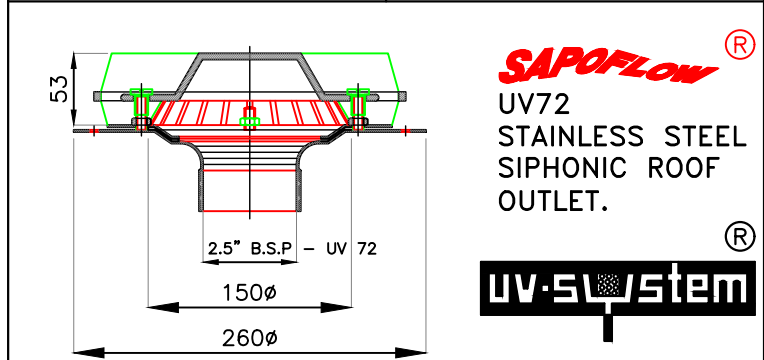
BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM UNISTRUT CHANNEL:
NOTE: 41x41 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160. 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET
Ø50	1000	3.38 Kg	Ø125	1500	20.55 Kg
Ø63	1000	4.54 Kg	Ø160	2000	43.09 Kg
Ø75	1000	5.84 Kg	Ø200	2000	62.96 Kg
Ø90	1500	11.69 Kg	Ø250	2000	98.28 Kg
Ø110	1500	16.40 Kg	Ø315	2000	160.0 Kg

RAINFALL INTENSITY	194 mm/hr	DISCHARGE FLOW (l/s)	DISCHARGE VELOCITY (m/s)
DOWNPIPE NUMBER.			

AB01	04/07/22	As Built Issue
P02	10/12/21	SWMH References and Invert levels revised
P01	08/12/21	Initial Issue

REV	DATE	DESCRIPTION
UNISTRUT CHANNEL PIPE FIXING		FIXING TOP OF DOWNPIPE TO UNISTRUT
ANGLE BRACKET FIXING TO UNISTRUT		
PIPE STRAP ON EITHER SIDE OF SLEEVE MINIMUM EVERY 18m		
U-BOLTS		



MIN GUTTER SOLE 300mm / HOLE Ø150mm

SAPOFLOW
Siphonic Roof Drainage Systems.

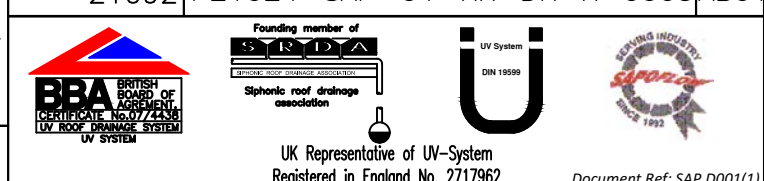
SAPOFLOW LIMITED , Telephone 01226 297200
FALL BANK INDUSTRIAL ESTATE , Fax 01226 204038
DODD WORTH , BARNSLEY E-mail info@sapoflow.com
SOUTH YORKSHIRE , S75 3LS Website www.sapoflow.com

PROJECT
Calder Park Wakefield

TITLE
UNDERGROUND DETAILS LAYOUT
SHEET 2 OF 2

DESIGN	D.HERNANDEZ	DRAWN	D.H./AutoCAD.	Checked	J.L.
SCALE	1:30	DATE	08/12/21		

PROJECT No.	DRAWING No.	REV
21092	P21024-SAP-U1-XX-DR-X-0005	AB01



BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin					
PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET
ø50	2000	6.76 Kg	ø125	2000	27.40 Kg
ø63	2000	9.07 Kg	ø160	2000	43.09 Kg
ø75	2000	11.68 Kg	ø200	2000	62.96 Kg
ø90	2000	15.58 Kg	ø250	1500	73.71 Kg
ø110	2000	21.87 Kg	ø315	1500	120.0 Kg

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM UNISTRUT CHANNEL:
NOTE: 41x21 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160, 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET
ø50	1000	3.38 Kg	ø125	1500	20.55 Kg
ø63	1000	4.54 Kg	ø160	2000	43.09 Kg
ø75	1000	5.84 Kg	ø200	2000	62.96 Kg
ø90	1500	11.69 Kg	ø250	2000	98.28 Kg
ø110	1500	16.40 Kg	ø315	2000	160.0 Kg

RAINFALL INTENSITY 194 mm/hr
#90 DENOTES PIPE DIAMETER.
(#63) DENOTES TAIL PIPE DIAMETER.

DOWNPIPE NUMBER.	DIMENSION DATA.	DISCHARGE FLOW (l/s)	DISCHARGE VELOCITY (m/s)
------------------	-----------------	----------------------	--------------------------

AB01 04/07/22 As Built Issue

P01 09/12/21 Initial Issue

REV	DATE	DESCRIPTION
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UNISTRUT CHANNEL PIPE FIXING

FIXING TOP OF DOWNPIPE

ANGLE BRACKET FIXING TO UNISTRUT

UNISTRUT CHANNEL

PIPE STRAP ON EITHER SIDE OF SLEEVE MINIMUM EVERY 18m

PIPE STRAP

U-BOLTS

MIN GUTTER SOLE 300mm / HOLE ø150mm

SAPOFLOW®

UV72 STAINLESS STEEL SIPHONIC ROOF OUTLET.

25" B.S.P. - UV 72

150ø

260ø

MIN GUTTER SOLE 300mm / HOLE ø150mm

SAPOFLOW®

Siphonic Roof Drainage Systems.

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FALL BANK INDUSTRIAL ESTATE , Fax 01226 204038

DODWORTH , BARNSLEY E-mail info@sapoflow.com

SOUTH YORKSHIRE , S75 3LS Website www.sapoflow.com

PROJECT

Calder Park Wakefield

TITLE

ISOMETRICS LAYOUT

DESIGN D.HERNANDEZ

DRAWN D.H./AutoCAD.

Checked J.L.

SCALE 1:30

DATE 08/12/21

PROJECT No. DRAWING No.

