

# NCN 78 Dalnatrat to Duror – Summary

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## Traffic-free Route Options Appraisal Summary Report



*Final Draft*

August 2016

## About Sustrans

Sustrans Scotland makes smarter travel choices possible, desirable and inevitable. We're a leading charity enabling people to travel by foot, bike or public transport for more of the journeys we make every day. We work with families, communities, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in.

The National Cycle Network (NCN) is our flagship project and celebrated its 20<sup>th</sup> Birthday in 2015. Over 20,000 miles in length, the NCN in Scotland is some 2,500 miles long, carried 121m trips in 2015 and contributed £230m to the Scottish economy.

It's time we all began making smarter travel choices. Make your move and support Sustrans today.  
[www.sustrans.org.uk](http://www.sustrans.org.uk)

Sustrans Scotland  
Rosebery House, 9 Haymarket Terrace  
Edinburgh EH12 5EZ

Tel. 0131 346 1384

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Registered Charity No. 326550 (England and Wales) SC039263 (Scotland)  
VAT Registration No. 416740656

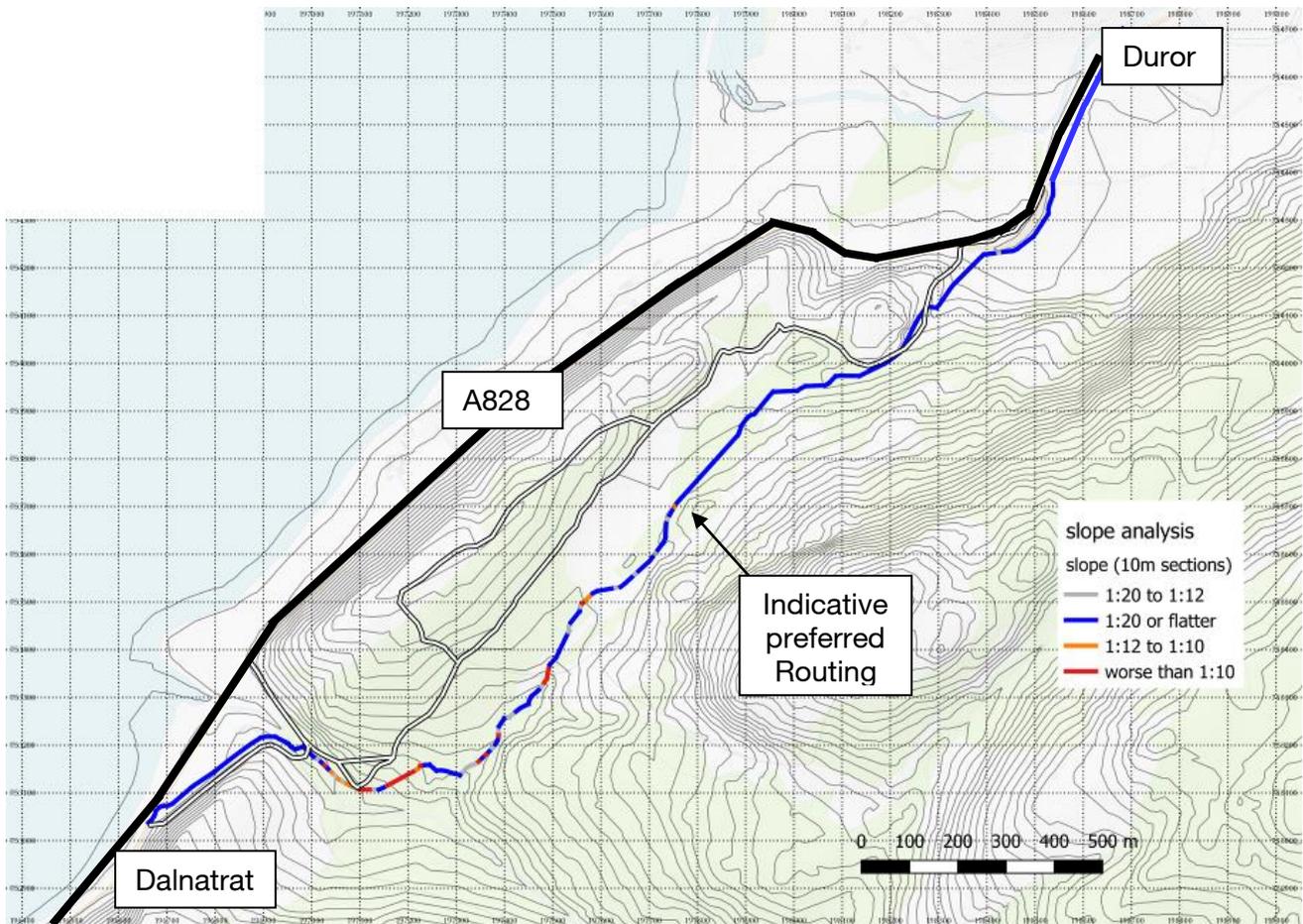
## Executive Summary

As a result of the investigations, consultation and objective led appraisal, Sustrans recommends a routing via the current forest road at Dalnatrat over Keil Hill on a new route and through the land of Achara House is progressed as the preferred alignment for the National Cycle Network south of Duror.

