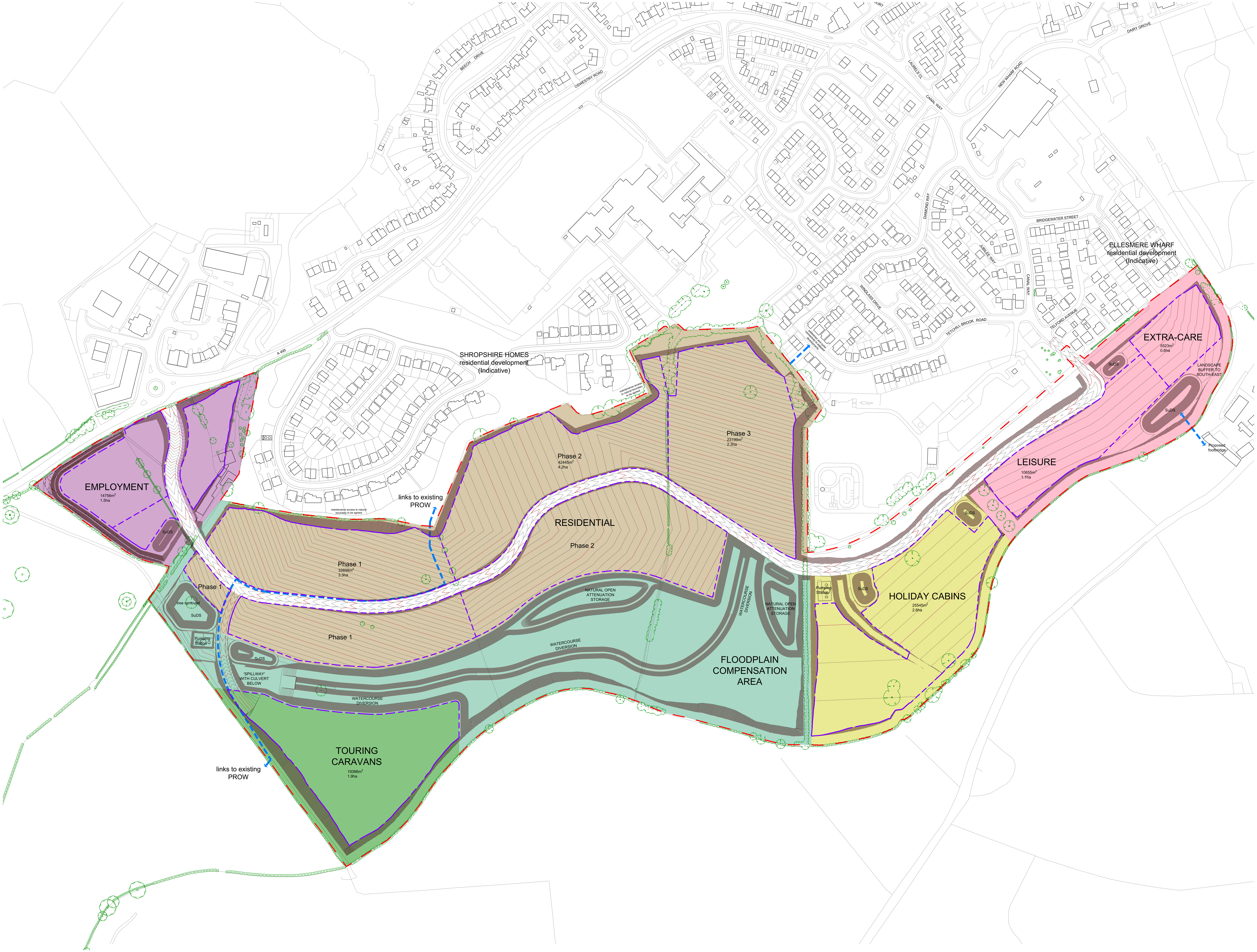

This line should measure 80mm when printed correctly

Responsibility is not accepted for errors made by others in scaling from this drawing. Use only figured dimensions and report any discrepancies or omissions to the Architect immediately.

