

FW: Great Ducie Street conditions - drainage- (application: CDN/22/0849)

Anthony Mitchell [REDACTED]

Thu 09/03/2023 13:50

To: Planning [REDACTED]

Please can you reconsult UU on this. I have tried forwarding but it keeps bouncing back.

Thanks

Tony

From: Anthony Mitchell

Sent: 09 March 2023 10:23

To: [REDACTED]

Cc: Laura Peacock [REDACTED]

Subject: FW: Great Ducie Street conditions - drainage- (application: CDN/22/0849)

Please find attached a response from the applicant regarding the application to discharge Condition 23.

I welcome your comments.

Thanks

Tony

From: Kelly Paddick [REDACTED] >

Sent: 02 March 2023 11:18

To: Anthony Mitchell <[REDACTED]>

Cc: Jennifer Atkinson [REDACTED]

Subject: Great Ducie Street conditions - drainage- (application: CDN/22/0849)

Hi Tony,

Please find attached a response in relation to the comments received in respect of the information submitted to discharge condition 23 (drainage) of the consent at Great Ducie Street ([application reference CDN/22/0849](#)).

This seeks to respond to the comments received from the LLFA and UU.

I would be grateful if you could please confirm receipt.

Kind regards,

Kelly.

Kelly Paddick MRTPI PIEMA

Company Director

Euan Kellie Property Solutions

Neo, 9 Charlotte Street, Manchester, M1 4ET

[REDACTED]
[REDACTED]
[REDACTED]



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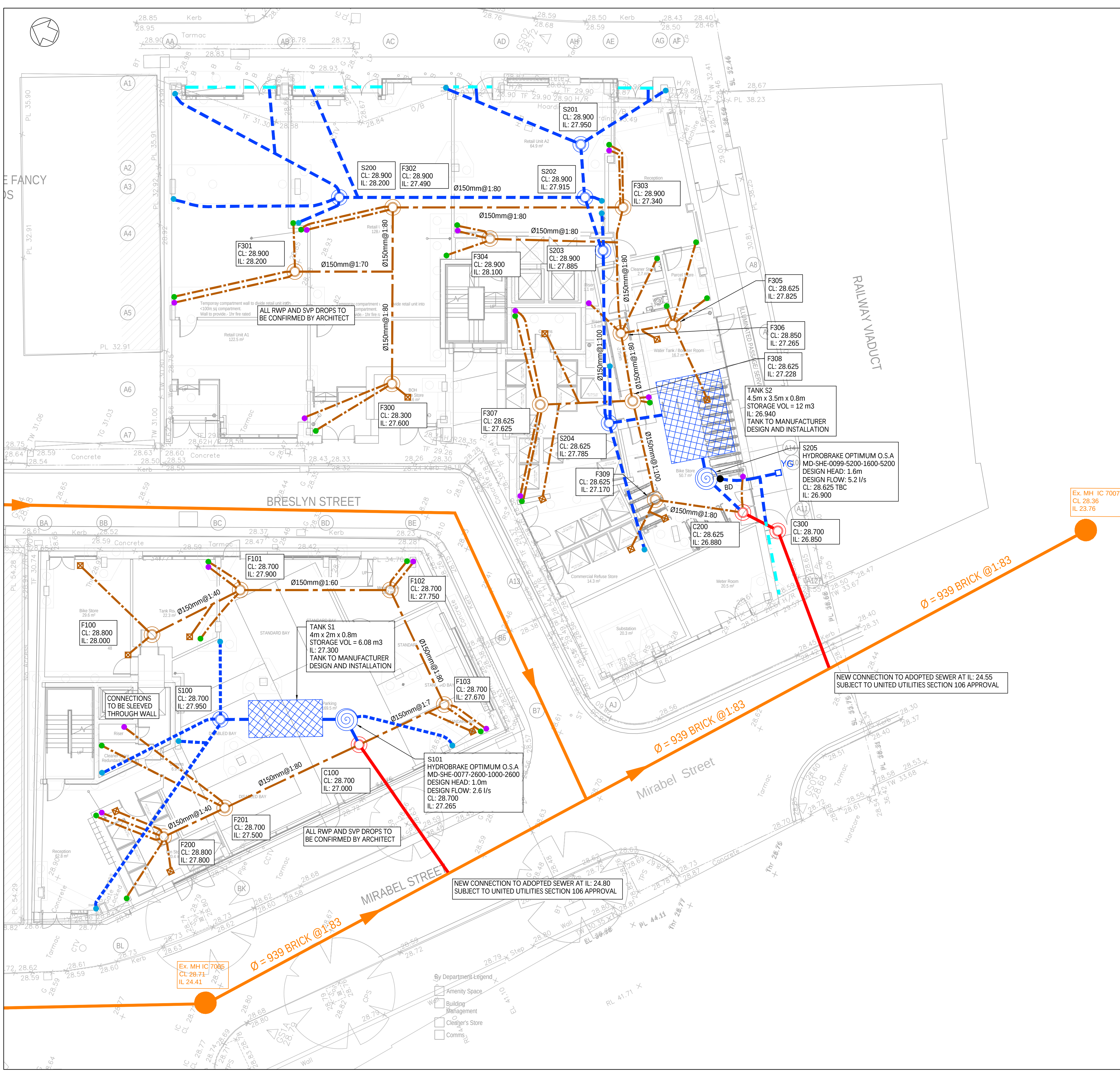
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HEALTH & SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS. ALL OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING WITH APPROPRIATE QUALIFICATIONS FOR THE OPERATIONS THEY ARE REQUIRED TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT HEALTH & SAFETY REGULATIONS.

DRAINAGE NOTES
ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION PRIOR TO CONSTRUCTION.

ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND 'SEWERS FOR ADOPTION' 7TH EDITION AND ADDENDUMS AS APPROPRIATE.
ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DRAINAGE CONSTRUCTION DETAILS AND THE REQUIREMENTS OF BS EN 752.

ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITEMARKED OR IF RECESSED COVERS ARE SPECIFIED THEN IN ACCORDANCE WITH FACTA ASSOCIATION EQUIVALENT.

ALL INTERNAL COVERS TO BE DOUBLE SEALED RECESSED COVERS TO ACCEPT PROPOSED FLOOR FINISHES.

THE PROPOSED BUILDING OUTLINES SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECTS PLANS FOR SETTING OUT INFORMATION AND DETAILS.

FOR SETTING OUT DIMENSIONS OF SS'S, SVP'S, RWP'S, FLOOR GULLY & OTHER DRAINAGE 'POP UP' LOCATIONS, REFER TO ARCHITECTS OR MECHANICAL & ELECTRICAL ENGINEERS DRAWINGS. LOCATION OF EXTERNAL CHANNEL DRAINS AND GULLY LOCATIONS / REQUIREMENTS TO BE CONFIRMED BY ARCHITECT.
ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100MM DIAMETER FOR FOUL AND 150MM FOR SURFACE WATER UNLESS NOTED OTHERWISE.
ALL DRAINAGE PIPEWORK SHALL BE LAID SOFFIT TO SOFFIT UNLESS NOTED OTHERWISE.

ALL UNDERSLAB DRAINAGE SHALL BE LAID AT GRADIENTS OF 1:80 MIN. FOR FOUL PIPEWORK AND 1:100 MIN. FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL UNDERSLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE.
ALL BENDS IN PIPEWORK TO BE AS LARGE A RADIUS AS POSSIBLE (EXCLUDING CONNECTIONS TO CHAMBERS) TO ENSURE FREE FLOW. SHORT RADIUS BENDS TO BE AGREED WITH DRAINAGE ENGINEER.

ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL SVP'S, SSS AND RWP DOWNPIPES SHALL BE ACCESSIBLE AT GROUND LEVEL FOR RODDING PURPOSES.

COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE AND SHALL BE ADJUSTED TO SUIT LEVELS ON SITE BY CONTRACTOR. COVERS SHALL BE ORIENTATED TO SUIT PAVEMENT FINISHES WHERE APPROPRIATE.
ALL COVER LEVELS ARE TO BE CONFIRMED BY THE ARCHITECT

ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 1401-1, UNLESS NOTED OTHERWISE.

CONCRETE ENCASMENT OF THE PIPEWORK SHALL BE REQUIRED WHERE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300MM.
WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.

ALL DRAINAGE CONNECTING TO THE PUBLIC SEWER NETWORK SHALL NOT COMMENCE UNTIL RECEIPT OF THE APPROVAL FROM THE DRAINAGE AUTHORITY AND SHALL COMPLY WITH REQUIREMENTS USING VITRIFIED CLAY PIPEWORK TO BS EN 295 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS SUBJECT TO APPROVAL.

WHERE DRAINAGE WORKS ARE CARRIED OUT IN THE PUBLIC HIGHWAY THE RELEVANT NECESSARY APPROVALS AND ROAD OPENING NOTICES SHALL BE OBTAINED FROM THE HIGHWAY AUTHORITY AND UTILITY COMPANIES.

PRIOR TO CONSTRUCTION THE FLOW CONTROL MANUFACTURER'S DRAWING AND HYDRAULIC TABLE SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

PRIOR TO CONSTRUCTION THE ATTENUATION TANK MANUFACTURER'S DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

UPON COMPLETION ALL NEW DRAINAGE INSTALLATION TOGETHER WITH ANY EXISTING DRAINAGE RETAINED SHALL BE JETTED AND CCTV SURVEYED UPON COMPLETION. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

Standard Notes

1. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
2. This drawing should not be scaled.
3. All dimensions are to be verified by the contractor on site.
4. All discrepancies should be reported to the C.A. prior to the commencement of the works.

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS.
RECEIVED ON: 07.09.22
DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING SEWER
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- COMBINED SEWER INSPECTION CHAMBER 450mm DIAMETER
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- DRAINAGE CHANNEL WITH SUMPED OUTLET UNIT
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YARD GULLY

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

08.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
25.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
18.10.22	P03	UPDATED FRLS AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK
Date	Rev	Description	Drawn	Chkd



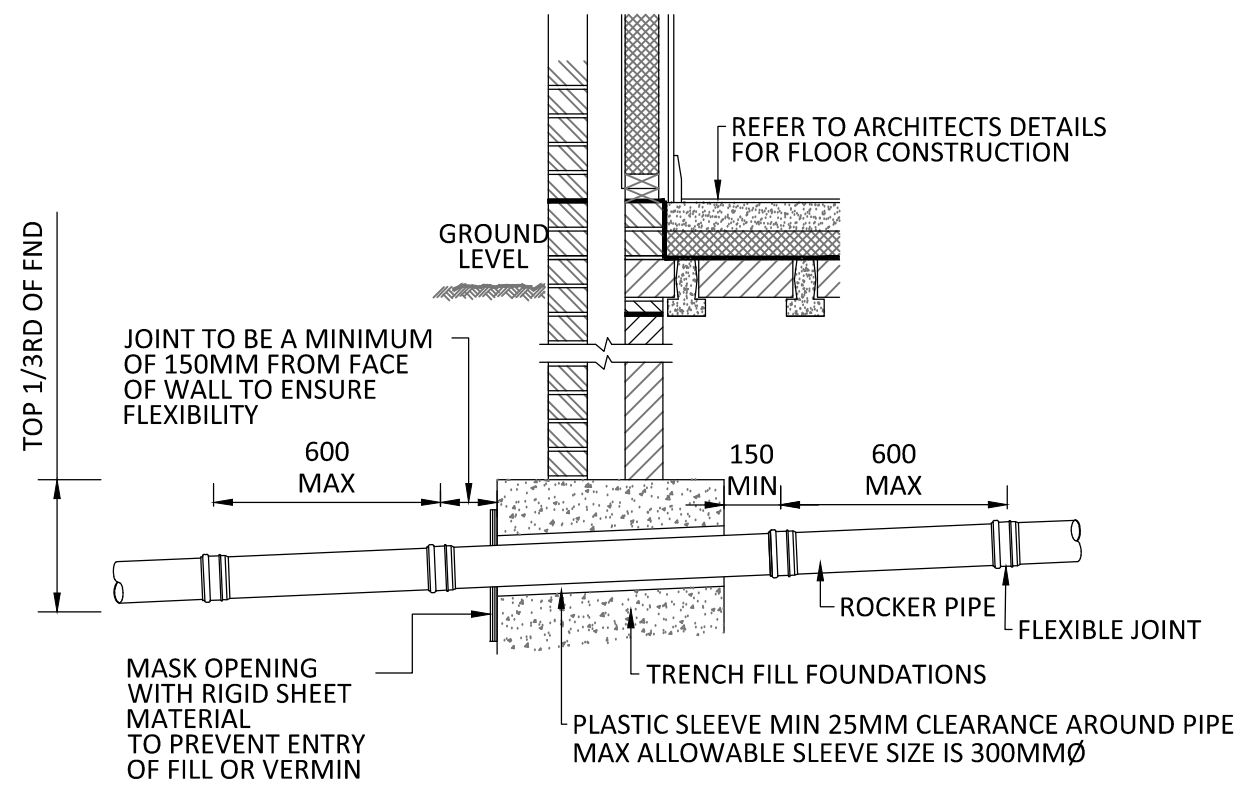
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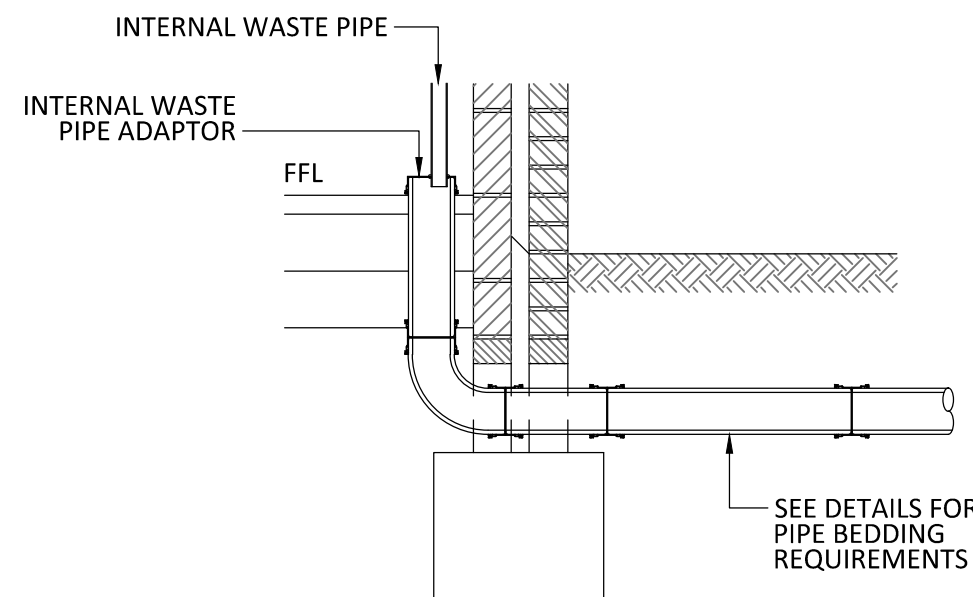
Project
ONE VICTORIA MANCHESTER

