

Decision Session
Executive Member for Transport & Planning

11 August 2016

Report of the Director of City and Environmental Services

Pedestrian Crossing Request Evaluation and Prioritisation
Methodology

Summary

1. The purpose of this report is to agree a process for development of a new methodology for evaluating and prioritising pedestrian crossing improvement requests. The resulting prioritised list will then be used to influence which sites are investigated, and implemented as appropriate, from future years' Transport Capital Programmes.

Recommendations

2. The Executive Member is asked to adopt the approach proposed in Option 1 to deal with the 2016/17 budget allocation for pedestrian crossing improvements using a new methodology to evaluate and prioritise pedestrian crossing requests for future financial years.

Reason: To ensure the 2016/17 budget allocation is spent on delivering improvements for local residents and that the list of outstanding pedestrian crossing requests can be assessed taking into account appropriate factors.

Background

3. Over the past few years a list of over 70 pedestrian crossing requests has accumulated in the absence of a specific budget for dealing with new crossings. The cost of providing improved crossing facilities at all of the sites could be substantially above £500k depending on the complexity of the site and crossing solution proposed. In the intervening period all requests have been logged in a database. Some sites of higher risk have been prioritised and reviewed as part of other council work programmes such as Safe Routes to School, Local Safety Schemes, Danger

Reduction Schemes or as part of highway mitigation measures for new developments.

4. The 2016/17 Transport Capital Programme includes an allocation for the delivery of pedestrian crossing improvements. An allocation of £50K has been set aside for prioritising and delivering improvements this financial year. This level of funding is sufficient to deliver 2 to 3 crossings depending on the type of crossing implemented and the cost of surveying potential sites.
5. There are currently 74 requests in the pedestrian crossing database hence there is a need to evaluate and prioritise the list. Through the development of a new methodology officers will be able to better identify the sites which are higher priority and to enable requests for sites which are clearly not suitable to be archived.
6. As the 2016/17 budget is only adequate to deliver a small number of crossings it is therefore essential that funds are allocated in the most effective way to schemes which will have the highest impact. It is also important that the level of investigation and survey work to determine the priority list is kept to a minimum so that the majority of the funds are allocated to scheme delivery.
7. It is anticipated that the detailed survey work which would be required to allow assessment of all of the requested sites would cost more than the entire budget allocation. It is therefore proposed that a staged approach is used to determine which schemes are put forward for potential 2016/17 delivery. Further survey work will be undertaken to prioritise sites for future years delivery, subject to confirmation of funding.
8. In advance of the more detailed evaluation process the database has been cross-checked against lists of sites which have already been delivered, or are in the process of being delivered as part of other work-streams such as Safe Routes to School, Local Safety Schemes and Danger Reduction Schemes. This has enabled 10 requests to be removed from the database.
9. A multi-stage approach for further refinement of the requests in the database is proposed below.

Stage 1

A panel of officers (including - Road Safety Officers, Highway Design Engineers and Transport Planners) will undertake a desk-top technical review of the database to determine locations which are considered to have the highest benefit (against the approved criteria) and likelihood of successful delivery.

The top 10 schemes will be identified and put through more detailed assessment in 2016/17. The proposed list of highest ranking schemes will be presented to the Executive Member for approval in the next Capital Programme monitor report.

Stage 2

Undertake the necessary surveys and evaluation of the top 10 potential schemes in accordance with the revised methodology which is proposed below in paragraph 14 and in more detail in Annex B. Rank the schemes in priority order taking into account value for money considerations and gain the approval of the Executive Member for delivery of up to 3 schemes using the funding allocated.

Stage 3

Undertake the necessary design and consultation work to deliver the approved schemes. Gain further approvals where necessary to confirm the delivery of the individual sites.

Stage 4

In subsequent years, subject to confirmation of funding, deliver the next sites on the approved list, evaluate further sites and update the ranking of the schemes in the delivery list. Present the proposed evaluation and delivery sites to the Executive Member for approval in future Capital Programme reports.

Assessment Methodology

10. It is considered that the current crossing site assessment methodology doesn't fully take into account all of the factors which are relevant to determining whether a crossing is appropriate at a particular location and what type of crossing would be appropriate. It is therefore proposed to use an updated methodology to allow potential crossing sites to be compared. Details of the current methodology and proposed methodology are shown below.