The preferred route best meets the needs of the project by providing a safe and attractive route to NCN standard through a scenic rural area and links the wider communities. The local communities are benefited by the safe route, away from the high speed trunk road, which was a major concern raised.

Gradients of the potential route over Keil Hill remain an issue, however, further investigations have established much improved and accessible alternative alignments which are deliverable as shown in the preferred alignment below. Crucially, new landowner support has also brought opportunity to extend the route north on the east side of the trunk road – improving safety and removing further road crossings.

Given the work and negotiations with landowners completed to date, we are confident that the preferred routing – in addition to offering greatest benefits – is a deliverable solution with potential for construction. Sustrans intend to further develop the design of the route in the next 12 months with potential for construction in 2-3 years (subject to funding).



Recommended routing NCN78 south of Duror

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## Introduction

This report summarises the findings of the review process carried out to date on the route options to permit improved connectivity along the Caledonia Way, National Cycle Network (NCN) route 78 between Dalnatrat and Duror.

The report provides a review of the medium (2-5 years) to long term (5+ years) traffic-free route options to complement the proposed on road safety improvements taking place during 2016<sup>1</sup>.

The review will establish a preferred route set against a range of objectives used to engage with the community as well as being reviewed against standard transport planning and cycle route objectives. Contained within the report is a route review, which takes into account the work completed to date, landowner consultation and community consultation.

The overall aim of this approach is to provide a broad and balanced assessment of the traffic-free route options and demonstrate the actions required to allow the completion of the National Cycle Network Route 78 in this area.

National Cycle Network Route (NCN) route 78, the 'Caledonia Way' is a 250mile route from Campbeltown to Inverness, via Kintyre, Oban, Fort William, the Great Glen and Inverness. The route brings to a conclusion a long sought aspiration for the NCN to link the West Coast of Scotland bringing local connectivity for people to make short journeys on foot and by bike and for leisure and tourism linked to cycling. The NCN in Scotland generates some £230m in economic activity, offering income-generating opportunities to businesses along the route and giving locals and visitors alike the option to enjoy Scotland under their own steam.

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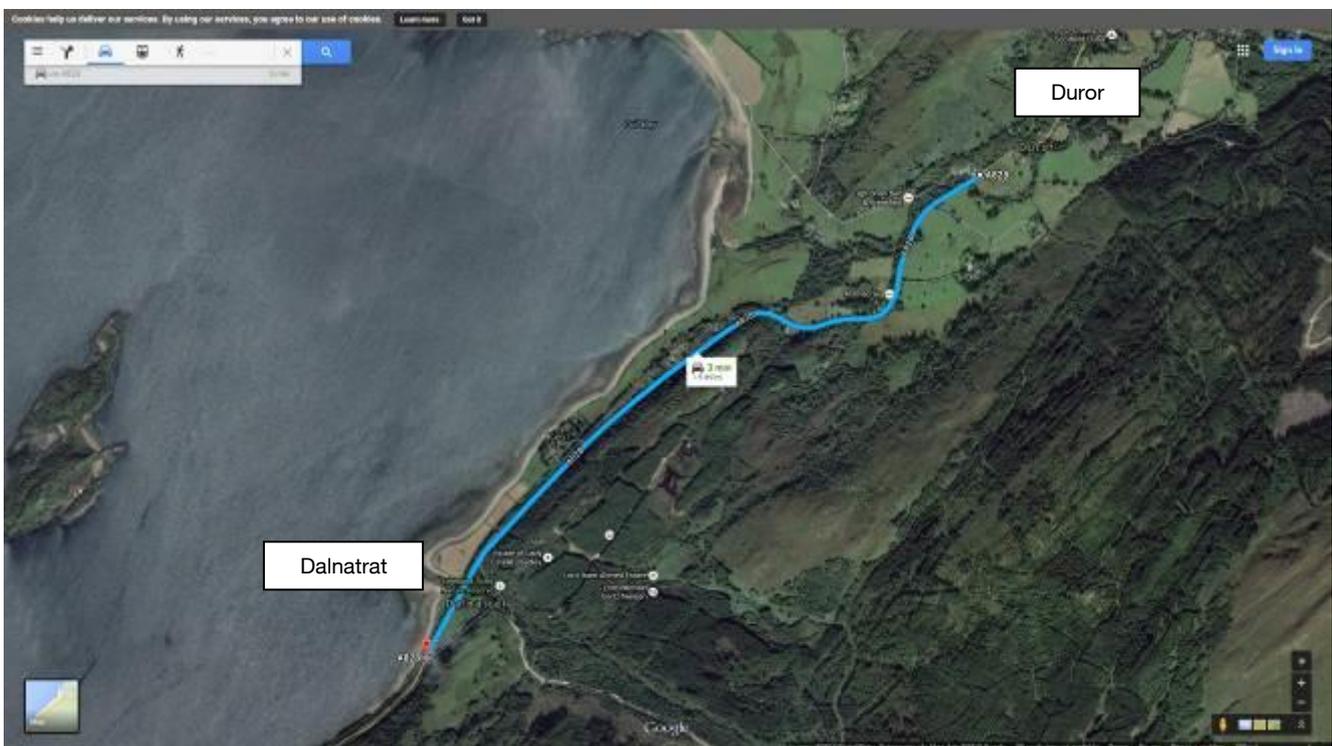
<sup>1</sup> Transport Scotland are progressing on road signage to alert all users of the use of the carriageway as part of the NCN 78.

