

NETWORK SPACE DEVELOPMENTS.

ELEMENT DEVELOPMENT ALCHEMY WAY, KNOWSLEY

Drainage Strategy Report



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PROJECT NO. 11110

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EXECUTIVE SUMMARY

Site Classification	Greenfield
Site Area	Total 3.088= Hectare
Existing Greenfield surface water runoff rate	7.1 l/s (Qbar)
Proposed surface water peak flow run off rate	Control flow chamber – at Unit 4 Restricted to 5.6l/s. Control flow chamber – at Unit 5 Restricted to 2.4 l/s.
Infiltration Potential	The ground conditions indicate that infiltration is not feasible on this site.
Outfall	Unit 4 proposed 225mm diameter connection to United Utilities existing public sewer located in Knowsley Business Park Kirkby. (EXS7) Unit 5 proposed 225 diameter connection to United Utilities existing sewer located in Platinum Court, Knowsley Industrial Park (EX S05-5)
Oil interceptor	Unit 4 Full Retention Oil Interceptor Modle P165 1C/SC. Unit 5 Full Retention Oil Interceptor Modle P065 1C/SC.
Storage System	Attenuation Tank
Water Treatment	■ Attenuation Tank: Stores rainwater temporarily and releases it slowly to help prevent flooding. ■ Filter Drain: Collects and filters rainwater, removing dirt and debris before it drains away or infiltrates the ground. ■ Full retention oil interceptor: Treats surface water by removing pollutants, oil, and sediment before the water enters the drainage system.
SUDS Elements utilised	Attenuation tank, and Filter drain
Foul water discharge	Existing Public Manhole

1 INTRODUCTION

1.1 TERMS OF REFERENCE

ADS Consult was appointed by Network Space Developments. (the Client) to prepare a Drainage Strategy Report. The site is located at National Grid Reference SJ425970, with the nearest postcode being L33 7AQ.

1.2 SOURCES OF DATA

This report is based on information from the following principal sources of information:

- Environment Agency (EA) Flood Zone (for Planning) Mapping
- Government Long Term Flood Risk Mapping
- British Geological Survey – Geology Viewer
- DEFRA's Magic Map
- Knowsley council
- Local Flood Risk Management Strategy (including Local SuDS Handbook)
- CIRCIA C753 'The SuDS Manual'

1.3 SCOPE AND OBJECTIVES

The objectives of this report are to provide:

- An operational drainage system that gives due consideration to all appropriate SuDS techniques.
- A fully designed drainage system that prevents flooding of the site and adjacent properties / sites for the lifetime of the development.

1.4 PROPOSED DEVELOPMENT

The proposed development includes industrial and commercial buildings of different sizes, along with landscaped areas, access roads, parking spaces, and public open space. The site is currently undeveloped greenfield land. The development will provide new business space, improve local infrastructure, and create an attractive environment for businesses, employees, and visitors.

1.5 LIMITATIONS

This report is addressed to and may be relied up on by:

Network Space Developments.

This document has been prepared for the sole use and reliance of the above-named party. This report shall not be relied upon or transferred to any other parties within the express written authorisation of ADS.

ADS neither owes nor accepts any duty to any third party and shall not be liable for any loss, damage or expense of whatsoever nature which is caused by their reliance on the information contained in this report.

The findings and opinions in this report are based upon information derived from a variety of information sources. ADS has endeavoured to assess all information provided and believe these information sources to be reliable.

This document should be read in conjunction with other Works Information and Contract Data as referenced above.

2 SCHEME

2.1 THE SITE

2.1.1 SITE LOCATION

The proposed development is situated in Knowsley Business Park, Kirkby, Knowsley, Liverpool City Region, England. Postcode L33 7AQ

Grid reference SJ425970 X (Easting) 342530 Y (Northing) 397044

- The local authority associated with the development is Knowsley Council.

2.1.2 SITE DESCRIPTION

The Site is broadly rectangular in shape and occupies an area of approximately 3.088 hectares (ha). Ground levels are generally consistent across the site.

Key features of the Site and its surroundings include:

Site Form and Topography

- Rectangular layout with limited variation in ground levels.

Surrounding Land Uses

- North: Industrial and warehouse units.
- South: Residential housing estates (Southdene/Northwood area).
- East: Industrial and commercial business premises.
- West: Residential areas with some local roads and open landscaped buffer.

Wider Context

- The wider area comprises a mix of industrial, warehousing and commercial premises, with established residential neighbourhoods to the south and west.
- The site benefits from good access to the strategic road network, including the A580 East Lancashire Road, connecting Liverpool, Manchester and the wider Northwest region.

2.2 DESKTOP INVESTIGATION

2.2.1 GROUND CONDITIONS

Phase 2 Geo-Environmental and Geotechnical Report was carried out by **rspgroup** on 06th October 2022 Report ref. JER9563.

- Made Ground was encountered across the site at depths ranging from approximately 1.2 m to 3.8 m and showed some variation in thickness due to historic ground regrading and infilling associated with former streams and a pond.
- The material generally comprised brown sandy gravelly silt and gravelly clay with fragments of brick, coal, clinker, concrete, mudstone, sandstone, and occasional pottery and timber. Laboratory testing indicated low to medium plasticity and low shrink–swell potential.
- Ground investigation results, including SPT testing, showed the Made Ground to be a cohesive material with strength ranging from low to high, with undrained shear strengths typically between 5 kN/m² and 171 kN/m².
- Particle size distribution testing classified the material as a slightly gravelly to gravelly sandy silt/clay or slightly gravelly to gravelly clayey/silty sand, which generally agreed with the field observations. Three trial pits terminated within the Made Ground, and weak concrete was encountered locally in one trial pit.

2.2.2 INFILTRATION TESTS

Based on the information obtained from **rspgroup** the ground conditions indicate that infiltration is not feasible on this site.

2.2.3 HYDROGEOLOGY

The Environment Agency (EA) mapping service, as provided by Magic Map. Magic Map Application Magic Map indicates the aquifer designation for the bedrock and superficial drift geology and the groundwater vulnerability in the area.

Aquifer Designations (EA Mapping):

The Site is located over the following aquifer types:

- Secondary A: Alluvium and glaciofluvial deposits
- Secondary B: Sidmouth Mudstone Formation
- Secondary Undifferentiated:

Aquifer Descriptions:

- Secondary A: Permeable layers that can provide local water supplies and contribute to river baseflow.
- Secondary B: Lower-permeability layers that may store or yield small amounts of groundwater in localised zones.
- Secondary Undifferentiated: Used where the rock type varies too much to classify as A or B; may behave as either minor aquifer or non-aquifer.

Table 1 – Aquifer Designation & Groundwater Vulnerability.

Geology Map	Site Information
Aquifer Designation Map (Bedrock)	Principal
Aquifer Designation Map (Superficial Drift)	Secondary (undifferentiated)
Vulnerability of Groundwater Map	Medium -High

Figure 1 – Aquifer Bedrock designation map



Figure 2 – Aquifer Superficial Drift designation map

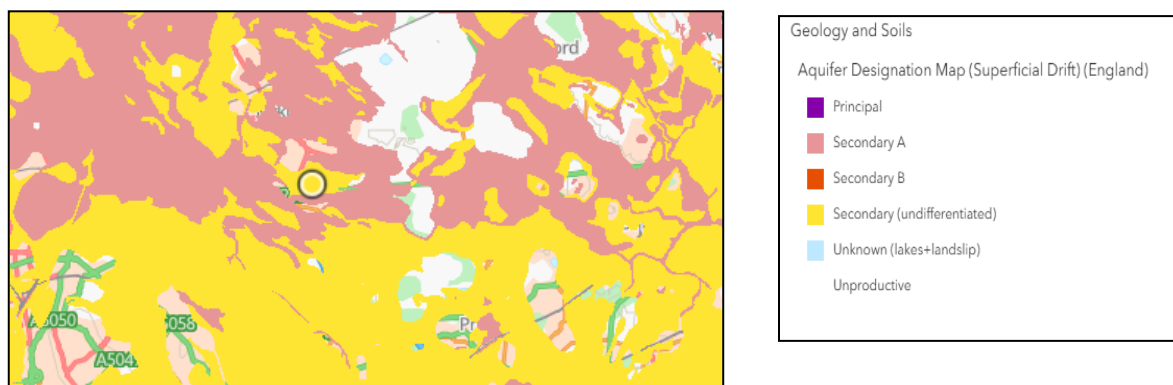


Figure 3 – Vulnerability of Groundwater map



2.3 NATIONAL PLANNING FRAMEWORK

2.3.1 GENERAL

Flood Risk Assessments in England are undertaken using the prescriptive procedures and guidance within the National Planning Policy Framework (NPPF) and “Planning practice Guide – Flood Risk and Coastal Change” (PPG) produced by Communities and Local Government, in addition to the details set out in BS 8533:2017 “Assessing and managing flood risk in development - Code of practice”.

NPPF provides a directive which seeks to ensure development does not take place in areas at risk or increase flood risk in offsite areas. NPPF acknowledges developments vary in their sensitivity to flooding and enables the correlation between proposed use and the underlying environs (flood risk) through the application of the Sequential Test.

2.3.2 THE SEQUENTIAL TEST

The aim of the Sequential Test is to steer new development into areas with the lowest and/or appropriate probability of flooding.

The sequential test provides the potential to compare the subject site with other available sites to determine which has the lowest flood risk.

Table 1 of PPG prescribes three principal flood risk zones:

- Zone 1 (Low Probability) - land assessed as having a less than 0.1% (1 in 1000) annual probability of river or sea flooding;
- Zone 2 (Medium Probability) - land assessed as having between a 1% (1 in 100) and 0.1% (1 in 1000) annual probability of river flooding; or between a 0.5% (1 in 200) and 0.1% (1 in 1000) annual probability of sea flooding;
- Zone 3a (High Probability) - land assessed as having a 1% (1 in 100) or greater annual probability of river flooding or a 0.5% (1 in 200) or greater annual probability of flooding from the sea;
- Zone 3b (The Functional Floodplain) - land where water has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. However, land which would naturally flood with an annual probability of 1 in 20 (5%) or greater in any year, is typically assumed to be functional floodplain.

The Sequential Test is not normally required for developments in Flood Zone 1 (i.e. the lowest probability of flooding), unless other flood related issues exist within the area of the development, for example, a critical drainage area.

Similarly, a Sequential Test is not required in respect of the intended Planning Application if one has already been undertaken for a development of the type proposed (e.g. a residential development) on the subject site. This may be the case where the site is ‘allocated’ in the Authorities Local Plan.

A Sequential Test is required where both of the following apply:

- The proposed development is in Flood Zone 2 or 3
- A sequential test has not already been undertaken for a development of the type which is planned.

2.4 LAND USE AND DEVELOPMENT

Current guidance accepts it is not always possible to direct developments into areas of low flood risk, and the type of development/end use materially affects flood risk sensitivity.

“Planning Practice Guide – Flood Risk and Coastal Change”, reproduced below, provides the outline mechanism for assessing the suitability of a development within a specific Flood Zone.

		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood Zones	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a	Exception Test required	✓	x	Exception Test required	✓
	Zone 3b Functional Floodplain	Exception Test required	✓	x	x	x

Key: ✓ - Development is appropriate

x - Development should not be permitted

For guidance, “Planning Practice Guide – Flood Risk and Coastal Change”, is reproduced below to illustrate Flood Risk Vulnerability classifications.

Essential Infrastructure	- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk. - Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including electricity generating power stations and grid and primary substations and water treatment works that need to remain operational in times of flood. - Wind turbines.
Highly Vulnerable	- Police stations, ambulance stations and fire stations and command centres and telecommunications installations required to be operational during flooding. - Emergency dispersal points. - Basement dwellings. - Caravans, mobile homes and park homes intended for permanent residential use. - Installations requiring hazardous substances consent (where there is a demonstrable need to locate such installations for bulk storage of materials with port or other similar facilities or such installations with energy infrastructure or carbon capture and storage installations, that require coastal or water-side locations or need to be located in other high flood risk areas, in these instances the facilities should be classified as “essential infrastructure”).

More Vulnerable	■ Hospitals. ■ Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels. ■ Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels. ■ Non-residential uses for health services, nurseries and educational establishments. ■ Landfill and sites used for waste management facilities and hazardous waste. ■ Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	■ Police, ambulance and fire stations which are not required to be operational during flooding. ■ Buildings used for shops, financial, professional and other services, restaurants and cafes, hot food takeaways, offices, general industry, storage and distribution, non-residential institutions not included in "more vulnerable" and assembly and leisure. ■ Land and buildings used for agriculture and forestry. ■ Waste treatment (except landfill and hazardous waste facilities). ■ Minerals working and processing (except for sand and gravel working). ■ Navigations facilities. ■ Ministry of Defence installations. ■ Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. ■ Water-based recreation (excluding sleeping accommodation). ■ Lifeguard and coastguard stations. ■ Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. ■ Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.
Water Compatible Development	■ Water treatment works which do not need to remain operational during times of flood. ■ Sewerage treatment works (if adequate measures to control pollution and manage sewage during flooding events are in place). ■ Flood control infrastructure. ■ Water transmission infrastructure and pumping stations. ■ Sewerage transmission infrastructure and pumping stations. ■ Sand and gravel working. Docks, marinas and wharves.

2.4.1 THE EXCEPTION TEST

The Exception Test may be applied where, following application of the Sequential Test, it is not possible for the development to be located in zones with a lower probability of flooding. For the Exception Test to be passed both of the following conditions must be met:

- It must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk; and,
- A site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall

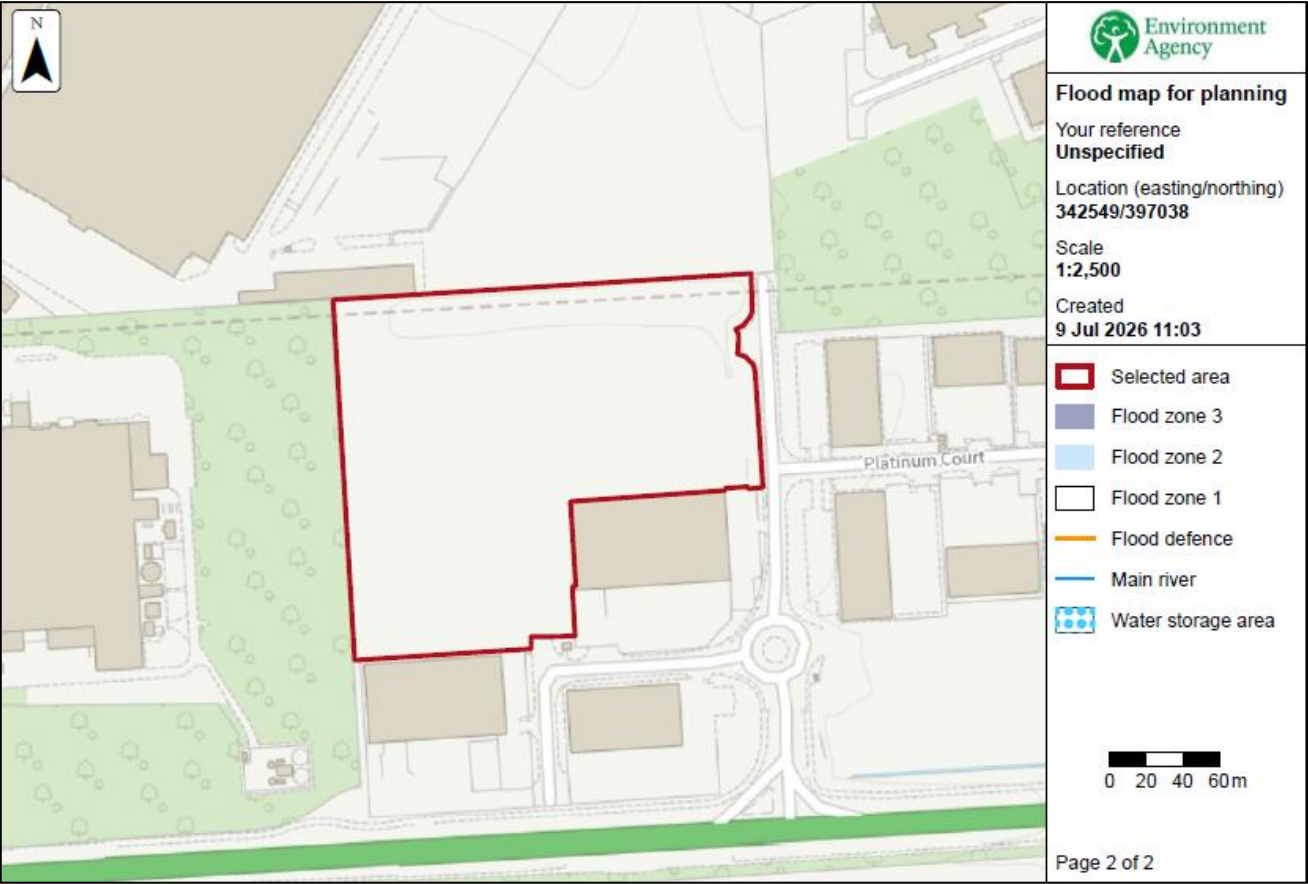
3 FLOOD RISK

3.1 FLOOD MAPS FOR PLANNING

This section examines the potential sources of flooding affecting the Site and considers the impacts on both the proposed development and surrounding areas.

Flood risk information for tidal and main watercourses is provided by the Environment Agency (EA) through its online flood mapping service. An extract from the EA flood map (Figure 4) shows that the Site lies within a designated Flood Zone.

Figure 4 – EA Flood Risk Map for Planning



4 CLIMATE CHANGE AND DESIGN EVENT

4.1 PEAK RAINFALL INTENSITY

The table below, taken from the 'Peak Rainfall Allowances Map' within the Environment Agency's guidance 'Flood risk assessments: climate change allowances', outlines the climate change allowances that should be applied to peak rainfall intensity for the Tees Management Catchment. These allowances are used to assess the impact of climate change on surface water drainage design and should be applied in accordance with the site's vulnerability classification and design life.

Annual Exceedance Rainfall Event	Allowance	Total potential change anticipated for the '2050s' (up to 2060)	Total potential change anticipated for the '2070s' (between 2061 and 2125)
3.3% (1 in 30 years)	Central	25%	25%
	Upper end	35%	30%
1% (1 in 100 years)	Central	30%	40%
	Upper end	40%	45%

Development with a lifetime beyond 2100, this includes development proposed in applications or local plan allocations should include an appraisal of upper end allowances. This should include the 1% (100 year) and 3.3% (30 year) annual exceedance probability

events for the 2070s epoch (2061 to 2125), albeit the 1% (100 year) event is likely to define the attenuation requirements.

Development with a lifetime between 2061 and 2100 should utilise a similar approach but use the central allowance for the 2070s epoch (2061 to 2125).

Development with a lifetime up to 2060 should use the central allowance for the 2050s epoch (2022 to 2060).

4.1.1 DESIGN EVENT (DRAINAGE)

Given the variability in design life, the application of the precautionary principle, and the Regulator's anticipated prescriptive requirements, it is considered appropriate to assess the development and in particular the surface water drainage design against the 1-in-100-year storm event, including a 45% allowance for climate change event to demonstrate the safety of people and assets. We have also consider a 1 in 200 year rainfall event plus 45% climate change as the exceedance event.

It should be noted that this assessment is intended to determine whether the climate change allowances result in any significant impacts or unacceptable flood risks. It is not typically expected that the site would remain entirely free from flooding under such an extreme event; rather, the aim is to ensure that any flooding that does occur would have minimal consequences.

As noted, published guidance is generally focused on residential development. For non-residential proposals, it is recommended that any Urban Creep allowance be agreed with the LLFA at the pre-application stage.

5 DRIANAGE STRATEGY

5.1 SURFACE WATER DRAINAGE

At the time of preparing this report, detailed development proposals were not available for review. However, any scheme that increases the site's hard-drained area is likely to have a significant effect on surface water runoff.

Based on the information obtained from **rspgroup** the ground conditions indicate that infiltration is not feasible on this site.

Regardless of the chosen method of surface water discharge, appropriate management will need to address the following factors:

- Rate
- Quantity
- Quality

Assuming on-parcel drainage is designed:

- In accordance with good practice;
- To attenuate flows to existing greenfield rates, and;
- To accommodate the 1 in 100 year plus for climate change event.

The development will not have an adverse impact on surface water drainage.

5.1.1 PROPOSED SURFACE WATER RUNOFF RATE

In accordance with the LLFA requirements, a reduction in surface water discharge to greenfield run-off rates wherever feasible.

Where greenfield run-off rates are not feasible, this will need to be demonstrated by the applicant, and in such instances, the minimum requirement is to achieve at least a 50% attenuation of the site's surface water runoff at peak times based on the levels existing prior to the development

The Greenfield run-off values have been calculated using the FHE analysis with the aid of a hydraulic modelling software (InforDrainage). The calculated Greenfield peak flow runoff rates can be found below in Table 5.

Table 5 – Site runoff rates: -

Summary of discharge rates	
RETURN PERIOD	
QBAR (L/s)	7.1 L/s
1 yr	6.2 L/s
30 yr	12.1 L/s
100 yr	14.9L/s

To demonstrate the development is of low risk the report should show:

- That it will be feasible to restrict surface water run-off to Q-bar (including climate change) and set out how this will be achieved.
- We are planning to discharge at unit 4 to 5.6 L/s and at unit 4 to 2.4l/s, ensuring that there will be no potential blockages approval to be obtained by united utilise.
- What sustainable drainage techniques (SuDS) will be used with any obstacles to their use clearly justified.

Climate change (CC) will be considered by increasing the rainfall intensity by 45%.

5.1.2 PROPOSED SURFACE WATER STRATEGY

The proposed surface water drainage strategy for the development will comprise a piped network designed to collect rainfall from roof water pipes (RWPs) and external hardstanding areas. The system will include sustainable drainage features, such as filter drain and oil interceptor to promote infiltration, improve water quality, and reduce surface water runoff.

5.2 CALCULATIONS

Preliminary calculations have been undertaken at this stage to model and analyse the potential storage requirements for the site. The peak flow for the 1 in 100 years plus 45% storm event to demonstrate the safety of people and assets. The calculations have also included the 1 in 200-year rainfall event plus 45% climate change as the exceedance event. The Model information includes a plan showing pipework model numbering and network details. The proposed drainage system is designed using info drainage simulated for the critical 1 in 2 year, 1 in 30 year and 1 in 100 year plus 45%CC storm event all durations from 15mins through to 10080 mins, and the critical storm summary sheet for each design storm event including maximum water level, flow and velocity and details of any surface flooding has been provided.

5.2.1 MEANS OF ACCESS/EGRESS

The main access to the site is via Alchemy Way, located along the South northern boundary of the site.

In practicable terms, the site is likely to be afforded a means of safe escape during all but the most extreme events

Nonetheless, mitigation measures should be developed, such as:

- A means of communicating accessible routes to residents and staff; and,
- A procedure for residents and staff to remain safe

6 SUSTAINABLE DRAINAGE SYSTEMS

6.1 INTRODUCTION

A sustainable drainage system is to be designed for this site in accordance with the National Planning Policy Framework and Planning Practice Guidance (NPPF) and DEFRA Non-statutory technical standards for sustainable drainage systems – March 2015.

A sustainable drainage system (SuDS) is designed to replicate, as closely as possible, the natural drainage from the Site (before development) to ensure that the flood risk downstream of the site does not increase because of the land being developed.

SuDS can also significantly improve the quality of water leaving the site and can enhance the amenity and biodiversity that a site has to offer. There are a range of SuDS options available to provide effective surface water management that intercept and store excess run-off. When considering these options, the destination of the runoff will be considered using the order of preference outlined DEFRA's National Standards for SuDS as follows:

- Discharge to the ground.
- Discharge to a surface water body.
- Discharge to a surface water sewer.
- Discharge to a local highway drain.
- Discharge to a combined sewer.

6.1.1 DISCHARGE TO THE GROUND.

The first option to be considered must be infiltration into the ground. Even when there are alternative sewer connections or water courses available, infiltration must be utilised unless it is unfeasible.

6.1.2 DISCHARGE TO A SURFACE WATER BODY.

The second drainage option to be considered is the discharge of surface (storm) water to a nearby watercourse. Unfeasible

6.1.3 DISCHARGE TO A SURFACE WATER SEWER.

The third option involves discharging surface water to an existing public sewer. This option is considered viable due to the presence of a United Utilities -owned public sewer.

6.1.4 SITE SPECIFIC ASSESSMENT

Table 3 – Discharge Options Summary

Discharge Option	Viability based on Office Investigation
Ground percolation.	Not possible.
Surface Water Body.	Not possible.
Surface Water Sewer.	United UtilitiesPublic Sewer

6.2 WATER MANAGEMENT

Current guidance promotes sustainable water management using SuDS. SuDS measures should be used to control the surface water runoff from the proposed development site therefore managing the flood risk to the site and surrounding areas from surface water run-off.

A hierarchy of techniques is identified:

- Prevention – the use of good site design and housekeeping measures on individual sites to prevent runoff and pollution (e.g. minimise areas of hard standing).
- Source Control - control of runoff at or very near its source (such as the use of rainwater harvesting, permeable paving, soakaways and/or green roofs).
- Site Control - management of water from several sub-catchments (including routing water from roofs and car parks to one/several large soakaways for the whole site, swales and/or infiltration trenches).
- Regional Control - management of runoff from several sites, typically in a detention pond, basins, tanks and/or wetland.

It is generally accepted that the implementation of SUDS as opposed to conventional drainage systems, provides several benefits by:

- reducing peak flows to watercourses or sewers and potentially reducing the risk of flooding downstream.
- reducing the volumes and frequency of water flowing directly to watercourses or sewers from developed sites.
- improving water quality over conventional surface water sewers by removing pollutants from diffuse pollutant sources
- reducing potable water demand through rainwater harvesting.
- improving amenity through the provision of public open spaces and wildlife habitat
- replicating natural drainage patterns, including the recharge of groundwater so that base flows are maintained.

The most appropriate attenuation system will need to satisfy three main characteristics, firstly, provide the required volume of storage, secondly, minimise the loss of developable land and thirdly, where possible provide local amenity. The application of the SuDS Manual requires that the runoff from sites is not only restricted to meet the pre-development runoff characteristics but also that SuDS systems are utilised to improve the quality of the runoff prior to outfall to watercourses. The SuDS Manual and Environment Agency guidance applies a sustainability hierarchy to the various types of SuDS systems.

Table 4 – SuDS Appraisal

Feature	Investigation	Conclusions
Rainwater harvesting	Rainwater is collected from the roof of a building or from other paved surfaces in an over-ground or underground tank for use on site. Depending on its intended use, the system may include treatment elements. The system should include specific storage provision if it is to be used to manage runoff to a design standard	Not used for this site.
Green roofs	A planted soil layer is constructed on the roof of a building to create a living surface. Water is stored in the soil layer and absorbed by vegetation. Blue roofs store water at roof level, without the use of vegetation.	Not used for this site.
Infiltration systems	These systems collect and store runoff allowing it to infiltrate into the ground. Overlying vegetation and underlying unsaturated soils can offer protection to groundwater from pollution risks.	Deemed unsuitable due to ground conditions.
Proprietary treatment systems	These subsurface and surface structures are designed to provide treatment of water through the removal of contaminants.	Unsuitable. The treatment requirements for the development require a softer level of treatment.
Soakaways	Reduces total runoff volume from the development.	Not used for this site.
Swales	Good removal of urban pollutants, reduces runoff rates and volumes.	Not used for this site.
Attenuation storage tanks	Large, below-ground voided spaces can be used to temporarily store runoff before infiltration, controlled release or use. The storage structure is often constructed using geocellular or other modular storage systems, concrete tanks or oversized pipes.	Suitable.
Filter Strips	Runoff from an impermeable area is allowed to flow across a grassed or otherwise densely planted area to promote sedimentation and filtration.	Unsuitable. The site layout external levels don't allow for a filter strip adjacent to highways.
Filter Drain	Runoff is temporarily stored below the surface in a shallow trench filled with stone/gravel, providing attenuation, conveyance and treatment (via filtration).	Suitable.
Permeable Area	Runoff is allowed to soak through structural paving. This can be paving blocks with gaps between solid blocks, or porous paving where water filters through the block itself. Water can be stored in the sub-base and potentially	Not used for this site.

	allowed to infiltrate into the ground.	
Rain Gardens	Features which allow rainwater downpipes to connect directly into planted beds, raised planters, bespoke tree pits or shallow planted depressions. This directly utilises rainwater at source, absorbing it and removing up to 90% of nutrients and chemicals and up to 80% of sediments from rainwater run-off.	Not used for this site.

Table 6 – SuDS Appraisal

SuDS Regulatory Hierarchy							
SuDS Feature	Environmental Benefits	Quality Improvements	Suitability for low permeability soils [k<10-6]	ground water recharge	Suitability for confined or small sites	Specific restrictions For Proposed Site	Adoptable for Proposed Site
Wetlands	Yes	Yes	Yes	No	No	Yes	No
Retention Ponds	Yes	Yes	Yes	No	No	Yes	No
Detention Basins	Yes	Yes	Yes	No	No	Yes	No
Infiltration Basins	Yes	Yes	Yes	No	No	Yes	No
Soakaways	No	Yes	No	No	No	Yes	No
Swales	Yes	Yes	Yes	No	No	Yes	No
Below ground Tanks	No	No	Yes	Yes	Yes	No	Yes
Filter Drain	Yes	Yes	Yes	Yes	Yes	No	Yes
Rainwater Harvesting	No	Yes	Yes	Yes	Yes	Yes	No
Permeable Paving	No	Yes	Yes	Yes	Yes	Yes	No
Green Roofs	Yes	Yes	Yes	No	Yes	Yes	No
External Gardens	Yes	Yes	Yes	No	Yes	Yes	No
Rainwater Garden	Yes	Yes	Yes	Yes	Yes	Yes	No

SuDS Options Considered	Viability
Filter Drain.	Appropriate.
Below Ground Tank.	Appropriate.

7 ENVIRONMENTAL ASSESSMENT

7.1 POLLUTION MITIGATION

The application of the SuDS Manual requires that SuDS systems are utilised to improve the quality of the runoff prior to outfall to united utilities public sewer.

A requirement of any SuDS system is that it protects the receiving water body from the risk of pollution. This can be managed by an appropriate “train” or sequence of SuDS components that are connected in series.

The frequent and short duration rainfall events are those that are most loaded with potential contaminants (silts, fines, heavy metals, and various organic and inorganic contaminants). Therefore, the first 5-10 mm of rainfall (first flush) should be adequately treated with SuDS.

The minimum number of treatment stages will depend on the sensitivity of the receiving water body and the potential hazard associated with the proposed development SuDS Manual (CIRIA, 2015).

The accumulated run off surface water from the proposed site has been assessed following with the regulations from Part H of the Building Regulations and DEFRA's draft national standards for SuDS.