Title
DRAINAGE GENERAL ARRAGEMENT

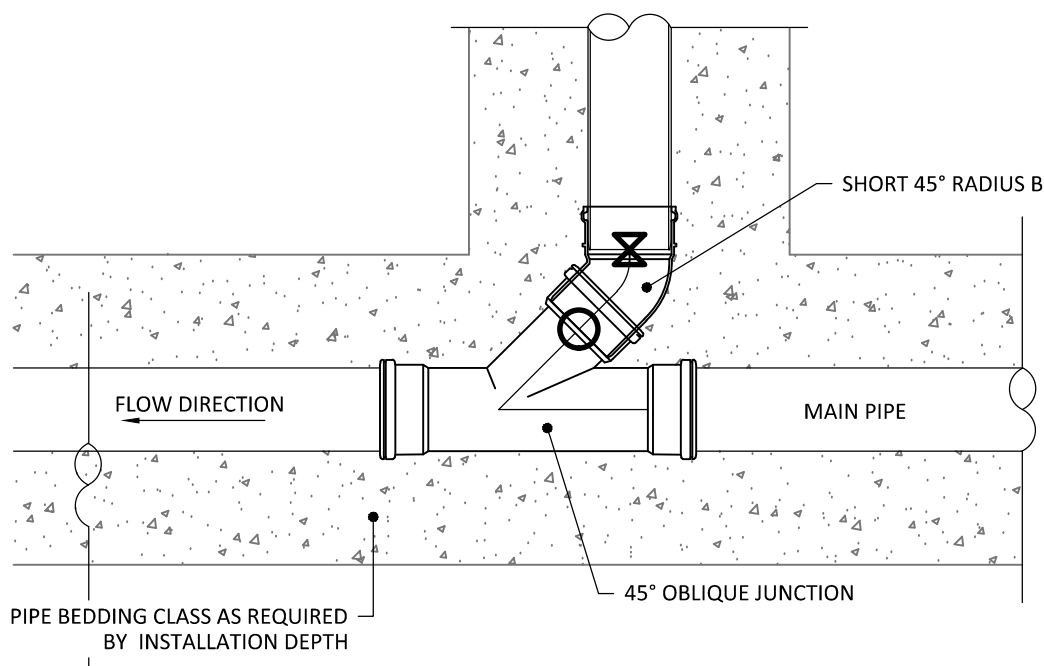
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756-02	1:100	04.07.22	CD	CK	----
Drawing Number 756-02-CIV-XX-XX-D-C-30001					Revision P07



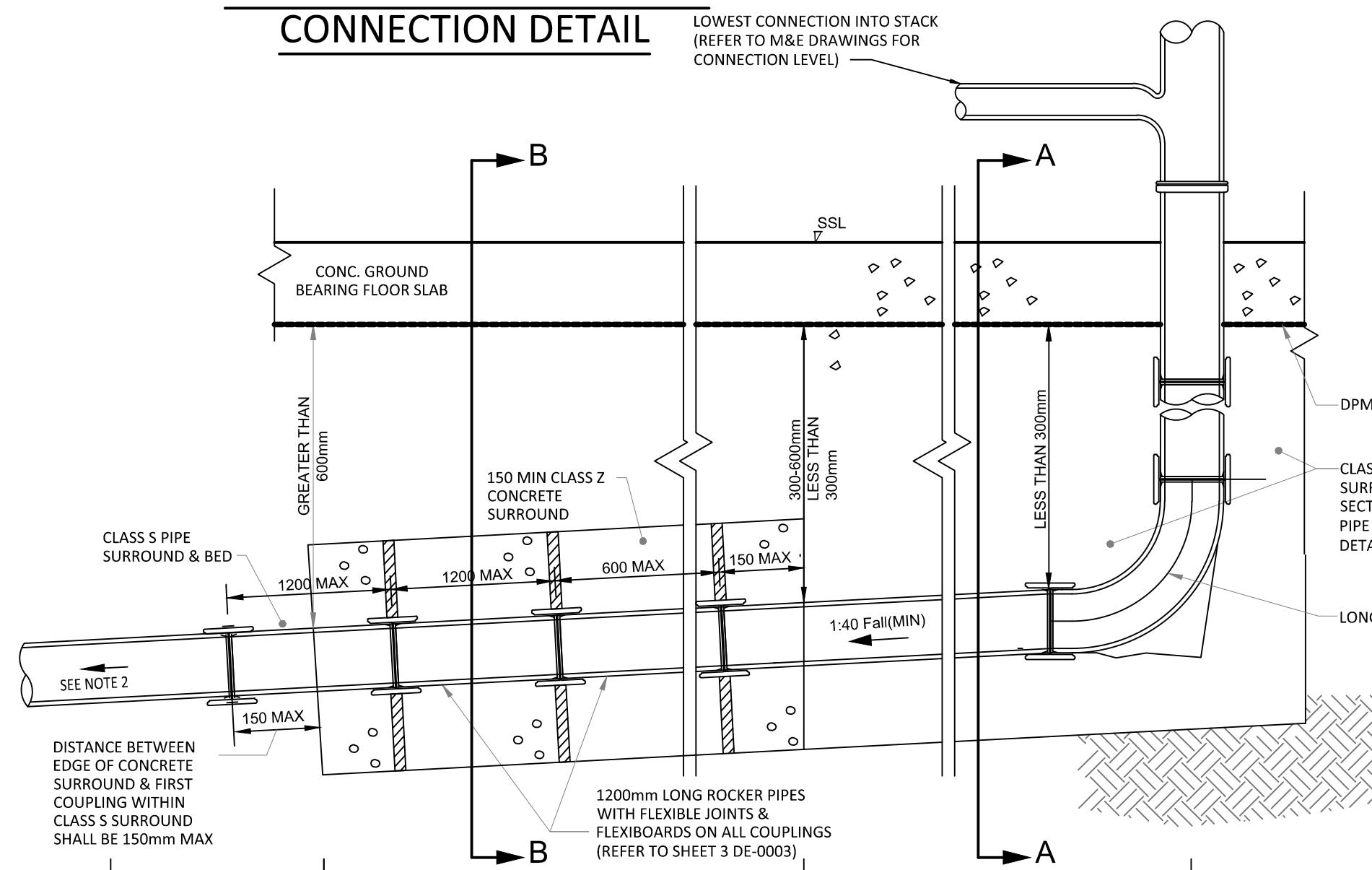
TYPICAL DETAIL OF PIPE PASSING THROUGH FOUNDATION



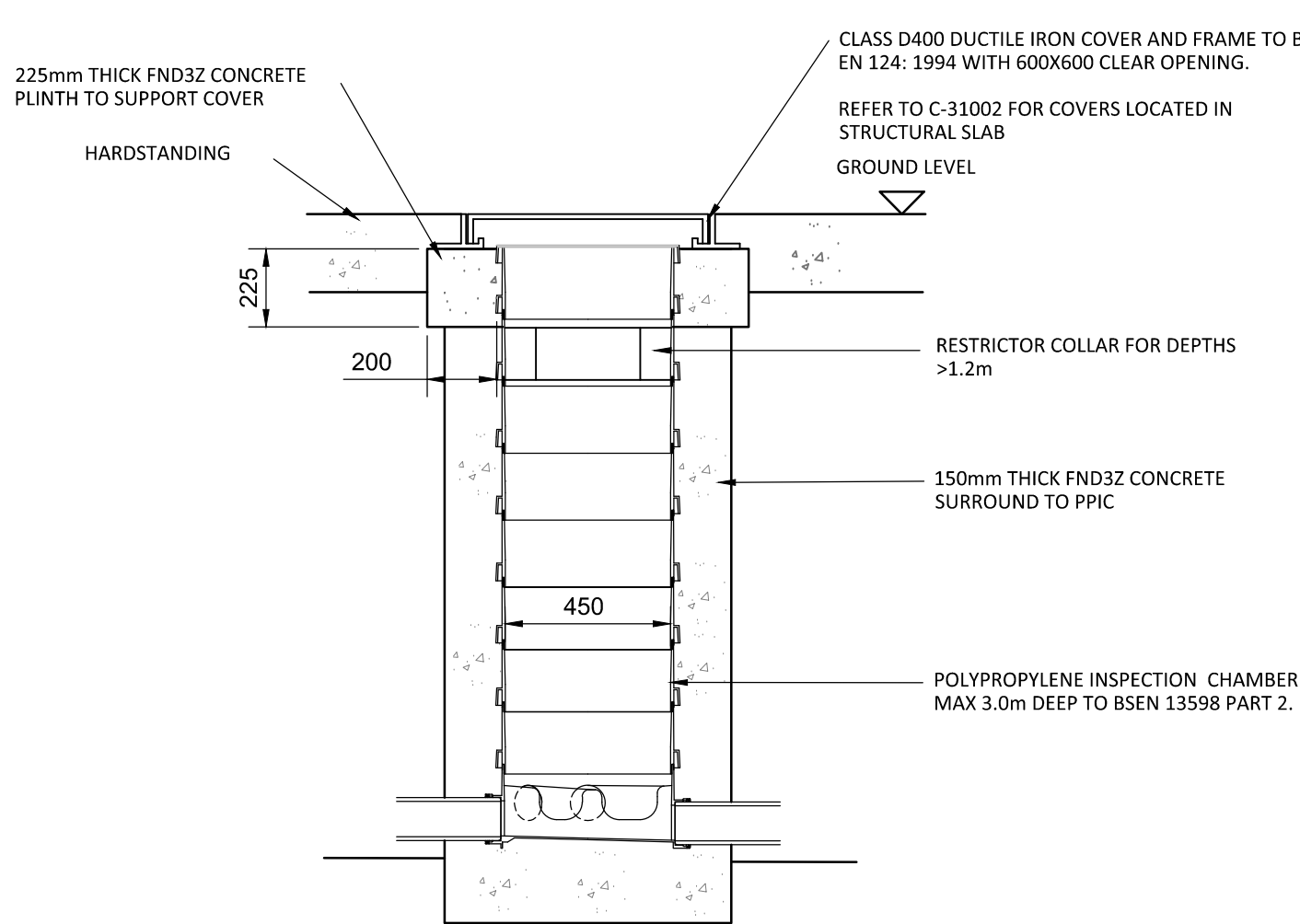
TYPICAL INTERNAL WASTE PIPE CONNECTION DETAIL



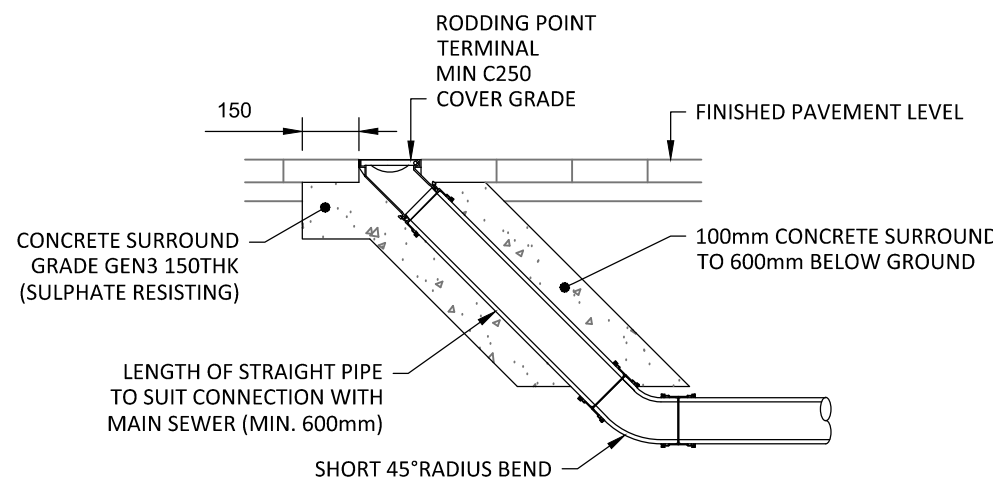
TYPICAL 45° PIPE JUNCTION CONNECTION DETAIL



