



Project Information

Project Name	Project Number	Project Date
N1427-Northolt-High-School	N1427	23/05/2022

Client

Company: Example
Contact: Example
Street: Example
Town or City: Example
County: Example
Phone: Example
Email: Example

Site

Street: Example
Town or City: Example
County: Example
Post Code: Example

Contractor

Company: Laser Surveys Limited
Department: Open Space
Street: Leigh Sinton Road
Town or City: Malvern
County: Worcestershire
Post Code: WR14 1UT
Phone: 01886 833173
Email: worcester@lasersurveys.com





Defect Grade Description (Section)

Project Name	Project Number	Project Date
N1427-Northolt-High-School	N1427	23/05/2022

1:	<p>Brick: No structural defects.</p> <p>Other: No structural defects.</p> <p>Acceptable structural condition.</p>
2:	<p>Brick: Circumferential cracking; single longitudinal crack; surface mortar loss (depth missing < 15mm); surface damage - slight spalling (breaking away of small fragments from the surface); surface damage - slight wear (increased roughness).</p> <p>Other: Circumferential crack; moderate joint defects (i.e. medium open joint or medium displaced joint); surface damage - slight spalling (breaking away of small fragments from the surface) or slight wear (increased roughness).</p> <p>Minimal collapse likelihood in the short term but potential for further deterioration.</p>
3:	<p>Brick: Medium mortar loss (depth missing 15-50mm) without other defects; more than one longitudinal crack (at a single location); multiple cracking; single bricks displaced; deformation < 5%; no fracture and only moderate mortar loss; surface damage - medium spalling (large areas of chipped brick); surface damage - medium wear (large area of brick surface is missing).</p> <p>Other: Fracture with no deformation or deformation < 5%; longitudinal cracking or multiple cracking; minor loss of level; severe joint defects (i.e. large open joint or large displaced joint); surface damage - partial area of pipe surface is missing or worn.</p> <p>Collapse unlikely in the near future but further deterioration likely</p>
4:	<p>Brick: Total mortar loss (depth missing > 50mm) with deformation > 10%; deformation up to 10% and fractured; displaced or hanging brickwork; small number of missing bricks; dropped invert (drop > 20mm); moderate loss of level; surface damage - large spalling (entire surface of brick is missing); surface damage - large wear (entire surface of brick is missing).</p> <p>Other: Broken; deformation up to 10% and broken; fracture with deformation 5-10%; multiple fractures; serious loss of level; serious joint defects with voids or soil visible (open joint with > 50mm soil or void visible or joint displacement > 25% of diameter); surface damage - entire area of pipe surface is missing or severely worn.</p> <p>Collapse likely in the foreseeable future</p>
5:	<p>Brick: Already collapsed; missing Invert; deformation > 10% and fractured; displaced or hanging brickwork and deformation < 10%; extensive areas of missing brickwork.</p> <p>Other: Already collapsed; deformation > 10% and broken; extensive areas of pipe fabric missing; fractures with deformation > 10%</p> <p>Collapsed or collapse imminent</p>



Section Inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
67	1	24/05/22	15:27	Not Specified	No Rain Or Snow	No	SW8401X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dan		Van 1		Crawler 1	Not Specified	Public Sewer	Not Specified

Town or Village:	Northolt	Inspection Direction:	Downstream	Upstream Node:	SW8401
Road:		Inspected Length:	36.60 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	36.60 m	Downstream Node:	SW01
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Flow Control:	No flow control		Pipe Material:	Vitrified clay pipe (i.e. all clayware)	
Year Constructed:	Not Specified		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection of condition		Lining Material:	No Lining	
Comments:	Time 00 49 17				
Recommendations:					