Rev	Date	By	Chk	Description
P	17.03.23	EP	CW	Latest Information
Q	31.03.23	EP	CW	Indicative layout illustrated

Roberts Limbrick
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Registered Office: England No. 06658029

Project Name
Ellesmere Canalside Development

Client Name
Burbury Investments

Drawing Title
Indicative Masterplan

Scale	Project No.
1:1250 @ A0	5614

Status	Purpose Of Issue
S0	Work In Progress

Project	Org	Vol	Level	Form	Role
5614	RL	XX	00	DR	A

Number	Revision
PL500	**Q**

ACO Design
Hydraulic Calculation:

+ PROJECT DETAILS

Project Name:
Canalside Development Ellesmer

Designer: Dean O'Reilly

Date: 04-04-2023

Run No.: 1 **Option No.:** A

RAINFALL INTENSITY

RETURN PERIOD	100 years	
R	0.34	
M5-60	18.0	(mm/h)

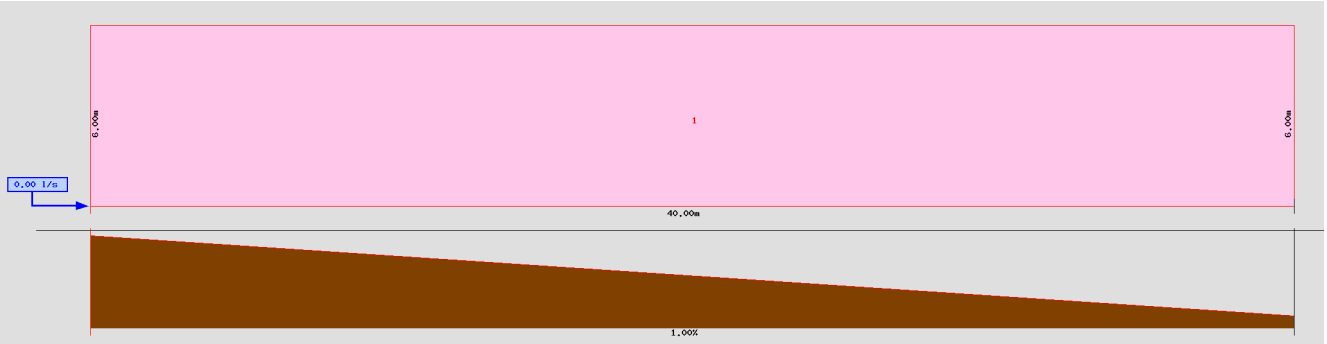
RAINFALL DATA

Duration	Intensity (mm/h)
5 mins	123.72
10 mins	96.67
15 mins	85.03
30 mins	54.53
1 hour	35.82
2 hours	22.35
4 hours	13.19
6 hours	9.84
10 hours	6.69
24 hours	3.41
48 hours	1.91

RAINFALL SPECIFIED

ALLOWANCE FOR CLIMATE CHANGE	45.0	%
DESIGN RAINFALL INTENSITY	179.40	(mm/h)
	0.0498	l/s m²

CHANNEL LAYOUT



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www.aco.co.uk

ACO Design
Hydraulic Calculation:

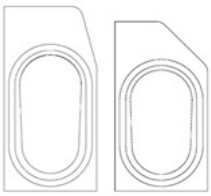
+ PROJECT DETAILS

Project Name:
Canalside Development Ellesmer

Designer: Dean O'Reilly
Date: 04-04-2023

+ INPUT

Channel System: KerbDrain



	1	2	3	4	5	6	7	8	9	10
System	KD 280SP /305HB									
W – Width (mm)	100									
H – Invert (mm)	255									
Length (m)	40.00									

Kinematic Viscosity (m²/s)	1.14x10^-6	**Area Drained (m²)**	240.00
Rainfall Intensity (l/s x m)	0.0498 (= 179.40mm/h)	**Impermeability**	1.00
		Channel Length (m)	40.00

+ RESULTS

Outflow (l/s):	11.972
Max. Velocity (m/s):	1.01
Min. Freeboard (m):	0.010
Percentage Capacity (%):	92.86%
Max. Valid Length (m):	40.00 (Full Length)

Notes:

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ACO Design
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Project Name:
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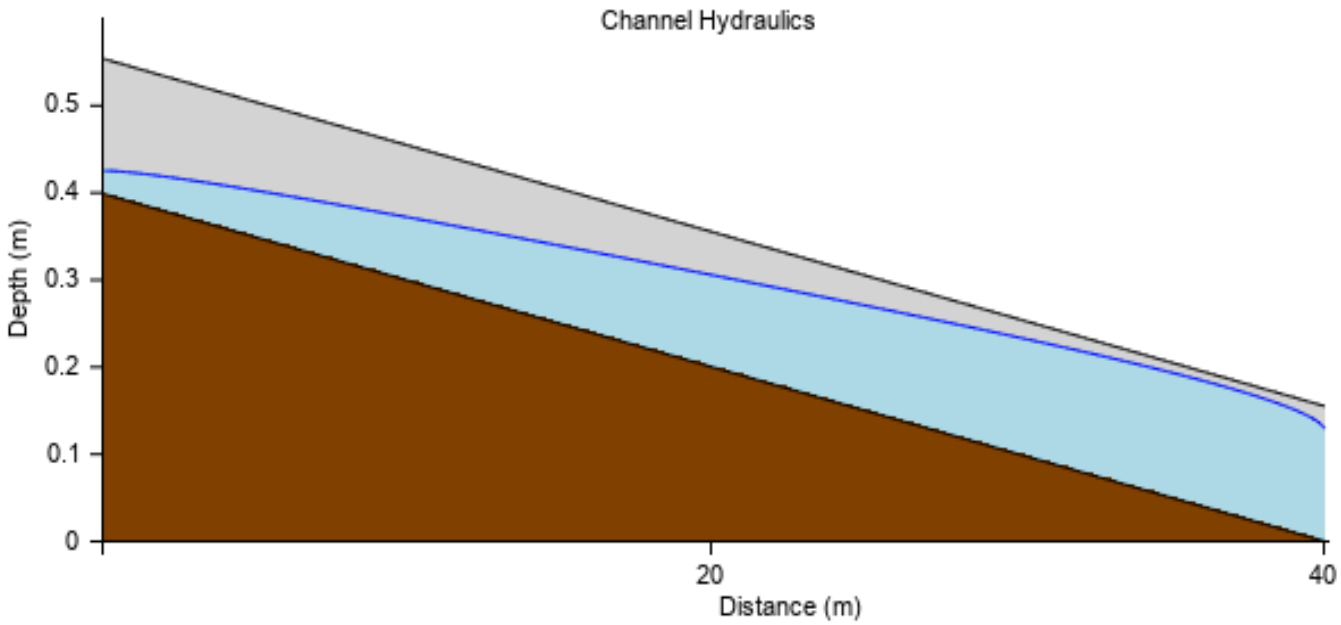

