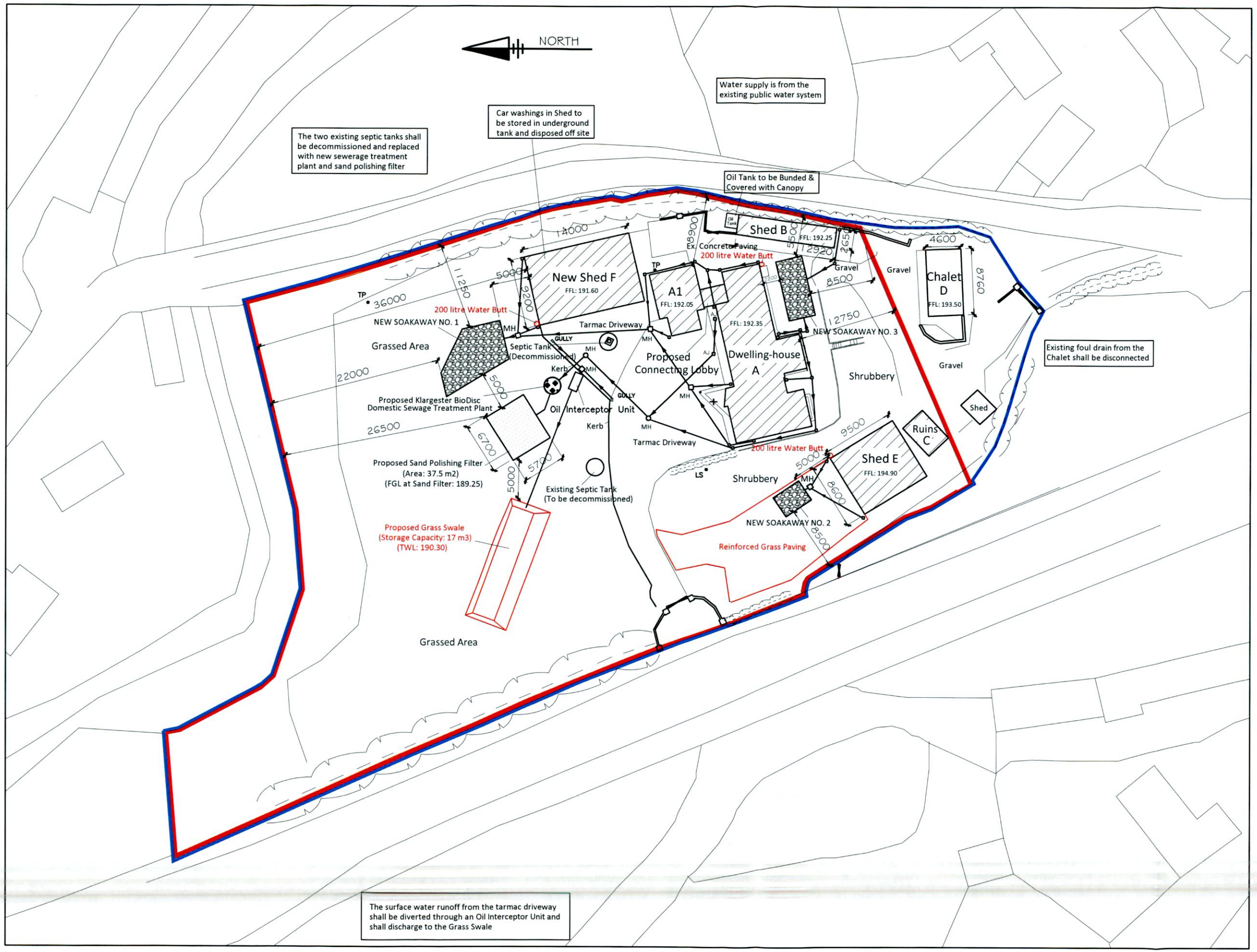

PROPOSED SITE LAYOUT PLAN SCALE 1:500 (A3)

ISSUED FOR PLANNING PERMISSION PURPOSES ONLY

SOAKAWAY NO. 1:
50.0 m2 plan x 1.35 m effective depth

SOAKAWAY NO. 2:
4.0 m x 3.0 m x 0.90 m effective depth

SOAKAWAY NO. 3:
8.0 m x 3.5 m x 0.70 m effective depth

MCGILLEN DESIGN SERVICES
PLANNING AND PROJECT MANAGEMENT

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CO. WICKLOW. E: petermcgillen@hotmail.com