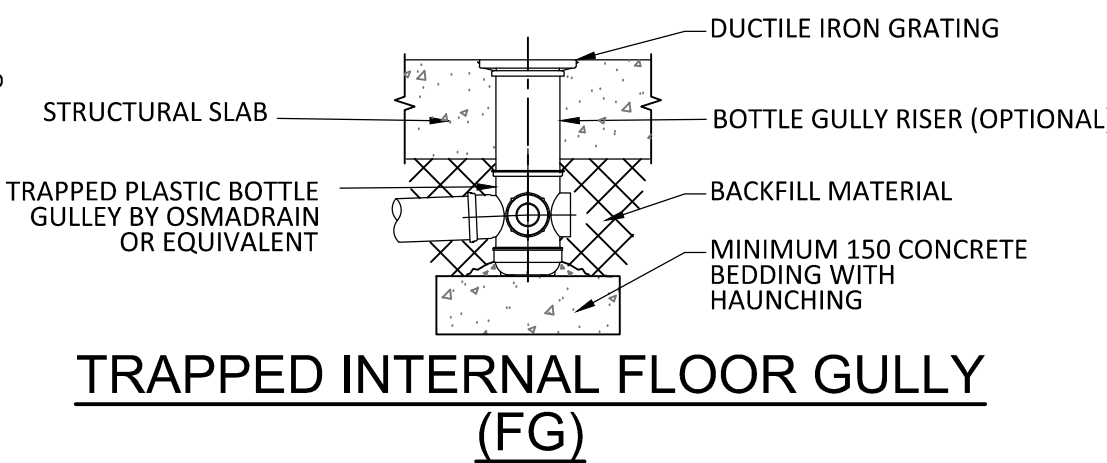
CROSS-SECTION C-C



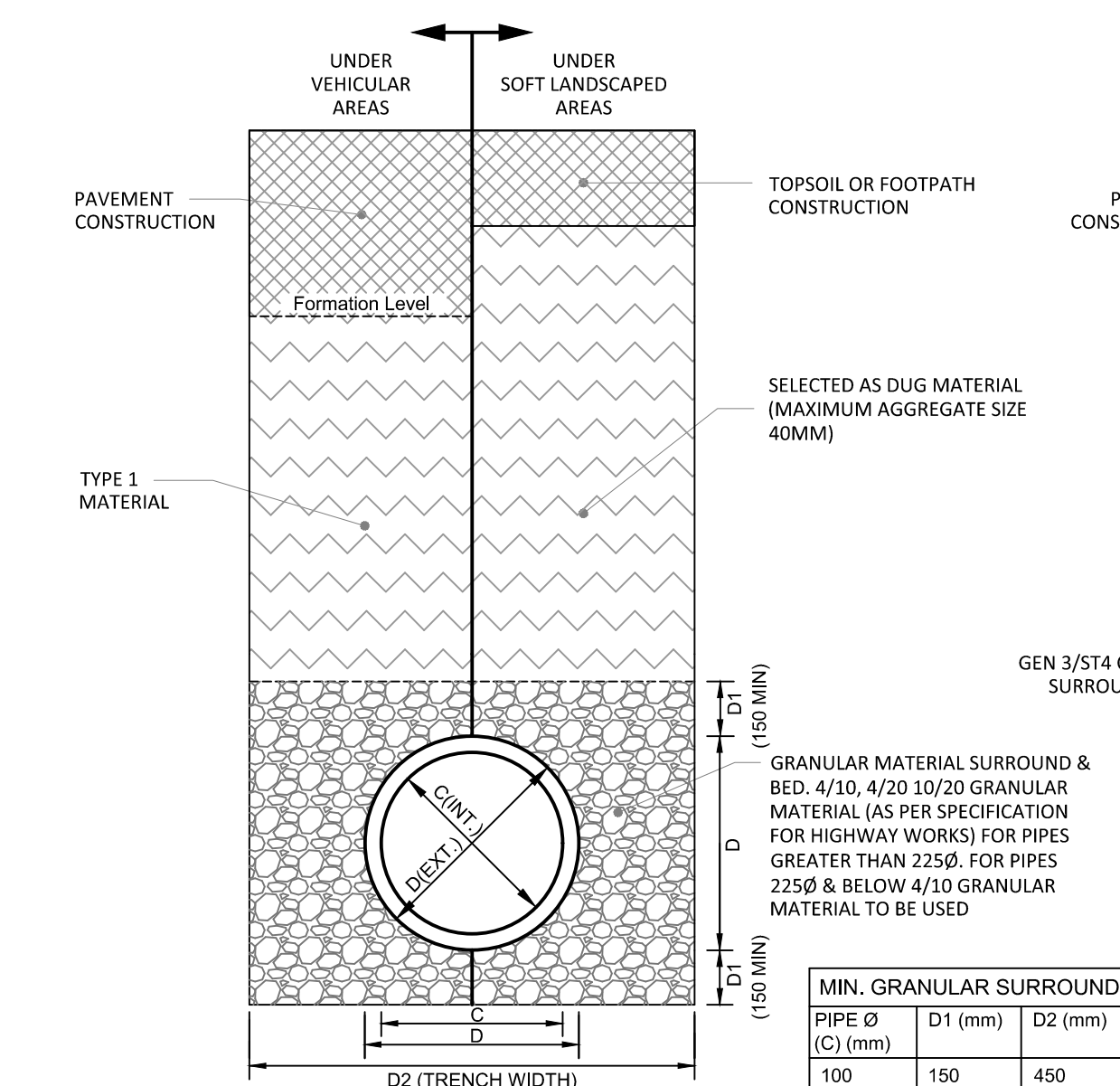
POLYPROPYLENE INSPECTION CHAMBER



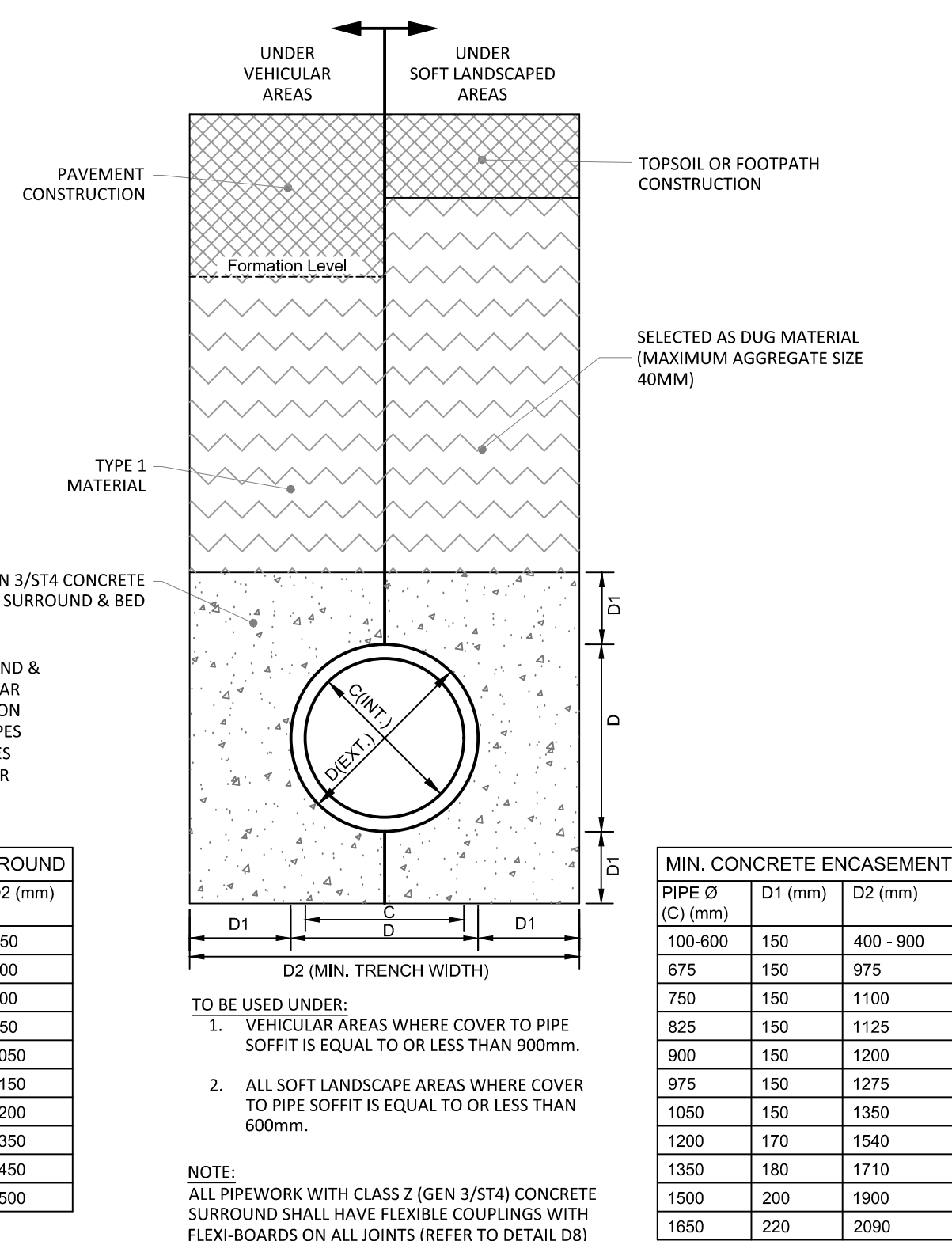
TYPICAL RODDING EYE DETAIL



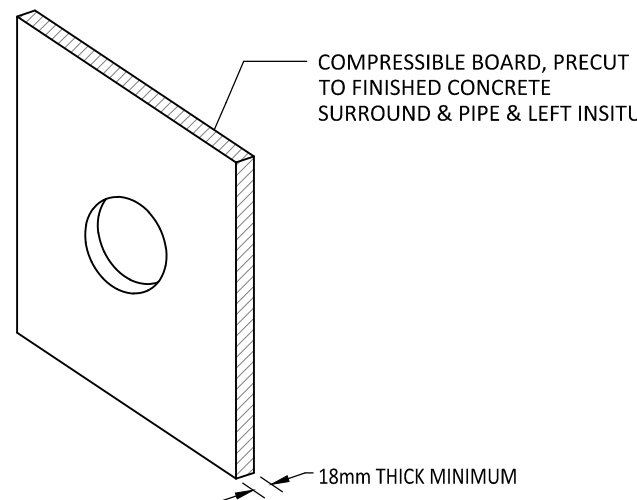
TRAPPED INTERNAL FLOOR GULLY (FG)



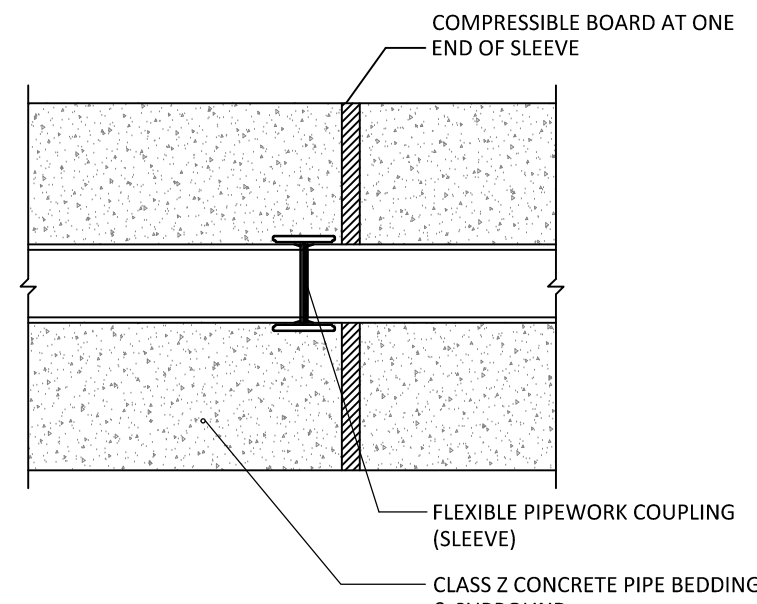
CLASS S PIPE BEDDING & SURROUND
(TO BE USED FOR PLASTIC, VITRIFIED CLAY & CONCRETE PIPEWORK)



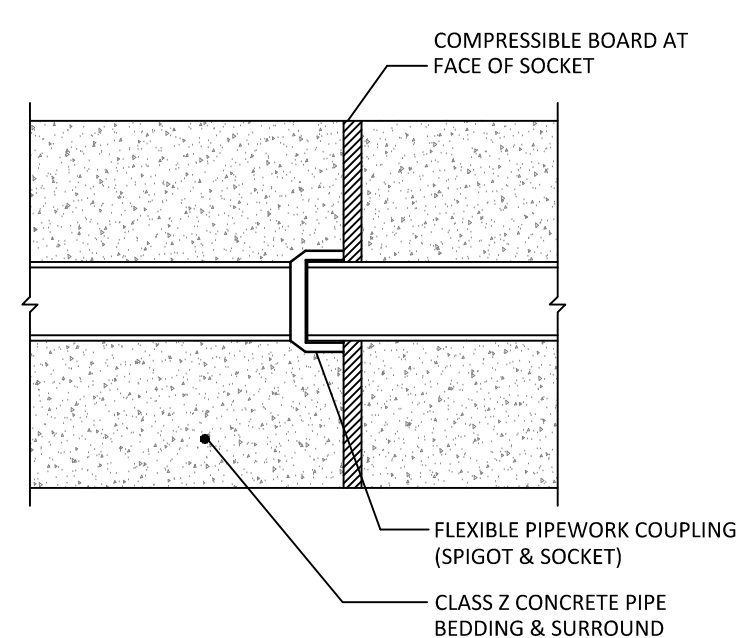
CLASS Z PIPE BEDDING & SURROUND
(TO BE USED FOR PLASTIC, VITRIFIED CLAY & CONCRETE PIPEWORK)



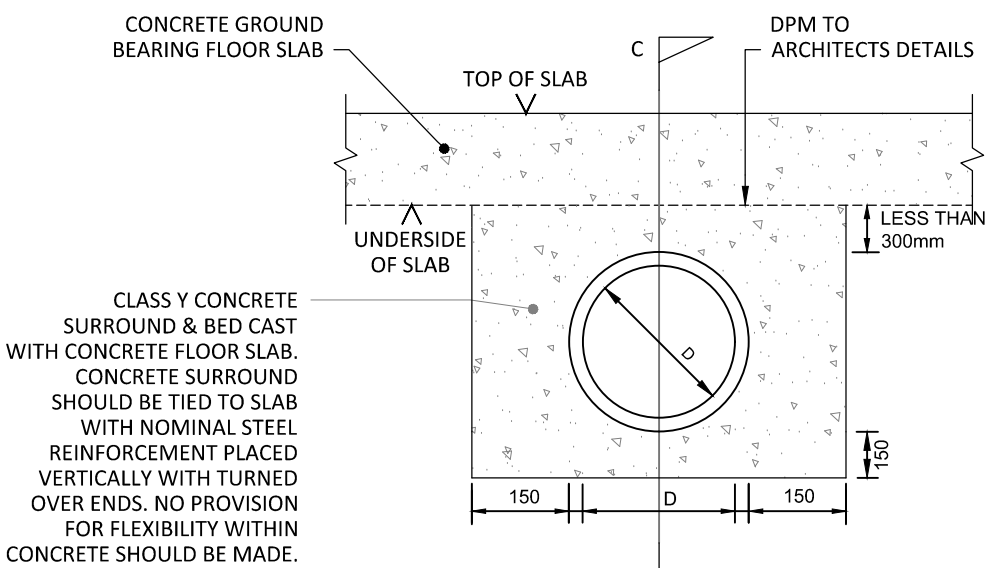
FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED SPIGOT & SOCKET JOINTED PIPES



FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED SLEEVE JOINTED PIPES



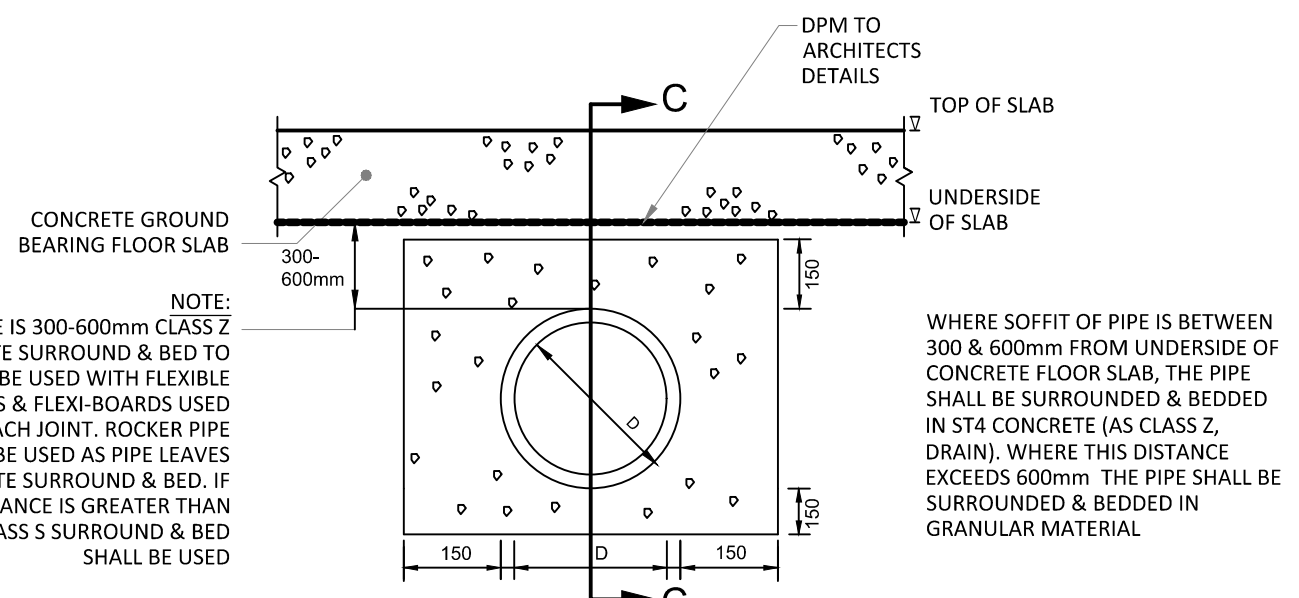
FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED PIPES (TO B.S. 1142)



SECTION A-A
WHERE DISTANCE BETWEEN PIPE SOFFIT & UNDERSIDE OF CONCRETE GROUND BEARING FLOOR SLAB/GROUND BEAM IS LESS THAN 300mm

WHERE SOFFIT OF PIPE IS WITHIN 300mm OF UNDERSIDE OF CONCRETE FLOOR SLAB, THE PIPE SHALL BE SURROUNDED & BEDDED INTEGRAL WITH REINFORCED GROUND SLAB (REFER TO CIVIC STRUCTURAL DRGS FOR DETAILS)

NOTE:
ROCKER PIPE DETAIL SHOULD BE USED AS THE PIPE LEAVES THE CONCRETE SURROUND CAST WITH CONCRETE FLOOR SLAB, (ie. 150mm FROM EDGE OF CONCRETE STRUCTURE TO FIRST FLEXIBLE COUPLING, 600mm LONG ROCKER PIPE WITH FLEXIBLE COUPLINGS & COMPRESSIBLE BOARDS ON EACH COUPLING IF PIPE IS TO HAVE CLASS Z SURROUND & BED.)



