Manley Park Sports and Community Centre Manchester M16 0AS

Drainage Strategy

DOCUMENT No:
22107-DSR-001-D

24th MARCH 2026

Issue Sheet.

Prepared	Date		Checked	Date
M M	08-10-23		M M	08-10-23

Revisions	Comment	Date
A	Initial Issue	08-10-23
B	Updated to Client Comments	11-10-23
C	Updated to Client Comments	19-04-24
D	Updated to Client Comments	24-03-26

The report is based on the information that has been acquired and / or made available to Advant Engineers via the various searches and consultations undertaken as part of the Drainage Strategy. In some cases, anecdotal information has been relied upon, where documented evidence has been lacking.

The conclusions drawn in the above report are considered correct although any subsequent additional information may allow refinement of the conclusions.

All work carried out in preparing this report has utilised and is based upon Advant Engineers current professional knowledge and understanding of current UK standards and codes, technology and legislation. Changes in this legislation and guidance may occur at any time in the future and cause any conclusions to become inappropriate or incorrect.

This report has been prepared using information contained in maps and documents prepared by others. Advant Engineers can accept no responsibility for the accuracy of such information.

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1. Introduction

1.1. Advant Engineers has been commissioned by Manley Park Sports and Community Centre, to undertake a Drainage Strategy in connection with the proposed development at the land on the junction of York Avenue and Clarendon Road in Manchester.

1.2. This report should be read in conjunction with drawing 22107-101 and associated architectural and engineering drawings.