The proposed land use for the final development is classified as “Commercial /Industrial Roofing ”. This land use type has a hazard level of “low” with pollution hazard indices as follows:

- Suspended Solids = 0.3
- Metals = 0.4
- Hydrocarbons = 0.005

Table 7 – Pollution Hazards: -

Pollution Hazard Index				
Land usage	Risk	Solids	Metals	Hydrocarbons
Commercial / Industrial	Low	0.3	0.4	0.05

Table 8 – Pollution Mitigation: -

Pollution Mitigation Index				
SuDS	Component	Solids	Metals	Hydrocarbons
Stage 1	Filter Drain	0.4	0.4	0.4

8 SUSTAINABLE DRAINAGE MAINTENANCE

The various SuDS features will remain privately owned and be maintained by the client. The exact details of this arrangement will be defined when future tenants are confirmed.

The SuDS operation and maintenance strategy will be in accordance with CIRIA C753 best practice, as shown below:

Table 9 – SuDs Operation and maintenance requirements: -

Monthly	Inspect upstream catchpits for silt and vortex control manhole for debris. Clean out if necessary, using vacuum tanker.
Every Six Months	Remove sediment from the inlet catchpit with a vacuum tanker twice a year as necessary, ideally at the start of Spring when general landscaping tidying up is carried out after winter damage and autumn leaf fall.
Annually	Annually inspect/check all sumps, inlets, outlets, vents to tanks to ensure that they are in good condition and operating as designed. Inspect distribution pipe by CCTV. If necessary, clean out.
Remediation Inspection & tasks following significant storm events	Inspect upstream and downstream catchpits for silt and vortex control manhole for debris. Clean out as necessary using vacuum tanker.
Contingency plan details	Exceedance flows as defined in the Drainage Strategy Drawing.

Table 10 – Flow Control maintenance requirements -

Regular maintenance	Check for any blockages and remove any silt buildup/debris in manhole.
Annually	Monitor inspection chambers

9 SUMMARY

The strategy outlined above shows a viable sustainable drainage solution is achievable within the constraints of the site. Detailed design of the system following a successful planning application can be delivered to meet the NPPF, Environment Agency, Local Authority and United Utilities requirements. The site is at low risk of flooding from all sources. The development is classed as Less Vulnerable usage, and the proposed development is located in flood zone 1. Therefore, both Sequential and Exception tests are not required.

The proposed surface water drainage strategies is compliant with national policy and technical standards. The strategy supports the planning application and confirms that the development will be safe, sustainable, and will not increase flood risk elsewhere.

The use of sustainable SuDS features has been considered and can be incorporated within the design.

Pollutant concentrations, careful design and maintenance.

The site does not pose any increased flood risk to the site itself or adjacent developments and is not susceptible to flooding by other means.

- The development area is currently brownfield.
- Surface water run-off from the proposed development will be discharged to a public sewer.
- Storage 1 in 100 year + 45% climate change events within the site boundary.
- Ground water protection is provided by a laid membrane below the stone and natural clay substrata below.
- The drainage proposals will be designed in accordance with the techniques set out within the SUDS manual.

Appendix A

SITE PLAN

Schedule of Accommodation Western							
Unit	Ground Floor GIA	Office GF GIA	Office FF GIA	TOTAL UNIT GIA	TOTAL UNIT GEA	Car Parking (Accessible)	Parking Ratio (/m²)
Unit 04	9,108m² / 98,038ft²	330m² / 3,552ft²	330m² / 3,552ft²	9,768m² / 105,142ft²	10,036 m² / 108,026 ft²	134 (7)	1:75
Unit 05	3,588m² / 38,621ft²	N/A	318m² / 3,423ft²	3,906m² / 42,044ft²	4,042 m² / 43,507 ft²	50 (3)	1:77
TOTAL SITE Areas				13,674m² / 147,186ft²	14,078 m² / 151,534ft²	184 (10)	

NOTES AEWTP026C

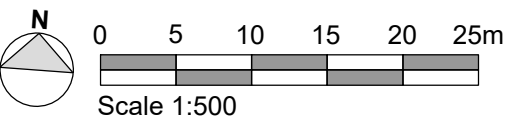
- All dimensions and levels are to be checked on site.
- Any discrepancies are to be reported to the architect before any work commences
- This drawing shall not be scaled to ascertain any dimensions. Work to figured dimensions only.
- This drawing shall not be reproduced without express written permission from AEW.
- Title overlay drawings and ownership boundaries are produced using all reasonable endeavors. AEW cannot be responsible for the accuracy or scale discrepancy of base plans supplied to them.
- All works are to be undertaken in accordance with Building Regulations and the latest British Standards.
- All proprietary materials and products are to be used strictly in accordance with the manufacturers recommendations.

CDM 2015

Client notified of duties: 07/04/21

Principal Designer: Nationwide

Unless noted below, all known hazards have been highlighted on the drawing:



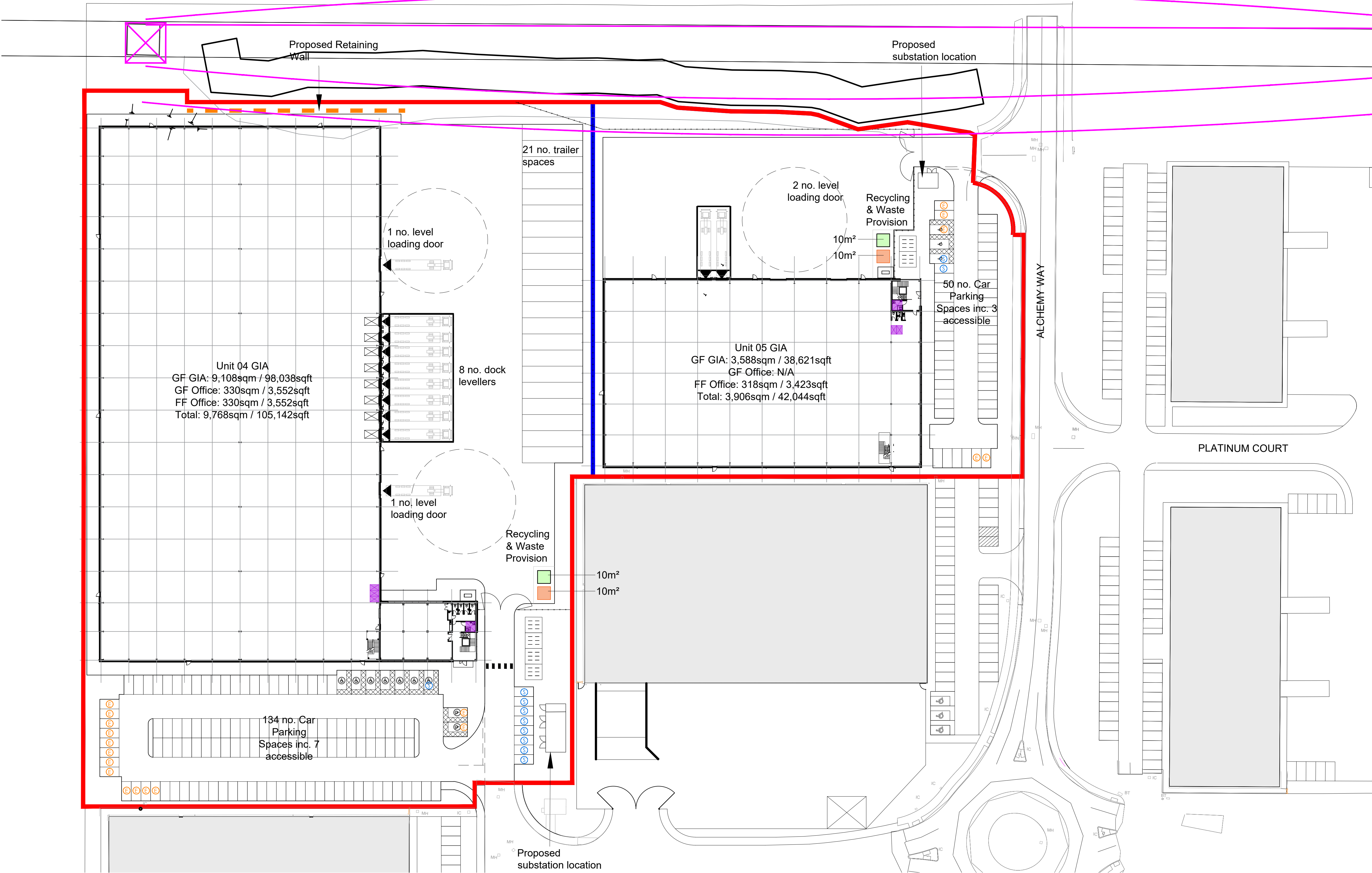
NOTES

HGV circulation subject to tracking analysis

Legend

- Existing power cables
- SWS, Survey data
- SWS, Utility data
- Existing Buildings
- Cycle Store
- Recycling & waste location
- Shower provision
- Electrical Vehicle Charging spaces
- Future Provision for Electrical Vehicle Charging spaces
- Shared Parking

P02	08/06/26	SG	DRS
Topo / OS re-aligned			
P01	04/06/26	DS	DRS
Initial Issue.			
REV	Date	Drawn by: -	Checked by: -
Status	Purpose of Issue		
S2	For Information		
drawing stage	Stage 3+		
client			
Network Space Development			
project			
Alchemy Western Plot			
drawing title			
Proposed Site Plan			
date	June 2026	drawn	DS
scale@A1	1:500	checked	DRS



Rev P02

15301-AEW-SI-XX-DR-A-20301

aew architects
0161 214 4370
www.aewarchitects.com

aew

Appendix B

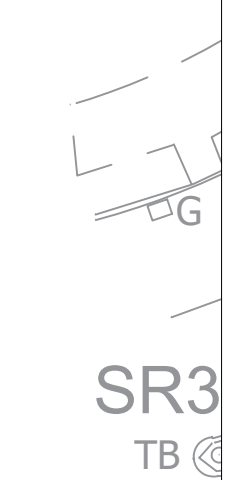
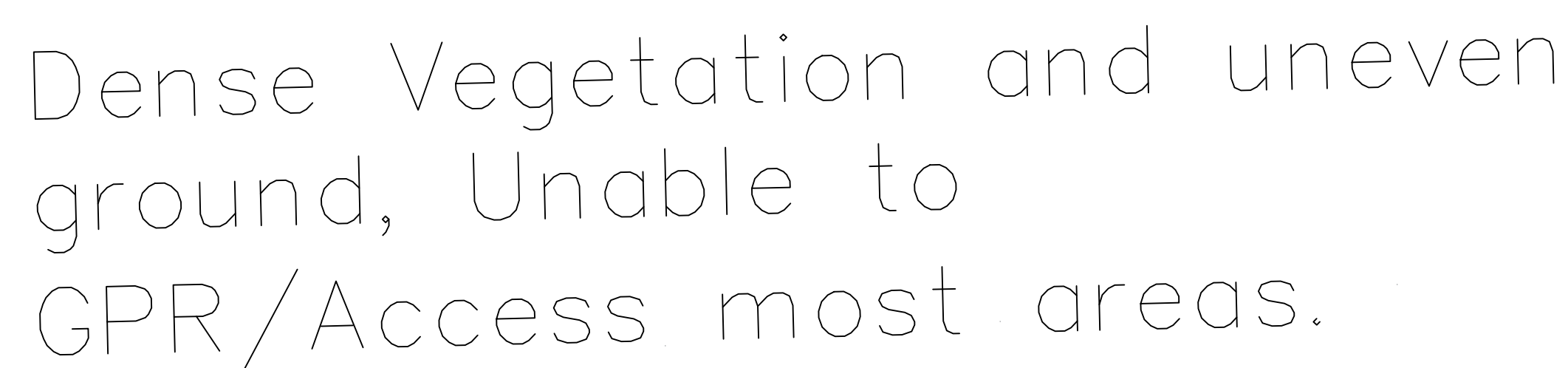
TOPOGRAPHICAL SURVEY

Dense Vegetation and uneven ground, Unable to GPR/Access most areas.

[illegible]

Dense Vegetation and uneven ground, Unable to GPR / Access most areas.

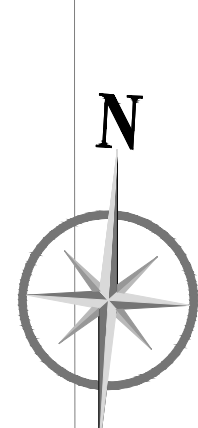
[illegible]

[illegible]

Appendix C

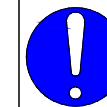
PROPOSED DRAINAGE STRATEGY





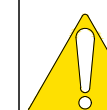
NOTES

ONLY PDF/DWG ISSUES OF THIS DRAWING ARE CONTROLLED. ALL OTHER FORMATS (e.g. DWG AUTOCAD FILES) ARE UN-CONTROLLED AND ARE USED AT YOUR OWN RISK.



NOTE FOR CONTRACTORS

THIS ADS DRAWING SHOULD BE CONSIDERED ALONG WITH THE RISK INFORMATION CONTAINED IN THE CDM PRE CONSTRUCTION INFORMATION. THIS INFORMATION WILL INCLUDE DETAILS OF THE SIGNIFICANT RISK WHICH ADS HAVE IDENTIFIED WHICH MAY ARISE FROM CONSTRUCTING THE DESIGNS SHOWN ON THIS DRAWING. A COMPETENT CONTRACTOR SHOULD BE AWARE OF THE TYPICAL RISKS ASSOCIATED WITH DOING THIS WORK.



DO NOT START YOUR WORK UNLESS YOU KNOW THE RISK AND CONTROLS RELATING TO THE WORK ON THIS DRAWING (INCLUDING SAFE SEQUENCES OF WORK AND EQUIPMENT)



DO NOT ISSUE COPIES OR PARTS OF THIS DRAWING WITHOUT THE ABOVE NOTE FOR WORKERS(UNLESS YOU ARE SURE THAT THE WORKERS CAN UNDERTAKE THE WORK SAFELY).

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONNECTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
DO NOT SCALE FROM THIS DRAWING. ALL SETTING OUT DIMENSIONS ARE TO BE CHECKED AND VERIFIED PRIOR TO COMMENCEMENT OF ANY BUILDING WORKS OR FABRICATION OF MATERIALS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER
2. ALL WORKSMANSHIP AND MATERIALS ARE TO COMPLY WITH THE CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE. ALL MATERIALS SHALL BE USED OR APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR IS TO TAKE INTO ACCOUNT EVERYTHING DEEMED NECESSARY FOR THE PROPER EXECUTION OF THE WORKS WHETHER INDICATED ON THE DRAWINGS OR NOT TO THE COMPLETE SATISFACTION OF THE LOCAL AUTHORITY
3. FOR FINAL SETTING OUT INFORMATION RELATING TO WALL POSITIONS REFER TO ARCHITECTS DRAWINGS.

DRAINAGE NOTES

- [illegible]

EXCAVATION WORKS

ATTENTION SHOULD BE DRAWN TO ALL DRAINAGE, WATER, GAS AND OTHER MAINS OR POWER SERVICES KNOWN TO EXIST ON OR OVER THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ALL NECESSARY ENQUIRES PRIOR TO COMMENCEMENT OF WORK.

ADEQUATELY PROTECT, UPHOLD, MAINTAIN AND PREVENT DAMAGE TO ALL SERVICES. DO NOT INTERFERE WITH THEIR OPERATION WITH CONSENT OF THE SERVICE AUTHORITIES OR PRIVATE OWNERS OR THE CONSULTING ENGINEER AS APPROPRIATE. ANY DAMAGE TO THE EXISTING SERVICES SHOULD BE IMMEDIATELY REPORTED TO THE CONSULTING ENGINEER AND APPROPRIATE AUTHORITIES.

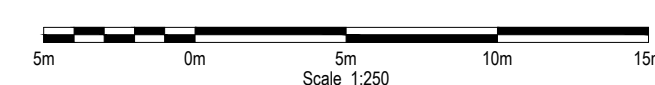
THE CONTRACTOR SHALL PROVIDE ALL THE TEMPORARY FENCING, HOARDINGS, PLANKED FOOTWAYS, GUARD RAILS AND HAZARD LIGHTS TO THE CONSULTING ENGINEERS APPROVAL AS NECESSARY FOR THE PROTECTION OF THE PUBLIC FOR THE PROPER EXECUTION OF THE WORKS AND FOR MEETING THE REQUIREMENTS OF THE LOCAL AUTHORITY.

THE CONTRACTOR IS TO INCLUDE FOR ISSUING ALL REQUIRED NOTICES TO THE LOCAL AUTHORITY BUILDING INSPECTORS PRIOR TO THE COMMENCEMENT, DURING THE WORKS AND UPON COMPLETION. IT IS THE CONTRACTOR'S SPECIFIC RESPONSIBILITY TO ENSURE ALL REQUIRED NOTICES ARE ISSUED AT THE CORRECT TIME.

KEY

-  PROPOSED SITE BOUNDARY
-  EXISTING FOUL MANHOLE
-  EXISTING SURFACE SEWER
-  PROPOSED SURFACE WATER MANHOLE
-  PROPOSED FOUL WATER MANHOLE
-  PROPOSED OIL INTERCEPTOR
-  PROPOSED ATTENUATION TANK
-  PROPOSED SURFACE WATER MAIN
-  PROPOSED SURFACE WATER MAIN
-  PROPOSED SURFACE WATER MANHOLE
-  PROPOSED FOUL WATER MANHOLE
-  PROPOSED CHANNEL DRAIN
-  PROPOSED RODDING EYE
-  PROPOSED PERFORATED PIPE

ALL INTERNAL RWPS ARE TO BE PROVIDED WITH RODDABLE ACCESS TO ALLOW FOR ROUTINE MAINTENANCE, BLOCKAGE CLEARANCE, AND INSPECTION.



RIBA STAGE 3

T3	28/07/2026	UNIT 4 RWP REVISED TO SUIT	AMG	AEB	ADS
T2	09/07/2026	UPDATED TO SUIT	AMG	AEB	ADS
T1	12/06/2026	FIRST SSUE	AMG	AEB	ADS
REV	DATE	REVISION DETAILS	DRAWN	CHKD	APPRD

CLIENT: NETWORK SPACE DEVELOPMENTS

PROJECT:
ELEMENT DEVELOPMENT
ALCHEMY WAY, KNOWSLEY
DRAWING TITLE:
DRAINAGE STRATEGY LAYOUT

DRAWING STATUS: **PRELIMINARY**



107 Mere Grange Business
Park, Leaside, St Helens, WA9
5GG
Tel: 0151 541 4000
info@adsstructural.co.uk

SCALE	PROJECT - ORIGINATOR - ZONE - LEVEL - TYPE - ROLE - NUMBER	REV
1:250	11110-ADS-XX-XX-DR-C-500	T3

Appendix D

PROPOSED LEVELS

CDM REGULATIONS 2015

IN LINE WITH THE ABOVE REGULATIONS WE ARE OBLIGED TO INFORM THE CONTRACTORS OF THE RISKS THAT MAY BE ENCOUNTERED IN THE UNDERTAKING OF THESE WORKS. ALL DESIGN WORK HAS BEEN CARRIED OUT WITH HEALTH & SAFETY ASPECTS GIVEN FULL CONSIDERATION. WHEREVER POSSIBLE RISKS HAVE BEEN ELIMINATED FROM THE DESIGN. HOWEVER DUE TO THE VERY NATURE OF THIS TYPE OF WORK IT IS NOT POSSIBLE TO REMOVE ALL RISKS FROM THE DESIGN. WE WOULD ALSO RESPECTFULLY REMIND THE CONTRACTOR OF HIS OBLIGATIONS TO TAKE ALL REASONABLE STEPS ENSURING THAT ONLY COMPETENT WORKERS WHO HAVE A VALID SAFETY POLICY ARE EMPLOYED. THEY SHOULD ALSO PROVIDE SATISFACTORY RESPONSES AT TENDER STAGE AS TO THE MANNER IN WHICH THEY DEAL WITH THE ELEMENTS OF RISK INVOLVED IN THIS TYPE OF WORK AND IN PARTICULAR THOSE HIGHLIGHTED BY ADS STRUCTURAL LIMITED BELOW:-

- SUPPORT TREATMENT FOR ALL EXCAVATION WORK.
- GUARDING TO EDGES OF EXCAVATIONS TO PREVENT PEOPLE, MATERIALS AND VEHICLES FALLING INTO EXCAVATIONS.
- QUARDING OF EXCAVATIONS OUTSIDE WORKING HOURS TO PREVENT UNAUTHORIZED ACCESS.
- UNDERMINING TO ADJACENT ROADS OR STRUCTURES.
- CONFINED SPACE OPERATIONS.
- DEALING WITH EXISTING SERVICES.
- TRAFFIC MANAGEMENT ON EXISTING HIGHWAYS.
- PROCEDURE TO BE FOLLOWED IN EVENT OF AN ACCIDENT OR EMERGENCY.
- METHOD OF WORKING WHERE CONTAMINATED GROUND IS PRESENT ON SITE.
- CONFIRMATION WILL BE REQUIRED THAT ALL OPERATIVES ARE ADEQUATELY TRAINED AND COPIES OF RELEVANT CERTIFICATES TO BE SUPPLIED.

THE ABOVE LIST IS BY NO MEANS EXHAUSTIVE BUT IT DOES HIGHLIGHT OPERATIONS THAT PRESENT A RISK TO CONTRACTORS AND THE GENERAL PUBLIC.

ONLY PDF ISSUES OF THIS DRAWING ARE CONTROLLED. ALL OTHER FORMATS (e.g. DWG, AUTOCAD FILES) ARE UNCONTROLLED AND ARE USED AT YOUR OWN RISK.

NOTE FOR WORKERS



DO NOT START YOUR WORK UNLESS YOU KNOW THE RISK AND CONTROLS RELATING TO THE WORK ON THIS DRAWING INCLUDING SAFE SEQUENCES OF WORK AND EQUIPMENT.

GENERAL NOTES

- PROPOSED SITE LAYOUT IS BASED ON ARCHITECT DRG. (24714/ENH-SX-XL OR A052) (S2 P01) Proposed Site Plan.
- TOPOGRAPHY SURVEY PLAN IS BASED ON TOPO SURVEY 21K145 3D.
- THIS DRAWING IS TO BE READ IN CONNECTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- DO NOT SCALE FROM THIS DRAWING. ALL SETTING OUT DIMENSIONS ARE TO BE CHECKED AND VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
- ALL WORKMANSHIP AND MATERIALS ARE TO COMPLY WITH THE CURRENT BRITISH STANDARDS AND CODES OF PRACTICE. ALL MATERIALS SHALL BE FIXED OR APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR IS TO TAKE INTO ACCOUNT EVERYTHING DEEMED NECESSARY FOR THE PROPER EXECUTION OF THE WORKS WHETHER INDICATED ON THE DRAWINGS OR NOT TO THE COMPLETE SATISFACTION OF THE LOCAL AUTHORITY.
- ALL RETAINING WALL LOCATIONS SHOWN ARE INDICATIVE ONLY AND ARE SUBJECT TO DETAILED DESIGN.

KEY NOTES

- DENOTES SITE BOUNDARY
- DENOTES MAJOR CONTOUR
- DENOTES MINOR CONTOUR
- DENOTES SOFT LANDSCAPING FALL DIRECTION
- DENOTES FALL DIRECTION
- DENOTES TOP OF ASHS LEVELS
- DENOTES EXISTING LEVELS
- DENOTES PROPOSED LEVELS
- DENOTES FINISHED FLOOR LEVELS
- DENOTES RETAINING WALL
- DENOTES TOP OF RETAINING WALL LEVEL

RIBA STAGE 3

T2	15.07.2026	UNIT 4 RER FOOTPATH AMENDED	MG	AEB	ADS
T1	12.06.2026	FIRST ISSUE	MG	AEB	ADS
REV	DATE	REVISION DETAILS	DRAWN	CHKD	APPRD

CLIENT: NETWORK SPACE DEVELOPMENTS

PROJECT: ELEMENT DEVELOPMENT
ALCHEMY WAY
KNOWSLEY

DRAWING TITLE: PROPOSED EXTERNAL LEVELS

DRAWING STATUS:	SHEET	REV
A0	PRELIMINARY	S2 T2

ads 107 Mere Grange Business Park, Leaside, St Helens, WA9 5GG
consult Tel: 0151 541 4000
consulting engineers info@adsstructural.co.uk

SCALE: 1:250 PROJECT ORIGINATOR: JONE, LEVEL: TYPE: ROLE: NUMBER: 11110-ADS-XX-XX-DR-C-001

UNIT 4
FFL 28.150

UNIT 5
FFL 29.050

ALCHEMY WAY

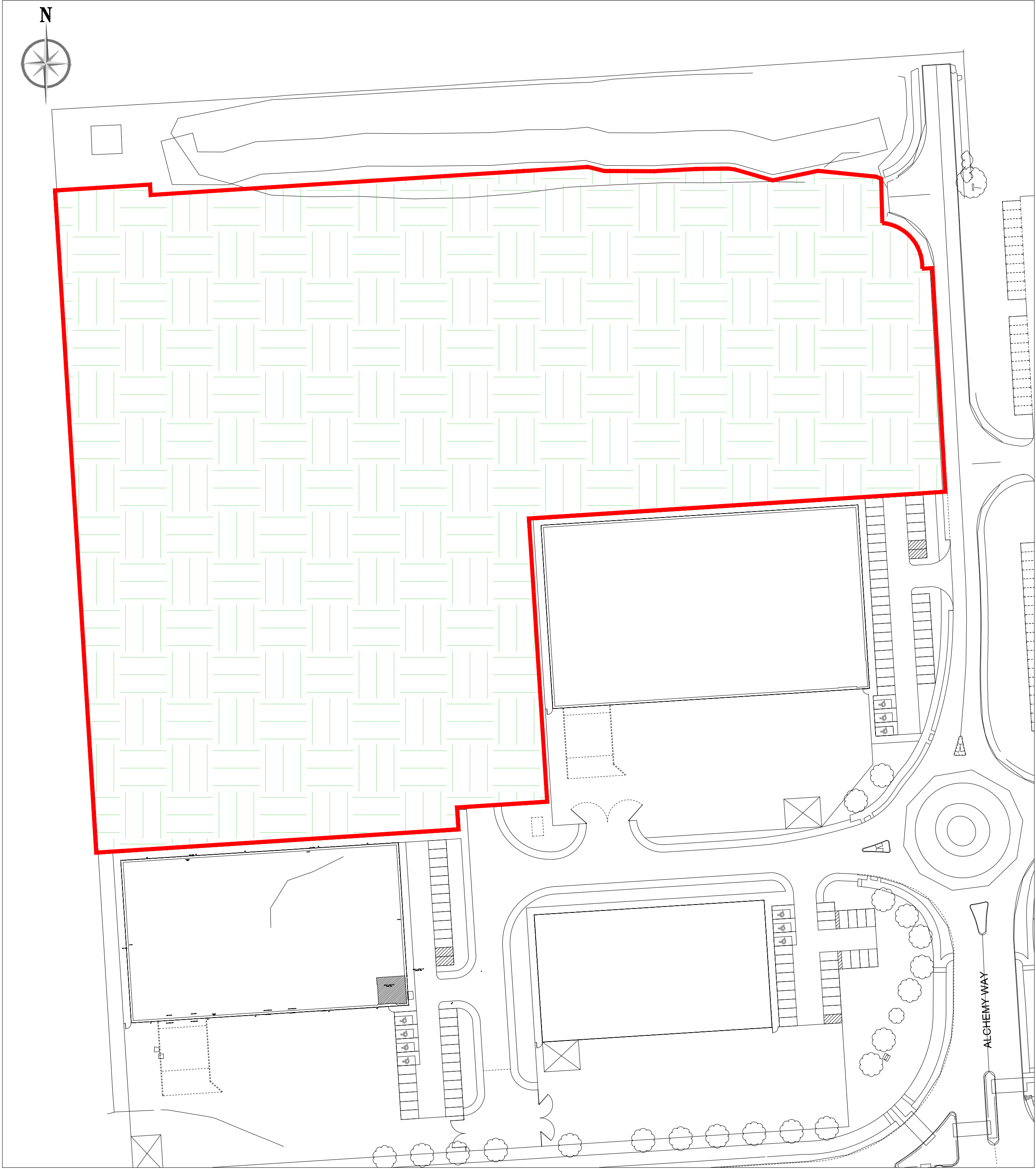
PROPOSED
SUBSTATION

Appendix E

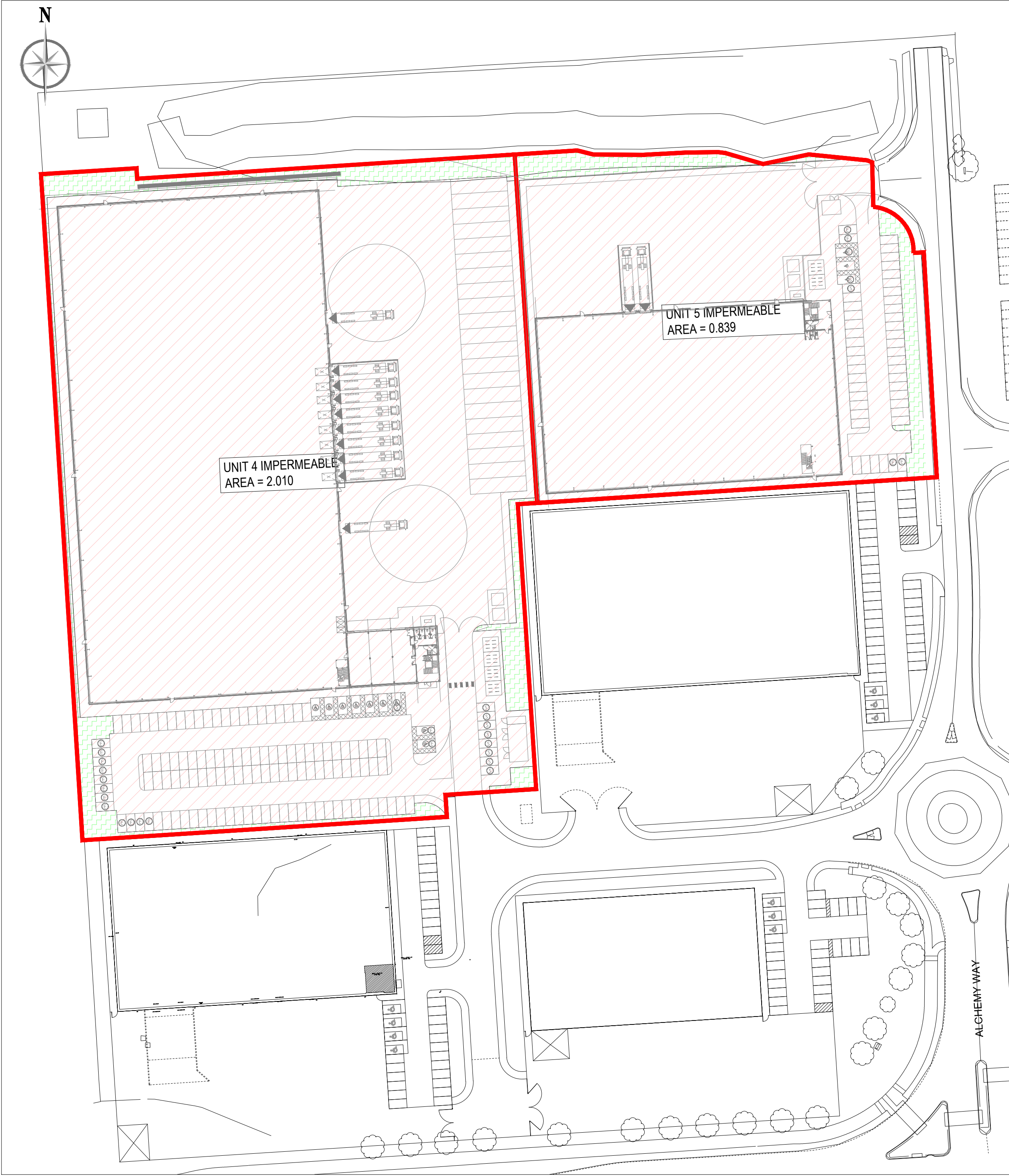
PROPOSED EXCEEDANCE FLOW

Appendix F

PROPOSED AND EXISTING PERMEABLE AND IMPERMEABLE



EXISTING PERMEABLE AND IMPERMEABLE AREA
SCALE N.T.S



PROPOSED PERMEABLE AND IMPERMEABLE AREA
SCALE N.T.S

NOTES

CDM REGULATIONS 2015

IN LINE WITH THE ABOVE REGULATIONS WE ARE OBLIGED TO INFORM THE CONTRACTORS OF THE RISKS THAT MAY BE ENCOUNTERED IN THE CONSTRUCTION OF THESE WORKS. ALL DESIGN WORK HAS BEEN CARRIED OUT WITH HEALTH & SAFETY ASPECTS GIVEN FULL CONSIDERATION. WHEREVER POSSIBLE RISKS HAVE BEEN ELIMINATED FROM THE DESIGN. HOWEVER DUE TO THE VERY NATURE OF THIS TYPE OF WORK IT IS NOT POSSIBLE TO REMOVE ALL RISKS FROM THE DESIGN. WE WILL ALSO RESPECTFULLY REMIND THE CONTRACTOR OF HIS OBLIGATIONS TO TAKE ALL REASONABLE STEPS ENSURING THAT ONLY COMPETENT WORKERS WHO HAVE A VALID SAFETY POLICY ARE EMPLOYED.