SECTION B-B
WHERE DISTANCE BETWEEN PIPE SOFFIT & UNDERSIDE OF FLOOR SLAB/GROUND BEAM IS GREATER THAN 300mm

TYPICAL UNDERSLAB PIPE BEDDING DETAILS FOR PIPEWORK UNDER STRUCTURAL SLAB

- Standard Notes
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Notes and Keys

Date	Rev	Description	Drawn	Chkd
18.10.22	P03	DETAILS UPDATED	CD	CK
12.09.22	P02	ISSUED FOR INFORMATION	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

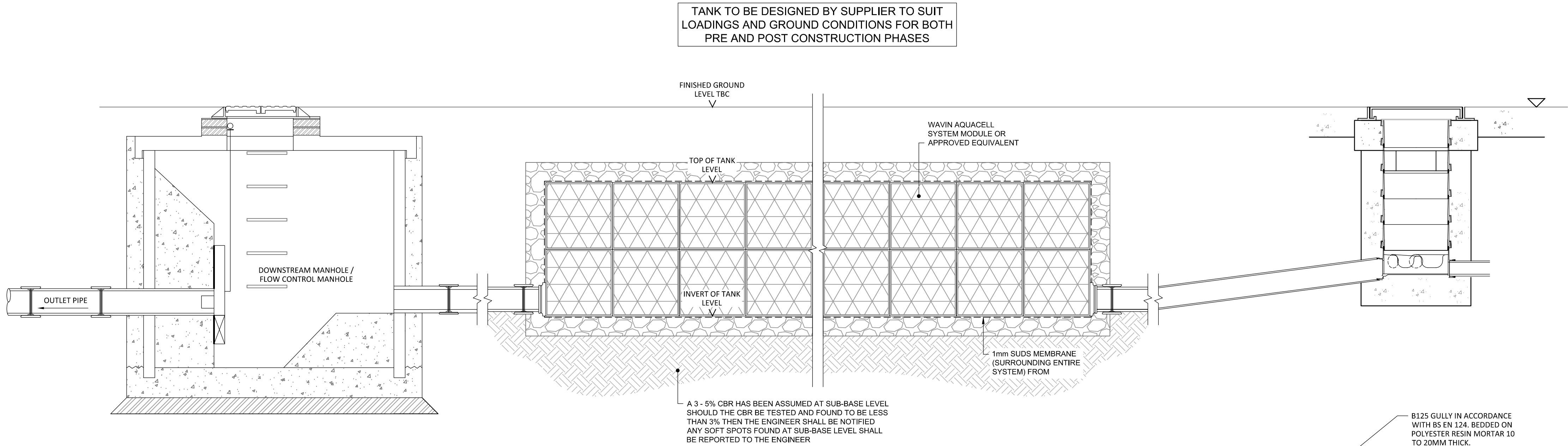
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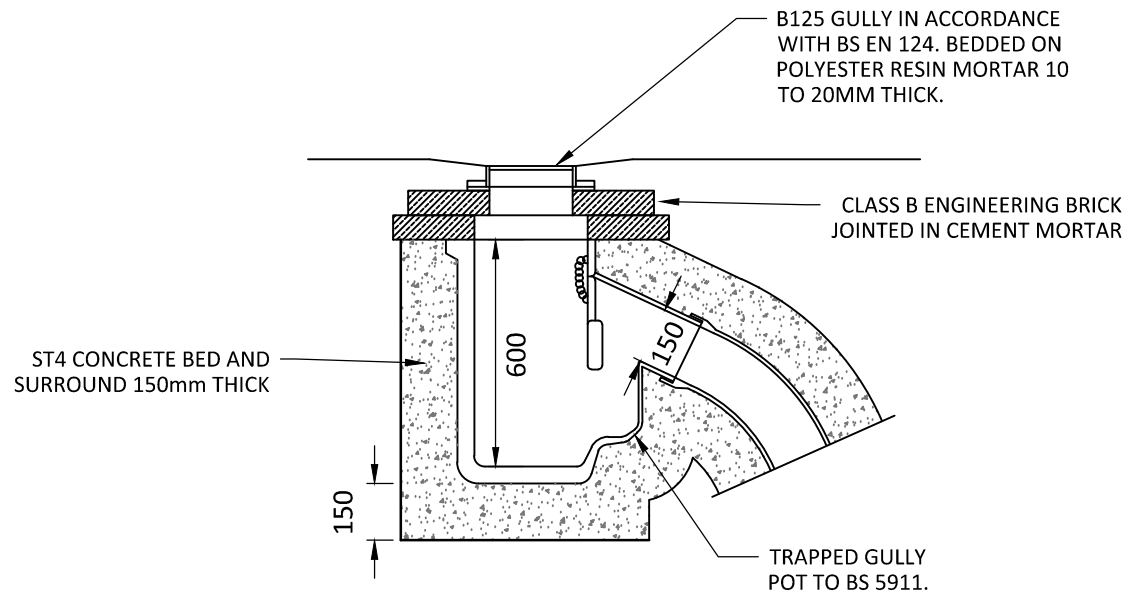
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ONE VICTORIA MANCHESTER				
Title				
DRAINAGE DETAILS SHEET 1				
Status				
INFORMATION				
Project Number	Scale @ A1	Date Created	Drawn	Checked
756-02	1:20	04.07.22	CD	CK
Drawing Number				Suitability
756-02-CIV-XX-XX-D-C-31001				----
Revision				P03



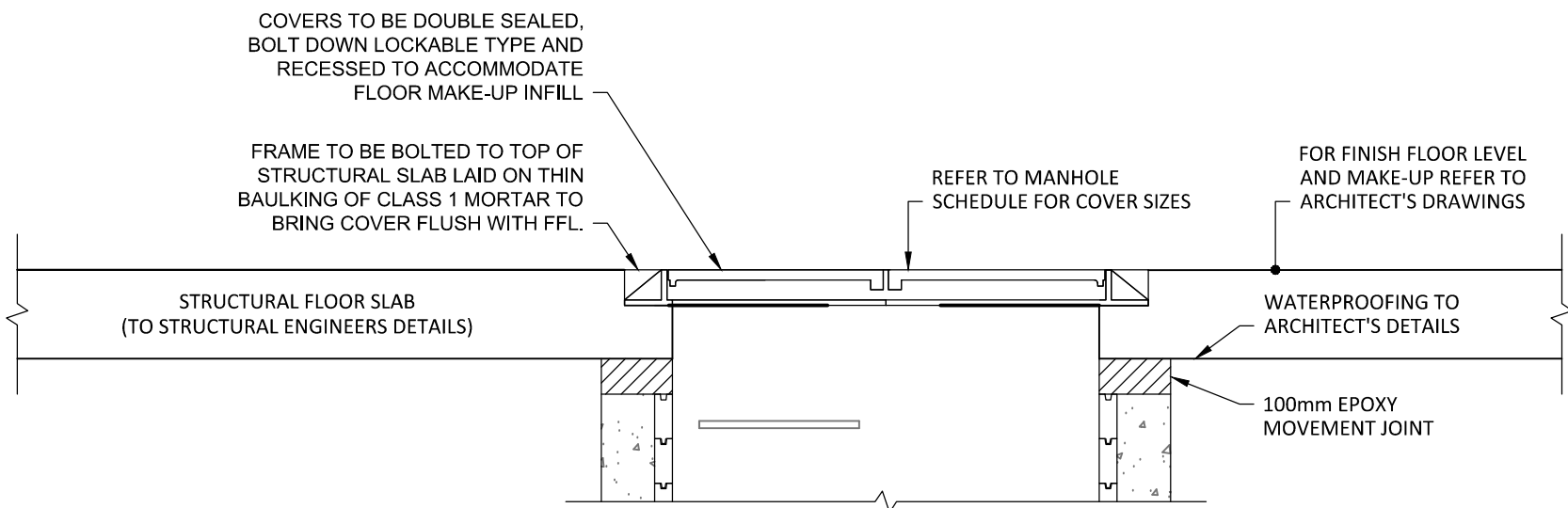
NOTE: THIS DRAWING IS INDICATIVE ONLY
SEE MANUFACTURER'S DRAWINGS AND
SPECIFICATIONS FOR CONSTRUCTION DETAILS

ATTENUATION TANK DETAIL

SCALE 1:20

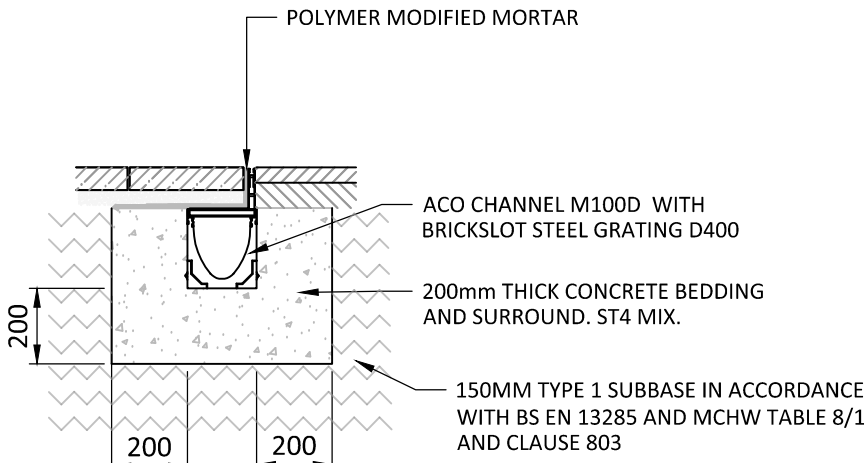


TYPICAL YARD GULLY DETAIL

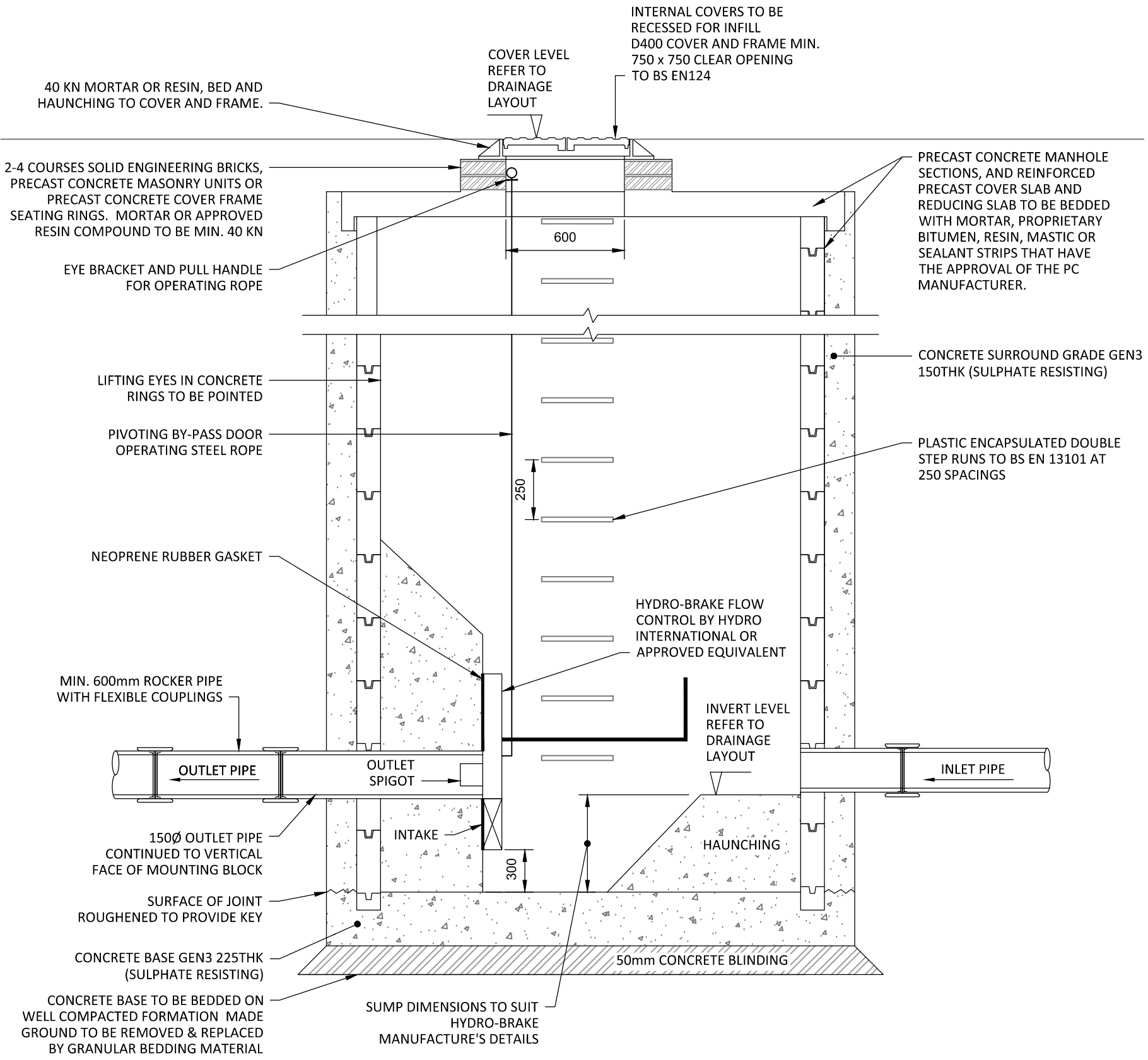


MANHOLE COVER DETAIL WITHIN
STRUCTURAL SLAB

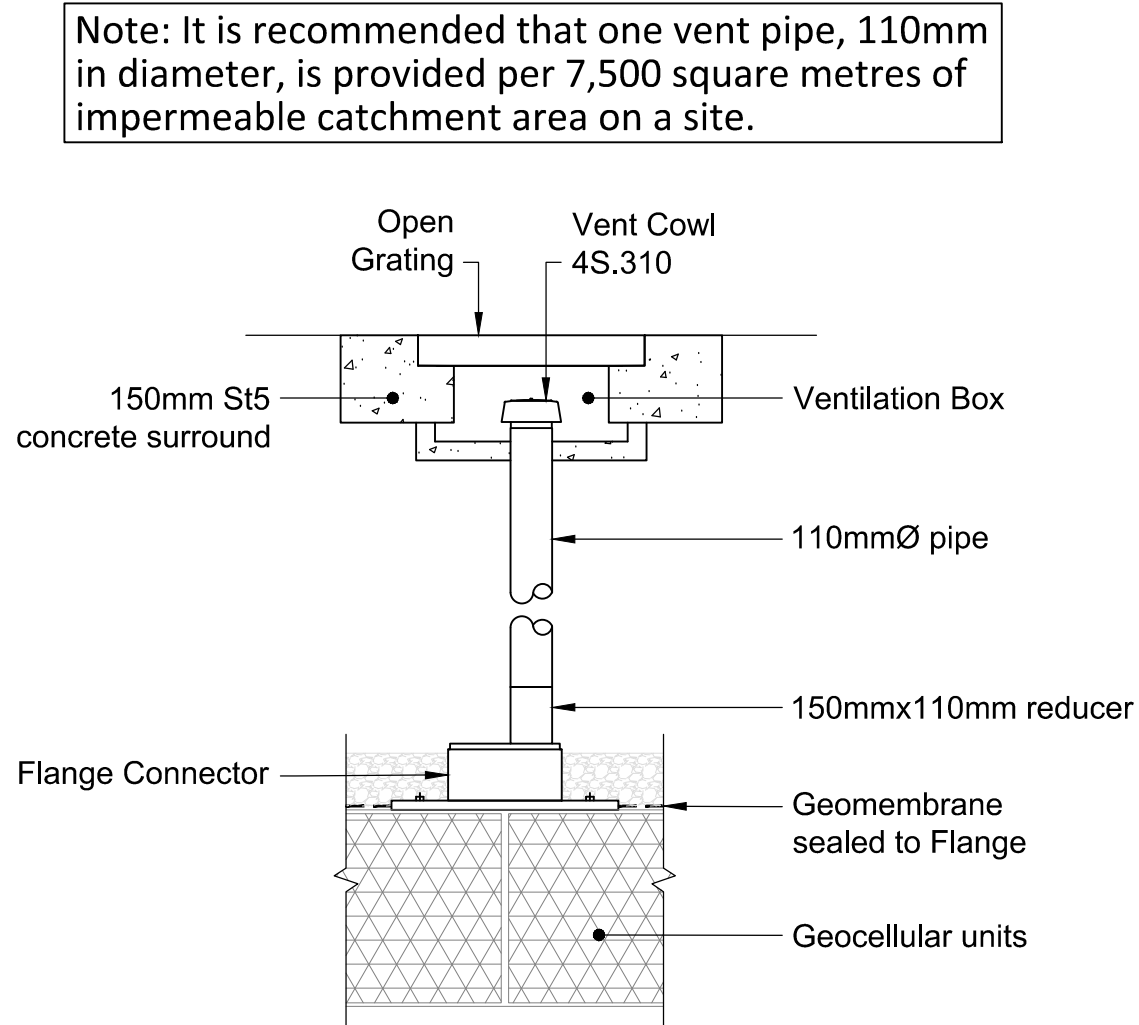
SLOT DRAIN-
ACO CHANNEL WITH
BRICKSLOT ST GRATING



- FLOW CONTROL MANHOLE NOTES
1. ALL DIMENSION ARE IN MILLIMETERS
 2. PRECAST CONCRETE UNITS TO BE BS5911 PART 200 AND TO BE CONSTRUCTED WITH A MINIMUM CLASS 3 SULPHATE RESISTING CEMENT
 3. ALL INSITU CONCRETE TO BE GEN3 SULPHATE RESISTING CONCRETE
 4. MATERIALS FOR JOINTING MANHOLE RINGS TO BE A RUBBER BITUMEN COMPOUND OF APPROVED MANUFACTURER 'TOKSTRIP' OR SIMILAR.
 5. ALL BRICKWORK TO BE CLASS B ENGINEERING -2 COURSES MIN-4 COURSES MAX; 225mm THICK
 6. 20mm THICK GRANULITHIC CONCRETE BENCHING TO BE BROUGHT UP TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS, WHERE BENCHING IS LESS THAN 450mm WIDE, SLOPE TO BE 1:10; MORE THAN 450mm, 1:30
 7. PIPES ENTERING MANHOLES TO HAVE A FLEXIBLE JOINT AS CLOSE AS FEASIBLE TO OUTSIDE FACE OF ANY STRUCTURE INTO WHICH THE PIPE IS BUILT IN ORDER TO FACILITATE MOVEMENT OF THE JOINT. THE LENGTH OF THE NEXT PIPE (ROCKER PIPELINES, BEDDING, LAYING AND JOINTING OF PIPES AND BACKFILLING OF TRENCHES SHALL BE IN ACCORDANCE WITH THE U.S.A.S.P.C 'SEWERS FOR ADOPTION' - 7TH EDITION TOGETHER WITH ANY LOCAL AUTHORITY REQUIREMENTS.



