

HIGHWAY ASSETS AND COMMISSIONING TEAM

Bradenstoke - Traffic management options

Briefing Note

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BRADENSTOKE – Traffic Management Options

1. Introduction and Background

Following the road slip on the B4069 and the subsequent closure of this section of road during February of this year, Wiltshire Council have been monitoring the impact of the traffic using Bradenstoke and other locations.

Traffic counters have been placed to capture speed, volume and type of traffic using local routes. The table below shows the data collected from March and May on Hollow Way. The surveys are due to be repeated again in September once the school term restarts.

Hollow Way				
Month	Volume	Avg Speed 50th percentile	Vehicles Exceeding 30 PSL	HGV over 7.5t
March	10344	27.1	35.90%	305
May	13260	26.2	16.70%	36
Difference	+2916	-1	-19.20%	-269

Following complaints of HGV traffic using the routes, a 7.5T weight limit was implemented on Hollow Way in March, the data above shows that the volume of HGV's using this route has reduced significantly.

Wiltshire Council are now receiving reports that due to the closure of the B4069, traffic issues are presenting on Hollow Way around the junction of Clack Hill due to the southbound (uphill traffic) causing queuing and congestion at the top of Clack Hill as there is insufficient width for two way traffic. This is reportedly resulting in congestion at the junction as vehicles have nowhere to go. Revving engines, wheel spinning and angry driver exchanges are reported as a regular occurrence. This is affecting residents in close proximity to this junction, but also similar issues are being experienced further along Hollow Way at the narrow sections.

Reports of speeding traffic along Hollow Way have also been received.

This briefing note sets out potential options for consideration to address the issues experienced by residents.



2. Options

Option 1 - Clack Hill one way

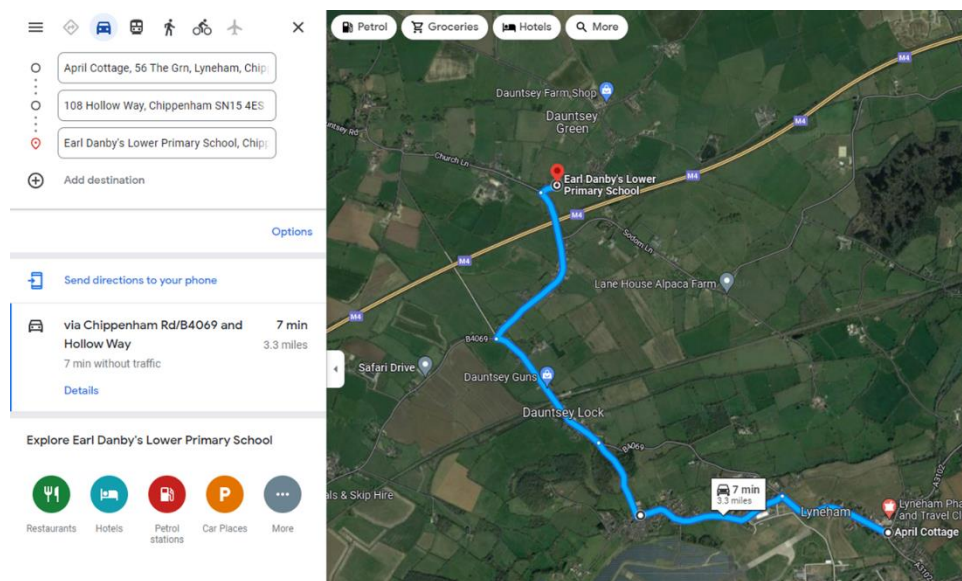
Implement a one-way system on Clack Hill in a northbound direction (downhill only). To implement this option, additional measures including waiting restrictions at the junction of Clack Hill would be required to ensure that the junction is kept clear to assist the turning movements of legitimate HGV access to property and land on Clack Hill.

