

AGENDA ITEM 6

APPENDIX 20

2018/0151/DET

WOODLAND PLANTING PLAN



Dalwhinnie Quarry

Woodland Planting Plan

Revision 1

July 2018

**Leiths (Scotland) Limited
Rigifa
Cove
Aberdeen
AB12 3LR**

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1 Background

The tree planting will be undertaken in the first planting season following commencement of the development. This will allow the woodland to develop from an early stage, providing both landscape and ecological mitigation and enhancement from early in the life of the quarry. The boundary shown on the planting plans will form a new woodland which is natural in appearance surrounding the quarry area helping screen the site from elevated viewpoints.

The associated fencing is designed to exclude browsing herbivores from the woodland and quarry area. The fence will be located away from the planted boundary to encourage additional tree growth from self-seeding in the area between the fence and the planted area. Growth of self-seeded trees in this area will give a natural form to the woodland.

The tree planting and associated deer fence is shown on Plan RG547-49\F\01

One small area of planting (0.44ha), adjacent to the A889 will take place during restoration when the overburden from the roadside screening bund is used in site restoration. This planting area will cover the footprint of the screening bund and will use the same species balance as the remainder of the site.

The planting adjacent to the A889 is shown on Plan RG547-49\F\05

2 Protection / Fencing

Roe deer, red deer, brown hares and to a lesser extent sheep currently pose the main browsing threat in the woodland creation areas. Deer fencing (LHT top net, HT bottom net; or single deer net) with a rabbit net bottom will be used to protect the planting areas with the aim of excluding damaging herbivores. Water gates will be fitted if required.

If requested, the fence will be marked with wooden grouse droppers to prevent bird strikes. This will be with individual 1.2m pales at 1m spacing fitted on the diagonal. Additional wooden struts will be fitted to the fence to strengthen the fence due to the increased exposure risk due to the wooden droppers.

Forestry Commission Technical Guidance notes 2 (Forest Fencing) and 19 (Fence Marking to Reduce Grouse Collisions) will be followed. All materials will be specified to the high standards defined in the technical guidance note. The wire will meet BS4102 and galvanised to BS EN 10244-2. The woodwork will be treated to ensure longevity.

3 Ground Preparation and Drainage

Ground preparation is to be predominately by mechanical scarification. Mounding, using an excavator, may be used in localised areas where working conditions means that scarification is unfeasible.

Hand screening will be carried out to create a vegetation free planting location within buffer zones to any water courses or on steep ground.

No new drainage will be carried out.

Forests and Water: UK Forestry Standard Guidelines (2017) will be followed.

4 Planting

Native trees will be planted to achieve an average of 1,600 trees per hectare established at year 5. Stocking densities may vary across the site to reflect natural soil conditions and landform.

The design of this woodland follows FCS Bulletin 112 'Creating New Native Woodlands'.

Species Composition is detailed in the table below.

Species	%
Native Scots pine	55
Downy birch	10
Silver birch	5
Rowan	10
Grey willow	5
Goat willow	5
Alder	5
Hazel	5

All plant stock will be sourced from national tree nurseries and will either be bare rooted or cell grown depending on the provenances and size available at the time of planting.

Native stock will be seed zone 201 or of the nearest commercially available alternative native seed zone in line with Forestry Commission Guidance Note: "Seed Sources for Planting Native Trees and Shrubs in Scotland".

The planted Scots pine and broadleaved trees will be between 20-50cm. Aspen may be included in the native broadleaf mix where a suitable provenance can be commercially sourced.

Ground conditions are considered unsuitable for planting of Bird Cherry and Holly.

5 Maintenance

Regular management inspections will be undertaken throughout the establishment phase by experienced forest managers and wildlife managers. This will identify the maintenance operations required at the appropriate times.

