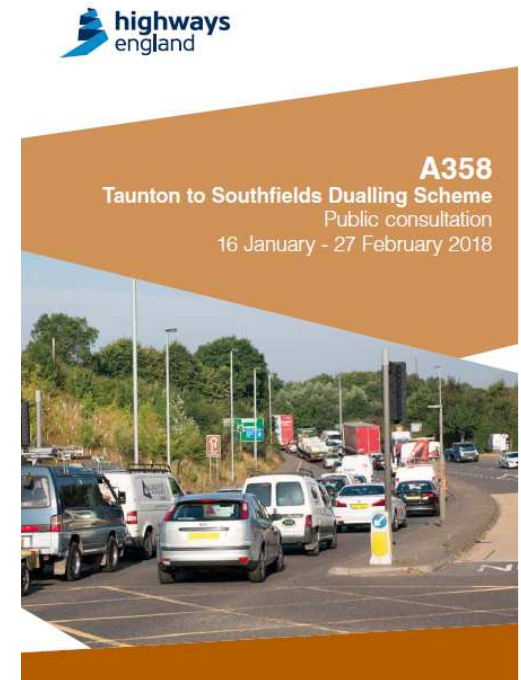


# M5 Taunton to Southfields

## 2<sup>nd</sup> Non-statutory consultation by Highways England

**Presentation to Scrutiny for Policies and Place  
Committee 30 January 2018**

**Mike O'Dowd-Jones: Strategic Commissioning Manager: Highways  
and Transport**



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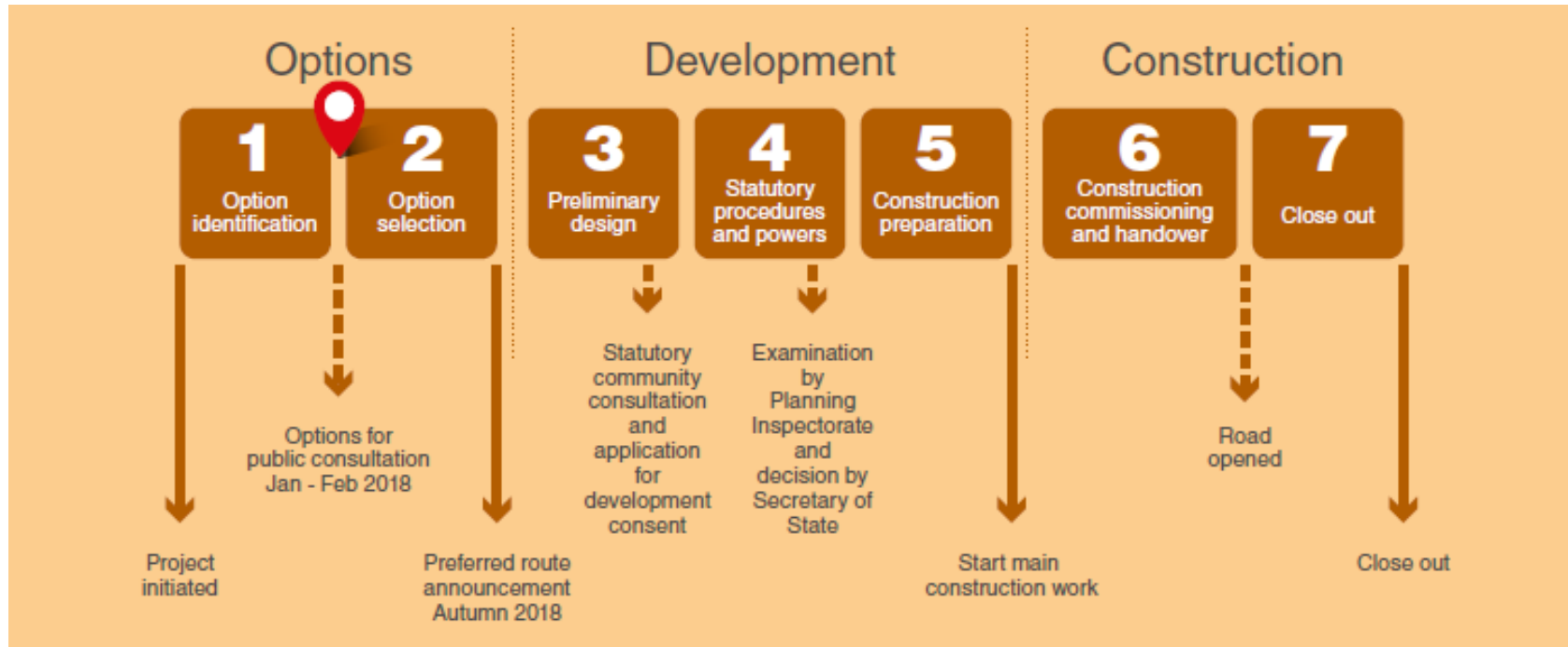
# Background

- Sustained campaign to secure improvements to the whole A303/A30/A358 corridor. Huge economic benefits to the area if designed appropriately.
- Strong support for a dual carriageway improvement from the M5 at Taunton to Southfields as part of the wider programme.
- Highways England responsible for design, delivery and operation of the route as a new link in the national road network. SCC are only a consultee.
- Scheme to be consented through the 'DCO' process for nationally significant infrastructure projects.
- HE's initial 'non-statutory' consultation contained only a single option and following community concern, three options are now being consulted on. Consultation closes on 27 February 2018.

