



**Cairngorms**  
National Park Authority

Ùghdarras Pàirc Nàiseanta a'  
**Mhonaidh Ruaidh**

Item 6 Appendix 1 09 June 2023

Agenda item 6

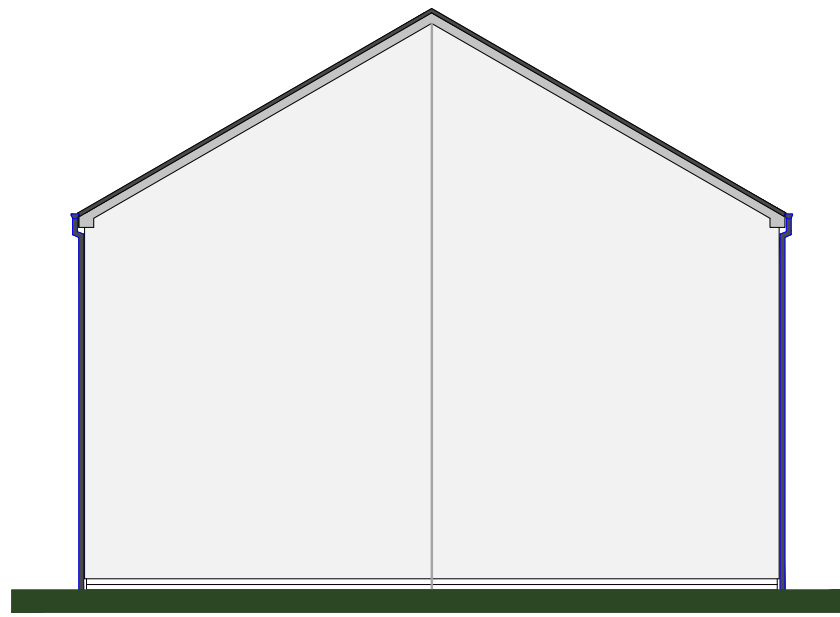
Appendix 1

2022/0270/DET

Plans



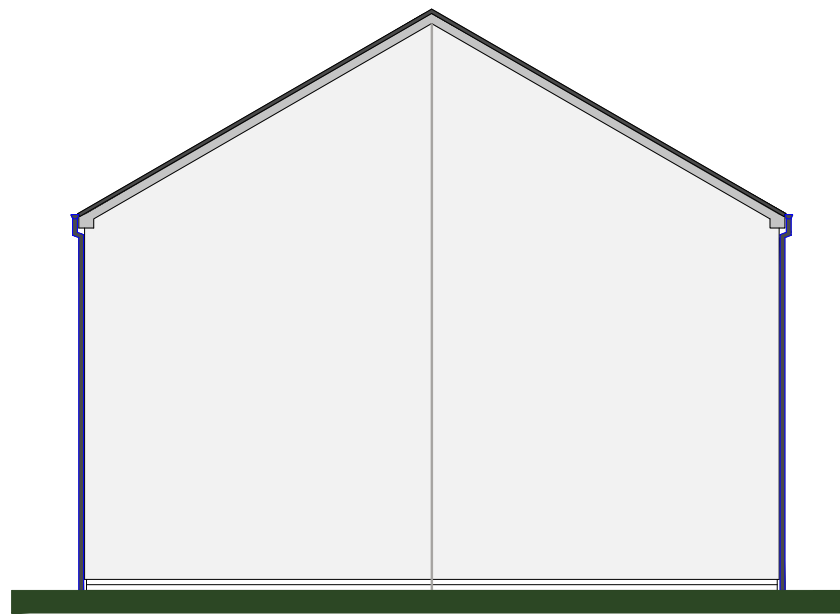
Rear Elevation



Side Elevation

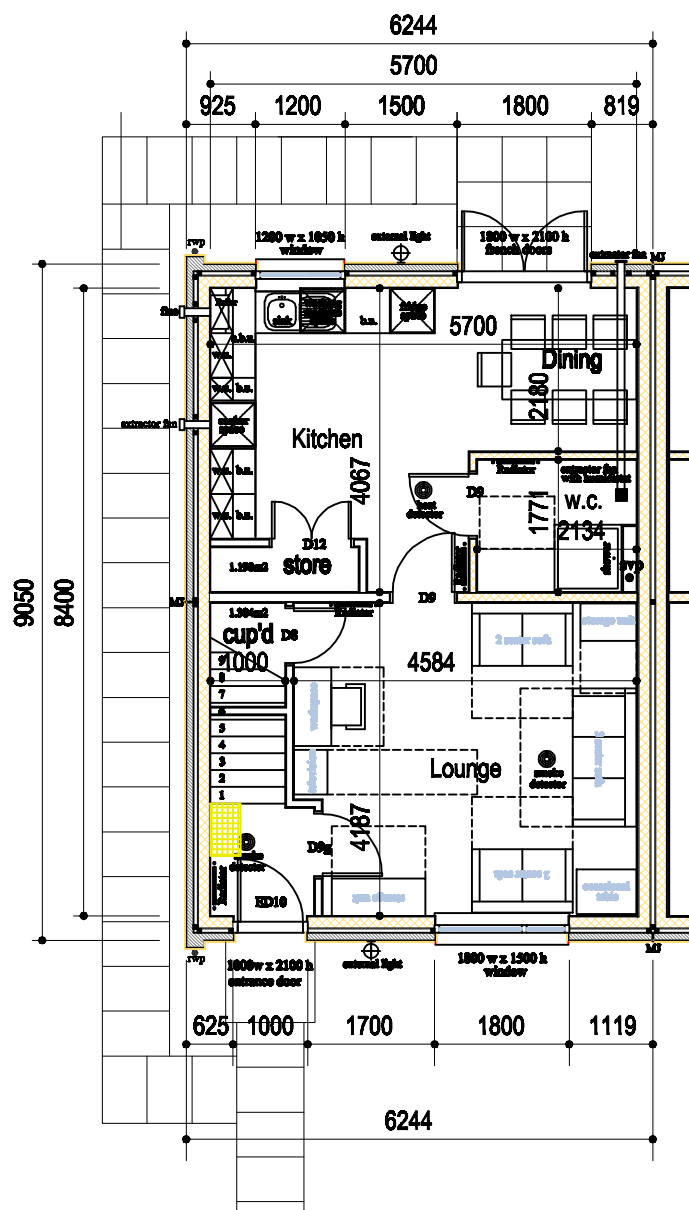


Front Elevation

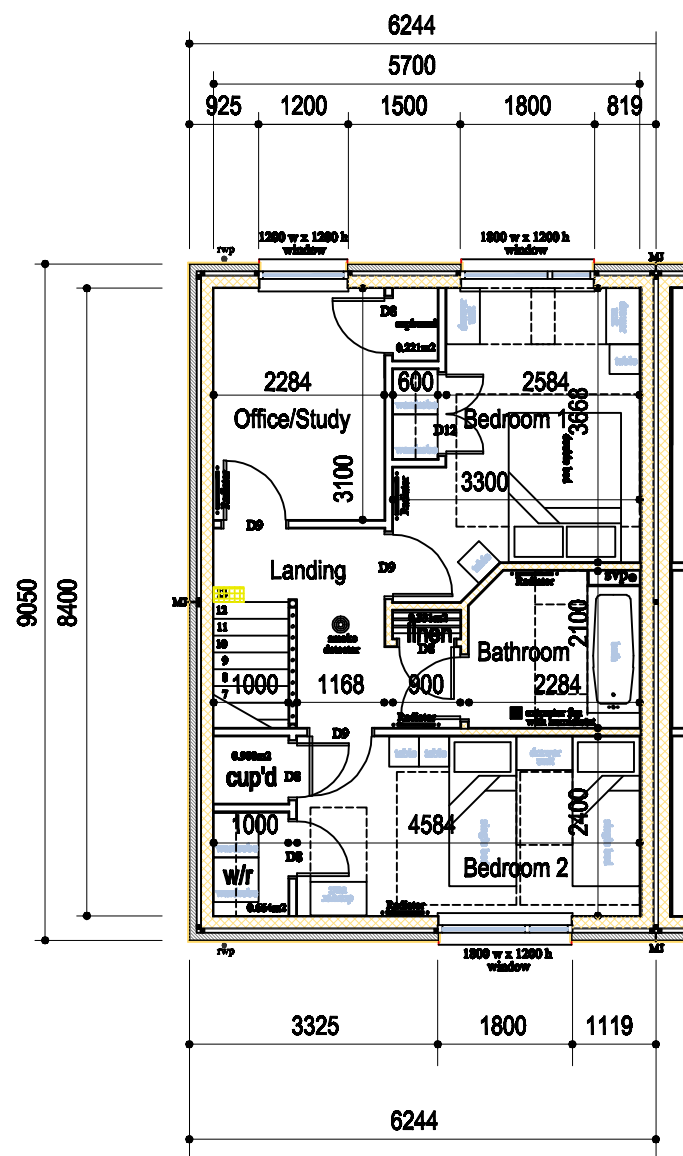


Side Elevation

# Front Aspect 2 Bedroom Villa

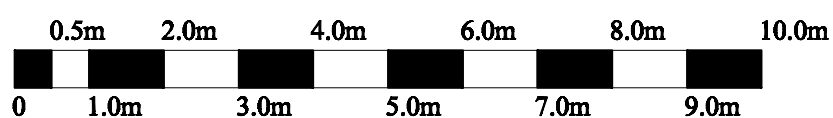


**2 bed, 4 person s/d villa  
GROUND FLOOR LAYOUT**

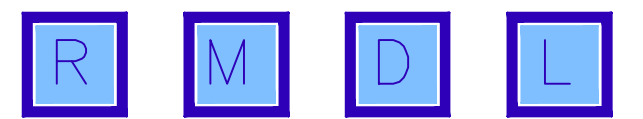