## Duror – Dalnatrat Summary

Most of the 33 miles of NCN route 78 between Oban and Ballachulish is on high-quality, traffic-free path or on minor road. However, there are two sections around Ledaig (1.1 miles/1.8km) and south of Duror (3km/ 1.9 miles), which require path users to join the main trunk road (A828) to complete the onward journeys. These stretches are on narrow trunk road, which although governed by normal speed limits is a high-speed road and is not recommended for children or inexperienced cyclists and so does not qualify to be a section of the National Cycle Network. Figures show that there are currently 3,870 people cycling on the NCN in this area annually (count at Polonach) - volumes will be suppressed given the low perceptions of safety on the trunk road.

Over recent years Sustrans and other stakeholders have worked hard to progress alternative traffic-free path routes in the area. However, to date it has not been possible to deliver an alternative in this location due to landownership and other constraints.

Currently, the cycle route moving north ends at Dalnatrat and people walking and cycling must continue on the trunk road to Duror. The A828 trunk road between Dalnatrat and Duror is 3.06km in length and subject to the national speed limit of 60mph (Map 1). The road is a rural single carriageway with approximately 3,800 vehicles per day (AADT). There are grassed verges with trees and vegetation and no footway. The road layout includes a long straight section of carriageway followed by several bends with reduced visibility. The road width generally varies from 5.1m to 6.0m. There are no recorded personal injury collisions on the A828 trunk road in this area within the last 3 years.



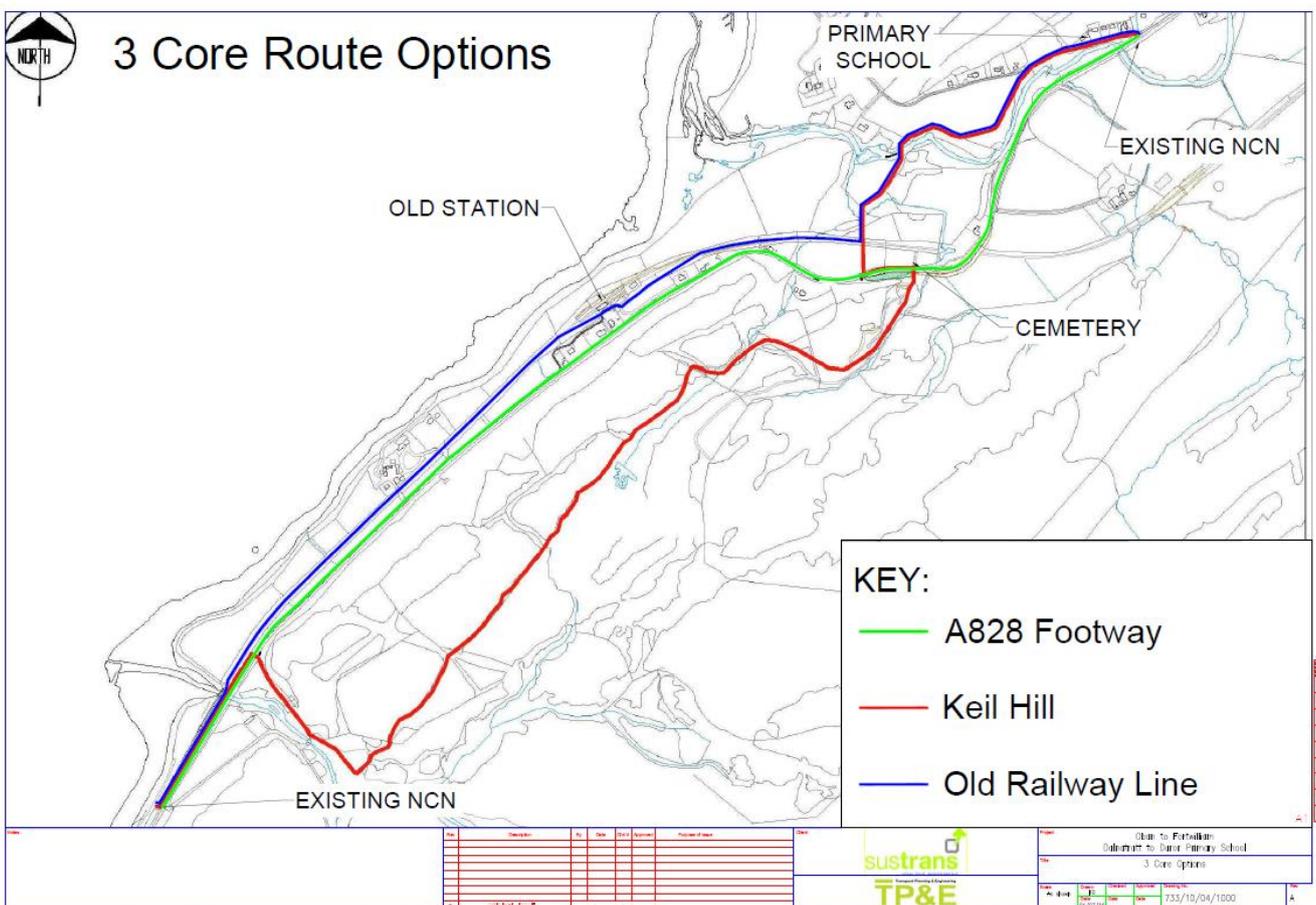
Map 1 – Dalnatrat and Duror ([www.google.com](http://www.google.com))