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# Process and timescales



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# Local Authority Role

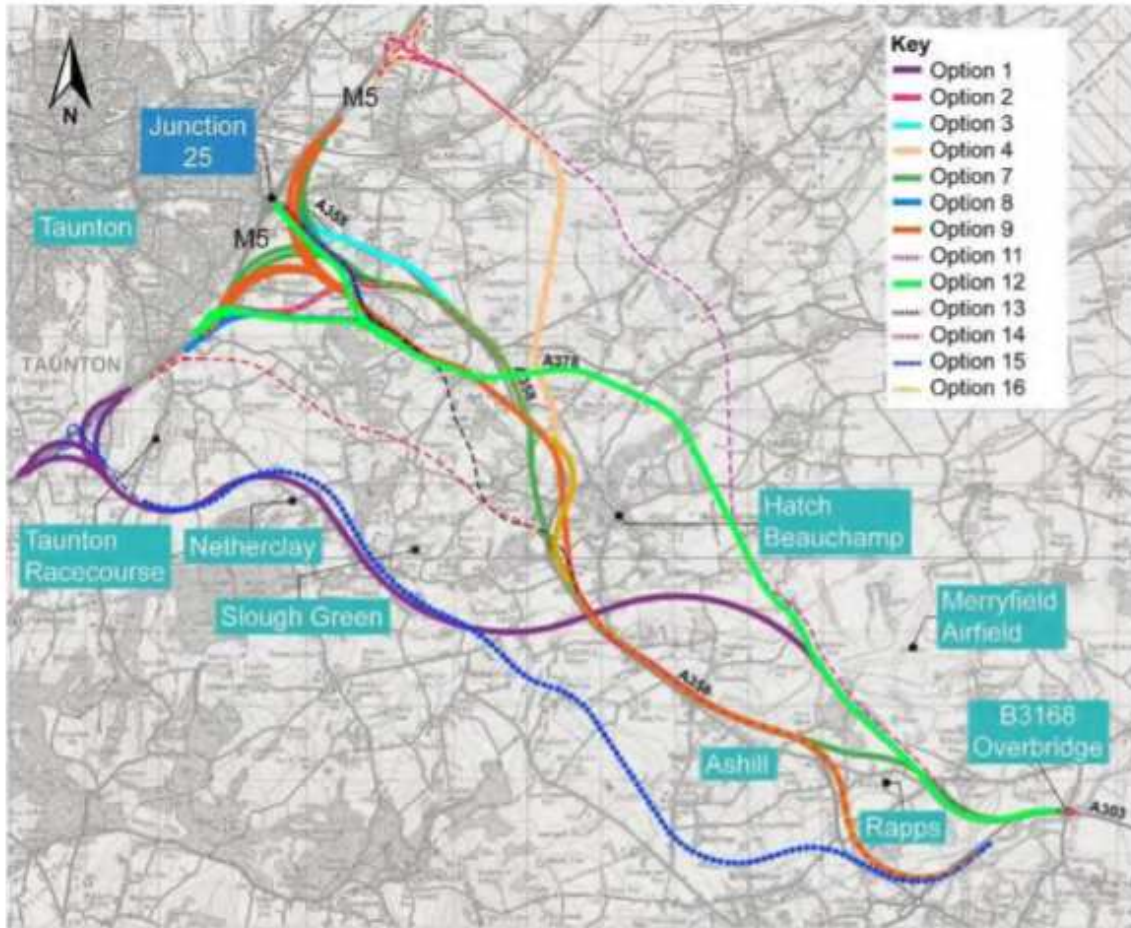
- Respond to consultation on the scheme
  - Comment on adequacy of consultation
  - Agree statement of common ground
  - Prepare local impact report
  - Participate in examination & respond to examiners questions/ requests for information
  - Come to agreement on planning obligations as necessary
  - Role in discharging requirements and monitoring/ enforcement.
- 
- Experience on other similar road schemes indicates need to negotiate a formal role in agreeing detailed designs where road interfaces with local network – this may well continue beyond the examination.