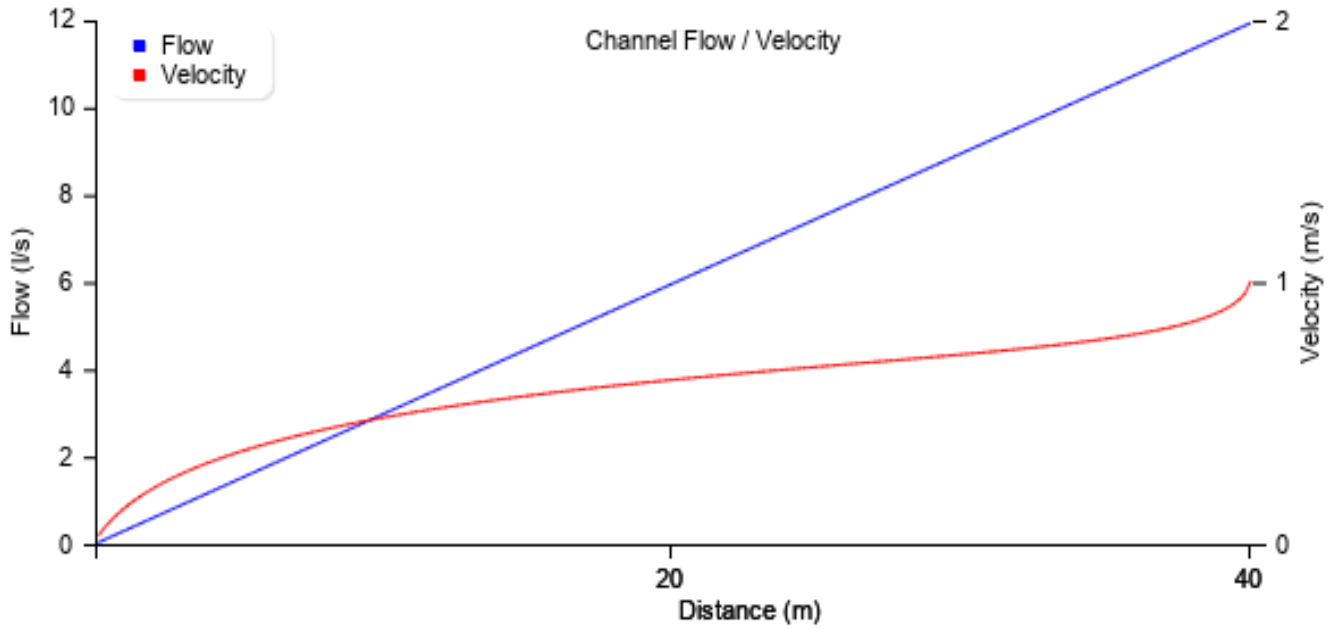

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ACO Design
Hydraulic Calculation:

+ PROJECT DETAILS

Project Name:
Canalside Development Ellesmer

Designer: Dean O'Reilly

Date: 04-04-2023

DISCLAIMER

This simplified estimate of storage volume determines the largest volume required using the rainfall intensities for a range of different rainfall durations, for the location and return period specified by the designer. The type of flow control device is not known, so the calculation assumes a constant rate of outfall