21092 P21024-SAP-U1-XX-DR-X-0006AB01

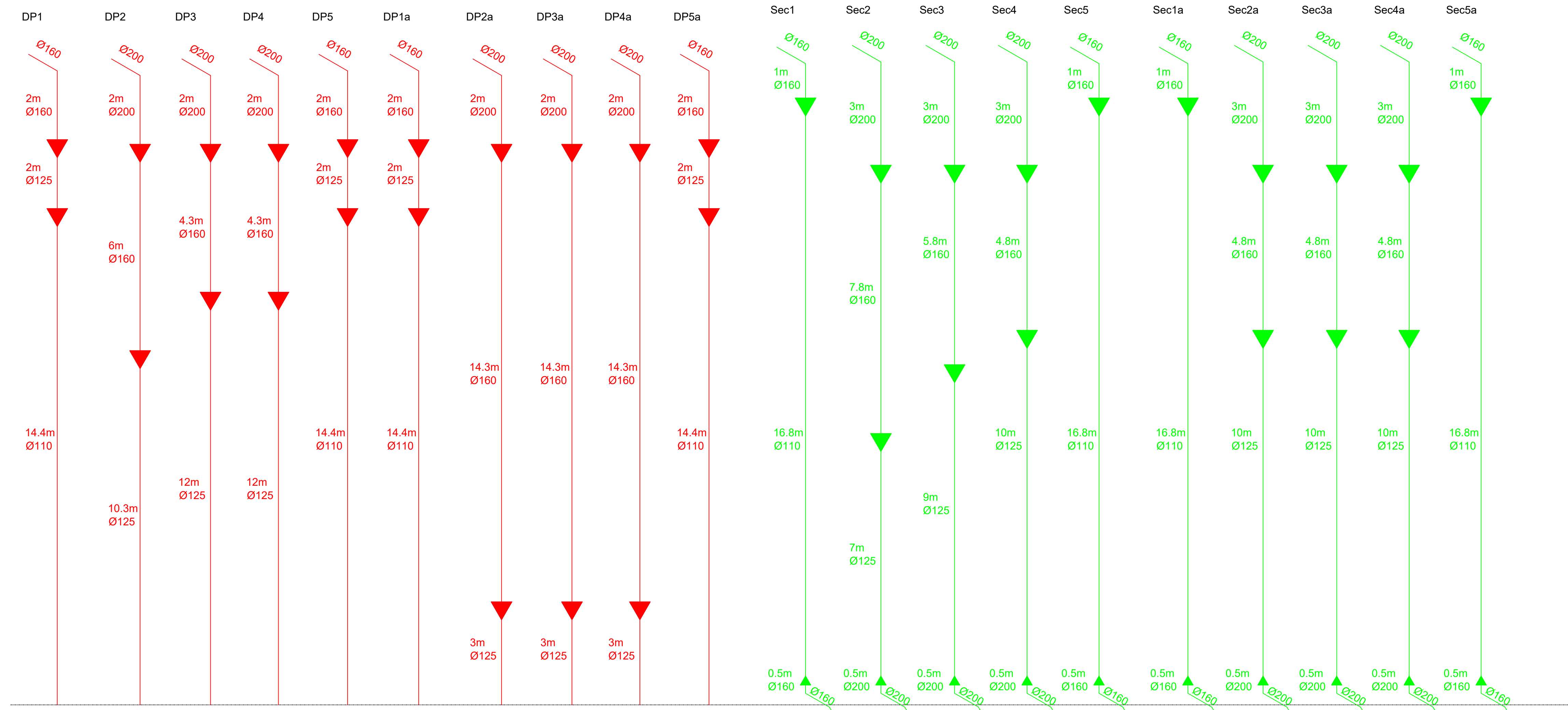
REV

UK Representative of UV-System

Registered in England No. 2717962

Document Ref: SAP-000013

ISOMETRICS



As Built

KEY REFERENCE :-

- Sapoflow Primary System R.W.O.
- Sapoflow Primary System Pipe Route.
- ⊗ Sapoflow Primary Down Pipe.
- Sapoflow Primary Underground Pipe Route.
- Sapoflow Secondary System R.W.O.
- Sapoflow Secondary System Pipe Route.
- ⊗ Sapoflow Secondary Down Pipe.
- ▶ Sapoflow Reducer location.



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the Hazards / Risks normally associated with the type of work detailed on this drawing, note the following:

1. Please refer to the O&M Manual for additional HSE Information

Do not scale from this drawing. Use figured dimensions only. All dimensions are to be verified on site.

Pipe, outlet and fitting sizes and dimensions are subject to alteration in order to ensure optimum hydraulic performance.

This drawing has been produced utilising information supplied by others for which Sapoflow Ltd can accept no responsibility.

Any alterations to the scheme shown are to be notified to Sapoflow Ltd prior to commencement of installation

IF IN DOUBT, PLEASE CONTACT.

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Do not scale from this drawing. Use figured dimensions only. All dimensions are to be verified on site.