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# Options Considered:

Figure 5.1: Routes considered as a part of the options identification stage

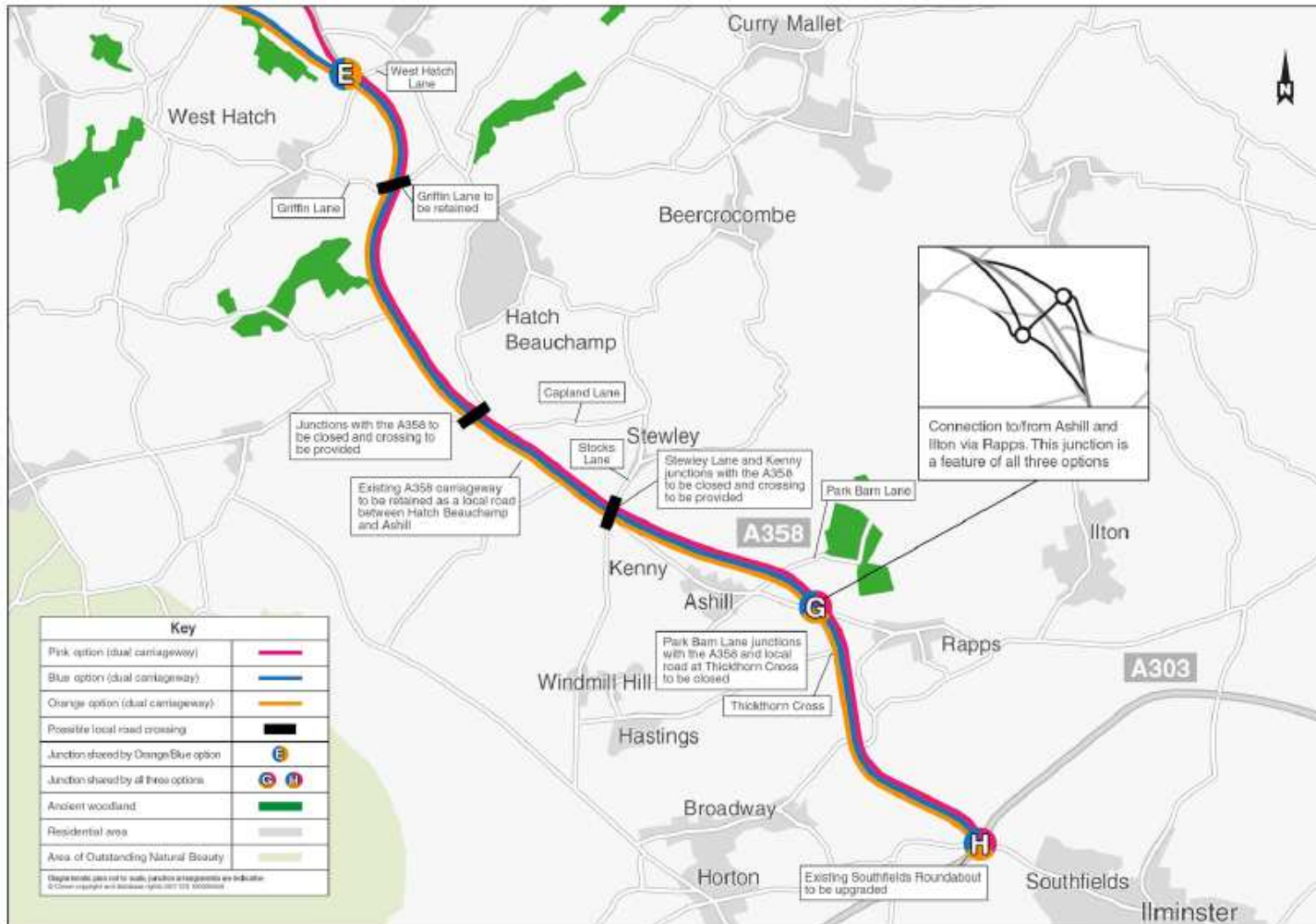


MMSJV. This Map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Highways England 100030649 2016.

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# 'Section 2' Consultation Option - Southfields to West Hatch

