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Milton Keynes
City Council

Bletchley Park Area Residents Association

Traffic modelling.
28/08/2025

Agenda

1. Town Deal Overview
2. Transport Hub – Saxon Street
3. Research
4. Traffic modelling
5. Next Steps

1. Town Deal Overview

The Town Deal programme aims to regenerate towns and deliver long-term economic and productivity growth. This is through investments in urban regeneration, digital and physical connectivity, skills, heritage and enterprise infrastructure.

In 2020, Milton Keynes City Council were awarded £22.7m of Town Deal Funding to deliver several projects in Bletchley and Fenny Stratford that were identified to drive transformational and sustainable growth in the area.

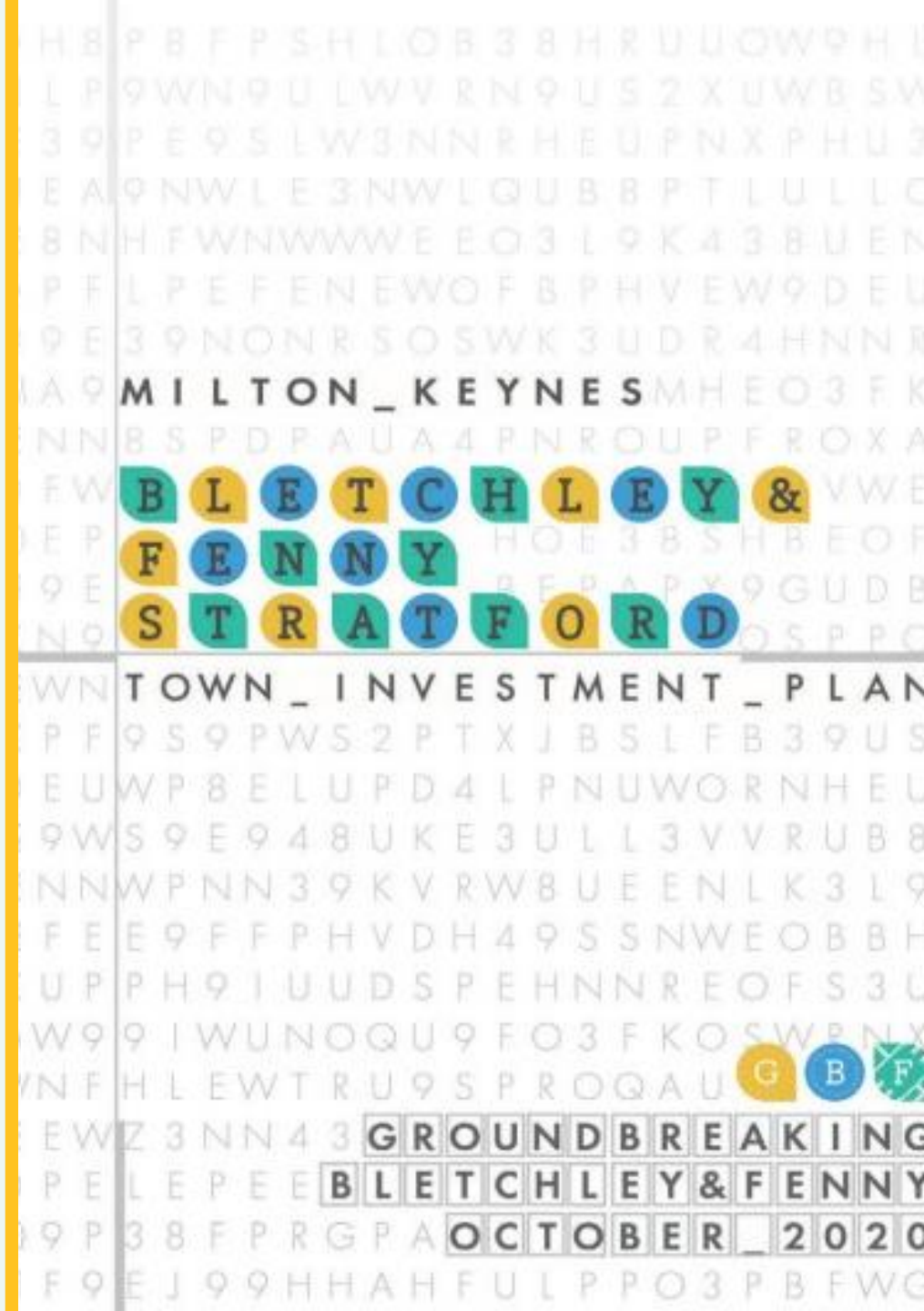
These projects are designed to capitalise on the emerging opportunities presented by the development of the Oxford to Cambridge East-West rail link, which connects to Bletchley railway station.