To support this option other additional measures would need to be considered to mitigate the anticipated impact of traffic on the local network. These would include

- A weight restriction of 7.5 tonnes on Bowd's Lane and Trow Lane
- A 30mph speed limit on Bowd's Lane, Trow Lane in part, and Sodom Lane
- A speed limit of 40 miles an hour on the A3102 prior to its junction with Bowd's Lane
- The introduction of a no right turn restriction from the A3102 into with Bowd's Lane to prevent potential queuing of traffic trying to turn right into Bowd's lane.

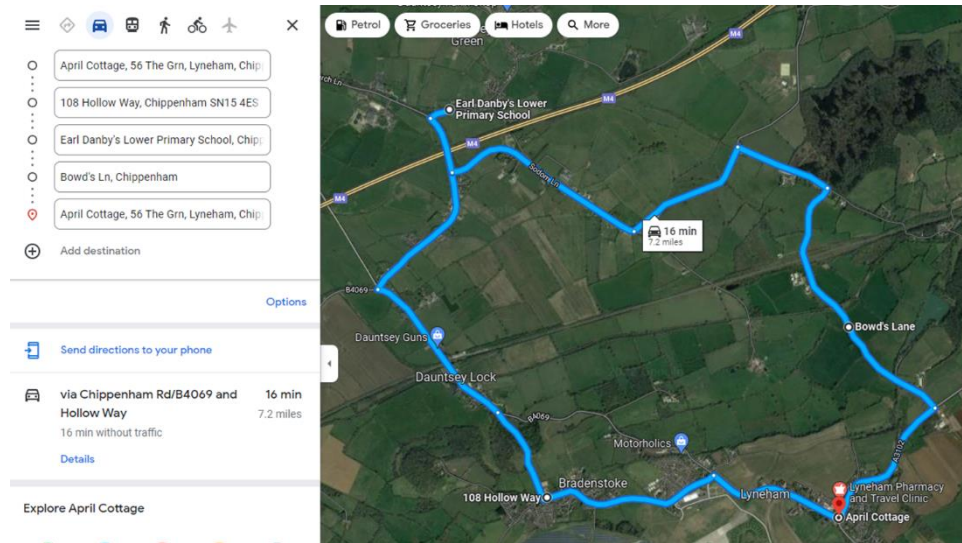
This option would have some impact on journey times.

Screen shot below shows a typical school run journey under the current situation



A round trip from the junction of the A3102 and the B4069 to Dauntsey Primary school via Bradenstoke is 6.6m miles and would take around 14 mins. * (based on Google data)

Screen shot below shows a typical school run journey under the one-way option



A round trip from the junction of the A3102 and the B4069 to Dauntsey Primary school via Bowd's Lane is 7.2m miles and would take around 16 mins. * (based on Google data)

Positives

- Removes the impact of vehicles trying to pass in the narrow sections of Clack Hill
- Removes the current issue of vehicles obstructing the junction of Clack Hill
- Addresses the noise/ driver behaviour issues at this junction and the narrow section of Hollow Way
- Stops all HGV movements south bound up Clack Hill
- Addresses the complaints of the residents living in the nearby vicinity

Negatives

- Implementing a one way on Clack Hill permitting north bound direction of travel only would involve an increase of 0.6 miles and an additional 2 minutes of journey time on the demonstrated trip.
- There is a potential for an increase in vehicle speeds along Clack Hill, although this is anticipated to be minimal due to the nature of the road.

Option 2 - Single Yellow line restrictions at junction of Clack Hill

Retain the current two way working on Clack Hill but implement single yellow lines around the junction of Clack Hill to prevent parking of vehicles. Parking in this vicinity reduces the width available for traffic turning in and out of the junction. Restriction could be imposed to control parking for example between 9am – 6pm to allow parking for residents outside of these times.