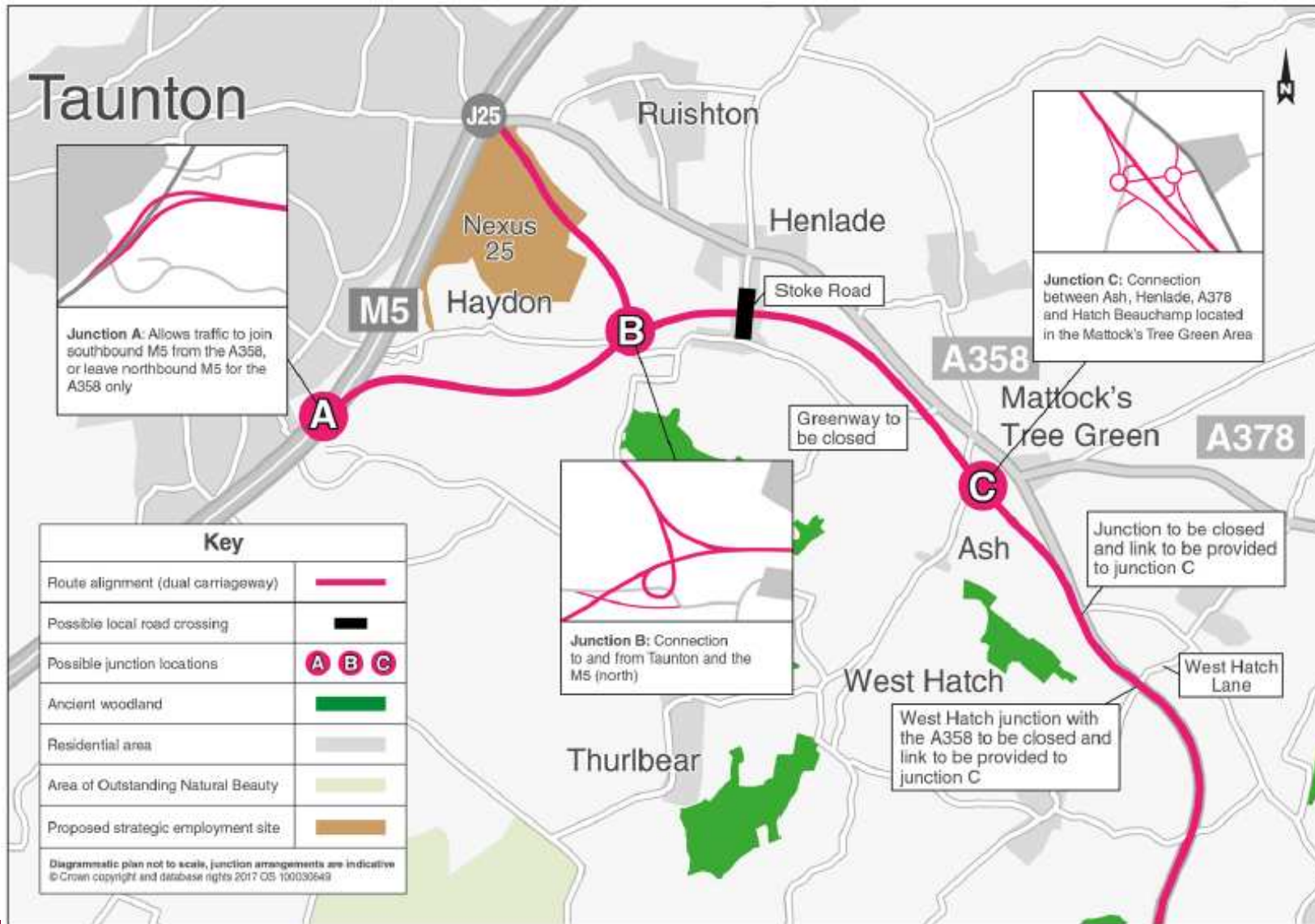


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