# Route Options

During the options-generation stage of the study, three core routings emerged and will be investigated and appraised in more detail. These options have a variety of permutations, however, they broadly fit within the follow core routes:

- A828 Footway either east or west side
- Keil Hill
- Old Railway Line

An option of the shoreline was considered, however, due to landownership and significant environmental issues this is not considered a feasible solution and was discounted.



Map 2 - Dalnatrat and Duror Route Option View 1

**A summary of the advantages and constraints are provided in Table 1.**

Table 1 – Advantages/Constraints of 3 route options

	Footway (East or West)	Keil Hill	Railway Line
Advantages	<ul style="list-style-type: none"> <li>• Consistent route design standard to other nearby sections of NCN 78.</li> <li>• Reduced road crossings</li> <li>• West side links housing situated along the route to Duror and existing NCN</li> <li>• Avoids gradients as it is predominately level</li> <li>• Route is overlooked by trunk road – increasing perception of personal security.</li> </ul>	<ul style="list-style-type: none"> <li>• Delivers a route more in keeping with the NCN Objectives</li> <li>• Potential landowner support</li> <li>• Increased perception of safety as route is located away from the A828</li> <li>• Existing path network</li> <li>• Improved aesthetics and opportunity to enhance local environment</li> </ul>	<ul style="list-style-type: none"> <li>• Delivers a route more in keeping with the NCN Objectives</li> <li>• Increased perception of safety as route is located away from the A828</li> <li>• Links the local properties with Duror and NCN</li> <li>• Level gradient</li> <li>• Increased feeling personal security due to proximity of users (traffic and houses)</li> </ul>
Constraints	<ul style="list-style-type: none"> <li>• Restrictions on width – Bridges, Housing and Embankment</li> <li>• Rock Face– substantial in height and length</li> <li>• Perceived safety issues with use of footway along 60mph route</li> <li>• Reduced landowner support</li> <li>• Aesthetics due to close proximity of vehicles</li> <li>• Major environmental considerations</li> </ul>	<ul style="list-style-type: none"> <li>• Steep gradients</li> <li>• Keil Hill does not provide the full solution, therefore there is risk of varying solutions in order to complete route</li> <li>• No link the housing situated to the south of Duror</li> <li>• Loss of personal security due to less users (traffic)</li> </ul>	<ul style="list-style-type: none"> <li>• Old Railway Line does not provide the full solution, therefore there is risk of varying solutions in order to complete route</li> <li>• No landowner support</li> </ul>

## Option Sifting

Whilst the above demonstrates the benefits of the former railway line routing - this option has been discounted as it does not provide a deliverable route within the medium to long term. Information from historic reports regarding use of the old railway line being promoted as the preferred solution was reviewed. It provided insight to a longstanding involvement from a significant landowner of the railway line. Over the 19 years of involvement in NCN development, this landowner has consistently objected to both the use of the **old railway** throughout their land holding and land to provide a **west footway**. The above information was confirmed at more recent meetings with the landowner during 2015.

Our work to date has confirmed the demand and urgency to complete a safe, traffic-free cycle route to NCN standard and the former railway line does not present a deliverable option for construction in the foreseeable future.

**Therefore, the two core options further developed as part of this study are:**

- 1) new shared use footway along the east of the A828; and**
- 2) over Keil Hill.**

**These two options were presented and discussed during the engagement process with landowners, the community and interested parties at various dates throughout 2015 and early 2016.**

## Consultation – 2015/16

Community, landowners and interested parties have been consulted during the study period to establish a solution which is able to be progressed in the short term and delivered in the medium to long term.

A community consultation event was held on Monday 14 March 2016 – with a large attendance of over 60 people representing a wide range of views of the local residents and interested parties.