Scale:	1:317	Position [m]	Code	Observation	Photo	Grade
Depth: m SW8401						
		0.00	MH	Start node, manhole, reference: SW8401		
		0.00	WL	Water level, 5% of the vertical dimension		
		0.50	SC	Size changes, new size(s), 300mm high		
		8.90	RMJ	Roots, mass at joint, 5% cross-sectional area loss		3
		19.00	RMJ	Roots, mass at joint, 5% cross-sectional area loss	1	3
		24.60	RMJ	Roots, mass at joint, 5% cross-sectional area loss		3
		32.10	CN	Connection other than junction at 3 o'clock, diameter: 150mm		
		35.70	CN	Connection other than junction at 2 o'clock, diameter: 100mm		
		36.60	MHF	Finish node, manhole, reference: SW01		
SW01 Depth: m						
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak
0	0.0	0.0	0.0	1.0	3	2.0
						SER Mean
						0.2
						SER Total
						6.0
						SER Grade
						3.0



laser surveys
land, building and underground services

Laser Surveys Limited

Leigh Sinton Road, Malvern

Tel. 01886 833173

worcester@lasersurveys.com

Section Pictures

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
67	Downstream	SW8401X		N1427



1, 00:01:32, 19.00 m

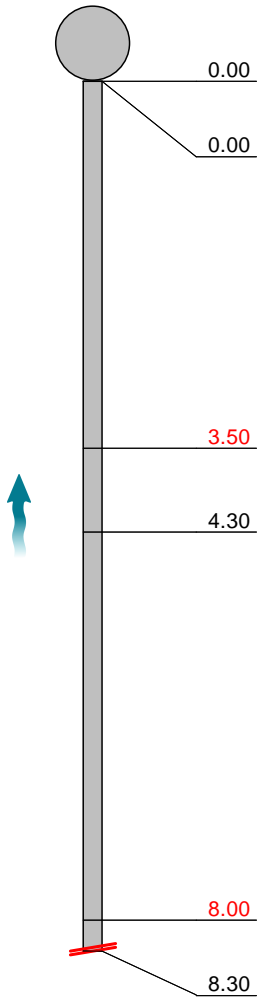
Roots, mass at joint, 5% cross-sectional area loss



Section Inspection

Item No. 71	Insp. No. 1	Date 24/05/22	Time 15:29	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR FW26X
Operator Dan		Vehicle Van 1		Camera Crawler 1	Preset Length Not Specified	Legal Status Public Sewer	Alternative ID Not Specified

Town or Village:	Northolt	Inspection Direction:	Upstream	Upstream Node:	FW26
Road:		Inspected Length:	8.30 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	8.30 m	Downstream Node:	FW7802
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay pipe (i.e. all clayware)		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		
Comments:	Time 00 59 03				
Recommendations:					

Scale:	1:72	Position [m]	Code	Observation	Photo	Grade			
<div><div><div>Depth: m FW7802</div><div></div></div></div>									
		0.00	MH	Start node, manhole, reference: FW7802					
		0.00	WL	Water level, 5% of the vertical dimension					
		3.50	OBX	Other obstacles in invert from 4 o'clock to 8 o'clock, 15% cross-sectional area loss: Unknown Obstruction		5			
		4.30	WL	Water level, 15% of the vertical dimension					
		8.00	OBX	Other obstacles in invert from 4 o'clock to 8 o'clock, 20% cross-sectional area loss: Possible Rubble	1	5			
		8.30	SA	Survey abandoned: Stuck at Obstruction					
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	10.0	2.4	20.0	5.0



laser surveys
land, building and underground services

Laser Surveys Limited

Leigh Sinton Road, Malvern

Tel. 01886 833173

worcester@lasersurveys.com

Section Pictures

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
71	Upstream	FW26X		N1427



1, 00:02:00, 8.00 m

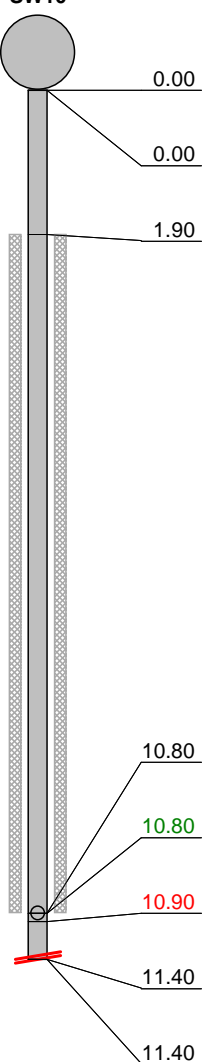
Other obstacles in invert from 4 o'clock to 8 o'clock, 20% cross-sectional area loss, Possible Rubble