FLOW CONTROL MANHOLE DETAIL



TYPICAL ATTENUATION TANK VENT DETAIL

SCALE 1:20

Standard Notes

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Notes and Keys

18.10.22	P02	ISSUED FOR INFORMATION	CD	CK	
12.09.22	P01	ISSUED FOR INFORMATION	ZG	CK	
Date	Rev	Description	Drawn	Chkd	



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Project					
ONE VICTORIA MANCHESTER					
Title					
DRAINAGE DETAILS SHEET 2					
Status					
INFORMATION					
Project Number	Scale @ A1	Date Created	Drawn	Checked	Suitability
756-02	1:20	12.09.22	ZG	CK	----
Drawing Number					Revision
756-02-CIV-XX-XX-D-C-31002					P02

CCTV Report



Project

Great Ducie Street, Manchester,
M3 1PJ

Survey Date

16/09/2022

Client

One Heritage Group plc

Checked by

AG

Surveyors

JSu & JL

Job Number

41020CCTV-01

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Project Information

Project Name	Project Number	Project Date
SURVEY_SOLUTIONS_GREAT_DUCIE_STREET_MANCHSTER		14/09/2022

Contractor

Company: Survey Systems Ltd
Street: Great Ducie Street
Town or City: Manchester
County: Greater Manchester
Post Code: M3 1PJ

Site

Company: One Heritage Group plc
Contact: Emma Corcoran
Department: Development Manager
Phone: 0161 806 1498
Mobile: 074646 24480
Email: [REDACTED]

Scoring Summary

Project Name
SURVEY_SOLUTIONS_GREAT_DUCIE_STREET_MANCHSTER

Project Number

Project Date
14/09/2022

Structural Defects

Section	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

Service / Operational Condition

- Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.
- Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.
- Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Section	PLR	Grade	Description
1	UU_7005X	4	Settled deposits, fine, 20% cross-sectional area loss
2	UU_7003X	4	Settled deposits, fine, 30% cross-sectional area loss
7	GY01X	3	Settled deposits, fine, 5% cross-sectional area loss

Abandoned Surveys

Section	PLR	Description
1	UU_7005X	Survey abandoned
2	UU_7003X	Survey abandoned
3	UU_7001X	Survey abandoned
4	NODE-1X	Survey abandoned
10	GY04X	Survey abandoned

Information

These scoring summaries are based on the SRM grading from the WRC.

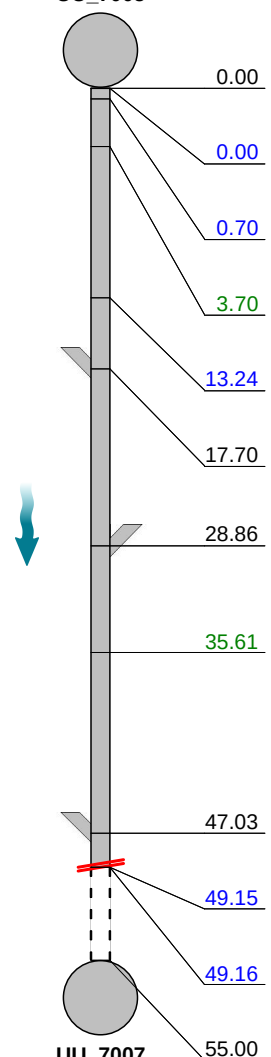
Section Inspection - 14/09/2022 - UU_7005X



Item No. 1	Insp. No. 1	Date 14/09/22	Time 10:06	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR UU_7005X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Mainline	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	UU_7005
Road:	Mirabel_Street	Inspected Length:	49.16 m	Upstream Pipe Depth:	4.300 m
Location:	Road	Total Length:	55.00 m	Downstream Node:	UU_7007
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Arched (with flat bottom)		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	939 mm		
Flow Control:	No flow control	Material:	Brick		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:477	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 4.30 m UU_7005						
						
	0.00	MH	Start node, manhole, reference: UU_7005	00:00:07		
	0.00	WL	Water level, 10% of the vertical dimension	00:00:08		
	0.70	GP	General photograph taken at this point	00:00:25	UU_7005X_7585bf66-69b0-432	
	3.70	DES	Settled deposits, fine, 15% cross-sectional area loss: SILT AND RAG	00:00:56	UU_7005X_5a572f83-b0e1-4d1	3
	13.24	GP	General photograph taken at this point	00:02:23	UU_7005X_abea373-3-9ef6-459	
	17.70	CN	Connection other than junction at 3 o'clock, 150mm dia	00:03:03	UU_7005X_4716ee5-e-008a-40	
	28.86	CN	Connection other than junction at 9 o'clock, 500mm dia: UNABELT TO GET CORRECT PIPE SIZE	00:05:15	UU_7005X_193d4ec-5-3679-48	
	35.61	DES	Settled deposits, fine, 20% cross-sectional area loss: SILT AND RAG	00:06:06	UU_7005X_504bc91-1-f25e-467	4
	47.03	CN	Connection other than junction at 3 o'clock, 300mm dia	00:07:25	UU_7005X_37ba41d-c-8feb-4ca	
	49.15	REM	General remark: MANHOLE IN VIEW	00:08:03	UU_7005X_b2acda0-2-03ab-40	
	49.16	SA	Survey abandoned: DUE TO SILT AND DEBRIS PLEASE NOTE MANHOLE IS OUT OF SURVEY AREA. MANHOLE IN VIEW	00:08:08	UU_7005X_7114942-8-de08-48	
	55.00		End of pipe			
UU_7007 Depth: 0.00 m						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	2	5.0	10.0	7.0	5.0

Section Pictures - 14/09/2022 - UU_7005X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	UU_7005X		



UU_7005X_7585bf66-69b0-4321-93a6-397dd534e942_20220914_100718_603.jpg, 00:00:25, 0.70 m
General photograph taken at this point



UU_7005X_5a572f83-b0e1-4d16-8fd0-bffd17460e10_20220914_100801_731.jpg, 00:00:56, 3.70 m
Settled deposits, fine, 15% cross-sectional area loss, SILT AND RAG



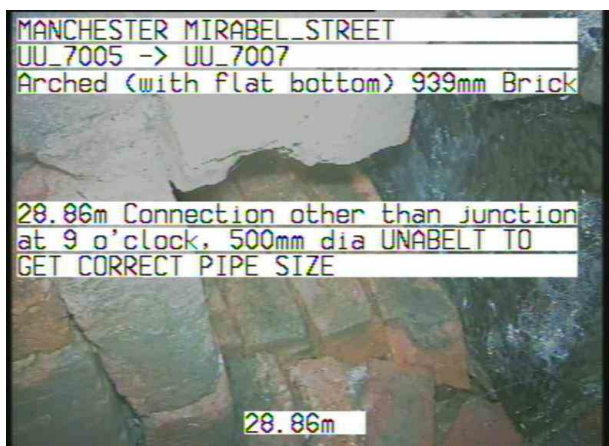
UU_7005X_abea3733-9ef6-459e-b6e6-561245bf003c_20220914_100930_697.jpg, 00:02:23, 13.24 m
General photograph taken at this point



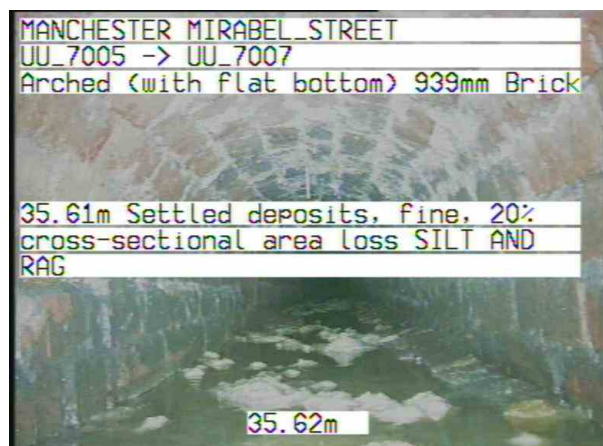
UU_7005X_4716ee5e-008a-40ef-99b1-78fa0c5b3197_20220914_101024_287.jpg, 00:03:03, 17.70 m
Connection other than junction at 3 o'clock, 150mm dia

Section Pictures - 14/09/2022 - UU_7005X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	UU_7005X		



UU_7005X_193d4ec5-3679-483e-aeef-06bde2344741_20220914_101356_648.jpg, 00:05:15, 28.86 m
Connection other than junction at 9 o'clock, 500mm dia, UNABELT TO GET CORRECT PIPE SIZE



UU_7005X_504bc911-f25e-467c-bcce-da7b290b4a56_20220914_102943_198.jpg, 00:06:06, 35.61 m
Settled deposits, fine, 20% cross-sectional area loss, SILT AND RAG



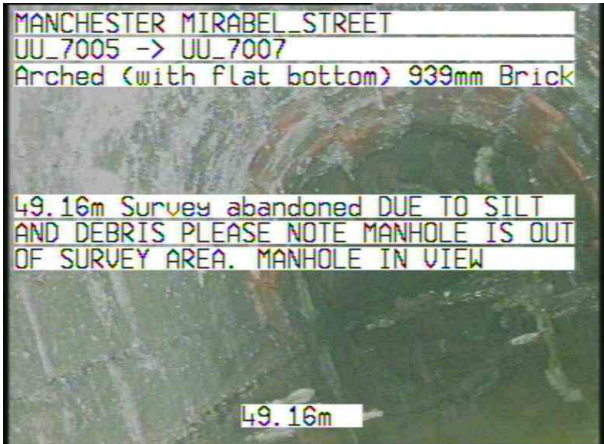
UU_7005X_37ba41dc-8feb-4ca2-810f-908c66b61ced_20220914_103110_290.jpg, 00:07:25, 47.03 m
Connection other than junction at 3 o'clock, 300mm dia



UU_7005X_b2acda02-03ab-403f-9812-f903a72371f7_20220914_103157_784.jpg, 00:08:03, 49.15 m
General remark, MANHOLE IN VIEW

Section Pictures - 14/09/2022 - UU_7005X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	UU_7005X		



UU_7005X_71149428-de08-4840-ae3d-a5864f4123ee_20220914_103244_456.jpg, 00:08:08, 49.16 m
Survey abandoned, DUE TO SILT AND DEBRIS PLEASE NOTE MANHOLE IS OUT OF SURVEY AREA. MANHOLE IN VIEW

Section Inspection - 14/09/2022 - UU_7003X

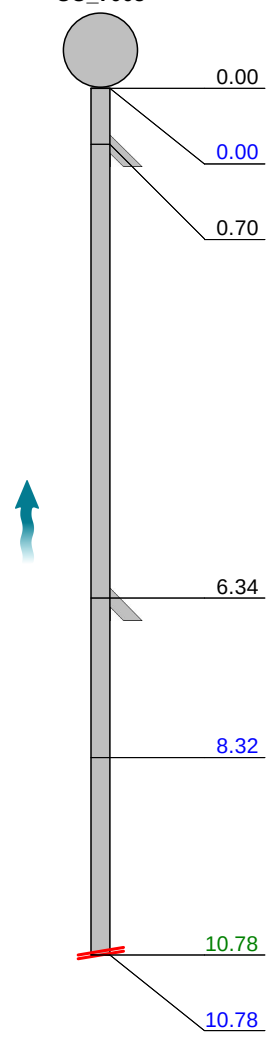


Item No. 2	Insp. No. 1	Date 14/09/22	Time 10:47	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR UU_7003X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Mainline	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	UU_7003
Road:	Mirabel_Street	Inspected Length:	10.78 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	10.78 m	Downstream Node:	UU_7005
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Arched (with flat bottom)		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	939 mm		
Flow Control:	No flow control	Material:	Brick		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:94	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m UU_7005							
		0.00	MH	Start node, manhole, reference: UU_7005	00:00:07		
		0.00	WL	Water level, 10% of the vertical dimension	00:00:08		
		0.70	JN	Junction at 9 o'clock, 450mm dia: BLIND JUNCTION, UNABLE TO GET CORECT SIZE OR CCTV THE LINE	00:00:12	UU_7003X _9ca0fb69 -6053-4fa6	
		6.34	CN	Connection other than junction at 10 o'clock, 150mm dia	00:01:12		
		8.32	GP	General photograph taken at this point	00:01:42	UU_7003X 4a89acd 2-31d0-42	
		10.78	DES	Settled deposits, fine, 30% cross-sectional area loss: UNABLE TO PASS	00:02:15	UU_7003X _d3bdb0f4 -7a0e-48c	4
		10.78	SA	Survey abandoned: DUE TO SILT AND DEBRIS WITHIN LINE CLEAN REQ	00:02:21	UU_7003X _1edc72d 0-f2ad-476	

Construction Features

Miscellaneous Features

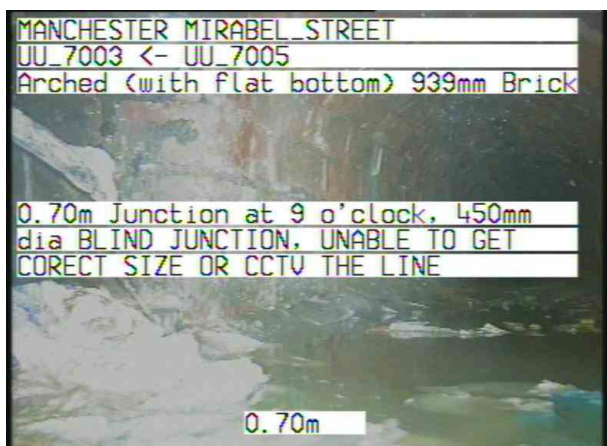
Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	7.1	5.0	5.0