from the storage volume for the whole duration of the storm. Please contact ACO Design Services for further advice and details of the ACO Q-Brake Vortex Flow Control and the ACO StormBrixx Cellular Storage Tank.

INPUT

CATCHMENT AREA		(m^2)
MAX PERMITTED OUTFLOW		l/s
RESULT		

No Attenuation Calculation Performed.

OUTPUT

R	l/s	STORAGE VOLUME OF CURRENT CHANNEL	m^3
M5-60	mm/h	RETURN PERIOD	
		CLIMATE CHANGE	%

DURATION	INTENSITY mm/h	REQUIRED STORAGE VOLUME (m^3)

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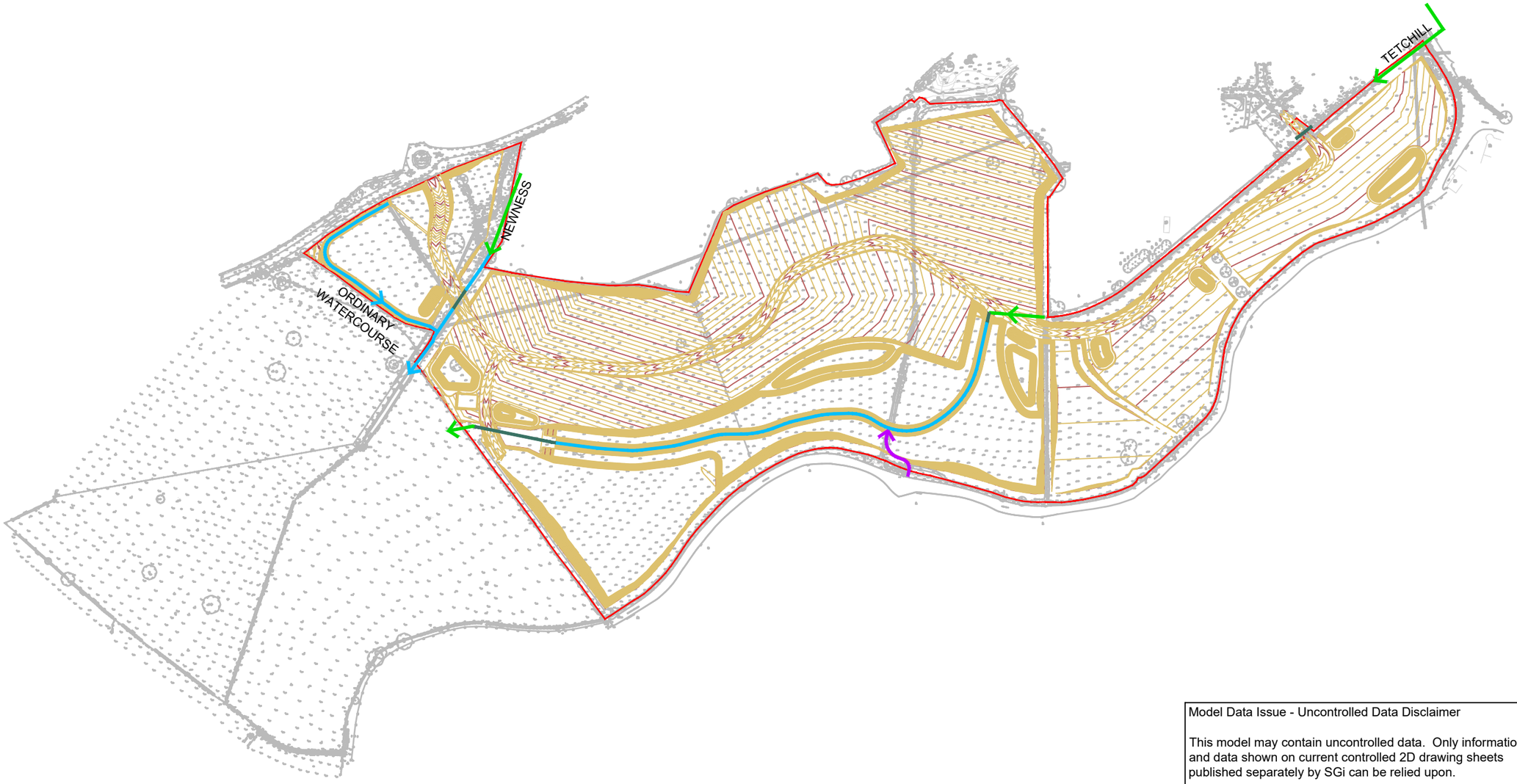
N