THEY SHOULD ALSO PROVIDE SATISFACTORY RESPONSES AT TENDER STAGE AS TO THE MANNER IN WHICH THEY DEAL WITH THE ELEMENTS OF RISK INVOLVED IN THIS TYPE OF WORK AND IN PARTICULAR THOSE HIGHLIGHTED BY ADS STRUCTURAL LIMITED BELOW.

1. SUPPORT/ TREATMENT FOR ALL EXCAVATION WORK.
2. GUARDING TO EDGES OF EXCAVATIONS TO PREVENT PEOPLE, MATERIALS AND VEHICLES FALLING INTO EXCAVATIONS.
3. GUARDING OF EXCAVATIONS OUTSIDE WORKING HOURS TO PREVENT UNAUTHORISED ACCESS.
4. UNDERMINING TO ADJACENT ROADS OR STRUCTURES.
5. CONFINED SPACE OPERATIONS.
6. DEALING WITH EXISTING SERVICES.
7. TRAFFIC MANAGEMENT ON EXISTING HIGHWAYS.
8. PROCEDURE TO BE FOLLOWED IN EVENT OF AN ACCIDENT OR EMERGENCY.
9. METHOD OF WORKING WHERE CONTAMINATED GROUND IS PRESENT ON SITE.
10. CONFIRMATION WILL BE REQUIRED THAT ALL OPERATIVES ARE ADEQUATELY TRAINED AND COPIES OF RELEVANT CERTIFICATES TO BE SUPPLIED.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE OVERALL STABILITY OF THE STRUCTURE FROM THE COMMENCEMENT OF WORKS INCLUDING THE DESIGN AND PROVISION OF ALL NECESSARY TEMPORARY WORKS.

THE ABOVE LIST IS BY NO MEANS EXHAUSTIVE BUT IT DOES HIGHLIGHT OPERATIONS THAT PRESENT A RISK TO CONTRACTORS AND THE GENERAL PUBLIC.

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONNECTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE FROM THIS DRAWING. ALL SETTING OUT DIMENSIONS ARE TO BE CHECKED AND VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY BUILDING WORKS & FABRICATION OF MATERIALS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
3. ALL WORKMANSHIP AND MATERIALS ARE TO COMPLY WITH THE CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE. ALL MATERIALS SHALL BE FIXED OR APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR IS TO TAKE INTO ACCOUNT EVERYTHING DEEMED NECESSARY FOR THE PROPER EXECUTION OF THE WORKS WHETHER INDICATED ON THE DRAWINGS OR NOT TO THE COMPLETE SATISFACTION OF THE LOCAL AUTHORITY.
4. FOR FINAL SETTING OUT INFORMATION RELATING TO WALL POSITIONS REFER TO ARCHITECTS DRAWINGS.

LEGEND	
	EXISTING PERMEABLE AREA = 3.089 HECTARE
	EXISTING IMPERMEABLE AREA = 0.000 HECTARE
	PROPOSED PERMEABLE AREA= 0.240HECTARE
	PROPOSED IMPERMEABLE AREA = 2.849 HECTARE

RIBA STAGE 3				
T1	09.07.2026	FIRST ISSUE	AMG	AB
REV	DATE	REVISION DETAILS	DRN	CHK
APP				

CLIENT

NETWORK SPACE DEVELOPMENTS

PROJECT:
ELEMENT DEVELOPMENT
ALCHEMY WAY, KNOWSLEY
DRAWING TITLE:
EXISTING AND PROPOSED
PERMEABLE AND IMPERMEABLE
AREA

DRAWING STATUS:
PRELIMINARY

107 Mere Grange
Business Park, Leaside, St
Helens, WA9 5GG
Tel: 0151 541 4000
info@adsstructural.co.uk

SCALE	PROJECT - ORIGINATOR - ZONE - LEVEL - TYPE - ROLE - NUMBER	REV
N.T.S	11110-ADS-XX-XX-DR-C-520	T1

Appendix G

ENVIRONMENT AGENCY FLOOD MAP FOR PLANNING

Flood map for planning

Your reference
Unspecified

Location (easting/northing)
342549/397038

Created
9 July 2026 11:03

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2026 AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



Flood map for planning

Your reference

Unspecified

Location (easting/northing)

342549/397038

Scale

1:2,500

Created

9 Jul 2026 11:03

-  Selected area
-  Flood zone 3
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Water storage area



0 20 40 60m

Appendix H

SUDS INDEX

SIMPLE INDEX APPROACH: AN INTRODUCTION



1. The tool has been developed on behalf of SEPA to support the implementation (in Scotland) of the water quality management design methods set out in the SuDS Manual.
2. This tool provides an automated method for applying the Simple Index Approach to check the sufficiency of proposed SuDS components in mitigating water quality risks to receiving waterbodies.
3. There are some differences in the required approach in England, Wales and Northern Ireland. If the tool is used in these regions, the relevant supporting 'Design Conditions' stated by the tool must be fully considered and implemented.
4. Water quality design criteria and standards are set out in Chapter 4 of the SuDS Manual. Table 4.3 in the Manual sets out the minimum water quality management requirements for discharges to receiving surface waters and groundwater. Use of the Simple Index Approach is one of the key methods.
5. Chapter 26 of the SuDS Manual sets out the design methods for water quality management. The Simple Index Approach is described in Section 26.7.1 of the Manual and this text should be referred to when using this tool. Appendix C of the SuDS Manual also includes worked examples of applying the Simple Index Approach, although not using this tool.

SIMPLE INDEX APPROACH: TOOL



HRW shall not be liable for any direct or indirect damage claim, loss, cost, expense or liability howsoever arising out of the use or impossibility to use the tool, even when HRW has been informed of the possibility of the same. The user hereby indemnifies HRW from and against any damage claim, loss, expense or liability resulting from any action taken against HRW that is related in any way to the use of the tool or any reliance made in respect of the output of such use by any person whatsoever. HRW does not guarantee that the tool's functions meet the requirements of any person, nor that the tool is free from errors.

- The steps set out in the tool should be applied for each inflow or 'runoff area' (ie each impermeable surface area separately discharging to a SuDS component).
- The supporting 'Design Conditions' stated by the tool must be fully considered and implemented in all cases.
- Relevant design examples are included in the SuDS Manual Appendix C.
- Each of the steps below are part of the process set out in the flowchart on Sheet 3.
- Sheet 4 summarises the selections made below and indicates the acceptability of the proposed SuDS components.

	RELEVANT INPUTS NEED TO BE SELECTED FROM THESE LISTS, FOR EACH STEP
	USER ENTRY CELLS ARE ONLY REQUIRED WHERE INDICATED BY THE TOOL

STEP 1: Determine the Pollution Hazard Index for the runoff area discharging to the proposed SuDS scheme

This step requires the user to select the appropriate land use type for the area from which the runoff is occurring

If the land use varies across the 'runoff area', either:

- use the land use types with the highest Pollution Hazard Index
- apply the approach for each of the land use types to determine whether the proposed SuDS design is sufficient for all. If it is not, consider collecting more hazardous runoff separately and providing additional treatment.

If the generic land use types suggested are not applicable, select 'Other' and enter a description of the land use of the runoff area and agreed user defined indices in the row below the drop down lists.

Runoff Area Land Use Description	Hazard Level	Total Suspended Solids	Metals	Hydrocarbons
Select land use type from the drop down list or 'Other' (if more applicable)				
Commercial/industrial roofing: Low potential for metal leaching	Low	0.3	0.4	0.05
If the generic land use types in the drop down list above are not applicable, select 'Other' and enter a description of the land use of the runoff area and agreed user defined indices in this row:				
Landuse Pollution Hazard Index	Low	0.3	0.4	0.05

DESIGN CONDITIONS	1	2
This classification should be informed by an assessment of the leachability of metals from the expected roofing materials. Particular risks are likely to be posed by materials that include copper and galvanneal steel		

STEP 2A: Determine the Pollution Mitigation Index for the proposed SuDS components

This step requires the user to select the proposed SuDS components that will be used to treat runoff - before it is discharged to a receiving surface waterbody or downstream infiltration component.

If the runoff is discharged directly to an infiltration component, without upstream treatment, select 'None' for each of the 3 SuDS components and move to Step 2B

This step should be applied to evaluate the water quality protection provided by proposed SuDS components for discharges to receiving surface waters or downstream infiltration components (note: in England and Wales this will include components that allow any amount of infiltration, however small, even where infiltration is not specifically accounted for in the design).

If you have fewer than 3 components, select 'None' for the components that are not required

If the proposed component is bespoke and/or a proprietary treatment product and not generically described by the suggested components, then 'Proprietary treatment system' or 'User defined indices' should be selected and a description of the component and agreed user defined indices should be entered in the rows below the drop down lists

SuDS Component Description	Total Suspended Solids	Metals	Hydrocarbons
Select SuDS Component 1 (i.e. the optimum SuDS component from the drop down list):			
Filter drain (where the trench is not designed as an infiltration component)	0.4	0.4	0.4
Select SuDS Component 2 (i.e. the second SuDS component in a series) from the drop down list:			
None			
Select SuDS Component 3 (i.e. the third SuDS component in a series) from the drop down list:			
None			
If the proposed SuDS components are bespoke/proprietary and/or the generic indices above are not considered appropriate, select 'Proprietary treatment system' or 'User defined indices' and enter component descriptions and agreed user defined indices in these rows:			
Aggregated Surface Water Pollution Mitigation Index	0.4	0.4	0.4

DESIGN CONDITIONS	1	2	3
SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual also checklists in Appendix B			
Filter drains should be preceded by upstream components that trap silt, or designed specifically to retain sediment in a separate zone, easily accessible for maintenance, such that the sediment will not be re-suspended in subsequent events			

Note: If the total aggregated mitigation index is = 1 (which is not a realistic outcome), then the outcome is fixed at "=0.95". In this scenario, the proposed components are likely to have a very high mitigation potential for reducing pollutant levels in the runoff and should be sufficient for any proposed land use (note: where risk assessment is required, this outcome would need more detailed verification)

Is the runoff now discharged to an infiltration component?

Yes? [Go to Step 2B](#)
No? [Go to Step 2C](#)

STEP 2B: Determine the Pollution Mitigation Index for the proposed Groundwater Protection

This step requires the user to select the type of groundwater protection that is either part of the SuDS component or that lies between the component and the groundwater

This step should be applied where a SuDS component is specifically designed to infiltrate runoff (note: in England and Wales this will include components that allow any amount of infiltration, however small, even where infiltration is not specifically accounted for in the design).

'Groundwater protection' describes the proposed depth of soil or other material through which runoff will flow between the runoff surface and the underlying groundwater.

Where the discharge is to surface waters and risks to groundwater need not be considered, select 'None'

If the proposed groundwater protection is bespoke and/or a proprietary product and not generically described by the suggested measures, then a description of the protection and agreed user defined indices should be entered in the row below the step down list

Groundwater Protection	Total Suspended Solids	Metals	Hydrocarbons
Select type of groundwater protection from the drop down list:			
None			
If the proposed groundwater protection is bespoke/proprietary and/or the generic indices above are not considered appropriate, select 'Proprietary product' or 'User defined indices' and enter a description of the protection and agreed user defined indices in this row:			
Groundwater Protection Pollution Mitigation Index	0	0	0

DESIGN CONDITIONS	1	2	3	4

STEP 2C: Determine the Combined Pollution Mitigation Indices for the Runoff Area

This is an automatic step which combines the proposed SuDS Pollution Mitigation Indices with any Groundwater Protection Pollution Mitigation Indices

Combined Pollution Mitigation Indices	Total Suspended Solids	Metals	Hydrocarbons
Combined Pollution Mitigation Indices for the Runoff Area	0.4	0.4	0.4

Note: If the total aggregated mitigation index is = 1 (which is not a realistic outcome), then the outcome is fixed at "=0.95". In this scenario, the proposed components are likely to have a very high mitigation potential for reducing pollutant levels in the runoff and should be sufficient for any proposed land use (note: where risk assessment is required, this outcome would need more detailed verification)

STEP 2D: Determine Sufficiency of Pollution Mitigation Indices for Selected SuDS Components

This is an automatic step which compares the Combined Pollution Mitigation Indices with the Land Use Hazard Indices, to determine whether the proposed components are sufficient to manage each pollutant category type

When the combined mitigation index exceeds the land use pollution hazard index, then the proposed components are considered sufficient in providing pollution risk mitigation.

In England and Wales, where the discharge is to protected surface waters or groundwater, an additional treatment component (ie over and above that required for standard discharges), or other equivalent protection, is required that provides environmental protection in the event of an unexpected pollution event or poor system performance. Protected surface waters are those designated for drinking water abstraction. In England and Wales, protected groundwater resources are defined as Source Protection Zone 1. In Northern Ireland, a more precautionary approach may be required and this should be checked with the environmental regulator on a site by site basis.

Sufficiency of Pollution Mitigation Indices	Total Suspended Solids	Metals	Hydrocarbons
Sufficient	Sufficient	Sufficient	Sufficient

DESIGN CONDITIONS

Reference to local planning documents should also be made to identify any additional protection required for sites due to natural conservation (see Chapter 7 The SuDS design process). The implications of developments on or within close proximity to an area with an environmental designation, such as a Site of Special Scientific Interest (SSSI), should be considered via consultation with relevant conservation bodies such as Natural England.

STEP 1: Determine the Pollution Hazard Index for the runoff area discharging to the proposed SuDS system



For regular runoff events (ie events up to approximately a 1 year return period):

If the runoff is infiltrated directly to groundwater (ie without upstream treatment components)

If the runoff is infiltrated once it has passed through upstream treatment components

If the runoff is discharged to surface waters via SuDS components (ie not infiltrated)

STEP 2A:Select 'None' for each of the proposed SuDS components

STEP 2A: Determine the Pollution Mitigation Index for the proposed SuDS components

This step requires the user to select the proposed SuDS components that will be used to treat runoff before it is discharged to either a receiving surface waterbody or downstream infiltration component

STEP 2A: Determine the Pollution Mitigation Index for the proposed SuDS components

This step requires the user to select the proposed SuDS components that will be used to treat runoff before it is discharged to either a receiving surface waterbody or downstream infiltration component

STEP 2B: Determine the Pollution Mitigation Index for the proposed Groundwater Protection

This step requires the user to select the type of groundwater protection that is either part of the SuDS component or that lies between the component and the groundwater

STEP 2C: Determine the Combined Pollution Mitigation Indices for the Runoff Area

STEP 2D: Determine Sufficiency of Pollution Mitigation Indices for Selected SuDS Components

SUMMARY TABLE		DESIGN CONDITIONS			
		1	2	3	4
Land Use Type Pollution Hazard Level Pollution Hazard Indices TSS Metals Hydrocarbons	Commercial/Industrial roofing: Low potential for metal leaching Low 0.3 0.4 0.05	This classification should be informed by an assessment of the leachability of metals from the adopted roofing materials. Particular risks are likely to be posed by materials that include copper and galvanised steel			
SuDS components proposed					
Component 1	Filter drain (where the trench is not designed as an infiltration component)	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B	Filter drains should be preceded by upstream component(s) that trap(s) silt, or designed specifically to retain sediment in a separate zone, easily accessible for maintenance, such that the sediment will not be re-suspended in subsequent events		
Component 2	None				
Component 3	None				
SuDS Pollution Mitigation Indices					
TSS	0.4				
Metals	0.4				
Hydrocarbons	0.4				
Groundwater protection type	None				
Groundwater protection					
Pollution Mitigation Indices					
TSS	0				
Metals	0				
Hydrocarbons	0				
Combined Pollution Mitigation Indices		0.4 Reference to local planning documents should also be made 0.4 to identify any additional protection required for sites due to 0.4 habitat conservation (see Chapter 7 The SuDS design process). The implications of developments on or within close proximity to an area with an environmental designation, such as a Site of Special Scientific Interest (SSSI), should be considered via consultation with relevant conservation bodies such as Natural England			
TSS					
Metals					
Hydrocarbons					
Acceptability of Pollution Mitigation					
TSS	Sufficient				
Metals	Sufficient				
Hydrocarbons	Sufficient				

SIMPLE INDEX APPROACH:
LAND USE HAZARD INDICES



HRW shall not be liable for any direct or indirect damage claim, loss, cost, expense or liability when HRW has been informed of the possibility of the same. The user hereby indemnifies HRV from any action taken against HRW that is related in any way to the use of the tool or at whatsoever. HRW does not guarantee that the tool's functions meet the requirements of any r

Land use characterisation (User Define)		Pollution Hazard Level (Tool Outcome)	Pollution Indices (Tool Outcome)			DESIGN CONDITION (Tool Outcome)
LAND USE	TYPE		Total Suspended Solids	Metals	Hydrocarbons	1
ROOF	Residential roofing	Very low	0.2	0.2	0.05	This classification should be informed by an assessment of the leachability of metals from the adopted roofing materials. Particular risks are likely to be posed by materials that include copper and galvanised steel This classification should be informed by an assessment of the leachability of metals from the adopted roofing materials. Particular risks are likely to be posed by materials that include copper and galvanised steel This classification should be informed by an assessment of the leachability of metals from the adopted roofing materials. Particular risks are likely to be posed by materials that include copper and galvanised steel
	Commercial/Industrial roofing: Inert materials	Very low	0.3	0.2	0.05	
	Commercial/Industrial roofing: Low potential for metal leachi	Low	0.3	0.4	0.05	
	Commercial/Industrial roofing: Medium potential for metal lea	Medium	0.3	0.6	0.05	
	Commercial/Industrial roofing: High potential for metal leachi	High	0.3	0.8	0.05	
PARKING	Individual driveway	Low	0.5	0.4	0.4	
	Residential parking	Low	0.5	0.4	0.4	
	Non-residential parking with infrequent change (e.g. schools, offices, < 300 traffic movements a day)	Low	0.5	0.4	0.4	
	Non-residential car parking with frequent change (eg hospitals, retail)	Medium	0.7	0.6	0.7	
YARDS/DEPOTS	Standard commercial yard or delivery area	Medium	0.7	0.6	0.7	This classification is not appropriate for haulage yards, lorry parks, waste management areas, or chemical storage/handling zones These indices should only be used if considered appropriate by the required risk assessment and where approved by the regulator. If they are not considered appropriate, the risk assessment should use alternative measures of pollution hazard for the site. These indices should only be used if considered appropriate by the required risk assessment and where approved by the regulator. If they are not considered appropriate, the risk assessment should use alternative measures of pollution hazard for the site. These indices should only be used if considered appropriate by the required risk assessment and where approved by the regulator. If they are not considered appropriate, the risk assessment should use alternative measures of pollution hazard for the site. These indices should only be used if considered appropriate by the required risk assessment and where approved by the regulator. If they are not considered appropriate, the risk assessment should use alternative measures of pollution hazard for the site.
	Haulage yard	High	0.8	0.8	0.9	
	Lorry park	High	0.8	0.8	0.9	
	Waste handling/management/distribution site	High	0.8	0.8	0.9	
	Site where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured	High	0.8	0.8	0.9	
	Other industrial site area	High	0.8	0.8	0.9	
ROADS	Low traffic roads (e.g. residential roads and general access roads, < 300 traffic movements/day)	Low	0.5	0.4	0.4	These indices should only be used if considered appropriate by the required risk assessment and where approved by the regulator. If they are not considered appropriate, the risk assessment should use alternative measures of pollution hazard for the site. When designing SuDS for motorways / trunk roads, the guidance and risk assessment process set out in HD45/09 should always be followed. These indices should only be used if considered appropriate as part of any detailed risk assessment undertaken for the scheme
	Roads (excluding low traffic roads, highly frequented lorry approaches to industrial estates, trunk roads/motorways)	Medium	0.7	0.6	0.7	
	Highly frequented lorry approaches to industrial estates	High	0.8	0.8	0.9	
	Trunk roads/motorways	High	n/a	n/a	n/a	
OTHER	Other					Where indices are approved by the environmental regulator as part of the required risk assessment process, these should be entered in the 'User Defined Indices' row below. If indices are not considered appropriate, the risk assessment should use alternative measures of pollution hazard for the site.

POLLUTION MITIGATION INDICES



of the possibility of the same. The user hereby indemnifies HRW from and against any damage claim, loss, expense or liability resulting from any action taken against HRW that is related in any way to the use of the tool or any reliance made in respect of the output of such use by any person whatsoever. HRW does not guarantee that the tool's functions meet the requirements of any person, nor that the tool is free from errors.

GROUNDWATER POLLUTION MITIGATION INDICES				DESIGN CONDITION (Tool Outcome)	DESIGN CONDITION (Tool Outcome)	DESIGN CONDITION (Tool Outcome)	DESIGN CONDITION (Tool Outcome)
	Pollution Mitigation Indices (Tool Outcome)			1	2	3	4
Total Suspended Solids		Metals	Hydrocarbons				
Dense vegetation layer underlain by 300 mm minimum depth of soils with good contamination attenuation potential	0.6		0.5	0.6	The underlying soils must provide good contaminant attenuation potential (eg as recommended in Snrfler 2008 (a) and (b) / Scott Wilson (2010) or other appropriate guidance). Alternative depth and soil combinations must provide equivalent protection to the underlying groundwater		
300 mm minimum depth of soils with good contamination attenuation potential	0.4		0.3	0.3	The underlying soils must provide good contaminant attenuation potential (eg as recommended in Snrfler 2008 (a) and (b) / Scott Wilson (2010) or other appropriate guidance). Alternative depth and soil combinations must provide equivalent protection to the underlying groundwater		
Infiltration trench with suitable depth of filtration material underlain by 300 mm minimum depth of soils with good contamination attenuation potential	0.4		0.4	0.4	The infiltration trench must include a suitable depth filtration layer that provides treatment (ie graded gravel with sufficient smaller particles but not single size coarse aggregate such as 20mm gravel). The underlying soils must provide good contaminant attenuation potential (eg as recommended in Snrfler 2008 (a) and (b) / Scott Wilson (2010) or other appropriate guidance). Alternative depth and soil combinations must provide equivalent protection to the underlying groundwater		
Pervious pavement underlain by 300 mm minimum depth of soils with good contamination attenuation potential	0.7		0.6	0.7	The permeable pavement must include a suitable filtration layer provides treatment and must include a geotextile at the base separating the foundation from the sub-grade. The underlying soils must provide good contaminant attenuation potential (eg as recommended in Snrfler 2008 (a) and (b) / Scott Wilson (2010) or other appropriate guidance). Alternative depth and soil combinations must provide equivalent protection to the underlying groundwater		
Bioretention component underlain by 300 mm minimum depth of soils with good contamination attenuation potential	0.8		0.8	0.8	The underlying soils must provide good contaminant attenuation potential (eg as recommended in Snrfler 2008 (a) and (b) / Scott Wilson (2010) or other appropriate guidance). Alternative depth and soil combinations must provide equivalent protection to the underlying groundwater		
Proprietary product				Detailed assessment of performance of designed component in reducing inflow concentrations of each pollutant type required as evidence of adopted indices. Enter indices approved by the environmental regulator in appropriate 'User Defined Indices' row below	All designs must include a minimum of 1 m unsaturated depth of subsoil or aquifer material between the infiltration surface and the maximum likely groundwater level. Infiltration components should always be preceded by upstream component(s) that trap(s) silt, or designed specifically to retain sediment in a separate lined zone, easily accessible for maintenance, such that the sediment will not be re-suspended in subsequent events	SEPA only considers proprietary treatment systems as appropriate in exceptional circumstances where other types of SuDS component are not practicable. Proprietary treatment systems may also be considered appropriate for existing sites that are causing pollution where there is a requirement to retrofit treatment. WAT-RM-06 (SEPA, 2014) also provides a flow chart with a summary of checks on suitability of a proprietary system	See Chapter 15 Proprietary treatment systems for approaches to demonstrate product performance. Note: a British Water/Environment Agency assessment Code of Practice is currently under development that will allow manufacturers to complete an agreed test protocol for systems intended to treat contaminated surface water runoff. Full details can be found at: http://www.britishwater.co.uk/Publications/codes-of-practice.aspx .
User defined indices				Detailed assessment of performance of designed component in reducing inflow concentrations of each pollutant type required as evidence of adopted indices. Enter indices approved by the environmental regulator in appropriate 'User Defined Indices' row below	All designs must include a minimum of 1 m unsaturated depth of subsoil or aquifer material between the infiltration surface and the maximum likely groundwater level. Infiltration components should always be preceded by upstream component(s) that trap(s) silt, or designed specifically to retain sediment in a separate lined zone, easily accessible for maintenance, such that the sediment will not be re-suspended in subsequent events		
None							
SURFACE WATER POLLUTION MITIGATION INDICES				COMMENT (Tool Outcome)			
	Pollution Mitigation Indices (Tool Outcome)						
Total Suspended Solids		Metals	Hydrocarbons				
Filter strip	0.4		0.4	0.5	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B		
Filter drain (where the trench is not designed as an infiltration component)	0.4		0.4	0.4	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B	Filter drains should be preceded by upstream component(s) that trap(s) silt, or designed specifically to retain sediment in a separate zone, easily accessible for maintenance, such that the sediment will not be re-suspended in subsequent events	
Swale	0.5		0.6	0.6	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B		
Bioretention system (where the system is not designed as an infiltration component)	0.8		0.8	0.8	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B		
Pervious pavement (where the pavement is not designed as an infiltration component)	0.7		0.6	0.7	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B		
Detention basin	0.5		0.5	0.6	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B		
Pond or wetland	0.7		0.7	0.5	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B	Ponds/wetlands should be preceded by an upstream component(s) that trap(s) silt, or designed specifically to retain sediment in a separate zone, easily accessible for maintenance, such that the sediment will not be re-suspended in subsequent events	
Proprietary treatment system	0		0	0	Detailed assessment of performance of designed component in reducing inflow concentrations of each pollutant type required as evidence of adopted indices. Enter indices approved by the environmental regulator in appropriate 'User Defined Indices' row below	SEPA only considers proprietary treatment systems as appropriate in exceptional circumstances where other types of SuDS component are not practicable. Proprietary treatment systems may also be considered appropriate for existing sites that are causing pollution where there is a requirement to retrofit treatment. WAT-RM-08 (SEPA, 2014) also provides a flow chart with a summary of checks on suitability of a proprietary system	See Chapter 15 Proprietary treatment systems for approaches to demonstrate product performance. Note: a British Water/Environment Agency assessment Code of Practice is currently under development that will allow manufacturers to complete an agreed test protocol for systems intended to treat contaminated surface water runoff. Full details can be found at: http://www.britishwater.co.uk/Publications/codes-of-practice.aspx .
User defined indices	0		0	0	Detailed assessment of performance of designed component in reducing inflow concentrations of each pollutant type required as evidence of adopted indices. Enter indices approved by the environmental regulator in appropriate 'User Defined Indices' row below		
None	0		0	0			

Enter User Defined Indices in row below

Enter User Defined Indices in row below

Enter User Defined Indices in row below

Enter User Defined Indices in row below

Appendix I

INFODRAINAGE NETWORK DESIGN

ACO HYDRAULIC DESIGN



+ SUMMARY REPORT - Page 1

Project Name: ALchemy,Western Plot Unit 04

Designer: Abdallahi Gamba

Project Date: 9th July 2026

Location: F48M+R2 Liverpool, UK

Print Date: 9th July 2026

+ INPUTS

M5-60: 18mm/hr

Ratio R: 0.37

RUN / OPTION	LENGTH (m)	AREA (m2)	SLOPE (%)	IMPERM. FACTOR	CALC. EQUATION	RETURN PERIOD (years)	CLIMATE CHANGE (%)	STORM DURATION (mins)	RAINFALL INTENSITY (mm/hr)	INFLOW CONTROL (l/s/m)	Point Inflow Interlinked from	Cumulative Point Inflows (l/s)	Discharge control (l/s)
1A	46.86	2,344.87	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None
2A	31.48	1,611.46	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None
3A	33.87	1,638.70	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None
4A	64.77	2,652.98	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None

+ OUTPUTS

M5-60: 18mm/hr

Ratio R: 0.37

RUN / OPTION	ACO PRODUCT	Part No.	METERAGE (m)	OUTFLOW (l/s)	CAPACITY (%)	MAX* VELOCITY (m/s)	MIN FREEBOARD (m)	EXCAVATION VOLUME (m3)	CONCRETE VOLUME (m3)
1A	Qmax Qmax 350	32810	46.86	112.94	78.73**	1.49**	0.09**	21.42	15.93
2A	Qmax Qmax 350	32810	31.48	239.68	99.08**	2.51**	0.01**	14.39	10.70
3A	Qmax Qmax 350	32810	33.87	243.73	99.20**	2.55**	0.01**	15.48	11.52
4A	Qmax Qmax 350	32810	64.77	127.78	83.66**	1.59**	0.08**	29.60	22.02

*ACO would typically suggest flow velocities of 0.7m/s or greater in channels to be considered self-cleansing velocities. Flow velocities in the upper reaches of linear drainage systems are not likely to achieve self-cleansing velocities.

**The flow in this channel varies between sub-critical and super-critical conditions so the depth / velocity calculation is not precise. However, your selected channel will have sufficient capacity to accomodate the defined flow.

Note that optimised solutions will only suggest non-turbulent, sub-critical flow regimes.