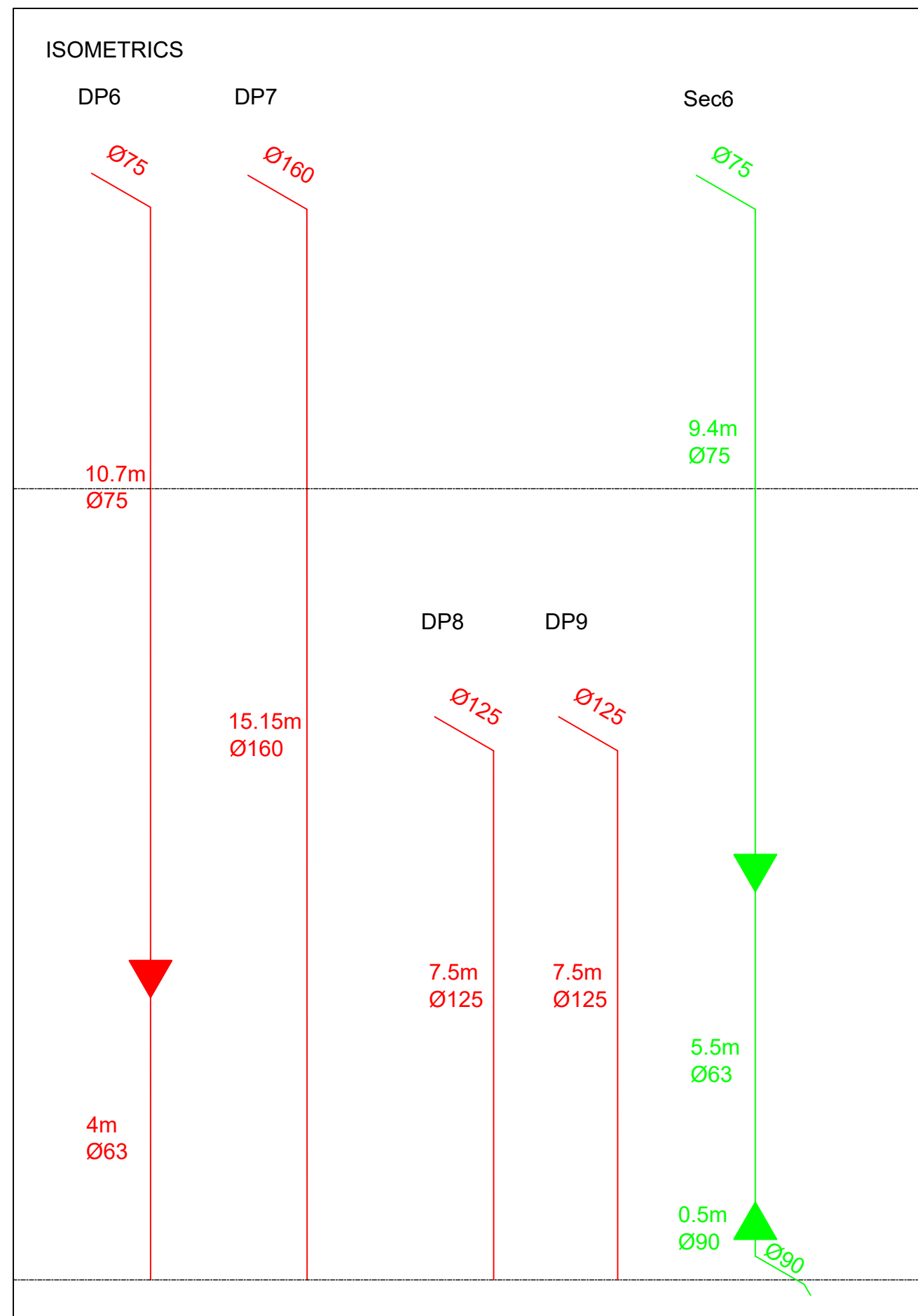
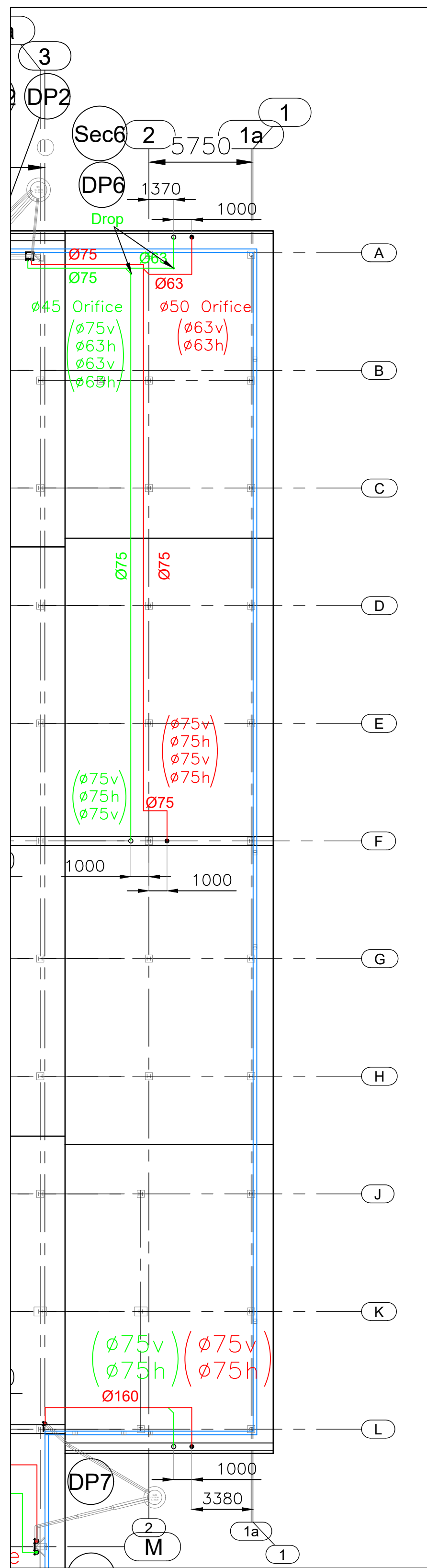
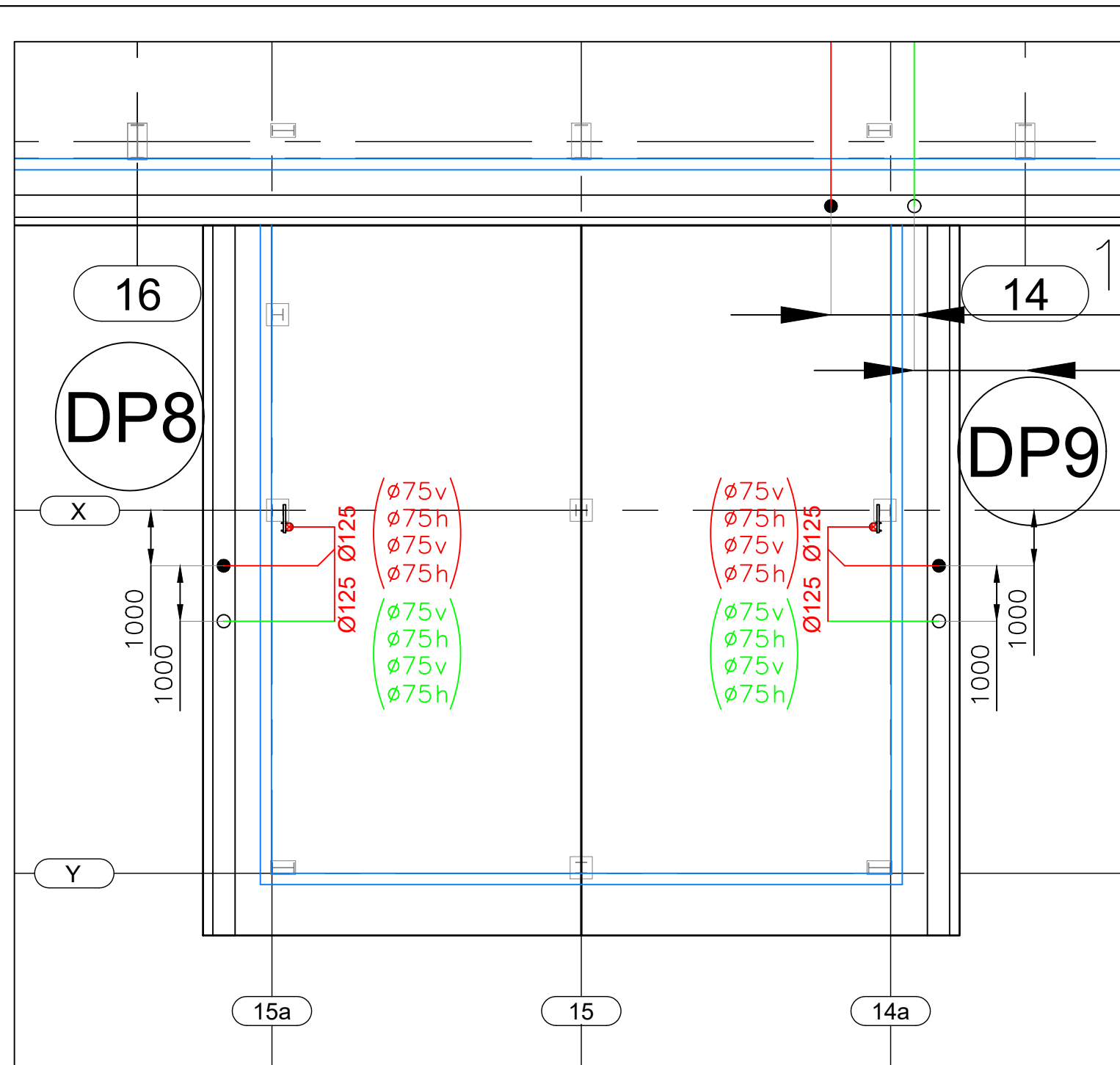
Pipe, outlet and fitting sizes and dimensions are subject to alteration in order to ensure optimum hydraulic performance.