2. Transport Hub – Saxon St

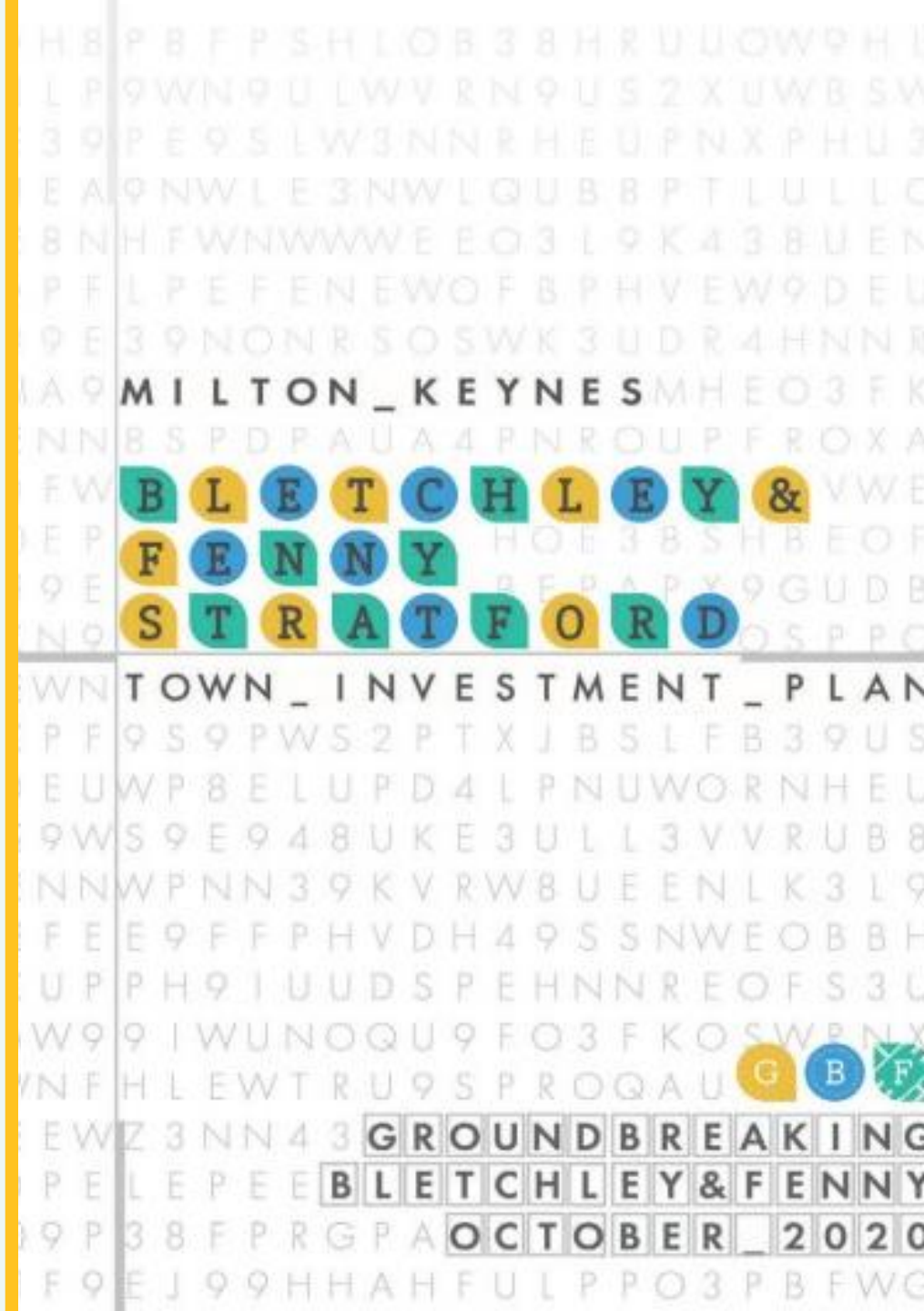
Background to the Transport Hub project (Town Investment Plan submitted to, and approved by, HM government: TIP 2020)

