

Our Ref: 159923/AS/JLM/L1

Date: 10th February 2025

51a St. Paul's Street
Leeds LS1 2TE

TEL: 0113 243 4671 FAX: 0844 381 4412

Email: leeds@fairhurst.co.uk

Website: www.fairhurst.co.uk

Dear Chris Nugent,

SENT BY EMAIL ONLY

PLANNING APPLICATION SO/2025/124670/01- ERECTION OF A RESIDENTIAL DEVELOPMENT COMPRISING A SINGLE 5 STOREY BUILDING CONTAINING 54 APARTMENTS, TOGETHER WITH 16 X 4 STOREY DWELLINGHOUSES (USE CLASS C3) WITH ASSOCIATED LANDSCAPING AND INFRASTRUCTURE, FOLLOWING DEMOLITION OF EXISTING BUILDINGS. 232-236 PALATINE ROAD MANCHETSRRER M20 2WF.

We are in receipt of the Environment Agency's comments dated 21st January 2025 regarding Planning Permission for the proposed development of the above land, please see our comments below.

I have referenced each comment to a specific query raised within your letter.

"Consider how people will be kept safe from the identified flood hazards."

The design flood level for the proposed site is stated as 30.090m AOD, established using the highest modelled flood level, on or within the vicinity of the site, for the 0.1% AEP event. Finished floor levels to any habitable dwellings are proposed to be set at 600mm above the design flood level (30.690m AOD). Additionally, the external podium level is set to 300mm above the design flood level, allowing safe access and egress from any proposed dwelling, as all dwellings have direct access to the podium.

For any areas proposed below the design flood level, clear internal access to an upper habitable floor, above the design flood level, is available.

"Consider how a range of events (including extreme events) will affect people and property. This includes proposals for compensatory flood storage in which the ground floor is designed to flood."

The undercroft has been design to store flood compensation, this area is designed to store flood water through overland flow during exceedance events, following any flood event the area will be allowed to drain.

The use of flood resilient materials and construction techniques, in line with CIRIA (Guidance on the code of practice for property flood resilience) is proposed for the development up to 300mm above the design flood level (30.390m AOD).

The finished floor level of any habitable dwelling will be set no lower than 600mm above the design floor level (30.690m AOD) and the external podium will be set no lower than 300mm above the design floor level (30.390m AOD). In addition to this, all levels below the design flood level are proposed to include clear internal access to habitable areas above the design flood level.

Residents and building maintenance are to subscribe to the Environment Agency's flood warning direct service, to allow more time to prepare for flooding events, if required.

The design principles outlined above have been implemented to minimise disruptions to both the end users and the building during any storm event, up to and including the 0.1% AEP extreme event.

ABERDEEN
BRISTOL
DUNDEE
EDINBURGH
ELGIN
GLASGOW
HUDDERSFIELD
INVERNESS
LEEDS
LONDON
NEWCASTLE
PLYMOUTH
SEVENOAKS
TAUNTON
THURSO
WATFORD
WESTHILL

“Consider the requirement for flood emergency planning including flood warning and evacuation of people for a range of flooding events up to and including the extreme event.”

The extreme event flood level has been adopted to establish the design flood level for the proposed development. The development is proposed with the finished floor level of any habitable dwelling to be set no lower than 600mm above the design flood level (30.690m AOD). In addition to this, the external podium level is proposed 300mm above the design flood level (30.390m AOD).

Residents and building maintenance are to subscribe to the Environment Agency's flood warning direct service, to allow more time to prepare for flooding events, if required.

During exceedance events access and egress is available from the podium level (300mm above the design floor level) to Palatine Road. Please note, all dwellings have direct access to the podium level, above the design flood level.

“Flood risk mitigation measures to address flood risk for the lifetime of the development included in the design are inadequate because they will not make the development resilient to the flood levels for the 1 in 100 year flood + 41% climate change. Consequently the development proposed inadequate:

- Flood storage compensation. Although the submitted FRA has considered compensatory flood storage, there is no evidence of the numerical data used to inform the proposals. We ask the applicant to provide the total volume of flood water displaced by the development and the total volume of flood water that will be compensated for.”**

The design flood level adopted (30.090m AOD), is based in a 0.1% AEP event, this level is higher than the modelled levels on or within the vicinity of the site for the defended 1% AEP +70% climate change event, based on the modelled data provided by the Environment Agency. This data is included in the supporting documents for reference.

The mitigation measures proposed for this development have utilized the proposed design flood level, therefore, are based on a level higher than the 1% AEP +41% climate change event.

Please see the flood compensation volumes plan, in the supporting documents. This confirms a potential betterment in flood storage capacity of +2529m³ for the proposed site, in comparison to the existing site.

