

Prepared by:	SG	Job number:	1999
Subject:	Engineering Site Assessment Statement	Date:	22.03.24
Document No.:	001	Revision:	P01

Engineering Site Assessment

Project Context

Civic Engineers have been commissioned by Agile City to reconfigure the front of Civic House to provide an outdoor seating area by narrowing the road and widening the footway. Other provisions include increased cycle parking, an accessible ramp for entering/exiting Civic House and the reduction in car parking to create a multifunctional and pleasant space for cyclists and pedestrians.

The proposed works within the road are within the adopted road boundary, as per Glasgow City Council's Adoption Road Maps.

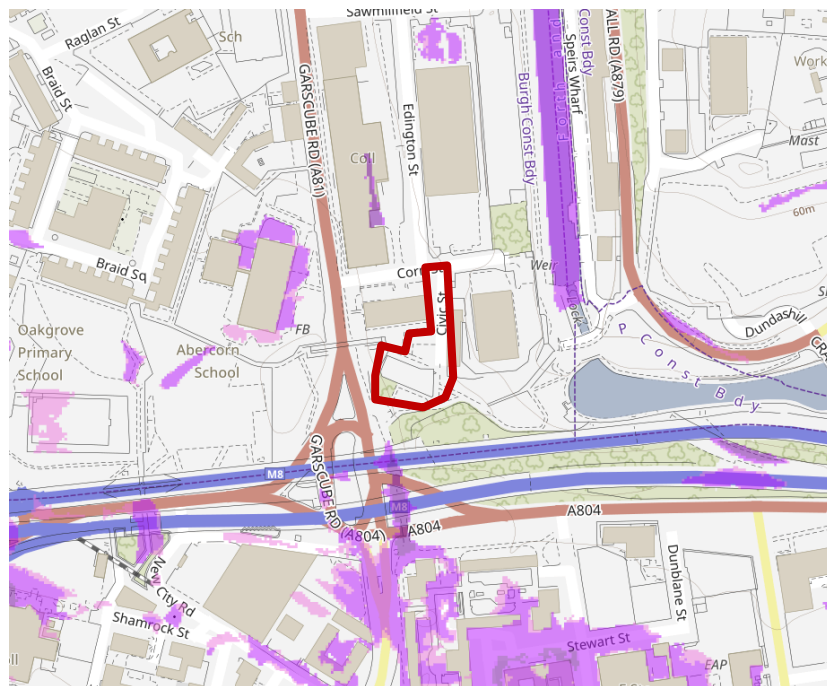
This Statement will show the assessment of the on-site flood risk, existing drainage network / subsequent drainage proposals and initial ground conditions review, as part of the works carried out by Civic Engineers on behalf of Agile City.

Existing Flood Risk

Consulting Scottish Environment Protection Agency's (SEPA) Flood Maps, the site does not exhibit any of the following flood risk:

- Pluvial Flood Risk (all levels),
- Fluvial Flood Risk (all levels),
- Coastal Flood Risk (all levels).

The nearest area of flood risk is shown as high-risk pluvial flooding (10% chance per year to flood), located north of Civic Street, southeast on Edington Street. This is approximately 80m distance from the site.



Existing and Proposed Drainage

The site surface water drainage system exists as a series of on-road gullies that connect to a Scottish Water owned combined sewer below the central carriageway. Existing falls from the adopted footway and road are assumed to guide all surface water within the site boundary into the on-road gully system.

The drainage strategy for the project looks to propose the relocation of two on-road gullies to serve the reconfiguration and re-surfacing of the carriageway and footway. Existing gullies are to be backfilled, with new gullies to be connected to the existing combined sewer within the central carriageway. New pipe runs from gullies are to be laid in the direction of flow within the combined sewer and are specified as 150mm dia. PVC-u pipe. In line with SCOTS Roads Development Guide, gully spacing is to comply with Section 3.4.9(b) Table 10. The re-surfaced carriageway is designed to have a fall north to south of 1:33. Therefore, the spacing of gullies has been shown as every 55-60m.

An ACO HexDrain drainage channel is proposed to sit at the bottom of the accessible ramp and stairs to Civic House. These channels will collect and promote surface water drainage, through a fitted end unit which is to be connected to a new PVC-U 150mm dia. pipe run feeding into the existing combined sewer network. An additional HexDrain channel is proposed at the top of the ramp and stairs, running longitudinally with the ground surface laid at a 1:50 gradient either side to promote effective surface water drainage to the existing drainage network.