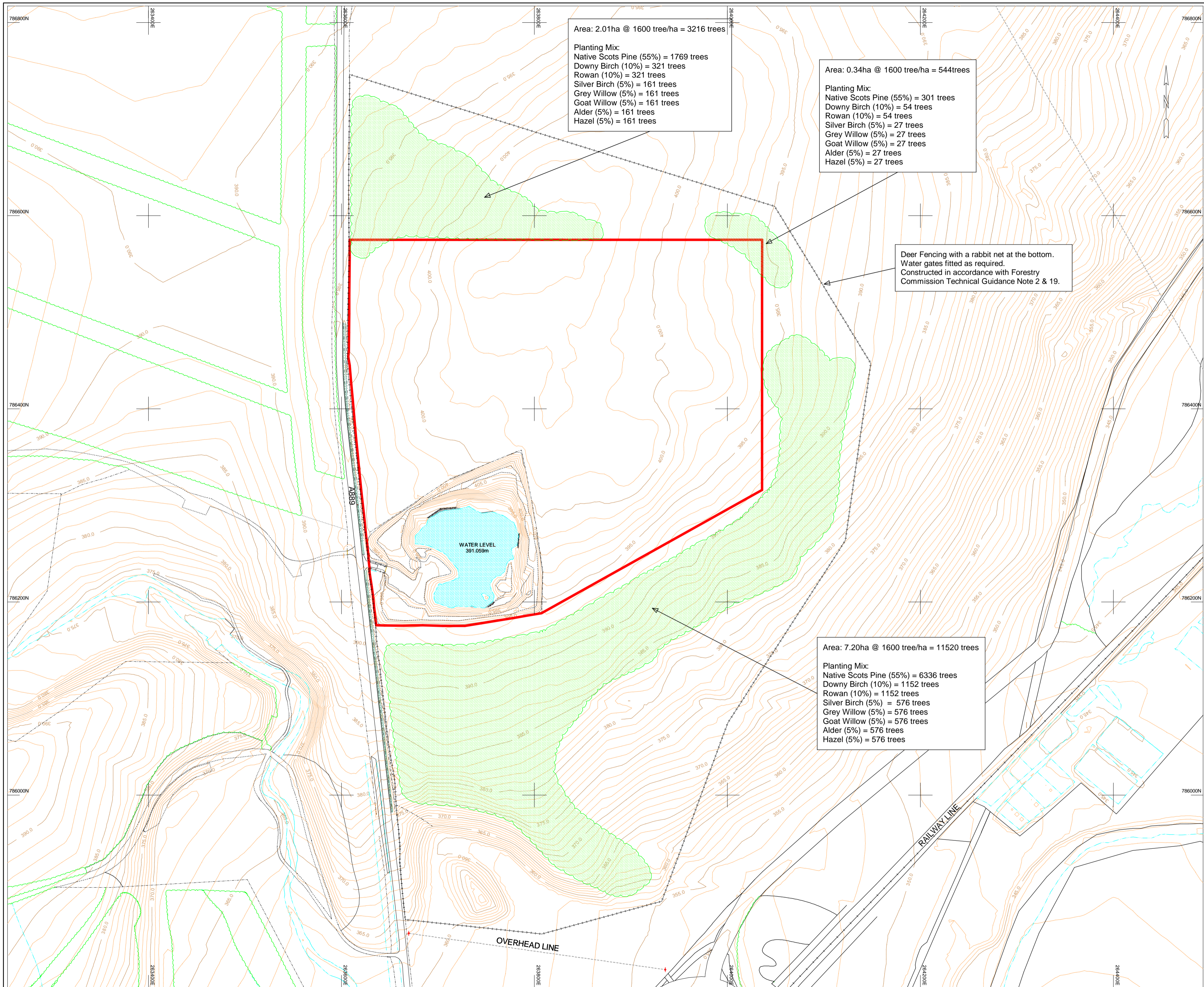
After the initial establishment operations, on-going maintenance operations will include replacing any failed trees (beating up), spot weeding with herbicide to control weeds (including noxious weeds) and fertilising as required. Particular areas to be monitored will include any localised areas of bracken development where large scale control is not feasible. These areas will be spot treated or hand hooked as required.

Fences will be inspected and maintained as necessary to ensure a sheep/deer/hare proof condition is maintained. The inspection frequency will depend on the time of year and the weather. For example, a fence inspection would be carried out after a period of stormy weather or after heavy snow when there is a greater risk of damage to the fence.

Fence inspections will be undertaken by the quarry manager or designated deputy.

6 Wildlife Management

Damaging wildlife will be managed as required and in line with current best practice and legislation to ensure adequate establishment of the woodland.