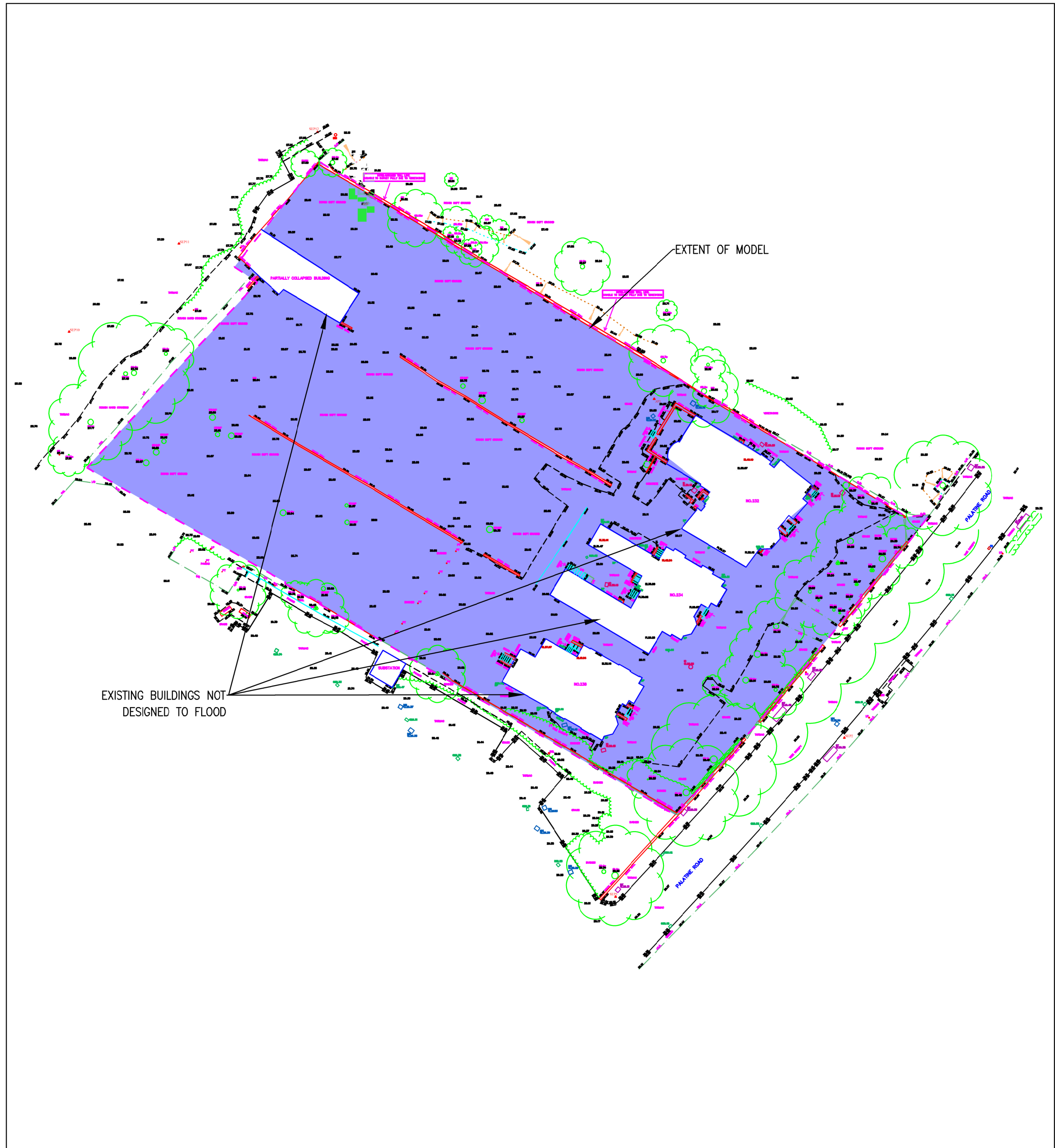
I hope this addresses the comments raised regarding the proposed development on Palatine Road. Should you have any queries on the information provided, please do let myself know.