Furthermore, the proposed design mirrors the existing catchment area for the on-site drainage network. Therefore, as the demand on the drainage network will not change, network capacity and proposed flow rates of the new system are not required as part of the proposed drainage strategy.

Ground Conditions

Information regarding the existing on-site ground conditions has been gathered via British Geological Maps and available historical borehole data. Further site investigatory work is to be procured to help inform finalised construction solution.

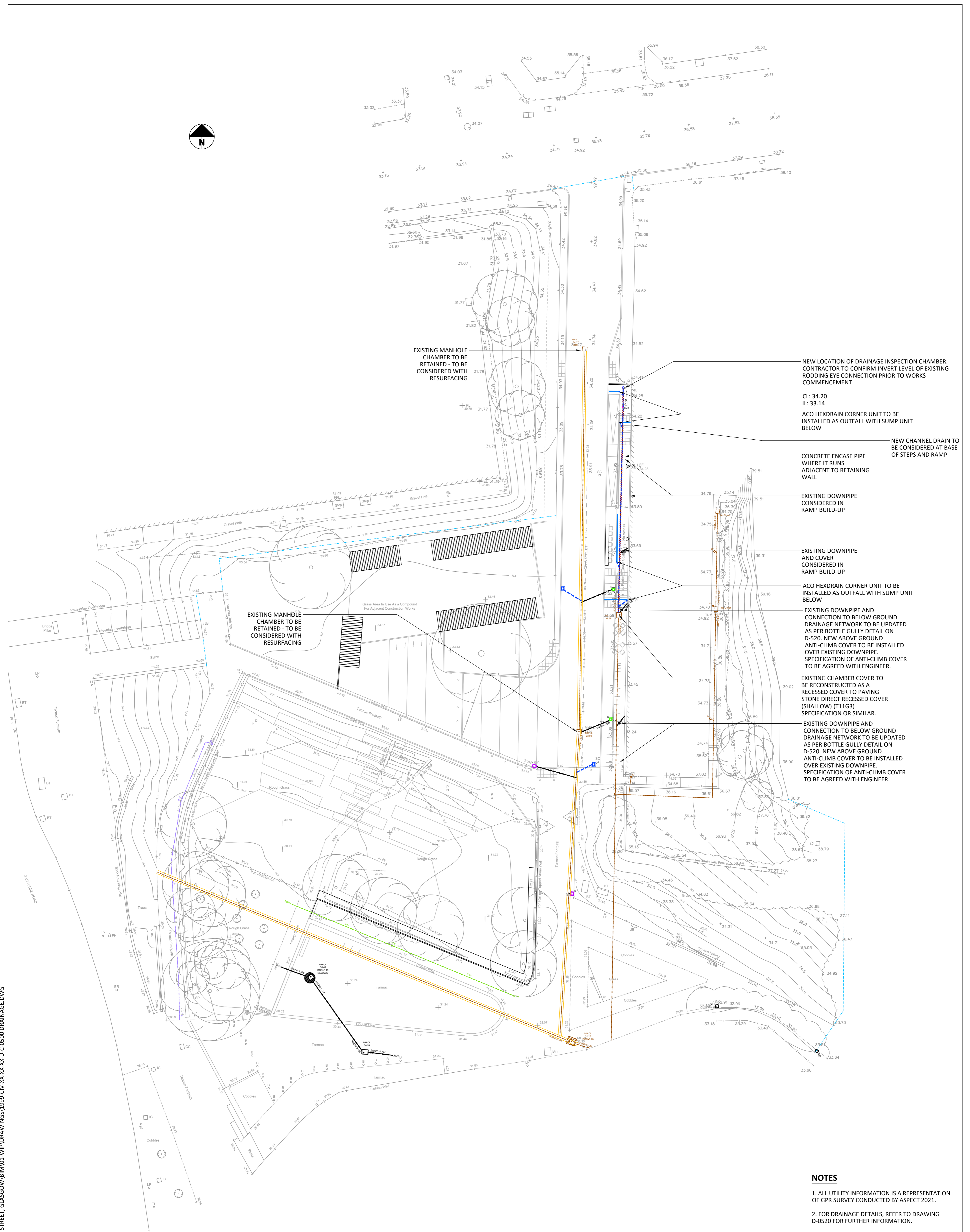
BGS maps show the existing ground has superficial deposits comprising of Till, Devensian – Diamicton upon bedrock geology consisting of Limestone Coal Formation – Sedimentary rock cycles, Clackmannan group type.