LEGEND

- APPLICATION BOUNDARY
- QUARRY FACE
- TOP OF BANK
- BOTTOM OF BANK
- EDGE OF WATER
- ROAD
- TRACK
- FENCE
- AREA OF NEW WOODLAND
- DEER FENCE

NOTES

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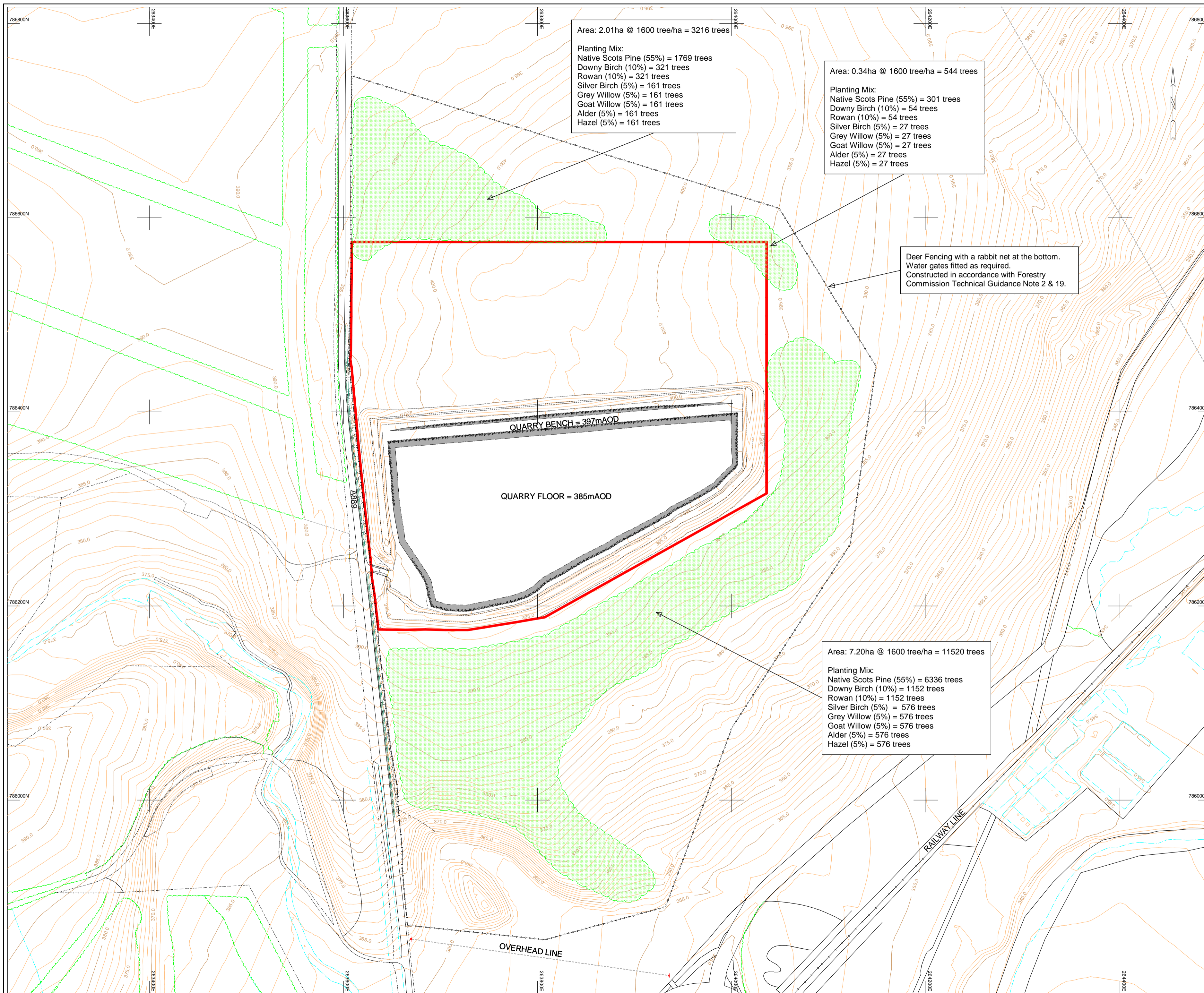
DALWHINNIE QUARRY

**TREE PLANTING AT
 COMMENCEMENT OF OPERATIONS**

Drawn By: RK Approved By:

Scale: 1 : 2500 Original Plan Size: A2

Date Plotted: 19-JULY-2018 Drawing No.: RG547-49\LF01



Area: 2.01ha @ 1600 tree/ha = 3216 trees

Planting Mix:
 Native Scots Pine (55%) = 1769 trees
 Downy Birch (10%) = 321 trees
 Rowan (10%) = 321 trees
 Silver Birch (5%) = 161 trees
 Grey Willow (5%) = 161 trees
 Goat Willow (5%) = 161 trees
 Alder (5%) = 161 trees
 Hazel (5%) = 161 trees