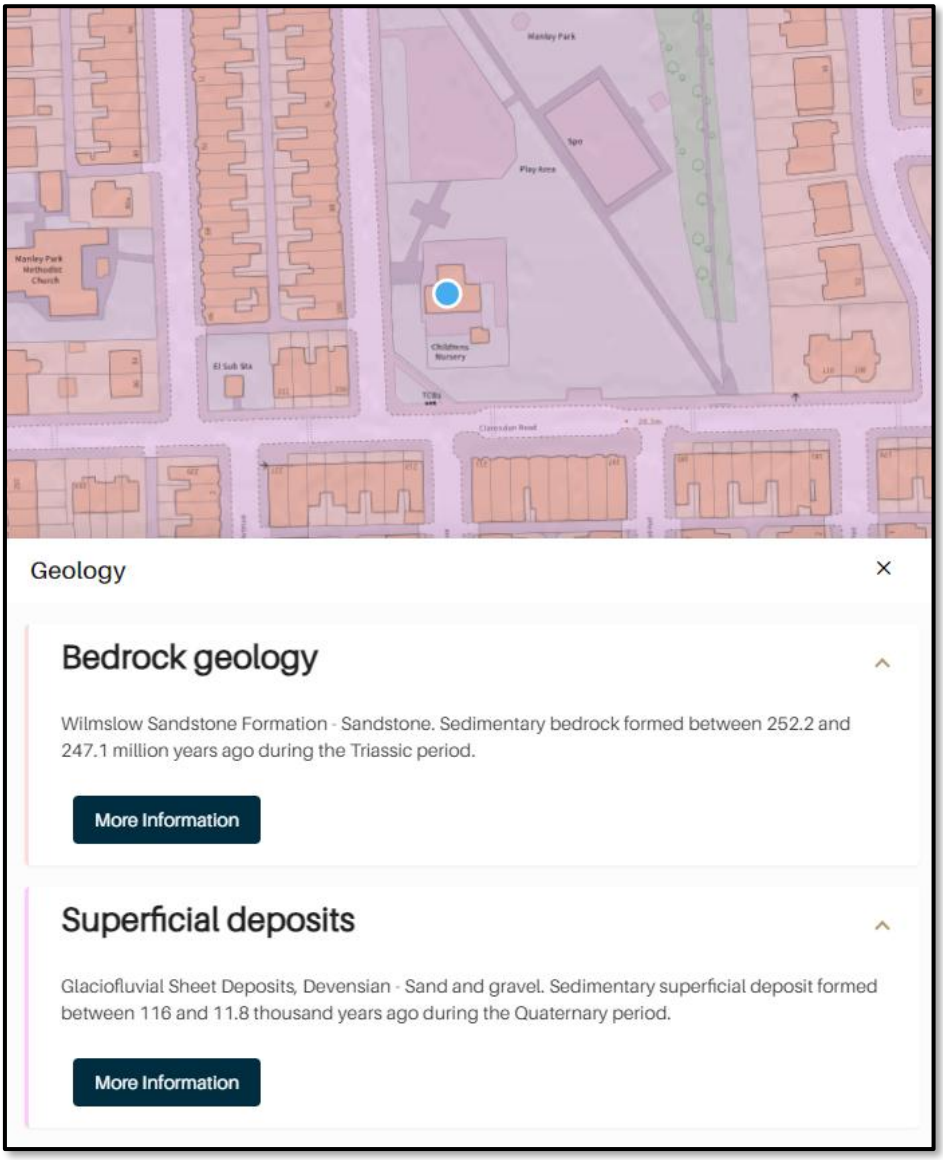
2. Existing Site

2.1. The site currently has a community building and the proposal is for the extension of the building to the rear, the proposed impermeable area of the site is 115m² (0.016ha) and the overall site area is 770m² (0.077ha). (See Appendix A for Proposed Impermeable area plan).

2.2. This site can be located at the following co-ordinates 382221E, 394633N and the nearest postcode is M16 0AS and can be seen on the below extract.



2.3. A site investigation was not available at the time of writing the report, we have therefore referred to the BGS website[1] for a description of the ground conditions, which are shown below.



2.4. According to the BGS website above then the ground conditions are expected to be Sands and Gravels which is deemed to be a permeable material which should achieve infiltration rates of between $3x10^{-4}$ and $2x10^{-2}$ as per the table below from The SuDS Manual[2].

Typical infiltration coefficients based on soil texture (after Bettess, 1996)		
Soil type/texture	**ISO 14688-1 description (after Blake, 2010)**	**Typical infiltration coefficients (m/s)**
Good infiltration media		
▪ gravel	Sandy GRAVEL	$3 \times 10^{-4} - 3 \times 10^{-2}$
▪ sand	Slightly silty slightly clayey SAND	$1 \times 10^{-5} - 5 \times 10^{-5}$
▪ loamy sand	Silty slightly clayey SAND	$1 \times 10^{-4} - 3 \times 10^{-5}$
▪ sandy loam	Silty clayey SAND	$1 \times 10^{-7} - 1 \times 10^{-5}$
Poor infiltration media		
▪ loam	Very silty clayey SAND	$1 \times 10^{-7} - 5 \times 10^{-6}$
▪ silt loam	Very sandy clayey SILT	$1 \times 10^{-7} - 1 \times 10^{-5}$
▪ chalk (structureless)	N/A	$3 \times 10^{-8} - 3 \times 10^{-6}$
▪ sandy clay loam	Very clayey silty SAND	$3 \times 10^{-10} - 3 \times 10^{-7}$
Very poor infiltration media	–	
▪ silty clay loam	–	$1 \times 10^{-8} - 1 \times 10^{-6}$
▪ clay	Can be any texture of soil	$< 3 \times 10^{-8}$
▪ till	described above	$3 \times 10^{-9} - 3 \times 10^{-6}$
Other		
▪ rock* (note mass infiltration capacity will depend on the type of rock and the extent and nature of discontinuities and any infill)	N/A	$3 \times 10^{-9} - 3 \times 10^{-5}$

2.5. The site currently has positive drainage connections into the public combined sewer located in the highway.

3. Proposed Development

3.1. The proposed development is for new extension to the rear of the existing community building. (See Appendix B for layout)

4. Drainage Strategy

4.1. Surface Water

4.2. The surface water drainage should be designed in accordance with the SUDS hierarchy providing evidence to each step before moving on to the next one, the SUDS hierarchy is as follows:

SOURCE (INFILTRATION)



WATERCOURSE



SURFACE WATER SEWER

4.3. Albeit BGS records suggest the ground could support soakaway the building takes up all the available land within the client's ownership, this means there is no room to construct a soakaway or any form of attenuation, we therefore propose that the building should be allowed a free discharge to the public sewer. (See Appendix C for drainage layout plan).

4.4. Foul Drainage

4.5. There are no changes proposed to the existing foul drainage connections on site and no new connections are required, therefore it is proposed to leave the foul drainage regime unchanged.

