

Road Safety Study – Candia Road – ‘Before’ and ‘After’ Crash Study

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During a crash reduction study in 2009 Traffic Engineering Solutions Ltd (TES) established that a substantial rural road loss-of-control crash problem existed along Candia Road (Henderson, Auckland). The reported crashes appeared particularly adverse along a southern section of the road, from Henderson Valley Road to Sturges Road; this route becoming the focus of the investigation. As a result of the investigation, crash remedial works were recommended, designed and installed along the study cordon route (early 2010). The crash remedial works were mainly focussed at two bends within the study cordon, and the works were consistent with the Safe System principles of achieving ‘*Safe Roads and Roadsides*’, ‘*Safe Speeds*’, and ‘*Safe Road Use*’.

In order to determine the effectiveness of the constructed works in terms of reducing crashes, reported crash statistics have now been studied for a seven year period ‘before’ the works were installed, and a seven year period ‘after’ the works were installed. The crash monitoring study has indicated that the combined package of constructed works reduced crashes substantially. Prior to works, 45 crashes were reported along the study cordon over seven years, including 1 fatality and 9 serious injury crashes. After works, only 6 crashes were reported over seven years, with zero death/serious injury crashes (DSI), and no evidence of crash migration.

Effectively, reported crashes have reduced by 87%, with substantial lifetime crash cost savings of \$24 million (including a downward crash trend). Also, a very high Benefit Cost Ratio (19) was achieved, and an average of 1.4 DSI crashes were saved per year.