Yours sincerely,

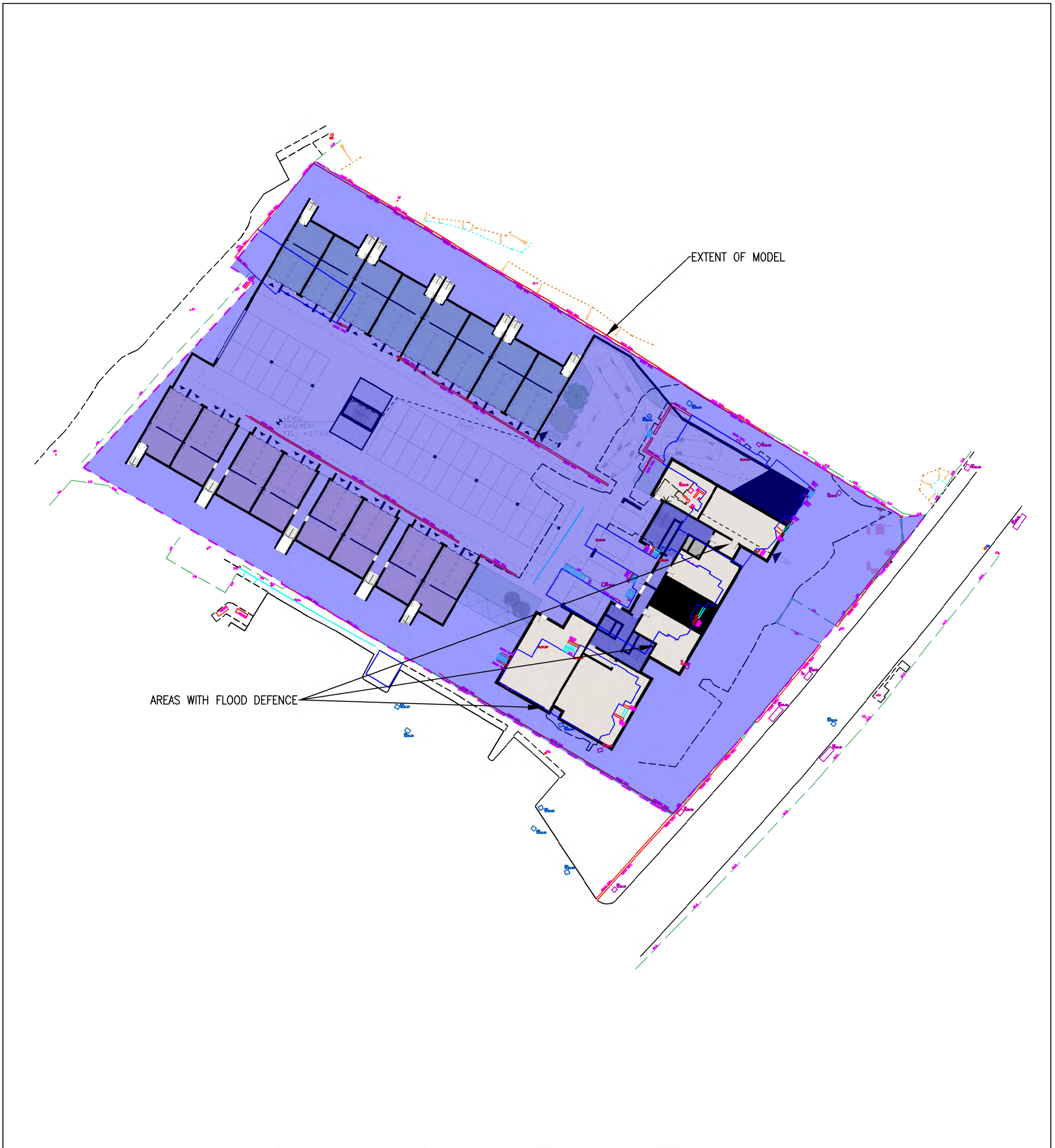


**Anthony Simmons
Partner
Fairhurst**

Supporting Documents



EXISTING EXTENT OF FLOODING (FLOOD LEVEL = 30.090M AOD) 1:500



PROPOSED EXTENT OF FLOODING (FLOOD LEVEL = 30.090M AOD) 1:500

KEY	BANDING M AOD	EXISTING VOLUME M³	PROPOSED VOLUME M³	PROPOSED - EXISTING M³
	<30.090	5814	8593	+2529

— EXTENT OF FLOOD COMPENSATION

- DESIGN FLOOD LEVEL 30.090M AOD (0.01% AEP EVENT).
- FINISHED FLOOR LEVEL OF ANY HABITABLE DWELLING MUST BE SET TO A MINIMUM OF 30.690M AOD.
- EXISTING GROUND LEVELS OUTSIDE THE EXTENT TO BE RETAINED.
- AN ADDITIONAL 250M³ HAS BEEN SUBTRACTED FROM THE PROPOSED FLOOD COMPENSATION VOLUME TO ACCOUNT FOR ANY MINOR OBJECTS WHICH ARE NOT ACCOUNTED FOR IN THE MODEL, I.E. COLUMNS, PIPES.