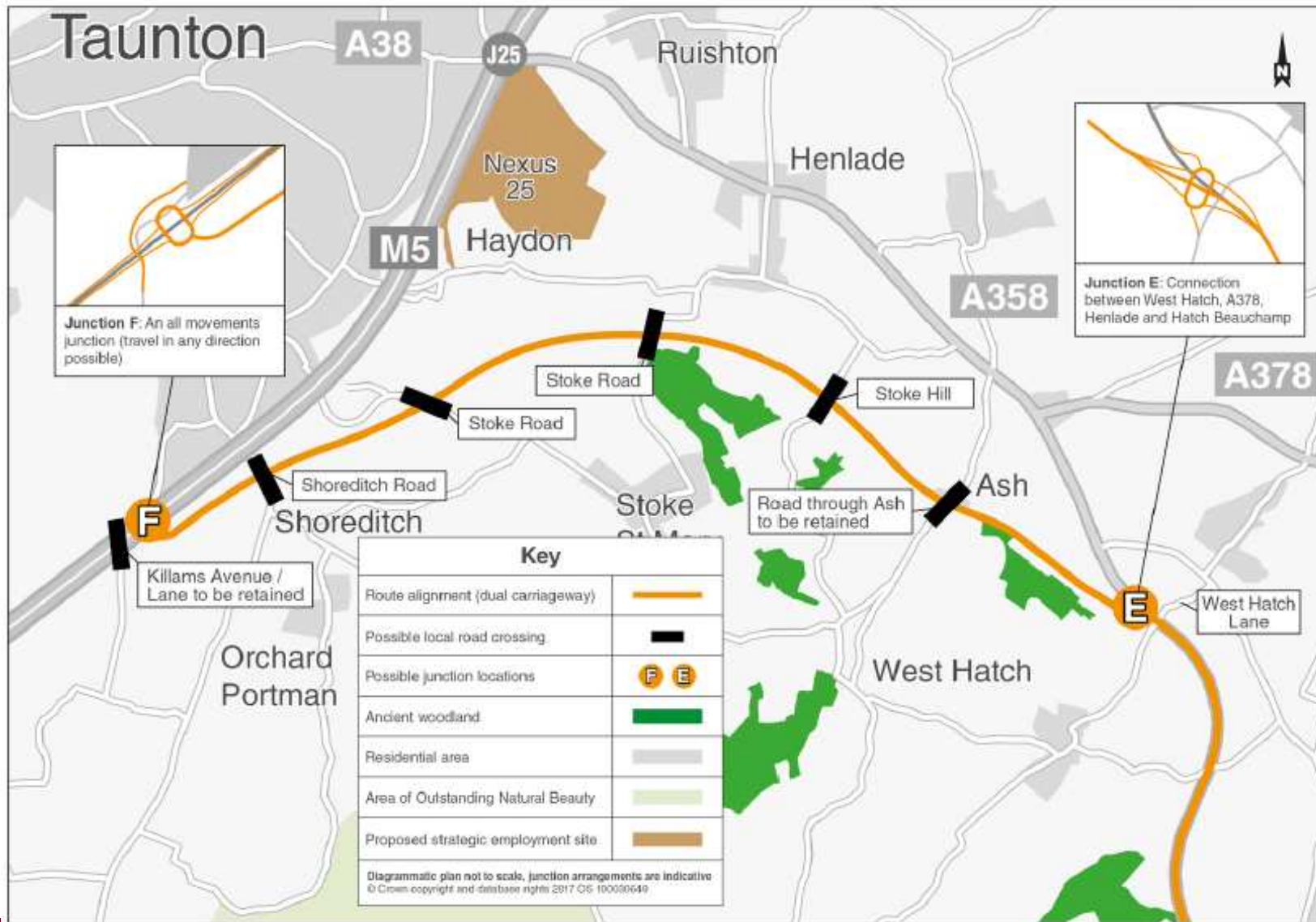




