# Technical Spotlight
Using Detailed Path Network in an Emergency Response

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In this month's article, we will be continuing with the theme of PSGA newly available products and moving on to the third of these: Detailed Path Network Layer. As a reminder, this dataset provides a fully routable road & path network that covers all National Parks within Great Britain. It is maintained throughout the year to provide path updates and has been engineered to work alongside users who utilise the OS Highways product series. Additionally, the layer holds information on terrain, slope gradient and potential hazards that can prove vital in understanding when conducting off-road routing.

To build on the last point, let us take an example of how an emergency responder needs assessing a safe, suitable, and easily accessible route to help an injured walker within a National Park. The emergency responder has several questions that need addressing such as:

- Is the route all possible via a vehicle?

- What low gradient route is available that can allow for an ambulance to transverse?

- Are there any potential hazards on the route that I need to be aware of?

- I need to make sure the route is on public rights of way

- What is the fastest route from our ambulance station in the nearby town?
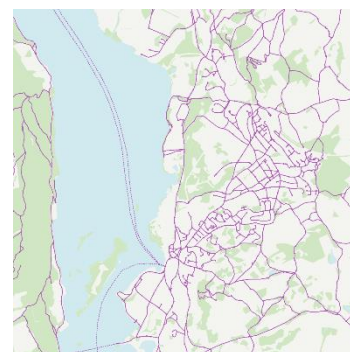
Detailed Path Network Layer can provide insight for every question listed here. Below are answers on methods that can be implemented, using the product:

Is the route all possible via a vehicle?

The product holds information relating to the surface type for each road or path link within the network. This means that you can filter out specific sections that are not suitable for vehicles such as small tracks and footpaths and only create a route that is vehicle friendly.

What low gradient route is available that can allow for an ambulance to transverse?

One of the best features of this product is the information stored on the relative height of the start and end points for each link in the network. This means that a gradient can be calculated (and is provided) for either direction so thus the emergency responder can factor this into a route calculation to offer routes where the gradient is not severe.

Are there any potential hazards on the route that I need to be aware of?

Helpfully, the product layer holds information for each network link on any potential hazards that you may come across. Examples of such hazards include cliffs, boulders, inland water & marshland. As with the first question, these can be factored in and filtered out when determining a suitable route.

I need to make sure the route is on public rights of way.

Information on the right of use for each road or path link is included as standard. Types of rights of way that are factored in are private, normal permission & restricted use.

What is the fastest route from our ambulance station in the nearby town?

As this product has been engineered to work alongside users who use the OS Highways product, this means you can route seamlessly from one product to the other. So, the emergency responder who already calculates routes for response in the town, has the means to calculate the fastest route from their ambulance station to the exact point of the emergency within the national park.