



# case studies

customer success stories from the paramics community

## Project

Pedestrian/Vehicle Interactions, Haymarket, Newcastle Upon Tyne

## Organization

Crowd Dynamics

## Sector

Shared Space Modelling, Pedestrian Simulation

## Objective

Balance traffic delays and network wide congestion with pedestrian Levels Of Service

## Contact Point

[www.crowddynamics.com](http://www.crowddynamics.com)

## Pedestrian/Vehicle Interactions, Haymarket, Newcastle Upon Tyne

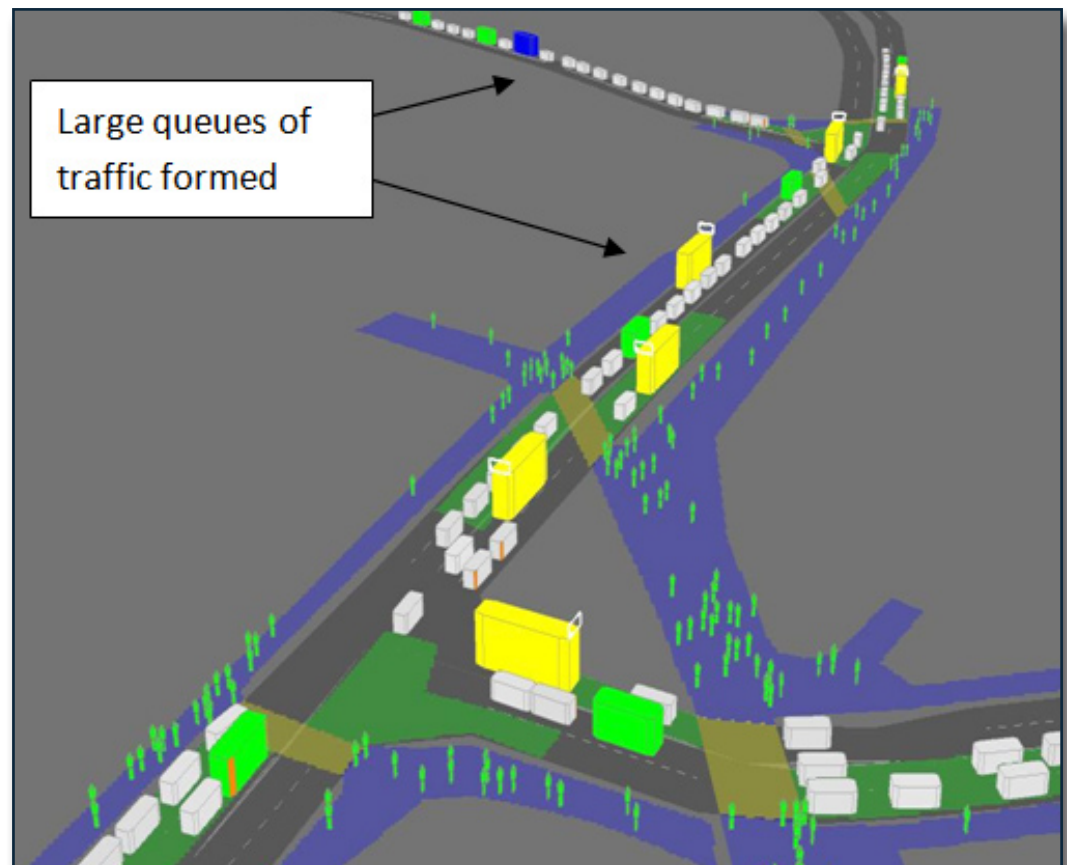
A vision for an area of Newcastle was proposed. It had the intention of making the public space more amenable to pedestrians. It made the space more accessible by providing direct movements for pedestrians. There was tension between stakeholder and the design couldn't be implemented as there were disagreements as to how the space would function.

This vision was clearly good for pedestrian movement and made the space nicer and more attractive. However, bus companies and traffic engineers posed two questions: Does the road function for cars and public transport or does the city grind to a halt with this scheme? Secondly, is it safe for pedestrians to have such an open space?

The traffic and pedestrian modelling capabilities in Paramics created a solution to enable the project to move on. Crowd Dynamics were a key stakeholder to the project after being transport advisers to the city council. The potential for the UAF to be used on this project was obvious. It was the only tool that could attack the questions posed and carry the project forward.