Historic borehole records show two boreholes, dated 1960s, located to the west of the existing carriageway (approximately 10m). Borehole records show predominantly sandstone type ground conditions with noted presence of Upper Possil Coal and coal gum within layers of sandstone from about 30ft below ground level.

The Coal Authority Maps do not indicate records of Coal Mining reporting within the site area.

As part of site investigation works to be procured, both a Phase 1 Geo Environmental Review and Phase 2 Intrusive Grounds Investigation Works are to be procured. A desktop report will be carried out including assessments of site history, geology, CLEA risk assessment and where appropriate, a UXO risk assessment.

In addition to this, geotechnical and geo-environmental ground investigation works will be carried out including chemical testing, leachate testing and other general tests such as asbestos.



EXISTING MANHOLE CHAMBER TO BE RETAINED - TO BE CONSIDERED WITH RESURFACING

EXISTING MANHOLE CHAMBER TO BE RETAINED - TO BE CONSIDERED WITH RESURFACING

NEW LOCATION OF DRAINAGE INSPECTION CHAMBER. CONTRACTOR TO CONFIRM INVERT LEVEL OF EXISTING RODDING EYE CONNECTION PRIOR TO WORKS COMMENCEMENT

CL: 34.20
IL: 33.14

ACO HEXDRAIN CORNER UNIT TO BE INSTALLED AS OUTFALL WITH SUMP UNIT BELOW

NEW CHANNEL DRAIN TO BE CONSIDERED AT BASE OF STEPS AND RAMP

CONCRETE ENCASE PIPE WHERE IT RUNS ADJACENT TO RETAINING WALL

EXISTING DOWNPIPE CONSIDERED IN RAMP BUILD-UP

EXISTING DOWNPIPE AND COVER CONSIDERED IN RAMP BUILD-UP

ACO HEXDRAIN CORNER UNIT TO BE INSTALLED AS OUTFALL WITH SUMP UNIT BELOW

EXISTING DOWNPIPE AND CONNECTION TO BELOW GROUND DRAINAGE NETWORK TO BE UPDATED AS PER BOTTLE GULLY DETAIL ON D-520. NEW ABOVE GROUND ANTI-CLIMB COVER TO BE INSTALLED OVER EXISTING DOWNPIPE. SPECIFICATION OF ANTI-CLIMB COVER TO BE AGREED WITH ENGINEER.

EXISTING CHAMBER COVER TO BE RECONSTRUCTED AS A RECESSED COVER TO PAVING STONE DIRECT RECESSED COVER (SHALLOW) (T11G3) SPECIFICATION OR SIMILAR.

EXISTING DOWNPIPE AND CONNECTION TO BELOW GROUND DRAINAGE NETWORK TO BE UPDATED AS PER BOTTLE GULLY DETAIL ON D-520. NEW ABOVE GROUND ANTI-CLIMB COVER TO BE INSTALLED OVER EXISTING DOWNPIPE. SPECIFICATION OF ANTI-CLIMB COVER TO BE AGREED WITH ENGINEER.

NOTES

1. ALL UTILITY INFORMATION IS A REPRESENTATION OF GPR SURVEY CONDUCTED BY ASPPECT 2021.
2. FOR DRAINAGE DETAILS, REFER TO DRAWING D-0520 FOR FURTHER INFORMATION.

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
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 C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

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LEGEND

	PROPOSED 150mm DIA PVC-U PIPE		PROPOSED STANDARD ROAD GULLY, D400 COVER 450mm Ø GULLY POT
	PROPOSED CONCRETE SURROUND EXTENTS		EXISTING GULLY TO BE REMOVED
	PROPOSED 450MM Ø POLYPROPYLENE INSPECTION CHAMBER		EXISTING GULLY TO BE RETAINED
	EXISTING RODDING EYE TO BE REMOVED		PROPOSED ACO HEXDRAIN AS PER MANUFACTURER'S DETAIL
	SCOTTISH WATER OWNED ASSET		

DATE	REV	DESCRIPTION	SG	RM	DRAWN	CHKD
22.03.24	P02	DETAIL DESIGN	SG	RM		
01.03.24	P01	DETAIL DESIGN	SG	RM		

PROJECT
CIVIC STREET

TITLE
PROPOSED DRAINAGE STRATEGY SHEET 1

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
1999	1:200	29.02.24	SG	RM

Civic Engineers

MANCHESTER LONDON GLASGOW

www.civicengineers.com

DRAWING STATUS	STATUS CODE
DETAIL DESIGN	S1
DRAWING No.	REV
1999-CIV-XX-XX-D-C-0500	P02

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