- ‘Infrastructure exists to connect the town well but physical barriers around transport hub exist, which means the benefits of existing and new infrastructure may not be shared across the area.’
- ‘Poor legibility and existence of severance between station and town centres inhibits footfall.’
- ‘To maximise opportunities created by the area’s key strategic accessibility at the intersection of main rail lines, including East West Rail’.



2. Transport Hub – Saxon St

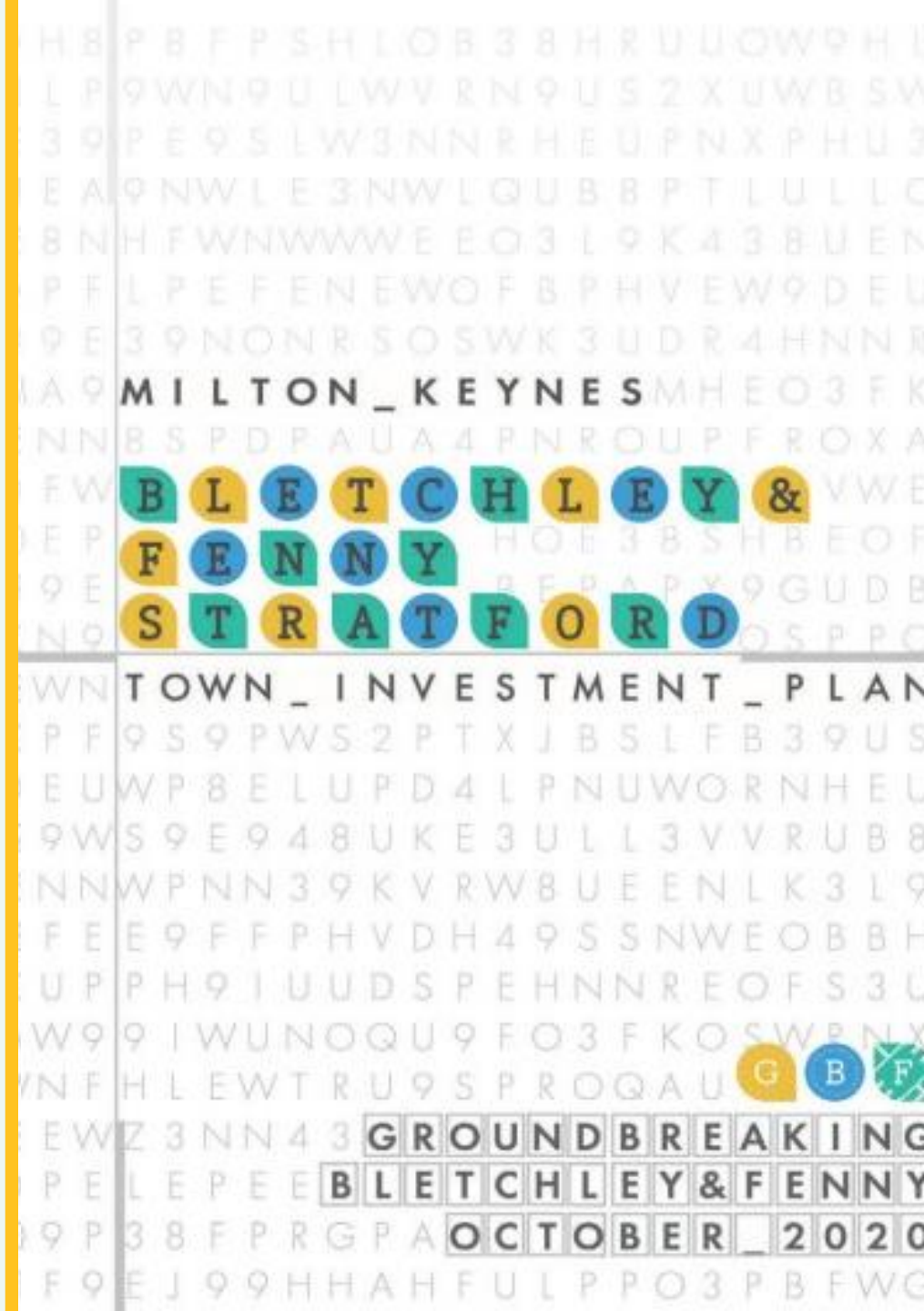
- ‘To extend and improve public transport, walking, cycling networks improving connectivity within and beyond the area.’
- ‘To encourage healthy and active lifestyles by improving access to important local environmental assets.’