Section Pictures - 14/09/2022 - UU_7003X

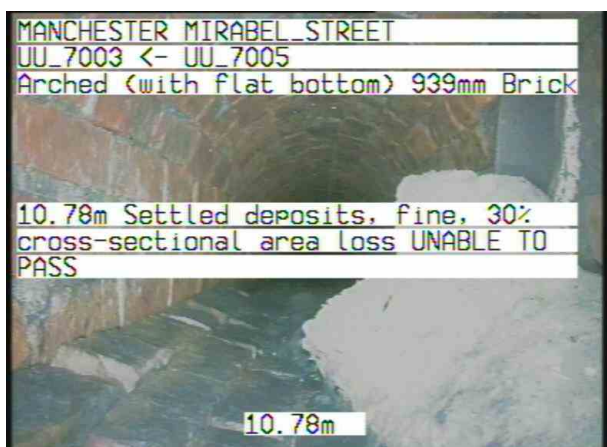
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream	UU_7003X		



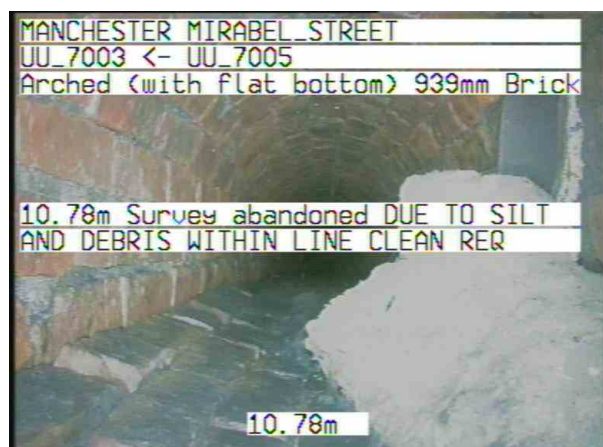
UU_7003X_9ca0fb69-6053-4fa6-bbea-95926490616b_20220914_104810_805.jpg, 00:00:12, 0.70 m
Junction at 9 o'clock, 450mm dia, BLIND JUNCTION, UNABLE TO GET CORRECT SIZE OR CCTV THE LINE



UU_7003X_4a89acd2-31d0-4228-878b-4576d76e746e_20220914_104958_559.jpg, 00:01:42, 8.32 m
General photograph taken at this point



UU_7003X_d3bdb0f4-7a0e-48ce-b8c5-7c9c612f7745_20220914_105043_026.jpg, 00:02:15, 10.78 m
Settled deposits, fine, 30% cross-sectional area loss, UNABLE TO PASS



UU_7003X_1edc72d0-f2ad-4764-9221-44d70cffb5b3_20220914_105105_041.jpg, 00:02:21, 10.78 m
Survey abandoned, DUE TO SILT AND DEBRIS WITHIN LINE CLEAN REQ

Section Inspection - 14/09/2022 - UU_7001X



Item No. 3	Insp. No. 1	Date 14/09/22	Time 11:20	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR UU_7001X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Mainline	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	UU_7001
Road:	Breslyn_Street	Inspected Length:	10.01 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	10.01 m	Downstream Node:	UU_7002
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	300 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:87 Position [m] Code Observation MPEG Photo Grade

Depth: 0.00 m
UU_7001



0.00

MH

Start node, manhole, reference: UU_7001

00:00:06

0.00

WL

Water level, 5% of the vertical dimension

00:00:06



10.01

SCE

Shape changes to egg-shaped, new size(s), 300mm high, 150mm wide

00:01:30

UU_7001X
_204cf936
-b952-4a7

10.01

SA

Survey abandoned: DUE TO PIPE CHANGE SIZE AND SHAPE

00:01:37

UU_7001X
_f4b55c27
-c717-482

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 14/09/2022 - UU_7001X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Downstream	UU_7001X		



UU_7001X_204cf936-b952-4a7a-ba41-949c8656d6f7_20220914_112307_282.jpg, 00:01:30, 10.01 m
Shape changes to egg-shaped, new size(s), 300mm high, 150mm wide



UU_7001X_f4b55c27-c717-4821-b113-a1d981659c8d_20220914_112323_193.jpg, 00:01:37, 10.01 m
Survey abandoned, DUE TO PIPE CHANGE SIZE AND SHAPE

Section Inspection - 14/09/2022 - NODE-1X

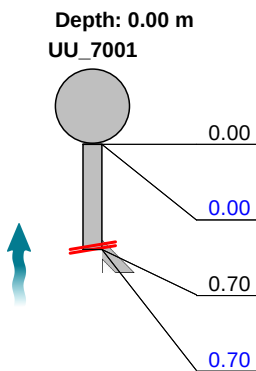


Item No. 4	Insp. No. 1	Date 14/09/22	Time 11:26	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR NODE-1X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Mainline	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	NODE-1
Road:	Breslyn_Street	Inspected Length:	0.70 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	0.70 m	Downstream Node:	UU_7001
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	300 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	MH	Start node, manhole, reference: UU_7001	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:04		
		0.70	JNC	Junction, closed at 9 o'clock, 100mm dia	00:00:13		
		0.70	SA	Survey abandoned: DUE TO LINE BEING CAPPED OFF	00:00:36	NODE-1X _97b57d7 5-f901-41d	

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 14/09/2022 - NODE-1X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Upstream	NODE-1X		



NODE-1X_97b57d75-f901-41d1-b873-5ff2f4315293_20220914_112719_075.jpg, 00:00:36, 0.70 m
Survey abandoned, DUE TO LINE BEING CAPPED OFF

Section Inspection - 14/09/2022 - NODE.2X

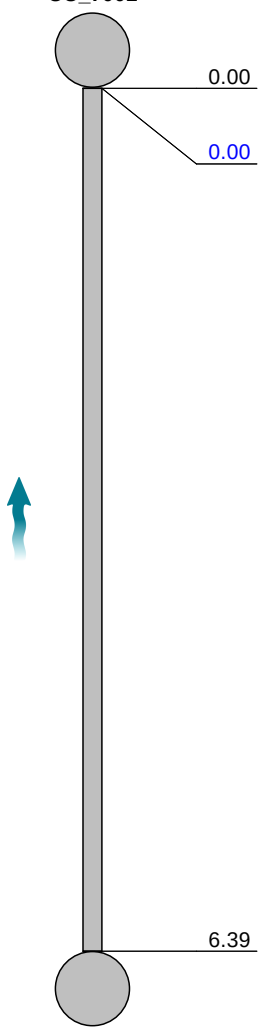


Item No. 5	Insp. No. 1	Date 14/09/22	Time 13:55	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR NODE.2X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	NODE.2
Road:	Breslyn_Street	Inspected Length:	6.39 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	6.39 m	Downstream Node:	UU_7001
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:56	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m UU_7001 							
	0.00	MH		Start node, manhole, reference: UU_7001	00:00:00		
	0.00	WL		Water level, 5% of the vertical dimension	00:00:00		
	6.39	MHF		Finish node, manhole, reference: NODE.2: INTERNAL MANHOLE	00:00:23		
NODE.2 Depth: 0.00 m							

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

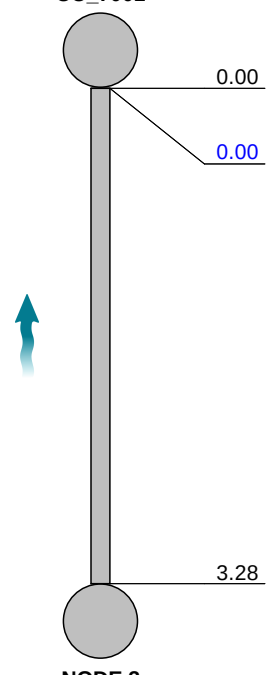
Section Inspection - 14/09/2022 - NODE.3X



Item No. 6	Insp. No. 1	Date 14/09/22	Time 13:55	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR NODE.3X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	NODE.3
Road:	Breslyn_Street	Inspected Length:	3.28 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	3.28 m	Downstream Node:	UU_7001
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m UU_7001 							
		0.00	MH	Start node, manhole, reference: UU_7001	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		3.28	MHF	Finish node, manhole, reference: NODE.3: INTERNAL MANHOLE	00:00:39		
NODE.3 Depth: 0.00 m							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

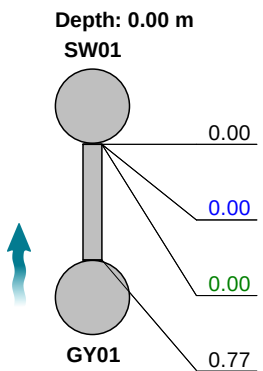
Section Inspection - 14/09/2022 - GY01X



Item No. 7	Insp. No. 1	Date 14/09/22	Time 13:55	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY01X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	GY01
Road:	Breslyn_Street	Inspected Length:	0.77 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	0.77 m	Downstream Node:	SW01
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	MH	Start node, manhole, reference: SW01	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		0.00	DES	Settled deposits, fine, 5% cross-sectional area loss	00:00:00		3
		0.77	GYF	Finish node, gully, reference: GY01	00:00:06		
Depth: 0.00 m							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	2.6	2.0	4.0

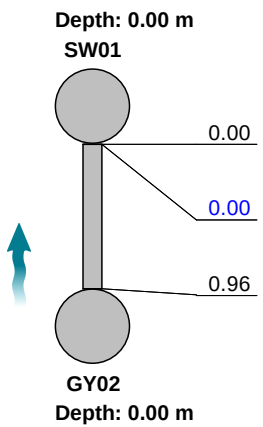
Section Inspection - 14/09/2022 - GY02X



Item No. 8	Insp. No. 1	Date 14/09/22	Time 13:55	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY02X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	GY02
Road:	Breslyn_Street	Inspected Length:	0.96 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	0.96 m	Downstream Node:	SW01
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	MH	Start node, manhole, reference: SW01	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		0.96	GYF	Finish node, gully, reference: GY02	00:00:07		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 14/09/2022 - GY03X

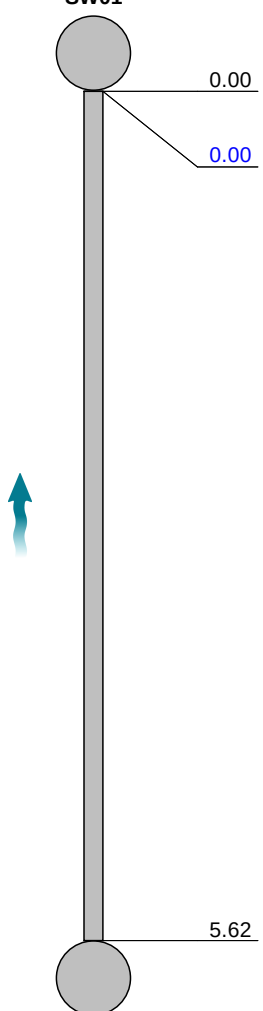


Item No. 9	Insp. No. 1	Date 14/09/22	Time 13:55	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY03X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	GY03
Road:	Breslyn_Street	Inspected Length:	5.62 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	5.62 m	Downstream Node:	SW01
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m SW01 							
		0.00	MH	Start node, manhole, reference: SW01	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		5.62	GYF	Finish node, gully, reference: GY03	00:00:19		
GY03 Depth: 0.00 m							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 15/09/2022 - GY04X

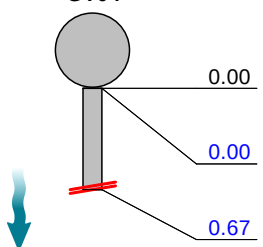


Item No. 10	Insp. No. 1	Date 15/09/22	Time 10:26	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY04X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	GY04
Road:	Mirabel_Street	Inspected Length:	0.67 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	0.67 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m GY04 							
		0.00	GY	Start node, gully, reference: GY04	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		0.67	SA	Survey abandoned: DUE TO SILT PROBE WORKS COMPLETE	00:00:06		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

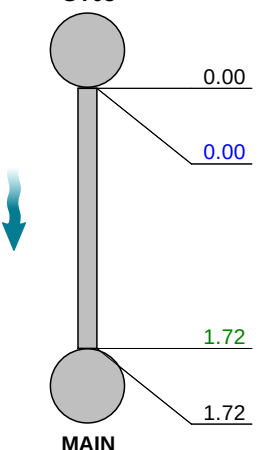
Section Inspection - 15/09/2022 - GY08X



Item No. 11	Insp. No. 1	Date 15/09/22	Time 10:26	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY08X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	GY08
Road:	Mirabel_Street	Inspected Length:	1.72 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	1.72 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	GY	Start node, gully, reference: GY08	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		1.72	LD	Line deviates down	00:00:37		
		1.72	BNF	Finish node, buchan trap, reference: MAIN: LINE DOWN TO MAIN	00:00:37		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 15/09/2022 - GY09X

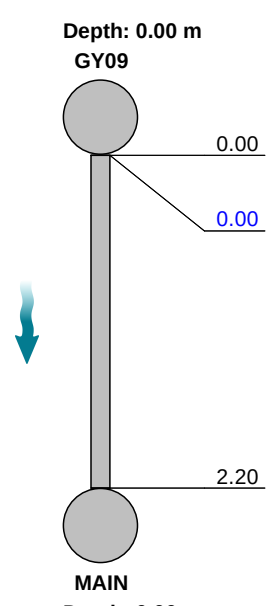


Item No. 12	Insp. No. 1	Date 15/09/22	Time 10:26	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY09X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	GY09
Road:	Mirabel_Street	Inspected Length:	2.20 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	2.20 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	GY	Start node, gully, reference: GY09	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		2.20	OCF	Finish node, other special chamber, reference: MAIN: LINE DOWN TO MAIN	00:00:16		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 15/09/2022 - GY18X



Item No. 13	Insp. No. 1	Date 15/09/22	Time 10:26	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR GY18X
Operator D.EAGLESOME		Vehicle PF21OUH		Camera Push Rod	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	GY18
Road:	Breslyn_Street	Inspected Length:	1.92 m	Upstream Pipe Depth:	0.000 m
Location:	Road	Total Length:	1.92 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	GY	Start node, gully, reference: GY18	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		0.72	LR	Line deviates right	00:00:04		
		1.92	OCF	Finish node, other special chamber, reference: MAIN: MAIN	00:00:12		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Feedback documents available to view and download via the document section on WinCan Web