5. SUDS Elements

5.1. All new surface water drainage systems should implement SUDS features where reasonably possible, these features are incorporated to offer benefits in Water Quality, Water Quantity, Amenity and Biodiversity. Below we have considered each SUDS element and determined it use within this particular development

COMPONENT	SUITABILITY	REASON
Rainwater Harvesting	X	No space for Rainwater Harvesting units.
Green Roof	X	Roof not suitable for a Green Roof.
Blue Roof	X	Roof not suitable for a Blue Roof.
Infiltration Systems	X	Insufficient land available.
Proprietary Treatment Systems	X	None required.
Filter Strips	X	Insufficient land available.
Filter Drains	X	Insufficient land available.
Swales	X	Insufficient land available.
Bioretention Systems	X	Insufficient land available.
Trees	X	Insufficient land available.
Rain Garden	X	Insufficient land available.
Pervious Pavements	X	No hard paved areas on plan
Attenuation Storage Tanks	X	None necessary
Detention Basins	X	Insufficient land available.
Ponds and Wetlands	X	Insufficient land available.

6. SUDS Maintenance

6.1. Upon selection of the SUDS elements to be incorporated into the surface water drainage scheme then a maintenance plan needs to be adopted along with responsibility of the maintenance.

6.2. The responsibility can general be with 3 different bodies, it could be 'Private' which means the responsibility remains with the homeowner, it could be 'Public" which means it will be adopted and be the responsibility of the local authority or water authority, or it could be 'Management Company' which means a specialist company could be employed or created for the purpose of maintaining those elements, for the management company there would be an annual charge that the home owners would be expected to pay each year.

	PRIVATE	PUBLIC	MANAGEMENT
N/A			

6.3. With each element the relevant responsible person(s) / company will need to undertake different tasks on varying frequencies to ensure the peak performance of the SUDS system and remove the risk of flooding or failure, the maintenance regime and regularity for each element are outlined in the tables below.

7. Conclusion

7.1. Advant Engineers were commissioned by Manley Park Sports and Community Centre to undertake a Drainage Strategy for the proposed extensions to the existing community building. This report will be provided as supporting documentation as part of a planning application.

7.2. The site is currently brownfield with an existing community building, it is expected that there are existing drainage connections serving the site.

7.3. It is proposed to discharge the surface water direct to the public sewer with a free discharge as there is insufficient space to accommodate a soakaway or an attenuation tank.

7.4. There are no proposed changes to the foul drainage within the new extensions it is therefore proposed the existing foul drainage connections remain unaffected.