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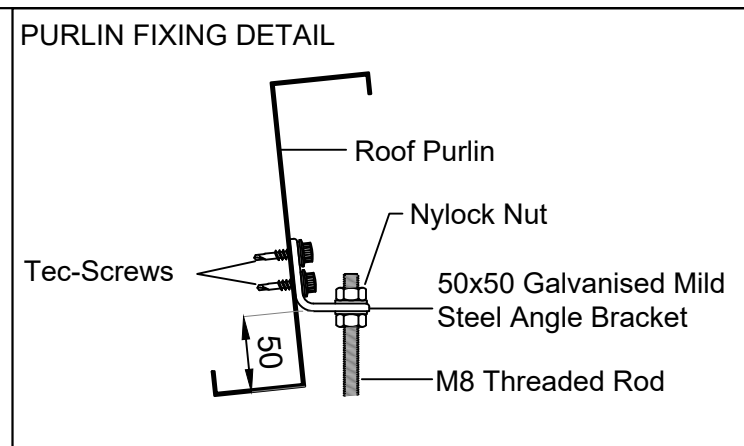
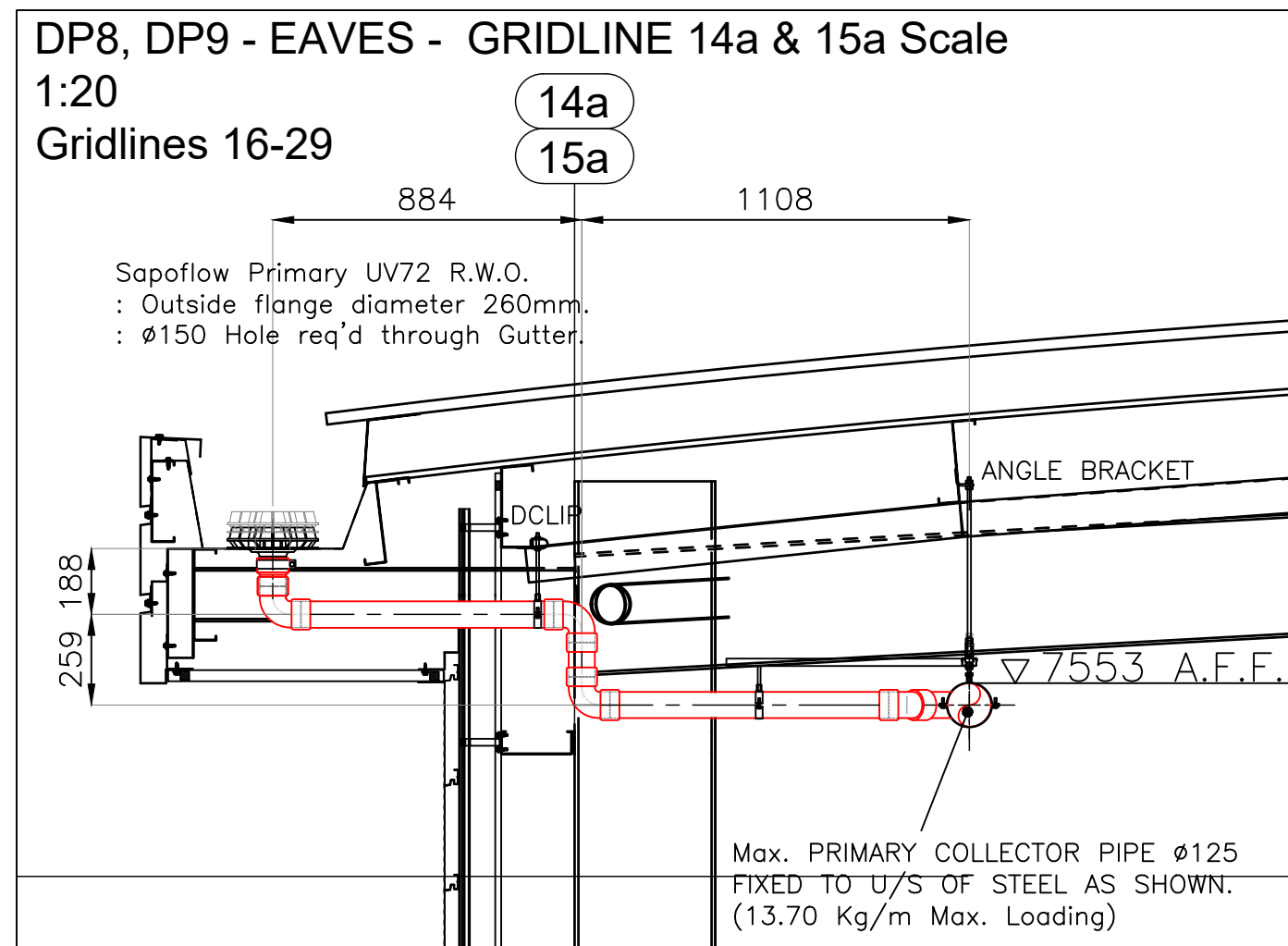
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**As
Built**



BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin					
PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)
Ø50	2000	6.76 Kg	Ø125	2000	27.40 Kg
Ø63	2000	9.07 Kg	Ø160	2000	43.09 Kg
Ø75	2000	11.68 Kg	Ø200	2000	62.96 Kg
Ø90	2000	15.58 Kg	Ø250	1500	73.71 Kg
Ø110	2000	21.87 Kg	Ø315	1500	120.0 Kg

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM UNISTRUT CHANNEL:
NOTE: 41x21 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160, 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)
Ø50	1000	3.38 Kg	Ø125	1500	20.55 Kg
Ø63	1000	4.54 Kg	Ø160	2000	43.09 Kg
Ø75	1000	5.84 Kg	Ø200	2000	62.96 Kg
Ø90	1500	11.69 Kg	Ø250	2000	98.28 Kg
Ø110	1500	16.40 Kg	Ø315	2000	160.0 Kg

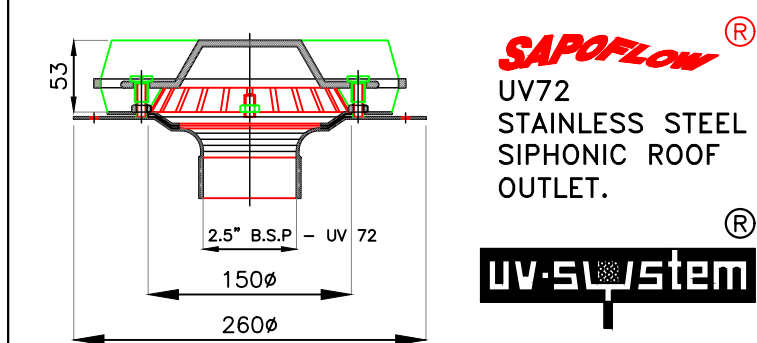
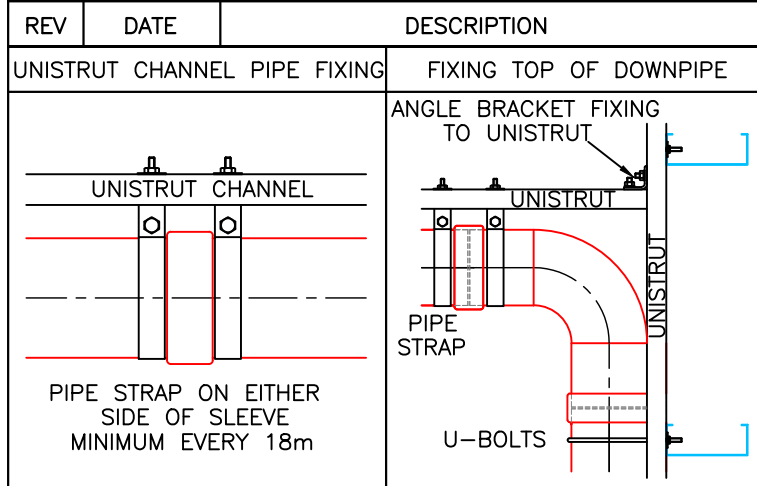
RAINFALL INTENSITY	DOWNPIPE NUMBER.	DIMENSION DATA	DISCHARGE FLOW (l/s)	DISCHARGE VELOCITY (m/s)
194 mm/hr	DP6	See Isometric	15.95	1.97

194 mm/hr Primary Systems.		
DP6	See Isometric	15.95 1.97

194 mm/hr Primary Systems.		
DP7	See Isometric	22.20 1.30
DP8	See Isometric	12.50 1.20
DP8	See Isometric	12.50 1.20

97 mm/hr Secondary Systems.		
Sec6	See Isometric	15.95 1.97

REV	DATE	DESCRIPTION
AB01	04/07/21	As Built Issue
P03	27/04/22	Sec6 Discharge revised
P02	19/01/22	DP6 Sec6 DP locations revised
P01	08/12/21	Initial Issue