At this meeting it was established that the route design should match the current Sustrans NCN standards and guidelines of an unaccompanied 12-year-old being able to cycle the path. It was noted this path would be heavily used by local walkers and for it to become a valuable community asset, it should look to develop an alternative to existing routes to provide loop facilities. There were strong concerns raised over the perception of safety and comfort of a route next to the trunk road.

Overall there was a strong message of support for the cycle route to be developed south of Duror and an acknowledgement and appreciation of the NCN78 in the area and benefits it has brought.

A summary of the information collated during the public consultation event on 14 March 2016 is provided in Table 2 below.

Table 2 – Feedback from Community Meeting on 14 March 2016

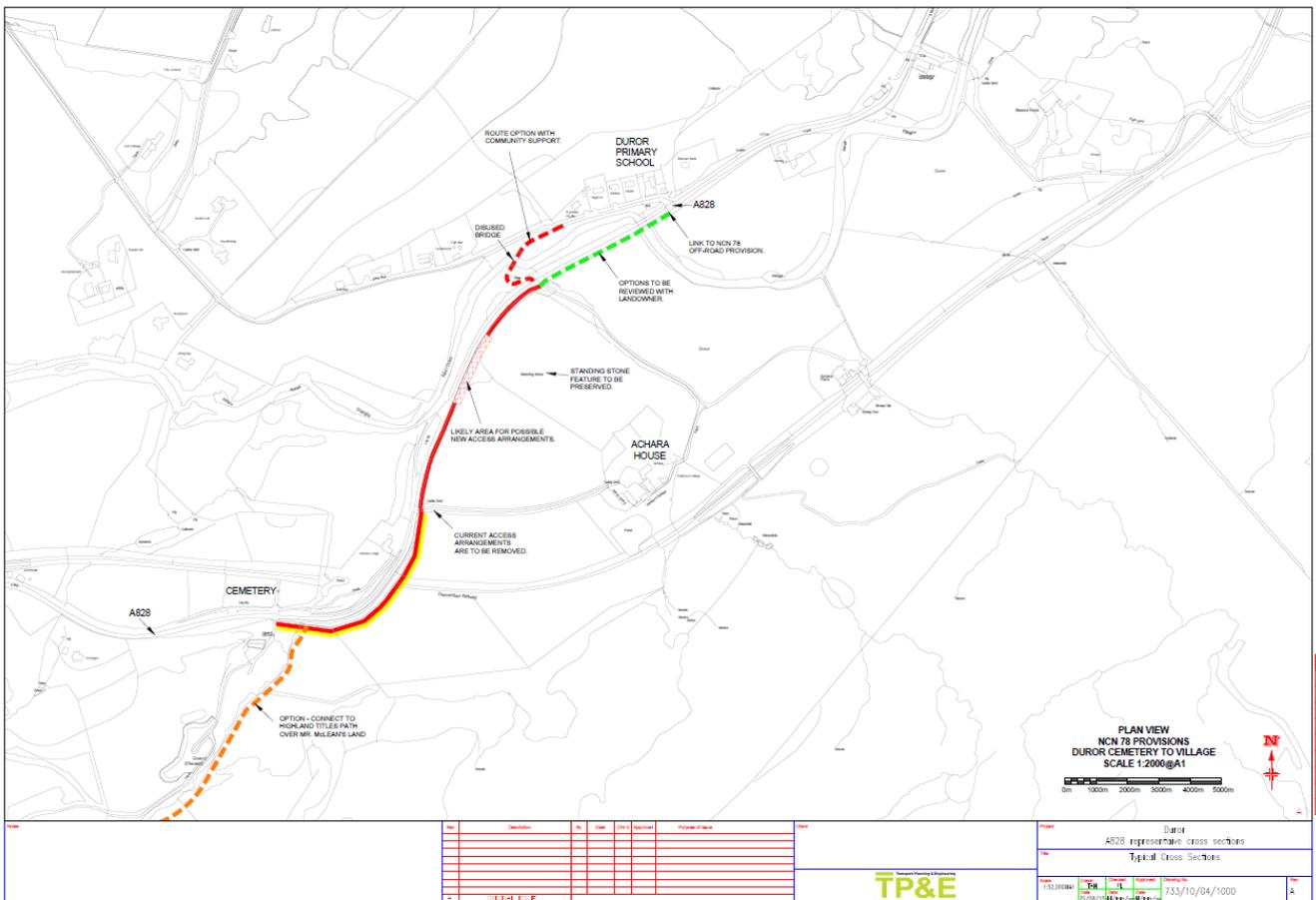
1. A828 Footway (East) – Feedback	2. Keil Hill route – Feedback
<b>Positives</b>	<b>Positives</b>
This route would link local properties directly.	The route shall be away from the trunk road so will be a nice and peaceful option.
This option would be a more direct route.	The route could be a safe place for young children to cycle with families.
Provides a loop facility with Keil Hill already established and available to able users for access.	Traffic noise was considered to be a big issue and this route would reduce/remove this.
	Nature reserve on Keil Hill has good potential to increase the tourism value to the area.
<b>Constraints</b>	<b>Constraints</b>
Located within a high speed trunk road corridor - constrained, threatening and noisy environment.	The height of the climb to use the route could be off-putting for some people, possibly some older users.
The route located too close to the carriageway can be uncomfortable, particularly when heavy goods vehicle pass, turbulence for small children was highlighted.	This option introduces trunk road crossing points which would need considered carefully, particularly in national speed limit sections.
The road is already narrow so people feel this route would leave them “dangerously” close to the live carriageway.	The remote nature could be off-putting at certain times of year in terms of lighting and icy weather.
Children on bikes would need constant supervision due to the trunk road proximity.	This route is limited in benefits of full links to communities/properties; some properties will still need to walk on the road to get to the path.
Horse riders could find the animals unsettled due to trunk road noise.	The route may be avoided by some users who see it as a diversion.
Parking habits could result in the pathway being blocked at points forcing non-motorised users on the trunk road.	Already exists as a walker’s path so this option may have less of an impact on the local community and environment.
The perception of the safety with this route is low.	