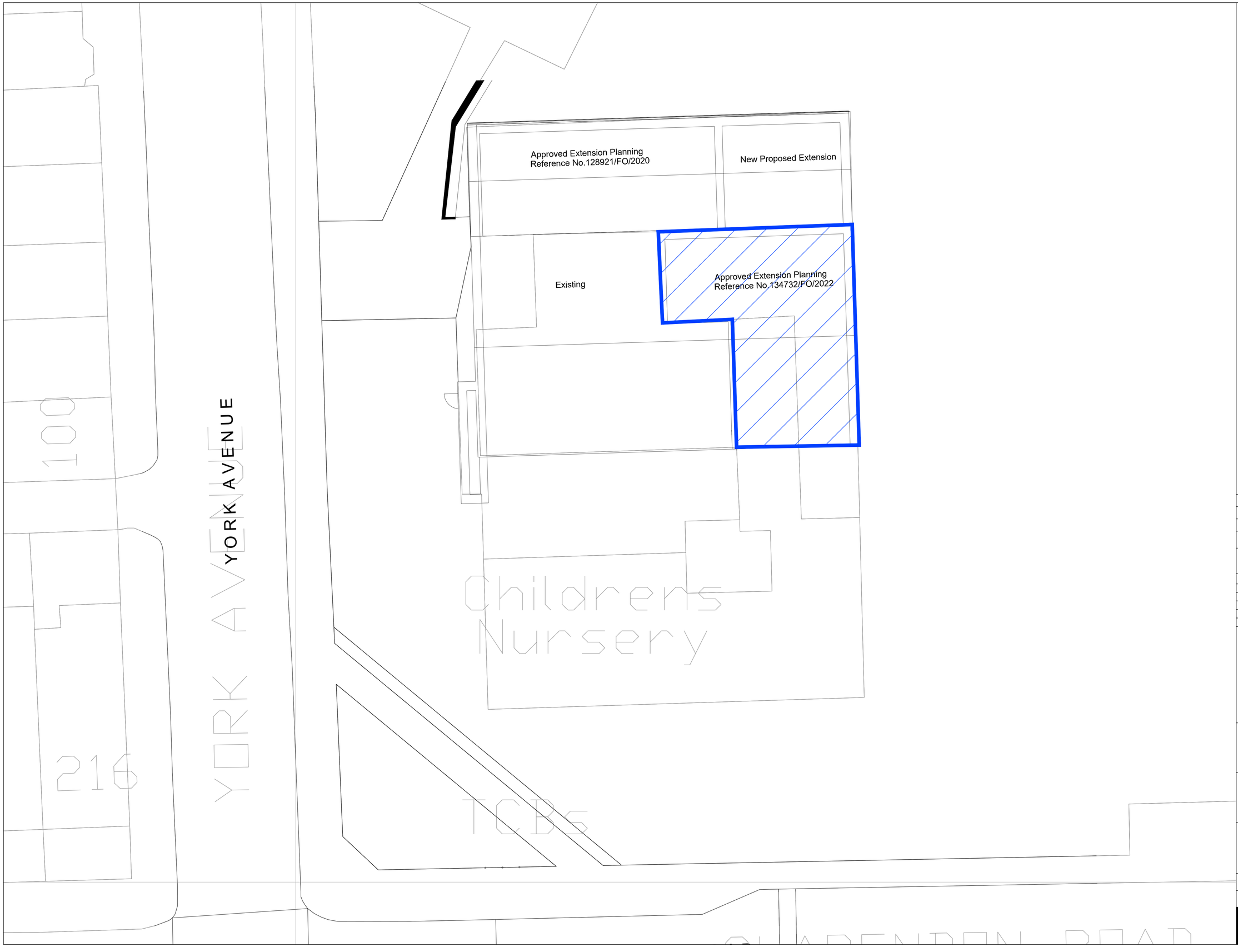
7.5. All public surface water/foul water drainage should be designed in accordance with the Water Authority and Sewers for Adoption.

7.6. All private surface water and surface water/foul water drainage should be designed in accordance with the current Building Regulations Part H.

8. References

1 https://www.bgs.ac.uk/
2 CIRIA – C753 The SUDS Manual

APPENDIX A
EXISTING IMPERMEABLE AREA PLAN



NOTES

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KEY

IMPERMEABLE AREA
= 115m² (0.016ha)

REV	AMENDMENTS	BY	DATE
C	UPDATED TO CLIENT COMMENTS	MJM	24.03.26
B	UPDATED TO CLIENT COMMENTS	MJM	11.10.23
A	INITIAL ISSUE	MJM	07.10.23

FOR APPROVAL

STATUS		CHK'D
PRELIMINARY		MJM
FOR COMMENT		MJM
FOR APPROVAL		MJM
FOR CONSTRUCTION		
AS BUILT		

advant ENGINEERS
Unit 6 Benton Office Park, Bennett Avenue
Horbury, Wakefield, West Yorkshire, WF4 5RA
01924 654108
wakefield@advantengineers.co.uk