**2 bed, 4 person s/d villa  
FIRST FLOOR LAYOUT**

SCALE BAR:-



**FLOOR AREA = 95.76 sq.m.  
( 1031 sq.ft.)**



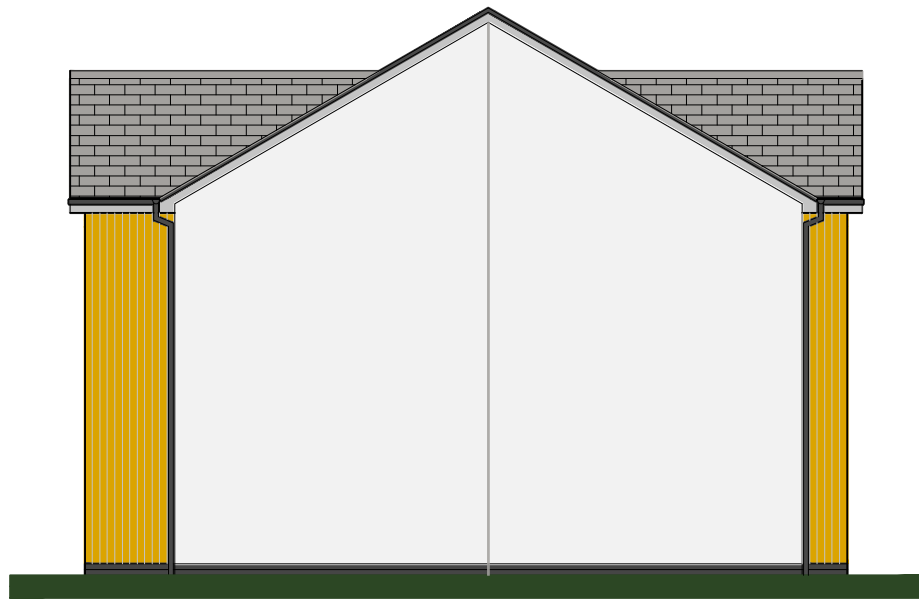
**roy mitchell DESIGN LIMITED**  
ARCHITECTURAL CONSULTANCY  
Beechcroft  
Carnovale Road  
LARBERT FK6 3LG

drawing location : DRMDLACH/373	drawn by : RWM
date : JUNE 2022	scale : 1:100

project :  
**Grantown on Spey  
Plots 47-48**

title :  
**2 bedroom semi-det villa**

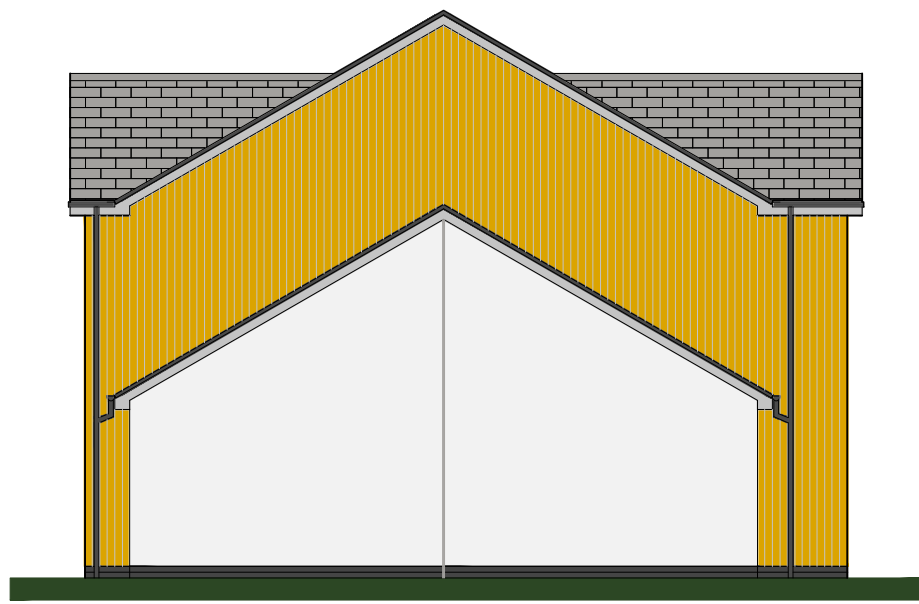
drawing number RMDL/373/003	revision -
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Side Elevation