+ SUMMARY OF PARTS

ACO PRODUCT	Cumulative Product Meterage (m)	Part Number	CUMULATIVE OUTFLOW (l/s)	EXCAVATION VOLUME (m3)	CONCRETE VOLUME (m3)
Qmax Qmax 350	176.98	32810	724.13	80.88	60.17

ACO HYDRAULIC DESIGN



+ SUMMARY REPORT - Page 1

Project Name: Alchemy, Western Plot Unit 05

Designer: Abdallahi Gamba

Project Date: 5th June 2026

Location: F48M+X4 Liverpool, UK

Print Date: 9th July 2026

+ INPUTS

M5-60: 18mm/hr

Ratio R: 0.37

RUN / OPTION	LENGTH (m)	AREA (m2)	SLOPE (%)	IMPERM. FACTOR	CALC. EQUATION	RETURN PERIOD (years)	CLIMATE CHANGE (%)	STORM DURATION (mins)	RAINFALL INTENSITY (mm/hr)	INFLOW CONTROL (l/s/m)	Point Inflow Interlinked from	Cumulative Point Inflows (l/s)	Discharge control (l/s)
1A	76.94	3,637.72	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None
2A	7.91	152.03	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None
3A	53.99	1,069.00	100.00	1.0	SVF	100	40	5	173.21	Free	None	0.00	None

+ OUTPUTS

M5-60: 18mm/hr

Ratio R: 0.37

RUN / OPTION	ACO PRODUCT	Part No.	METERAGE (m)	OUTFLOW (l/s)	CAPACITY (%)	MAX* VELOCITY (m/s)	MIN FREEBOARD (m)	EXCAVATION VOLUME (m3)	CONCRETE VOLUME (m3)
1A	Qmax Qmax 350	32810	76.94	116.80	80.09**	1.52**	0.09**	35.16	26.16
2A	S-Range Shallow S100 S05	0274	7.91	7.32	78.67**	0.84**	0.02**	1.58	1.38
3A	Qmax Qmax 225	32800	53.99	51.49	91.42**	1.42**	0.03**	16.36	13.77

*ACO would typically suggest flow velocities of 0.7m/s or greater in channels to be considered self-cleansing velocities. Flow velocities in the upper reaches of linear drainage systems are not likely to achieve self-cleansing velocities.

**The flow in this channel varies between sub-critical and super-critical conditions so the depth / velocity calculation is not precise. However, your selected channel will have sufficient capacity to accommodate the defined flow.

Note that optimised solutions will only suggest non-turbulent, sub-critical flow regimes.

+ SUMMARY OF PARTS

ACO PRODUCT	Cumulative Product Meterage (m)	Part Number	CUMULATIVE OUTFLOW (l/s)	EXCAVATION VOLUME (m3)	CONCRETE VOLUME (m3)
Qmax Qmax 225	53.99	32800	175.61	53.10	41.31
Qmax Qmax 350	76.94	32810			
S-Range Shallow S100 S05	7.91	0274			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Junctions Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
S12-4	Manhole	342456.579	396953.881	27.975	2.335	25.640	Circular	1.200
S04- 4	Manhole	342557.862	396943.134	27.886	2.185	25.701	Circular	1.200
S05- 4	Manhole	342558.182	396938.145	27.792	2.103	25.689	Circular	1.200
S07- 4	Manhole	342558.430	396934.267	27.633	2.289	25.344	Circular	1.200
S01- 4	Manhole	342551.540	397041.722	27.945	1.900	26.045	Circular	1.200
S02- 4	Manhole	342553.090	397017.578	27.946	1.960	25.986	Circular	1.200
S-19- 4	Manhole	342524.791	397015.773	26.950	0.600	26.350	Rectangular	
EX	Manhole	342558.874	396928.741	27.664	2.487	25.177	Circular	1.200
Full Retention oil Interceptor	Manhole	342548.012	396937.549	27.943	2.279	25.664	Circular	2.700
S14-4	Manhole	342447.900	397089.663	27.975	1.446	26.529	Circular	1.200
S03-4	Manhole	342555.275	396983.471	27.908	2.005	25.903	Circular	1.200
S13-4	Manhole	342452.029	397021.966	27.975	2.125	25.850	Circular	1.200
S15-4	Manhole	342480.485	397091.753	27.970	1.033	26.937	Circular	1.200
S16-4	Manhole	342487.893	396955.950	28.087	1.800	26.287	Circular	1.200

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Junctions Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Diameter (m)	Width (m)	Lock
S12-4			None
S04- 4			None
S05- 4			None
S07- 4			None
S01- 4			None
S02- 4			None
S-19- 4	0.600	0.600	None
EX			None
Full Retention oil Interceptor			None
S14-4			None
S03-4			None
S13-4			None
S15-4			None
S16-4			None

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Junctions Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

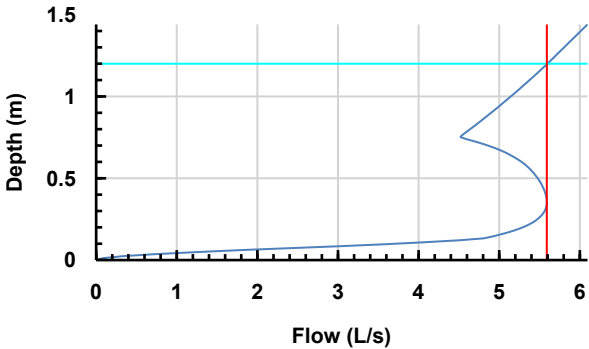
Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
S12-4	Inlet (1)	Rear Footpath	(None)	No Restriction
	Inlet (2)	Sw-4.001-4	(None)	No Restriction
S04- 4	Inlet (2)	Car-Park Sw-1.003-4	(None)	No Restriction
S05- 4	Inlet	Sw-1.004- 4	(None)	No Restriction
	Inlet (1)	Access Road	(None)	No Restriction
S07- 4	Inlet (1)	Sw-1.007-4	(None)	No Restriction
S01- 4	Inlet	Loading Area 1	(None)	No Restriction
S02- 4	Inlet (1)	Sw-1.000- 4 Sw-5.000- 4	(None)	No Restriction
	Inlet (2)	Cycle Store	(None)	No Restriction
S-19- 4	Inlet (1)	Unit 4 Dock Levellers	(None)	No Restriction
EX	Inlet	Sw-1.008 - 4	(None)	No Restriction
Full Retention oil Interceptor	Inlet	Sw-1.005-4	(None)	No Restriction
S14-4	Inlet	Foot Path North	(None)	No Restriction
	Inlet (1)	Sw-4.003-4	(None)	No Restriction
S03-4	Inlet	Loading Area 2 Unit 4 Roof to S9	(None)	No Restriction
	Inlet (1)	Sw-1.002-4	(None)	No Restriction
S13-4	Inlet (2)	Sw-4,002-4	(None)	No Restriction
S15-4	Inlet	Unit 4 Roof S15	(None)	No Restriction
S16-4	Inlet (1)	Unit 4 Roof S16	(None)	No Restriction

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Junctions Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
S12-4	Outlet	Sw-4.000-4	Free Discharge
S04- 4	Outlet	Sw-1.004- 4	Free Discharge
S05- 4	Outlet	Sw-1.005-4	Free Discharge
S07- 4	Outlet	Sw-1.008 - 4	Hydro-Brake®
	Invert Level (m)	25.344	
	Design Depth (m)	1.200	
	Design Flow (L/s)	5.6	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
S07- 4	Unit Reference	SHE-0108-5600- 1200-5600	
			
S01- 4	Outlet	Sw-1.000- 4	Free Discharge
S02- 4	Outlet	Sw-1.002-4	Free Discharge
S-19- 4	Outlet	Sw-5.000- 4	Free Discharge
Full Retention oil Interceptor	Outlet	Sw-1.006-4	Free Discharge
S14-4	Outlet	Sw-4,002-4	Free Discharge
S03-4	Outlet	Sw-1.003-4	Free Discharge
S13-4	Outlet	Sw-4.001-4	Free Discharge
S15-4	Outlet	Sw-4.003-4	Free Discharge
S16-4	Outlet	Sw-5.000-4	Free Discharge

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Stormwater Controls Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



Tank

Type : Tank

Dimensions

Exceedance Level (m)	27.850
Depth (m)	2.400
Base Level (m)	25.450
Freeboard (mm)	1
Initial Depth (m)	0.000
Porosity (%)	95
Average Slope (1:X)	0.00
Total Volume (m³)	2039.889

Depth (m)	Area (m²)	Volume (m³)
0.000	1533.00	0.000
1.400	1533.00	2038.890

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	Sw-1.006-4
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Sw-5.000-4
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (3)

Inlet Type	Point Inflow
Incoming Item(s)	Sw-4.000-4
Bypass Destination	(None)
Capacity Type	No Restriction

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Stormwater Controls Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Outlets

Outlet

Outgoing Connection	Sw-1.007-4
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	75.961

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Connections Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
Sw-1.006-4	10.066	Pipe	47.039		0.6	450	27.943	25.664
Sw-4.000-4	10.466	Pipe	55.083		0.6	375	27.975	25.640
Sw-1.004- 4	5.000	Pipe	416.634		0.6	450	27.886	25.701
Sw-1.005-4	10.187	Pipe	407.482		0.6	450	27.792	25.689
Sw-1.002-4	34.177	Pipe	411.767		0.6	450	27.946	25.986
Sw-1.000- 4	24.194	Pipe	410.069		0.6	450	27.945	26.045
Sw-1.007-4	20.810	Pipe	196.062		0.6	225	27.850	25.450
Sw-5.000- 4	28.356	Pipe	130.075		0.6	300	26.950	26.350
Sw-1.008 - 4	5.544	Pipe	33.224		0.6	225	27.633	25.344
Sw-1.003-4	40.420	Pipe	200.097		0.6	450	27.908	25.903
Sw-4,002-4	67.822	Pipe	100.000		0.6	375	27.975	26.529
Sw-4.001-4	68.238	Pipe	325.000		0.6	375	27.975	25.850
Sw-4.003-4	32.652	Pipe	79.945		0.6	375	27.970	26.937
Sw-5.000-4	6.600	Pipe	82.609		0.6	375	28.087	26.287

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance	Wall Thickness (mm)
Sw-1.006-4	27.850	25.450		All		(None)	(None)	0
Sw-4.000-4	27.850	25.450		All		(None)	(None)	0
Sw-1.004- 4	27.792	25.689		All		(None)	(None)	0
Sw-1.005-4	27.943	25.664		All		(None)	(None)	0
Sw-1.002-4	27.908	25.903		None		(None)	(None)	0
Sw-1.000- 4	27.946	25.986		All		(None)	(None)	0
Sw-1.007-4	27.633	25.344		All		(None)	(None)	0
Sw-5.000- 4	27.946	26.132		All		(None)	(None)	0
Sw-1.008 - 4	27.664	25.177		None	6.09	(None)	(None)	0
Sw-1.003-4	27.886	25.701		None		(None)	(None)	0
Sw-4,002-4	27.975	25.850		None		(None)	(None)	0
Sw-4.001-4	27.975	25.640		All		(None)	(None)	0
Sw-4.003-4	27.975	26.529		None		(None)	(None)	0
Sw-5.000-4	27.850	26.207		All		(None)	(None)	0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Connections Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Material	Trench Width (mm)	Bedding Material	Surrounding Material
Sw-1.006-4		0		
Sw-4.000-4		0		
Sw-1.004- 4		0		
Sw-1.005-4		0		
Sw-1.002-4		0		
Sw-1.000- 4		0		
Sw-1.007-4		0		
Sw-5.000- 4		0		
Sw-1.008 - 4		0		
Sw-1.003-4		0		
Sw-4,002-4		0		
Sw-4.001-4		0		
Sw-4.003-4		0		
Sw-5.000-4		0		

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S12-4	27.975 25.640	Diameter / Length: 1.200	{1} Sw-4.001-4	Pipe	25.640	Diam/Width: 375	Manhole
E:342456.579 N:396953.881	2.335		{a} Sw-4.000-4	Pipe	25.640	Diam/Width: 375	Not Applicable
S04- 4	27.886 25.701	Diameter / Length: 1.200	{1} Sw-1.003-4	Pipe	25.701	Diam/Width: 450	Manhole
E:342557.862 N:396943.134	2.185		{a} Sw-1.004- 4	Pipe	25.701	Diam/Width: 450	Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S05- 4	27.792 25.689	Diameter / Length: 1.200	{1} Sw-1.004- 4	Pipe	25.689	Diam/Width:450	Manhole
E:342558.182 N:396938.145	2.103						
			{a} Sw-1.005-4	Pipe	25.689	Diam/Width:450	Not Applicable
S07- 4	27.633 25.344	Diameter / Length: 1.200	{1} Sw-1.007-4	Pipe	25.344	Diam/Width:225	Manhole
E:342558.430 N:396934.267	2.289						
			{a} Sw-1.008 - 4	Pipe	25.344	Diam/Width:225	Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinate s (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connectio n Type	Connectio n Invert (m)	Connectio n Size (mm)	Junction Type
			Outgoing Connections				Cover
S01- 4	27.945 26.045	Diameter / Length: 1.200					Manhole
E:342551. 540 N:397041. 722	1.900						
			{a} Sw- 1.000- 4	Pipe	26.045	Diam/Widt h:450	Not Applicable
S02- 4	27.946 25.986	Diameter / Length: 1.200	{1} Sw- 1.000- 4	Pipe	25.986	Diam/Widt h:450	Manhole
E:342553. 090 N:397017. 578	1.960		{2} Sw- 5.000- 4	Pipe	26.132	Diam/Widt h:300	
			{a} Sw- 1.002-4	Pipe	25.986	Diam/Widt h:450	Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinate s (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connectio n Type	Connectio n Invert (m)	Connectio n Size (mm)	Junction Type
			Outgoing Connections				Cover
S-19- 4	26.950 26.350	Diameter / Length: 0.600					Manhole
E:342524. 791 N:397015. 773	0.600						
		Width: 0.600	{a} Sw- 5.000- 4	Pipe	26.350	Diam/Widt h:300	Not Applicable
EX	27.664 25.177	Diameter / Length: 1.200	{1} Sw- 1.008 - 4	Pipe	25.177	Diam/Widt h:225	Manhole
E:342558. 874 N:396928. 741	2.487						
							Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Full Retention oil Interceptor	27.943 25.664	Diameter / Length: 2.700	{1} Sw-1.005-4	Pipe	25.664	Diam/Width: 450	Manhole
E:342548.012 N:396937.549	2.279		{a} Sw-1.006-4	Pipe	25.664	Diam/Width: 450	Not Applicable
S14-4	27.975 26.529	Diameter / Length: 1.200	{1} Sw-4.003-4	Pipe	26.529	Diam/Width: 375	Manhole
E:342447.900 N:397089.663	1.446		{a} Sw-4.002-4	Pipe	26.529	Diam/Width: 375	Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S03-4	27.908 25.903	Diameter / Length: 1.200	{1} Sw-1.002-4	Pipe	25.903	Diam/Width: 450	Manhole
E:342555.275 N:396983.471	2.005						
			{a} Sw-1.003-4	Pipe	25.903	Diam/Width: 450	Not Applicable
S13-4	27.975 25.850	Diameter / Length: 1.200	{1} Sw-4.002-4	Pipe	25.850	Diam/Width: 375	Manhole
E:342452.029 N:397021.966	2.125						
			{a} Sw-4.001-4	Pipe	25.850	Diam/Width: 375	Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Manhole Schedule Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S15-4	27.970 26.937	Diameter / Length: 1.200					Manhole
E:342480.485 N:397091.753	1.033		{a} Sw-4.003-4	Pipe	26.937	Diam/Width:375	Not Applicable
S16-4	28.087 26.287	Diameter / Length: 1.200					Manhole
E:342487.893 N:396955.950	1.800		{a} Sw-5.000-4	Pipe	26.287	Diam/Width:375	Not Applicable

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflow Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

Inflow Label	Connect ed To	Flow (L/s)	Runoff Method	Area (ha)	Percenta ge Impervio us (%)	Urban Creep (%)	Adjusted Percenta ge Impervio us (%)	Area Analyse d (ha)
Access Road	S05- 4		Time of Concentr ation	0.036	100	0	100	0.036
Car-Park	S04- 4		Time of Concentr ation	0.326	100	0	100	0.326
Cycle Store	S02- 4		Time of Concentr ation	0.044	100	0	100	0.044
Foot Path North	S14-4		Time of Concentr ation	0.012	100	0	100	0.012
Loading Area 1	S01- 4		Time of Concentr ation	0.242	100	0	100	0.242
Loading Area 2	S03-4		Time of Concentr ation	0.295	100	0	100	0.295
Rear Footpath	S12-4		Time of Concentr ation	0.032	100	0	100	0.032
Unit 4 Dock Levellers	S-19- 4		Time of Concentr ation	0.058	100	0	100	0.058
Unit 4 Roof S15	S15-4		Time of Concentr ation	0.235	100	0	100	0.235
Unit 4 Roof S16	S16-4		Time of Concentr ation	0.693	100	0	100	0.693
Unit 4 Roof to S9	S03-4		Time of Concentr ation	0.037	100	0	100	0.037
TOTAL		0.0		2.009				2.009

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Network Design Criteria Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Network Design Criteria Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Manhole Options

Apply Offset	☐
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Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Outfall Details Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
EX	Free Discharge			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Title: Rainfall Analysis Criteria	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Shortest
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Rear Footpath: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.03	6.2	2.682
FEH: 2 years: +0 %: 15 mins: Winter	0.03	5.8	2.685
FEH: 2 years: +0 %: 30 mins: Summer	0.03	4.0	3.444
FEH: 2 years: +0 %: 30 mins: Winter	0.03	3.7	3.438
FEH: 2 years: +0 %: 60 mins: Summer	0.03	3.4	4.272
FEH: 2 years: +0 %: 60 mins: Winter	0.03	2.8	4.272

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.03	2.6	5.514
FEH: 2 years: +0 %: 120 mins: Winter	0.03	1.9	5.514
FEH: 2 years: +0 %: 180 mins: Summer	0.03	2.1	6.336
FEH: 2 years: +0 %: 180 mins: Winter	0.03	1.5	6.336
FEH: 2 years: +0 %: 240 mins: Summer	0.03	1.8	6.954
FEH: 2 years: +0 %: 240 mins: Winter	0.03	1.2	6.936
FEH: 2 years: +0 %: 360 mins: Summer	0.03	1.4	7.908
FEH: 2 years: +0 %: 360 mins: Winter	0.03	0.9	7.878

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.03	1.2	8.622
FEH: 2 years: +0 %: 480 mins: Winter	0.03	0.8	8.622
FEH: 2 years: +0 %: 600 mins: Summer	0.03	1.0	9.222
FEH: 2 years: +0 %: 600 mins: Winter	0.03	0.6	9.240
FEH: 2 years: +0 %: 720 mins: Summer	0.03	0.9	9.768
FEH: 2 years: +0 %: 720 mins: Winter	0.03	0.6	9.750
FEH: 2 years: +0 %: 960 mins: Summer	0.03	0.7	10.60 8
FEH: 2 years: +0 %: 960 mins: Winter	0.03	0.5	10.60 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 1440 mins: Summer	0.03	0.6	12.06 6
FEH: 2 years: +0 %: 1440 mins: Winter	0.03	0.3	11.97 0
FEH: 2 years: +0 %: 2160 mins: Summer	0.03	0.4	13.67 4
FEH: 2 years: +0 %: 2160 mins: Winter	0.03	0.3	13.78 8
FEH: 2 years: +0 %: 2880 mins: Summer	0.03	0.3	15.02 4
FEH: 2 years: +0 %: 2880 mins: Winter	0.03	0.2	15.03 6
FEH: 2 years: +0 %: 4320 mins: Summer	0.03	0.3	17.15 4
FEH: 2 years: +0 %: 4320 mins: Winter	0.03	0.2	17.16 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.03	0.2	19.15 8
FEH: 2 years: +0 %: 5760 mins: Winter	0.03	0.1	19.00 8
FEH: 2 years: +0 %: 7200 mins: Summer	0.03	0.2	21.07 8
FEH: 2 years: +0 %: 7200 mins: Winter	0.03	0.1	20.80 8
FEH: 2 years: +0 %: 8640 mins: Summer	0.03	0.2	22.71 0
FEH: 2 years: +0 %: 8640 mins: Winter	0.03	0.1	22.70 4
FEH: 2 years: +0 %: 10080 mins: Summer	0.03	0.2	23.96 4
FEH: 2 years: +0 %: 10080 mins: Winter	0.03	0.1	24.66 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Loading Area 1: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.24	47.2	20.490
FEH: 2 years: +0 %: 15 mins: Winter	0.24	44.3	20.487
FEH: 2 years: +0 %: 30 mins: Summer	0.24	30.3	26.268
FEH: 2 years: +0 %: 30 mins: Winter	0.24	28.5	26.274
FEH: 2 years: +0 %: 60 mins: Summer	0.24	26.1	32.598
FEH: 2 years: +0 %: 60 mins: Winter	0.24	21.0	32.586

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 120 mins: Summer	0.24	20.0	42.08 4
FEH: 2 years: +0 %: 120 mins: Winter	0.24	14.4	42.07 8
FEH: 2 years: +0 %: 180 mins: Summer	0.24	16.2	48.30 6
FEH: 2 years: +0 %: 180 mins: Winter	0.24	11.1	48.30 0
FEH: 2 years: +0 %: 240 mins: Summer	0.24	13.8	53.04 6
FEH: 2 years: +0 %: 240 mins: Winter	0.24	9.2	53.04 6
FEH: 2 years: +0 %: 360 mins: Summer	0.24	10.7	60.25 8
FEH: 2 years: +0 %: 360 mins: Winter	0.24	7.0	60.27 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.24	8.9	65.88 0
FEH: 2 years: +0 %: 480 mins: Winter	0.24	5.8	65.89 2
FEH: 2 years: +0 %: 600 mins: Summer	0.24	7.7	70.52 7
FEH: 2 years: +0 %: 600 mins: Winter	0.24	4.9	70.50 0
FEH: 2 years: +0 %: 720 mins: Summer	0.24	6.8	74.53 2
FEH: 2 years: +0 %: 720 mins: Winter	0.24	4.4	74.53 8
FEH: 2 years: +0 %: 960 mins: Summer	0.24	5.5	81.23 4
FEH: 2 years: +0 %: 960 mins: Winter	0.24	3.6	81.25 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 1440 mins: Summer	0.24	4.2	91.89 0
FEH: 2 years: +0 %: 1440 mins: Winter	0.24	2.7	91.91 4
FEH: 2 years: +0 %: 2160 mins: Summer	0.24	3.2	104.2 32
FEH: 2 years: +0 %: 2160 mins: Winter	0.24	2.0	104.2 80
FEH: 2 years: +0 %: 2880 mins: Summer	0.24	2.6	114.1 62
FEH: 2 years: +0 %: 2880 mins: Winter	0.24	1.7	114.1 74
FEH: 2 years: +0 %: 4320 mins: Summer	0.24	2.0	131.2 14
FEH: 2 years: +0 %: 4320 mins: Winter	0.24	1.3	131.4 18

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.24	1.7	146.3 22
FEH: 2 years: +0 %: 5760 mins: Winter	0.24	1.1	146.4 36
FEH: 2 years: +0 %: 7200 mins: Summer	0.24	1.4	160.0 80
FEH: 2 years: +0 %: 7200 mins: Winter	0.24	0.9	159.9 36
FEH: 2 years: +0 %: 8640 mins: Summer	0.24	1.3	172.7 58
FEH: 2 years: +0 %: 8640 mins: Winter	0.24	0.8	172.8 48
FEH: 2 years: +0 %: 10080 mins: Summer	0.24	1.2	186.0 12
FEH: 2 years: +0 %: 10080 mins: Winter	0.24	0.8	185.9 22

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Dock Levellers: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.06	11.3	4.899
FEH: 2 years: +0 %: 15 mins: Winter	0.06	10.6	4.902
FEH: 2 years: +0 %: 30 mins: Summer	0.06	7.3	6.282
FEH: 2 years: +0 %: 30 mins: Winter	0.06	6.8	6.288
FEH: 2 years: +0 %: 60 mins: Summer	0.06	6.2	7.800
FEH: 2 years: +0 %: 60 mins: Winter	0.06	5.0	7.800

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.06	4.8	10.06 2
FEH: 2 years: +0 %: 120 mins: Winter	0.06	3.4	10.06 8
FEH: 2 years: +0 %: 180 mins: Summer	0.06	3.9	11.55 6
FEH: 2 years: +0 %: 180 mins: Winter	0.06	2.7	11.54 4
FEH: 2 years: +0 %: 240 mins: Summer	0.06	3.3	12.69 0
FEH: 2 years: +0 %: 240 mins: Winter	0.06	2.2	12.67 8
FEH: 2 years: +0 %: 360 mins: Summer	0.06	2.6	14.42 4
FEH: 2 years: +0 %: 360 mins: Winter	0.06	1.7	14.44 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.06	2.1	15.76 8
FEH: 2 years: +0 %: 480 mins: Winter	0.06	1.4	15.75 0
FEH: 2 years: +0 %: 600 mins: Summer	0.06	1.8	16.85 4
FEH: 2 years: +0 %: 600 mins: Winter	0.06	1.2	16.89 0
FEH: 2 years: +0 %: 720 mins: Summer	0.06	1.6	17.81 4
FEH: 2 years: +0 %: 720 mins: Winter	0.06	1.0	17.82 0
FEH: 2 years: +0 %: 960 mins: Summer	0.06	1.3	19.41 0
FEH: 2 years: +0 %: 960 mins: Winter	0.06	0.9	19.42 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 1440 mins: Summer	0.06	1.0	21.94 8
FEH: 2 years: +0 %: 1440 mins: Winter	0.06	0.6	21.91 8
FEH: 2 years: +0 %: 2160 mins: Summer	0.06	0.8	24.91 2
FEH: 2 years: +0 %: 2160 mins: Winter	0.06	0.5	24.98 4
FEH: 2 years: +0 %: 2880 mins: Summer	0.06	0.6	27.34 8
FEH: 2 years: +0 %: 2880 mins: Winter	0.06	0.4	27.29 4
FEH: 2 years: +0 %: 4320 mins: Summer	0.06	0.5	31.26 6
FEH: 2 years: +0 %: 4320 mins: Winter	0.06	0.3	31.35 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.06	0.4	34.78 2
FEH: 2 years: +0 %: 5760 mins: Winter	0.06	0.3	35.04 0
FEH: 2 years: +0 %: 7200 mins: Summer	0.06	0.3	38.18 4
FEH: 2 years: +0 %: 7200 mins: Winter	0.06	0.2	38.19 0
FEH: 2 years: +0 %: 8640 mins: Summer	0.06	0.3	41.67 0
FEH: 2 years: +0 %: 8640 mins: Winter	0.06	0.2	42.06 0
FEH: 2 years: +0 %: 10080 mins: Summer	0.06	0.3	44.28 0
FEH: 2 years: +0 %: 10080 mins: Winter	0.06	0.2	44.02 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Loading Area 2: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.30	57.6	24.990
FEH: 2 years: +0 %: 15 mins: Winter	0.30	54.0	24.993
FEH: 2 years: +0 %: 30 mins: Summer	0.30	37.0	32.046
FEH: 2 years: +0 %: 30 mins: Winter	0.30	34.7	32.052
FEH: 2 years: +0 %: 60 mins: Summer	0.30	31.8	39.762
FEH: 2 years: +0 %: 60 mins: Winter	0.30	25.6	39.768

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 120 mins: Summer	0.30	24.4	51.33 0
FEH: 2 years: +0 %: 120 mins: Winter	0.30	17.5	51.34 8
FEH: 2 years: +0 %: 180 mins: Summer	0.30	19.7	58.92 6
FEH: 2 years: +0 %: 180 mins: Winter	0.30	13.6	58.92 0
FEH: 2 years: +0 %: 240 mins: Summer	0.30	16.8	64.72 8
FEH: 2 years: +0 %: 240 mins: Winter	0.30	11.3	64.71 6
FEH: 2 years: +0 %: 360 mins: Summer	0.30	13.0	73.51 2
FEH: 2 years: +0 %: 360 mins: Winter	0.30	8.6	73.54 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.30	10.9	80.34 6
FEH: 2 years: +0 %: 480 mins: Winter	0.30	7.1	80.35 2
FEH: 2 years: +0 %: 600 mins: Summer	0.30	9.4	86.04 6
FEH: 2 years: +0 %: 600 mins: Winter	0.30	6.0	86.02 2
FEH: 2 years: +0 %: 720 mins: Summer	0.30	8.3	90.93 6
FEH: 2 years: +0 %: 720 mins: Winter	0.30	5.3	90.96 0
FEH: 2 years: +0 %: 960 mins: Summer	0.30	6.8	99.13 2
FEH: 2 years: +0 %: 960 mins: Winter	0.30	4.3	99.14 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 1440 mins: Summer	0.30	5.1	112.1 28
FEH: 2 years: +0 %: 1440 mins: Winter	0.30	3.3	112.2 12
FEH: 2 years: +0 %: 2160 mins: Summer	0.30	3.8	127.0 20
FEH: 2 years: +0 %: 2160 mins: Winter	0.30	2.5	127.2 06
FEH: 2 years: +0 %: 2880 mins: Summer	0.30	3.2	139.5 06
FEH: 2 years: +0 %: 2880 mins: Winter	0.30	2.0	139.4 46
FEH: 2 years: +0 %: 4320 mins: Summer	0.30	2.4	160.1 94
FEH: 2 years: +0 %: 4320 mins: Winter	0.30	1.6	160.2 48

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.30	2.0	178.4 16
FEH: 2 years: +0 %: 5760 mins: Winter	0.30	1.3	178.3 92
FEH: 2 years: +0 %: 7200 mins: Summer	0.30	1.8	195.2 46
FEH: 2 years: +0 %: 7200 mins: Winter	0.30	1.1	194.9 88
FEH: 2 years: +0 %: 8640 mins: Summer	0.30	1.6	211.3 02
FEH: 2 years: +0 %: 8640 mins: Winter	0.30	1.0	210.6 12
FEH: 2 years: +0 %: 10080 mins: Summer	0.30	1.5	226.0 86
FEH: 2 years: +0 %: 10080 mins: Winter	0.30	0.9	226.6 86

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





**FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Cycle
Store: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.04	8.5	3.705
FEH: 2 years: +0 %: 15 mins: Winter	0.04	8.0	3.705
FEH: 2 years: +0 %: 30 mins: Summer	0.04	5.5	4.746
FEH: 2 years: +0 %: 30 mins: Winter	0.04	5.2	4.752
FEH: 2 years: +0 %: 60 mins: Summer	0.04	4.7	5.898
FEH: 2 years: +0 %: 60 mins: Winter	0.04	3.8	5.892