2. Transport Hub – Saxon St

The aims

- To create a sense of arrival in Bletchley, a gateway to the town centre.
- To provide a transport system that makes it easier to get around and supports sustainable (less reliant on cars) travel choices.
- To ensure a safer, healthier and more accessible transport network.
- To narrow the road carriageways in certain areas to safely accommodate vehicle movements and pedestrians.
- To help the businesses located in central Bletchley, particularly in Queensway, by providing better connections for new visitors.



2. Transport Hub – Saxon St

The plans

- Reducing the existing carriageway
- Upgrading the existing bus facilities
- New Redway links
- Better, more attractive public realm
- Additional signalised pedestrian crossing points



BLETCHLEY AND FENNY STRATFORD TOWN DEAL – QUEENSWAY PUBLIC REALM IMPROVEMENT PROJECT, AND SAXON STREET (TRANSPORT HUB)



3. Research

- Town Investment Plan (incl. surveys, consultations)
- Topography (land studies), Utilities, Vissim modelling
- AECOM parking study
- Safety Audits
- The Town Deal summer consultation (3 Aug to 22 Sept) in person and online
- MK City Plan 2050, consultation (17 Jul to 9 Oct), CB1 Policy Supporting investment in Bletchley

Bletchley Saxon Street

Traffic Modeling Report - Sherwood Drive and Cemex Exit
Option Testing

Milton Keynes City Council

April 2025

3. Research

Eastern Entrance

We've been working with East West Rail, Network Rail, WSP engineers and WWP architects to explore the possibilities of an eastern entrance to further improve connectivity.

As a result of several workshops, we've made a passive provision of land for a potential eastern entrance on Saxon Street.

east west
RAIL



Bletchley Station

Local Authority Workshop – 16.01.2025

The Transport Hub – Saxon Street

CGI showing:

- Connectivity
- Balance
- Gateway
- Safer
- Healthier
- Eastern entrance



The Transport Hub – Saxon Street

CGI showing:

- Connectivity
- Balance
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4. Traffic modelling

The design options for Saxon Street follow an iterative process, supported by several Vissim model tests.

Vissim is software programme that digitally reproduces the traffic patterns of all road users on a microscopic scale. It simulates how traffic—including cars, buses, and pedestrians—moves through road networks. It helps planners test how changes to roads or junctions might affect congestion, safety, and travel times

We commissioned the modelling of traffic conditions along Saxon Street, including key junctions at Princes Way, Duncombe Street, and Sherwood Drive.