Rear Elevation



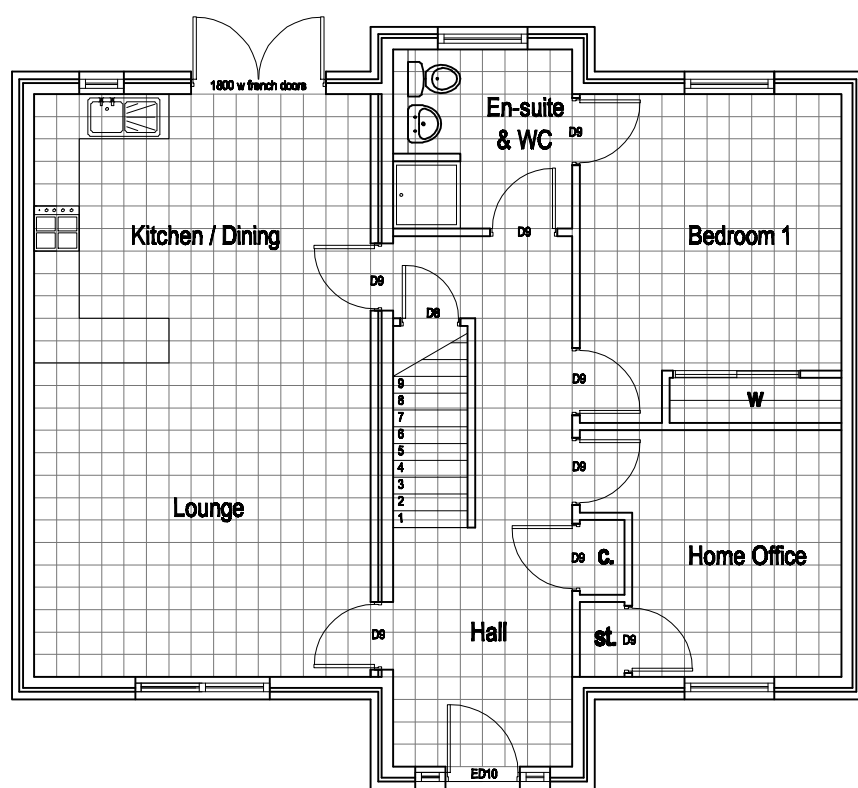
Side Elevation



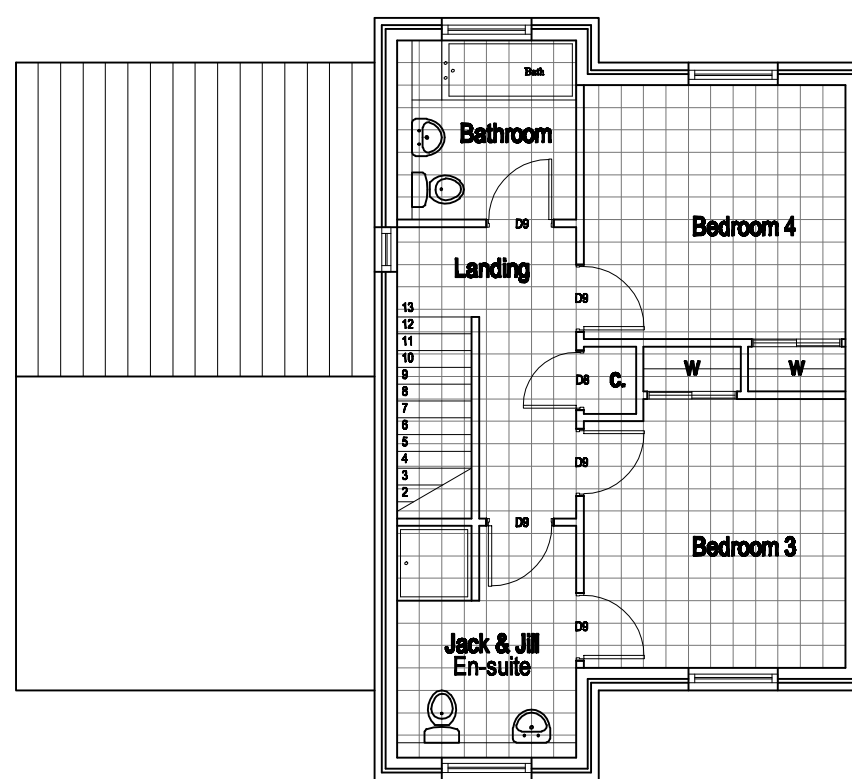
Front Elevation

## Front Aspect 3 Bedroom Villa

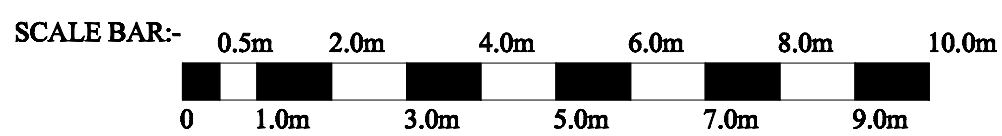
Semi-Detached - 40/41;  
 Linked-Detached - 56/57; & 60/61;  
 Detached - 42.



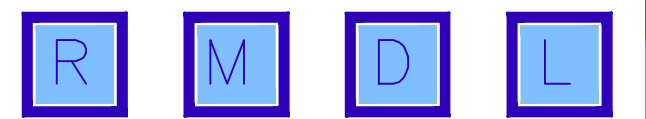
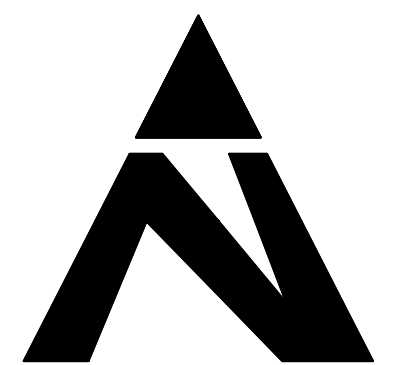
Ground Floor Layout  
 Front Aspect



First Floor Layout  
 Front Aspect



**FRONT ASPECT 3 BEDROOM VILLA**  
 139.58 sq.metres; 1504 sq.feet.



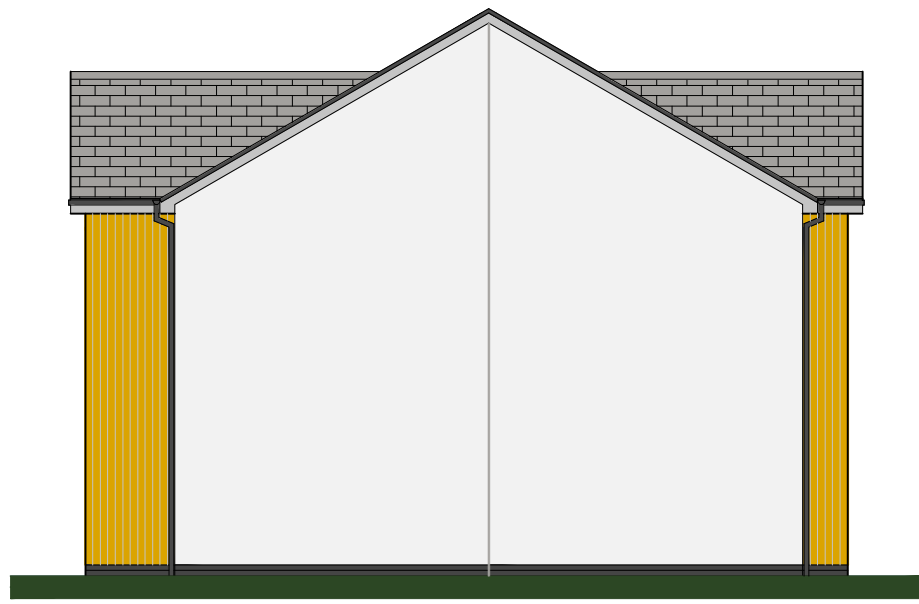
roy mitchell DESIGN LIMITED  
 ARCHITECTURAL CONSULTANCY NORTH  
 Beechcroft  
 Carronvale Road  
 LARBERT FK6 3LG

drawing location : DRMDLACH/373	drawn by : RWM
date : MARCH 2022	scale : 1:100

project :  
**Grantown on Spey**

title :  
**3 bedroom front aspect villa**

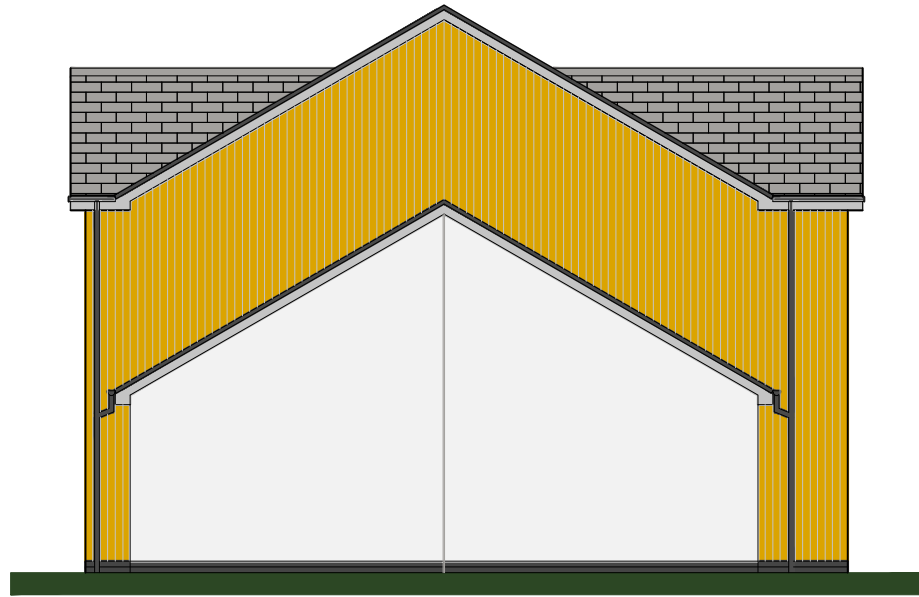
drawing number RMDL/373/001	revision -
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Side Elevation