Current Assessment Methodology

11. The existing methodology for determining whether sites are appropriate for crossing facilities uses a well-established formula which takes into consideration the number of pedestrians crossing a section of road (P) and vehicle flows along the same section of road (V). Typically a 12 hour survey is undertaken and the hourly values for P and V noted. A calculation is then undertaken by multiplying P by the square of V to give an hourly PV^2 value. The four highest hourly PV^2 values are then averaged to give the final

PV² value for the site. The types of facility typically considered for various PV² values are detailed in the table below.

PV ² value (x 100,000,000)	Type of facility to be considered
>1.0	Puffin / Toucan
0.7 to 1.0	Zebra
0.5 to 0.7	Refuge / other Traffic Management
<0.5	No facilities needed

12. These figures should, however, only be used as a guide. The Council's Safety Engineers have also taken into consideration other factors as many sites haven't in the past achieved the above scores. The other factors considered include weightings for the type of vulnerable users crossing, weightings for larger vehicles, previous casualty history and the road width.
13. Research of several other local authorities has shown that many now use an adjusted PV² calculation which takes into consideration the other factors which influence the safety of pedestrians crossing roads. More details of which local authorities use which factors are shown in Annex A. The proposed methodology below is based on the most commonly used factors by other local authorities to give a more rounded assessment than the previously used PV² calculation.

Potential Factors Which Could Be Considered For A New Assessment Methodology

14. The current methodology uses a pedestrian flow which doesn't take into consideration the type of pedestrian. Clearly some types of pedestrian find it more difficult to cross roads such as children, older people, people with disabilities and people pushing prams or pushchairs. The new methodology proposes giving different weightings to these more vulnerable groups.
15. In a similar vein the vehicle flow used in the current methodology does not take into consideration the type of vehicles using the road. The new methodology proposes giving a higher weighting to larger vehicles such as HGVs and buses to reflect the greater danger they pose to crossing pedestrians.
16. As can be seen in Annex A there is quite a variation in the factors used by other local authorities hence there is no universal formula which York could easily adopt. There is also no formula suggested by the Department for Transport, however, they do list factors which should be considered in Local Transport Note 1/95 – The Assessment of Pedestrian Crossings.

17. The most common factors used by other authorities and considered to be appropriate for York are:
- Modified Pedestrian flow – (weighted to account for Children, Elderly, Disabled/Blind and encumbered pedestrians)
 - Modified Vehicle flow (weighted to account for vehicle type)
 - Accident Factor (Pedestrian casualties in last 3 years)
 - Crossing Delay Factor
 - Road Width Factor
 - Speed Factor (weighted to account for higher speeds)
 - Proximity to Pedestrian Trip Attractors Factor (weighted to account for school, healthcare, employment sites etc.)
18. For the assessment of the pedestrian crossings requests for delivery in 2016/17 it is proposed to use the formula shown in Annex B. The outcome of this assessment process and any recommendations for fine tuning of the methodology would be brought back to the Executive Member as detailed in Paragraph 9.

Consultation

19. Council Officers from the Road Safety, Transport & Safety and Traffic Management teams have been consulted on potential methods for assessing and prioritising the list of crossing requests and their comments have influenced the recommendations put forward in paragraph 2.

Options

20. There are three options available to the Executive Member:

Option 1: Adopt the staged process proposed in paragraph 9 to deal with 2016/17 schemes and prioritise the sites using the new formula identified in Annex B.

Option 2: Adopt the staged process proposed in paragraph 9 to deal with 2016/17 schemes and prioritise the sites using the existing formula.

Option 3: Use the 16/17 budget to review the existing formula and undertake surveys to enable the full request list to be prioritised.

Analysis of Options

21. Option 1: The advantage of this option is that it enables some schemes to be delivered during the 2016/17 financial year whilst undertaking more detailed work to confirm the ranking of sites. The new methodology will be reviewed as part of the 2016/17 evaluation and brought back to the Executive Member for any

changes if required. The disadvantages are that the full list of sites will not have been evaluated using the new methodology however it will enable the earlier delivery of schemes at locations where the road creates an obvious barrier and where a significant number of vulnerable residents will benefit. Another disadvantage is that there will be slightly higher survey costs to ensure accurate information is included in the prioritisation formula.