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 120 mins: Summer	0.04	3.6	7.614
FEH: 2 years: +0 %: 120 mins: Winter	0.04	2.6	7.614
FEH: 2 years: +0 %: 180 mins: Summer	0.04	2.9	8.742
FEH: 2 years: +0 %: 180 mins: Winter	0.04	2.0	8.724
FEH: 2 years: +0 %: 240 mins: Summer	0.04	2.5	9.588
FEH: 2 years: +0 %: 240 mins: Winter	0.04	1.7	9.588
FEH: 2 years: +0 %: 360 mins: Summer	0.04	1.9	10.89 6
FEH: 2 years: +0 %: 360 mins: Winter	0.04	1.3	10.87 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.04	1.6	11.89 8
FEH: 2 years: +0 %: 480 mins: Winter	0.04	1.0	11.89 2
FEH: 2 years: +0 %: 600 mins: Summer	0.04	1.4	12.73 8
FEH: 2 years: +0 %: 600 mins: Winter	0.04	0.9	12.75 6
FEH: 2 years: +0 %: 720 mins: Summer	0.04	1.2	13.46 4
FEH: 2 years: +0 %: 720 mins: Winter	0.04	0.8	13.47 0
FEH: 2 years: +0 %: 960 mins: Summer	0.04	1.0	14.67 0
FEH: 2 years: +0 %: 960 mins: Winter	0.04	0.6	14.64 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 1440 mins: Summer	0.04	0.8	16.62 0
FEH: 2 years: +0 %: 1440 mins: Winter	0.04	0.5	16.66 8
FEH: 2 years: +0 %: 2160 mins: Summer	0.04	0.6	18.82 2
FEH: 2 years: +0 %: 2160 mins: Winter	0.04	0.4	18.75 0
FEH: 2 years: +0 %: 2880 mins: Summer	0.04	0.5	20.64 0
FEH: 2 years: +0 %: 2880 mins: Winter	0.04	0.3	20.58 0
FEH: 2 years: +0 %: 4320 mins: Summer	0.04	0.4	23.60 4
FEH: 2 years: +0 %: 4320 mins: Winter	0.04	0.2	23.60 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.04	0.3	26.47 8
FEH: 2 years: +0 %: 5760 mins: Winter	0.04	0.2	26.25 6
FEH: 2 years: +0 %: 7200 mins: Summer	0.04	0.3	28.69 8
FEH: 2 years: +0 %: 7200 mins: Winter	0.04	0.2	28.87 8
FEH: 2 years: +0 %: 8640 mins: Summer	0.04	0.2	31.22 4
FEH: 2 years: +0 %: 8640 mins: Winter	0.04	0.2	31.62 0
FEH: 2 years: +0 %: 10080 mins: Summer	0.04	0.2	33.51 0
FEH: 2 years: +0 %: 10080 mins: Winter	0.04	0.1	33.26 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Car-Park: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.33	63.6	27.636
FEH: 2 years: +0 %: 15 mins: Winter	0.33	59.7	27.633
FEH: 2 years: +0 %: 30 mins: Summer	0.33	40.9	35.436
FEH: 2 years: +0 %: 30 mins: Winter	0.33	38.4	35.436
FEH: 2 years: +0 %: 60 mins: Summer	0.33	35.2	43.962
FEH: 2 years: +0 %: 60 mins: Winter	0.33	28.3	43.962

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.33	26.9	56.76 0
FEH: 2 years: +0 %: 120 mins: Winter	0.33	19.4	56.76 6
FEH: 2 years: +0 %: 180 mins: Summer	0.33	21.8	65.14 2
FEH: 2 years: +0 %: 180 mins: Winter	0.33	15.0	65.15 4
FEH: 2 years: +0 %: 240 mins: Summer	0.33	18.5	71.55 6
FEH: 2 years: +0 %: 240 mins: Winter	0.33	12.5	71.56 2
FEH: 2 years: +0 %: 360 mins: Summer	0.33	14.4	81.28 2
FEH: 2 years: +0 %: 360 mins: Winter	0.33	9.5	81.28 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.33	12.1	88.86 0
FEH: 2 years: +0 %: 480 mins: Winter	0.33	7.8	88.86 0
FEH: 2 years: +0 %: 600 mins: Summer	0.33	10.4	95.13 0
FEH: 2 years: +0 %: 600 mins: Winter	0.33	6.7	95.12 4
FEH: 2 years: +0 %: 720 mins: Summer	0.33	9.1	100.5 42
FEH: 2 years: +0 %: 720 mins: Winter	0.33	5.9	100.5 30
FEH: 2 years: +0 %: 960 mins: Summer	0.33	7.5	109.5 90
FEH: 2 years: +0 %: 960 mins: Winter	0.33	4.8	109.6 32

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 1440 mins: Summer	0.33	5.6	124.0 50
FEH: 2 years: +0 %: 1440 mins: Winter	0.33	3.6	123.9 90
FEH: 2 years: +0 %: 2160 mins: Summer	0.33	4.3	140.5 26
FEH: 2 years: +0 %: 2160 mins: Winter	0.33	2.7	140.5 20
FEH: 2 years: +0 %: 2880 mins: Summer	0.33	3.5	154.1 46
FEH: 2 years: +0 %: 2880 mins: Winter	0.33	2.3	154.2 54
FEH: 2 years: +0 %: 4320 mins: Summer	0.33	2.7	177.1 98
FEH: 2 years: +0 %: 4320 mins: Winter	0.33	1.7	177.0 24

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.33	2.2	197.3 34
FEH: 2 years: +0 %: 5760 mins: Winter	0.33	1.4	197.0 64
FEH: 2 years: +0 %: 7200 mins: Summer	0.33	2.0	215.3 34
FEH: 2 years: +0 %: 7200 mins: Winter	0.33	1.3	215.8 20
FEH: 2 years: +0 %: 8640 mins: Summer	0.33	1.8	233.4 78
FEH: 2 years: +0 %: 8640 mins: Winter	0.33	1.1	233.3 04
FEH: 2 years: +0 %: 10080 mins: Summer	0.33	1.6	250.0 38
FEH: 2 years: +0 %: 10080 mins: Winter	0.33	1.0	249.9 36

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





**FEH: 2 years: Increase Rainfall (%): +0: Summary Results for
Access Road: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.04	7.0	3.045
FEH: 2 years: +0 %: 15 mins: Winter	0.04	6.6	3.045
FEH: 2 years: +0 %: 30 mins: Summer	0.04	4.5	3.900
FEH: 2 years: +0 %: 30 mins: Winter	0.04	4.2	3.906
FEH: 2 years: +0 %: 60 mins: Summer	0.04	3.9	4.836
FEH: 2 years: +0 %: 60 mins: Winter	0.04	3.1	4.848

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.04	3.0	6.246
FEH: 2 years: +0 %: 120 mins: Winter	0.04	2.1	6.246
FEH: 2 years: +0 %: 180 mins: Summer	0.04	2.4	7.182
FEH: 2 years: +0 %: 180 mins: Winter	0.04	1.7	7.176
FEH: 2 years: +0 %: 240 mins: Summer	0.04	2.0	7.884
FEH: 2 years: +0 %: 240 mins: Winter	0.04	1.4	7.866
FEH: 2 years: +0 %: 360 mins: Summer	0.04	1.6	8.958
FEH: 2 years: +0 %: 360 mins: Winter	0.04	1.0	8.940

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.04	1.3	9.774
FEH: 2 years: +0 %: 480 mins: Winter	0.04	0.9	9.780
FEH: 2 years: +0 %: 600 mins: Summer	0.04	1.1	10.47 6
FEH: 2 years: +0 %: 600 mins: Winter	0.04	0.7	10.48 2
FEH: 2 years: +0 %: 720 mins: Summer	0.04	1.0	11.05 8
FEH: 2 years: +0 %: 720 mins: Winter	0.04	0.6	11.05 8
FEH: 2 years: +0 %: 960 mins: Summer	0.04	0.8	12.07 8
FEH: 2 years: +0 %: 960 mins: Winter	0.04	0.5	12.06 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 1440 mins: Summer	0.04	0.6	13.62 6
FEH: 2 years: +0 %: 1440 mins: Winter	0.04	0.4	13.63 2
FEH: 2 years: +0 %: 2160 mins: Summer	0.04	0.5	15.45 6
FEH: 2 years: +0 %: 2160 mins: Winter	0.04	0.3	15.39 0
FEH: 2 years: +0 %: 2880 mins: Summer	0.04	0.4	16.96 2
FEH: 2 years: +0 %: 2880 mins: Winter	0.04	0.3	16.90 2
FEH: 2 years: +0 %: 4320 mins: Summer	0.04	0.3	19.54 8
FEH: 2 years: +0 %: 4320 mins: Winter	0.04	0.2	19.33 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 5760 mins: Summer	0.04	0.3	21.75 0
FEH: 2 years: +0 %: 5760 mins: Winter	0.04	0.2	21.90 6
FEH: 2 years: +0 %: 7200 mins: Summer	0.04	0.2	23.75 4
FEH: 2 years: +0 %: 7200 mins: Winter	0.04	0.1	23.42 4
FEH: 2 years: +0 %: 8640 mins: Summer	0.04	0.2	25.92 0
FEH: 2 years: +0 %: 8640 mins: Winter	0.04	0.1	25.41 6
FEH: 2 years: +0 %: 10080 mins: Summer	0.04	0.2	28.05 6
FEH: 2 years: +0 %: 10080 mins: Winter	0.04	0.1	27.46 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Foot Path North: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.01	2.4	1.047
FEH: 2 years: +0 %: 15 mins: Winter	0.01	2.3	1.044
FEH: 2 years: +0 %: 30 mins: Summer	0.01	1.6	1.344
FEH: 2 years: +0 %: 30 mins: Winter	0.01	1.4	1.344
FEH: 2 years: +0 %: 60 mins: Summer	0.01	1.3	1.668
FEH: 2 years: +0 %: 60 mins: Winter	0.01	1.1	1.656

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.01	1.0	2.142
FEH: 2 years: +0 %: 120 mins: Winter	0.01	0.7	2.136
FEH: 2 years: +0 %: 180 mins: Summer	0.01	0.8	2.466
FEH: 2 years: +0 %: 180 mins: Winter	0.01	0.6	2.454
FEH: 2 years: +0 %: 240 mins: Summer	0.01	0.7	2.706
FEH: 2 years: +0 %: 240 mins: Winter	0.01	0.5	2.724
FEH: 2 years: +0 %: 360 mins: Summer	0.01	0.5	3.060
FEH: 2 years: +0 %: 360 mins: Winter	0.01	0.4	3.054

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.01	0.5	3.366
FEH: 2 years: +0 %: 480 mins: Winter	0.01	0.3	3.348
FEH: 2 years: +0 %: 600 mins: Summer	0.01	0.4	3.588
FEH: 2 years: +0 %: 600 mins: Winter	0.01	0.3	3.570
FEH: 2 years: +0 %: 720 mins: Summer	0.01	0.3	3.780
FEH: 2 years: +0 %: 720 mins: Winter	0.01	0.2	3.804
FEH: 2 years: +0 %: 960 mins: Summer	0.01	0.3	4.164
FEH: 2 years: +0 %: 960 mins: Winter	0.01	0.2	4.122

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 1440 mins: Summer	0.01	0.2	4.662
FEH: 2 years: +0 %: 1440 mins: Winter	0.01	0.1	4.650
FEH: 2 years: +0 %: 2160 mins: Summer	0.01	0.2	5.304
FEH: 2 years: +0 %: 2160 mins: Winter	0.01	0.1	5.334
FEH: 2 years: +0 %: 2880 mins: Summer	0.01	0.1	5.706
FEH: 2 years: +0 %: 2880 mins: Winter	0.01	0.1	5.880
FEH: 2 years: +0 %: 4320 mins: Summer	0.01	0.1	6.594
FEH: 2 years: +0 %: 4320 mins: Winter	0.01	0.1	6.576

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 5760 mins: Summer	0.01	0.1	7.542
FEH: 2 years: +0 %: 5760 mins: Winter	0.01	0.0	7.398
FEH: 2 years: +0 %: 7200 mins: Summer	0.01	0.1	8.634
FEH: 2 years: +0 %: 7200 mins: Winter	0.01	0.0	8.460
FEH: 2 years: +0 %: 8640 mins: Summer	0.01	0.1	9.738
FEH: 2 years: +0 %: 8640 mins: Winter	0.01	0.0	9.222
FEH: 2 years: +0 %: 10080 mins: Summer	0.01	0.1	10.64 4
FEH: 2 years: +0 %: 10080 mins: Winter	0.01	0.0	10.03 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Roof to S9: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.04	7.2	3.117
FEH: 2 years: +0 %: 15 mins: Winter	0.04	6.7	3.117
FEH: 2 years: +0 %: 30 mins: Summer	0.04	4.6	3.996
FEH: 2 years: +0 %: 30 mins: Winter	0.04	4.3	3.996
FEH: 2 years: +0 %: 60 mins: Summer	0.04	4.0	4.962
FEH: 2 years: +0 %: 60 mins: Winter	0.04	3.2	4.962

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 120 mins: Summer	0.04	3.0	6.396
FEH: 2 years: +0 %: 120 mins: Winter	0.04	2.2	6.402
FEH: 2 years: +0 %: 180 mins: Summer	0.04	2.5	7.344
FEH: 2 years: +0 %: 180 mins: Winter	0.04	1.7	7.350
FEH: 2 years: +0 %: 240 mins: Summer	0.04	2.1	8.070
FEH: 2 years: +0 %: 240 mins: Winter	0.04	1.4	8.076
FEH: 2 years: +0 %: 360 mins: Summer	0.04	1.6	9.168
FEH: 2 years: +0 %: 360 mins: Winter	0.04	1.1	9.162

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 480 mins: Summer	0.04	1.4	10.02 6
FEH: 2 years: +0 %: 480 mins: Winter	0.04	0.9	10.03 2
FEH: 2 years: +0 %: 600 mins: Summer	0.04	1.2	10.71 6
FEH: 2 years: +0 %: 600 mins: Winter	0.04	0.8	10.71 0
FEH: 2 years: +0 %: 720 mins: Summer	0.04	1.0	11.34 0
FEH: 2 years: +0 %: 720 mins: Winter	0.04	0.7	11.34 6
FEH: 2 years: +0 %: 960 mins: Summer	0.04	0.8	12.38 4
FEH: 2 years: +0 %: 960 mins: Winter	0.04	0.5	12.36 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 1440 mins: Summer	0.04	0.6	14.00 4
FEH: 2 years: +0 %: 1440 mins: Winter	0.04	0.4	13.93 8
FEH: 2 years: +0 %: 2160 mins: Summer	0.04	0.5	15.86 4
FEH: 2 years: +0 %: 2160 mins: Winter	0.04	0.3	15.80 4
FEH: 2 years: +0 %: 2880 mins: Summer	0.04	0.4	17.36 4
FEH: 2 years: +0 %: 2880 mins: Winter	0.04	0.3	17.32 2
FEH: 2 years: +0 %: 4320 mins: Summer	0.04	0.3	19.97 4
FEH: 2 years: +0 %: 4320 mins: Winter	0.04	0.2	19.70 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 5760 mins: Summer	0.04	0.3	22.05 0
FEH: 2 years: +0 %: 5760 mins: Winter	0.04	0.2	22.27 8
FEH: 2 years: +0 %: 7200 mins: Summer	0.04	0.2	24.36 6
FEH: 2 years: +0 %: 7200 mins: Winter	0.04	0.1	24.54 6
FEH: 2 years: +0 %: 8640 mins: Summer	0.04	0.2	26.73 6
FEH: 2 years: +0 %: 8640 mins: Winter	0.04	0.1	26.22 0
FEH: 2 years: +0 %: 10080 mins: Summer	0.04	0.2	28.79 4
FEH: 2 years: +0 %: 10080 mins: Winter	0.04	0.1	28.06 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Roof S16: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.69	135.1	58.677
FEH: 2 years: +0 %: 15 mins: Winter	0.69	126.8	58.680
FEH: 2 years: +0 %: 30 mins: Summer	0.69	86.9	75.246
FEH: 2 years: +0 %: 30 mins: Winter	0.69	81.5	75.246
FEH: 2 years: +0 %: 60 mins: Summer	0.69	74.7	93.354
FEH: 2 years: +0 %: 60 mins: Winter	0.69	60.1	93.354

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.69	57.2	120.5 46
FEH: 2 years: +0 %: 120 mins: Winter	0.69	41.2	120.5 34
FEH: 2 years: +0 %: 180 mins: Summer	0.69	46.3	138.3 48
FEH: 2 years: +0 %: 180 mins: Winter	0.69	31.9	138.3 48
FEH: 2 years: +0 %: 240 mins: Summer	0.69	39.4	151.9 38
FEH: 2 years: +0 %: 240 mins: Winter	0.69	26.5	151.9 56
FEH: 2 years: +0 %: 360 mins: Summer	0.69	30.6	172.6 02
FEH: 2 years: +0 %: 360 mins: Winter	0.69	20.1	172.5 96

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 480 mins: Summer	0.69	25.6	188.6 76
FEH: 2 years: +0 %: 480 mins: Winter	0.69	16.6	188.6 70
FEH: 2 years: +0 %: 600 mins: Summer	0.69	22.0	202.0 14
FEH: 2 years: +0 %: 600 mins: Winter	0.69	14.2	202.0 14
FEH: 2 years: +0 %: 720 mins: Summer	0.69	19.4	213.5 04
FEH: 2 years: +0 %: 720 mins: Winter	0.69	12.5	213.4 74
FEH: 2 years: +0 %: 960 mins: Summer	0.69	15.8	232.6 98
FEH: 2 years: +0 %: 960 mins: Winter	0.69	10.2	232.7 46

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 1440 mins: Summer	0.69	11.9	263.3 52
FEH: 2 years: +0 %: 1440 mins: Winter	0.69	7.7	263.3 34
FEH: 2 years: +0 %: 2160 mins: Summer	0.69	9.0	298.4 76
FEH: 2 years: +0 %: 2160 mins: Winter	0.69	5.8	298.4 70
FEH: 2 years: +0 %: 2880 mins: Summer	0.69	7.4	327.3 48
FEH: 2 years: +0 %: 2880 mins: Winter	0.69	4.8	327.2 40
FEH: 2 years: +0 %: 4320 mins: Summer	0.69	5.7	376.3 56
FEH: 2 years: +0 %: 4320 mins: Winter	0.69	3.7	376.3 20

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.69	4.8	418.6 74
FEH: 2 years: +0 %: 5760 mins: Winter	0.69	3.1	418.9 98
FEH: 2 years: +0 %: 7200 mins: Summer	0.69	4.2	458.1 12
FEH: 2 years: +0 %: 7200 mins: Winter	0.69	2.7	458.0 94
FEH: 2 years: +0 %: 8640 mins: Summer	0.69	3.8	495.6 78
FEH: 2 years: +0 %: 8640 mins: Winter	0.69	2.4	496.0 98
FEH: 2 years: +0 %: 10080 mins: Summer	0.69	3.5	531.9 60
FEH: 2 years: +0 %: 10080 mins: Winter	0.69	2.2	531.6 12

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 2 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Roof S15: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 2 years: +0 %: 15 mins: Summer	0.23	45.8	19.884
FEH: 2 years: +0 %: 15 mins: Winter	0.23	43.0	19.884
FEH: 2 years: +0 %: 30 mins: Summer	0.23	29.4	25.494
FEH: 2 years: +0 %: 30 mins: Winter	0.23	27.6	25.494
FEH: 2 years: +0 %: 60 mins: Summer	0.23	25.3	31.626
FEH: 2 years: +0 %: 60 mins: Winter	0.23	20.4	31.632

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 120 mins: Summer	0.23	19.4	40.83 6
FEH: 2 years: +0 %: 120 mins: Winter	0.23	13.9	40.84 8
FEH: 2 years: +0 %: 180 mins: Summer	0.23	15.7	46.88 1
FEH: 2 years: +0 %: 180 mins: Winter	0.23	10.8	46.86 6
FEH: 2 years: +0 %: 240 mins: Summer	0.23	13.3	51.48 6
FEH: 2 years: +0 %: 240 mins: Winter	0.23	9.0	51.48 6
FEH: 2 years: +0 %: 360 mins: Summer	0.23	10.4	58.49 4
FEH: 2 years: +0 %: 360 mins: Winter	0.23	6.8	58.49 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 480 mins: Summer	0.23	8.7	63.94 2
FEH: 2 years: +0 %: 480 mins: Winter	0.23	5.6	63.93 6
FEH: 2 years: +0 %: 600 mins: Summer	0.23	7.4	68.46 6
FEH: 2 years: +0 %: 600 mins: Winter	0.23	4.8	68.45 4
FEH: 2 years: +0 %: 720 mins: Summer	0.23	6.6	72.34 2
FEH: 2 years: +0 %: 720 mins: Winter	0.23	4.2	72.34 8
FEH: 2 years: +0 %: 960 mins: Summer	0.23	5.4	78.89 4
FEH: 2 years: +0 %: 960 mins: Winter	0.23	3.5	78.87 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 2 years: +0 %: 1440 mins: Summer	0.23	4.1	89.20 8
FEH: 2 years: +0 %: 1440 mins: Winter	0.23	2.6	89.19 6
FEH: 2 years: +0 %: 2160 mins: Summer	0.23	3.1	101.1 72
FEH: 2 years: +0 %: 2160 mins: Winter	0.23	2.0	101.1 48
FEH: 2 years: +0 %: 2880 mins: Summer	0.23	2.5	111.0 12
FEH: 2 years: +0 %: 2880 mins: Winter	0.23	1.6	110.9 70
FEH: 2 years: +0 %: 4320 mins: Summer	0.23	1.9	127.6 14
FEH: 2 years: +0 %: 4320 mins: Winter	0.23	1.2	127.4 76

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 2 years: +0 %: 5760 mins: Summer	0.23	1.6	141.8 46
FEH: 2 years: +0 %: 5760 mins: Winter	0.23	1.0	141.7 08
FEH: 2 years: +0 %: 7200 mins: Summer	0.23	1.4	155.5 08
FEH: 2 years: +0 %: 7200 mins: Winter	0.23	0.9	155.2 56
FEH: 2 years: +0 %: 8640 mins: Summer	0.23	1.3	167.9 46
FEH: 2 years: +0 %: 8640 mins: Winter	0.23	0.8	167.5 44
FEH: 2 years: +0 %: 10080 mins: Summer	0.23	1.2	180.1 02
FEH: 2 years: +0 %: 10080 mins: Winter	0.23	0.8	179.7 48

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Rear Footpath: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.03	12.3	5.364
FEH: 30 years: +0 %: 15 mins: Winter	0.03	11.6	5.364
FEH: 30 years: +0 %: 30 mins: Summer	0.03	8.1	6.996
FEH: 30 years: +0 %: 30 mins: Winter	0.03	7.6	6.996
FEH: 30 years: +0 %: 60 mins: Summer	0.03	7.0	8.754
FEH: 30 years: +0 %: 60 mins: Winter	0.03	5.6	8.760

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.03	4.9	10.27 8
FEH: 30 years: +0 %: 120 mins: Winter	0.03	3.5	10.28 4
FEH: 30 years: +0 %: 180 mins: Summer	0.03	3.8	11.31 0
FEH: 30 years: +0 %: 180 mins: Winter	0.03	2.6	11.32 2
FEH: 30 years: +0 %: 240 mins: Summer	0.03	3.1	12.10 8
FEH: 30 years: +0 %: 240 mins: Winter	0.03	2.1	12.10 2
FEH: 30 years: +0 %: 360 mins: Summer	0.03	2.4	13.33 2
FEH: 30 years: +0 %: 360 mins: Winter	0.03	1.6	13.32 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 480 mins: Summer	0.03	1.9	14.28 0
FEH: 30 years: +0 %: 480 mins: Winter	0.03	1.3	14.26 8
FEH: 30 years: +0 %: 600 mins: Summer	0.03	1.6	15.07 2
FEH: 30 years: +0 %: 600 mins: Winter	0.03	1.1	15.09 6
FEH: 30 years: +0 %: 720 mins: Summer	0.03	1.4	15.79 2
FEH: 30 years: +0 %: 720 mins: Winter	0.03	0.9	15.75 6
FEH: 30 years: +0 %: 960 mins: Summer	0.03	1.1	16.94 4
FEH: 30 years: +0 %: 960 mins: Winter	0.03	0.7	16.95 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 1440 mins: Summer	0.03	0.9	18.84 0
FEH: 30 years: +0 %: 1440 mins: Winter	0.03	0.6	18.85 2
FEH: 30 years: +0 %: 2160 mins: Summer	0.03	0.6	21.04 2
FEH: 30 years: +0 %: 2160 mins: Winter	0.03	0.4	20.94 6
FEH: 30 years: +0 %: 2880 mins: Summer	0.03	0.5	22.68 6
FEH: 30 years: +0 %: 2880 mins: Winter	0.03	0.3	22.84 8
FEH: 30 years: +0 %: 4320 mins: Summer	0.03	0.4	25.65 6
FEH: 30 years: +0 %: 4320 mins: Winter	0.03	0.3	25.56 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 5760 mins: Summer	0.03	0.3	28.21 8
FEH: 30 years: +0 %: 5760 mins: Winter	0.03	0.2	28.41 0
FEH: 30 years: +0 %: 7200 mins: Summer	0.03	0.3	30.58 2
FEH: 30 years: +0 %: 7200 mins: Winter	0.03	0.2	30.34 2
FEH: 30 years: +0 %: 8640 mins: Summer	0.03	0.3	32.72 4
FEH: 30 years: +0 %: 8640 mins: Winter	0.03	0.2	32.86 8
FEH: 30 years: +0 %: 10080 mins: Summer	0.03	0.2	34.81 8
FEH: 30 years: +0 %: 10080 mins: Winter	0.03	0.2	35.08 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Loading Area 1: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.24	94.3	40.950
FEH: 30 years: +0 %: 15 mins: Winter	0.24	88.5	40.950
FEH: 30 years: +0 %: 30 mins: Summer	0.24	61.7	53.428
FEH: 30 years: +0 %: 30 mins: Winter	0.24	57.9	53.435
FEH: 30 years: +0 %: 60 mins: Summer	0.24	53.5	66.876
FEH: 30 years: +0 %: 60 mins: Winter	0.24	43.0	66.870

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.24	37.3	78.52 2
FEH: 30 years: +0 %: 120 mins: Winter	0.24	26.8	78.53 4
FEH: 30 years: +0 %: 180 mins: Summer	0.24	28.9	86.35 2
FEH: 30 years: +0 %: 180 mins: Winter	0.24	19.9	86.36 4
FEH: 30 years: +0 %: 240 mins: Summer	0.24	23.9	92.43 0
FEH: 30 years: +0 %: 240 mins: Winter	0.24	16.1	92.43 0
FEH: 30 years: +0 %: 360 mins: Summer	0.24	18.0	101.7 30
FEH: 30 years: +0 %: 360 mins: Winter	0.24	11.9	101.7 06

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 480 mins: Summer	0.24	14.8	109.0 08
FEH: 30 years: +0 %: 480 mins: Winter	0.24	9.6	108.9 90
FEH: 30 years: +0 %: 600 mins: Summer	0.24	12.5	115.1 16
FEH: 30 years: +0 %: 600 mins: Winter	0.24	8.1	115.1 16
FEH: 30 years: +0 %: 720 mins: Summer	0.24	10.9	120.4 44
FEH: 30 years: +0 %: 720 mins: Winter	0.24	7.1	120.4 20
FEH: 30 years: +0 %: 960 mins: Summer	0.24	8.8	129.4 44
FEH: 30 years: +0 %: 960 mins: Winter	0.24	5.7	129.4 50

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.24	6.5	143.8 98
FEH: 30 years: +0 %: 1440 mins: Winter	0.24	4.2	143.7 90
FEH: 30 years: +0 %: 2160 mins: Summer	0.24	4.9	160.3 02
FEH: 30 years: +0 %: 2160 mins: Winter	0.24	3.1	160.3 26
FEH: 30 years: +0 %: 2880 mins: Summer	0.24	3.9	173.5 74
FEH: 30 years: +0 %: 2880 mins: Winter	0.24	2.5	173.7 48
FEH: 30 years: +0 %: 4320 mins: Summer	0.24	3.0	195.9 06
FEH: 30 years: +0 %: 4320 mins: Winter	0.24	1.9	196.2 54

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 5760 mins: Summer	0.24	2.4	215.3 76
FEH: 30 years: +0 %: 5760 mins: Winter	0.24	1.6	215.1 36
FEH: 30 years: +0 %: 7200 mins: Summer	0.24	2.1	232.6 02
FEH: 30 years: +0 %: 7200 mins: Winter	0.24	1.4	232.7 46
FEH: 30 years: +0 %: 8640 mins: Summer	0.24	1.9	249.2 34
FEH: 30 years: +0 %: 8640 mins: Winter	0.24	1.2	249.1 44
FEH: 30 years: +0 %: 10080 mins: Summer	0.24	1.7	265.0 20
FEH: 30 years: +0 %: 10080 mins: Winter	0.24	1.1	265.3 74

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Dock Levellers: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.06	22.6	9.795
FEH: 30 years: +0 %: 15 mins: Winter	0.06	21.2	9.792
FEH: 30 years: +0 %: 30 mins: Summer	0.06	14.8	12.780
FEH: 30 years: +0 %: 30 mins: Winter	0.06	13.8	12.774
FEH: 30 years: +0 %: 60 mins: Summer	0.06	12.8	15.990
FEH: 30 years: +0 %: 60 mins: Winter	0.06	10.3	15.990

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.06	8.9	18.78 0
FEH: 30 years: +0 %: 120 mins: Winter	0.06	6.4	18.77 4
FEH: 30 years: +0 %: 180 mins: Summer	0.06	6.9	20.64 0
FEH: 30 years: +0 %: 180 mins: Winter	0.06	4.8	20.64 0
FEH: 30 years: +0 %: 240 mins: Summer	0.06	5.7	22.11 0
FEH: 30 years: +0 %: 240 mins: Winter	0.06	3.8	22.11 0
FEH: 30 years: +0 %: 360 mins: Summer	0.06	4.3	24.32 4
FEH: 30 years: +0 %: 360 mins: Winter	0.06	2.8	24.33 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 480 mins: Summer	0.06	3.5	26.07 6
FEH: 30 years: +0 %: 480 mins: Winter	0.06	2.3	26.04 6
FEH: 30 years: +0 %: 600 mins: Summer	0.06	3.0	27.51 6
FEH: 30 years: +0 %: 600 mins: Winter	0.06	1.9	27.53 4
FEH: 30 years: +0 %: 720 mins: Summer	0.06	2.6	28.81 2
FEH: 30 years: +0 %: 720 mins: Winter	0.06	1.7	28.82 4
FEH: 30 years: +0 %: 960 mins: Summer	0.06	2.1	30.94 5
FEH: 30 years: +0 %: 960 mins: Winter	0.06	1.4	30.94 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.06	1.6	34.42 2
FEH: 30 years: +0 %: 1440 mins: Winter	0.06	1.0	34.39 8
FEH: 30 years: +0 %: 2160 mins: Summer	0.06	1.2	38.30 4
FEH: 30 years: +0 %: 2160 mins: Winter	0.06	0.8	38.35 2
FEH: 30 years: +0 %: 2880 mins: Summer	0.06	0.9	41.58 0
FEH: 30 years: +0 %: 2880 mins: Winter	0.06	0.6	41.71 8
FEH: 30 years: +0 %: 4320 mins: Summer	0.06	0.7	46.87 2
FEH: 30 years: +0 %: 4320 mins: Winter	0.06	0.5	46.93 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 5760 mins: Summer	0.06	0.6	51.60 0
FEH: 30 years: +0 %: 5760 mins: Winter	0.06	0.4	51.57 6
FEH: 30 years: +0 %: 7200 mins: Summer	0.06	0.5	55.72 2
FEH: 30 years: +0 %: 7200 mins: Winter	0.06	0.3	55.80 6
FEH: 30 years: +0 %: 8640 mins: Summer	0.06	0.4	59.52 0
FEH: 30 years: +0 %: 8640 mins: Winter	0.06	0.3	59.50 2
FEH: 30 years: +0 %: 10080 mins: Summer	0.06	0.4	63.62 4
FEH: 30 years: +0 %: 10080 mins: Winter	0.06	0.3	64.08 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Loading Area 2: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.30	115.0	49.962
FEH: 30 years: +0 %: 15 mins: Winter	0.30	108.0	49.956
FEH: 30 years: +0 %: 30 mins: Summer	0.30	75.3	65.188
FEH: 30 years: +0 %: 30 mins: Winter	0.30	70.6	65.189
FEH: 30 years: +0 %: 60 mins: Summer	0.30	65.3	81.588
FEH: 30 years: +0 %: 60 mins: Winter	0.30	52.5	81.588