IWJS Work Record

Work Order

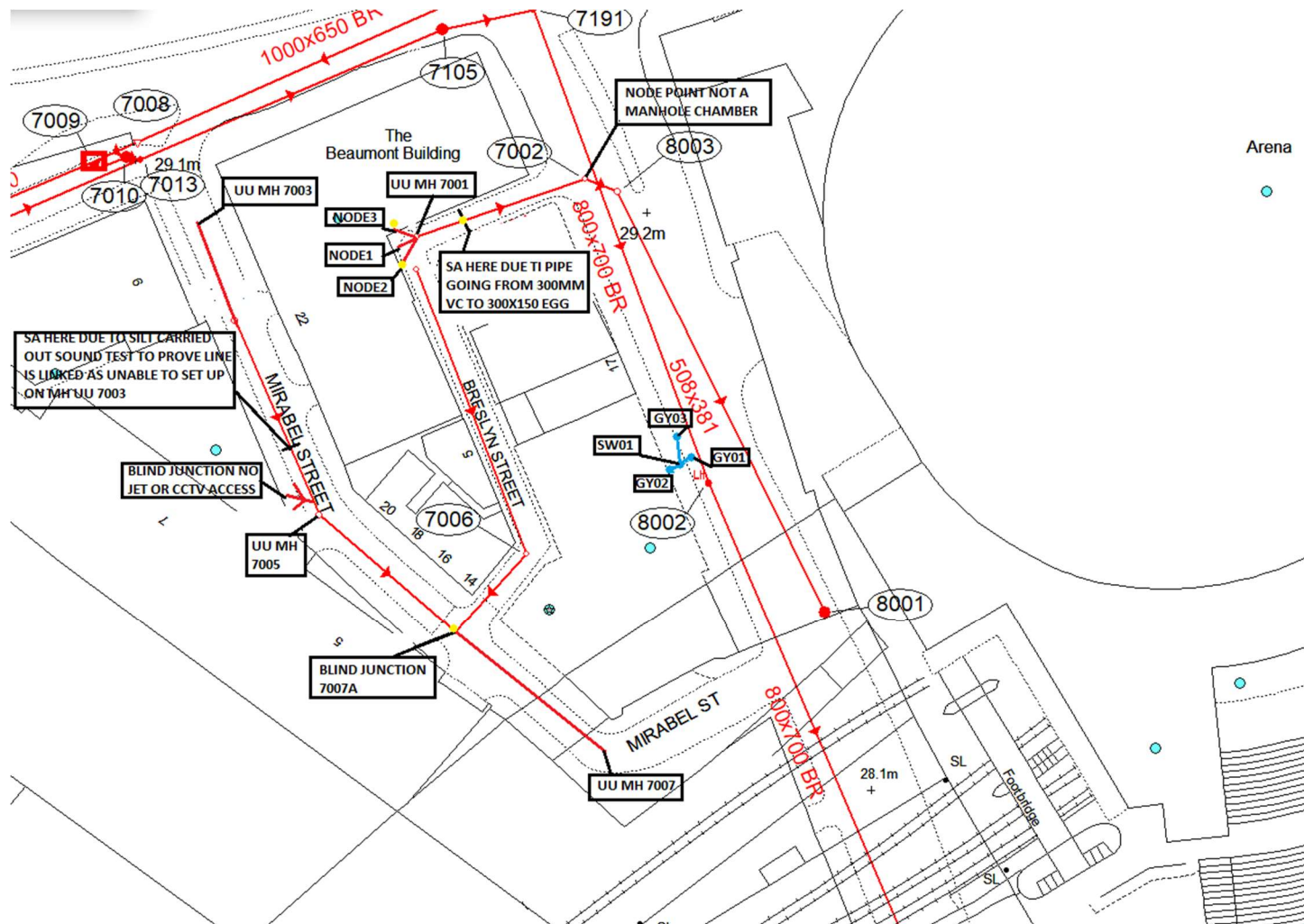
TL Number		Day	Thursday	Date	15/09/2022	Target Time on Site	08:00	Actual Time	08:00
Address		SURVEY SOLUTIONS - GREAT DUCIE STREET MANCHESTER M3 1PJ						DC Name	
Property Occupied?	YES ☐ NO ☐	Property Type	U ☐	R ☐	P ☐	B ☐	I ☐	N ☐	
Instructions		CCTV WORKS WITH MARKED AREA INC GULLYS, TRACE LINES WHEN NEEDED							
Ganger	D.EAGLESOME		Type of Unit (Tick Box)						
2nd Man	F.COLLINS		CCTV	Recycler	Van Pack	Muller	Tanker	Remote Reel	Flexline
3rd Man			☒	☐	☐	☐	☐	☐	☐

REMEMBER TO RING OFFICE OR SITE MANAGER AS SOON AS ANY PROBLEMS ARE ENCOUNTERED ON SITE

Start Time	Finish Time	Activity and Site Details	Hrs	Mins
08:00	14:00	ARRIVED ON SITE AND CARRIED OUT CCTV WORKS ON GULLYS. STARTED ON GY04 AND TRACED TO WHERE THE LINE DROPS TO THE MAIN, AND THEN THE SAME FOR GY08, GY09, GY18 ALL HAVE BEEN MARKED AND PROBE WORKS COMPLETE. PLEASE NOTE GULLYS GY05, GY06, GY07, GY10, GY11, GY12, GY13, GY14, GY15, GY16, GY17 ALL HAD NO CCTV ACCESS AS THEY ARE OLD GULLYS, ON A SWAN NECK STYLE / SYSTEM AND HAVE NO ACCESS FOR CCTV WORKS ALSO WE COULD NOT MAKE OUT ANY SIGN OF A OUTLET EITHER DUE TO THEM BEING SILTED UP (SPEAK TO ADEN FROM IWJS FOR MORE INFORMATION ON WHAT THIS MEANS)		

Sketch Plan (include all details)

Day 1 Plan



Arena



NODE 1, HEAD OF SYSTE LINE IS CAPPED 300MM VC

NODE 2, GOES INTERNAL INTO BUILDING 150MM VC

NODE 3, GOES INTERNAL INTO BUILDING 150MM VC

UU MH 7001 D/S SA DUE TO LINE GOING FROM 300MM VC TO 300X150 EGG (NO OVER LAP ACCESS DUE TO 7002 BEING A NODE POINT)

UU MH 7005 US UU MH 7003, SA DUE TO SILT, PORVE LINE IS LINKED VIA SOUND TESTING PIPE IS BRICK 939MM

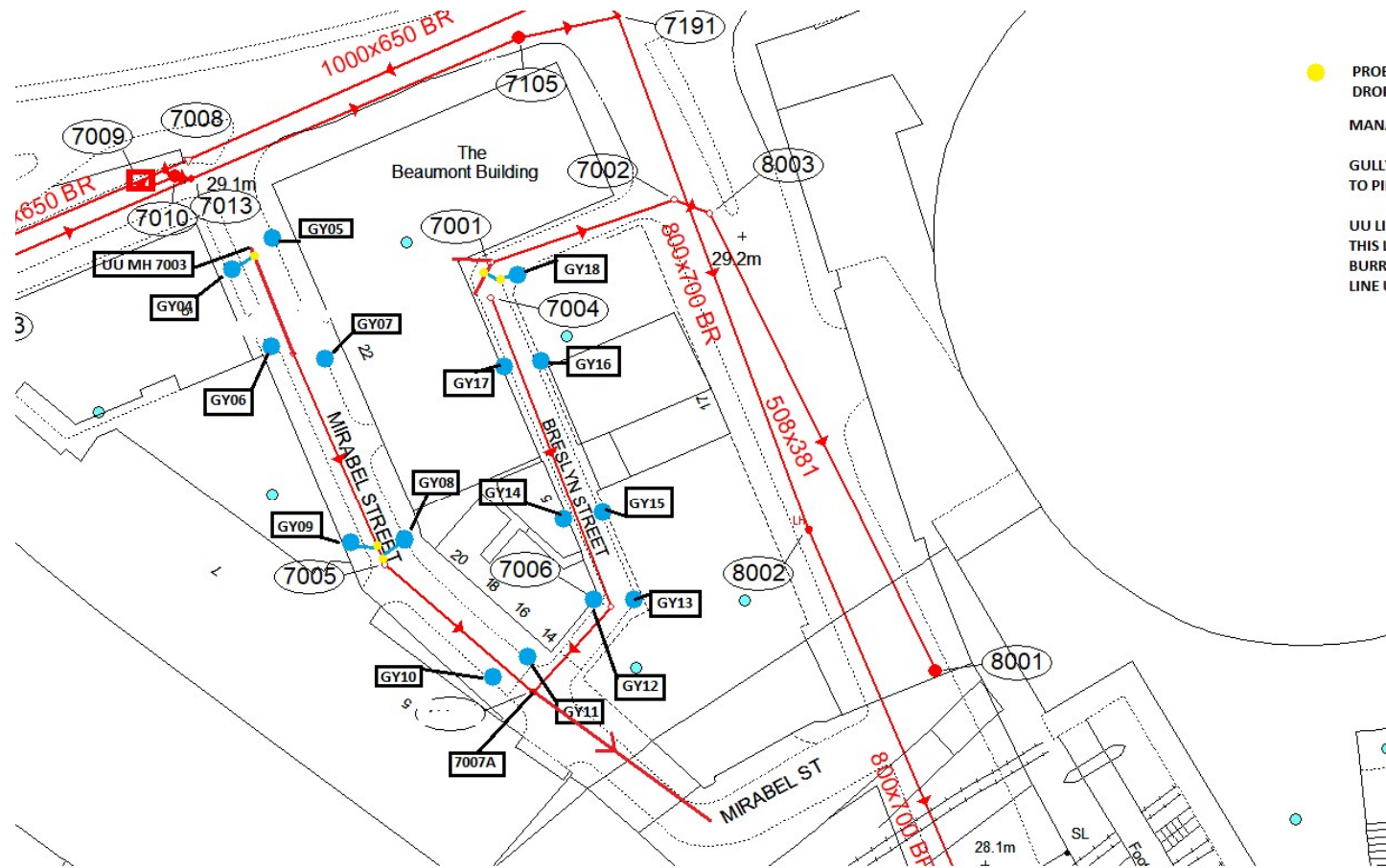
UU 7007A IS A BLIND JUNCTION COMING IN FROM BRESLYN STREET NO CCTV ACCESS AT ALL IN TO THIS LINE UNABLE TO GET CORRECT PIPE SIZE

UU MH 7005 D/S UU MH 7007, 939MM BRICK (UU MH 7007 IS OUT OF SITE BOUNDARY)

SW01 IS A SOAKAWAY, GULLYS GY01, GY02, GY03 ALL DROPPING IN TO SOAKAWAY

● YELLOW DOT IS WHERE SONDE WORK HAS BEEN CARRIED OUT - PROBE AND MARK STILL MORE TO DO NEXT WORKING SHIFT

Day 2 Plan



● PROBE WORKS WHERE GULLYS ARE
DROPPING IN TO LINE AND THE RUN OF LINE

MANAGED TO CCTV GULLYS GY04, GY08, GY09, GY18 AND CARRY OUT PROBE / SONDE WORKS .

GULLYS GY05, 06, 07, 10, 11, 12, 13, 14, 15, 16, 17 ARE ALL OLD TYPE GULLYS WITH NO ACCESS ON
TO PIPE WORKS / SWAN NECK , PLEASE SEE PICTURES ON IWJS FEEDBACK SHEET.

UU LINE 7004 DOWNSTREAM TO 7007A - WE ARE UNABLE TO CARRY OUT AND CCTV WORKS ON
THIS LINE AS THERE IS NO ACCESS ON TO THE LINE, 7004 IS NOT A MANHOLE, IF SO POSSIBLY
BURRIED OR JUST A GHOST NODE AND SAME FOR 7007A - SURVEY SOLUTIONS SHOULD PICK THE
LINE UP ON THE GRP REPORT / SURVEY

Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)	MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S200	28.900	0.700	Open Manhole	450	S1.000	28.200	150					S204	28.625	0.840	Open Manhole	600	S1.003	27.785	150	S1.002	27.785	150	
S201	28.900	0.950	Open Manhole	450	S2.000	27.950	150					STANK	28.625	1.685	Open Manhole	600	S1.004	26.940	150	S1.003	26.940	150	
S202	28.900	0.985	Open Manhole	450	S1.001	27.915	150	S1.000	27.915	150		S205	28.625	1.725	Open Manhole	1200	S1.005	26.900	150	S1.004	26.900	150	
								S2.000	27.915	150		SC200	28.625	1.752	Open Manhole	450	S1.006	26.873	150	S1.005	26.873	150	
S203	28.900	1.015	Open Manhole	450	S1.002	27.885	150	S1.001	27.885	150		S	28.625	1.816	Open Manhole	0		OUTFALL		S1.006	26.809	150	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S200	383804.406	399033.062	383804.406	399033.062	Required	
S201	383812.088	399022.127	383812.088	399022.127	Required	
S202	383809.533	399020.810	383809.533	399020.810	Required	
S203	383807.226	399018.604	383807.226	399018.604	Required	
S204	383798.771	399014.893	383798.771	399014.893	Required	
STANK	383801.170	399010.981	383801.170	399010.981	Required	
S205	383798.044	399008.883	383798.044	399008.883	Required	
SC200	383797.106	399006.353	383797.106	399006.353	Required	
S	383798.474	399004.536			No Entry	

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	o	150	S200	28.900	28.200	0.550	Open Manhole	450
S2.000	o	150	S201	28.900	27.950	0.800	Open Manhole	450
S1.001	o	150	S202	28.900	27.915	0.835	Open Manhole	450
S1.002	o	150	S203	28.900	27.885	0.865	Open Manhole	450
S1.003	o	150	S204	28.625	27.785	0.690	Open Manhole	600
S1.004	o	150	STANK	28.625	26.940	1.535	Open Manhole	600
S1.005	o	150	S205	28.625	26.900	1.575	Open Manhole	1200
S1.006	o	150	SC200	28.625	26.873	1.602	Open Manhole	450

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	13.281	46.6	S202	28.900	27.915	0.835	Open Manhole	450
S2.000	2.874	82.1	S202	28.900	27.915	0.835	Open Manhole	450
S1.001	3.192	106.4	S203	28.900	27.885	0.865	Open Manhole	450
S1.002	9.234	92.3	S204	28.625	27.785	0.690	Open Manhole	600
S1.003	4.589	5.4	STANK	28.625	26.940	1.535	Open Manhole	600
S1.004	3.765	94.1	S205	28.625	26.900	1.575	Open Manhole	1200
S1.005	2.698	99.9	SC200	28.625	26.873	1.602	Open Manhole	450
S1.006	2.274	35.5	S	28.625	26.809	1.666	Open Manhole	0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.006	S	28.625	26.809	0.000	0	0

Online Controls for Storm

Hydro-Brake® Optimum Manhole: S205, DS/PN: S1.005, Volume (m³): 2.0

Unit Reference	MD-SHE-0099-5200-1600-5200	Objective	Minimise upstream storage	Invert Level (m)	26.900
Design Head (m)	1.600	Application	Surface	Minimum Outlet Pipe Diameter (mm)	150
Design Flow (l/s)	5.2	Sump Available	Yes	Suggested Manhole Diameter (mm)	1200
Flush-Flo™	Calculated	Diameter (mm)	99		

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.600	5.2	Flush-Flo™	0.432	4.9	Kick-Flo®	0.880	3.9	Mean Flow over Head Range	-	4.4

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.2	0.500	4.9	1.200	4.5	2.000	5.8	3.000	7.0	5.000	8.9	7.000	10.4	9.000	11.7
0.200	4.5	0.600	4.8	1.400	4.9	2.200	6.0	3.500	7.5	5.500	9.3	7.500	10.8	9.500	12.1
0.300	4.8	0.800	4.4	1.600	5.2	2.400	6.3	4.000	8.0	6.000	9.7	8.000	11.1		
0.400	4.9	1.000	4.2	1.800	5.5	2.600	6.5	4.500	8.4	6.500	10.1	8.500	11.4		

Storage Structures for Storm

Cellular Storage Manhole: STANK, DS/PN: S1.004

Invert Level (m) 26.940 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 1.00
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	16.0	0.0	0.800	16.0	0.0	0.810	0.0	0.0

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Hot Start Level (mm) 0 Foul Sewage per hectare (l/s) 0.000 MADD Factor * 10m³/ha Storage 2.000 Flow per Person per Day (l/per/day) 0.000
Hot Start (mins) 0 Manhole Headloss Coeff (Global) 0.500 Additional Flow - % of Total Flow 0.000 Inlet Coeffiecient 0.800

Number of Input Hydrographs 0 Number of Online Controls 1 Number of Offline Controls 0 Number of Storage Structures 1 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Region England and Wales M5-60 (mm) 18.100 Ratio R 0.360 Cv (Summer) 0.750 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 Analysis Timestep Fine DTS Status OFF DVD Status OFF Inertia Status ON