FLOOD COMPENSATION VOLUMES

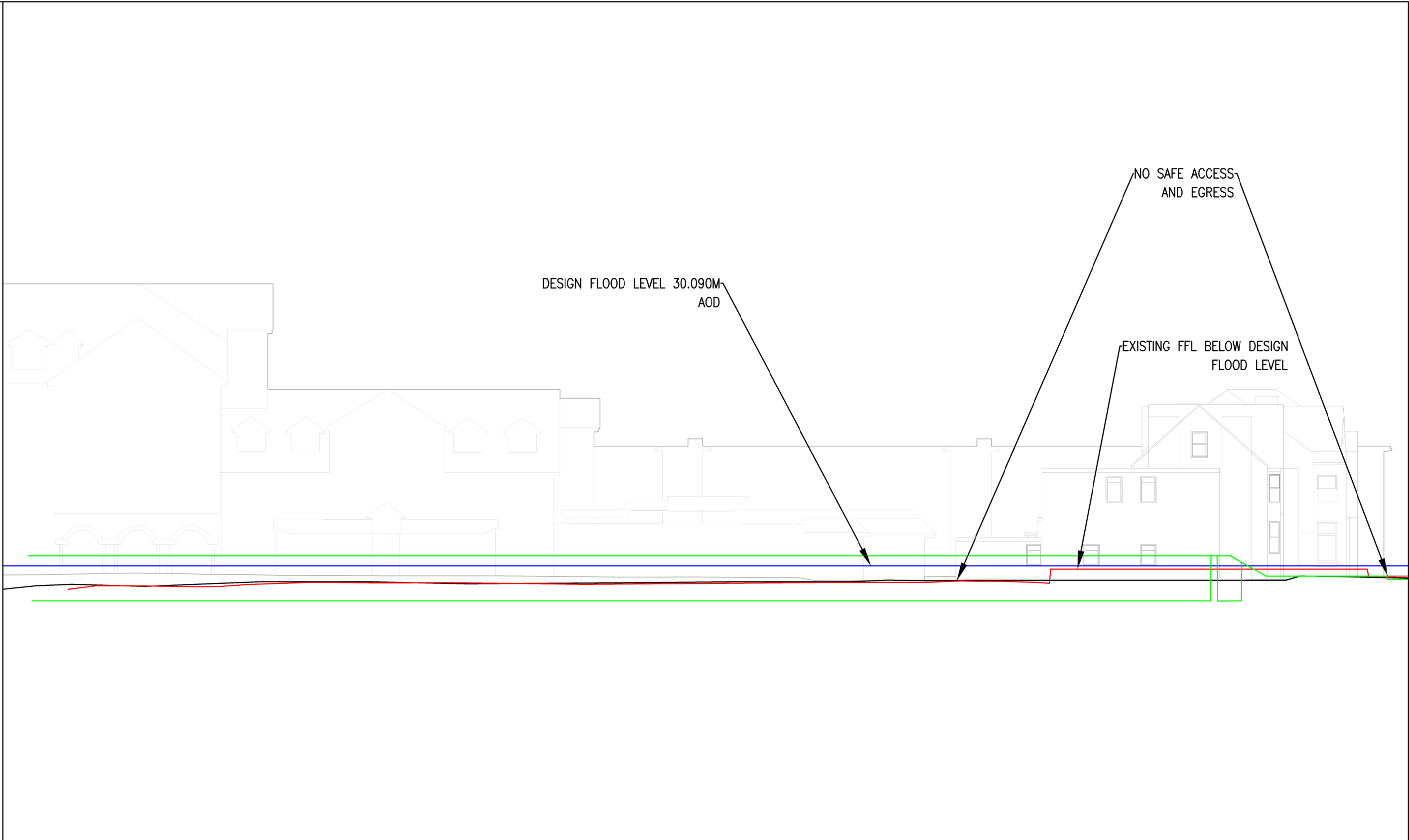
SAFETY HEALTH AND ENVIRONMENTAL INFORMATION	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, not the following risk and information.	
Hazards listed here are not exhaustive. Refer to Design Assessment Form No.	
CONSTRUCTION	
DEMOLITION	
For information relating to Use, Cleaning and maintenance see the Health and Safety File	
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.	

Rev.	Date	Description	Drawn	Chkd.	Appd.
FAIRHURST					
51a St. Pauls Street LEEDS LS1 2TE Tel: 0113 243 4671 Fax: 0844 381 4412					