REV	DESCRIPTION	BY	APPR	DATE
G	ISSUED FOR ADDITIONAL INFORMATION PURPOSES	P.J.	P.J.	14.02.23
F	ISSUED FOR APPROVAL	P.J.	P.J.	16.12.22
E	ISSUED FOR PLANNING PERMISSION PURPOSES	P.J.	P.J.	26.05.22
D	ISSUED FOR PLANNING PERMISSION PURPOSES	P.J.	P.J.	07.03.22
C	ISSUED FOR APPROVAL	P.J.	P.J.	10.02.22
B	LEVELS ADDED	P.J.	P.J.	01.10.21
A	PRELIMINARY	P.J.	P.J.	26.07.21

CLIENT
MR. GARY McKEON

PROJECT
EXISTING DEVELOPMENT AT GLASSAMUCKY, BOHERNABREENA, DUBLIN 24

TITLE
PROPOSED DRAINAGE LAYOUT PLAN
(WITH SUDS FEATURES COLOURED RED)

PATRICK JOYCE ASSOCIATES
CONSULTING ENGINEERS

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DESIGNED:	CHECKED:	APPR'D:
P.J.	P.J.	P.J.
DRAWN:	DATE:	SCALE:
P.J.	JULY–2021	1:500

DRG.No. PP/22/02(SUDS) REV: G

APPLICANT: MR. GARY McKEON

EXISTING DEVELOPMENT AT GLASSAMUCKY,
BOHERNABREENA, DUBLIN 24

SUDS MANAGEMENT PLAN

PATRICK JOYCE ASSOCIATES

CONSULTING ENGINEERS

2 PROSPECT GROVE

STOCKING LANE,

RATHFARNHAM,

DUBLIN 16.

JANUARY 2023

PATRICK JOYCE ASSOCIATES
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PATRICK C. JOYCE BE, MBA, C.Eng., MIEI

APPLICANT: MR. GARY McKEON

EXISTING DEVELOPMENT AT GLASSAMUCKY,
BOHERNABREENA, DUBLIN 24

SUDS MANAGEMENT PLAN

Introduction:

The relevant development consists of the following at Glassamucky, Bohernabreena, Dublin 24:

(1) Retention of the existing Building (A1) with new direct link to the existing family home (A) providing extra living accommodation
(2) Retention and completion of existing Building (B) for use as private family gym and general store
(3) Retention of single storey Shed (E) in side garden for storage of equipment used by the applicant in relation to his work
(4) Retention and completion of Building (F) to accommodate the storage of vintage cars owned by the applicant together with required storage of associated materials.

The existing dwelling-house is a detached bungalow with a converted attic area. The dwelling-house appears to have been constructed circa 40 years ago and contains three bedrooms. The existing Buildings (A1) and (B) were constructed prior to 2011 while the other buildings have been constructed more recently.

Additional Information Request:

Item No. 6 (d) (SUDS) of the Additional Information requested by the Planning Authority in their letter dated 2nd August 2021, Planning Reference No. SD22A/0266 states as follows:

'A comprehensive SuDS management plan shall be submitted to demonstrate that the proposed SuDS features have reduced the rate of run-off into the existing surface water drainage network. A maintenance plan should be included as a demonstration of how the system will function following implementation. Additional natural SuDS features should be incorporated into the proposed drainage system for the development such as rain gardens, detention basins, filter drains, swales etc. In addition, the applicant should provide the following:

- Demonstrate how the proposed natural SuDS features will be incorporated and work within the drainage design for the proposed development.
- A drawing to show how surface water shall be attenuated to greenfield run off rates.
- Submit a drawing to show what SuDS (Sustainable Drainage Systems) are proposed. Examples of SuDS include permeable paving, filter drains, bio-retention tree pits, rain gardens, swales or other such SuDS.
- SuDS Management – The applicant is requested to submit a comprehensive SuDS Management Plan to demonstrate that the proposed SuDS features have reduced the rate of run off into the existing surface water drainage network. A maintenance plan should also be included as a demonstration of how a system will function following implementation. The applicant is referred to the recently published SDCC SuDS Design Guide for further information and guidance.'

Existing Surface Water Drainage System:

The rainwater run-off from the existing dwelling-house and the other buildings discharges to various stone filled soakaways located on the site. Similarly, the surface water run-off from the existing hard surfaces discharges to stone filled soakaways or runs off to the existing grassed areas/vegetation on the site.