# Section 1: Consultation Options: Pink (Previously Option 2A/2B)

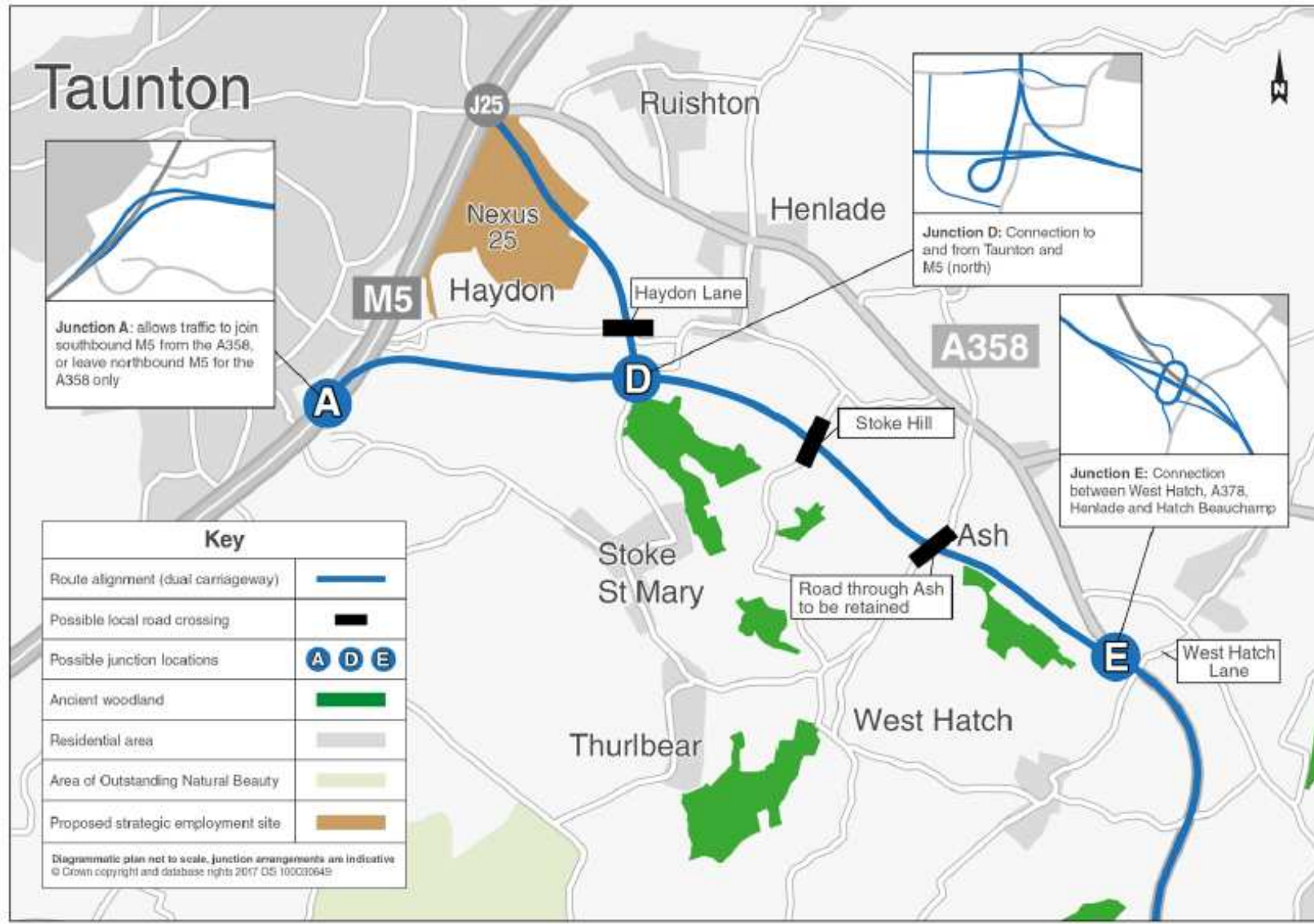


# Section 1: Consultation Options: Orange (Previously Option 8/8B + NFS)



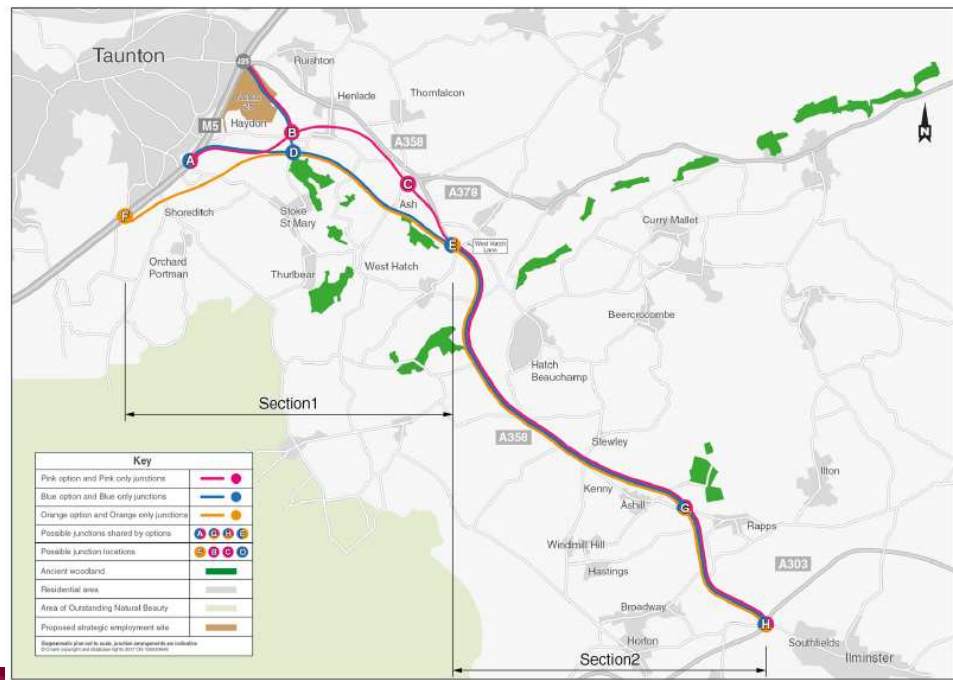


# Section 1: Consultation Options: Blue (Previously Option 8/8B + J25)



# Option Performance: Whole route

Route Performance	Pink (2A2B)	Orange (8 NFS)	Blue (8+J25)
Cost	£452m	£366m	£401m
Benefit to Cost Ratio	2.084 (High)	1.636 (Medium)	1.872 (Medium)
Accident Savings	£10.1m	£-314k	£9.6m
Journey Time Efficiency Savings	£566m	£395m	£475m
Traffic flow on section 1 of new route (AADT 2038)	54600 (40100 on J25 link)	26000	45900 (33400 on J25 link)
Traffic flow remaining on old A358 at Henlade (AADT 2038):			
• Without scheme	39700	39700	39700
• With Scheme	5300	26800	10000