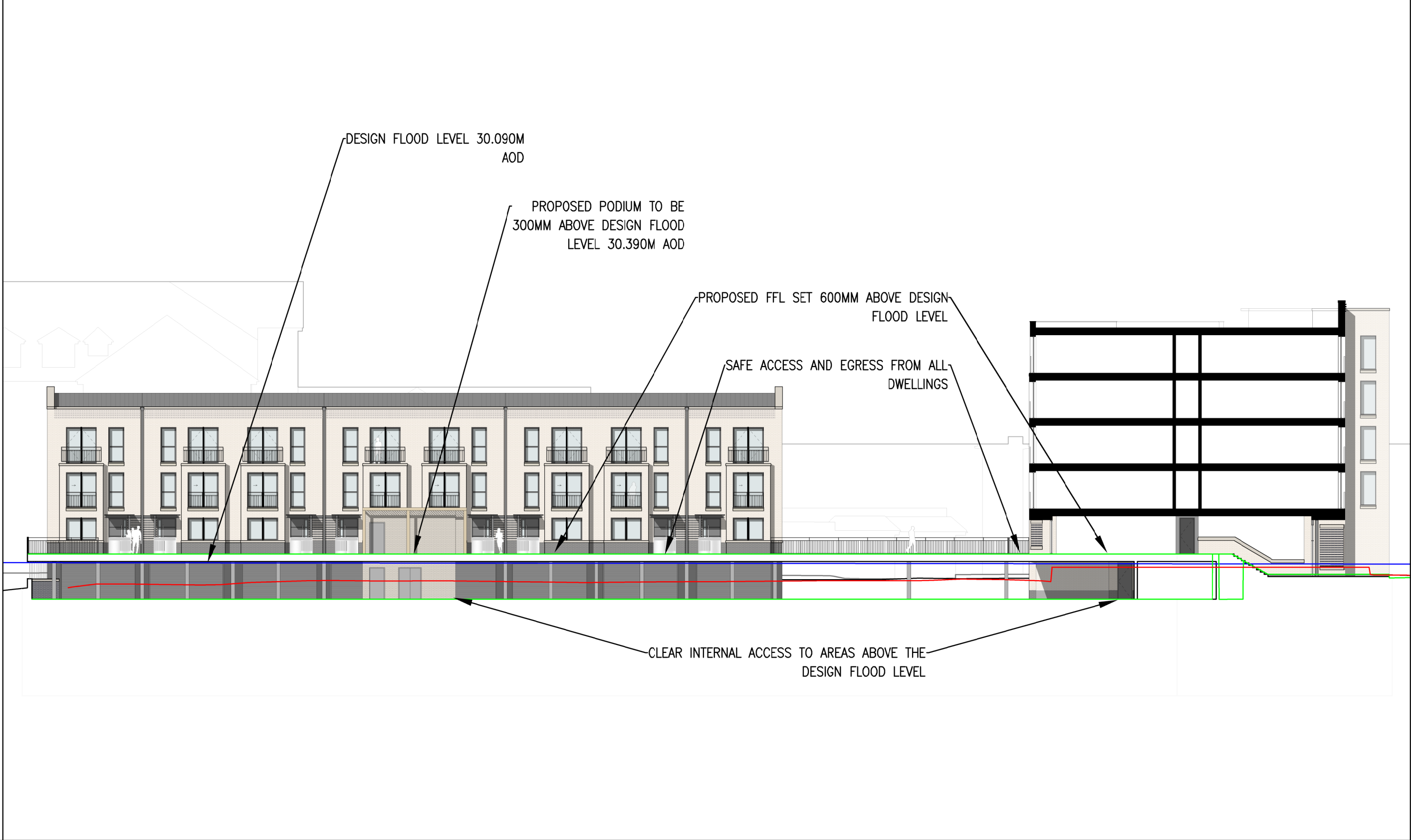
Project Title:
PALATINE ROAD

Drawing Title:
FLOOD COMPENSATION VOLUMES

Scale of A1: AS NOTED	Status: INFORMATION	
Drawn: JLM	Checked: AS	Approved: AS
Date: 10/02/2025	Date: 10/02/2025	Date: 10/02/2025
Drawing No.: 159923/7000		



EXISTING SITE – PLAN AND SECTION



PROPOSED SITE – PLAN AND SECTION

DESIGN FLOOD LEVEL (30.090M AOD)
EXISTING LEVEL
PROPOSED LEVEL

KEY

Rev.	Date	Description	Drawn	Chkd	Appd
FAIRHURST					
51a St. Pauls Street LEEDS LS1 2TE Tel: 0113 243 4671 Fax: 0844 381 4412					

Project Title:
PALATINE ROAD

Drawing Title:
DESIGN FLOOD LEVEL SECTIONS

Scale of A1:		Status:	
—		INFORMATION	
Drawn:	JLM	Checked:	AS
Date:	10/02/2025	Approved:	AS
Date:	10/02/2025	Date:	10/02/2025
Drawing No.:		Revision:	