Rear Elevation



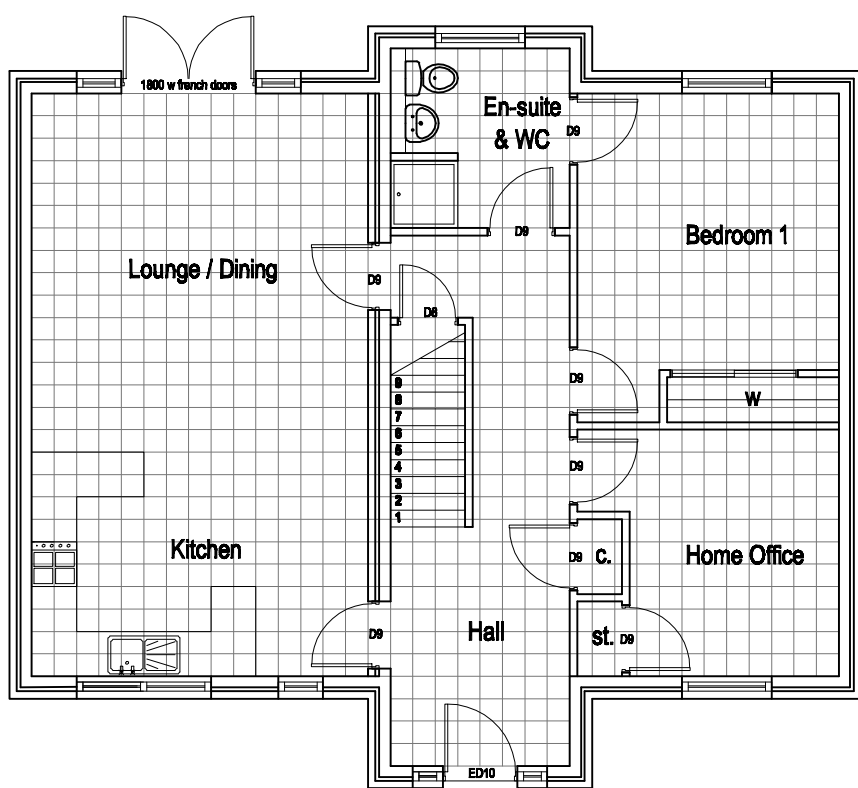
Side Elevation



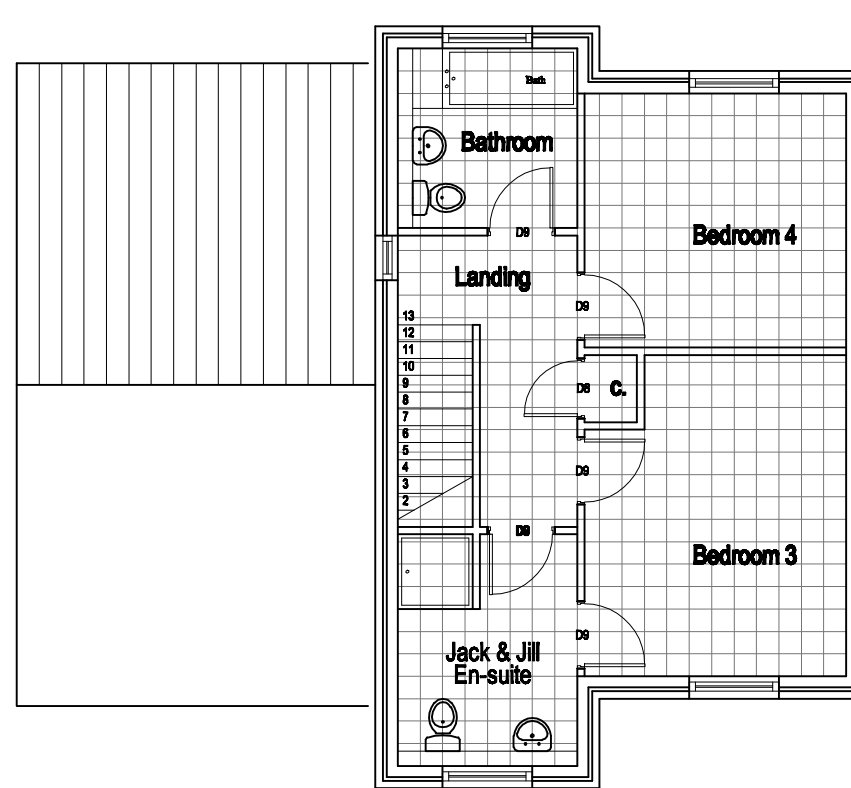
Front Elevation

## Rear Aspect 3 Bedroom Villa

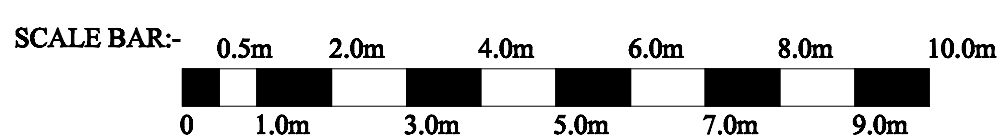
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 Detached - 43; 44 & 49.



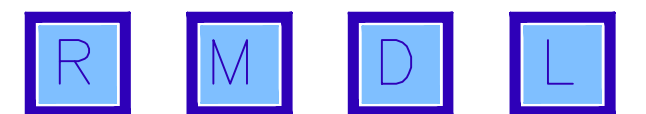
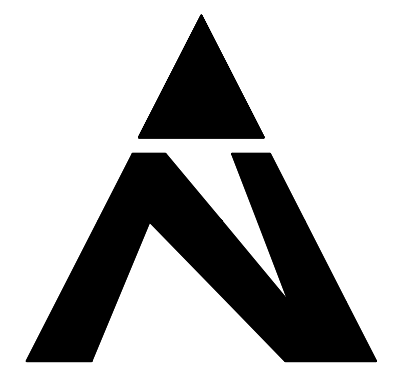
Ground Floor Layout  
 Rear Aspect



First Floor Layout  
 Rear Aspect



**REAR ASPECT 3 BEDROOM VILLA**  
 139.58 sq.metres; 1504 sq.feet.



roy mitchell DESIGN LIMITED  
 ARCHITECTURAL CONSULTANCY NORTH  
 Beechcroft  
 Carronvale Road  
 LARBERT FK5 3LG

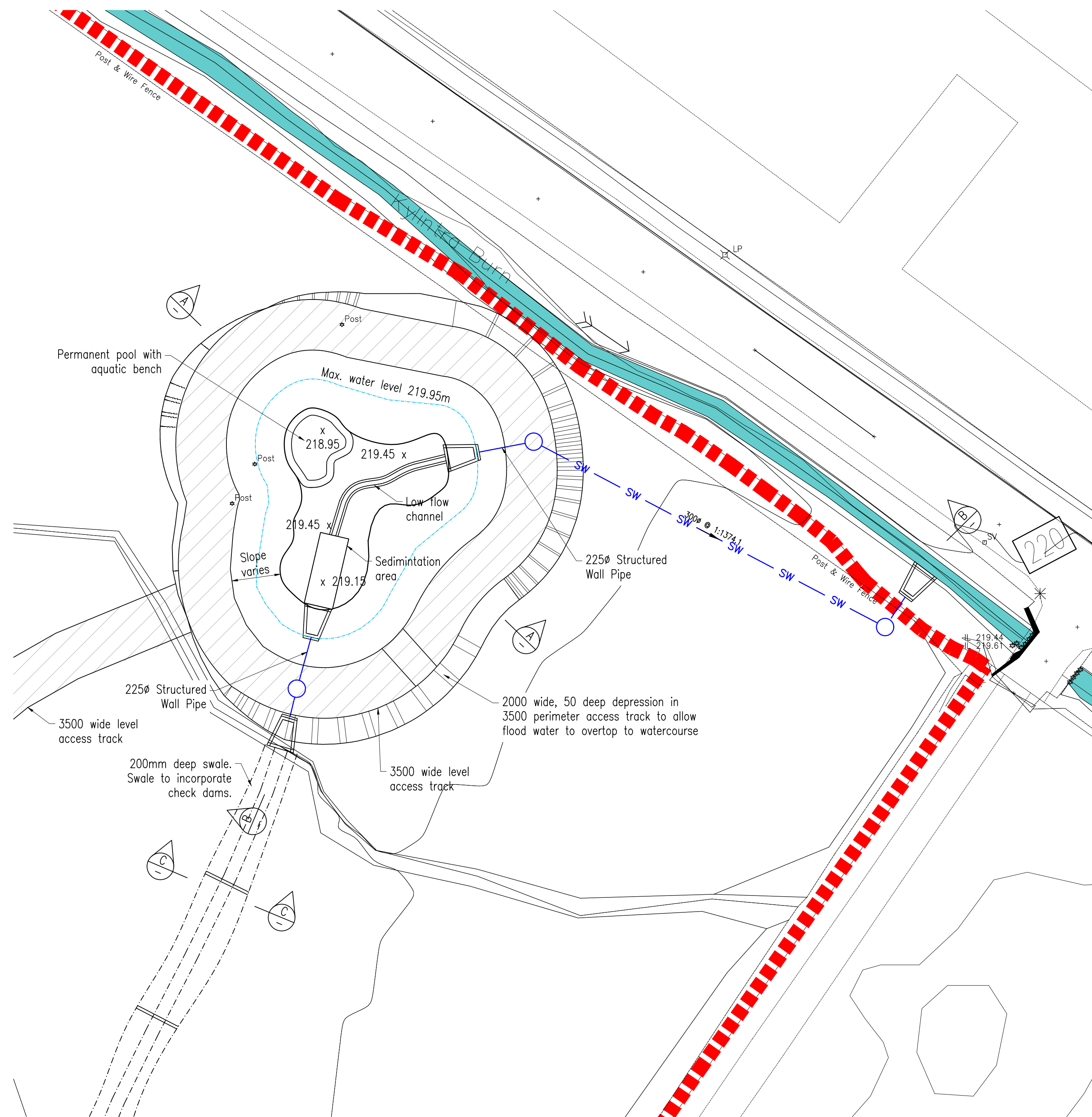
drawing location : DRMDLACH/373	drawn by : RWM
date : MARCH 2022	scale : 1:100