CLIENT
MANLEY PARK SPORTS & COMMUNITY CENTRE

CONTRACT
MANLEY PARK SPORTS & COMMUNITY CENTRE, MANCHESTER, M16 0AS

TITLE
IMPERMEABLE AREA LAYOUT PLAN

DRAWN	MJM	CHK'D	MJM
SCALE	1:200 @ A1	DATE	05.05.23

JOB No	DRG No	REV
22107	100	C

APPENDIX B
PROPOSED LAYOUT PLAN



Door Schedule													
Number	Room	Level	Existing/New	Description	Width	Height	Door Panel Width	Door Panel Height	Door Panel Thickness	Finish	Frame Material	Fire Rating	Note
D01	Therapy Room	L00 Ground Floor	New Construction	Internal Single Door	1010	2110	926	2060	38	Timber	Timebr		Restricted Access
D02	Activity Hall 03	L00 Ground Floor	New Construction	External Double Door	1810	2250	852	2140	44	Aluminium	Aluminium		
D03	Therapy Room	L00 Ground Floor	New Construction	External Double Door	1810	2250	852	2140	44	Aluminium	Aluminium		
D04	Entrance Lobby	L00 Ground Floor	New Construction	Internal Double Door	1510	2110	711	2060	32	Timber	Timebr		
D05	Health & Fitness Center	L00 Ground Floor	New Construction	Internal Asymmetric Door	1510	2110	926	2060	32	Timber	Timebr		Restricted Access
D06	Exit	L00 Ground Floor	New Construction	External Single Door	1010	2110	907	2000	44	Aluminium	Aluminium		
D06	Lobby	L00 Ground Floor	New Construction	Internal Single Door	910	2110	826	2060	38	Timber	Timebr	FD30	
D07	Lobby	Mezzanine	New Construction	Internal Single Door	910	2110	826	2060	38	Timber	Timebr	FD30	

ELECTRICAL LEGEND

C1	6ft Led Batten Light
C2	External lighting with dime-clock and photocell controls.
	Double socket outlet
	Manual Light Switch
	AC UNIT

High-frequency fluorescent lighting to be provided throughout to comply with part L2A to a giving a minimum performance of 60 lumens per circuit watt.

Lighting controls to be provided in PIR movement sensors wired for absence detection to all areas excluding the main sports hall.

Emergency lighting to be provided to comply with BS 5266.

External lighting to be provided to walk way areas to comply with CIBSE LG7 requirements with dime-clock and photocell controls.

FIRE STRATEGY LEGEND

Grade D2 LD2 Fire Alarm System required

SD	Analogue addressable combined smoke detector, electronic sounder & beacon.
EXIT	Illuminate Fire Exit Sign
	Call Point
A+E	Access Door & Fire Exit Route

Emergency light and Exit Sign Scheme to Fire Offices Approval and Bs eN 150 7010 and Bs 5266

Fire alarm and detection system to be linked to existing and updated to current standard to Bs 5839

All steel columns and beams to be painted with x2 coats of 60mins fire protecting intumescent paint to fire engineers requirements.

Wall

WT.1
EXTERNAL
102.5mm Brick (to match existing)
100mm Insulation
100mm Dense Blockwork (exposed block)
INTERNAL

WT.2
EXTERNAL
Outer Cladding
80mm Kingspan Quad Core AWP Wall Panel
colour Anthracite (silver/ grey)
INTERNAL

WT.3
75mm Stud/Metal Frame with 75mm Rockwool Acoustic Partition Insulation
12.5mm Plasterboard* Eitherside, Skimmed and Painted

WT.4
100mm Dense Blockwork
12.5mm Plasterboard, Skimmed and Painted

WT.5
x2 Layers 12.5mm Plasterboard, Skimmed and Painted

Floors

FT1 - Floor Type 1
CONCRETE GROUND FLOOR
11mm Floating Floor SS UK Pulastic Sports Hall Floor Classic 110 on
75mm Screed + Underfloor Heating
Vapour Barrier
200mm PIR Insulation
Damp Proof Membrane
200mm Concrete Slab to SE Specification
50mm Blinding Sand
150mm Compacted Hardcore

FT2 - Floor Type 2
STEEL FRAME TO MEZZANINE
40mm Timber Floor Boards
173mm Stell Beam with
123mm C section

Roof

RT1 - Roof Type 1
PITCHED ROOF
115mm Kingspan Quad Core KS1000RW Roof Panel colour Anthracite (silver/ grey)
120 Purling (to Structural Engineers design)
200 Steel Beam (to Structural Engineers design)

General Notes
The Architect shall have no responsibility for any use made of this document other than for that which it was prepared and issued.
All dimensions should be checked on site. Do not scale from this drawing
To be read in conjunction with all other Consultant's drawings.
The Architect to be immediately notified of any discrepancies.
Copyright on this drawing retained by the Architect.

LEGEND

- Site Boundary
- Fire rated Plasterboard

NOTE:

Refer to the full set of drawings, specifications and schedules from architect, engineers and specialist consultants before commencing any work.

