Pollutant Removal Efficiency of the APEX Treatment Plant

- 86.7% phosphate removal (95.0% phosphate removal with added kiosk)
- 92% COD removal.
- 96.6% BOD removal.
- 79.9% ammonium removal.

Treated Effluent will have the following concentrations:

- ✓ 20mg/L BOD (Biological Oxygen Demand)
- ✓ 30mg/L Suspended Solids
- ✓ 20mg/L Ammoniacal Nitrogen (NH_4-N)
- ✓ 1.0mg/L Phosphorous

Pollutant	Design Effluent Quality (95%ile Basis)
COD	N/A
BOD_5	20 mg/L
Suspended Solids	30 mg/L
Ammonia (NH_4-N)	20 mg/L

Package Foul Treatment Plant
Apex 600PE (Gravity Outlet)
with additional Phosphorus removal

Final Settlement Tank Dimensions:
L=12m x W=2.5m

Boizone Tank
Dimensions: L=12m x W=2.5m

Primary Settlement Tank Dimensions:
L=12m x W=2.5m

Unit 1 Discharge to existing ditch/watercourse flowing to River Dee

Unit 3 Discharge to existing ditch/watercourse flowing to River Dee

Unit 2 Discharge to existing ditch/watercourse flowing to River Dee

Existing Ditch/Watercourse to River Dee. Distance to River Dee 2.6km

Assume Watercourse is always flowing

27.3m

15.0m

ECOLOGY ZONE

Unit 1
PE: 844
500,000 sqft Unit

Unit 2
PE: 304
180,000 sqft Unit

Unit 3
PE: 304
180,000 sqft Unit

15m offset from building

15.0m

Assumed 10m Easement

Package Foul Treatment Plant
Apex 250PE (Pumped Outlet)
with additional Phosphorus removal

Primary Settlement Tank
Dimensions: L=12m x W=2.54m

Package Foul Treatment Plant
Apex 250PE (Pumped Outlet)
with additional Phosphorus removal

Primary Settlement Tank
Dimensions: L=12m x W=2.54m

Pond

WB

20% The design of the Biozone enables APEX to function at only 20% of its design load (10% on APEX HH models).

21.7m

B5130

Drain

22.5m

Barn Cottage

The Gables

The Saplings

Plum Tree House

Plum Tree Farm

KEY:

	Proposed Gravity Foul Water	
	Proposed Biokubes 600PE	Calculated equivalent for 840PE
	Proposed Biokubes 250PE	Calculated equivalent for 304PE

N

W E

S

Safety, Health & Environmental Information:

In addition to the hazards and risks normally associated with the types of work detailed on this drawing, please note the significant hazards identified by symbols below,

⚠ INDICATES A RESIDUAL RISK AS A WARNING

ⓘ INDICATES A RESIDUAL RISK FOR INFORMATION

and described below:

Construction/Maintenance/Cleaning/Demolition

Refer to Drawing:

General Notes:

1. Do not scale from this drawing.
2. All dimensions are in millimetres (mm), all levels in metres (m) unless noted otherwise.
3. Discrepancies or omissions are to be reported to the Engineer prior to work commencing.
4. Materials and workmanship are to comply in all respects with current British Standard Specifications, Codes of Practice, and Building Regulations Approved Documents.
5. The copyright of this drawing is vested in the Engineer and must not be copied or reproduced without written consent.
6. The Contractor is to check and verify all building and site dimensions, levels and sewer invert levels at connection points before work commences.
7. This drawing is to be read in conjunction with all relevant specifications and drawings issued by the Engineer, Architect and other Specialists.

Rev	By / Chk'd	Date	Description
P01	DH/AM	06/05/22	Preliminary Issue

PRELIMINARY DRAWING
This drawing is not to be used for construction

Client
FI REAL ESTATE MANAGEMENT

BarnsleyMarshall Limited
1 Birch Court
Blackpole East
Worcester
WR3 8SG

Tel: 01905 330550
Email: design@barnsleymarshall.co.uk
Web: www.barnsleymarshall.co.uk

BarnsleyMarshall

Project
Kingmoor Site, Wrexham

Drawing
Proposed High Level Strategy

By	DH/AM	Date	12/05/22

Drawing No.	Revision
KSW-BML-XX-XX-SK-C-004	P01
BML Job No.	Status
1000-03	-

Drawing Scale at A1: 1:1500

CAD Filename: C:\Users\DeanHunt\onedrive\BML Server - Shared Projects\1000-03 Kingmoor Site, Wrexham\4-Information - Working\DWG\KSW-BML-XX-XX-SK-C-0004 Proposed High Level Strategy.dwg

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