Traffic surveys were carried out in April 2022 to build an accurate model of conditions.

The model was then used to test how the road network would perform in 2031, considering future population growth and housing development.

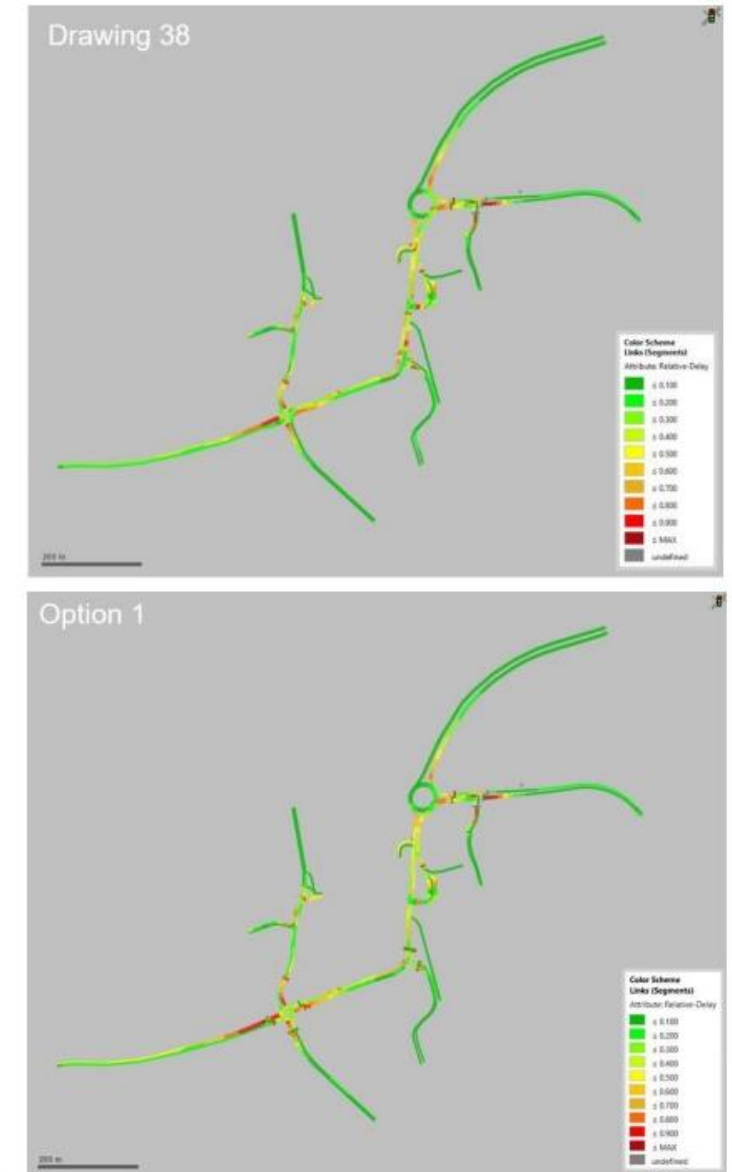


Figure 4.1 2031 AM Peak Results – Drawing 38 (above) and Option 1 (below)

4. Traffic modelling

Three scenarios were modelled:

- The current road layout with 2022 traffic levels.
- The current layout with forecasted 2031 traffic.
- Several versions of a proposed new layout with 2031 traffic

The details of the base models, the forecast models, and the findings are documented in these reports and technical notes:

- Bletchley Saxon Street Traffic Modelling Report – Oct 2024
- Sherwood Drive Roundabout Study – November 2024.
- Bletchley Saxon Street Updated Design – December 2024.
- Duncombe Street Design Options – March 2025
- Bletchley Saxon Street Traffic Modelling Report – Sherwood Drive and Cemex Exit Option Testing – April 2025