Positives

- Removes the current issue of vehicles obstructing the junction of Clack Hill

Negatives

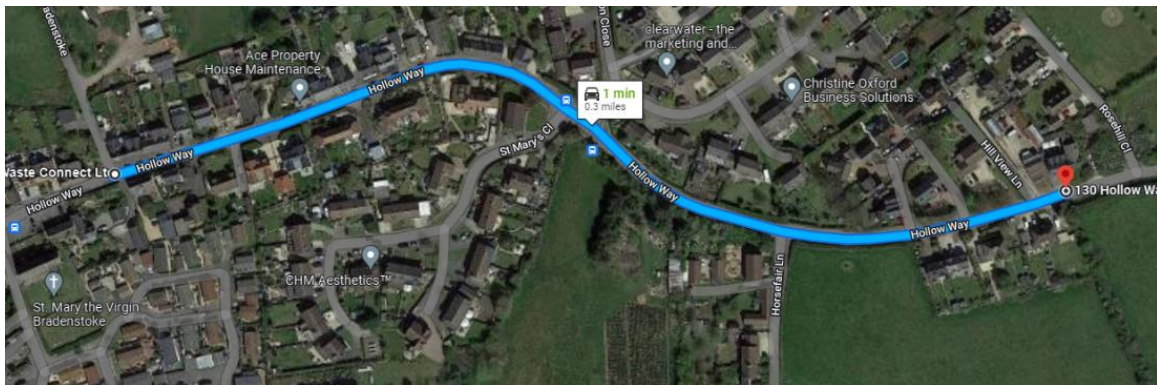
- Will not address the issue of insufficient width for two-way traffic on Clack Hill

- Will not address the complaints of the residents living near Clack Hill
- Reduces on street parking availability
- Will not improve congestion issue and driver behaviour on narrow section of Hollow Way
- Environmental/ visual impact of markings in location

A Southbound one way was considered and discounted as an option as this would not address all the reported issues at the junction with Hollow Way. Noise and pollution of vehicles particularly HGV's accelerating off the junction being the main factors for discounting this as an option.

Option 3 - Single Yellow lines both sides along Hollow Way just west of Rosehill Close at the point of the speed limit terminal sign

Single yellow lines could be introduced to restrict parking along Hollow Way, Restriction could be imposed to control parking between for example 9am – 6pm to allow parking for residents outside of these times.



Positives

- Removes the current issue of vehicles obstructing the junction of Clack Hill
- May improve congestion issue and driver behaviour on narrow sections of Hollow Way

Negatives

- Will not address the issue of insufficient width for two-way traffic on Clack Hill
- Will not address the complaints of the residents living near Clack Hill
- Reduces on street parking availability
- May increase average speed of vehicles
- Environmental/ visual impact of markings in location

Option 4 - Implement reduced speed limits

A request has been received from Lyneham and Bradenstoke Parish Council to implement speed Limit reductions.

There are three requested speed limits.

- **40mph** on Hollow Way from the B4069 Chippenham Road junction to Brook Lane as show in blue on the plan below.

- **30mph** limit from Brook Lane to junction of St Marys Close, as shown in red on the plan below.
- **20mph** limit from St Marys Close to Bradenstoke Abbey and on Clack Hill for its entire length to the B4069



Plan for indicative purposes only - exact locations to be determined on further investigation

Speed data has been collected on two occasions 16-22 March 2022 and 18-22 May 2022, the counter was located just east of Herbert Ludlow Gardens on Hollow Way.



March 2022

Speed Summary					
Direction	Mean Speed	50th Percentile	85th Percentile	95th Percentile	% Vehicles Exceeding PSL
Eastbound	31.0	31.5	35.7	38.3	63.6%
Westbound	23.2	23.2	27.0	29.6	4.0%
Combined	27.4	27.1	34.0	37.1	35.9%

May 2022

Speed Summary					
Direction	Mean Speed	50th Percentile	85th Percentile	95th Percentile	% Vehicles Exceeding PSL
Eastbound	26.3	26.4	30.70	33.7	19.1%
Westbound	25.8	26.0	29.87	32.7	14.2%
Combined	26.0	26.2	30.30	33.2	16.7%

In consideration of the above, it would be possible to implement the 40mph speed limit from B4069 and review the potential to extend the existing 30mph limit and introduce a 20mph speed limit on Hollow Way only. More detailed work would be required to establish the precise location of terminal points.

The request to include a 20mph speed limit on Clack Hill however cannot be taken forward as the road does not meet the requirements set out in Wiltshire Council's adopted policy for 20mph limits.