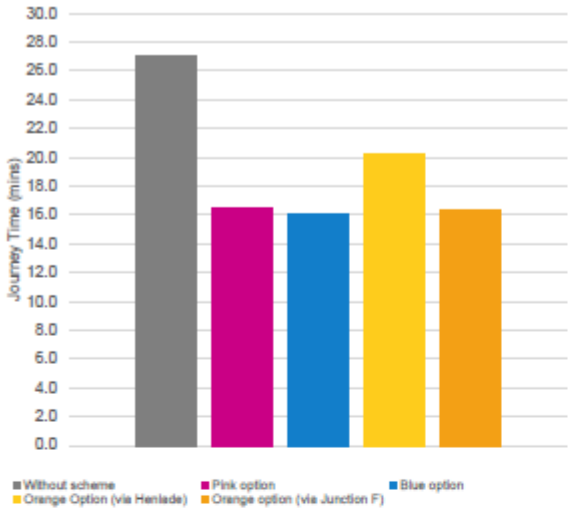


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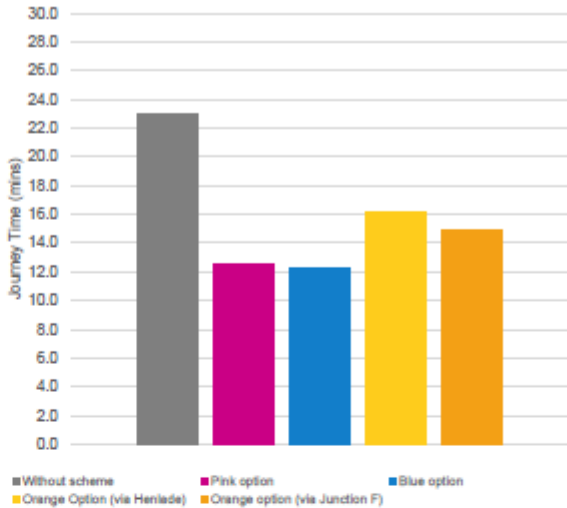


# Option Performance: Whole route

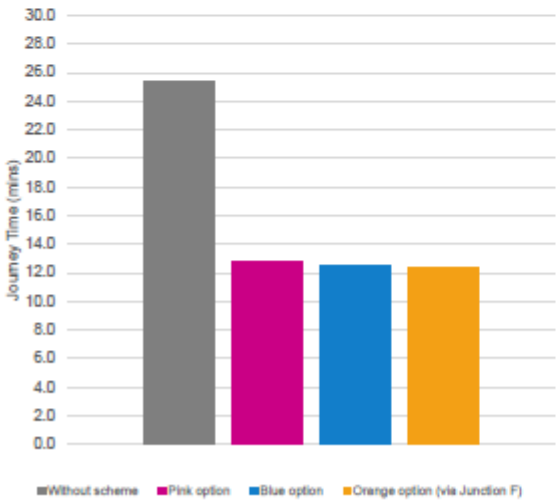
Southfields to M5 junction 24 (Bridgewater)



Southfields to M5 junction 25 (Taunton)



Southfields to M5 junction 26 (Wellington)



These graphs present results from our traffic modelling which show that each of the options being proposed will improve journey times on the A358 compared to doing nothing.

The figures also indicate that for the Orange option, journey times are shorter travelling via the new route and new junction on the M5, than through Henlade.

Note:  
Times given are an average of morning peak periods in 2038.

Note: Journey times averaged across 3 hour AM peak period 07:00 to 10:00 in 2038.  
(Journey times on routes through J25 would be longer in the most intensive peak hour 08:00 to 09:00).

Average Monday to Thursday weekday.

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# Option Performance: Junction 25

J25 Performance AM Peak Hour (2038)	Pink	Orange	Blue
J25 Capacity (%)	138%	82%	132%
Average delay on A358 entering J25 (s/pcu)	567s (9.5 mins)	28s (0.5 mins)	477s (8 mins)
Congested arms of the junction	A358 w/b (137%) M5 n/b ahead left (96%)		A358 w/b (131%) M5 n/b ahead Left (97%) M5 s/b left (118%)

J25 Performance PM Peak Hour (2038)	Pink	Orange	Blue
J25 Capacity (%)	89%	88%	93%
Average delay on A358 entering J25 (s/pcu)	24s (0.4 mins)	20s (0.33 mins)	16s (0.26 mins)
Congested arms of the junction			Toneway e/b (93%)

## Note this assessment has modelling limitations:

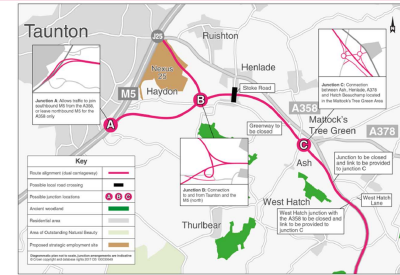
- Impact of the capacity constraints needs further consideration.
- Limited network which does not model any upstream constraints & associated profile of traffic arrivals.
- Real world signal optimisation techniques likely to improve on the modelled capacity.

Note: Peak hours as follows :  
 AM: 08:00 to 09:00  
 PM 17:00 to 18:00

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# Pink Route: Strengths and Weaknesses



## Strengths

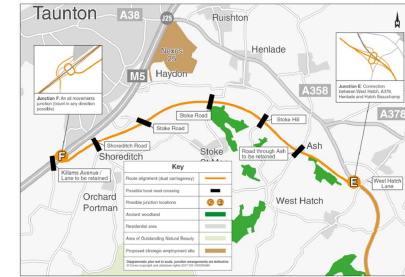
- Shows the greatest reduction in traffic through Henlade.
- Better connectivity to Nexus 25 employment site removes need to travel via the M5 and J25 to get to the site from the expressway.
- A junction is proposed in close proximity to the existing A358 / A378 Thornfalcon junction which would encourage more traffic to use the new road links.
- Significant journey time reductions.
- Highest value for money.