Area: 0.34ha @ 1600 tree/ha = 544 trees

Planting Mix:
 Native Scots Pine (55%) = 301 trees
 Downy Birch (10%) = 54 trees
 Rowan (10%) = 54 trees
 Silver Birch (5%) = 27 trees
 Grey Willow (5%) = 27 trees
 Goat Willow (5%) = 27 trees
 Alder (5%) = 27 trees
 Hazel (5%) = 27 trees

Deer Fencing with a rabbit net at the bottom.
 Water gates fitted as required.
 Constructed in accordance with Forestry Commission Technical Guidance Note 2 & 19.

Area: 7.20ha @ 1600 tree/ha = 11520 trees

Planting Mix:
 Native Scots Pine (55%) = 6336 trees
 Downy Birch (10%) = 1152 trees
 Rowan (10%) = 1152 trees
 Silver Birch (5%) = 576 trees
 Grey Willow (5%) = 576 trees
 Goat Willow (5%) = 576 trees
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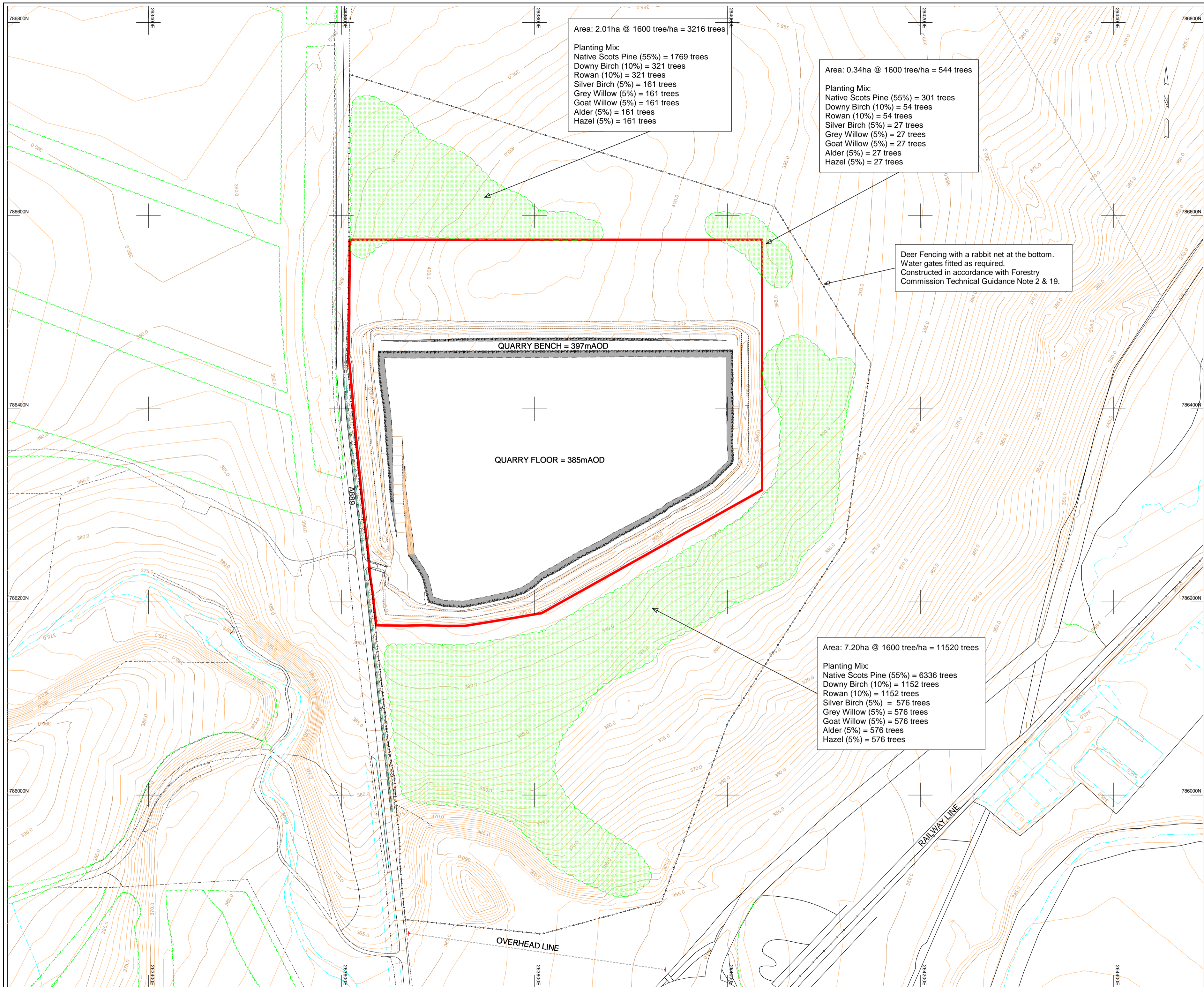
DALWHINNIE QUARRY