Check all dimensions onsite and report any discrepancies. Do not scale from drawings. **Drawings produced for building regulation purposes only.**

Responsibility to check and coordinate information including all CDM duties (ie Principle Designer) is to be carried out by the project manager or contractor.

Work to be phased to allow minimal disruption to occupants.

Contractor to liaise with building control prior to undertaking any stripping out or demolition works to agree on a suitable programme of works.

All mechanical, electrical and drainage designs including below ground drainage to be in accordance with M&E and civil engineers designs and specification. In the absence of such engineers below ground drainage design to be determinated on site and agreed with approved inspector.

Refer to the Fire Strategy relating to all fire safety designs including escape routes, compartment lines, travel distances, Smoke Ventilation Systems, Fire alarms, Emergency lighting, Sprinker design, Wayfinding signage etc

SEE SPECIFICATION FOR ALL EXTERNAL FINISHES INCLUDING BRICKWORK, RENDER, ROOF TILES, WINDOWS, DOORS AND RAINWATER GOODS

SITE LEVELS TO BE CHECKED ON SITE. CLIENT TO PROVIDE SURVEYED TOPO SURVEY BEFORE CONSTRUCTION COMMENCES.

ALL STRUCTURAL DESIGN INCLUDING FOUNDATION, WALLS, ROOF AND STEEL ELEMENTS TO BE IN ACCORDANCE WITH STRUCTURAL ENGINEERS DESIGN. **SEE DRAWINGS J165-01 AND J165-02**

On completion of the works the following documents will be required:

- Energy Performance Certificate EPC
- Water Efficiency Calculation
- Extract fan/Ducting flow test
- Sound test results for Party Walls /Party Floors
- Part P Electrical Certificate
- BS5839 Pt 6 Domestic fire alarm certificate
- Gas Safe certificate for Gas Appliances
- Benchmark Certificates for Unvented Hot Water Cylinders
- Reg 38 Fire Safety Information
- Document pack with information for homeowners about the building and the fixed services and their maintenance requirements so they can be operated in such a manner as to use no more fuel and power than is reasonable in the circumstances

Any ventilation units / air conditioning units that are mounted in line of sight of the residential property must have a noise output at least 10 dBA BELOW the measured background. **The total noise output must not exceed 30 dBA.**

No.	Date	Dwn	Chk	App	Revision or reason for issue
B1	10/11/22	SA	SH		Initial Issue

Client
COMMUNITY ON SOLID GROUND

create it studios
leave an impression
Create It Studios (NW) Ltd
Universal Square
Devonshire Street North
Manchester
M12 6JH
info@createitstudios.co.uk