MIN GUTTER SOLE 300mm / HOLE Ø150mm

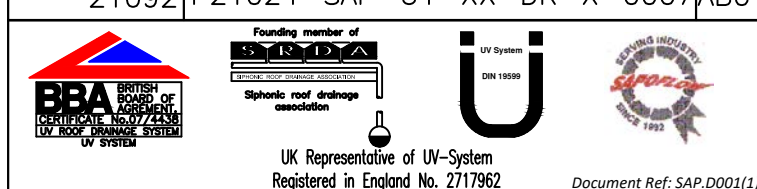
SAPROFLOW
Siphonic Roof Drainage Systems.
SAPROFLOW LIMITED, Telephone 01226 297200
FALL BANK INDUSTRIAL ESTATE, Fax 01226 204038
DODWORTH, BARNESLEY, E-mail info@saproflow.com
SOUTH YORKSHIRE, S75 3LS, Website www.saproflow.com

PROJECT
**Calder Park
Wakefield**

TITLE
**SIPHONIC ROOF DRAINAGE PLAN
OFFICE & WELFARE OFFICE**

DESIGN	DRAWN	CHECKED
D. Hernandez	D.H./AutoCAD.	J.L.
SCALE	DATE	
1:300	08/12/21	

PROJECT No. 21092 P21024-SAP-U1-XX-DR-X-0007AB01 DRAWING No. REV



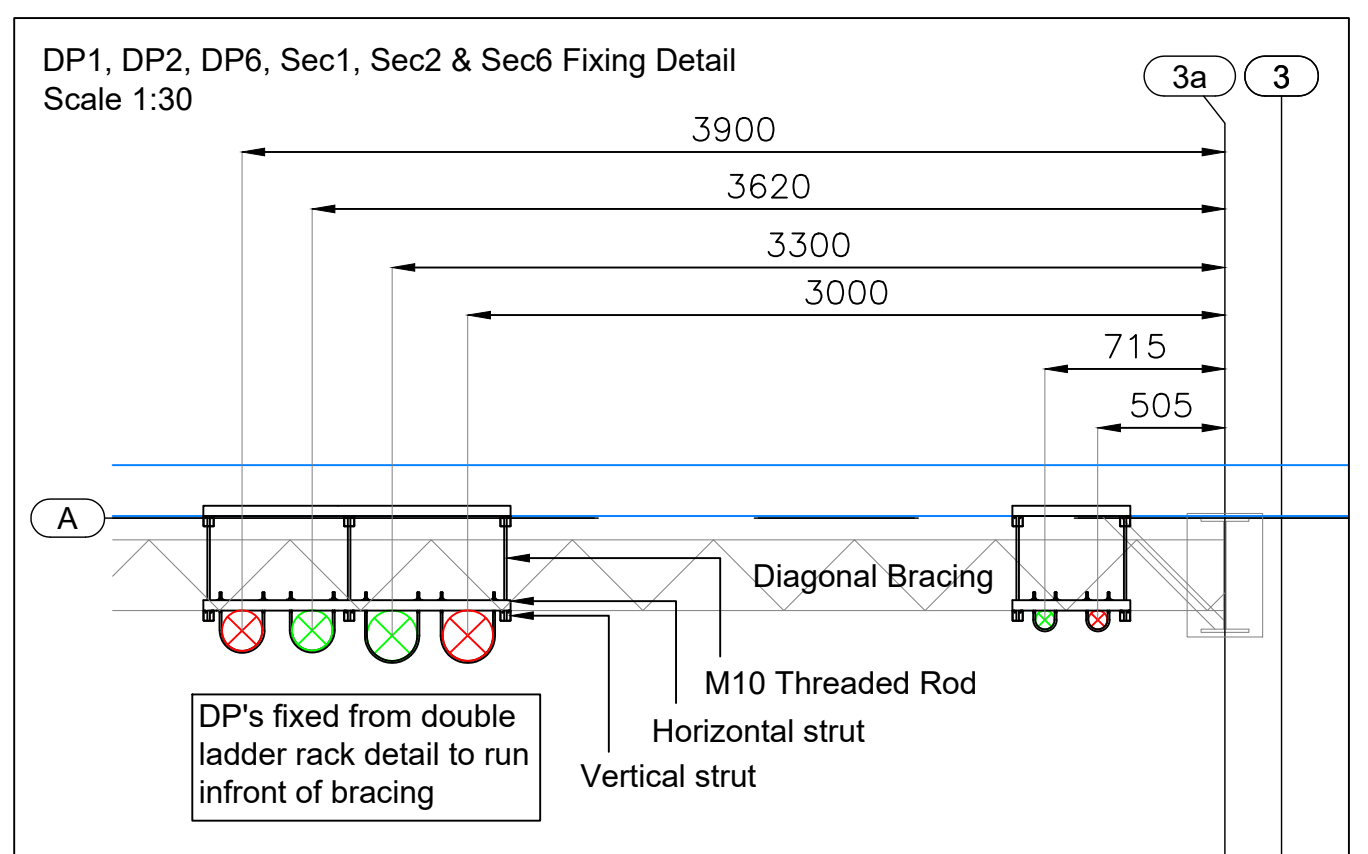
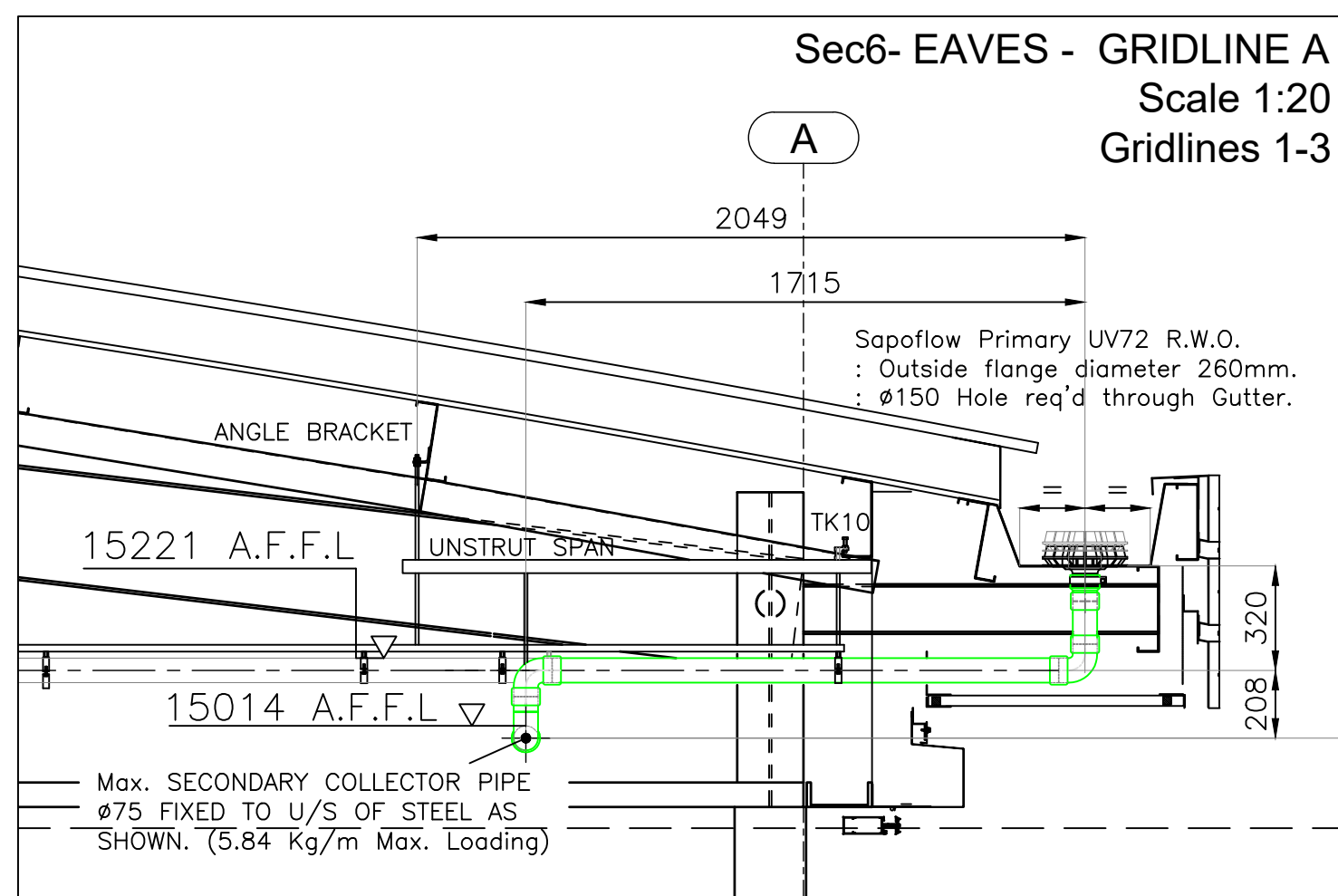
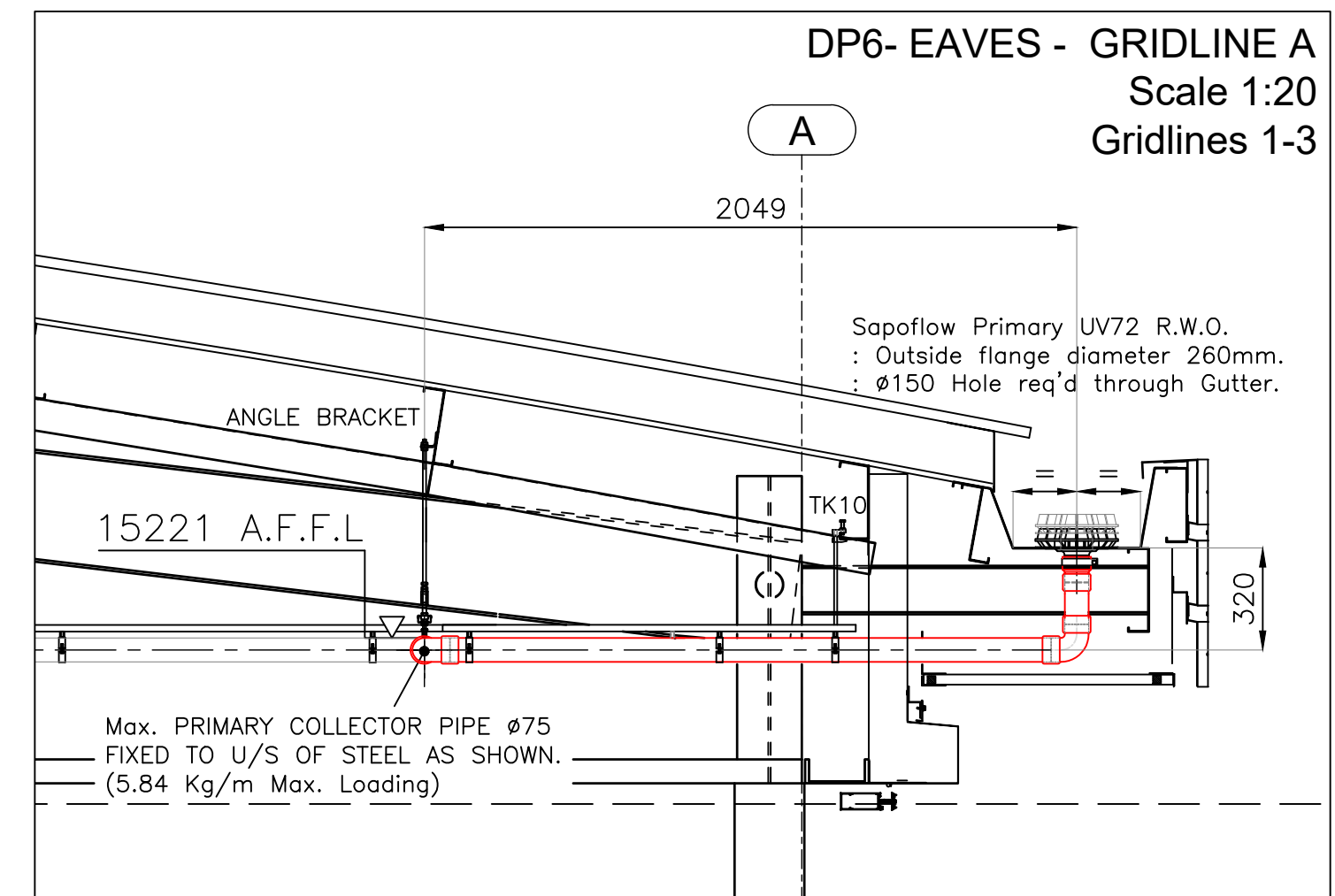
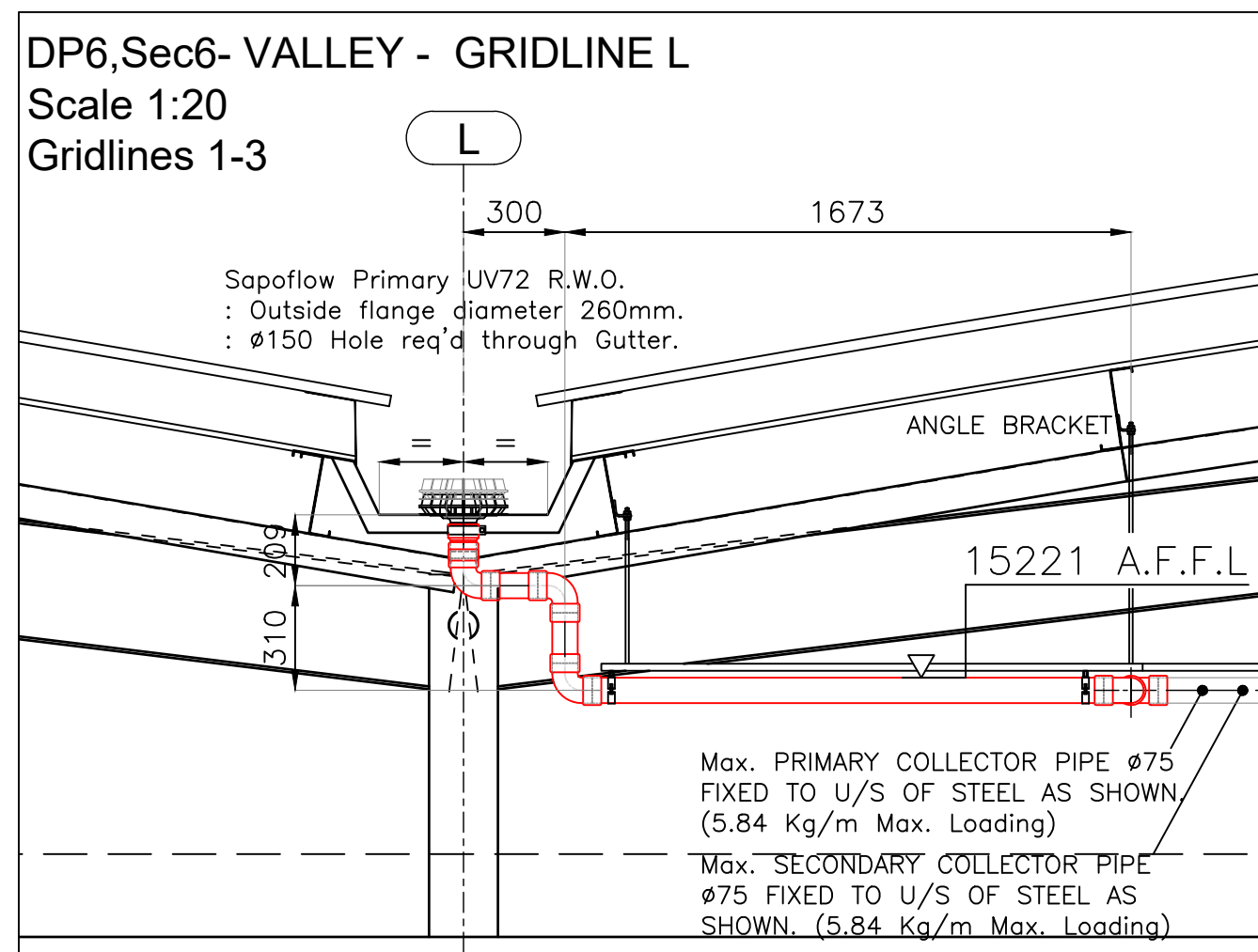
Do not scale from this drawing. Use figured dimensions only. All dimensions are to be verified on site. Pipe, outlet and fitting sizes and dimensions are subject to alteration in order to ensure optimum hydraulic performance. This drawing has been produced utilising information supplied by others for which