

Proposed assessment criteria for road safety requests

Each of the criteria will be assessed using a weighting system with a higher number of points being assigned on the basis of severity or presence of hazards

Collisions

The Council maintains a database containing all reported road traffic collisions supplied by Police Scotland. All road collision within the curtilage of each site, or within 100m on adjoining roads, during the previous five calendar years will be reviewed. The base-line assessment period will be from 2013 to 2017. After three years, the base-line will be updated and all collision and casualty data reviewed and adjusted accordingly. Each collision is adjusted by severity which is based on the highest category of casualty – 1 point for slight, 2 points for serious and 3 points for fatal. Police Scotland does not provide reports on damage-only incidents. At sites where there is evidence of damage-only, non-injury collisions on the ground, a value of 1 point will be added to the Collision category in the assessment criteria.

Casualties

An assessment factor is included for road casualties based on severity – 1 point will be added to the Casualty category for each person slightly injured, 2 points for each person seriously injured and 3 points for each fatality. Perceived risk is not included in the assessment criteria as it is not quantifiable.

Road Environment

The road environment is based on the activity around the site. Assessment factors are included for both physical layout and land use. Physical layout includes features on the road network such as a junction or bridge, and hazards adjacent to the public road such as a river or rock face. Examples of land use are housing, retail, commercial, industrial and community facilities such as schools or public parks. 1 point will be given to the road environment category for each environmental feature up to a maximum of 4 points. This is to ensure that town centre locations with mixed-use are not over represented.

Road Alignment

Poor road alignment affects visibility splays, stopping sight distance and vehicle speeds. Assessment factors for the road alignment category include 1 point each for poor or limited horizontal and vertical alignment where crests or bends affect the road layout.

School Travel Plan

All schools in Perth and Kinross are encouraged to produce a School Travel Plan. These plans record the various modes of transport to and from school, and help to identify any limitations in the built environment, particularly for vulnerable road users such as child pedestrians and cyclists. Each scheme will be allocated a score for connection to a school or campus – 1 point will be given to the School Travel Plan category if the project links to a school and 2 points if the project is in the immediate vicinity of the school.

Sustainable Transport

Each project will be scored for a sustainable transport connection – 1 point each will be given to the Sustainable Transport category if the scheme provides a link for pedestrians, cyclists, car and bus or rail transport up to a maximum of 4 points.

Cost

The cost of the scheme to be constructed has a direct bearing on the viability of the project. With limited financial resources, cost must be a consideration for all works. Nonetheless, if need has been clearly established, cost should not be a critical assessment criteria.

It should be noted that for the purposes of the prioritisation, the cost is the cost to PKC. Therefore, if a potential project was to be funded or partly funded from elsewhere this may impact on the scheme's priority by potentially raising the Benefit Cost Ratio.

Land Availability

Land availability should not be an assessment criteria if need for the scheme is identified. Priority will be given to those sites where the works can be accommodated within the existing road boundary and the scheme can be delivered within an agreed timeframe. Schemes where land is currently available, and there are no anticipated site complications, will be marked in green on the assessment table. Sites where land is available but which require additional construction work, such as retaining features or alterations to services, will be shown in amber.

Schemes which require additional land outside the road boundary will be highlighted in red. It will be necessary to negotiate land transfer before any of these schemes can be constructed. An estimated construction cost cannot be entered against these projects until the amount of land required to complete the scheme is calculated.

Benefit Cost Ratio

A Benefit Cost Ratio (BCR) will be used as an indicator to rank the overall value for money of the proposed projects, by dividing the total benefits by the estimated costs.

Example of projects based on the assessment criteria are shown below. Ranking will not be allocated to those sites that require land. As new schemes are identified, they will be assessed and ranked accordingly. Priority will be based on the results of the assessment criteria rather than date of request.(i.e. newly submitted schemes by their nature and potential benefit can be placed higher in priority than those already ranked within the scheme). In simplistic terms, the list will be a “prioritised list”, not a “waiting list”.