Positives

- Potential to reduce average speed of vehicles

Negatives

- Will not address the issue of insufficient width for two-way traffic on Clack Hill
- Will not address the complaints of the residents living near Clack Hill
- Will not improve congestion issue and driver behaviour on narrow section of Hollow Way

Option 5 - Temporary shuttle working 2 way traffic lights along Hollow Way

A suggestion has been received to introduce 2 way temporary traffic lights at points along Hollow Way to slow down traffic and to discourage the route as a rat run.

Positives

- None

Negatives

- Would create queuing traffic at the signal heads
- Potential noise issues for local residents
- Potential air pollution issues from idling engines
- As there would be no works or obstruction there is a high likelihood that drivers would jump the red lights
- Potential for drivers to increase speed as they try to recover lost time whilst waiting at lights.

Option 6 - Temporary signals for the entire length of Clack Hill

A suggestion has been received to introduce 2 way temporary traffic lights for the entire length of Clack Hill. This option would also require significant parking restrictions to allow for two way traffic on Hollow Way, 24/7.

Positives

- Could reduce the impact of vehicles trying to pass in the narrow sections of Clack Hill

Negatives

- Temporary signals are not designed to operate beyond a max distance of 300m
- Even if a technology solution could be found to enable lights to operate over this distance, it could cause significant queues of traffic waiting at the signal heads, congestion issues around Clack Hill / Hollow Way and Clack Hill / B4069
- Emerging traffic from land or properties on Clack Hill would not be under the signal control, presenting a potential risk due to vehicles travelling under a green light assuming one direction of travel.
- Will not improve congestion issue and driver behaviour on narrow sections of Hollow Way

Option 7 - Yellow box junction marking at junction of Clack Hill with Hollow Way

Positives

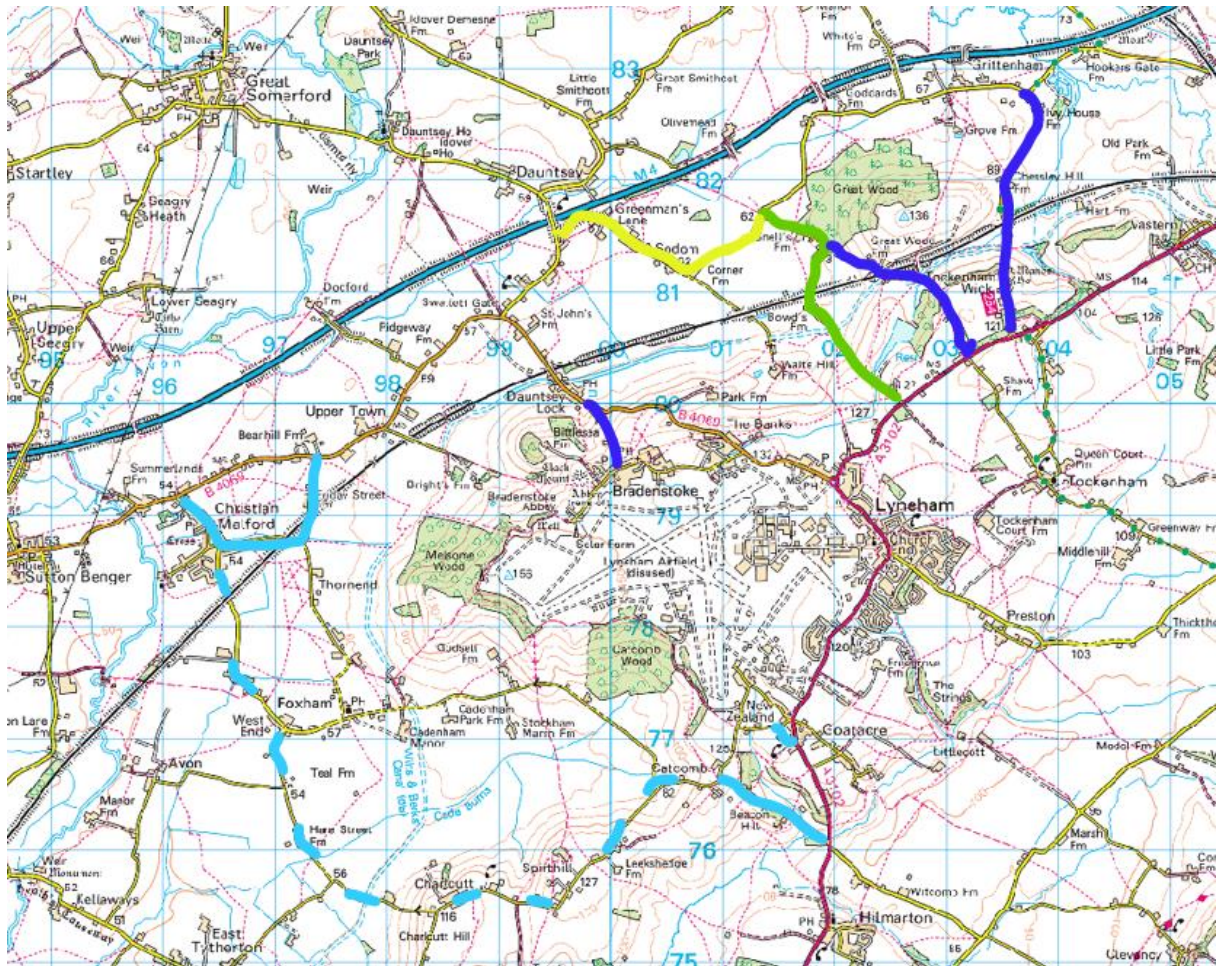
- This would keep the junction clear and reduce vehicles entering the area where obstructions may occur and could be enforced by the Police as a moving traffic offence.