KEY

- SITE BOUNDARY
- NEW CULVERT / CROSSING
- EXISTING CULVERT
- OPEN WATERCOURSE
- PROPOSED OVERFLOW

Filename: K:\projects\C1581 Ellesmere Wharf Shropshire Phase 2\000 CIVILS & STRUCTURES\001 CAD\C1581-SGI-ZZ-00-DR-C-0413 - Proposed Drainage & Watercourse Routes.dwg
Plot Date/Time: 4/4/2023 3:55 PM

Model Data Issue - Uncontrolled Data Disclaimer

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Rev.	Description	Rev. by	Date

Shepherd Gilmour
Consulting Engineers
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Client
Formal Investments

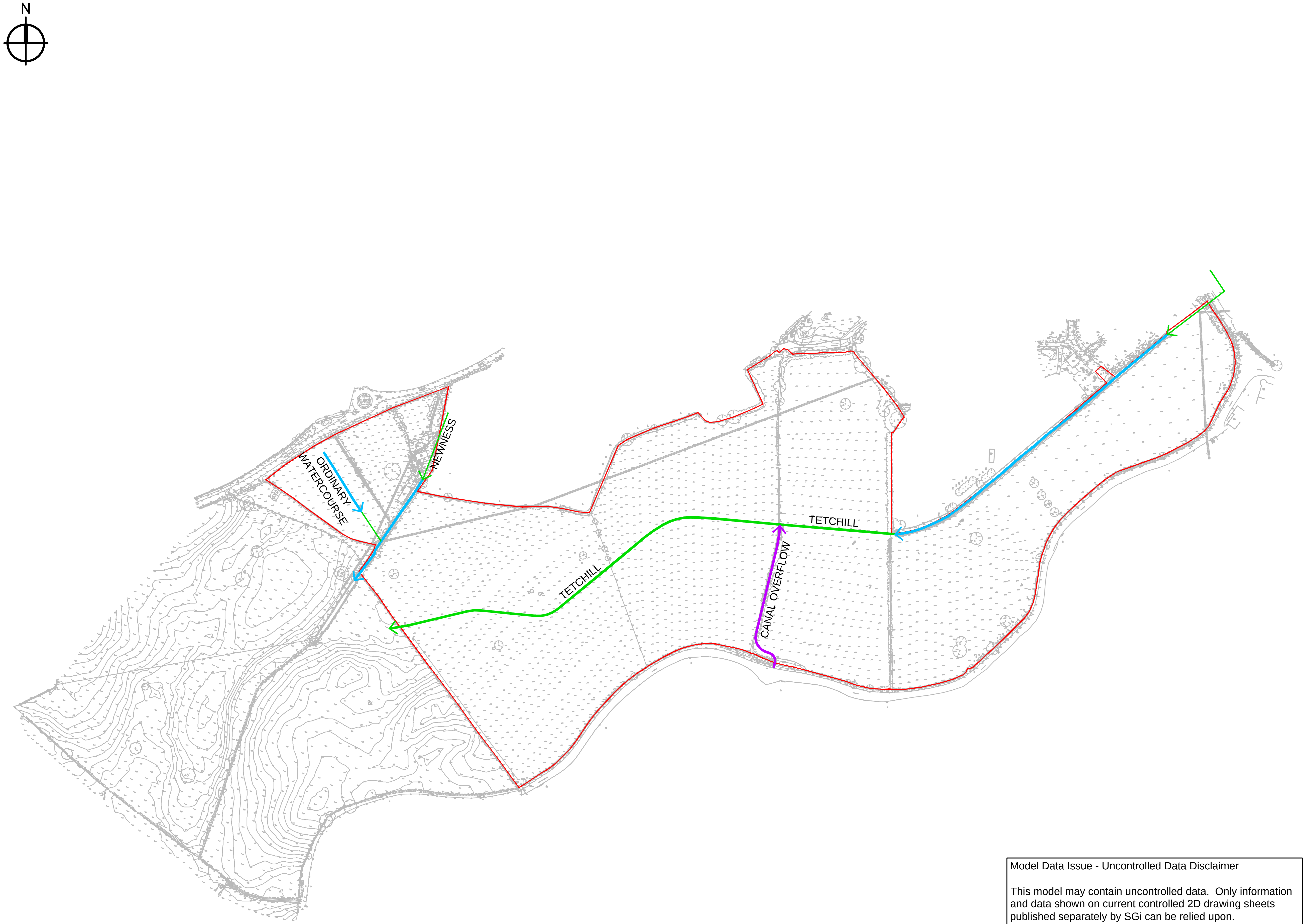
Architect
Roberts Limbrick

Project
Canalside Development, Ellesmere

Title
PROPOSED DRAINAGE & WATERCOURSE ROUTES

Date	04.04.2023	Drawn By	WC
Size	A3	Checked By	DOR
Scale	1:5000	Approved By	DOR

Dwg. No. **C1581-SGI-ZZ-00-DR-C-0413** Rev **-**



KEY

- SITE BOUNDARY
- EXISTING CULVERT
- OPEN WATERCOURSE
- PROPOSED OVERFLOW

Rev.	Description	Rev. by	Date

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Client
Formal Investments

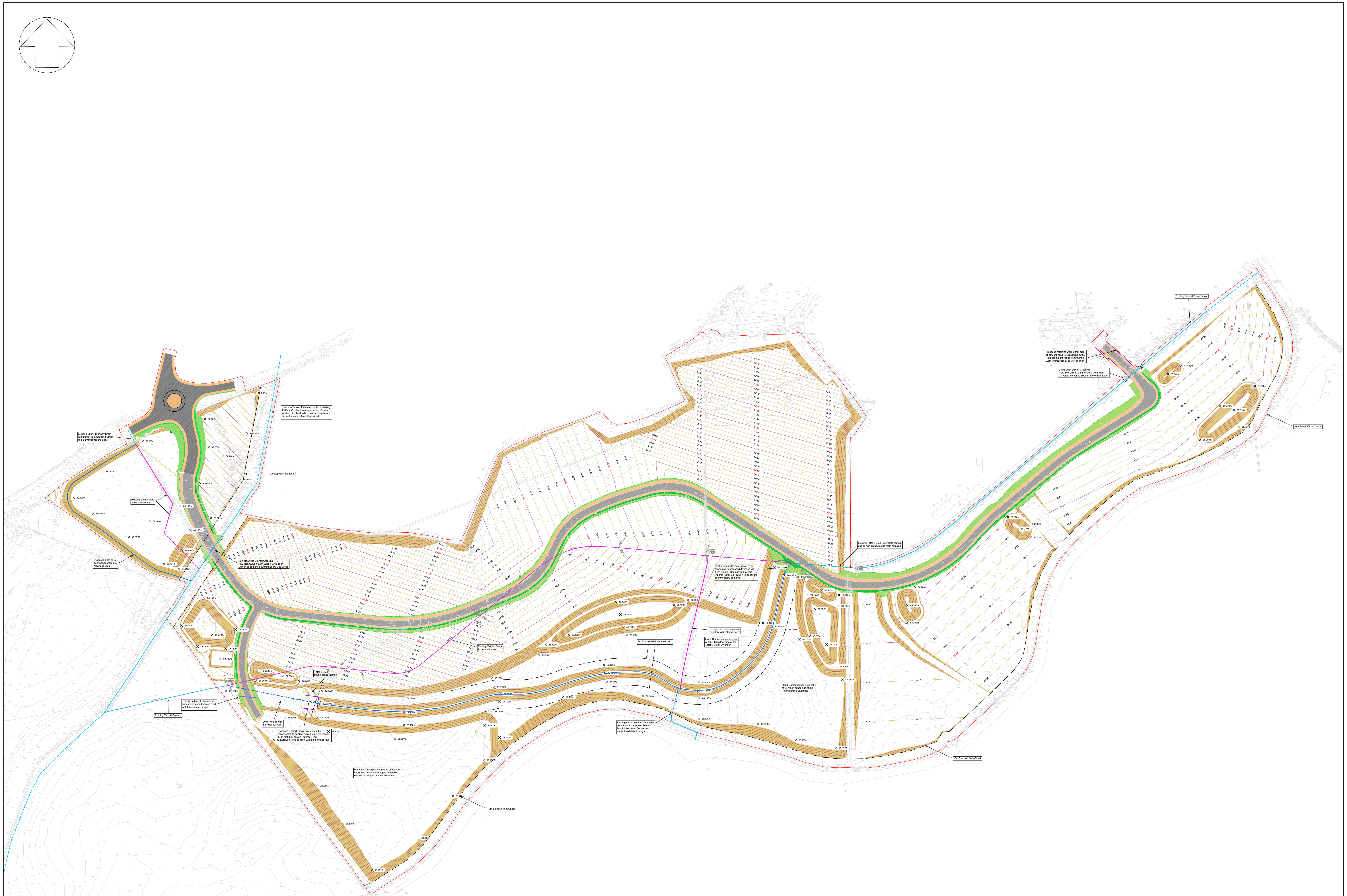
Architect
Roberts Limbrick

Project
Canalside Development, Ellesmere

Title
EXISTING DRAINAGE & WATERCOURSE ROUTES

Date	04.04.2023	Drawn By	WC
Size	A3	Checked By	DOR
Scale	1:5000	Approved By	DOR

Dwg. No. **C1581-SGI-ZZ-00-DR-C-0412** Rev **-**



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Filename : K:\projects\JOB-Nos C1500-1599\C1581 Ellesmere Wharf Shropshire Phase 2\000 CIVILS DRAWINGS\C1581-SGI-ZZ-00-DR-C-0401 P3 - Proposed Earthworks - Contours.dwg