Overall the community consultation established a variety of opinions regarding the development of the route. However, the main objective and aspiration repeated by the attendees was the request of feeling safe and how this is better achieved by a route remote from the carriageway.

## Achara House

On completion of the community engagement process, Sustrans were approached by the new landowner of Achara House. Discussions then established a potentially mutually beneficial route which could assist in the development of the NCN, future development of Achara House and a historically significant standing stone.

Map 3 below shows indicative alignments which could be developed for a new path route through the grounds of Achara House. The initial alignment includes a potential link to the old bridge which is a request of the Community Council.



Map 3 – Plan view of route through Achara House

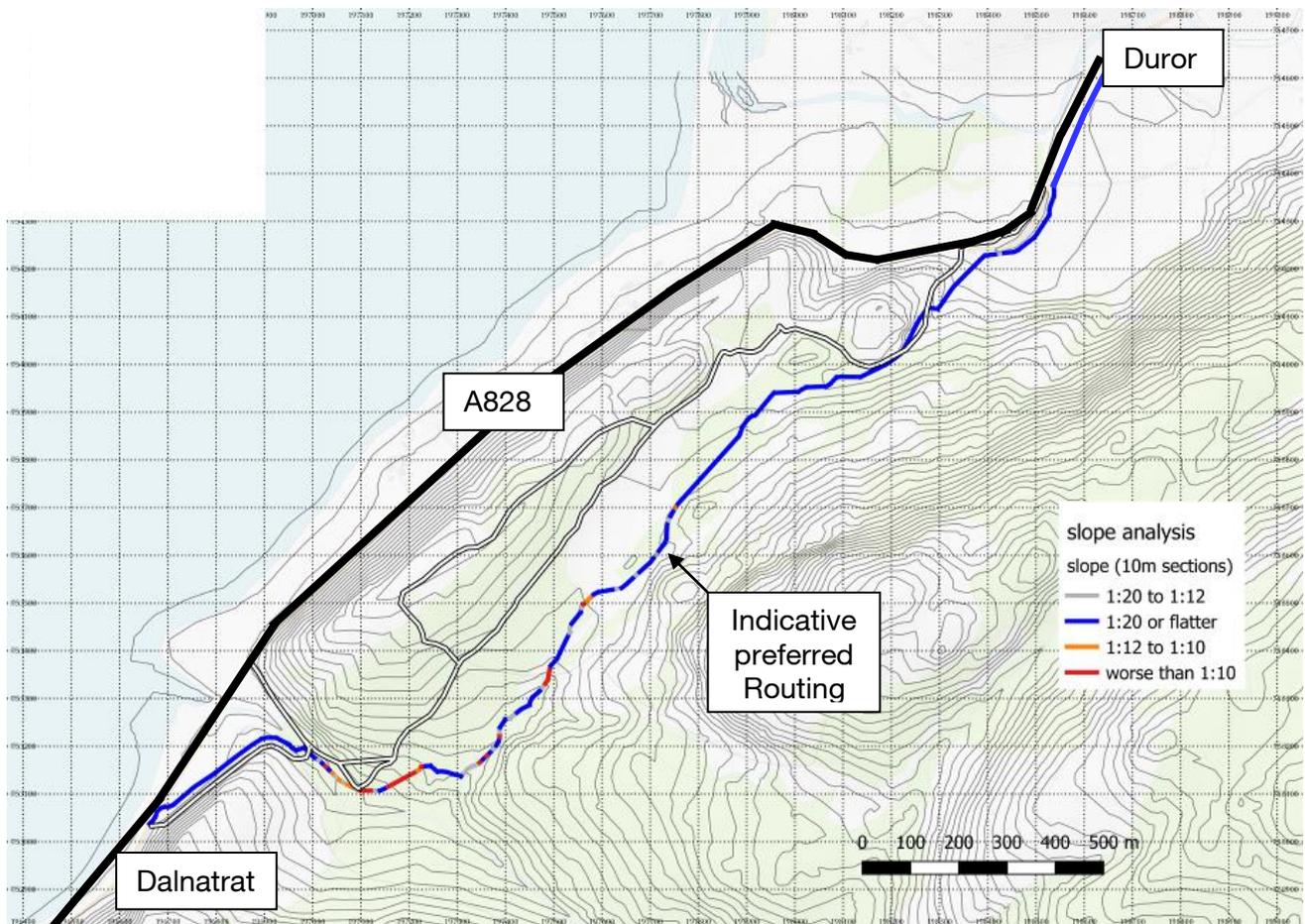
The proposed route will remove the requirement of a road crossing at its norther extent - which was previously considered necessary - and provide additional options to access Keil Hill due to the willingness of its landowner. This also gives more opportunity for reducing gradients and alignments from Achara House to Keil Hill which previously never existed.