Project Title
Manley Park Sports & Community Centre

Scale / North Point
As indicated
0 0.5 1 1.5 2m
1:50

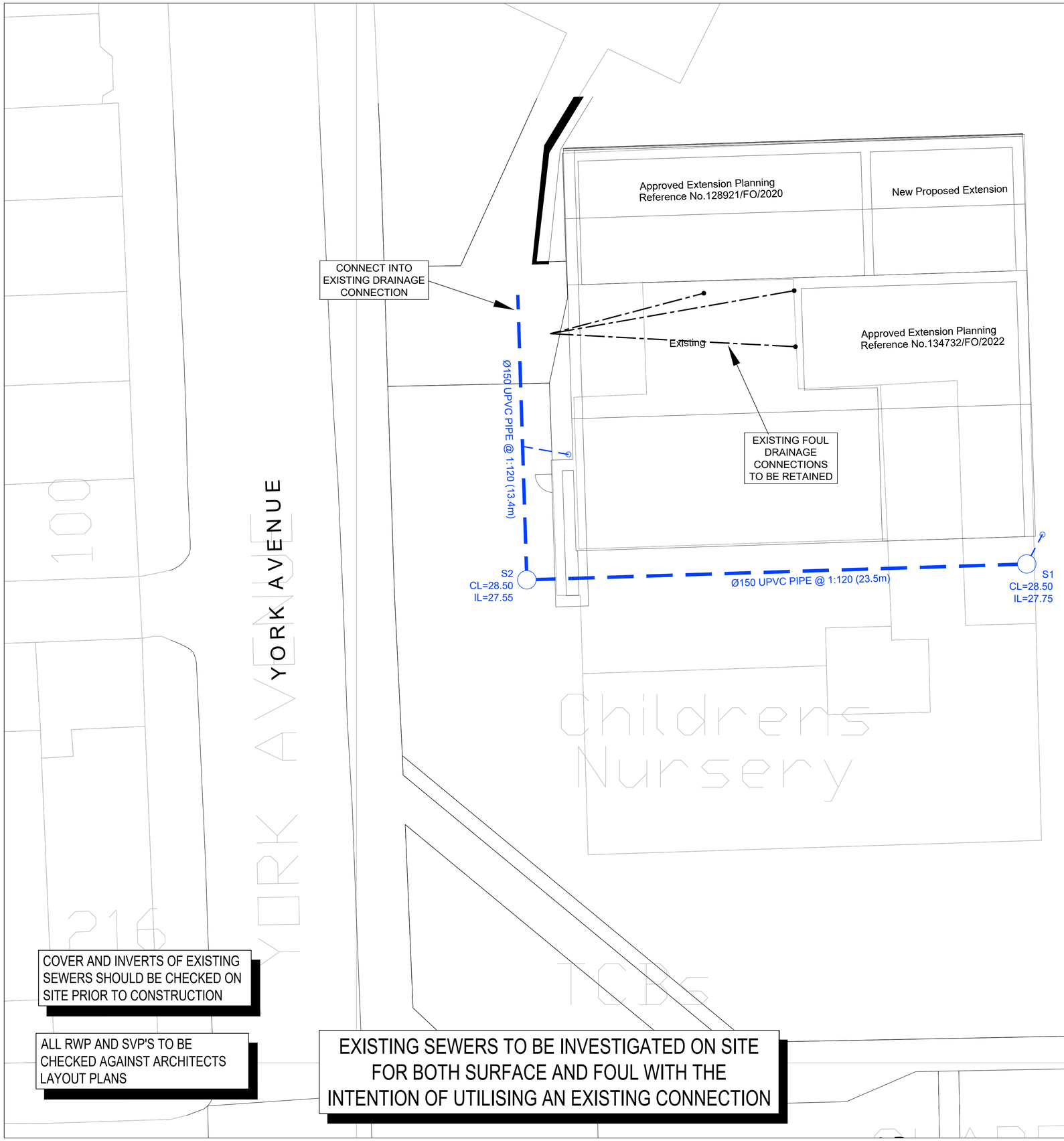
Drawing Title
Detail Ground Floor Plan

Drawing Number
A1452(05)AP001

Revision
B1

Drawing Status
Preliminary

APPENDIX C
PROPOSED DRAINAGE LAYOUT PLAN



DRAINAGE STRATEGY

SURFACE WATER

In accordance with the SuDS Hierarchy then infiltration should be considered in the first instance, as the building resides on 100% of the site then there is no room for a soakaway or any attenuation, therefore it is proposed to connect back tot he existing sewer at a free discharge.

FOUL DRAINAGE

The existing foul connections are remaining unchanged and there are no new connections being proposed, therefore it is proposed to not change the foul drainage regime.

(Refer to Advant Engineers Drainage Strategy Report)

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KEY

EXISTING FW SEWER

PROPOSED SW SEWER

PERMEABLE PAVING

REV		BY	DATE
D	UPDATED TO CLIENT COMMENTS	MJM	24.03.26
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AMENDMENTS

FOR APPROVAL

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FOR COMMENT		MJM
FOR APPROVAL		MJM
FOR CONSTRUCTION		
AS BUILT		

advant ENGINEERS
Unit 6 Benton Office Park, Bennett Avenue
Horbury, Wakefield, West Yorkshire, WF4 5RA
01924 654108
wakefield@advantengineers.co.uk

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CONTRACT
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TITLE
PROPOSED DRAINAGE LAYOUT PLAN

DRAWN	CHK'D
MJM	MJM
SCALE 1:200 @ A1	DATE 05.05.23

JOB No	DRG No	REV
22107	101	D



Building 3
Leeds City West Business Park
Geldard Road
Leeds
LS12 6LN

0113 8730607
mail@advantengineers.co.uk
www.advantengineers.co.uk