Plot Date/Time : 10/3/2023 8:44 AM

Notes

1. This drawing is to be read in conjunction with all relevant architects and engineers drawings and specifications.
2. Do not scale this drawing. all details and dimensions are to be checked by the Contractor. Any discrepancies are to be reported to the Engineer.
3. All dimensions are in metres and levels in metres Above Ordnance Datum (AOD) unless noted otherwise.

Earthworks analysis notes

The proposed contours shown on this drawing are based on a preliminary earthwork balance. In the event that some of the assumptions i.e. some of the excavated material is not of reusable quality and/or top soil depths are greater/lower than expected. Then the future plots/plateaus will be adjusted by ±500mm to compensate for the excess/lack of material.

Existing Culvert to remain
Existing Open Channel to remain
Proposed Culvert
Proposed Open Channel
Existing Culvert to be removed
Existing Open Channel to be removed
Proposed Retaining Walls
Development Standoffs

Rev.	Description	Rev. by	Date
P3	Levels along Newness adjusted		20.04.2023
P2	Roundabout information added		06.04.2023

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Client
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Architect
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Project
Canalside Development, Ellesmere

Title
Earthwork Strategy
Proposed Levels

Date	22.02.2023	Drawn By	DOR
Size	A1	Checked By	DOR
Scale	1/2000	Approved By	DOR

Dwg. No. **C1581-SGI-ZZ-00-DR-C-0401** Rev **P3**