## Keil Hill Gradients

Feedback from the community consultation raised the steepness of the existing forest track over Keil Hill as a major concern for accessibility. As a result, further investigations were taken to better understand the gradients, potential solutions and alternatives.

Sustrans have progressed a review of alternative new route alignments over Keil Hill to reduce the gradients required to walk and cycle. The review has established a preferred new alignment as per Map 4 below. This identifies the best current routing over Keil Hill from Dalnatrat Achara House using the existing geometry - without engineering reduced gradients. Overall this highlights the majority of the route can be delivered at a gradient gentler than 1:20 which is accessible for people of all abilities. Engineering works will be required for around 6 sections to reduce more severe gradients. Please note that these investigations are not conclusive and further work is required to confirm an optimum alignment, however, demonstrates that much improved and acceptable gradients are achievable.

The landowner of Keil Hill has also given permission to further develop the preferred route below and continues to support the development of the NCN in this area.



Map 4 – Preferred Alignment



## Objective Review

An objective review was completed on the two core route options.

- Keil Hill in this case uses access via the Forest road at Dalnatrat, a new alignment with optimum gradients over the hill and the land now available at Achara House.
- The East footway would cross the road at Dalnatrat and use the eastern verge upto the grounds of Achara House – where it would continue on the east side.

Table 3 – Summary of objective review

<u>Cycle Route Objectives</u>	Keil Hill	A828 Footway - East
<b>Coherence: A continuous route with a distinct and identifiable National Cycle Network character, integrated with local roads and cycle paths.</b>	Rural traffic free route consistent with NCN across the country.	The route alongside the A828 will not provide the character of the NCN due the footway running alongside the A828.
<b>Directness: A route that is as direct and quick as possible.</b>	Keil Hill = 2.66km (Potentially) The route is comparable in length with the footway. Initial analysis has been developed which establishes a preferred routing of 2.66km. The route will experience a height increase of up to 60m but analysis has identified this can be delivered at suitable gradients, with the majority of the route less than 1:20.	Footway = 3.06km The route is currently perceived to be the most direct with it being relatively flat.
<b>Comfort: A route that enables a comfortable flow of cycle traffic and is easy to use.</b>	The route will be easy to use with one crossing of the A828 trunk road. Gradients, whilst acceptable, may reduce comfort of the route. Rural nature of route is easy to use and accommodates all types of path users.	The route will be easy to use with one crossing of the A828 trunk road. The comfort of path users may be compromised by the close proximity of vehicles travelling along the A828. Given the significant rock cutting works required, any path design would likely aim for minimum design widths – such as 2.5m wide path. Whilst a minimum guideline, this does not provide good comfort adjacent to a high speed trunk

		road.
<b>Attractiveness:</b> A route that complements and enhances its environment in such a way that cycling is attractive.	Keil Hill route will provide a reward to the cyclists using the area with the nature reserve, ponds and viewpoints.	The attractiveness of this route will be diminished due to the close proximity of traffic and environmental impact of the rock cutting works required.
<b>Safety:</b> A route that minimises dangers for cyclists, pedestrians and other users, and gives a feeling of security.	<p>The route would be perceived as safer due to it being away from the carriageway, however there will be the requirement of one road crossing.</p> <p>Personal safety is also a consideration due to the gradients and remote path network.</p>	<p>The perception is this route would not be as safe due to the close proximity of traffic. There would still be the requirement of one road crossing.</p> <p>The enclosed nature of this long corridor could lead to the perception of feeling unsafe and trapped in the road corridor with high speed traffic.</p>