Saproflow Ltd can accept no responsibility. Any alterations to the scheme shown are to be notified to Saproflow Ltd prior to commencement of installation. IF IN DOUBT, PLEASE CONTACT.
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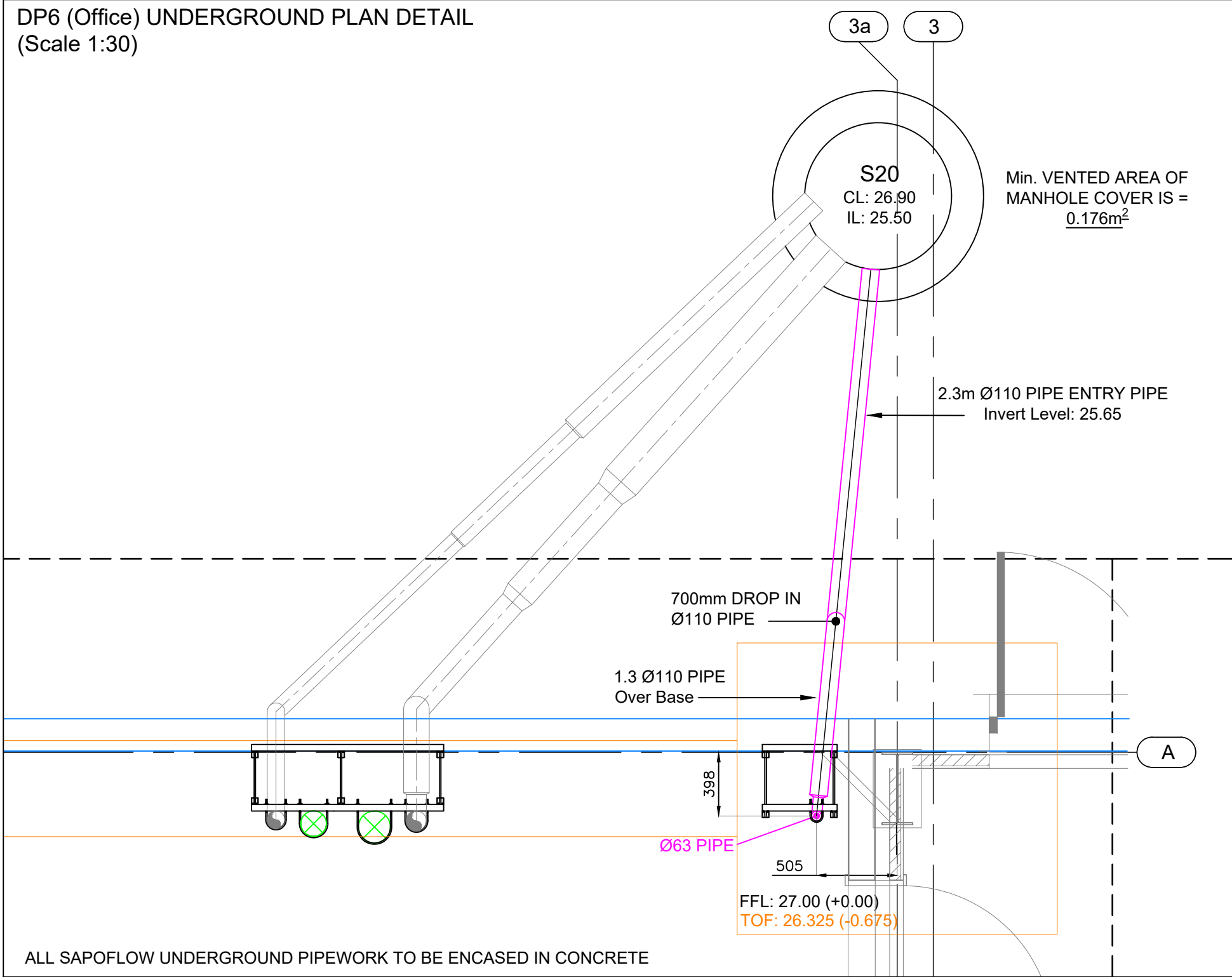
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
In addition to the Hazards / Risks normally associated with the type of work detailed on this drawing, note the following:
1. Please refer to the O&M Manual for additional HSE Information