EXTENT OF TREE PLANTING
 AT THE END OF PHASE 1

Drawn By: RK Approved By:

Scale: 1 : 2500 Original Plan Size: A2

Date Plotted: 19-JULY-2018 Drawing No.: RG547-49\LF02



Area: 2.01ha @ 1600 tree/ha = 3216 trees

Planting Mix:
 Native Scots Pine (55%) = 1769 trees
 Downy Birch (10%) = 321 trees
 Rowan (10%) = 321 trees
 Silver Birch (5%) = 161 trees
 Grey Willow (5%) = 161 trees
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 Water gates fitted as required.
 Constructed in accordance with Forestry
 Commission Technical Guidance Note 2 & 19.

Area: 7.20ha @ 1600 tree/ha = 11520 trees

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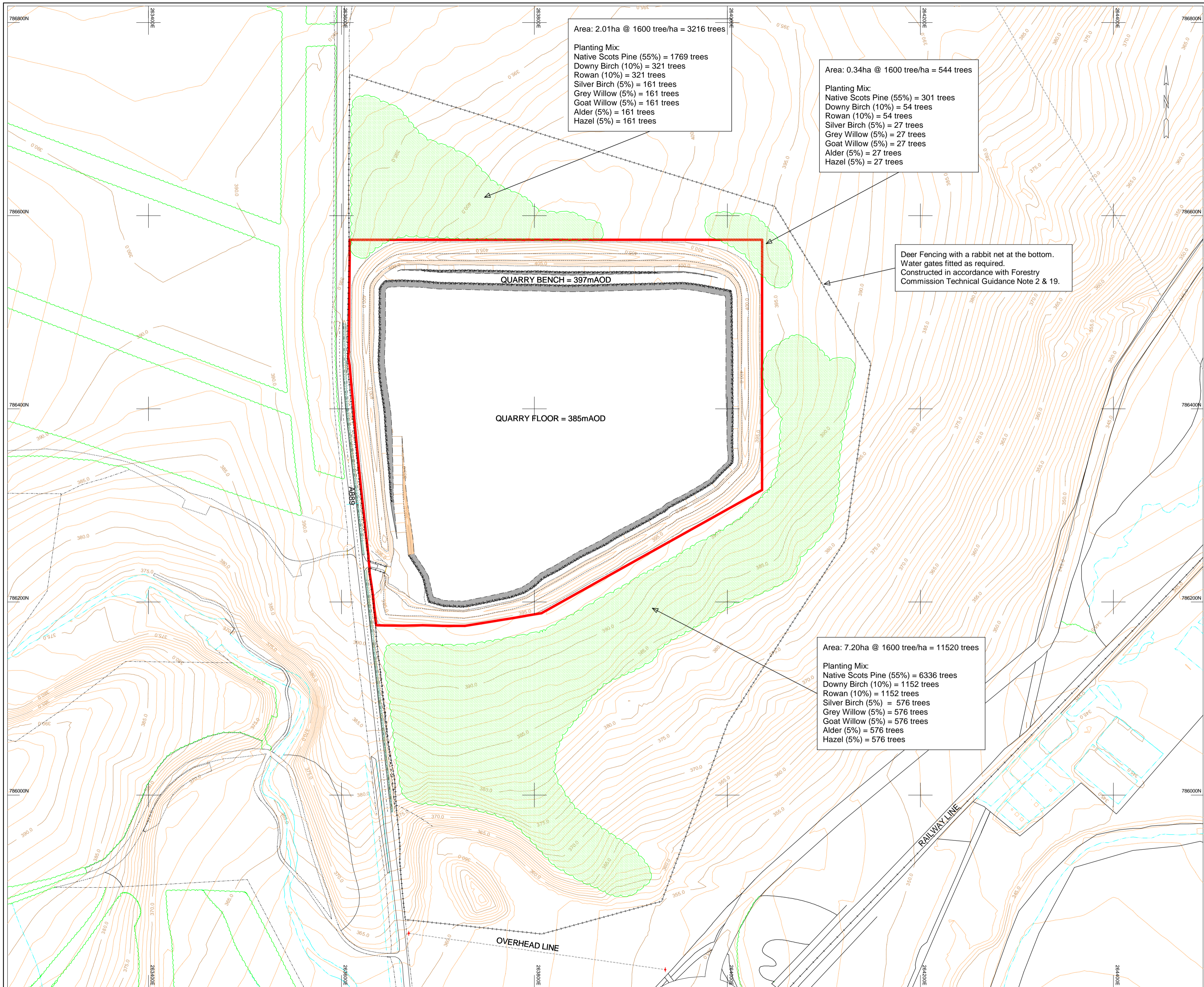
DALWHINNIE QUARRY