project :  
**Grantown on Spey**

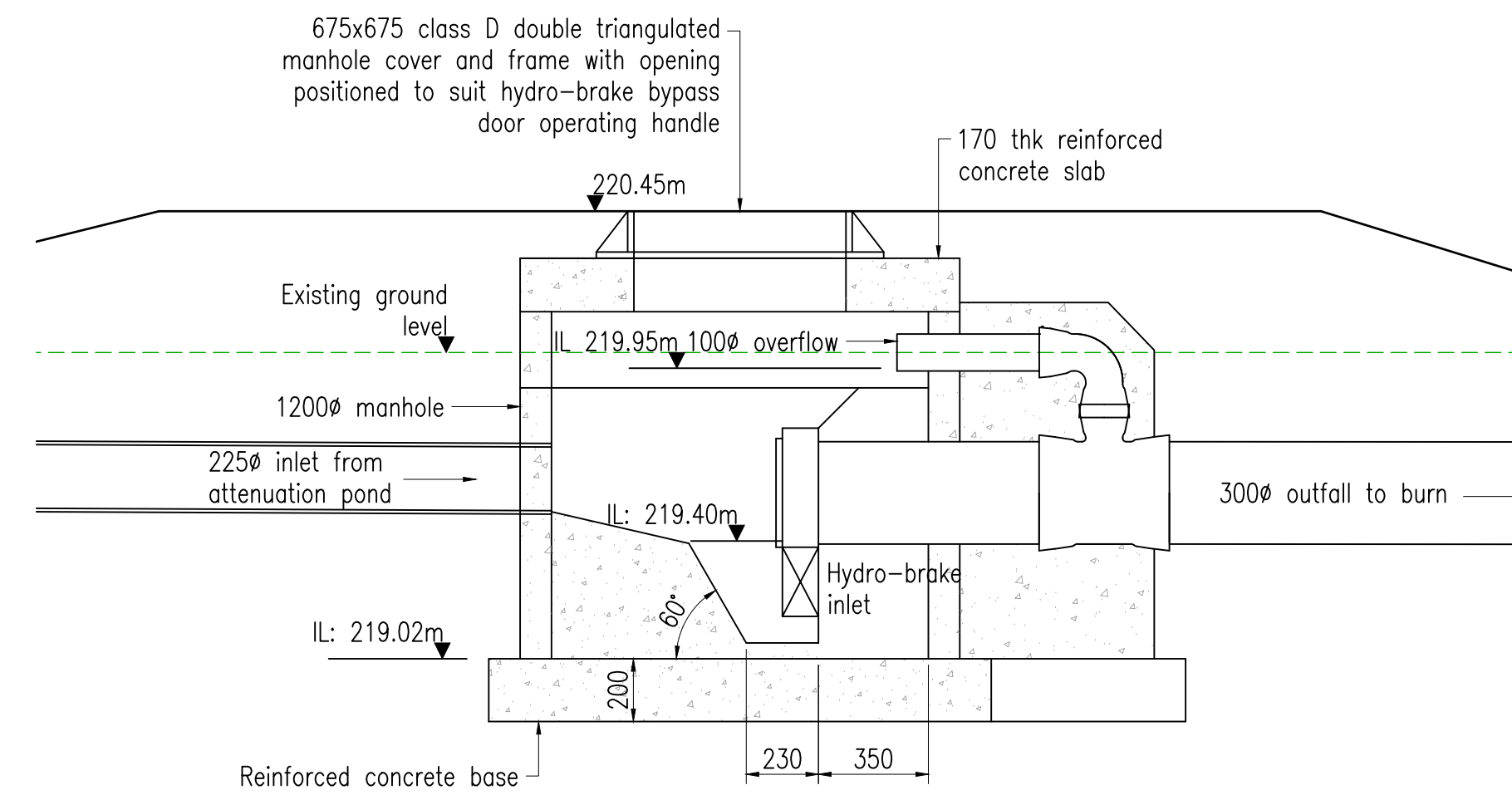
title :  
**3 bedroom rear aspect villa**

drawing number RMDL/373/002	revision -
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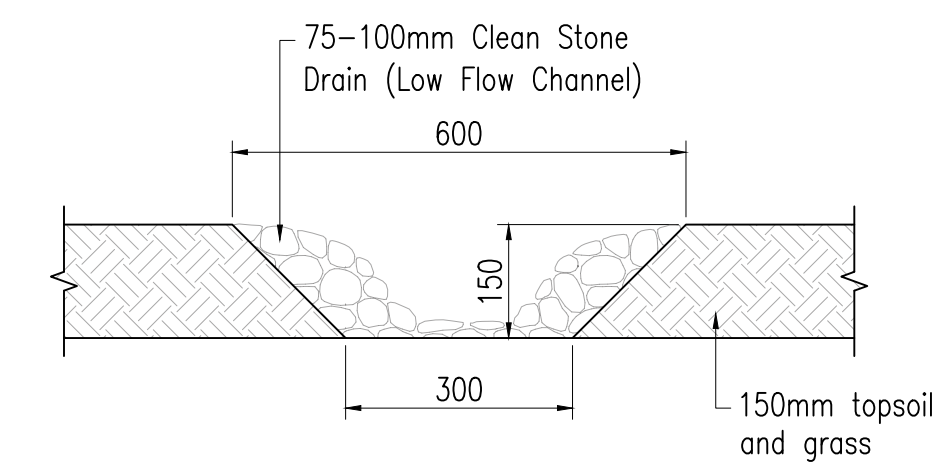




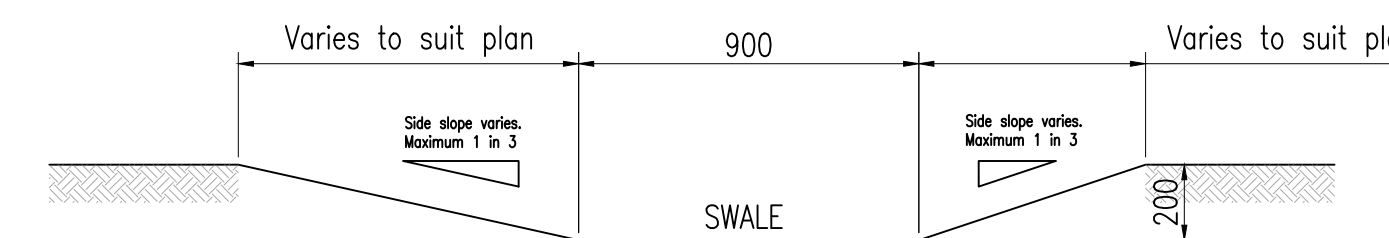
PLAN  
Scale 1:200



HYDRO-BRAKE MANHOLE  
SECTION  
Scale 1:20



TYPICAL LOW FLOW SECTION  
Scale 1:10



TYPICAL SWALE SECTION C-C  
Scale 1:10

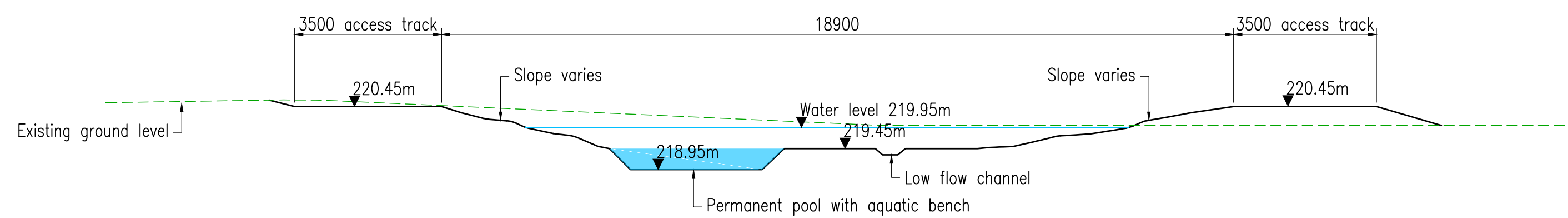
Access Track Construction:

- Quarry Dust Finish
- 200mm Type 1
- 1 Layer Tensar Triax Geo-Grid or approved similar.

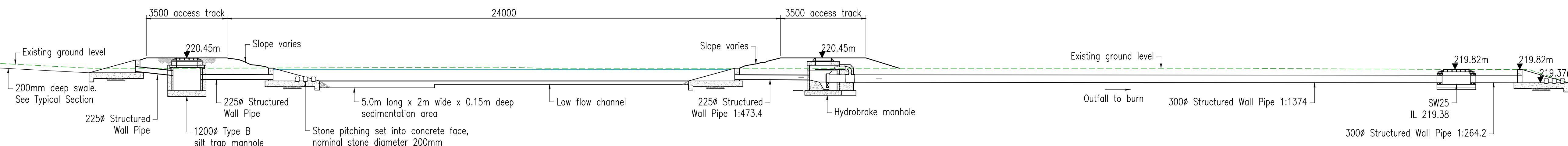
Pond Construction:

- 150mm free draining imported top soil Class 5B
- 1 layer Axtex non woven geotextile NW300 or approved similar installed as per manufacturers specification.
- 150mm of Class 6A material compacted in compliance with CI 608 and 612 (Specification for Highway Works) on approved formation.