The following Table is an illustration of how the criteria would be applied

Ward	Road No	Speed Limit	Budget Category	Description	Location	Assessment Criteria						Total	Cost to PKC (£K)	BCR	Ranking	Status
						Collisions	Casualties	Environment	Alignment	STP	Sus Trans					
A	A1	NSL	Signs +lines	Warning signs	AA	5	6	0	2	0	0	13	1.5	8.67		Green
B	B1	30	Traffic engr	Road widening	BB	2	2	2	1	1	1	9	8	1.13		Yellow
C	C1	40	Rural F/way	Footway	CC	0	0	4	2	1	2	9	-	-		Red
D	D1	NSL	Signs + lines	Warning signs	DD	0	1	0	1	0	0	2	1	2		Green

Site A lies on a rural road subject to the national speed limit. In the last five years, there has been 1 serious and 3 slight collisions resulting in 1 serious and 4 slight injuries. This provides Collision and Casualty scores of 5 and 6 respectively. There are no domestic or commercial properties in the vicinity and no community assets so the Environment category score is zero. There is a crest in the road followed by a bend, which both restrict visibility, so the Alignment category score is 2. Due to the remote location, there is no link to a local school, footway, cycle path or bus stop; so both the School Travel Plan and Sustainable Transport categories record a zero return. The assessment total amounts to 13 points. Warning signs informing drivers of the hazard ahead, and verge marker posts to help define the road alignment, would cost approximately £1.5K. The Benefit Cost Ratio is 8.67 and land is available within the road boundary (verge) to install these measures so the Land Availability is shown as green.

Site B lies on the edge of a village within the 30mph speed limit. There have been 2 slight collisions resulting in 2 slight injuries giving the Collision and Casualty categories a score of 2 each. There are domestic properties and a road junction at the site so the Environment score is 2. The road is flat but the site sits on a bend so the Alignment score is 1. The village school is within

walking distance so both the School Travel Plan and Sustainable Transport scores are 1. The assessment total is 9. The wide verge on the outside of the bend can be excavated and the carriageway extended, at a cost of £8K, providing a wider outside lane around the bend and reducing the risk of conflict between opposing vehicles. The Benefit Cost Ratio is 1.13. Land is available within the road boundary but there are services in the verge that may need to be diverted so the Land Availability is amber.

Site C lies outside a rural village in a 40mph speed limit. There have been no reported road traffic collisions so no injuries. The Collision and Casualty category scores are zero. The site connects domestic and commercial properties in the village with an off-road path to a major tourist attraction but there is a missing section of footway along the public road. The Environment category score is 4. The horizontal and vertical alignment of the road is poor so the Alignment category score is 2. There is a primary school in the centre of the village so the School Travel Plan category score is 1. The village lies on a National Cycle Network and there are bus stop connections so the Sustainable Transport score is 2. Despite the absence of road traffic collisions or casualties, the assessment total is 9. However, there is no land available within the road boundary to construct the footway so a cost of the scheme cannot be estimated or the Benefit Cost Ratio calculated. The Land Availability is red.

Site D lies on a rural road subject to the national speed limit. There have been no reported road traffic collisions so no injuries; but there is evidence at the site of vehicle damage to a boundary fence. The Collision score is 1 and the Casualty score is zero. There are no accesses or houses in the vicinity so the Environment category score is zero. Forward sight distance is good as the ground is level but the site is located at a bend so the Alignment score is 1. There are no school or public transport facilities so the School Travel Plan and Sustainable Transport scores are zero. The assessment total is 2. A warning sign and chevron board indicating sharp deviation of route could be installed at a cost of £1K. The low assessment total combined with the low cost of remedial measures returns a Benefit Cost Ratio of 2. Land is available within the road boundary so the Land Availability is green.

Note - In this example the priority listing would be Sites A, D, B, C