Profile(s) Summer and Winter

Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440

Return Period(s) (years) 1, 30, 100

Climate Change (%) 0, 0, 40

US/MH			Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Surcharged Flooded			Half Drain		Pipe Flow	Status	Level Exceeded
PN	Name	Storm							Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Time (mins)		
S1.000	S200	15 Winter	1	+0%	100/15	Summer			28.245	-0.105	0.000	0.20		4.7	OK	
S2.000	S201	15 Winter	1	+0%	100/15	Summer			27.995	-0.105	0.000	0.02		0.2	OK	
S1.001	S202	15 Winter	1	+0%	30/15	Summer			27.995	-0.070	0.000	0.54		5.8	OK	
S1.002	S203	15 Winter	1	+0%	100/15	Summer			27.948	-0.087	0.000	0.36		5.9	OK	
S1.003	S204	15 Winter	1	+0%	100/30	Summer			27.821	-0.114	0.000	0.13		7.6	OK	
S1.004	STANK	30 Winter	1	+0%	30/15	Summer			27.061	-0.029	0.000	0.27	12	3.4	OK	
S1.005	S205	30 Winter	1	+0%	1/15	Winter			27.055	0.005	0.000	0.34		3.6	SURCHARGED	
S1.006	SC200	30 Winter	1	+0%					26.922	-0.101	0.000	0.23		3.6	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Hot Start Level (mm) 0 Foul Sewage per hectare (l/s) 0.000 MADD Factor * 10m³/ha Storage 2.000 Flow per Person per Day (l/per/day) 0.000
Hot Start (mins) 0 Manhole Headloss Coeff (Global) 0.500 Additional Flow - % of Total Flow 0.000 Inlet Coeffiecient 0.800

Number of Input Hydrographs 0 Number of Online Controls 1 Number of Offline Controls 0 Number of Storage Structures 1 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Region England and Wales M5-60 (mm) 18.100 Ratio R 0.360 Cv (Summer) 0.750 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 Analysis Timestep Fine DTS Status OFF DVD Status OFF Inertia Status ON

										Profile(s)		Summer and Winter						
										Duration(s) (mins)		15, 30, 60, 120, 240, 360, 480, 960, 1440						
										Return Period(s) (years)		1, 30, 100						
										Climate Change (%)		0, 0, 40						
			US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Water	Surcharged	Flooded		Half Drain	Pipe		
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)	(m)	Volume	Flow /	Overflow	Time	Flow	Status	Level	
											(m³)	Cap.	(l/s)	(mins)	(l/s)		Exceeded	
S1.000	S200	15 Winter	30	+0%	100/15 Summer				28.274	-0.076	0.000	0.48			11.5		OK	
S2.000	S201	15 Winter	30	+0%	100/15 Summer				28.088	-0.012	0.000	0.05			0.6		OK	
S1.001	S202	15 Winter	30	+0%	30/15 Summer				28.087	0.022	0.000	1.37			14.8	SURCHARGED		
S1.002	S203	15 Winter	30	+0%	100/15 Summer				27.999	-0.036	0.000	0.91			14.8		OK	
S1.003	S204	15 Winter	30	+0%	100/30 Summer				27.847	-0.088	0.000	0.35			19.9		OK	
S1.004	STANK	30 Winter	30	+0%	30/15 Summer				27.363	0.273	0.000	0.38		19	4.7	SURCHARGED		
S1.005	S205	30 Winter	30	+0%	1/15 Winter				27.355	0.305	0.000	0.45			4.9	SURCHARGED		
S1.006	SC200	30 Winter	30	+0%					26.930	-0.093	0.000	0.31			4.9		OK	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Hot Start Level (mm) 0 Foul Sewage per hectare (l/s) 0.000 MADD Factor * 10m³/ha Storage 2.000 Flow per Person per Day (l/per/day) 0.000
Hot Start (mins) 0 Manhole Headloss Coeff (Global) 0.500 Additional Flow - % of Total Flow 0.000 Inlet Coeffiecient 0.800

Number of Input Hydrographs 0 Number of Online Controls 1 Number of Offline Controls 0 Number of Storage Structures 1 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Region England and Wales M5-60 (mm) 18.100 Ratio R 0.360 Cv (Summer) 0.750 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 Analysis Timestep Fine DTS Status OFF DVD Status OFF Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 40

										Water	Surcharged	Flooded	Half Drain		Pipe		
PN	US/MH			Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level	Depth	Volume	Flow /	Overflow	Time	Flow	Level
	Name	Storm		Period	Change	Surcharge	Flood	Overflow	Act.	(m)	(m)	(m³)	Cap.	(l/s)	(mins)	(l/s)	Status
S1.000	S200	60	Winter	100	+40%	100/15	Summer			28.647	0.297	0.000	0.47			11.3	FLOOD RISK
S2.000	S201	60	Winter	100	+40%	100/15	Summer			28.636	0.536	0.000	0.05			0.6	FLOOD RISK
S1.001	S202	60	Winter	100	+40%	30/15	Summer			28.636	0.571	0.000	1.32			14.4	FLOOD RISK
S1.002	S203	60	Winter	100	+40%	100/15	Summer			28.630	0.595	0.000	0.88			14.4	FLOOD RISK
S1.003	S204	60	Winter	100	+40%	100/30	Summer			28.617	0.682	0.000	0.33			19.3	FLOOD RISK
S1.004	STANK	60	Winter	100	+40%	30/15	Summer			28.608	1.518	0.000	0.55		48	6.9	FLOOD RISK
S1.005	S205	60	Winter	100	+40%	1/15	Winter			28.600	1.550	0.000	0.48			5.2	FLOOD RISK
S1.006	SC200	60	Winter	100	+40%					26.932	-0.091	0.000	0.33			5.2	OK

Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)	MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S100	28.700	0.750	Open Manhole	600	S1.000	27.950	150					S101	28.700	1.435	Open Manhole	1200	S1.002	27.265	150	S1.001	27.265	150	
STANK	28.700	1.400	Open Manhole	600	S1.001	27.300	150	S1.000	27.915	150	615	S	28.700	1.700	Open Manhole	0		OUTFALL		S1.002	27.000	150	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S100	383775.882	399028.100	383775.882	399028.100	Required	
STANK	383777.284	399024.871	383777.284	399024.871	Required	
S101	383778.504	399021.804	383778.504	399021.804	Required	
S	383777.515	399020.651			No Entry	

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	o	150	S100	28.700	27.950	0.600	Open Manhole	600
S1.001	o	150	STANK	28.700	27.300	1.250	Open Manhole	600
S1.002	o	150	S101	28.700	27.265	1.285	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	3.520	100.6	STANK	28.700	27.915	0.635	Open Manhole	600
S1.001	3.301	94.3	S101	28.700	27.265	1.285	Open Manhole	1200
S1.002	1.519	5.7	S	28.700	27.000	1.550	Open Manhole	0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.002	S	28.700	27.000	0.000	0	0

Online Controls for Storm

Hydro-Brake® Optimum Manhole: S101, DS/PN: S1.002, Volume (m³): 1.7

Unit Reference	MD-SHE-0077-2600-1000-2600	Objective	Minimise upstream storage	Invert Level (m)	27.265
Design Head (m)	1.000	Application	Surface	Minimum Outlet Pipe Diameter (mm)	100
Design Flow (l/s)	2.6	Sump Available	Yes	Suggested Manhole Diameter (mm)	1200
Flush-Flo™	Calculated	Diameter (mm)	77		

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	2.6	Flush-Flo™	0.300	2.6	Kick-Flo®	0.622	2.1	Mean Flow over Head Range	-	2.3

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	2.2	0.500	2.5	1.200	2.8	2.000	3.6	3.000	4.3	5.000	5.5	7.000	6.4	9.000	7.2
0.200	2.5	0.600	2.2	1.400	3.0	2.200	3.7	3.500	4.6	5.500	5.7	7.500	6.6	9.500	7.4
0.300	2.6	0.800	2.3	1.600	3.2	2.400	3.9	4.000	4.9	6.000	6.0	8.000	6.8		
0.400	2.6	1.000	2.6	1.800	3.4	2.600	4.0	4.500	5.2	6.500	6.2	8.500	7.0		

Storage Structures for Storm

Cellular Storage Manhole: STANK, DS/PN: S1.001

Invert Level (m) 27.300 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 1.00
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	8.0	0.0	0.800	8.0	0.0	0.810	0.0	0.0

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Hot Start Level (mm) 0 Foul Sewage per hectare (l/s) 0.000 MADD Factor * 10m³/ha Storage 2.000 Flow per Person per Day (l/per/day) 0.000
Hot Start (mins) 0 Manhole Headloss Coeff (Global) 0.500 Additional Flow - % of Total Flow 0.000 Inlet Coeffiecient 0.800

Number of Input Hydrographs 0 Number of Online Controls 1 Number of Offline Controls 0 Number of Storage Structures 1 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Region England and Wales M5-60 (mm) 18.100 Ratio R 0.360 Cv (Summer) 0.750 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DTS Status ON Inertia Status ON
Analysis Timestep 2.5 Second Increment (Extended) DVD Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 40

			Water				Surcharged			Flooded			Half Drain			Pipe			
PN	US/MH	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Time (mins)	Flow (l/s)	Status	Level Exceeded		
S1.000	S100	15 Winter	1	+0%	100/15 Summer				28.013	-0.087	0.000	0.36			4.2	OK			
S1.001	STANK	15 Winter	1	+0%	30/15 Summer				27.392	-0.058	0.000	0.21		8	2.4	OK			
S1.002	S101	15 Winter	1	+0%	30/15 Summer				27.388	-0.027	0.000	0.07			2.3	OK			

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Hot Start Level (mm) 0 Foul Sewage per hectare (l/s) 0.000 MADD Factor * 10m³/ha Storage 2.000 Flow per Person per Day (l/per/day) 0.000

Hot Start (mins) 0 Manhole Headloss Coeff (Global) 0.500 Additional Flow - % of Total Flow 0.000 Inlet Coeffiecient 0.800

Number of Input Hydrographs 0 Number of Online Controls 1 Number of Offline Controls 0 Number of Storage Structures 1 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Region England and Wales M5-60 (mm) 18.100 Ratio R 0.360 Cv (Summer) 0.750 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DTS Status ON Inertia Status ON

Analysis Timestep 2.5 Second Increment (Extended) DVD Status ON

Profile(s) Summer and Winter

Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440

Return Period(s) (years) 1, 30, 100

Climate Change (%) 0, 0, 40

			Water				Surcharged				Flooded				Half Drain		Pipe		
PN	US/MH	Storm	Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level	Depth	Volume	Flow /	Overflow	Time	Flow	Status	Level		
	Name		Period	Change	Surcharge	Flood	Overflow	Act.	(m)	(m)	(m³)	Cap.	(l/s)	(mins)	(l/s)		Exceeded		
S1.000	S100	15 Winter	30	+0%	100/15 Summer				28.061	-0.039	0.000	0.88			10.3		OK		
S1.001	STANK	30 Winter	30	+0%	30/15 Summer				27.657	0.207	0.000	0.28		18	3.2	SURCHARGED			
S1.002	S101	30 Winter	30	+0%	30/15 Summer				27.654	0.239	0.000	0.08			2.6	SURCHARGED			

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor 1.000 Hot Start Level (mm) 0 Foul Sewage per hectare (l/s) 0.000 MADD Factor * 10m³/ha Storage 2.000 Flow per Person per Day (l/per/day) 0.000

Hot Start (mins) 0 Manhole Headloss Coeff (Global) 0.500 Additional Flow - % of Total Flow 0.000 Inlet Coeffiecient 0.800

Number of Input Hydrographs 0 Number of Online Controls 1 Number of Offline Controls 0 Number of Storage Structures 1 Number of Time/Area Diagrams 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Region England and Wales M5-60 (mm) 18.100 Ratio R 0.360 Cv (Summer) 0.750 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DTS Status ON Inertia Status ON

Analysis Timestep 2.5 Second Increment (Extended) DVD Status ON

Profile(s) Summer and Winter

Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440

Return Period(s) (years) 1, 30, 100

Climate Change (%) 0, 0, 40

										Water	Surcharged	Flooded	Half Drain			Pipe		
PN	US/MH			Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level	Depth	Volume	Flow /	Overflow	Time	Flow	Level	
	Name	Storm		Period	Change	Surcharge	Flood	Overflow	Act.	(m)	(m)	(m³)	Cap.	(l/s)	(mins)	(l/s)	Status	
S1.000	S100	60	Winter	100	+40%	100/15	Summer			28.254	0.154	0.000	0.87			10.2	SURCHARGED	
S1.001	STANK	60	Winter	100	+40%	30/15	Summer			28.250	0.800	0.000	0.29		43	3.4	SURCHARGED	
S1.002	S101	60	Winter	100	+40%	30/15	Summer			28.247	0.832	0.000	0.08			2.6	SURCHARGED	

Civic Engineers

**Carvers Warehouse
77 Dale Street,
Manchester,
M1 2HG**

FAO:

How to contact us:

**United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP**

Telephone: 0370 7510101

E-mail: [REDACTED]

**Your Ref: 2556
Our Ref: UUPS-ORD-32280
Date: 22/05/2018**

Dear Sirs

Location: Mirabel House Great Ducie St

I acknowledge with thanks your request dated 18/05/2018 for information on the location of our services.

Please find enclosed plans showing the approximate position of United Utilities' apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read United Utilities' access statement before you start work to check how it will affect our network. <http://www.unitedutilities.com/work-near-asset.aspx>.

I trust the above meets with your requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please [contact us](#).

Yours Faithfully,



Karen McCormack
Property Searches Manager

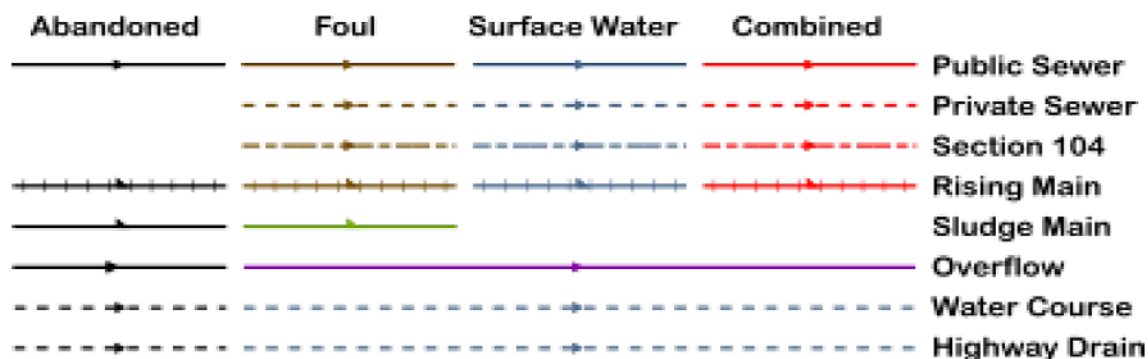
TERMS AND CONDITIONS - WASTERWATER AND WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

TERMS AND CONDITIONS:

- This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
- This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
- In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
- The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
- The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
- This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
- No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
- If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
- This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

Wastewater Symbology



All point assets follow the standard colour convention: **red** – combined **brown** - foul
blue – surface water **purple** - overflow

Manhole	Side Entry Manhole
Head of System	Outfall
Extent of Survey	Screen Chamber
Rodding Eye	Inspection Chamber
Inlet	Bifurcation Chamber
Discharge Point	Lamp Hole
Vortex	T Junction / Saddle
Penstock	Catchpit
Washout Chamber	Valve Chamber
Valve	Vent Column
Air Valve	Vortex Chamber
Non Return Valve	Penstock Chamber
Soakaway	Network Storage Tank
Gully	Sewer Overflow
Cascade	Ww Treatment Works
Flow Meter	Ww Pumping Station
Hatch Box	Septic Tank
Oil Interceptor	Control Kiosk
Summit	
Drop Shaft	Change of Characteristic
Orifice Plate	