## Weaknesses

- Potentially visually intrusive elevated junction with M5.
- M5 junction close to residential properties.
- M5 junction likely to require acquisition of some public open space land.
- The most expensive scheme (£86m more than the lowest cost).
- Majority of traffic still routes into existing M5J25 and Nexus25 access junction which has insufficient capacity for the traffic in the AM Peak hour.
- Modelling shows considerable delays on A358 approach to J25 in the AM Peak hour.
- Creates congestion concerns on M5 Northbound slip road in the AM Peak hour.

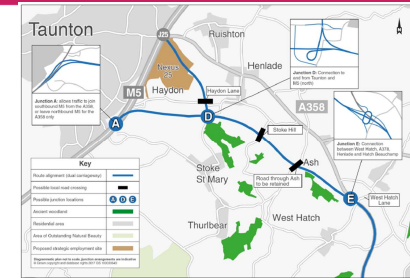


# Orange Route: Strengths and Weaknesses



Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• New all-movement junction on M5 has around 55% spare capacity so will accommodate long-term traffic growth.</li> <li>• Removes traffic from M5 J25 enabling J25 to operate within capacity (i.e. without significant queues and delays).</li> <li>• Significant journey time reductions.</li> <li>• The least cost option.</li> </ul>	<ul style="list-style-type: none"> <li>• Not a free-flow access to M5.</li> <li>• The road through Henlade will still carry a large amount of traffic.</li> <li>• Westbound traffic from A378 likely to still travel through Henlade as access to the expressway would require a detour in the wrong direction.</li> <li>• M5 junction close to residential properties.</li> <li>• No incentive for eastbound traffic from M5 north or Taunton to use the new J25a as it is likely to feel shorter and more direct to travel through Henlade.</li> <li>• No direct link to Nexus 25 employment site from new Expressway. Nexus 25 less accessible under this option.</li> <li>• Medium value for money.</li> </ul>

# Blue Route: Strengths and Weaknesses



## Strengths

- Shows a better reduction in traffic through Henlade than the Orange route.
- Better connectivity to Nexus 25 employment site removes need to travel via the M5 and J25 to get to the site from the expressway.
- Significant journey time reductions.

## Weaknesses

- Westbound traffic from A378 likely to still travel through Henlade as access to the expressway would require a detour in the wrong direction.
- Potentially visually intrusive elevated junction with M5.
- M5 junction close to residential properties.
- M5 junction likely to require acquisition of some public open space land.
- Cost £35m more than the lowest cost scheme.
- Majority of traffic still routes into existing M5J25 and Nexus25 access junction which has insufficient capacity for the traffic.
- Modelling shows considerable delays on A358 approach to J25 in the AM Peak hour.
- Creates congestion concerns on M5 Southbound and Northbound slip roads and Toneyway eastbound in the AM Peak hour.
- Medium value for money.

# Environmental and social impacts

- Early work undertaken with much more detail required as scheme develops:
  - Flood Risk and Drainage
  - Rights of Way
  - Landscape and Visual Impact
  - Air Quality & Emissions
  - Archaeology and Cultural Heritage
  - Biodiversity and Ecology
  - Noise and Vibration
- 
- TAR concludes variable results across the different route options at this stage:
  - **Noise:** Pink runs closest to some properties in Henlade. Orange leaves most traffic in Henlade & provides least degree of noise relief.
  - **Air Quality:** Marginal differences in vehicle emissions but orange route leaves the most traffic travelling through the Air Quality Management Area.
  - **Landscape:** Pink has least impact on open countryside.
  - **Historic Environment & Biodiversity:** Nothing to discriminate between the options at this stage.

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# Key Issues

- All options provide benefits over doing nothing in terms of improved journey times and reducing traffic in Henlade.
- Journey time reductions are considerable.
- Pink and blue options provide greater traffic relief to Henlade.
- Pink and blue options show large delays on the A358 approach to J25 in the AM peak hour due to capacity constraints, and create congestion problems on some other arms of J25 in the AM peak hour. Further work needed to establish if this can be improved on.
- Direct link to the A378 reduces traffic travelling through Henlade but increases traffic on the A378.
- Suggestions can be made for hybrid options.
- Both alternative M5 junctions may impact on nearby communities.
- If the orange route is chosen, more work will be needed to establish how to ensure a greater proportion of traffic uses the new road rather than travel through Henlade.
- Limited junctions between Southfields and West Hatch.
- Seasonal traffic still to be modelled.

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# SCC process going forward

- 30 January: Scrutiny consideration of HE proposals and key points of SCC response.
- 2 February: Draft written response and Cabinet Member non-key decision published for comment.
- 16 February: Deadline for community views on proposed SCC response to be communicated to SCC via consultation portal.
- 19 February: Cabinet Member non-key decision to agree SCC's response.
- 27 February: Deadline for submission to Highways England.
- It is important to note that Highways England is consulting on this scheme, not SCC so consultation responses should go to HE at <https://highwaysengland.citizenspace.com/he/a358-taunton-to-southfields/>

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