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 120 mins: Summer	0.30	45.5	95.79 6
FEH: 30 years: +0 %: 120 mins: Winter	0.30	32.7	95.79 6
FEH: 30 years: +0 %: 180 mins: Summer	0.30	35.3	105.3 66
FEH: 30 years: +0 %: 180 mins: Winter	0.30	24.3	105.3 60
FEH: 30 years: +0 %: 240 mins: Summer	0.30	29.2	112.7 64
FEH: 30 years: +0 %: 240 mins: Winter	0.30	19.6	112.7 58
FEH: 30 years: +0 %: 360 mins: Summer	0.30	22.0	124.0 80
FEH: 30 years: +0 %: 360 mins: Winter	0.30	14.5	124.0 92

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 480 mins: Summer	0.30	18.0	132.9 72
FEH: 30 years: +0 %: 480 mins: Winter	0.30	11.7	132.9 84
FEH: 30 years: +0 %: 600 mins: Summer	0.30	15.3	140.4 36
FEH: 30 years: +0 %: 600 mins: Winter	0.30	9.9	140.4 48
FEH: 30 years: +0 %: 720 mins: Summer	0.30	13.3	146.9 16
FEH: 30 years: +0 %: 720 mins: Winter	0.30	8.6	146.9 04
FEH: 30 years: +0 %: 960 mins: Summer	0.30	10.8	157.8 96
FEH: 30 years: +0 %: 960 mins: Winter	0.30	6.9	157.9 38

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.30	8.0	175.4 46
FEH: 30 years: +0 %: 1440 mins: Winter	0.30	5.1	175.4 64
FEH: 30 years: +0 %: 2160 mins: Summer	0.30	5.9	195.6 06
FEH: 30 years: +0 %: 2160 mins: Winter	0.30	3.8	195.5 82
FEH: 30 years: +0 %: 2880 mins: Summer	0.30	4.8	211.9 92
FEH: 30 years: +0 %: 2880 mins: Winter	0.30	3.1	212.0 22
FEH: 30 years: +0 %: 4320 mins: Summer	0.30	3.6	239.0 28
FEH: 30 years: +0 %: 4320 mins: Winter	0.30	2.3	238.9 86

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 5760 mins: Summer	0.30	3.0	262.4 58
FEH: 30 years: +0 %: 5760 mins: Winter	0.30	1.9	262.6 02
FEH: 30 years: +0 %: 7200 mins: Summer	0.30	2.6	283.8 96
FEH: 30 years: +0 %: 7200 mins: Winter	0.30	1.7	283.5 84
FEH: 30 years: +0 %: 8640 mins: Summer	0.30	2.3	304.0 56
FEH: 30 years: +0 %: 8640 mins: Winter	0.30	1.5	303.6 72
FEH: 30 years: +0 %: 10080 mins: Summer	0.30	2.1	323.4 30
FEH: 30 years: +0 %: 10080 mins: Winter	0.30	1.4	323.3 40

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Cycle
Store: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.04	17.0	7.401
FEH: 30 years: +0 %: 15 mins: Winter	0.04	16.0	7.404
FEH: 30 years: +0 %: 30 mins: Summer	0.04	11.1	9.660
FEH: 30 years: +0 %: 30 mins: Winter	0.04	10.5	9.660
FEH: 30 years: +0 %: 60 mins: Summer	0.04	9.7	12.090
FEH: 30 years: +0 %: 60 mins: Winter	0.04	7.8	12.096

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.04	6.7	14.19 0
FEH: 30 years: +0 %: 120 mins: Winter	0.04	4.9	14.20 2
FEH: 30 years: +0 %: 180 mins: Summer	0.04	5.2	15.60 0
FEH: 30 years: +0 %: 180 mins: Winter	0.04	3.6	15.63 0
FEH: 30 years: +0 %: 240 mins: Summer	0.04	4.3	16.72 2
FEH: 30 years: +0 %: 240 mins: Winter	0.04	2.9	16.71 6
FEH: 30 years: +0 %: 360 mins: Summer	0.04	3.3	18.39 0
FEH: 30 years: +0 %: 360 mins: Winter	0.04	2.2	18.40 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 480 mins: Summer	0.04	2.7	19.68 6
FEH: 30 years: +0 %: 480 mins: Winter	0.04	1.7	19.71 6
FEH: 30 years: +0 %: 600 mins: Summer	0.04	2.3	20.81 4
FEH: 30 years: +0 %: 600 mins: Winter	0.04	1.5	20.80 8
FEH: 30 years: +0 %: 720 mins: Summer	0.04	2.0	21.76 8
FEH: 30 years: +0 %: 720 mins: Winter	0.04	1.3	21.75 0
FEH: 30 years: +0 %: 960 mins: Summer	0.04	1.6	23.40 6
FEH: 30 years: +0 %: 960 mins: Winter	0.04	1.0	23.39 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.04	1.2	25.99 8
FEH: 30 years: +0 %: 1440 mins: Winter	0.04	0.8	25.99 8
FEH: 30 years: +0 %: 2160 mins: Summer	0.04	0.9	29.00 4
FEH: 30 years: +0 %: 2160 mins: Winter	0.04	0.6	29.03 4
FEH: 30 years: +0 %: 2880 mins: Summer	0.04	0.7	31.41 6
FEH: 30 years: +0 %: 2880 mins: Winter	0.04	0.5	31.40 4
FEH: 30 years: +0 %: 4320 mins: Summer	0.04	0.5	35.51 4
FEH: 30 years: +0 %: 4320 mins: Winter	0.04	0.3	35.41 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 5760 mins: Summer	0.04	0.4	38.91 6
FEH: 30 years: +0 %: 5760 mins: Winter	0.04	0.3	38.85 6
FEH: 30 years: +0 %: 7200 mins: Summer	0.04	0.4	42.07 8
FEH: 30 years: +0 %: 7200 mins: Winter	0.04	0.3	41.74 2
FEH: 30 years: +0 %: 8640 mins: Summer	0.04	0.3	45.09 6
FEH: 30 years: +0 %: 8640 mins: Winter	0.04	0.2	45.10 2
FEH: 30 years: +0 %: 10080 mins: Summer	0.04	0.3	48.15 0
FEH: 30 years: +0 %: 10080 mins: Winter	0.04	0.2	48.38 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Car-Park: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.33	127.2	55.236
FEH: 30 years: +0 %: 15 mins: Winter	0.33	119.4	55.236
FEH: 30 years: +0 %: 30 mins: Summer	0.33	83.2	72.075
FEH: 30 years: +0 %: 30 mins: Winter	0.33	78.1	72.077
FEH: 30 years: +0 %: 60 mins: Summer	0.33	72.2	90.210
FEH: 30 years: +0 %: 60 mins: Winter	0.33	58.0	90.204

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 120 mins: Summer	0.33	50.3	105.9 30
FEH: 30 years: +0 %: 120 mins: Winter	0.33	36.2	105.9 24
FEH: 30 years: +0 %: 180 mins: Summer	0.33	39.0	116.4 96
FEH: 30 years: +0 %: 180 mins: Winter	0.33	26.9	116.4 84
FEH: 30 years: +0 %: 240 mins: Summer	0.33	32.3	124.6 92
FEH: 30 years: +0 %: 240 mins: Winter	0.33	21.7	124.6 68
FEH: 30 years: +0 %: 360 mins: Summer	0.33	24.3	137.1 96
FEH: 30 years: +0 %: 360 mins: Winter	0.33	16.0	137.2 02

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 480 mins: Summer	0.33	19.9	147.0 30
FEH: 30 years: +0 %: 480 mins: Winter	0.33	12.9	147.0 30
FEH: 30 years: +0 %: 600 mins: Summer	0.33	16.9	155.2 68
FEH: 30 years: +0 %: 600 mins: Winter	0.33	10.9	155.2 56
FEH: 30 years: +0 %: 720 mins: Summer	0.33	14.7	162.4 44
FEH: 30 years: +0 %: 720 mins: Winter	0.33	9.5	162.4 44
FEH: 30 years: +0 %: 960 mins: Summer	0.33	11.9	174.5 88
FEH: 30 years: +0 %: 960 mins: Winter	0.33	7.7	174.5 94

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.33	8.8	194.0 28
FEH: 30 years: +0 %: 1440 mins: Winter	0.33	5.7	194.0 37
FEH: 30 years: +0 %: 2160 mins: Summer	0.33	6.5	216.2 16
FEH: 30 years: +0 %: 2160 mins: Winter	0.33	4.2	216.2 10
FEH: 30 years: +0 %: 2880 mins: Summer	0.33	5.3	234.3 84
FEH: 30 years: +0 %: 2880 mins: Winter	0.33	3.4	234.2 70
FEH: 30 years: +0 %: 4320 mins: Summer	0.33	4.0	264.6 18
FEH: 30 years: +0 %: 4320 mins: Winter	0.33	2.6	264.3 78

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 5760 mins: Summer	0.33	3.3	290.1 66
FEH: 30 years: +0 %: 5760 mins: Winter	0.33	2.1	290.0 22
FEH: 30 years: +0 %: 7200 mins: Summer	0.33	2.9	313.7 94
FEH: 30 years: +0 %: 7200 mins: Winter	0.33	1.8	313.3 74
FEH: 30 years: +0 %: 8640 mins: Summer	0.33	2.5	336.2 22
FEH: 30 years: +0 %: 8640 mins: Winter	0.33	1.6	336.2 16
FEH: 30 years: +0 %: 10080 mins: Summer	0.33	2.3	357.6 78
FEH: 30 years: +0 %: 10080 mins: Winter	0.33	1.5	357.1 02

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +0: Summary Results for
Access Road: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.04	14.0	6.084
FEH: 30 years: +0 %: 15 mins: Winter	0.04	13.1	6.084
FEH: 30 years: +0 %: 30 mins: Summer	0.04	9.2	7.932
FEH: 30 years: +0 %: 30 mins: Winter	0.04	8.6	7.938
FEH: 30 years: +0 %: 60 mins: Summer	0.04	8.0	9.936
FEH: 30 years: +0 %: 60 mins: Winter	0.04	6.4	9.930

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.04	5.5	11.67 0
FEH: 30 years: +0 %: 120 mins: Winter	0.04	4.0	11.65 2
FEH: 30 years: +0 %: 180 mins: Summer	0.04	4.3	12.83 4
FEH: 30 years: +0 %: 180 mins: Winter	0.04	3.0	12.84 0
FEH: 30 years: +0 %: 240 mins: Summer	0.04	3.6	13.72 8
FEH: 30 years: +0 %: 240 mins: Winter	0.04	2.4	13.72 2
FEH: 30 years: +0 %: 360 mins: Summer	0.04	2.7	15.12 0
FEH: 30 years: +0 %: 360 mins: Winter	0.04	1.8	15.10 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 480 mins: Summer	0.04	2.2	16.18 8
FEH: 30 years: +0 %: 480 mins: Winter	0.04	1.4	16.19 4
FEH: 30 years: +0 %: 600 mins: Summer	0.04	1.9	17.10 0
FEH: 30 years: +0 %: 600 mins: Winter	0.04	1.2	17.07 0
FEH: 30 years: +0 %: 720 mins: Summer	0.04	1.6	17.86 8
FEH: 30 years: +0 %: 720 mins: Winter	0.04	1.0	17.86 2
FEH: 30 years: +0 %: 960 mins: Summer	0.04	1.3	19.20 0
FEH: 30 years: +0 %: 960 mins: Winter	0.04	0.8	19.23 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.04	1.0	21.34 8
FEH: 30 years: +0 %: 1440 mins: Winter	0.04	0.6	21.39 6
FEH: 30 years: +0 %: 2160 mins: Summer	0.04	0.7	23.80 8
FEH: 30 years: +0 %: 2160 mins: Winter	0.04	0.5	23.80 8
FEH: 30 years: +0 %: 2880 mins: Summer	0.04	0.6	25.83 6
FEH: 30 years: +0 %: 2880 mins: Winter	0.04	0.4	25.88 4
FEH: 30 years: +0 %: 4320 mins: Summer	0.04	0.4	29.14 2
FEH: 30 years: +0 %: 4320 mins: Winter	0.04	0.3	29.04 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 5760 mins: Summer	0.04	0.4	31.80 0
FEH: 30 years: +0 %: 5760 mins: Winter	0.04	0.2	31.91 4
FEH: 30 years: +0 %: 7200 mins: Summer	0.04	0.3	34.72 8
FEH: 30 years: +0 %: 7200 mins: Winter	0.04	0.2	35.05 8
FEH: 30 years: +0 %: 8640 mins: Summer	0.04	0.3	36.92 4
FEH: 30 years: +0 %: 8640 mins: Winter	0.04	0.2	36.71 4
FEH: 30 years: +0 %: 10080 mins: Summer	0.04	0.3	39.09 0
FEH: 30 years: +0 %: 10080 mins: Winter	0.04	0.2	39.43 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Foot Path North: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.01	4.8	2.088
FEH: 30 years: +0 %: 15 mins: Winter	0.01	4.5	2.091
FEH: 30 years: +0 %: 30 mins: Summer	0.01	3.2	2.730
FEH: 30 years: +0 %: 30 mins: Winter	0.01	3.0	2.724
FEH: 30 years: +0 %: 60 mins: Summer	0.01	2.7	3.414
FEH: 30 years: +0 %: 60 mins: Winter	0.01	2.2	3.414

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.01	1.9	4.008
FEH: 30 years: +0 %: 120 mins: Winter	0.01	1.4	4.014
FEH: 30 years: +0 %: 180 mins: Summer	0.01	1.5	4.416
FEH: 30 years: +0 %: 180 mins: Winter	0.01	1.0	4.392
FEH: 30 years: +0 %: 240 mins: Summer	0.01	1.2	4.716
FEH: 30 years: +0 %: 240 mins: Winter	0.01	0.8	4.716
FEH: 30 years: +0 %: 360 mins: Summer	0.01	0.9	5.202
FEH: 30 years: +0 %: 360 mins: Winter	0.01	0.6	5.178

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 480 mins: Summer	0.01	0.8	5.544
FEH: 30 years: +0 %: 480 mins: Winter	0.01	0.5	5.586
FEH: 30 years: +0 %: 600 mins: Summer	0.01	0.6	5.874
FEH: 30 years: +0 %: 600 mins: Winter	0.01	0.4	5.880
FEH: 30 years: +0 %: 720 mins: Summer	0.01	0.6	6.144
FEH: 30 years: +0 %: 720 mins: Winter	0.01	0.4	6.132
FEH: 30 years: +0 %: 960 mins: Summer	0.01	0.4	6.588
FEH: 30 years: +0 %: 960 mins: Winter	0.01	0.3	6.600

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.01	0.3	7.308
FEH: 30 years: +0 %: 1440 mins: Winter	0.01	0.2	7.368
FEH: 30 years: +0 %: 2160 mins: Summer	0.01	0.3	8.178
FEH: 30 years: +0 %: 2160 mins: Winter	0.01	0.2	8.244
FEH: 30 years: +0 %: 2880 mins: Summer	0.01	0.2	8.940
FEH: 30 years: +0 %: 2880 mins: Winter	0.01	0.1	8.862
FEH: 30 years: +0 %: 4320 mins: Summer	0.01	0.2	9.990
FEH: 30 years: +0 %: 4320 mins: Winter	0.01	0.1	10.16 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 5760 mins: Summer	0.01	0.1	10.71 6
FEH: 30 years: +0 %: 5760 mins: Winter	0.01	0.1	10.71 0
FEH: 30 years: +0 %: 7200 mins: Summer	0.01	0.1	11.75 4
FEH: 30 years: +0 %: 7200 mins: Winter	0.01	0.1	11.65 8
FEH: 30 years: +0 %: 8640 mins: Summer	0.01	0.1	12.74 4
FEH: 30 years: +0 %: 8640 mins: Winter	0.01	0.1	12.54 6
FEH: 30 years: +0 %: 10080 mins: Summer	0.01	0.1	13.78 8
FEH: 30 years: +0 %: 10080 mins: Winter	0.01	0.1	13.43 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Roof to S9: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.04	14.3	6.228
FEH: 30 years: +0 %: 15 mins: Winter	0.04	13.5	6.228
FEH: 30 years: +0 %: 30 mins: Summer	0.04	9.4	8.124
FEH: 30 years: +0 %: 30 mins: Winter	0.04	8.8	8.130
FEH: 30 years: +0 %: 60 mins: Summer	0.04	8.1	10.170
FEH: 30 years: +0 %: 60 mins: Winter	0.04	6.6	10.170

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 120 mins: Summer	0.04	5.7	11.94 0
FEH: 30 years: +0 %: 120 mins: Winter	0.04	4.1	11.95 2
FEH: 30 years: +0 %: 180 mins: Summer	0.04	4.4	13.15 2
FEH: 30 years: +0 %: 180 mins: Winter	0.04	3.0	13.14 0
FEH: 30 years: +0 %: 240 mins: Summer	0.04	3.6	14.05 8
FEH: 30 years: +0 %: 240 mins: Winter	0.04	2.5	14.04 0
FEH: 30 years: +0 %: 360 mins: Summer	0.04	2.7	15.48 6
FEH: 30 years: +0 %: 360 mins: Winter	0.04	1.8	15.45 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 480 mins: Summer	0.04	2.3	16.57 8
FEH: 30 years: +0 %: 480 mins: Winter	0.04	1.5	16.60 2
FEH: 30 years: +0 %: 600 mins: Summer	0.04	1.9	17.50 2
FEH: 30 years: +0 %: 600 mins: Winter	0.04	1.2	17.53 8
FEH: 30 years: +0 %: 720 mins: Summer	0.04	1.7	18.33 0
FEH: 30 years: +0 %: 720 mins: Winter	0.04	1.1	18.35 4
FEH: 30 years: +0 %: 960 mins: Summer	0.04	1.3	19.68 6
FEH: 30 years: +0 %: 960 mins: Winter	0.04	0.9	19.66 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.04	1.0	21.84 0
FEH: 30 years: +0 %: 1440 mins: Winter	0.04	0.6	21.83 4
FEH: 30 years: +0 %: 2160 mins: Summer	0.04	0.7	24.40 8
FEH: 30 years: +0 %: 2160 mins: Winter	0.04	0.5	24.33 6
FEH: 30 years: +0 %: 2880 mins: Summer	0.04	0.6	26.47 2
FEH: 30 years: +0 %: 2880 mins: Winter	0.04	0.4	26.51 4
FEH: 30 years: +0 %: 4320 mins: Summer	0.04	0.4	29.84 4
FEH: 30 years: +0 %: 4320 mins: Winter	0.04	0.3	29.74 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 5760 mins: Summer	0.04	0.4	32.69 4
FEH: 30 years: +0 %: 5760 mins: Winter	0.04	0.2	32.63 4
FEH: 30 years: +0 %: 7200 mins: Summer	0.04	0.3	35.34 6
FEH: 30 years: +0 %: 7200 mins: Winter	0.04	0.2	35.68 8
FEH: 30 years: +0 %: 8640 mins: Summer	0.04	0.3	37.95 0
FEH: 30 years: +0 %: 8640 mins: Winter	0.04	0.2	37.54 2
FEH: 30 years: +0 %: 10080 mins: Summer	0.04	0.3	40.15 2
FEH: 30 years: +0 %: 10080 mins: Winter	0.04	0.2	40.27 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Roof S16: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.69	270.1	117.291
FEH: 30 years: +0 %: 15 mins: Winter	0.69	253.5	117.293
FEH: 30 years: +0 %: 30 mins: Summer	0.69	176.7	153.055
FEH: 30 years: +0 %: 30 mins: Winter	0.69	165.8	153.046
FEH: 30 years: +0 %: 60 mins: Summer	0.69	153.3	191.556
FEH: 30 years: +0 %: 60 mins: Winter	0.69	123.3	191.562

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.69	106.7	224.9 22
FEH: 30 years: +0 %: 120 mins: Winter	0.69	76.8	224.9 22
FEH: 30 years: +0 %: 180 mins: Summer	0.69	82.9	247.3 86
FEH: 30 years: +0 %: 180 mins: Winter	0.69	57.1	247.3 83
FEH: 30 years: +0 %: 240 mins: Summer	0.69	68.6	264.7 38
FEH: 30 years: +0 %: 240 mins: Winter	0.69	46.1	264.7 50
FEH: 30 years: +0 %: 360 mins: Summer	0.69	51.6	291.3 30
FEH: 30 years: +0 %: 360 mins: Winter	0.69	34.0	291.3 30

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 480 mins: Summer	0.69	42.4	312.2 04
FEH: 30 years: +0 %: 480 mins: Winter	0.69	27.4	312.1 89
FEH: 30 years: +0 %: 600 mins: Summer	0.69	35.9	329.6 88
FEH: 30 years: +0 %: 600 mins: Winter	0.69	23.2	329.6 76
FEH: 30 years: +0 %: 720 mins: Summer	0.69	31.3	344.8 80
FEH: 30 years: +0 %: 720 mins: Winter	0.69	20.2	344.9 10
FEH: 30 years: +0 %: 960 mins: Summer	0.69	25.2	370.7 91
FEH: 30 years: +0 %: 960 mins: Winter	0.69	16.3	370.7 82

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 1440 mins: Summer	0.69	18.7	412.0 38
FEH: 30 years: +0 %: 1440 mins: Winter	0.69	12.1	412.0 38
FEH: 30 years: +0 %: 2160 mins: Summer	0.69	13.9	459.2 22
FEH: 30 years: +0 %: 2160 mins: Winter	0.69	9.0	459.2 64
FEH: 30 years: +0 %: 2880 mins: Summer	0.69	11.3	497.7 96
FEH: 30 years: +0 %: 2880 mins: Winter	0.69	7.3	497.7 60
FEH: 30 years: +0 %: 4320 mins: Summer	0.69	8.5	561.4 44
FEH: 30 years: +0 %: 4320 mins: Winter	0.69	5.5	561.4 80

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 5760 mins: Summer	0.69	7.0	616.1 58
FEH: 30 years: +0 %: 5760 mins: Winter	0.69	4.5	616.1 34
FEH: 30 years: +0 %: 7200 mins: Summer	0.69	6.1	666.4 74
FEH: 30 years: +0 %: 7200 mins: Winter	0.69	3.9	666.7 44
FEH: 30 years: +0 %: 8640 mins: Summer	0.69	5.4	713.4 21
FEH: 30 years: +0 %: 8640 mins: Winter	0.69	3.5	713.4 18
FEH: 30 years: +0 %: 10080 mins: Summer	0.69	4.9	758.7 78
FEH: 30 years: +0 %: 10080 mins: Winter	0.69	3.2	759.2 52

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +0: Summary Results for Unit 4
Roof S15: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +0 %: 15 mins: Summer	0.23	91.5	39.744
FEH: 30 years: +0 %: 15 mins: Winter	0.23	85.9	39.741
FEH: 30 years: +0 %: 30 mins: Summer	0.23	59.9	51.862
FEH: 30 years: +0 %: 30 mins: Winter	0.23	56.2	51.863
FEH: 30 years: +0 %: 60 mins: Summer	0.23	51.9	64.902
FEH: 30 years: +0 %: 60 mins: Winter	0.23	41.8	64.908

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 120 mins: Summer	0.23	36.2	76.21 8
FEH: 30 years: +0 %: 120 mins: Winter	0.23	26.0	76.22 4
FEH: 30 years: +0 %: 180 mins: Summer	0.23	28.1	83.82 0
FEH: 30 years: +0 %: 180 mins: Winter	0.23	19.4	83.82 0
FEH: 30 years: +0 %: 240 mins: Summer	0.23	23.2	89.71 8
FEH: 30 years: +0 %: 240 mins: Winter	0.23	15.6	89.69 4
FEH: 30 years: +0 %: 360 mins: Summer	0.23	17.5	98.70 6
FEH: 30 years: +0 %: 360 mins: Winter	0.23	11.5	98.71 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +0 %: 480 mins: Summer	0.23	14.3	105.8 10
FEH: 30 years: +0 %: 480 mins: Winter	0.23	9.3	105.7 80
FEH: 30 years: +0 %: 600 mins: Summer	0.23	12.2	111.7 47
FEH: 30 years: +0 %: 600 mins: Winter	0.23	7.8	111.6 96
FEH: 30 years: +0 %: 720 mins: Summer	0.23	10.6	116.9 04
FEH: 30 years: +0 %: 720 mins: Winter	0.23	6.8	116.8 68
FEH: 30 years: +0 %: 960 mins: Summer	0.23	8.6	125.6 34
FEH: 30 years: +0 %: 960 mins: Winter	0.23	5.5	125.6 28

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 1440 mins: Summer	0.23	6.3	139.6 08
FEH: 30 years: +0 %: 1440 mins: Winter	0.23	4.1	139.6 38
FEH: 30 years: +0 %: 2160 mins: Summer	0.23	4.7	155.6 40
FEH: 30 years: +0 %: 2160 mins: Winter	0.23	3.0	155.6 94
FEH: 30 years: +0 %: 2880 mins: Summer	0.23	3.8	168.6 24
FEH: 30 years: +0 %: 2880 mins: Winter	0.23	2.5	168.6 00
FEH: 30 years: +0 %: 4320 mins: Summer	0.23	2.9	190.3 44
FEH: 30 years: +0 %: 4320 mins: Winter	0.23	1.9	190.4 64

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +0 %: 5760 mins: Summer	0.23	2.4	208.9 38
FEH: 30 years: +0 %: 5760 mins: Winter	0.23	1.5	208.6 74
FEH: 30 years: +0 %: 7200 mins: Summer	0.23	2.0	225.6 78
FEH: 30 years: +0 %: 7200 mins: Winter	0.23	1.3	225.8 34
FEH: 30 years: +0 %: 8640 mins: Summer	0.23	1.8	241.5 90
FEH: 30 years: +0 %: 8640 mins: Winter	0.23	1.2	241.8 00
FEH: 30 years: +0 %: 10080 mins: Summer	0.23	1.7	257.2 74
FEH: 30 years: +0 %: 10080 mins: Winter	0.23	1.1	257.6 22

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Rear Footpath: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.03	17.3	7.512
FEH: 30 years: +40 %: 15 mins: Winter	0.03	16.2	7.509
FEH: 30 years: +40 %: 30 mins: Summer	0.03	11.3	9.798
FEH: 30 years: +40 %: 30 mins: Winter	0.03	10.6	9.804
FEH: 30 years: +40 %: 60 mins: Summer	0.03	9.8	12.258
FEH: 30 years: +40 %: 60 mins: Winter	0.03	7.9	12.258

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.03	6.8	14.39 4
FEH: 30 years: +40 %: 120 mins: Winter	0.03	4.9	14.39 4
FEH: 30 years: +40 %: 180 mins: Summer	0.03	5.3	15.84 6
FEH: 30 years: +40 %: 180 mins: Winter	0.03	3.7	15.83 4
FEH: 30 years: +40 %: 240 mins: Summer	0.03	4.4	16.95 6
FEH: 30 years: +40 %: 240 mins: Winter	0.03	3.0	16.93 2
FEH: 30 years: +40 %: 360 mins: Summer	0.03	3.3	18.64 2
FEH: 30 years: +40 %: 360 mins: Winter	0.03	2.2	18.64 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 480 mins: Summer	0.03	2.7	19.98 6
FEH: 30 years: +40 %: 480 mins: Winter	0.03	1.8	19.99 2
FEH: 30 years: +40 %: 600 mins: Summer	0.03	2.3	21.12 0
FEH: 30 years: +40 %: 600 mins: Winter	0.03	1.5	21.11 4
FEH: 30 years: +40 %: 720 mins: Summer	0.03	2.0	22.08 6
FEH: 30 years: +40 %: 720 mins: Winter	0.03	1.3	22.09 2
FEH: 30 years: +40 %: 960 mins: Summer	0.03	1.6	23.74 2
FEH: 30 years: +40 %: 960 mins: Winter	0.03	1.0	23.70 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 1440 mins: Summer	0.03	1.2	26.43 0
FEH: 30 years: +40 %: 1440 mins: Winter	0.03	0.8	26.38 2
FEH: 30 years: +40 %: 2160 mins: Summer	0.03	0.9	29.39 4
FEH: 30 years: +40 %: 2160 mins: Winter	0.03	0.6	29.38 8
FEH: 30 years: +40 %: 2880 mins: Summer	0.03	0.7	31.77 0
FEH: 30 years: +40 %: 2880 mins: Winter	0.03	0.5	31.84 2
FEH: 30 years: +40 %: 4320 mins: Summer	0.03	0.5	36.02 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.03	0.3	35.79 6
FEH: 30 years: +40 %: 5760 mins: Summer	0.03	0.4	39.41 4
FEH: 30 years: +40 %: 5760 mins: Winter	0.03	0.3	39.34 8
FEH: 30 years: +40 %: 7200 mins: Summer	0.03	0.4	42.75 6
FEH: 30 years: +40 %: 7200 mins: Winter	0.03	0.3	42.58 8
FEH: 30 years: +40 %: 8640 mins: Summer	0.03	0.3	45.61 2
FEH: 30 years: +40 %: 8640 mins: Winter	0.03	0.2	45.62 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.03	0.3	48.86 4
FEH: 30 years: +40 %: 10080 mins: Winter	0.03	0.2	49.20 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Loading Area 1: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.24	132.0	57.328
FEH: 30 years: +40 %: 15 mins: Winter	0.24	123.9	57.328
FEH: 30 years: +40 %: 30 mins: Summer	0.24	86.3	74.808
FEH: 30 years: +40 %: 30 mins: Winter	0.24	81.0	74.808
FEH: 30 years: +40 %: 60 mins: Summer	0.24	74.9	93.618
FEH: 30 years: +40 %: 60 mins: Winter	0.24	60.3	93.617

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 120 mins: Summer	0.24	52.2	109.9 26
FEH: 30 years: +40 %: 120 mins: Winter	0.24	37.5	109.9 38
FEH: 30 years: +40 %: 180 mins: Summer	0.24	40.5	120.9 12
FEH: 30 years: +40 %: 180 mins: Winter	0.24	27.9	120.9 06
FEH: 30 years: +40 %: 240 mins: Summer	0.24	33.5	129.4 02
FEH: 30 years: +40 %: 240 mins: Winter	0.24	22.5	129.3 84
FEH: 30 years: +40 %: 360 mins: Summer	0.24	25.2	142.3 98
FEH: 30 years: +40 %: 360 mins: Winter	0.24	16.6	142.3 92