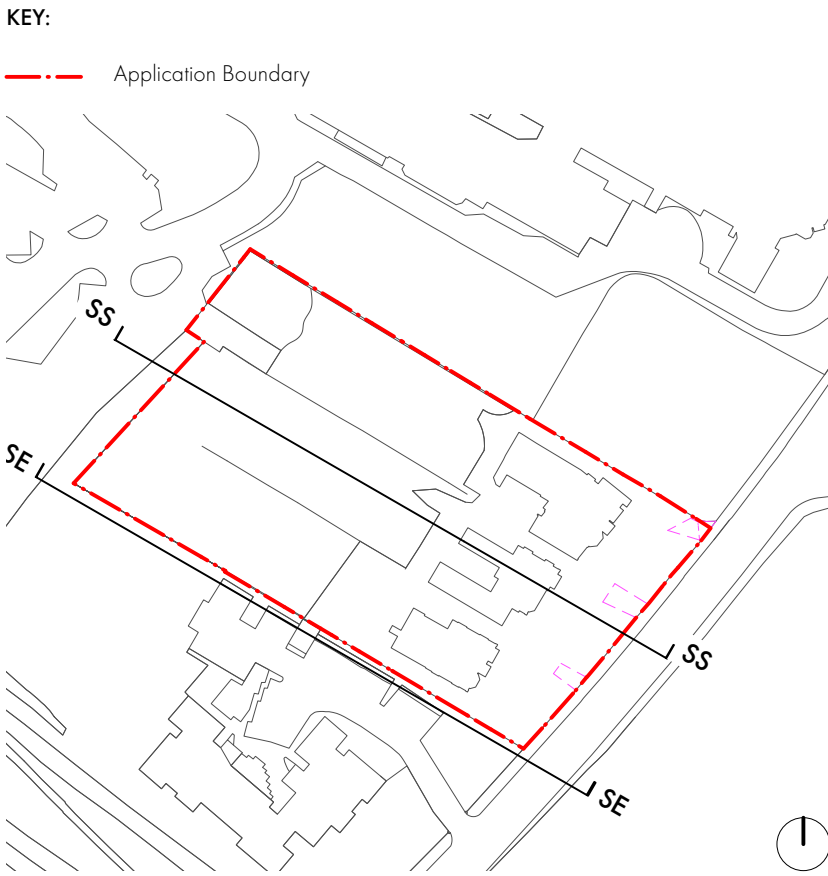


SOUTH ELEVATION



SOUTH SECTION

REVISION	DATE	DESCRIPTION
P01	08/11/2024	PRELIMINARY ISSUE
P02	12/2024	ISSUED FOR PLANNING



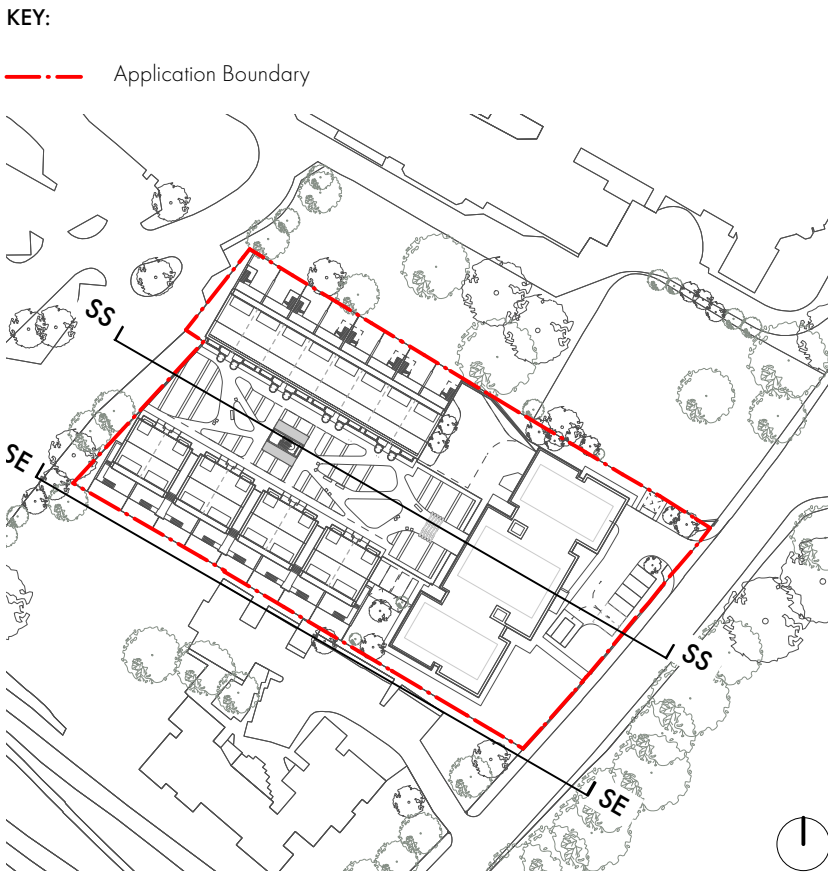


SOUTH ELEVATION



SOUTH SECTION

REVISION	DATE	DESCRIPTION
P01	08/11/2024	PRELIMINARY ISSUE
P02	03/12/2024	PUBLIC CONSULTATION ISSUE
P03	12/2024	ISSUED FOR PLANNINGS