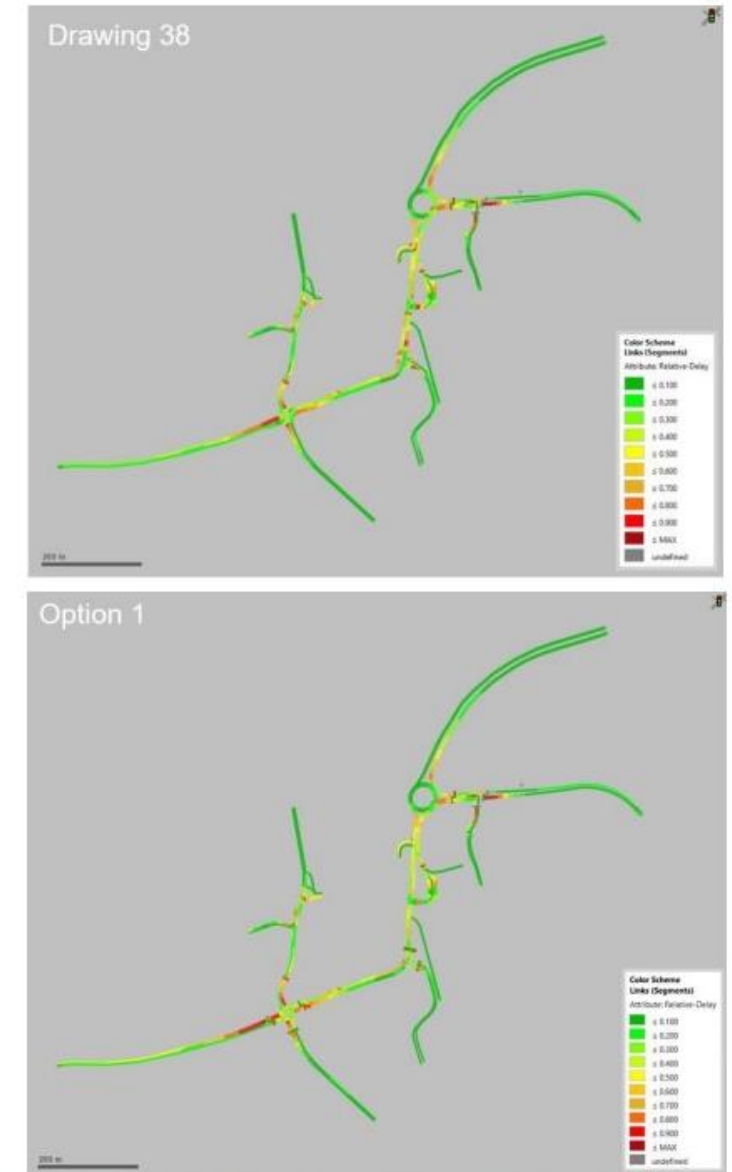


Figure 4.1 2031 AM Peak Results – Drawing 38 (above) and Option 1 (below)

4. Traffic modelling

The results from this VISSIM modelling are quite promising, showing a faster AM journey, but a slight delay in the PM journey

- For the AM peak time, the new designs show a reduction in traffic time compared to the existing layout.
- This reduction is due to the new design changes at Sherwood Drive roundabout which has improved capacity. This offsets the reduction in capacity along the Saxon Street corridor, which causes a slight increase in delay, but overall, there is a reduction in journey time across the network.
- The PM peak time shows a modest increase in journey times due to the new signals and the reduction in capacity along the Saxon Street corridor causing more vehicle stoppages and equates to a delay of approximately 11 seconds.

*However, one caveat is delays could increase based on how frequently signalised junctions are used.



4. Traffic modelling

To help illustrate the changes to the public commissioned videos to show traffic flow in both AM and PM times.

The option models were developed and evaluated to extract the relative delay results, journey time results, and network performance results to understand the impacts of the proposed layouts.