Details of the existing surface water drainage features and the approximate locations of the existing soakaways are shown on Drawing No. EX-22-03: Existing Drainage Plan contained in the Surface Water Drainage Report.

The rainwater run-off from the roof of the adjoining Chalet (D) discharges to stone filled soakaways located where shown on Drawing No. EX-22-03.

Proposed Surface Water Drainage System:

The site of the proposed development is located in an area which is considered environmentally sensitive – refer to the Hydrological and Hydrogeological Assessment Report prepared by Enviroguide Consulting. It is therefore proposed that all the existing soakaways should be replaced with new soakaways designed and constructed in accordance with the requirements of BRE Digest 365 – refer Surface Water Drainage Report.

Details of the proposed surface water drainage arrangements for the development are shown on Drawing No. PP-22-02: Proposed Drainage Layout Plan – copy attached.

All surface water run-off generated from roofs or hard surfaces within the site shall be disposed off within the site and there shall be no run-off to watercourses from the structures or hard surfaces on the site.

Rainwater runoff from the roofs of all the buildings shall be disposed off to new stone filled soakaways as shown on Drawing No. PP-22-02. The stone filled soakaways shall be designed and constructed in accordance with the requirements of BRE Digest 365. It should be noted that only clean run-off water shall be discharged to ground.

Proposed Green Infrastructure and SuDS Measures:

The proposed surface water drainage system shall incorporate, where practical, green infrastructure measures to mitigate and compensate for the impact of the proposed development on the existing site. The measures shall include additional landscaping features together with SuDS measures such as permeable paving, water butts for water recycling and grass swale.

Details of the proposed landscaping measures are provided on the Landscape Architect's Drawings and Landscape Specification prepared by Landmark Design & Consultancy Limited. The proposed measures include the following:

- The existing gravel surface to the north of Shed E shall be replaced with reinforced grass paving system to continue to provide occasional vehicular access to the Shed and to provide a green permeable surface.
- All of the surface water run-off from the existing tarmac driveway together with the proposed tarmac surface to the front (west Side) of Shed F shall be diverted through a Class 1 By-Pass Petrol/Oil Interceptor Unit and shall discharge to the proposed Grass Swale located where shown on Drawing No. PP-22-02.
- Three (3 No.) 200 litre water butts, for rainwater recycling, shall be incorporated where shown on Drawing No. PP-22-02. The water butts shall be provided beside the dwelling-house, Shed E and Shed F as shown on the Drawing.

These SuDS measures shall be incorporated to minimise the impact of the surface water run-off on water quality and quantity and to maximise the amenity and biodiversity opportunities within the proposed development.

The following is a percentage breakdown of the method of disposal of the rainwater run-off from the roofs and hard surfaces for the proposed development:

Stone filled soakaways:	48%
Grass swale:	33%
Reinforced grass panel system:	19%

Hence, in excess of 50% of the rainwater run-off resulting from the development (existing and proposed) shall be disposed off by SuDS type measures. As stated above, all surface water run-off generated from structures or hard surfaces within the site shall be disposed off within the site and there shall be no run-off to watercourses.

SuDS Management Plan:

As outlined above, the proposed surface water drainage system shall incorporate green infrastructure measures to mitigate and compensate for the impact of the proposed development on the existing site. The measures shall include additional landscaping features as outlined in the Landscape Architect's Drawings and Landscape Specification together with SUDS measures such as reinforced grass paving, water butts for water recycling and grass swale.

The applicant shall implement a comprehensive maintenance plan in respect of the surface water system including maintenance of the SuDS features. Where possible the idea of 'passive maintenance' shall be considered with SuDS components integrated into the everyday management of the proposed development and site. Where possible, the maintenance should take place as part of the landscape management and maintenance. Responsibility for the maintenance shall be the applicant's or other experienced personnel nominated by the applicant.

SuDS & Site Maintenance Schedule:

Grass Verges:	Mow all grass verges at 35 – 50 mm with 75 mm max monthly in growing season or as required.
Grass Swale:	Mow the dry grass swale at 100 mm with 150 mm max every six weeks during growing season or as required. Inspect grass swale inlet monthly, remove silt and leaves etc.
Permeable Paving:	Sweep all paving regularly to keep surface tidy
Oil Interceptor:	Annual inspection of the petrol/oil interceptor by installer or other approved.
General SuDS:	Inspect SuDS system to check for damage or failure when carrying out other tasks monthly. Undertake remedial work as required.

Signed: Patrick Joyce.....
Patrick C. Joyce
Patrick Joyce Associates

Date: 17th January 2023