Cut/Fill Report

Generated: 2025-02-13 18:00:30

By user: jmclaughlin

Drawing: J:\159923 Palatine Road\Current\Drawings\7000 - Sketches & Markups\J:\159923 Palatine Road\Current\Drawings\7000 - Sketches & Markups\159223-7000-Jan 25.dwg

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (sq.m)	Cut (Cu. M.)	Fill (Cu. M.)	Net (Cu. M.)
Existing Compensation	full	1.000	1.000	5968.68	3685.16	5813.61	2128.45<Fill>
Proposed Compensation	full	1.000	1.000	5968.68	736.94	8592.88	7855.94<Fill>

Totals				
	2d Area (sq.m)	Cut (Cu. M.)	Fill (Cu. M.)	Net (Cu. M.)
Total	11937.37	4422.10	14406.48	9984.39<Fill>

* Value adjusted by cut or fill factor other than 1.0



Defended modelled fluvial extent and height

Location (easting/northing)
383562/390975

Scale Created
1:1,000 22 Feb 2024

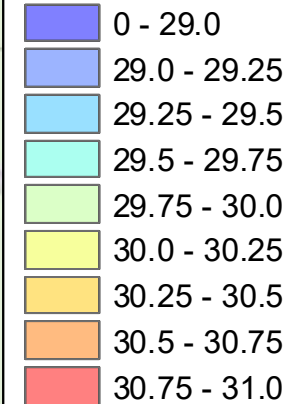
Model name
Upper Mersey 2017

 Selected area

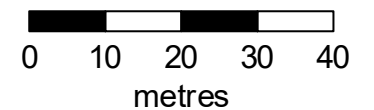
 Main river

Modelled 2D grid

Water level in mAOD



This map shows the
0.1% AEP height data



Sample point data

Defended

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	383580	390923	NoData	NoData	0.08	29.35	0.19	29.48	0.25	29.54	0.31	29.60	0.79	30.08
2	383601	390923	NoData	NoData	0.15	29.36	0.27	29.48	0.34	29.54	0.40	29.60	0.88	30.09
3	383538	390944	NoData	NoData	NoData	NoData	0.04	29.35	0.12	29.43	0.19	29.50	0.63	29.94
4	383559	390944	NoData	NoData	NoData	NoData	0.17	29.35	0.25	29.44	0.32	29.51	0.78	29.97
5	383580	390944	NoData	NoData	NoData	NoData	0.19	29.40	0.27	29.48	0.34	29.55	0.85	30.05
6	383601	390944	NoData	NoData	0.03	29.30	0.08	29.44	0.14	29.50	0.20	29.57	0.69	30.05
7	383622	390944	NoData	NoData	0.09	29.35	0.19	29.45	0.25	29.51	0.31	29.57	0.79	30.05
8	383496	390965	NoData	NoData	1.02	28.82	1.54	29.34	1.62	29.43	1.69	29.50	2.12	29.92
9	383517	390965	NoData	NoData	0.05	28.87	0.52	29.34	0.60	29.43	0.67	29.50	1.10	29.93
10	383538	390965	NoData	NoData	0.10	29.02	0.42	29.35	0.50	29.43	0.57	29.50	1.01	29.94
11	383559	390965	NoData	NoData	NoData	NoData	0.32	29.35	0.41	29.43	0.48	29.50	0.92	29.94
12	383580	390965	NoData	NoData	0.08	29.09	0.34	29.35	0.43	29.43	0.50	29.51	0.95	29.96
13	383601	390965	NoData	NoData	0.10	29.22	0.24	29.36	0.33	29.45	0.41	29.52	0.89	30.01
14	383622	390965	NoData	NoData	0.07	29.29	0.14	29.38	0.21	29.45	0.28	29.52	0.77	30.01
15	383496	390986	NoData	NoData	1.53	28.82	2.05	29.34	2.13	29.43	2.20	29.50	2.63	29.92
16	383517	390986	NoData	NoData	NoData	NoData	0.51	29.34	0.59	29.43	0.66	29.50	1.09	29.93