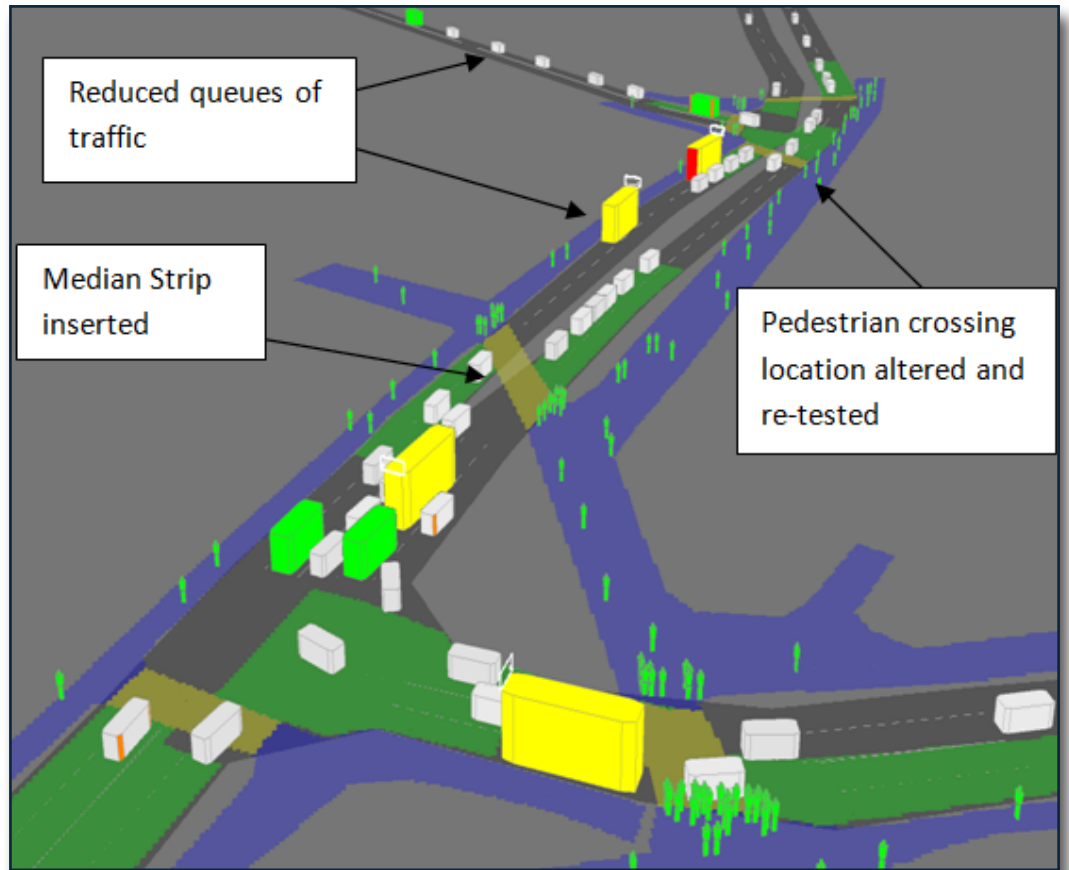
Models were set up to mimic the existing situation and then to model the proposed urban design solution.

The urban design solution proposed is shown below. It was clear that, as it stood, the space did not function for all modes of transport and large queues of traffic formed.

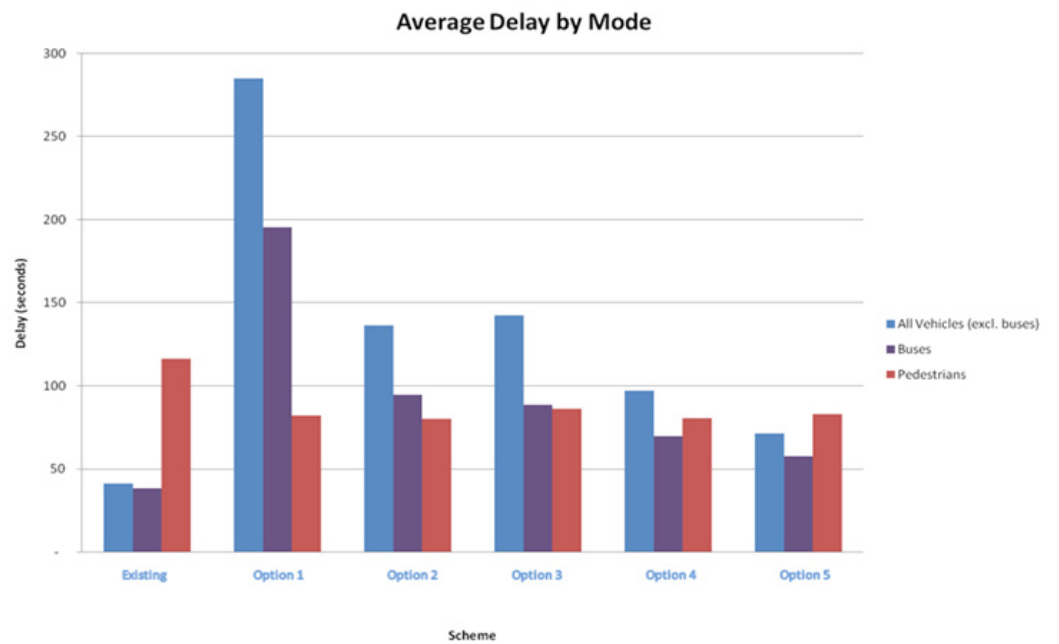


The UAF showed what was happening as the space functioned and gave indicators as to what may be proposed as a better solution. This solution is shown below and was proved to be more efficient using the UAF.

The UAF informed the design process to arrive at a solution using analytical tools and the public space could be shown working by the visual outputs.



Part of the analysis done using the UAF on this project is shown below:



This was part of the overview of analytical evidence shown by the UAF to help arrive at a potential solution for the area, where options were then able to be discussed.