

Technical Note

Project:	West Oxfordshire ETI	To:	OCC
Subject:	Additional Tests	From:	Nicole Pulici
Date:	30 Jun 2014	cc:	Graham Bown

1. Modelling Approach

Highway Networks

New Scenarios 5a/b/c same as Scenarios 3a/b/c but with increased capacity and optimised signals on WEL.

Demand

- Scenario 5a: same as Scenario 3a i.e. 1500 houses in North Witney;
- Scenario 5b: same as Scenario 3b i.e. 800 houses in North Witney; and
- Scenario 5c: same as Scenario 3c i.e. 200 houses in North Witney.

2. Impacts

2.1. Summary network performance

When compared to the Scenario 3a/b/c tests previously done, these new tests show network performance improvements but still do not solve the problems on Bridge Street (and other areas of the network) due to the high levels of demand for travel through Witney. A summary of the traffic impacts is outlined below.

2.1.1. 2030 AM

The results show that overall:

- The WEL relieves traffic from Bridge Street in the Northbound direction;
- Almost all traffic using WEL is to/from the North Witney development;
- Bridge Street is still at capacity for all scenarios in the Southbound direction;
- Traffic wanting to access WEL in the southbound direction from West Witney is unable to due to the problems at the Bridge Street mini roundabout junction;
- Dry lane is almost over capacity in Scenario 5a but reduces to below capacity in Scenarios 5b and 5c; and
- Tower Hill roundabout is at/over capacity on most arms for all scenarios.

The additional infrastructure improves the network performance best in Scenarios 5b and 5c (ie not the full amount of development in North Witney).

2.1.2. 2030 PM

The results show that overall:

- Almost all traffic using WEL is to/from the North Witney development;
- Bridge Street is still at/over capacity for all scenarios in both the Northbound and Southbound direction;
- Traffic wanting to access WEL in the southbound direction from West Witney are unable to due to the problems at the Bridge Street mini roundabout junction;
- Dry lane is almost over capacity in all Scenarios; and
- Tower Hill roundabout is at/over capacity on most arms for all scenarios.

The additional infrastructure provides extra capacity in the network but is almost nullified by the high level of demand for travel through Witney, leaving the overall network performance almost unchanged.

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Figure 1. 2030 AM Scenario 5a