Note: Permanent pool geotextile to be replaced with impermeable membrane



SECTION A-A  
Scale 1:100



SECTION B-B  
Scale 1:100

REV	DATE	REVISION	DRN	CHK
C	09/11/16	PIPE SIZES AMENDED	DM	AM
B	30/08/16	TRACK & POND CONSTRUCTION ADDED	DM	AM
A	22/08/16	PLAN & SECTIONS UPDATED	DM	AM
1	11/05/16	FIRST ISSUE	DM	-

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**Arch Henderson**  
1919  
24 Bank Street, Inverness, IV1 1QU  
Tel: 01463 719200 - Fax: 01463 719201  
email: inverness@arch-henderson.co.uk  
Web: www.arch-henderson.co.uk

Civil Engineers  
Architects  
Aberdeen Dundee Glasgow Lerwick Inverness Stromness Thurso

Structural Engineers  
CDM Co-ordinators

Environmental services  
Geotechnical services

PROJECT :  
RS MCLEOD LTD  
HOUSING DEVELOPMENT, GRANTOWN

TITLE :  
SUDS POND 1  
PLAN & SECTIONS

DRAWN :	DATE :	CHECKED :	AUTHORISED :
DM	11/05/16	AM	AM

SCALE : (A1)  
AS SHOWN

DRAWING STATUS :

DO NOT SCALE

DRAWING No : 147132/20  
REV : C

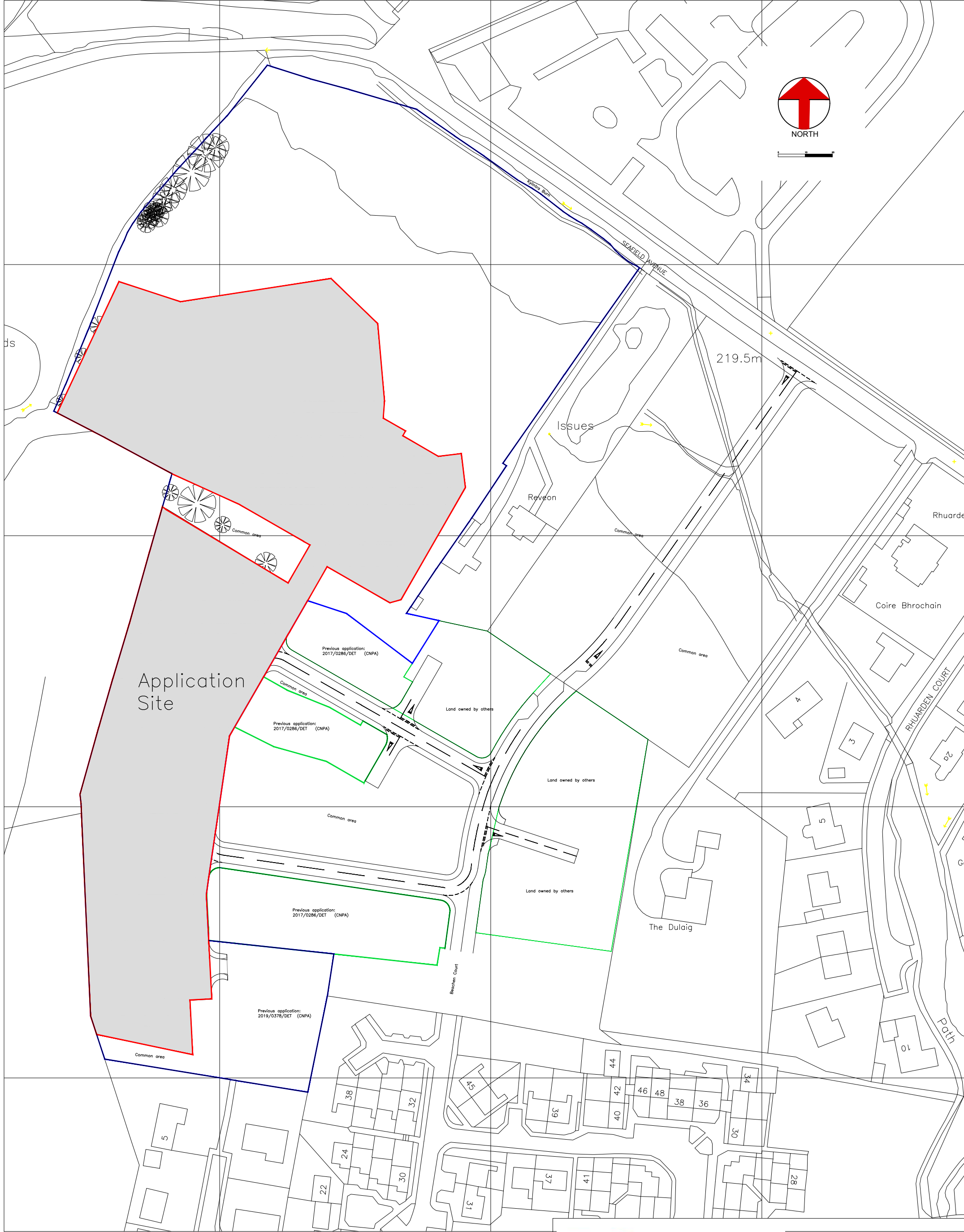












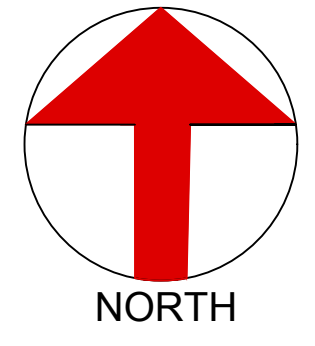
**RS McLeod** Ltd.  
Building Contractors

Title: Location Plan  
19 units, Dulicht Court

Drawn by: M. Hogg  
Date: 1<sup>st</sup> July 2022

Scale: 1:1250 on A3

Drawing no: RSMD/GOS/LP/001  
Rev A



### Plot Schedule

- Plots 45/46, 50/51, 52/53, 58/59 – 3 Bedroom Semi-Detached Rear Aspect
- Plots 54/55, 56/57, 60/61 – 3 Bedroom Semi-Detached Front Aspect
- Plot 47/48 – 2 Bedroom Semi-Detached
- Plots 43, 44, 49 – 3 Bedroom Detached Rear Aspect

Soil dispersal area

Issues

Reveon

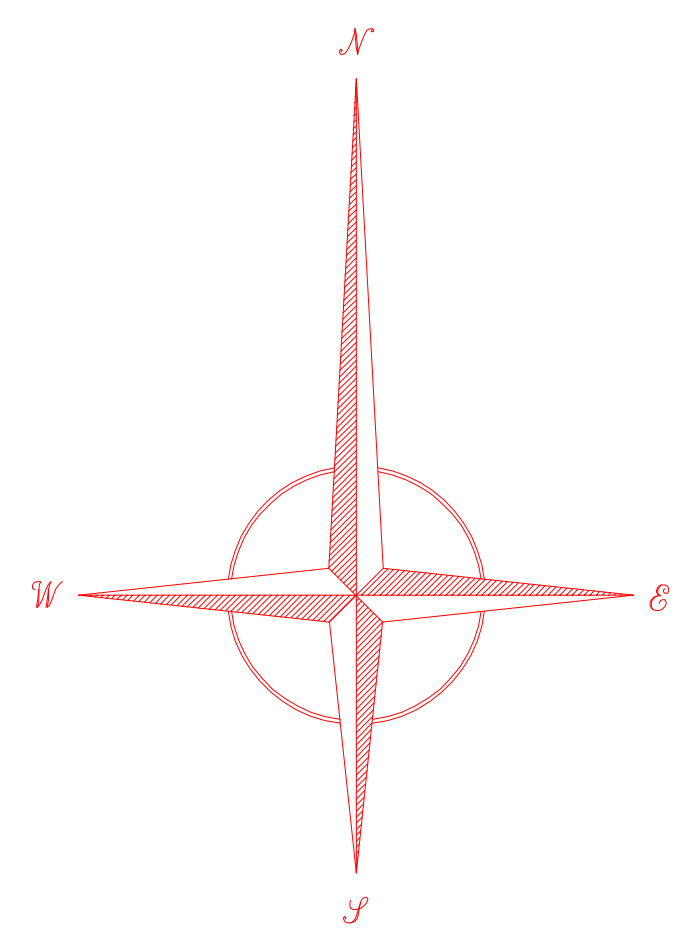
TOTAL APPLICATION AREA = 19,220M<sup>2</sup> (OUTLINED IN RED)