22. Option 2: Similar to Option 1, the advantage of this option is that it may enable some schemes to be delivered during the 2016/17 financial year whilst undertaking more detailed work to confirm the ranking of sites. Using the existing methodology will be less costly (due to the reduced survey/evaluation costs) but will not address important criteria which it is considered should be included in the prioritisation of the sites, it may also result in the majority of sites not achieving a sufficient score to be considered for improvement. The disadvantages are that the full list of sites will not have been evaluated and the new methodology will not have been used which would take into consideration more relevant factors, however it will enable the earlier delivery of schemes at locations where the road creates an obvious barrier and where a significant number of vulnerable residents will benefit.
23. Option 3: The advantage of this option is that all the requests will go through the same prioritisation process. The disadvantages are that the funding allocated in 2016/17 will be used for survey and staff costs and not delivering improvements on the ground.

Council Plan

24. Considering this matter contributes to the following Council corporate priorities and their constituent aims, as set out in the Council Plan 2015-19:

A prosperous city for all

- *Efficient and affordable transport links enable residents and businesses to access key services and opportunities* – walking is the cheapest form of travel, improvements to the pedestrian route network which reduce the severance effects of the road network will encourage people to walk for short journeys.
- *Environmental sustainability underpins everything we do* – walking is the most sustainable form of transport and has the lowest environmental impact of all modes of travel.
- *Everyone who lives in the city can enjoy its unique heritage and range of activities* – providing safer means of crossing

the road network opens up more travel options for residents and reduces their reliance on motorised transport.

- *Visitors, businesses and residents are impressed with the quality of our city* – improvements to the pedestrian route network will not only benefit residents but also visitors.

A focus on frontline services

- *All York's residents live and thrive in a city which allows them to contribute fully to their communities and neighbourhoods* – improvements to pedestrian crossing facilities help reduce the severance effects caused by busy roads helping to link people up better to the destinations they wish to reach.
- *Everyone has access to opportunities regardless of their background* – walking is a great leveller as it doesn't discriminate by sex or ethnic origin. Busy roads can, however, make travelling more difficult for some more vulnerable members of society such as people with mobility problems or whose age makes them more vulnerable. Improvements to crossing facilities will create greater access for these vulnerable groups therefore opening up more access opportunities.
- *Every child has the opportunity to get the best possible start in life* – children are one of the most vulnerable groups when it comes to crossing busy roads therefore any improvements will be of great benefit to them and open up new travel options.
- *Residents are encouraged and supported to live healthily* – walking is good for residents' health therefore anything which encourages more people to walk more often can only be a positive.
- *Residents are protected from harm, with a low risk of crime* – crossing roads introduces risk to residents' journeys on foot, by improving road crossings this risk is greatly reduced.

A council that listens to residents

- *Focus on cost and efficiency to make the right decisions in a challenging financial environment* – the new assessment methodology helps officers make a much more informed decision about whether crossing improvements are necessary and if so what type of crossing would be most appropriate.

- *Celebrate and champion the diversity of our population and encourage everyone to play an active role in the city – walking is an activity that most residents can enjoy, improving crossing facilities has the potential to benefit the most vulnerable groups the most opening up new travel options for them.*

Implications

25. **Financial:** There will be some costs associated with the surveys required to assess the crossing sites. These surveys and any subsequent crossing improvements which result from the assessments will be accommodated from the budget allocation for crossing assessment and improvements in the 2016/17 Transport Capital Programme.

Human Resources (HR): There are no HR implications

Equalities: Any improvements to road crossings help to reduce inequality by making access easier for groups who may currently find crossing the road difficult.

Legal: There are no Legal implications

Crime and Disorder: There are no Crime and Disorder implications

Information Technology (IT): There are no IT implications

Property: There are no Property implications.

Other: There are no other implications

Risk Management

26. In compliance with the Council's risk management strategy there are no risks associated with the recommendations in this report.

Contact Details

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**Report
Approved**



Date 28 July 2016

Wards Affected:

All

For further information please contact the author of the report

Background Papers: None

Annexes

Annex A – List of factors used by other local authorities to evaluate and prioritise pedestrian crossing requests

Annex B – Proposed list of Factors, their associated weightings and formula for assessment