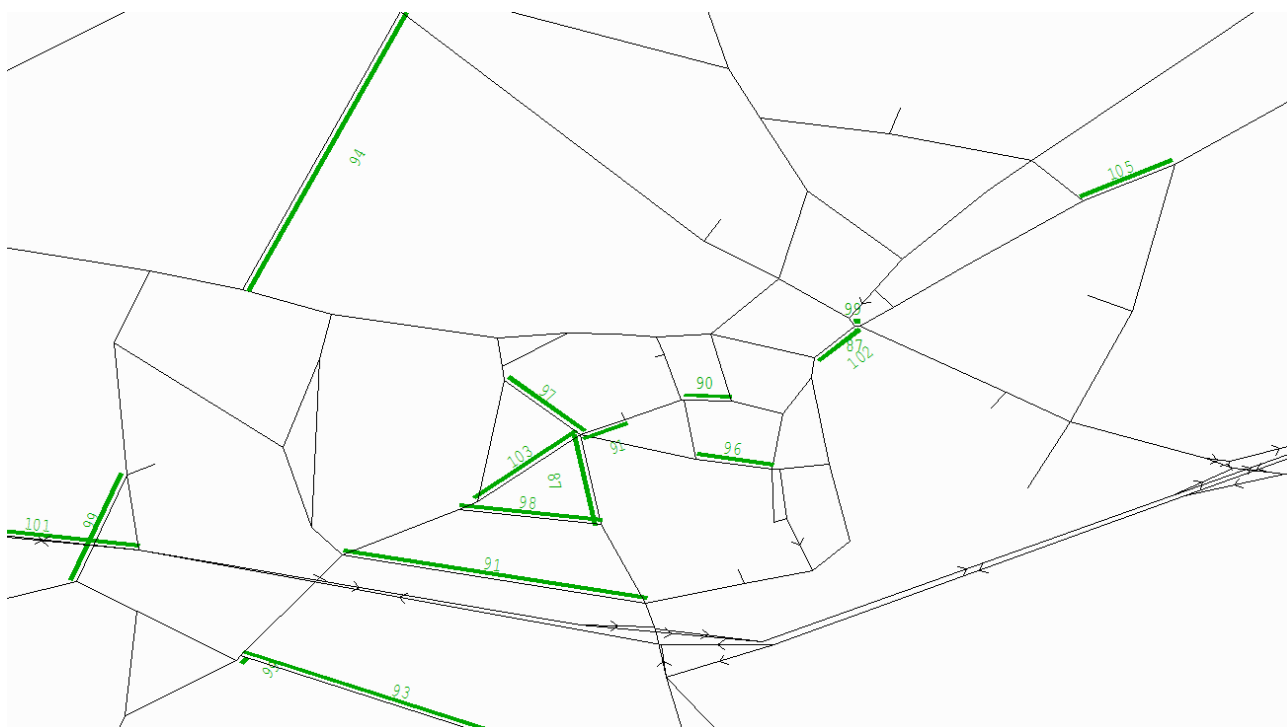
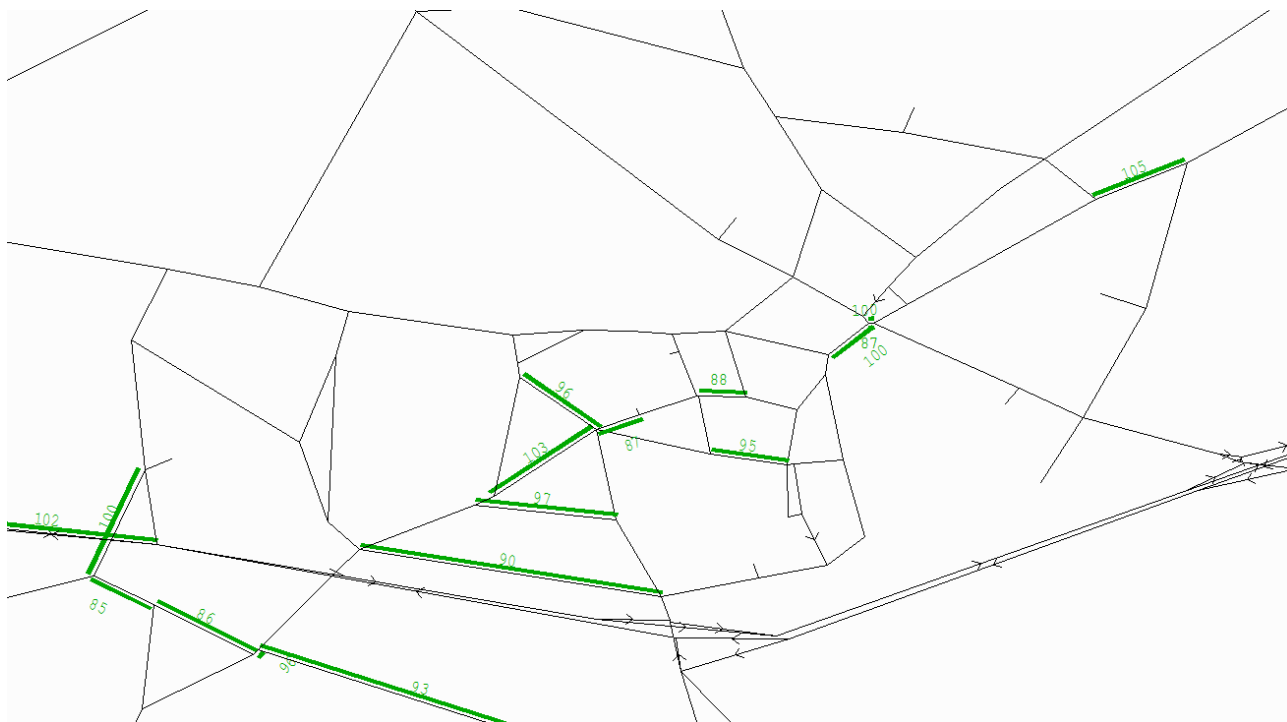


Figure 2. 2030 AM Scenario 5b



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Figure 3. 2030 AM Scenario 5c