EXTENT OF TREE PLANTING
 AT THE END OF PHASE 2

Drawn By: RK Approved By:

Scale: 1 : 2500 Original Plan Size: A2

Date Plotted: 19-JULY-2018 Drawing No.: RG547-49\LF03



Area: 2.01ha @ 1600 tree/ha = 3216 trees

Planting Mix:
 Native Scots Pine (55%) = 1769 trees
 Downy Birch (10%) = 321 trees
 Rowan (10%) = 321 trees
 Silver Birch (5%) = 161 trees
 Grey Willow (5%) = 161 trees
 Goat Willow (5%) = 161 trees
 Alder (5%) = 161 trees
 Hazel (5%) = 161 trees

Area: 0.34ha @ 1600 tree/ha = 544 trees

Planting Mix:
 Native Scots Pine (55%) = 301 trees
 Downy Birch (10%) = 54 trees
 Rowan (10%) = 54 trees
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 Alder (5%) = 27 trees
 Hazel (5%) = 27 trees

Deer Fencing with a rabbit net at the bottom.
 Water gates fitted as required.
 Constructed in accordance with Forestry Commission Technical Guidance Note 2 & 19.

Area: 7.20ha @ 1600 tree/ha = 11520 trees

Planting Mix:
 Native Scots Pine (55%) = 6336 trees
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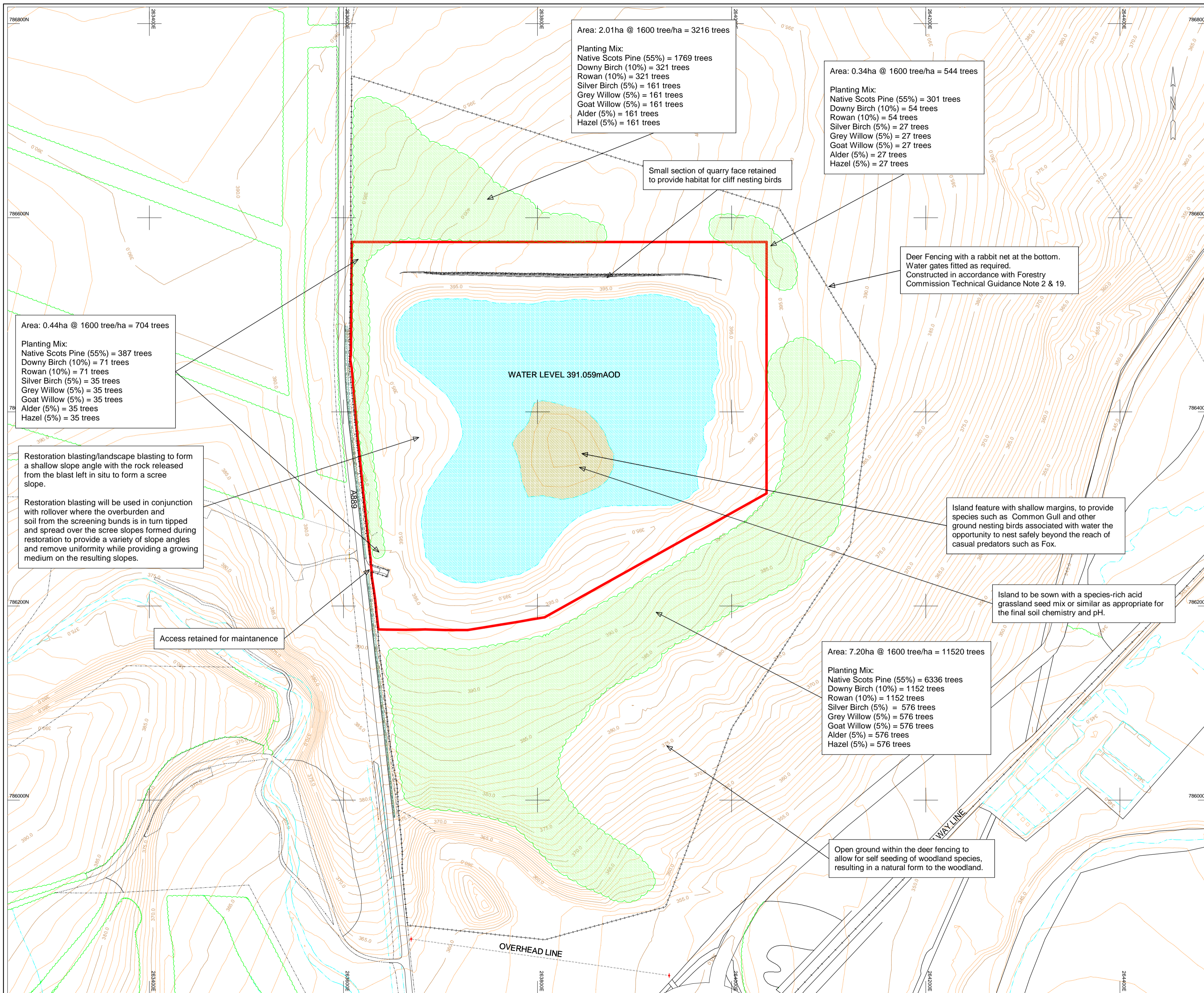
DALWHINNIE QUARRY