**RS McLeod**  
Building Contractors

Title: Site layout  
19 units, Dulicht Court  
Scale: 1:500 on A1

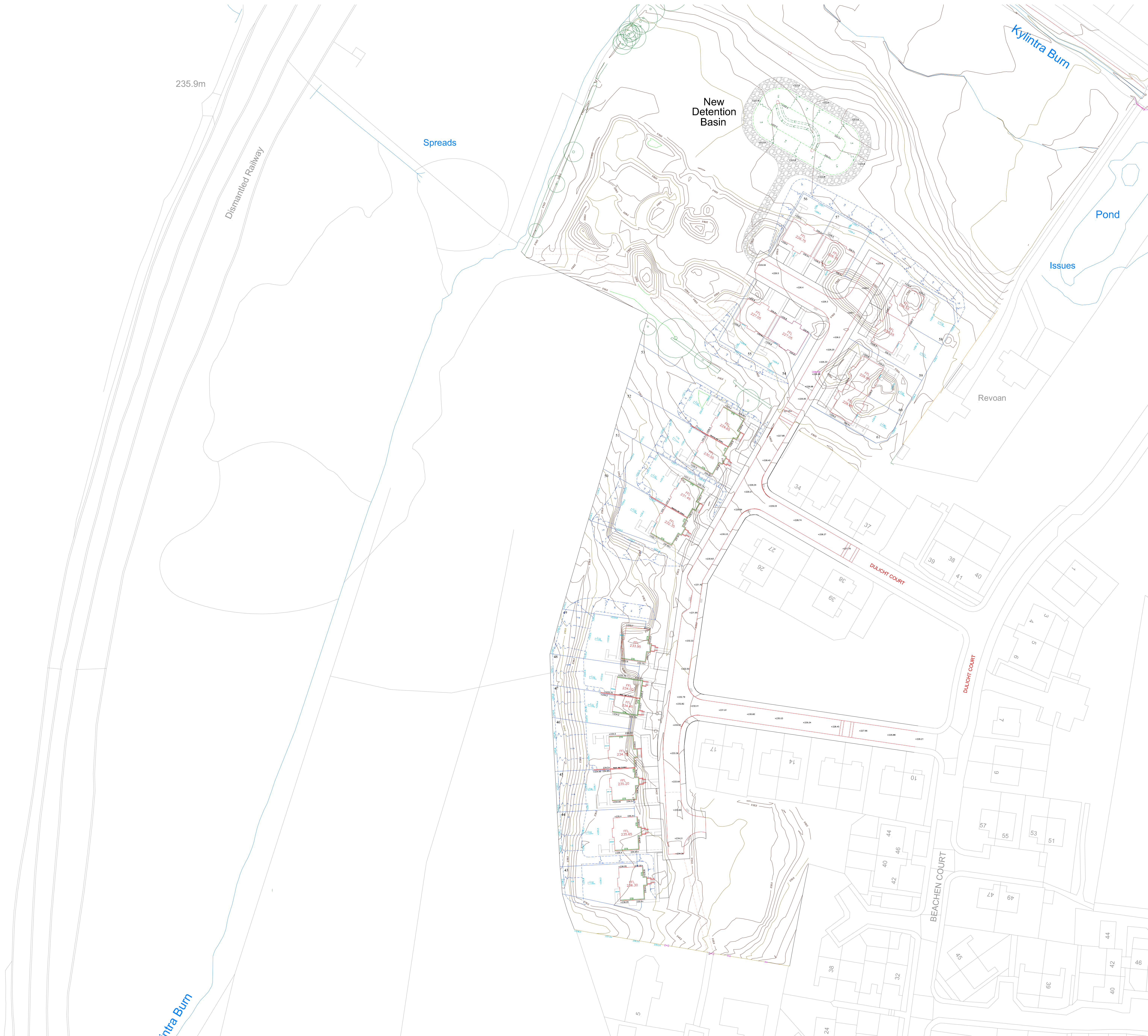
Drawn by: M. Hogg  
Date: 1<sup>st</sup> July 2022  
Drawing no: RSMG/GOS/SL/001  
Rev A





**LEGEND**

- 65.0 Existing major ground level contour
- 63.0 Existing major ground level contour
- 6.20+ Proposed finished level
- FFL**  
7.37 Proposed floor level
- Proposed slopes
- EFB**  
 Exposed Facing Brick





Please Quote  
Our Ref:



**G&D Engineering  
Services Ltd**

1 Stanhouse Crescent  
Dunfermline, Fife  
KY11 8YX  
Tel: 01383 842903

**Development**

**At**

**Dulicht Court Phase 2**

**Grantown on Spey**

**RS McLeod Limited**

**Surface Water Management Plan 10223-0412**

**April 2023**

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## **1.0 Introduction**

RS Mcleod Ltd are developing a site at Dulicht Court, Grantown on Spey with the site centre at National Grid Reference NJ 02592 28018. The entire site extends to an area of approximately 5.66Ha and the site is divided into 2 phases. Phase 1 (23 houses) has been completed and Phase 2 currently consists of 29 units/building plots. For the purposes of this report we have divided Phase 2 into 2 sub phases, 2a (19 units) & 2b (10 building plots). Phase 2a has been partially completed with 16 units completed and a further 3 units to be commenced. On Phase 2b, the developer is submitting a planning application to change the 10 building plots into 3 detached houses and 16 semi-detached houses. The attached Dwg 10223-LP1 shows the location of the site and also the layout of the phases (Refer to Appendix 1).

G & D Engineering Services have been appointed by RS Mcleod Ltd to carry out a Surface Water Management Plan in accordance with current standards and specifications of Scottish Water, SEPA and Highland Council in terms of the site surface water drainage.

## **2.0 Preliminary Investigations and Consultations**

The engineer has previously carried out investigations into establishing the extents and capacities of the current public drainage network and culverts.

## **3.0 Existing Site Drainage**

Drainage records were obtained from Scottish Water (Refer to Appendix 2) which indicate the existing sewers constructed on site are separate foul and surface water sewers but are yet to be adopted. The foul drainage connects to existing foul sewers to the north and south of the site and the surface water run-off discharges into The Kynlindra Burn via a Detention Basin and swale.

Due to the site topography, building plots 6-10 could not connect by gravity into the surface water sewers constructed on site and it was intended to discharge the surface water run off from these plots to individual private soakaways. (Refer to Appendix 3)

## **4.0 Proposed Foul Drainage**

A foul sewer system has been constructed in Phases 1 & 2a to discharge the foul flows from Phase 2b. The foul flows plots 43-52 are to discharge into the existing foul sewers by means of new or existing house connections and a new section of foul sewer is required to discharge the foul flows from plots 53-61 to FW29. A foul drainage layout is shown on Dwg 12023-PD2 (Refer to Appendix 4). A Pre-Development Enquiry has been submitted to Scottish Water and we await their confirmation of capacity for the additional foul flows from additional 9 dwellings.

## **5.0 Proposed Surface Water Drainage**

### **5.1 Surface Water Design Criteria**

Scottish Water and Highland Council have different surface water design criteria. Scottish Water surface sewer design criteria is for the 1 in 30 year + 40% CC with consideration of flow path routing for the 1 in 200 year storm event. Highland Council current surface water sewer design criteria is for the 1 in 200 year + 40% CC with consideration for flow paths routing for the 1 in 200 year storm event with no detriment flooding to proposed or existing properties. For the purposes of this report, we have adopted the Highland Council design criteria as it is the more onerous criteria. A surface water drainage layout is shown on Dwg 10223-PD2 (Refer to Appendix 4) and all drained hardstanding areas are shown on Dwg 10223-HS1 (Refer to Appendix 5) .

Plots 43-52 are situated on the original site of building plots 1-5. The surface water sewer previously constructed was designed to drain the surface water flows from these building plots (Refer to Appendix 9). Plots 43-52 will connect to the existing surface water sewer by means of new and existing sewer connections. The drained hardstanding area from a large building plot and 2 semi-detached houses are very similar and therefore the existing surface water sewers and Detention Basin are deemed to be of adequate size to discharge the surface water flows from these plots.

Plots 53-61 are situated on the original site of building plots 6-10. As mentioned previously in section 3.0, these plots were to be drained to individual soakaways. However due to the reduced plot sizes it would not be possible to construct soakaways for each house whilst complying with The Building Regulations. We therefore propose to construct a new surface water sewer system for these plots that will discharge to the Kylintra Burn through a new Detention Basin. The surface water layout for Phase 2b is shown on Dwg 10223-PD2 (Refer to Appendix 4).

### **5.2 Surface Water Run-off Rate**

The greenfield run off rate for the plots (53-61) is assessed at 3.80L/s and greenfield calculations are provided in Appendix 5. The surface water flows will be restricted by means of a hydrobrake built at manhole S1.