<u>Route planning objectives</u>	Keil Hill	East Footway
<ul style="list-style-type: none"> <li><b>Deliverability:</b> Technical and physical constraints, stakeholder objections and land acquisition should be overcome within delivery timeframe.</li> </ul>	<p>Keil Hill is a deliverable option due to the support of the landowners.</p> <p>Gradients are achievable through engineering solutions i.e. ramps, small bridges.</p>	<p>A footway on the east of the A2828 could be achieved in engineering terms but would require extensive removal of the rock face to permit the required width.</p> <p>Given the existing narrow widths, it is likely that minimum design standards could be aimed for in a shared footway.</p> <p>This option lacks all required landowner support at this stage.</p>
<ul style="list-style-type: none"> <li><b>Environmental Impact:</b> The project should aim to enhance the environment and habitat and avoid any adverse impact on the surroundings, habitat and natural heritage.</li> <li></li> </ul>	<p>The project will enhance the local area by providing an improved link to the local nature reserve.</p> <p>Through careful design the project could reduce its impact on the surrounding environment and creates an opportunity to enhance the area.</p>	<p>Major rock cutting works will be required to create width and construct an eastern footway as the current verge and road is narrow. This will have significant impacts on the area and hillside including geology, biodiversity and aesthetics.</p>

<ul style="list-style-type: none"> <li><b>Accessibility: Provide safe and convenient access for all user groups; including those with mobility impairments and additional needs.</b></li> </ul>	<p>This will provide a route which will be perceived as safe.</p> <p>The new route can achieve the required gradients of 1:20 which is accessible for all users and abilities.</p> <p>Lacks links to the local properties.</p>	<p>The route will be accessible due to its close proximity to the A828 and local properties.</p> <p>However, community engagement has provided that it will not be perceived as safe due to the close proximity of traffic.</p>
<ul style="list-style-type: none"> <li><b>Connection of communities and attractions: Provide an attractive route which connects to local communities, facilities and visitor attractions.</b></li> </ul>	<p>Creates wider traffic-free connection between settlements which does not currently exist.</p> <p>Will connect Keil Hill nature reserve with the local area via surfaced path. (Which does not exist at present).</p> <p>The proposed route does not provide a link to the nearby properties based around the old station.</p> <p>It does provide an improved link to the cemetery.</p>	<p>Creates wider traffic-free connection between settlements which does not currently exist.</p> <p>A footway would provide a connection to all properties within the old station area and House of Keil, however, a crossing would be required to link to the properties.</p>
<ul style="list-style-type: none"> <li><b>Contribute to local economy: Increase the attractiveness of the path route for visitors and tourists.</b></li> </ul>	<p>The economy will be supported by the local area benefiting from improved connectivity.</p> <p>The viewpoint established and link with the Nature Reserve will enhance the opportunity to grow the local economy via tourism. In addition, visitors to the Reserve may start in the village rather than parking at the Reserve.</p>	<p>The economy will be supported by the local area benefiting from improved connectivity.</p>
<ul style="list-style-type: none"> <li><b>Construction cost:</b></li> </ul>	<p>Construction costs are in keeping with recent spend on NCN78 and considered achievable in the medium term.</p>	<p>Construction costs are in keeping with recent spend on NCN78 and considered achievable in the medium term.</p>

## Conclusion

Throughout the study and consultations, support for the National Cycle Network in the area and the benefits it has brought to the local communities and economy was evident. However, the current gap in the network south of Duror is not to the required quality for it to be part of the NCN or acceptable for people undertaking journeys on foot or by bike safely through the area. A strong consensus and support was gathered for the completion of a traffic-free path, emphasising that stakeholders must endeavour to find a consensual and deliverable solution which best meets the objectives of the project and the needs of the community as soon as possible.

As a result of the investigations, consultation and objective led appraisal, Sustrans recommends a routing via the current forest road at Dalnatrat over Keil Hill on a new route and through the land of Achara House is progressed as the preferred alignment for the National Cycle Network south of Duror.

The preferred route best meets the needs of the project by providing a safe and attractive cycle route to NCN standard through a scenic rural area and links the wider communities. The local communities are benefited by the safe route, away from the high speed trunk road, which was a major concern raised. In addition, this route offers opportunity to enhance the local environment, whereas the alternatives would have significant negative impacts. Gradients of the potential route over Keil Hill remain an issue, however, further investigations have established much improved and accessible alternative new routes which are deliverable. Crucially, new landowner support has also brought opportunity to extend the route north at Achara House on the east side of the trunk road – improving safety and removing a further road crossing.

Given the work and negotiations with landowners completed to date, we are confident that the preferred routing – in addition to offering greatest benefits – is deliverable with potential for construction in the medium term.

It is acknowledged that the routing over Keil Hill does not meet all the aspirations highlighted as part of the consultation process. Therefore, in addition to the progress of the core route Sustrans will continue to work with the community to establish the potential of improvements to:

- Cemetery Car Park
- Link properties at the Old Station Area with NCN
- Old Bridge

## Next Steps

Sustrans have identified funding for the further development of the route design to allow progress of the preferred route in 16/17 with ultimate view for construction in the next 2-3 years (subject to funding and the 2017-2020 Scottish Government Spending Review).

Sustrans will continue to work with Transport Scotland to improve the short term on-road conditions including new signage along the carriageway which raises the profile of people cycling using the A828.