Section Inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
131	1	25/05/22	14:57	Not Specified	No Rain Or Snow	No	SW11X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dan		Van 1		Crawler 1	Not Specified	Private Sewer	Not Specified

Town or Village:	Northolt	Inspection Direction:	Upstream	Upstream Node:	SW11
Road:		Inspected Length:	11.40 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	11.40 m	Downstream Node:	SW10
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Flow Control:	No flow control		Pipe Material:	Vitrified clay pipe (i.e. all clayware)	
Year Constructed:	Not Specified		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection of condition		Lining Material:	No Lining	
Comments:	Time 01 47 22				
Recommendations:					

Scale:	1:99	Position [m]	Code	Observation	Photo	Grade																																																								
<div><div><div>Depth: m</div><div>SW10</div></div><table><tr><td></td><td></td><td>0.00</td><td>MH</td><td>Start node, manhole, reference: SW10</td><td></td><td></td></tr><tr><td></td><td></td><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td><td></td><td></td></tr><tr><td></td><td></td><td>1.90</td><td>S01</td><td>DER</td><td>Settled deposits, coarse, 5% cross-sectional area loss, start</td><td></td></tr><tr><td></td><td></td><td>10.80</td><td>CN</td><td>Connection other than junction at 12 o'clock, diameter: 100mm</td><td></td><td></td></tr><tr><td></td><td></td><td>10.80</td><td>F01</td><td>DER</td><td>Settled deposits, coarse, 5% cross-sectional area loss, finish</td><td>2</td></tr><tr><td></td><td></td><td>10.90</td><td>OBC</td><td>Obstacles through connection or junction at 12 o'clock, 5% cross-sectional area loss: Metal Spike</td><td>1</td><td>5</td></tr><tr><td></td><td></td><td>11.40</td><td>SA</td><td>Survey abandoned: Stuck at Obstruction</td><td></td><td></td></tr><tr><td></td><td></td><td>11.40</td><td>REM</td><td>General remark: See Also Section 135</td><td></td><td></td></tr></table></div>									0.00	MH	Start node, manhole, reference: SW10					0.00	WL	Water level, 5% of the vertical dimension					1.90	S01	DER	Settled deposits, coarse, 5% cross-sectional area loss, start				10.80	CN	Connection other than junction at 12 o'clock, diameter: 100mm					10.80	F01	DER	Settled deposits, coarse, 5% cross-sectional area loss, finish	2			10.90	OBC	Obstacles through connection or junction at 12 o'clock, 5% cross-sectional area loss: Metal Spike	1	5			11.40	SA	Survey abandoned: Stuck at Obstruction					11.40	REM	General remark: See Also Section 135		
		0.00	MH	Start node, manhole, reference: SW10																																																										
		0.00	WL	Water level, 5% of the vertical dimension																																																										
		1.90	S01	DER	Settled deposits, coarse, 5% cross-sectional area loss, start																																																									
		10.80	CN	Connection other than junction at 12 o'clock, diameter: 100mm																																																										
		10.80	F01	DER	Settled deposits, coarse, 5% cross-sectional area loss, finish	2																																																								
		10.90	OBC	Obstacles through connection or junction at 12 o'clock, 5% cross-sectional area loss: Metal Spike	1	5																																																								
		11.40	SA	Survey abandoned: Stuck at Obstruction																																																										
		11.40	REM	General remark: See Also Section 135																																																										
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	11.0	1.7	19.0	5.0																																																					



laser surveys
land, building and underground services

Laser Surveys Limited

Leigh Sinton Road, Malvern

Tel. 01886 833173

worcester@lasersurveys.com

Section Pictures

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
131	Upstream	SW11X		N1427



1, 00:00:58, 10.90 m

Obstacles through connection or junction at 12 o'clock, 5%
cross-sectional area loss, Metal Spike