The assessment was undertaken for:

AM peak hour: 08.15 to 09.15

PM peak hour: 17.00 to 18.00

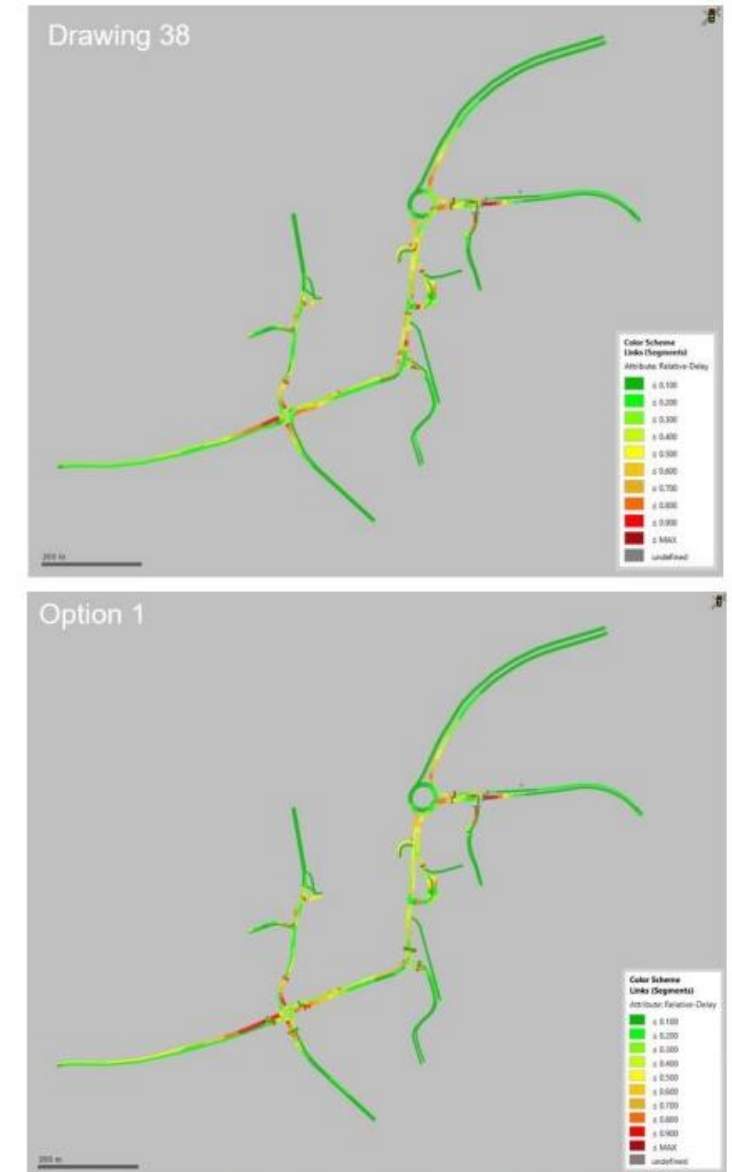


Figure 4.1 2031 AM Peak Results – Drawing 38 (above) and Option 1 (below)

Transport Hub: Improvement plans for Saxon Street, Sherwood Drive Roundabout, and Princes Way, Bletchley.



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5. Next Steps

Construction anticipated to start in January 2026.