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %:	0.24	20.7	152.5 92
480 mins: Summer			
FEH: 30 years: +40 %:	0.24	13.4	152.5 86
480 mins: Winter			
FEH: 30 years: +40 %:	0.24	17.6	161.1 42
600 mins: Summer			
FEH: 30 years: +40 %:	0.24	11.3	161.1 48
600 mins: Winter			
FEH: 30 years: +40 %:	0.24	15.3	168.5 76
720 mins: Summer			
FEH: 30 years: +40 %:	0.24	9.9	168.5 76
720 mins: Winter			
FEH: 30 years: +40 %:	0.24	12.3	181.1 94
960 mins: Summer			
FEH: 30 years: +40 %:	0.24	8.0	181.2 12
960 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 1440 mins: Summer	0.24	9.1	201.4 26
FEH: 30 years: +40 %: 1440 mins: Winter	0.24	5.9	201.4 26
FEH: 30 years: +40 %: 2160 mins: Summer	0.24	6.8	224.5 20
FEH: 30 years: +40 %: 2160 mins: Winter	0.24	4.4	224.4 90
FEH: 30 years: +40 %: 2880 mins: Summer	0.24	5.5	243.2 22
FEH: 30 years: +40 %: 2880 mins: Winter	0.24	3.6	243.3 12
FEH: 30 years: +40 %: 4320 mins: Summer	0.24	4.2	274.3 62

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 4320 mins: Winter	0.24	2.7	274.4 46
FEH: 30 years: +40 %: 5760 mins: Summer	0.24	3.4	301.0 80
FEH: 30 years: +40 %: 5760 mins: Winter	0.24	2.2	301.1 58
FEH: 30 years: +40 %: 7200 mins: Summer	0.24	3.0	325.8 12
FEH: 30 years: +40 %: 7200 mins: Winter	0.24	1.9	325.8 84
FEH: 30 years: +40 %: 8640 mins: Summer	0.24	2.6	348.7 98
FEH: 30 years: +40 %: 8640 mins: Winter	0.24	1.7	348.8 76

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.24	2.4	370.6 20
FEH: 30 years: +40 %: 10080 mins: Winter	0.24	1.6	370.6 26

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Unit
4 Dock Levellers: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.06	31.6	13.707
FEH: 30 years: +40 %: 15 mins: Winter	0.06	29.6	13.713
FEH: 30 years: +40 %: 30 mins: Summer	0.06	20.6	17.886
FEH: 30 years: +40 %: 30 mins: Winter	0.06	19.4	17.892
FEH: 30 years: +40 %: 60 mins: Summer	0.06	17.9	22.392
FEH: 30 years: +40 %: 60 mins: Winter	0.06	14.4	22.392

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.06	12.5	26.29 2
FEH: 30 years: +40 %: 120 mins: Winter	0.06	9.0	26.29 2
FEH: 30 years: +40 %: 180 mins: Summer	0.06	9.7	28.92 0
FEH: 30 years: +40 %: 180 mins: Winter	0.06	6.7	28.90 2
FEH: 30 years: +40 %: 240 mins: Summer	0.06	8.0	30.94 2
FEH: 30 years: +40 %: 240 mins: Winter	0.06	5.4	30.94 8
FEH: 30 years: +40 %: 360 mins: Summer	0.06	6.0	34.06 2
FEH: 30 years: +40 %: 360 mins: Winter	0.06	4.0	34.04 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 480 mins: Summer	0.06	4.9	36.48 0
FEH: 30 years: +40 %: 480 mins: Winter	0.06	3.2	36.48 0
FEH: 30 years: +40 %: 600 mins: Summer	0.06	4.2	38.53 2
FEH: 30 years: +40 %: 600 mins: Winter	0.06	2.7	38.55 0
FEH: 30 years: +40 %: 720 mins: Summer	0.06	3.7	40.32 6
FEH: 30 years: +40 %: 720 mins: Winter	0.06	2.4	40.31 4
FEH: 30 years: +40 %: 960 mins: Summer	0.06	3.0	43.36 2
FEH: 30 years: +40 %: 960 mins: Winter	0.06	1.9	43.35 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 1440 mins: Summer	0.06	2.2	48.19 2
FEH: 30 years: +40 %: 1440 mins: Winter	0.06	1.4	48.15 6
FEH: 30 years: +40 %: 2160 mins: Summer	0.06	1.6	53.64 6
FEH: 30 years: +40 %: 2160 mins: Winter	0.06	1.0	53.65 8
FEH: 30 years: +40 %: 2880 mins: Summer	0.06	1.3	58.09 8
FEH: 30 years: +40 %: 2880 mins: Winter	0.06	0.9	58.09 8
FEH: 30 years: +40 %: 4320 mins: Summer	0.06	1.0	65.53 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.06	0.6	65.46 6
FEH: 30 years: +40 %: 5760 mins: Summer	0.06	0.8	72.21 0
FEH: 30 years: +40 %: 5760 mins: Winter	0.06	0.5	72.07 2
FEH: 30 years: +40 %: 7200 mins: Summer	0.06	0.7	77.85 0
FEH: 30 years: +40 %: 7200 mins: Winter	0.06	0.5	78.09 0
FEH: 30 years: +40 %: 8640 mins: Summer	0.06	0.6	83.35 8
FEH: 30 years: +40 %: 8640 mins: Winter	0.06	0.4	83.08 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.06	0.6	88.78 8
FEH: 30 years: +40 %: 10080 mins: Winter	0.06	0.4	89.15 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Loading Area 2: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.30	161.1	69.940
FEH: 30 years: +40 %: 15 mins: Winter	0.30	151.2	69.943
FEH: 30 years: +40 %: 30 mins: Summer	0.30	105.4	91.266
FEH: 30 years: +40 %: 30 mins: Winter	0.30	98.9	91.260
FEH: 30 years: +40 %: 60 mins: Summer	0.30	91.4	114.222
FEH: 30 years: +40 %: 60 mins: Winter	0.30	73.5	114.215

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.30	63.6	134.1 18
FEH: 30 years: +40 %: 120 mins: Winter	0.30	45.8	134.1 12
FEH: 30 years: +40 %: 180 mins: Summer	0.30	49.4	147.5 22
FEH: 30 years: +40 %: 180 mins: Winter	0.30	34.1	147.5 16
FEH: 30 years: +40 %: 240 mins: Summer	0.30	40.9	157.8 66
FEH: 30 years: +40 %: 240 mins: Winter	0.30	27.5	157.8 60
FEH: 30 years: +40 %: 360 mins: Summer	0.30	30.8	173.7 18
FEH: 30 years: +40 %: 360 mins: Winter	0.30	20.3	173.7 30

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %:	0.30	25.3	186.1 62
480 mins: Summer			
FEH: 30 years: +40 %:	0.30	16.3	186.1 62
480 mins: Winter			
FEH: 30 years: +40 %:	0.30	21.4	196.5 90
600 mins: Summer			
FEH: 30 years: +40 %:	0.30	13.8	196.6 02
600 mins: Winter			
FEH: 30 years: +40 %:	0.30	18.7	205.6 74
720 mins: Summer			
FEH: 30 years: +40 %:	0.30	12.0	205.6 62
720 mins: Winter			
FEH: 30 years: +40 %:	0.30	15.0	221.0 94
960 mins: Summer			
FEH: 30 years: +40 %:	0.30	9.7	221.1 18
960 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 1440 mins: Summer	0.30	11.1	245.7 24
FEH: 30 years: +40 %: 1440 mins: Winter	0.30	7.2	245.6 70
FEH: 30 years: +40 %: 2160 mins: Summer	0.30	8.3	273.8 22
FEH: 30 years: +40 %: 2160 mins: Winter	0.30	5.3	273.8 40
FEH: 30 years: +40 %: 2880 mins: Summer	0.30	6.7	296.8 08
FEH: 30 years: +40 %: 2880 mins: Winter	0.30	4.3	296.7 48
FEH: 30 years: +40 %: 4320 mins: Summer	0.30	5.1	335.0 40

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 4320 mins: Winter	0.30	3.3	334.8 06
FEH: 30 years: +40 %: 5760 mins: Summer	0.30	4.2	367.4 52
FEH: 30 years: +40 %: 5760 mins: Winter	0.30	2.7	367.3 62
FEH: 30 years: +40 %: 7200 mins: Summer	0.30	3.6	397.2 72
FEH: 30 years: +40 %: 7200 mins: Winter	0.30	2.3	397.2 00
FEH: 30 years: +40 %: 8640 mins: Summer	0.30	3.2	425.5 98
FEH: 30 years: +40 %: 8640 mins: Winter	0.30	2.1	425.8 14

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.30	2.9	452.5 14
FEH: 30 years: +40 %: 10080 mins: Winter	0.30	1.9	452.4 06

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +40: Summary Results for
Cycle Store: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.04	23.9	10.365
FEH: 30 years: +40 %: 15 mins: Winter	0.04	22.4	10.368
FEH: 30 years: +40 %: 30 mins: Summer	0.04	15.6	13.524
FEH: 30 years: +40 %: 30 mins: Winter	0.04	14.7	13.524
FEH: 30 years: +40 %: 60 mins: Summer	0.04	13.6	16.926
FEH: 30 years: +40 %: 60 mins: Winter	0.04	10.9	16.926

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.04	9.4	19.87 8
FEH: 30 years: +40 %: 120 mins: Winter	0.04	6.8	19.87 8
FEH: 30 years: +40 %: 180 mins: Summer	0.04	7.3	21.86 4
FEH: 30 years: +40 %: 180 mins: Winter	0.04	5.0	21.85 8
FEH: 30 years: +40 %: 240 mins: Summer	0.04	6.1	23.40 0
FEH: 30 years: +40 %: 240 mins: Winter	0.04	4.1	23.38 8
FEH: 30 years: +40 %: 360 mins: Summer	0.04	4.6	25.73 4
FEH: 30 years: +40 %: 360 mins: Winter	0.04	3.0	25.75 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 480 mins: Summer	0.04	3.7	27.60 6
FEH: 30 years: +40 %: 480 mins: Winter	0.04	2.4	27.59 4
FEH: 30 years: +40 %: 600 mins: Summer	0.04	3.2	29.13 6
FEH: 30 years: +40 %: 600 mins: Winter	0.04	2.0	29.11 8
FEH: 30 years: +40 %: 720 mins: Summer	0.04	2.8	30.48 0
FEH: 30 years: +40 %: 720 mins: Winter	0.04	1.8	30.48 0
FEH: 30 years: +40 %: 960 mins: Summer	0.04	2.2	32.77 2
FEH: 30 years: +40 %: 960 mins: Winter	0.04	1.4	32.73 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 1440 mins: Summer	0.04	1.6	36.39 6
FEH: 30 years: +40 %: 1440 mins: Winter	0.04	1.1	36.39 6
FEH: 30 years: +40 %: 2160 mins: Summer	0.04	1.2	40.58 4
FEH: 30 years: +40 %: 2160 mins: Winter	0.04	0.8	40.59 6
FEH: 30 years: +40 %: 2880 mins: Summer	0.04	1.0	43.89 6
FEH: 30 years: +40 %: 2880 mins: Winter	0.04	0.6	43.85 4
FEH: 30 years: +40 %: 4320 mins: Summer	0.04	0.8	49.63 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.04	0.5	49.72 2
FEH: 30 years: +40 %: 5760 mins: Summer	0.04	0.6	54.46 8
FEH: 30 years: +40 %: 5760 mins: Winter	0.04	0.4	54.52 8
FEH: 30 years: +40 %: 7200 mins: Summer	0.04	0.5	58.83 0
FEH: 30 years: +40 %: 7200 mins: Winter	0.04	0.3	58.83 0
FEH: 30 years: +40 %: 8640 mins: Summer	0.04	0.5	62.94 0
FEH: 30 years: +40 %: 8640 mins: Winter	0.04	0.3	62.82 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.04	0.4	67.13 4
FEH: 30 years: +40 %: 10080 mins: Winter	0.04	0.3	67.02 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Car-Park: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.33	178.1	77.332
FEH: 30 years: +40 %: 15 mins: Winter	0.33	167.1	77.332
FEH: 30 years: +40 %: 30 mins: Summer	0.33	116.5	100.902
FEH: 30 years: +40 %: 30 mins: Winter	0.33	109.3	100.908
FEH: 30 years: +40 %: 60 mins: Summer	0.33	101.1	126.294
FEH: 30 years: +40 %: 60 mins: Winter	0.33	81.3	126.293

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.33	70.4	148.2 84
FEH: 30 years: +40 %: 120 mins: Winter	0.33	50.6	148.2 90
FEH: 30 years: +40 %: 180 mins: Summer	0.33	54.6	163.0 92
FEH: 30 years: +40 %: 180 mins: Winter	0.33	37.7	163.0 92
FEH: 30 years: +40 %: 240 mins: Summer	0.33	45.2	174.5 52
FEH: 30 years: +40 %: 240 mins: Winter	0.33	30.4	174.5 46
FEH: 30 years: +40 %: 360 mins: Summer	0.33	34.0	192.0 78
FEH: 30 years: +40 %: 360 mins: Winter	0.33	22.4	192.0 84

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 480 mins: Summer	0.33	27.9	205.8 24
FEH: 30 years: +40 %: 480 mins: Winter	0.33	18.1	205.8 66
FEH: 30 years: +40 %: 600 mins: Summer	0.33	23.7	217.3 38
FEH: 30 years: +40 %: 600 mins: Winter	0.33	15.3	217.3 74
FEH: 30 years: +40 %: 720 mins: Summer	0.33	20.6	227.4 03
FEH: 30 years: +40 %: 720 mins: Winter	0.33	13.3	227.3 94
FEH: 30 years: +40 %: 960 mins: Summer	0.33	16.6	244.4 58
FEH: 30 years: +40 %: 960 mins: Winter	0.33	10.7	244.4 58

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 1440 mins: Summer	0.33	12.3	271.6 20
FEH: 30 years: +40 %: 1440 mins: Winter	0.33	8.0	271.6 02
FEH: 30 years: +40 %: 2160 mins: Summer	0.33	9.2	302.7 24
FEH: 30 years: +40 %: 2160 mins: Winter	0.33	5.9	302.7 72
FEH: 30 years: +40 %: 2880 mins: Summer	0.33	7.4	328.1 94
FEH: 30 years: +40 %: 2880 mins: Winter	0.33	4.8	328.2 12
FEH: 30 years: +40 %: 4320 mins: Summer	0.33	5.6	370.1 34

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 4320 mins: Winter	0.33	3.6	370.1 88
FEH: 30 years: +40 %: 5760 mins: Summer	0.33	4.6	406.3 56
FEH: 30 years: +40 %: 5760 mins: Winter	0.33	3.0	406.2 30
FEH: 30 years: +40 %: 7200 mins: Summer	0.33	4.0	440.0 76
FEH: 30 years: +40 %: 7200 mins: Winter	0.33	2.6	439.4 28
FEH: 30 years: +40 %: 8640 mins: Summer	0.33	3.6	470.7 00
FEH: 30 years: +40 %: 8640 mins: Winter	0.33	2.3	470.3 94

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.33	3.2	500.5 14
FEH: 30 years: +40 %: 10080 mins: Winter	0.33	2.1	500.2 92

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 30 years: Increase Rainfall (%): +40: Summary Results for
Access Road: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.04	19.6	8.514
FEH: 30 years: +40 %: 15 mins: Winter	0.04	18.4	8.517
FEH: 30 years: +40 %: 30 mins: Summer	0.04	12.8	11.112
FEH: 30 years: +40 %: 30 mins: Winter	0.04	12.0	11.112
FEH: 30 years: +40 %: 60 mins: Summer	0.04	11.1	13.908
FEH: 30 years: +40 %: 60 mins: Winter	0.04	8.9	13.902

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.04	7.8	16.32 6
FEH: 30 years: +40 %: 120 mins: Winter	0.04	5.6	16.33 2
FEH: 30 years: +40 %: 180 mins: Summer	0.04	6.0	17.96 4
FEH: 30 years: +40 %: 180 mins: Winter	0.04	4.2	17.96 4
FEH: 30 years: +40 %: 240 mins: Summer	0.04	5.0	19.22 4
FEH: 30 years: +40 %: 240 mins: Winter	0.04	3.3	19.21 2
FEH: 30 years: +40 %: 360 mins: Summer	0.04	3.8	21.15 6
FEH: 30 years: +40 %: 360 mins: Winter	0.04	2.5	21.16 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 480 mins: Summer	0.04	3.1	22.66 2
FEH: 30 years: +40 %: 480 mins: Winter	0.04	2.0	22.66 2
FEH: 30 years: +40 %: 600 mins: Summer	0.04	2.6	23.95 8
FEH: 30 years: +40 %: 600 mins: Winter	0.04	1.7	23.94 0
FEH: 30 years: +40 %: 720 mins: Summer	0.04	2.3	25.05 0
FEH: 30 years: +40 %: 720 mins: Winter	0.04	1.5	25.04 4
FEH: 30 years: +40 %: 960 mins: Summer	0.04	1.8	26.90 4
FEH: 30 years: +40 %: 960 mins: Winter	0.04	1.2	26.94 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 1440 mins: Summer	0.04	1.4	29.94 6
FEH: 30 years: +40 %: 1440 mins: Winter	0.04	0.9	29.90 4
FEH: 30 years: +40 %: 2160 mins: Summer	0.04	1.0	33.33 6
FEH: 30 years: +40 %: 2160 mins: Winter	0.04	0.6	33.34 8
FEH: 30 years: +40 %: 2880 mins: Summer	0.04	0.8	36.18 0
FEH: 30 years: +40 %: 2880 mins: Winter	0.04	0.5	36.09 0
FEH: 30 years: +40 %: 4320 mins: Summer	0.04	0.6	40.79 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
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Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.04	0.4	40.80 6
FEH: 30 years: +40 %: 5760 mins: Summer	0.04	0.5	44.79 6
FEH: 30 years: +40 %: 5760 mins: Winter	0.04	0.3	44.93 4
FEH: 30 years: +40 %: 7200 mins: Summer	0.04	0.4	48.38 4
FEH: 30 years: +40 %: 7200 mins: Winter	0.04	0.3	48.22 2
FEH: 30 years: +40 %: 8640 mins: Summer	0.04	0.4	51.64 8
FEH: 30 years: +40 %: 8640 mins: Winter	0.04	0.3	51.62 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.04	0.4	54.93 0
FEH: 30 years: +40 %: 10080 mins: Winter	0.04	0.2	54.93 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Foot Path North: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.01	6.7	2.925
FEH: 30 years: +40 %: 15 mins: Winter	0.01	6.3	2.928
FEH: 30 years: +40 %: 30 mins: Summer	0.01	4.4	3.810
FEH: 30 years: +40 %: 30 mins: Winter	0.01	4.1	3.816
FEH: 30 years: +40 %: 60 mins: Summer	0.01	3.8	4.770
FEH: 30 years: +40 %: 60 mins: Winter	0.01	3.1	4.770

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %:	0.01	2.7	5.610
120 mins: Summer			
FEH: 30 years: +40 %:	0.01	1.9	5.598
120 mins: Winter			
FEH: 30 years: +40 %:	0.01	2.1	6.168
180 mins: Summer			
FEH: 30 years: +40 %:	0.01	1.4	6.162
180 mins: Winter			
FEH: 30 years: +40 %:	0.01	1.7	6.594
240 mins: Summer			
FEH: 30 years: +40 %:	0.01	1.1	6.600
240 mins: Winter			
FEH: 30 years: +40 %:	0.01	1.3	7.254
360 mins: Summer			
FEH: 30 years: +40 %:	0.01	0.9	7.260
360 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %:	0.01	1.1	7.788
480 mins: Summer			
FEH: 30 years: +40 %:	0.01	0.7	7.782
480 mins: Winter			
FEH: 30 years: +40 %:	0.01	0.9	8.232
600 mins: Summer			
FEH: 30 years: +40 %:	0.01	0.6	8.214
600 mins: Winter			
FEH: 30 years: +40 %:	0.01	0.8	8.592
720 mins: Summer			
FEH: 30 years: +40 %:	0.01	0.5	8.616
720 mins: Winter			
FEH: 30 years: +40 %:	0.01	0.6	9.234
960 mins: Summer			
FEH: 30 years: +40 %:	0.01	0.4	9.222
960 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 1440 mins: Summer	0.01	0.5	10.27 8
FEH: 30 years: +40 %: 1440 mins: Winter	0.01	0.3	10.22 4
FEH: 30 years: +40 %: 2160 mins: Summer	0.01	0.3	11.46 0
FEH: 30 years: +40 %: 2160 mins: Winter	0.01	0.2	11.41 2
FEH: 30 years: +40 %: 2880 mins: Summer	0.01	0.3	12.52 8
FEH: 30 years: +40 %: 2880 mins: Winter	0.01	0.2	12.30 0
FEH: 30 years: +40 %: 4320 mins: Summer	0.01	0.2	13.95 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.01	0.1	13.84 8
FEH: 30 years: +40 %: 5760 mins: Summer	0.01	0.2	15.42 6
FEH: 30 years: +40 %: 5760 mins: Winter	0.01	0.1	15.40 8
FEH: 30 years: +40 %: 7200 mins: Summer	0.01	0.2	16.49 4
FEH: 30 years: +40 %: 7200 mins: Winter	0.01	0.1	16.85 4
FEH: 30 years: +40 %: 8640 mins: Summer	0.01	0.1	17.32 8
FEH: 30 years: +40 %: 8640 mins: Winter	0.01	0.1	18.14 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.01	0.1	18.63 0
FEH: 30 years: +40 %: 10080 mins: Winter	0.01	0.1	18.39 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Unit 4 Roof to S9: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.04	20.1	8.721
FEH: 30 years: +40 %: 15 mins: Winter	0.04	18.9	8.724
FEH: 30 years: +40 %: 30 mins: Summer	0.04	13.1	11.382
FEH: 30 years: +40 %: 30 mins: Winter	0.04	12.3	11.376
FEH: 30 years: +40 %: 60 mins: Summer	0.04	11.4	14.244
FEH: 30 years: +40 %: 60 mins: Winter	0.04	9.2	14.238

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.04	7.9	16.73 4
FEH: 30 years: +40 %: 120 mins: Winter	0.04	5.7	16.72 2
FEH: 30 years: +40 %: 180 mins: Summer	0.04	6.2	18.39 6
FEH: 30 years: +40 %: 180 mins: Winter	0.04	4.3	18.39 6
FEH: 30 years: +40 %: 240 mins: Summer	0.04	5.1	19.67 4
FEH: 30 years: +40 %: 240 mins: Winter	0.04	3.4	19.68 0
FEH: 30 years: +40 %: 360 mins: Summer	0.04	3.8	21.66 6
FEH: 30 years: +40 %: 360 mins: Winter	0.04	2.5	21.66 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 480 mins: Summer	0.04	3.2	23.21 4
FEH: 30 years: +40 %: 480 mins: Winter	0.04	2.0	23.23 2
FEH: 30 years: +40 %: 600 mins: Summer	0.04	2.7	24.51 0
FEH: 30 years: +40 %: 600 mins: Winter	0.04	1.7	24.48 6
FEH: 30 years: +40 %: 720 mins: Summer	0.04	2.3	25.65 6
FEH: 30 years: +40 %: 720 mins: Winter	0.04	1.5	25.62 0
FEH: 30 years: +40 %: 960 mins: Summer	0.04	1.9	27.58 2
FEH: 30 years: +40 %: 960 mins: Winter	0.04	1.2	27.52 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 1440 mins: Summer	0.04	1.4	30.62 4
FEH: 30 years: +40 %: 1440 mins: Winter	0.04	0.9	30.67 2
FEH: 30 years: +40 %: 2160 mins: Summer	0.04	1.0	34.12 8
FEH: 30 years: +40 %: 2160 mins: Winter	0.04	0.7	34.17 0
FEH: 30 years: +40 %: 2880 mins: Summer	0.04	0.8	36.99 0
FEH: 30 years: +40 %: 2880 mins: Winter	0.04	0.5	37.04 4
FEH: 30 years: +40 %: 4320 mins: Summer	0.04	0.6	41.72 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 4320 mins: Winter	0.04	0.4	41.55 6
FEH: 30 years: +40 %: 5760 mins: Summer	0.04	0.5	45.78 6
FEH: 30 years: +40 %: 5760 mins: Winter	0.04	0.3	46.01 4
FEH: 30 years: +40 %: 7200 mins: Summer	0.04	0.4	49.49 4
FEH: 30 years: +40 %: 7200 mins: Winter	0.04	0.3	49.59 0
FEH: 30 years: +40 %: 8640 mins: Summer	0.04	0.4	53.17 2
FEH: 30 years: +40 %: 8640 mins: Winter	0.04	0.3	53.09 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.04	0.4	56.13 6
FEH: 30 years: +40 %: 10080 mins: Winter	0.04	0.2	56.47 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Unit 4 Roof S16: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.69	378.1	164.213
FEH: 30 years: +40 %: 15 mins: Winter	0.69	354.9	164.216
FEH: 30 years: +40 %: 30 mins: Summer	0.69	247.4	214.278
FEH: 30 years: +40 %: 30 mins: Winter	0.69	232.1	214.272
FEH: 30 years: +40 %: 60 mins: Summer	0.69	214.6	268.177
FEH: 30 years: +40 %: 60 mins: Winter	0.69	172.6	268.173

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 120 mins: Summer	0.69	149.4	314.9 03
FEH: 30 years: +40 %: 120 mins: Winter	0.69	107.5	314.8 92
FEH: 30 years: +40 %: 180 mins: Summer	0.69	116.0	346.3 26
FEH: 30 years: +40 %: 180 mins: Winter	0.69	80.0	346.3 32
FEH: 30 years: +40 %: 240 mins: Summer	0.69	96.0	370.6 44
FEH: 30 years: +40 %: 240 mins: Winter	0.69	64.6	370.6 50
FEH: 30 years: +40 %: 360 mins: Summer	0.69	72.2	407.8 98
FEH: 30 years: +40 %: 360 mins: Winter	0.69	47.6	407.8 74

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 480 mins: Summer	0.69	59.3	437.1 06
FEH: 30 years: +40 %: 480 mins: Winter	0.69	38.4	437.0 82
FEH: 30 years: +40 %: 600 mins: Summer	0.69	50.3	461.5 68
FEH: 30 years: +40 %: 600 mins: Winter	0.69	32.4	461.5 92
FEH: 30 years: +40 %: 720 mins: Summer	0.69	43.8	482.8 92
FEH: 30 years: +40 %: 720 mins: Winter	0.69	28.3	482.8 80
FEH: 30 years: +40 %: 960 mins: Summer	0.69	35.3	519.0 81
FEH: 30 years: +40 %: 960 mins: Winter	0.69	22.8	519.1 08

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 1440 mins: Summer	0.69	26.2	576.8 16
FEH: 30 years: +40 %: 1440 mins: Winter	0.69	16.9	576.8 82
FEH: 30 years: +40 %: 2160 mins: Summer	0.69	19.4	642.9 96
FEH: 30 years: +40 %: 2160 mins: Winter	0.69	12.6	643.0 68
FEH: 30 years: +40 %: 2880 mins: Summer	0.69	15.8	696.8 46
FEH: 30 years: +40 %: 2880 mins: Winter	0.69	10.2	696.7 44
FEH: 30 years: +40 %: 4320 mins: Summer	0.69	11.9	786.0 18

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.69	7.7	786.1 02
FEH: 30 years: +40 %: 5760 mins: Summer	0.69	9.8	862.5 42
FEH: 30 years: +40 %: 5760 mins: Winter	0.69	6.3	862.6 62
FEH: 30 years: +40 %: 7200 mins: Summer	0.69	8.5	932.7 60
FEH: 30 years: +40 %: 7200 mins: Winter	0.69	5.5	933.0 84
FEH: 30 years: +40 %: 8640 mins: Summer	0.69	7.6	998.9 64
FEH: 30 years: +40 %: 8640 mins: Winter	0.69	4.9	999.3 66

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 10080 mins: Summer	0.69	6.9	1062. 594
FEH: 30 years: +40 %: 10080 mins: Winter	0.69	4.4	1062. 750

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		





**FEH: 30 years: Increase Rainfall (%): +40: Summary Results for Unit
4 Roof S15: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 30 years: +40 %: 15 mins: Summer	0.23	128.1	55.645
FEH: 30 years: +40 %: 15 mins: Winter	0.23	120.3	55.645
FEH: 30 years: +40 %: 30 mins: Summer	0.23	83.8	72.606
FEH: 30 years: +40 %: 30 mins: Winter	0.23	78.7	72.606
FEH: 30 years: +40 %: 60 mins: Summer	0.23	72.7	90.870
FEH: 30 years: +40 %: 60 mins: Winter	0.23	58.5	90.875

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 120 mins: Summer	0.23	50.6	106.7 04
FEH: 30 years: +40 %: 120 mins: Winter	0.23	36.4	106.6 98
FEH: 30 years: +40 %: 180 mins: Summer	0.23	39.3	117.3 54
FEH: 30 years: +40 %: 180 mins: Winter	0.23	27.1	117.3 54
FEH: 30 years: +40 %: 240 mins: Summer	0.23	32.5	125.6 04
FEH: 30 years: +40 %: 240 mins: Winter	0.23	21.9	125.6 04
FEH: 30 years: +40 %: 360 mins: Summer	0.23	24.5	138.2 10
FEH: 30 years: +40 %: 360 mins: Winter	0.23	16.1	138.1 98

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 480 mins: Summer	0.23	20.1	148.0 80
FEH: 30 years: +40 %: 480 mins: Winter	0.23	13.0	148.1 04
FEH: 30 years: +40 %: 600 mins: Summer	0.23	17.0	156.4 02
FEH: 30 years: +40 %: 600 mins: Winter	0.23	11.0	156.4 08
FEH: 30 years: +40 %: 720 mins: Summer	0.23	14.9	163.6 50
FEH: 30 years: +40 %: 720 mins: Winter	0.23	9.6	163.6 20
FEH: 30 years: +40 %: 960 mins: Summer	0.23	12.0	175.8 96
FEH: 30 years: +40 %: 960 mins: Winter	0.23	7.7	175.8 78

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 1440 mins: Summer	0.23	8.9	195.4 80
FEH: 30 years: +40 %: 1440 mins: Winter	0.23	5.7	195.4 38
FEH: 30 years: +40 %: 2160 mins: Summer	0.23	6.6	217.9 14
FEH: 30 years: +40 %: 2160 mins: Winter	0.23	4.3	217.8 84
FEH: 30 years: +40 %: 2880 mins: Summer	0.23	5.4	236.1 24
FEH: 30 years: +40 %: 2880 mins: Winter	0.23	3.5	236.2 08
FEH: 30 years: +40 %: 4320 mins: Summer	0.23	4.0	266.3 16