Label	Easting	Northing	5% AEP		2% AEP		1.33% AEP		1% AEP		0.5% AEP		0.1% AEP	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	383538	390986	NoData	NoData	NoData	NoData	0.44	29.35	0.52	29.43	0.59	29.50	1.03	29.93
18	383559	390986	NoData	NoData	NoData	NoData	0.40	29.35	0.49	29.43	0.56	29.50	0.99	29.94
19	383580	390986	NoData	NoData	0.05	29.01	0.38	29.35	0.47	29.43	0.54	29.50	0.98	29.94
20	383601	390986	NoData	NoData	NoData	NoData	0.32	29.35	0.41	29.43	0.48	29.50	0.93	29.95
21	383622	390986	NoData	NoData	0.01	29.16	0.20	29.35	0.28	29.43	0.35	29.50	0.82	29.97
22	383517	391007	NoData	NoData	0.96	28.82	1.48	29.34	1.57	29.43	1.63	29.50	2.06	29.92
23	383538	391007	NoData	NoData	0.12	28.82	0.64	29.34	0.72	29.43	0.79	29.50	1.22	29.93
24	383559	391007	NoData	NoData	0.27	28.82	0.78	29.34	0.87	29.43	0.94	29.50	1.37	29.93
25	383580	391007	NoData	NoData	0.32	28.82	0.84	29.35	0.92	29.43	0.99	29.50	1.43	29.94
26	383538	391028	NoData	NoData	0.84	28.82	1.36	29.34	1.45	29.43	1.52	29.50	1.94	29.92

Data in this table comes from the Upper Mersey 2017 model.

Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.



**Defended
climate change
modelled fluvial
extent and height**

Location (easting/northing)
383562/390975

Scale Created
1:1,000 22 Feb 2024

Model name
Upper Mersey 2017

 Selected area

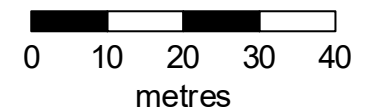
 Main river

Modelled 2D grid

Water level in mAOD

-  0 - 30.0
-  30.0 - 30.125
-  30.125 - 30.25
-  30.25 - 30.375
-  30.375 - 30.5
-  30.5 - 30.625
-  30.625 - 30.75
-  30.75 - 30.875
-  30.875 - 31.0

This map shows the
0.1% AEP +30% height data



Sample point data

Defended climate change

Label	Easting	Northing	1% AEP (+30%)		1% AEP (+35%)		1% AEP (+70%)		0.1% AEP (+30%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
1	383580	390923	0.54	29.83	0.58	29.88	0.75	30.05	1.03	30.32
2	383601	390923	0.63	29.83	0.67	29.88	0.84	30.05	1.12	30.32
3	383538	390944	0.40	29.71	0.44	29.75	0.60	29.91	0.91	30.22
4	383559	390944	0.55	29.73	0.59	29.77	0.75	29.93	1.05	30.24
5	383580	390944	0.59	29.80	0.63	29.84	0.81	30.02	1.10	30.31
6	383601	390944	0.44	29.80	0.48	29.84	0.66	30.02	0.94	30.30
7	383622	390944	0.53	29.79	0.58	29.84	0.75	30.01	1.04	30.30
8	383496	390965	1.90	29.70	1.94	29.74	2.09	29.89	2.40	30.21
9	383517	390965	0.88	29.70	0.92	29.74	1.07	29.90	1.39	30.21
10	383538	390965	0.78	29.71	0.82	29.75	0.98	29.90	1.29	30.22
11	383559	390965	0.69	29.71	0.73	29.75	0.89	29.91	1.20	30.22
12	383580	390965	0.71	29.72	0.76	29.76	0.92	29.93	1.23	30.24
13	383601	390965	0.64	29.75	0.68	29.80	0.86	29.97	1.16	30.28
14	383622	390965	0.51	29.75	0.56	29.80	0.73	29.97	1.03	30.28
15	383496	390986	2.41	29.70	2.45	29.74	2.60	29.89	2.91	30.21
16	383517	390986	0.87	29.70	0.90	29.74	1.05	29.89	1.37	30.21

Label	Easting	Northing	1% AEP (+30%)		1% AEP (+35%)		1% AEP (+70%)		0.1% AEP (+30%)	
			Depth	Height	Depth	Height	Depth	Height	Depth	Height
17	383538	390986	0.80	29.71	0.84	29.75	0.99	29.90	1.31	30.21
18	383559	390986	0.77	29.71	0.81	29.75	0.96	29.90	1.28	30.22
19	383580	390986	0.75	29.71	0.79	29.75	0.95	29.91	1.26	30.22
20	383601	390986	0.69	29.71	0.73	29.75	0.89	29.92	1.21	30.23
21	383622	390986	0.57	29.72	0.61	29.76	0.78	29.93	1.10	30.25
22	383517	391007	1.84	29.70	1.88	29.74	2.03	29.89	2.34	30.20
23	383538	391007	1.00	29.70	1.03	29.74	1.19	29.89	1.50	30.21
24	383559	391007	1.14	29.71	1.18	29.75	1.33	29.90	1.65	30.21
25	383580	391007	1.20	29.71	1.24	29.75	1.40	29.90	1.71	30.22
26	383538	391028	1.72	29.70	1.76	29.74	1.91	29.89	2.22	30.21

Data in this table comes from the Upper Mersey 2017 model.

Height values are shown in mAOD, and depth values are shown in metres.

Any blank cells show where a particular scenario has not been modelled for this location.

Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.