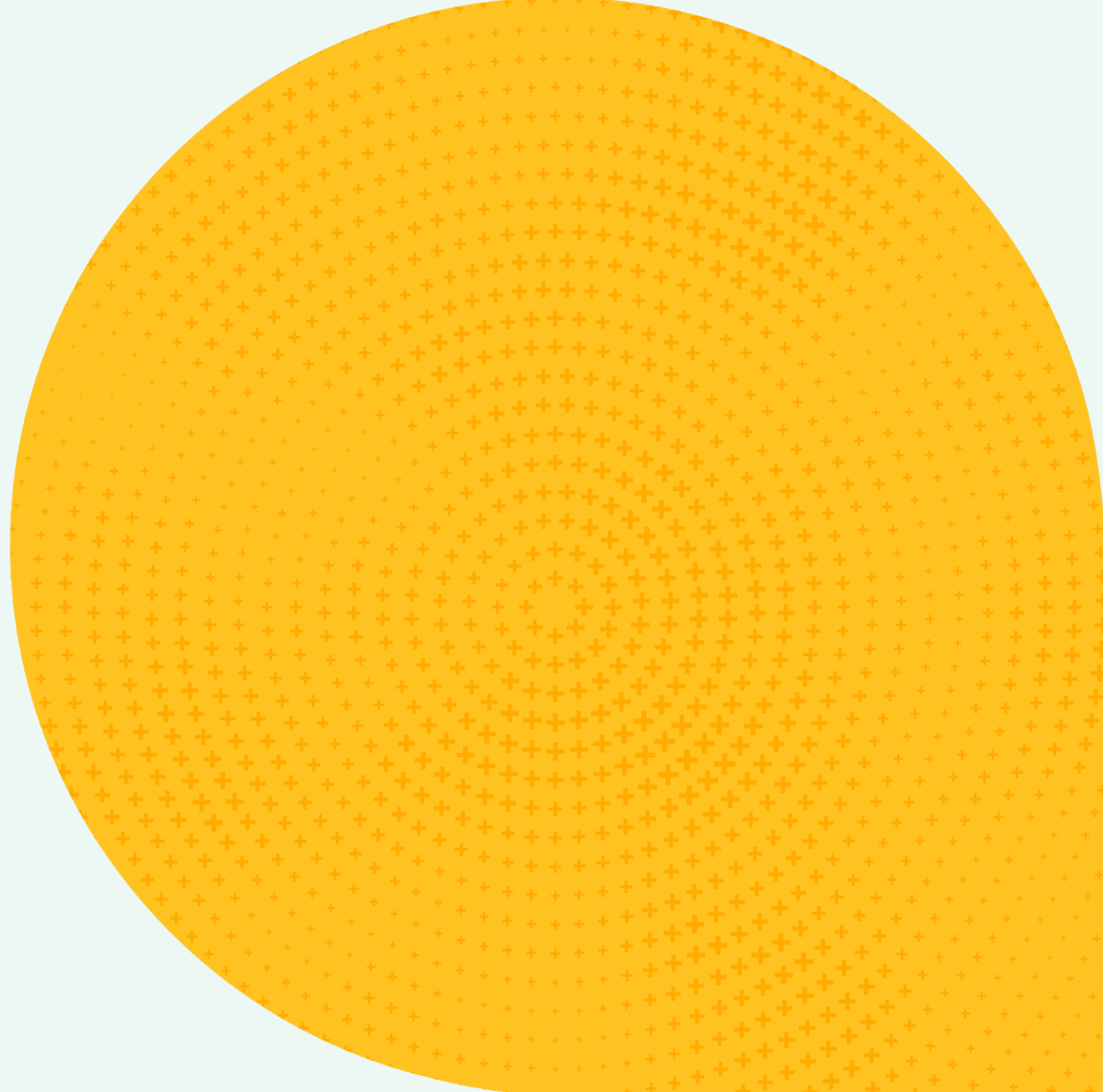
A phased programme, with work expected to conclude before end of 2026.

5. Next Steps

Continued communication

- Leaflet drop
- Regular drop-in sessions – four per month
- Monthly business networking event
- Local community events – Pathfinder, West Bletchley Carnival, Christmas
- Presentations to local groups – Eden Court, Red House, and RAs
- Local councils, and Ward Cllr briefings
- Monthly briefing with Callum Anderson MP
- Monthly newsletter
- Revised website
- Instagram, X, Facebook

6. Questions





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www.groundbreakingbletchleyandfenny.co.uk