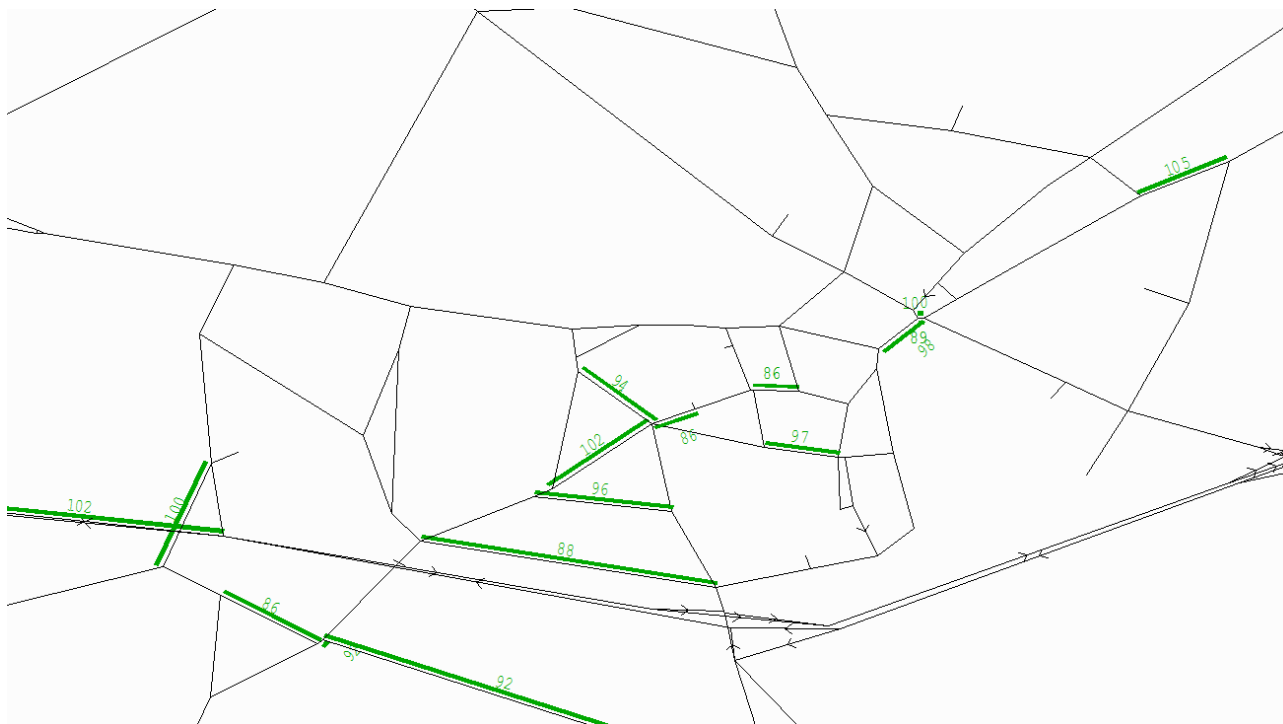
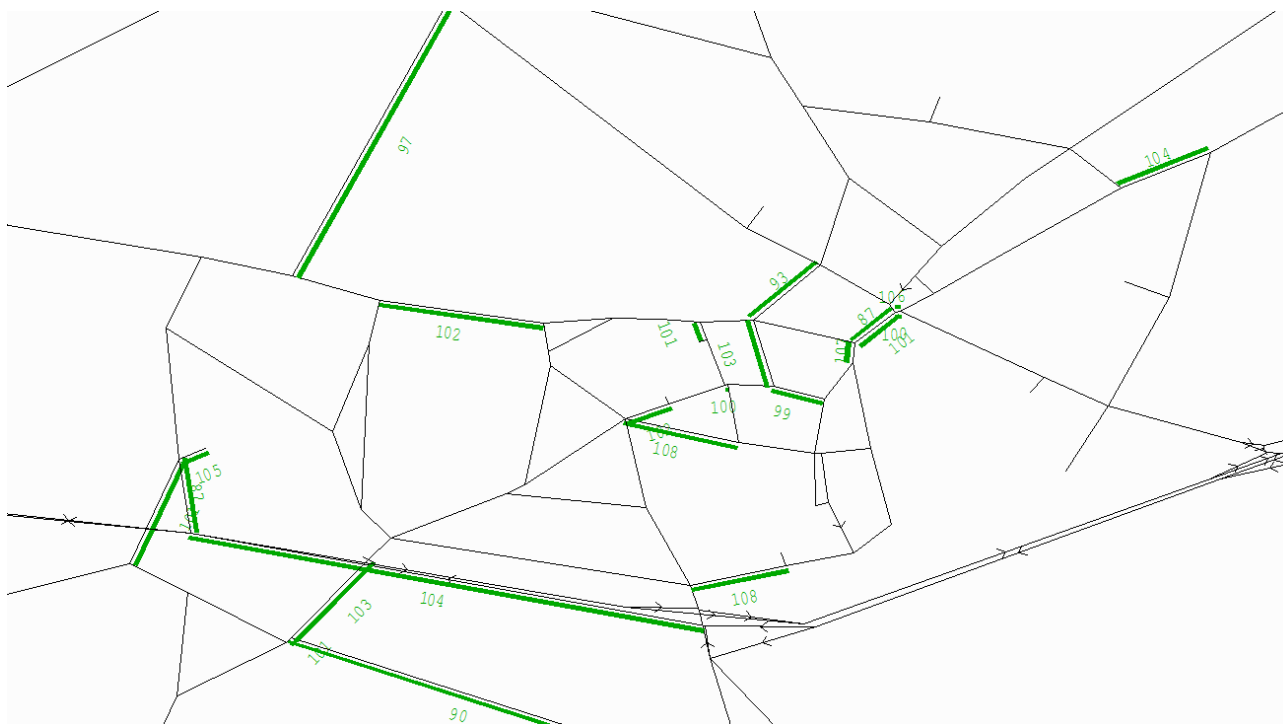


Figure 4. 2030 PM Scenario 5a



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Figure 5. 2030 PM Scenario 5b



Figure 6. 2030 PM Scenario 5c