KEY REFERENCE :-

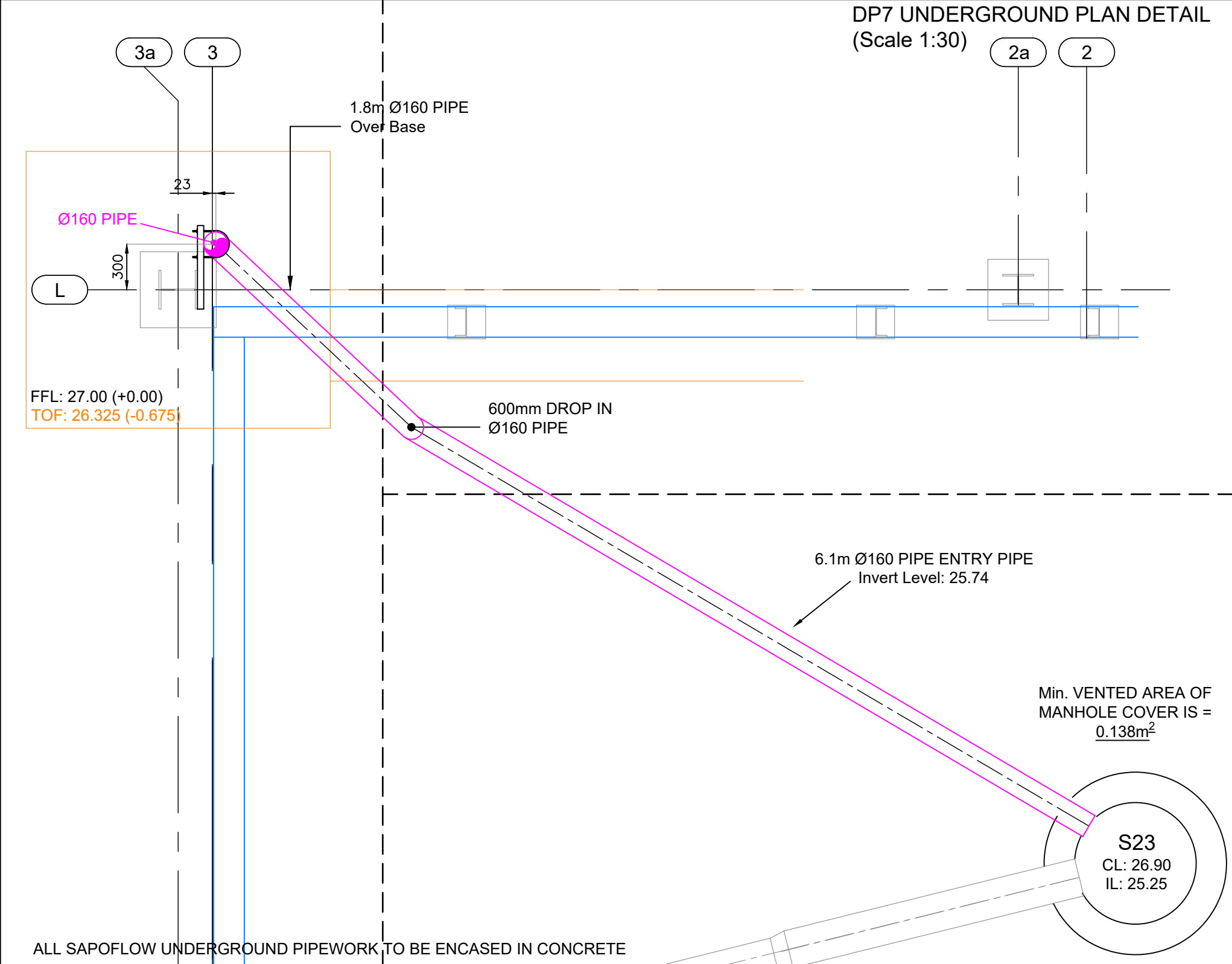
- Saproflow Primary System R.W.O.
- Saproflow Primary System Pipe Route.
- ⊗ Saproflow Primary Down Pipe.
- Saproflow Primary Underground Pipe Route.
- Saproflow Secondary System R.W.O.
- Saproflow Secondary System Pipe Route.
- ⊗ Saproflow Secondary Down Pipe.
- ▶ Saproflow Reducer location.



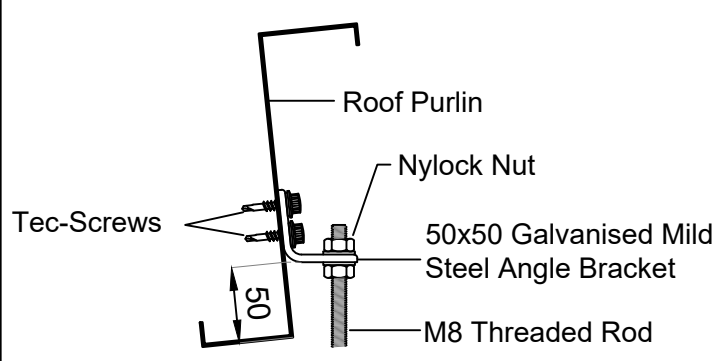
DP6 (Office) UNDERGROUND PLAN DETAIL
(Scale 1:30)



DP7 UNDERGROUND PLAN DETAIL
(Scale 1:30)



PURLIN FIXING DETAIL



BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM MAIN STRUCTURE: e.g. Roof Purlin							
PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)
Ø50	2000	6.76 Kg	Ø125	2000	27.40 Kg	Ø160	2000
Ø63	2000	9.07 Kg	Ø160	2000	43.09 Kg	Ø200	2000
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Ø90	2000	15.58 Kg	Ø250	1500	73.71 Kg	Ø315	1500
Ø110	2000	21.87 Kg	Ø315	1500	120.0 Kg		

BRACKET SPACINGS & LOADINGS FOR H.D.P.E. PIPE SUPPORTED FROM UNISTRUT CHANNEL:
NOTE: 41x21 UNISTRUT FOR PIPES UP TO AND INCLUDING Ø160, 41x41 UNISTRUT Ø200 & ABOVE.

PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)	PIPE DIAMETER (mm)	BRACKET SPACINGS (mm)	LOADING PER BRACKET (mm)
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Ø63	1000	4.54 Kg	Ø160	2000	43.09 Kg
Ø75	1000	5.84 Kg	Ø200	2000	62.96 Kg
Ø90	1500	11.69 Kg	Ø250	2000	98.28 Kg
Ø110	1500	16.40 Kg	Ø315	2000	160.0 Kg

RAINFALL INTENSITY	194 mm/hr	Ø90 DENOTES PIPE DIAMETER. (Ø63) DENOTES TAIL PIPE DIAMETER.
DOWNPIPE NUMBER.	DIMENSION DATA	DISCHARGE FLOW VELOCITY (m/s)

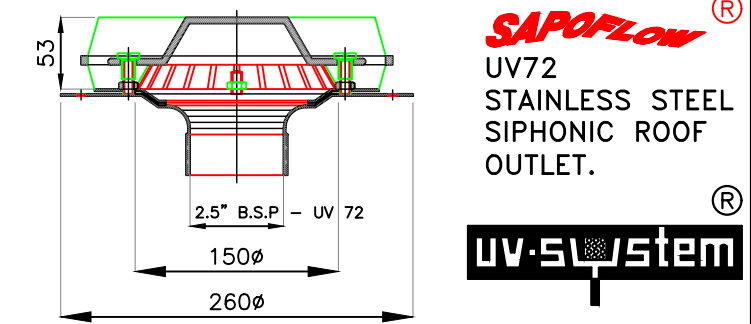
97 mm/hr Primary Systems.
DP6 See Isometric 15.95 1.97

194 mm/hr Primary Systems.
DP7 See Isometric 22.20 1.30
DP8 See Isometric 12.50 1.20
DP8 See Isometric 12.50 1.20

97 mm/hr Secondary Systems.
Sec6 See Isometric 15.95 1.97

AB01	04/07/22	As Built Issue
P02	19/01/22	DP6 Office UG revised
P01	08/12/21	Initial Issue

REV	DATE	DESCRIPTION
UNISTRUT CHANNEL PIPE FIXING		
FIXING TOP OF DOWNPIPE		
ANGLE BRACKET FIXING TO UNISTRUT		
PIPE STRAP ON EITHER SIDE OF SLEEVE MINIMUM EVERY 18m		
U-BOLTS		



MIN GUTTER SOLE 300mm / HOLE Ø150mm

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DODWORTH , BARNSLEY E-mail info@sapoflow.com
SOUTH YORKSHIRE , S75 3LS Website www.sapoflow.com

PROJECT
Calder Park
Wakefield

TITLE
UNDERGROUND DETAILS
OFFICE

DESIGN D. Hernandez	DRAWN D.H./AutoCAD.	Checked J.L.
SCALE 1:300	DATE 08/12/21	

PROJECT No. 21092	DRAWING No. P21024-SAP-U1-XX-DR-X-0008AB01	REV
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BFA Building Federation of Architects
uv-system UK Representative of UV-System
Registered in England No. 2717962
Document Ref: SAP-000213

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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As Built

- KEY REFERENCE :-
- Sapoflow Primary System R.W.O.
 - Sapoflow Primary System Pipe Route.
 - Ø Sapoflow Primary Down Pipe.
 - Ø Sapoflow Primary Underground Pipe Route.
 - Ø Sapoflow Secondary System R.W.O.
 - Sapoflow Secondary System Pipe Route.
 - Ø Sapoflow Secondary Down Pipe.
 - ▶ Sapoflow Reducer location.