EXTENT OF TREE PLANTING
 AT THE END OF PHASE 3

Drawn By RK	Approved By
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Scale 1 : 2500	Original Plan Size A2
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Date Plotted 19-JULY-2018	Drawing No. RG547-49\LF04
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Area: 2.01ha @ 1600 tree/ha = 3216 trees

Planting Mix:
 Native Scots Pine (55%) = 1769 trees
 Downy Birch (10%) = 321 trees
 Rowan (10%) = 321 trees
 Silver Birch (5%) = 161 trees
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Planting Mix:
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 Silver Birch (5%) = 27 trees
 Grey Willow (5%) = 27 trees
 Goat Willow (5%) = 27 trees
 Alder (5%) = 27 trees
 Hazel (5%) = 27 trees

Area: 0.44ha @ 1600 tree/ha = 704 trees

Planting Mix:
 Native Scots Pine (55%) = 387 trees
 Downy Birch (10%) = 71 trees
 Rowan (10%) = 71 trees
 Silver Birch (5%) = 35 trees
 Grey Willow (5%) = 35 trees
 Goat Willow (5%) = 35 trees
 Alder (5%) = 35 trees
 Hazel (5%) = 35 trees

Restoration blasting/landscape blasting to form a shallow slope angle with the rock released from the blast left in situ to form a scree slope.

Restoration blasting will be used in conjunction with rollover where the overburden and soil from the screening bunds is in turn tipped and spread over the scree slopes formed during restoration to provide a variety of slope angles and remove uniformity while providing a growing medium on the resulting slopes.

Small section of quarry face retained to provide habitat for cliff nesting birds

Deer Fencing with a rabbit net at the bottom. Water gates fitted as required. Constructed in accordance with Forestry Commission Technical Guidance Note 2 & 19.

Island feature with shallow margins, to provide species such as Common Gull and other ground nesting birds associated with water the opportunity to nest safely beyond the reach of casual predators such as Fox.

Island to be sown with a species-rich acid grassland seed mix or similar as appropriate for the final soil chemistry and pH.

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Access retained for maintenance

Open ground within the deer fencing to allow for self seeding of woodland species, resulting in a natural form to the woodland.

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DALWHINNIE QUARRY

EXTENT OF TREE PLANTING & RESTORATION PROPOSALS

Drawn By RK	Approved By
Scale 1 : 2500	Original Plan Size A2
Date Plotted 19-JULY-2018	Drawing No. RG547-49/L/F05