### **5.3 Surface Water Design & Attenuation**

The attached Surface Water Model (Refer to Appendix 6) confirms that the surface water sewer system (plots 54-61) does not surcharge during the 1 in 30 + 40% CC storm event and we have upsized 2 sections of sewer to ensure the system does not surcharge during the 1 in 200 year + 40% CC storm event. The model confirms that the total volume of attenuation required to attenuate the 1 in 30 year + 40% CC to the restricted flow rates is 121m<sup>3</sup> of attenuation required to attenuate the 1 in 200 year + 40% CC to the restricted flow rates is 187m<sup>3</sup>. The Detention Basin provides a storage volume of 398m<sup>3</sup>.



## **5.2 Surface Water Flowpaths**

It is a statutory requirement that site levels are designed to ensure safe surface water flow paths are provided throughout the developed site in the event of extreme rainfall events or a blockage of the system. The Pre-Development surface water flow paths are shown on Dwg 10223-FP1 (Refer to Appendix 7) and the Post-Development surface water flow paths are shown on Dwg 10223-FP2 (Refer to Appendix 8). The latter drawing shows that safe flow paths are provided throughout the development in the event of a total blockage in the Surface Water Drainage System.

## **6.0 SUDS**

It is now planning policy that the surface water discharge from all new development must include SUDS. SEPA have established the minimum treatment requirements for all hard standing areas in their document " Simple Index Approach Calculation". We confirm that all drained hardstanding areas as shown on Dwg 10223-HS1 (Refer to Appendix 5) have a level of treatment to comply with this document and we would confirm our treatment measures as follows

### **6.1 SUDS Measures**

#### **Roads (< 300 traffic movements a day)**

Treatment Level Required - 0.50/0.40/0.40  
 Detention Basin Treatment Level - 0.50/0.50/0.60 (Pass)  
 Detention Basin Maintenance Responsibility – Scottish Water  
 Maintenance – Seasonal cutting of grass and cleaning of inlets & outlets

#### **Private Driveways**

Treatment Level Required - 0.50/0.40/0.40  
 Detention Basin Treatment Level - 0.50/0.50/0.60 (Pass)  
 Detention Basin Maintenance Responsibility – Scottish Water  
 Maintenance – Seasonal cutting of grass and cleaning of inlets & outlets

#### **Roof Areas**

Treatment Level Required - 0.20/0.20/0.05  
 Detention Basin Treatment Level - 0.50/0.50/0.60 (Pass)  
 Detention Basin Maintenance Responsibility – Scottish Water  
 Maintenance – Seasonal cutting of grass and cleaning of inlets & outlets

#### **Hydrobrake**

Maintenance Responsibility – Scottish Water  
 Maintenance – Per manufacturers maintenance regime

## **7.0 Summary**

The proposed surface water drainage proposals comply with all design requirements as required to comply with Scottish Water, Highland Council and SEPA

## **8.0 Appendices**

Appendix 1 – Dwg 10223-LP1-Location Plan

Appendix 2 – Scottish Water Drainage Records

Appendix 3 – Previous Phase 2 Drainage Design

Appendix 4 – Dwg 10223-PD2- Proposed Drainage Layout

Appendix 5 – Dwg 10223-HS1- Hardstanding Layout

Appendix 6 – Surface Water Model & Greenfield Run-Off Calculations

Appendix 7 – Dwg 10223-FP1 – Pre-Development Surface Water Flowpath Layout

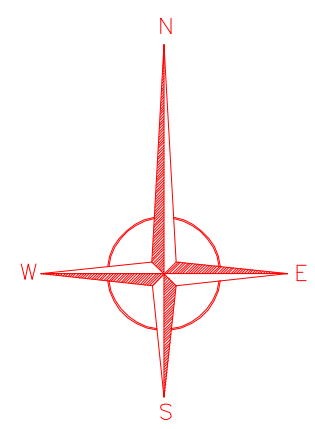
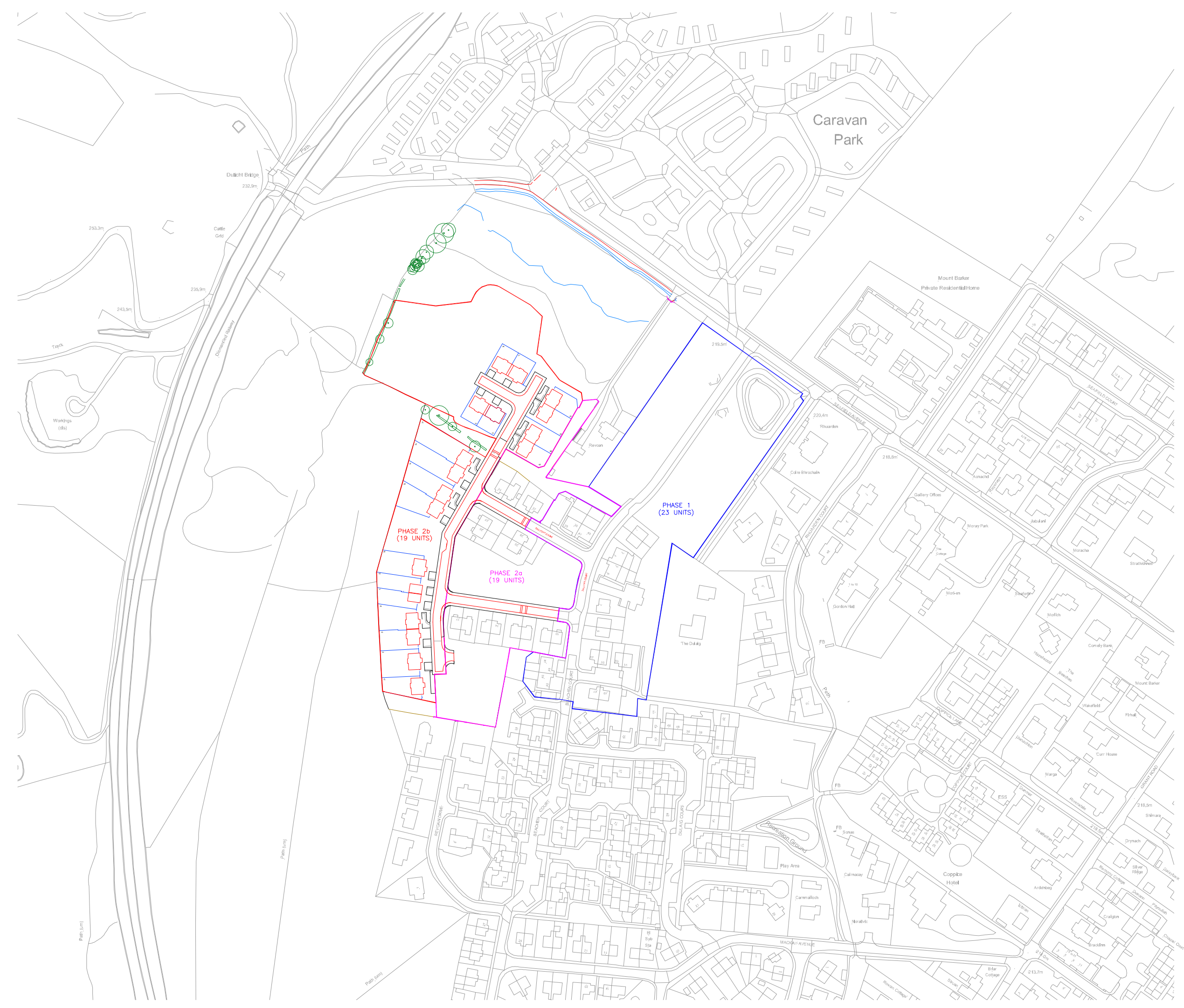
Appendix 8 – Dwg 10223-FP2 – Post-Development Surface Water Flowpath Layout

Appendix 9 – Appendix C & Professional Indemnity Insurance



**Appendix 1**  
**Drawing 10223-LP1-Location Plan**

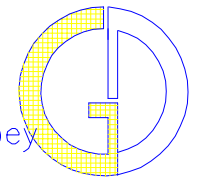
DO NOT SCALE – IF IN DOUBT ASK !



 PHASE 2b – 2.06Ha

**G & D ENGINEERING SERVICES LTD**

1 Stanhouse Crescent, Dunfermline, Fife, KY11 8YX, Tel 01383 842903  
PROJECT TITLE : RS McLeod, Dulicht Court Phase 2b, Granttown on Spey  
DRAWING TITLE : Location Plan



DATE : April 2023  
SCALE : 1:2500 @ A2  
E MAIL : GDENG01@AOL.COM

DRAWN BY : DC  
DRAWING NO. 10223 /LP1