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 30 years: +40 %: 4320 mins: Winter	0.23	2.6	266.2 38
FEH: 30 years: +40 %: 5760 mins: Summer	0.23	3.3	292.4 34
FEH: 30 years: +40 %: 5760 mins: Winter	0.23	2.1	292.5 72
FEH: 30 years: +40 %: 7200 mins: Summer	0.23	2.9	316.1 40
FEH: 30 years: +40 %: 7200 mins: Winter	0.23	1.9	316.3 44
FEH: 30 years: +40 %: 8640 mins: Summer	0.23	2.6	338.6 22
FEH: 30 years: +40 %: 8640 mins: Winter	0.23	1.6	338.5 26

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 30 years: +40 %: 10080 mins: Summer	0.23	2.3	359.8 62
FEH: 30 years: +40 %: 10080 mins: Winter	0.23	1.5	360.1 65

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Rear Footpath: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.03	22.3	9.702
FEH: 100 years: +45 %: 15 mins: Winter	0.03	21.0	9.702
FEH: 100 years: +45 %: 30 mins: Summer	0.03	14.8	12.780
FEH: 100 years: +45 %: 30 mins: Winter	0.03	13.8	12.780
FEH: 100 years: +45 %: 60 mins: Summer	0.03	12.8	16.044
FEH: 100 years: +45 %: 60 mins: Winter	0.03	10.3	16.044

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 120 mins: Summer	0.03	8.8	18.57 6
FEH: 100 years: +45 %: 120 mins: Winter	0.03	6.3	18.57 6
FEH: 100 years: +45 %: 180 mins: Summer	0.03	6.8	20.30 4
FEH: 100 years: +45 %: 180 mins: Winter	0.03	4.7	20.30 4
FEH: 100 years: +45 %: 240 mins: Summer	0.03	5.6	21.65 4
FEH: 100 years: +45 %: 240 mins: Winter	0.03	3.8	21.64 8
FEH: 100 years: +45 %: 360 mins: Summer	0.03	4.2	23.79 6
FEH: 100 years: +45 %: 360 mins: Winter	0.03	2.8	23.77 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 480 mins: Summer	0.03	3.5	25.48 8
FEH: 100 years: +45 %: 480 mins: Winter	0.03	2.2	25.45 8
FEH: 100 years: +45 %: 600 mins: Summer	0.03	2.9	26.92 2
FEH: 100 years: +45 %: 600 mins: Winter	0.03	1.9	26.87 4
FEH: 100 years: +45 %: 720 mins: Summer	0.03	2.6	28.18 8
FEH: 100 years: +45 %: 720 mins: Winter	0.03	1.6	28.17 0
FEH: 100 years: +45 %: 960 mins: Summer	0.03	2.1	30.31 2
FEH: 100 years: +45 %: 960 mins: Winter	0.03	1.3	30.30 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 1440 mins: Summer	0.03	1.5	33.70 8
FEH: 100 years: +45 %: 1440 mins: Winter	0.03	1.0	33.64 8
FEH: 100 years: +45 %: 2160 mins: Summer	0.03	1.1	37.53 0
FEH: 100 years: +45 %: 2160 mins: Winter	0.03	0.7	37.56 0
FEH: 100 years: +45 %: 2880 mins: Summer	0.03	0.9	40.52 4
FEH: 100 years: +45 %: 2880 mins: Winter	0.03	0.6	40.44 0
FEH: 100 years: +45 %: 4320 mins: Summer	0.03	0.7	45.45 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 4320 mins: Winter	0.03	0.4	45.49 8
FEH: 100 years: +45 %: 5760 mins: Summer	0.03	0.6	49.41 0
FEH: 100 years: +45 %: 5760 mins: Winter	0.03	0.4	49.34 4
FEH: 100 years: +45 %: 7200 mins: Summer	0.03	0.5	52.94 4
FEH: 100 years: +45 %: 7200 mins: Winter	0.03	0.3	52.68 6
FEH: 100 years: +45 %: 8640 mins: Summer	0.03	0.4	56.39 4
FEH: 100 years: +45 %: 8640 mins: Winter	0.03	0.3	55.99 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 10080 mins: Summer	0.03	0.4	59.15 4
FEH: 100 years: +45 %: 10080 mins: Winter	0.03	0.3	58.92 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Loading Area 1: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.24	170.6	74.071
FEH: 100 years: +45 %: 15 mins: Winter	0.24	160.1	74.073
FEH: 100 years: +45 %: 30 mins: Summer	0.24	112.6	97.573
FEH: 100 years: +45 %: 30 mins: Winter	0.24	105.7	97.573
FEH: 100 years: +45 %: 60 mins: Summer	0.24	98.0	122.466
FEH: 100 years: +45 %: 60 mins: Winter	0.24	78.8	122.472

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 120 mins: Summer	0.24	67.3	141.8 39
FEH: 100 years: +45 %: 120 mins: Winter	0.24	48.4	141.8 33
FEH: 100 years: +45 %: 180 mins: Summer	0.24	51.9	154.9 64
FEH: 100 years: +45 %: 180 mins: Winter	0.24	35.8	154.9 62
FEH: 100 years: +45 %: 240 mins: Summer	0.24	42.8	165.2 76
FEH: 100 years: +45 %: 240 mins: Winter	0.24	28.8	165.2 64
FEH: 100 years: +45 %: 360 mins: Summer	0.24	32.1	181.5 24
FEH: 100 years: +45 %: 360 mins: Winter	0.24	21.2	181.5 36

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %:	0.24	26.4	194.4 78
480 mins: Summer			
FEH: 100 years: +45 %:	0.24	17.1	194.4 90
480 mins: Winter			
FEH: 100 years: +45 %:	0.24	22.4	205.4 34
600 mins: Summer			
FEH: 100 years: +45 %:	0.24	14.4	205.4 64
600 mins: Winter			
FEH: 100 years: +45 %:	0.24	19.5	215.0 28
720 mins: Summer			
FEH: 100 years: +45 %:	0.24	12.6	215.0 37
720 mins: Winter			
FEH: 100 years: +45 %:	0.24	15.8	231.4 80
960 mins: Summer			
FEH: 100 years: +45 %:	0.24	10.2	231.4 32
960 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 1440 mins: Summer	0.24	11.7	257.2 56
FEH: 100 years: +45 %: 1440 mins: Winter	0.24	7.5	257.2 98
FEH: 100 years: +45 %: 2160 mins: Summer	0.24	8.7	286.3 86
FEH: 100 years: +45 %: 2160 mins: Winter	0.24	5.6	286.3 44
FEH: 100 years: +45 %: 2880 mins: Summer	0.24	7.0	309.3 90
FEH: 100 years: +45 %: 2880 mins: Winter	0.24	4.5	309.4 35
FEH: 100 years: +45 %: 4320 mins: Summer	0.24	5.2	345.8 16

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 4320 mins: Winter	0.24	3.4	345.9 84
FEH: 100 years: +45 %: 5760 mins: Summer	0.24	4.3	376.3 02
FEH: 100 years: +45 %: 5760 mins: Winter	0.24	2.8	376.4 28
FEH: 100 years: +45 %: 7200 mins: Summer	0.24	3.7	403.5 72
FEH: 100 years: +45 %: 7200 mins: Winter	0.24	2.4	403.6 56
FEH: 100 years: +45 %: 8640 mins: Summer	0.24	3.2	428.9 16
FEH: 100 years: +45 %: 8640 mins: Winter	0.24	2.1	428.7 54

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 10080 mins: Summer	0.24	2.9	452.7 78
FEH: 100 years: +45 %: 10080 mins: Winter	0.24	1.9	452.4 30

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Unit 4 Dock Levellers: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.06	40.8	17.718
FEH: 100 years: +45 %: 15 mins: Winter	0.06	38.3	17.712
FEH: 100 years: +45 %: 30 mins: Summer	0.06	26.9	23.334
FEH: 100 years: +45 %: 30 mins: Winter	0.06	25.3	23.334
FEH: 100 years: +45 %: 60 mins: Summer	0.06	23.4	29.286
FEH: 100 years: +45 %: 60 mins: Winter	0.06	18.9	29.286

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 120 mins: Summer	0.06	16.1	33.91 8
FEH: 100 years: +45 %: 120 mins: Winter	0.06	11.6	33.91 8
FEH: 100 years: +45 %: 180 mins: Summer	0.06	12.4	37.04 9
FEH: 100 years: +45 %: 180 mins: Winter	0.06	8.6	37.07 4
FEH: 100 years: +45 %: 240 mins: Summer	0.06	10.2	39.53 4
FEH: 100 years: +45 %: 240 mins: Winter	0.06	6.9	39.52 8
FEH: 100 years: +45 %: 360 mins: Summer	0.06	7.7	43.41 0
FEH: 100 years: +45 %: 360 mins: Winter	0.06	5.1	43.40 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 480 mins: Summer	0.06	6.3	46.51 2
FEH: 100 years: +45 %: 480 mins: Winter	0.06	4.1	46.51 2
FEH: 100 years: +45 %: 600 mins: Summer	0.06	5.4	49.13 1
FEH: 100 years: +45 %: 600 mins: Winter	0.06	3.5	49.13 4
FEH: 100 years: +45 %: 720 mins: Summer	0.06	4.7	51.40 8
FEH: 100 years: +45 %: 720 mins: Winter	0.06	3.0	51.44 4
FEH: 100 years: +45 %: 960 mins: Summer	0.06	3.8	55.39 2
FEH: 100 years: +45 %: 960 mins: Winter	0.06	2.4	55.35 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 1440 mins: Summer	0.06	2.8	61.54 2
FEH: 100 years: +45 %: 1440 mins: Winter	0.06	1.8	61.59 0
FEH: 100 years: +45 %: 2160 mins: Summer	0.06	2.1	68.43 0
FEH: 100 years: +45 %: 2160 mins: Winter	0.06	1.3	68.50 8
FEH: 100 years: +45 %: 2880 mins: Summer	0.06	1.7	73.95 0
FEH: 100 years: +45 %: 2880 mins: Winter	0.06	1.1	73.95 0
FEH: 100 years: +45 %: 4320 mins: Summer	0.06	1.3	82.67 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 4320 mins: Winter	0.06	0.8	82.67 4
FEH: 100 years: +45 %: 5760 mins: Summer	0.06	1.0	90.05 4
FEH: 100 years: +45 %: 5760 mins: Winter	0.06	0.7	90.10 2
FEH: 100 years: +45 %: 7200 mins: Summer	0.06	0.9	96.33 0
FEH: 100 years: +45 %: 7200 mins: Winter	0.06	0.6	96.76 8
FEH: 100 years: +45 %: 8640 mins: Summer	0.06	0.8	102.6 36
FEH: 100 years: +45 %: 8640 mins: Winter	0.06	0.5	102.4 44

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 10080 mins: Summer	0.06	0.7	108.2 70
FEH: 100 years: +45 %: 10080 mins: Winter	0.06	0.4	108.5 88

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Loading Area 2: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.30	208.1	90.370
FEH: 100 years: +45 %: 15 mins: Winter	0.30	195.3	90.367
FEH: 100 years: +45 %: 30 mins: Summer	0.30	137.4	119.041
FEH: 100 years: +45 %: 30 mins: Winter	0.30	129.0	119.041
FEH: 100 years: +45 %: 60 mins: Summer	0.30	119.6	149.413
FEH: 100 years: +45 %: 60 mins: Winter	0.30	96.2	149.418

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 120 mins: Summer	0.30	82.1	173.0 21
FEH: 100 years: +45 %: 120 mins: Winter	0.30	59.1	173.0 33
FEH: 100 years: +45 %: 180 mins: Summer	0.30	63.3	189.0 38
FEH: 100 years: +45 %: 180 mins: Winter	0.30	43.7	189.0 30
FEH: 100 years: +45 %: 240 mins: Summer	0.30	52.3	201.6 30
FEH: 100 years: +45 %: 240 mins: Winter	0.30	35.1	201.6 39
FEH: 100 years: +45 %: 360 mins: Summer	0.30	39.2	221.4 66
FEH: 100 years: +45 %: 360 mins: Winter	0.30	25.8	221.4 54

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 480 mins: Summer	0.30	32.2	237.2 88
FEH: 100 years: +45 %: 480 mins: Winter	0.30	20.8	237.2 64
FEH: 100 years: +45 %: 600 mins: Summer	0.30	27.3	250.6 56
FEH: 100 years: +45 %: 600 mins: Winter	0.30	17.6	250.6 44
FEH: 100 years: +45 %: 720 mins: Summer	0.30	23.8	262.3 62
FEH: 100 years: +45 %: 720 mins: Winter	0.30	15.4	262.3 26
FEH: 100 years: +45 %: 960 mins: Summer	0.30	19.2	282.3 30
FEH: 100 years: +45 %: 960 mins: Winter	0.30	12.4	282.3 24

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 1440 mins: Summer	0.30	14.2	313.9 08
FEH: 100 years: +45 %: 1440 mins: Winter	0.30	9.2	313.9 62
FEH: 100 years: +45 %: 2160 mins: Summer	0.30	10.6	349.3 74
FEH: 100 years: +45 %: 2160 mins: Winter	0.30	6.8	349.4 16
FEH: 100 years: +45 %: 2880 mins: Summer	0.30	8.6	377.4 24
FEH: 100 years: +45 %: 2880 mins: Winter	0.30	5.5	377.4 84
FEH: 100 years: +45 %: 4320 mins: Summer	0.30	6.4	422.1 06

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 4320 mins: Winter	0.30	4.1	422.1 78
FEH: 100 years: +45 %: 5760 mins: Summer	0.30	5.2	459.2 94
FEH: 100 years: +45 %: 5760 mins: Winter	0.30	3.4	459.0 36
FEH: 100 years: +45 %: 7200 mins: Summer	0.30	4.5	492.4 68
FEH: 100 years: +45 %: 7200 mins: Winter	0.30	2.9	492.6 30
FEH: 100 years: +45 %: 8640 mins: Summer	0.30	4.0	522.6 66
FEH: 100 years: +45 %: 8640 mins: Winter	0.30	2.6	523.1 70

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 10080 mins: Summer	0.30	3.6	552.4 26
FEH: 100 years: +45 %: 10080 mins: Winter	0.30	2.3	553.0 14

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for
Cycle Store: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.04	30.8	13.392
FEH: 100 years: +45 %: 15 mins: Winter	0.04	28.9	13.392
FEH: 100 years: +45 %: 30 mins: Summer	0.04	20.4	17.634
FEH: 100 years: +45 %: 30 mins: Winter	0.04	19.1	17.640
FEH: 100 years: +45 %: 60 mins: Summer	0.04	17.7	22.146
FEH: 100 years: +45 %: 60 mins: Winter	0.04	14.3	22.146

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 120 mins: Summer	0.04	12.2	25.65 0
FEH: 100 years: +45 %: 120 mins: Winter	0.04	8.8	25.64 4
FEH: 100 years: +45 %: 180 mins: Summer	0.04	9.4	28.01 3
FEH: 100 years: +45 %: 180 mins: Winter	0.04	6.5	28.02 0
FEH: 100 years: +45 %: 240 mins: Summer	0.04	7.7	29.87 4
FEH: 100 years: +45 %: 240 mins: Winter	0.04	5.2	29.88 6
FEH: 100 years: +45 %: 360 mins: Summer	0.04	5.8	32.80 8
FEH: 100 years: +45 %: 360 mins: Winter	0.04	3.8	32.82 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 480 mins: Summer	0.04	4.8	35.16 6
FEH: 100 years: +45 %: 480 mins: Winter	0.04	3.1	35.14 2
FEH: 100 years: +45 %: 600 mins: Summer	0.04	4.0	37.12 2
FEH: 100 years: +45 %: 600 mins: Winter	0.04	2.6	37.12 2
FEH: 100 years: +45 %: 720 mins: Summer	0.04	3.5	38.86 8
FEH: 100 years: +45 %: 720 mins: Winter	0.04	2.3	38.88 0
FEH: 100 years: +45 %: 960 mins: Summer	0.04	2.9	41.85 0
FEH: 100 years: +45 %: 960 mins: Winter	0.04	1.8	41.80 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 1440 mins: Summer	0.04	2.1	46.51 2
FEH: 100 years: +45 %: 1440 mins: Winter	0.04	1.4	46.53 6
FEH: 100 years: +45 %: 2160 mins: Summer	0.04	1.6	51.80 4
FEH: 100 years: +45 %: 2160 mins: Winter	0.04	1.0	51.79 2
FEH: 100 years: +45 %: 2880 mins: Summer	0.04	1.3	55.97 4
FEH: 100 years: +45 %: 2880 mins: Winter	0.04	0.8	55.84 8
FEH: 100 years: +45 %: 4320 mins: Summer	0.04	0.9	62.52 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 4320 mins: Winter	0.04	0.6	62.72 4
FEH: 100 years: +45 %: 5760 mins: Summer	0.04	0.8	67.89 0
FEH: 100 years: +45 %: 5760 mins: Winter	0.04	0.5	68.22 0
FEH: 100 years: +45 %: 7200 mins: Summer	0.04	0.7	72.93 6
FEH: 100 years: +45 %: 7200 mins: Winter	0.04	0.4	73.18 2
FEH: 100 years: +45 %: 8640 mins: Summer	0.04	0.6	77.65 8
FEH: 100 years: +45 %: 8640 mins: Winter	0.04	0.4	77.76 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 10080 mins: Summer	0.04	0.5	81.88 2
FEH: 100 years: +45 %: 10080 mins: Winter	0.04	0.3	81.53 4

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Car
-Park: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.33	230.1	99.916
FEH: 100 years: +45 %: 15 mins: Winter	0.33	216.0	99.913
FEH: 100 years: +45 %: 30 mins: Summer	0.33	151.9	131.611
FEH: 100 years: +45 %: 30 mins: Winter	0.33	142.6	131.611
FEH: 100 years: +45 %: 60 mins: Summer	0.33	132.2	165.205
FEH: 100 years: +45 %: 60 mins: Winter	0.33	106.3	165.204

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 120 mins: Summer	0.33	90.8	191.3 03
FEH: 100 years: +45 %: 120 mins: Winter	0.33	65.3	191.3 15
FEH: 100 years: +45 %: 180 mins: Summer	0.33	70.0	209.0 29
FEH: 100 years: +45 %: 180 mins: Winter	0.33	48.3	209.0 10
FEH: 100 years: +45 %: 240 mins: Summer	0.33	57.8	222.9 41
FEH: 100 years: +45 %: 240 mins: Winter	0.33	38.8	222.9 30
FEH: 100 years: +45 %: 360 mins: Summer	0.33	43.4	244.8 66
FEH: 100 years: +45 %: 360 mins: Winter	0.33	28.6	244.8 66

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %:	0.33	35.6	262.3 38
480 mins: Summer			
FEH: 100 years: +45 %:	0.33	23.0	262.3 59
480 mins: Winter			
FEH: 100 years: +45 %:	0.33	30.2	277.1 22
600 mins: Summer			
FEH: 100 years: +45 %:	0.33	19.5	277.1 16
600 mins: Winter			
FEH: 100 years: +45 %:	0.33	26.3	290.0 28
720 mins: Summer			
FEH: 100 years: +45 %:	0.33	17.0	290.0 70
720 mins: Winter			
FEH: 100 years: +45 %:	0.33	21.2	312.1 80
960 mins: Summer			
FEH: 100 years: +45 %:	0.33	13.7	312.1 68
960 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 1440 mins: Summer	0.33	15.8	347.1 72
FEH: 100 years: +45 %: 1440 mins: Winter	0.33	10.2	347.0 88
FEH: 100 years: +45 %: 2160 mins: Summer	0.33	11.7	386.1 84
FEH: 100 years: +45 %: 2160 mins: Winter	0.33	7.5	386.2 56
FEH: 100 years: +45 %: 2880 mins: Summer	0.33	9.5	417.3 90
FEH: 100 years: +45 %: 2880 mins: Winter	0.33	6.1	417.4 86
FEH: 100 years: +45 %: 4320 mins: Summer	0.33	7.1	466.6 86

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 4320 mins: Winter	0.33	4.6	466.9 56
FEH: 100 years: +45 %: 5760 mins: Summer	0.33	5.8	507.7 56
FEH: 100 years: +45 %: 5760 mins: Winter	0.33	3.7	507.8 28
FEH: 100 years: +45 %: 7200 mins: Summer	0.33	4.9	544.4 82
FEH: 100 years: +45 %: 7200 mins: Winter	0.33	3.2	544.2 36
FEH: 100 years: +45 %: 8640 mins: Summer	0.33	4.4	578.5 32
FEH: 100 years: +45 %: 8640 mins: Winter	0.33	2.8	578.3 22

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 10080 mins: Summer	0.33	4.0	610.6 20
FEH: 100 years: +45 %: 10080 mins: Winter	0.33	2.6	611.2 14

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for
Access Road: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.04	25.3	11.004
FEH: 100 years: +45 %: 15 mins: Winter	0.04	23.8	11.004
FEH: 100 years: +45 %: 30 mins: Summer	0.04	16.7	14.496
FEH: 100 years: +45 %: 30 mins: Winter	0.04	15.7	14.490
FEH: 100 years: +45 %: 60 mins: Summer	0.04	14.6	18.192
FEH: 100 years: +45 %: 60 mins: Winter	0.04	11.7	18.192

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 120 mins: Summer	0.04	10.0	21.06 6
FEH: 100 years: +45 %: 120 mins: Winter	0.04	7.2	21.06 0
FEH: 100 years: +45 %: 180 mins: Summer	0.04	7.7	23.02 7
FEH: 100 years: +45 %: 180 mins: Winter	0.04	5.3	23.01 0
FEH: 100 years: +45 %: 240 mins: Summer	0.04	6.4	24.54 6
FEH: 100 years: +45 %: 240 mins: Winter	0.04	4.3	24.54 6
FEH: 100 years: +45 %: 360 mins: Summer	0.04	4.8	26.95 2
FEH: 100 years: +45 %: 360 mins: Winter	0.04	3.2	26.97 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 480 mins: Summer	0.04	3.9	28.88 4
FEH: 100 years: +45 %: 480 mins: Winter	0.04	2.5	28.91 4
FEH: 100 years: +45 %: 600 mins: Summer	0.04	3.3	30.49 8
FEH: 100 years: +45 %: 600 mins: Winter	0.04	2.1	30.51 6
FEH: 100 years: +45 %: 720 mins: Summer	0.04	2.9	31.93 2
FEH: 100 years: +45 %: 720 mins: Winter	0.04	1.9	31.94 4
FEH: 100 years: +45 %: 960 mins: Summer	0.04	2.3	34.36 2
FEH: 100 years: +45 %: 960 mins: Winter	0.04	1.5	34.39 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 1440 mins: Summer	0.04	1.7	38.22 6
FEH: 100 years: +45 %: 1440 mins: Winter	0.04	1.1	38.23 8
FEH: 100 years: +45 %: 2160 mins: Summer	0.04	1.3	42.50 4
FEH: 100 years: +45 %: 2160 mins: Winter	0.04	0.8	42.63 0
FEH: 100 years: +45 %: 2880 mins: Summer	0.04	1.0	45.89 4
FEH: 100 years: +45 %: 2880 mins: Winter	0.04	0.7	45.99 6
FEH: 100 years: +45 %: 4320 mins: Summer	0.04	0.8	51.48 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 4320 mins: Winter	0.04	0.5	51.33 6
FEH: 100 years: +45 %: 5760 mins: Summer	0.04	0.6	55.98 6
FEH: 100 years: +45 %: 5760 mins: Winter	0.04	0.4	55.63 2
FEH: 100 years: +45 %: 7200 mins: Summer	0.04	0.5	60.13 8
FEH: 100 years: +45 %: 7200 mins: Winter	0.04	0.3	59.62 2
FEH: 100 years: +45 %: 8640 mins: Summer	0.04	0.5	63.75 6
FEH: 100 years: +45 %: 8640 mins: Winter	0.04	0.3	63.45 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 10080 mins: Summer	0.04	0.4	67.26 6
FEH: 100 years: +45 %: 10080 mins: Winter	0.04	0.3	67.14 6

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



**FEH: 100 years: Increase Rainfall (%): +45: Summary Results for
Foot Path North: Rank By: Max. Inflow**

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.01	8.7	3.780
FEH: 100 years: +45 %: 15 mins: Winter	0.01	8.2	3.777
FEH: 100 years: +45 %: 30 mins: Summer	0.01	5.7	4.974
FEH: 100 years: +45 %: 30 mins: Winter	0.01	5.4	4.974
FEH: 100 years: +45 %: 60 mins: Summer	0.01	5.0	6.246
FEH: 100 years: +45 %: 60 mins: Winter	0.01	4.0	6.246

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %:	0.01	3.4	7.224
120 mins: Summer			
FEH: 100 years: +45 %:	0.01	2.5	7.236
120 mins: Winter			
FEH: 100 years: +45 %:	0.01	2.6	7.908
180 mins: Summer			
FEH: 100 years: +45 %:	0.01	1.8	7.896
180 mins: Winter			
FEH: 100 years: +45 %:	0.01	2.2	8.418
240 mins: Summer			
FEH: 100 years: +45 %:	0.01	1.5	8.436
240 mins: Winter			
FEH: 100 years: +45 %:	0.01	1.6	9.252
360 mins: Summer			
FEH: 100 years: +45 %:	0.01	1.1	9.264
360 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %:	0.01	1.4	9.924
480 mins: Summer			
FEH: 100 years: +45 %:	0.01	0.9	9.888
480 mins: Winter			
FEH: 100 years: +45 %:	0.01	1.1	10.47 6
600 mins: Summer			
FEH: 100 years: +45 %:	0.01	0.7	10.48 8
600 mins: Winter			
FEH: 100 years: +45 %:	0.01	1.0	10.96 2
720 mins: Summer			
FEH: 100 years: +45 %:	0.01	0.6	10.93 2
720 mins: Winter			
FEH: 100 years: +45 %:	0.01	0.8	11.80 2
960 mins: Summer			
FEH: 100 years: +45 %:	0.01	0.5	11.77 2
960 mins: Winter			

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 1440 mins: Summer	0.01	0.6	13.16 4
FEH: 100 years: +45 %: 1440 mins: Winter	0.01	0.4	13.17 0
FEH: 100 years: +45 %: 2160 mins: Summer	0.01	0.4	14.61 6
FEH: 100 years: +45 %: 2160 mins: Winter	0.01	0.3	14.62 2
FEH: 100 years: +45 %: 2880 mins: Summer	0.01	0.4	15.72 6
FEH: 100 years: +45 %: 2880 mins: Winter	0.01	0.2	15.70 2
FEH: 100 years: +45 %: 4320 mins: Summer	0.01	0.3	17.59 2

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 4320 mins: Winter	0.01	0.2	17.52 6
FEH: 100 years: +45 %: 5760 mins: Summer	0.01	0.2	19.29 0
FEH: 100 years: +45 %: 5760 mins: Winter	0.01	0.1	19.00 8
FEH: 100 years: +45 %: 7200 mins: Summer	0.01	0.2	20.83 2
FEH: 100 years: +45 %: 7200 mins: Winter	0.01	0.1	20.55 6
FEH: 100 years: +45 %: 8640 mins: Summer	0.01	0.2	22.18 2
FEH: 100 years: +45 %: 8640 mins: Winter	0.01	0.1	22.08 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
	Designed AMG	Checked by: AB	Approved ADS
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG		



FEH: 100 years: +45 %: 10080 mins: Summer	0.01	0.2	22.74 6
FEH: 100 years: +45 %: 10080 mins: Winter	0.01	0.1	23.46 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address: ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			



FEH: 100 years: Increase Rainfall (%): +45: Summary Results for Unit 4 Roof to S9: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
FEH: 100 years: +45 %: 15 mins: Summer	0.04	25.9	11.265
FEH: 100 years: +45 %: 15 mins: Winter	0.04	24.4	11.265
FEH: 100 years: +45 %: 30 mins: Summer	0.04	17.1	14.844
FEH: 100 years: +45 %: 30 mins: Winter	0.04	16.1	14.844
FEH: 100 years: +45 %: 60 mins: Summer	0.04	14.9	18.630
FEH: 100 years: +45 %: 60 mins: Winter	0.04	12.0	18.624

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 120 mins: Summer	0.04	10.2	21.57 0
FEH: 100 years: +45 %: 120 mins: Winter	0.04	7.4	21.57 0
FEH: 100 years: +45 %: 180 mins: Summer	0.04	7.9	23.56 1
FEH: 100 years: +45 %: 180 mins: Winter	0.04	5.4	23.56 2
FEH: 100 years: +45 %: 240 mins: Summer	0.04	6.5	25.14 6
FEH: 100 years: +45 %: 240 mins: Winter	0.04	4.4	25.13 4
FEH: 100 years: +45 %: 360 mins: Summer	0.04	4.9	27.60 6
FEH: 100 years: +45 %: 360 mins: Winter	0.04	3.2	27.61 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
	Designed AMG	Checked by: AB	Approved ADS	
Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
	ADS Consult 107 Mere Grange Business Park Leaside, St Helens, WA9 5GG			

FEH: 100 years: +45 %: 480 mins: Summer	0.04	4.0	29.58 6
FEH: 100 years: +45 %: 480 mins: Winter	0.04	2.6	29.59 8
FEH: 100 years: +45 %: 600 mins: Summer	0.04	3.4	31.25 4
FEH: 100 years: +45 %: 600 mins: Winter	0.04	2.2	31.27 2
FEH: 100 years: +45 %: 720 mins: Summer	0.04	3.0	32.72 4
FEH: 100 years: +45 %: 720 mins: Winter	0.04	1.9	32.71 2
FEH: 100 years: +45 %: 960 mins: Summer	0.04	2.4	35.19 6
FEH: 100 years: +45 %: 960 mins: Winter	0.04	1.6	35.22 0

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026			
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Report Details: Type: Inflows Summary Storm Phase: UNIT 4	Company Address:			
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FEH: 100 years: +45 %: 1440 mins: Summer	0.04	1.8	39.13 8
FEH: 100 years: +45 %: 1440 mins: Winter	0.04	1.1	39.10 8
FEH: 100 years: +45 %: 2160 mins: Summer	0.04	1.3	43.51 2
FEH: 100 years: +45 %: 2160 mins: Winter	0.04	0.9	43.47 0
FEH: 100 years: +45 %: 2880 mins: Summer	0.04	1.1	47.13 0
FEH: 100 years: +45 %: 2880 mins: Winter	0.04	0.7	47.03 4
FEH: 100 years: +45 %: 4320 mins: Summer	0.04	0.8	52.75 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
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FEH: 100 years: +45 %: 4320 mins: Winter	0.04	0.5	52.62 0
FEH: 100 years: +45 %: 5760 mins: Summer	0.04	0.6	57.05 4
FEH: 100 years: +45 %: 5760 mins: Winter	0.04	0.4	56.97 6
FEH: 100 years: +45 %: 7200 mins: Summer	0.04	0.6	61.59 6
FEH: 100 years: +45 %: 7200 mins: Winter	0.04	0.4	61.41 6
FEH: 100 years: +45 %: 8640 mins: Summer	0.04	0.5	65.12 4
FEH: 100 years: +45 %: 8640 mins: Winter	0.04	0.3	65.41 8

Drainage Network Unit 4: Alchemy, Western Plot Network Space Developments	Date: 28/07/2026		
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FEH: 100 years: +45 %: 10080 mins: Summer	0.04	0.4	68.72 4
FEH: 100 years: +45 %: 10080 mins: Winter	0.04	0.3	68.83 2