Negatives

- Will not address the issue of insufficient width for two-way traffic on Clack Hill
- Will not improve congestion issue and driver behaviour on narrow section of Hollow Way
- Reduces on street parking availability
- Environmental/ visual impact of markings in location

Option 8 – Closure of Clack Hill

Close Clack Hill at its junction with the B4069 with a physical hard closure to stop through traffic. This option would require a number of other measures to be introduced on the surrounding road network to manage the displaced traffic. This option would have some impact on journey times due to the diversion.



	40mph Sodom Lane
	7.5t weight limit and 30mph restrictions – Bowd's Lane and Trow Lane (part)
	Road closed- Clack Hill, Trow Lane (part) and Cheeseley Hill
	Proposed 7.5t weight restriction- Lye Common, Friday Street, Station Road, New Zealand, Quackers Lane and Beacon Hill

U/C Bowd's Lane

- Road to remain open
- Temporary 7.5t weight limit with an exemption for agricultural vehicles – for its complete length.
- Temporary 30mph speed limit for its complete length.
- Prohibition of Right hand turn from A3102 into Bowd's lane. This was previously introduced during Network Rail works due to queuing traffic waiting to turn right into Bowd's and safety concerns previously raised by the police.

C120 Trow Lane

- Full closure of Trow Lane from its junction with A3102 to its junction with Bowd's lane. Access to be maintained for residents and businesses within closure extents.
- Temporary 7.5t weight limit and 30mph speed limit on Trow Lane from its junction with Bowd's lane to its junction with Sodom Lane.

C76 Cheeseley Hill

- Full closure of Cheeseley Hill from its junction with the A3102 to its junction with C108 Sodom Lane. Access to be maintained for residents and businesses within closure extents.

C108 Sodom Lane (Part)

- 40mph on Sodom Lane from its junction with Church Lane to Trow Lane. Previously there were reports to the police of speeding traffic when the B4069, Trow Lane and Cheeseley Hill were closed.

Protection of Foxham from rat running traffic

Implementation of Temporary 7.5t weight limit on the following roads.

Christian Malford – temporary 7.5 t weight limit on the following lengths of road.

- Lye Common temporary 7.5t weight limit from its junction with Friday Street to its junction with Station Road.
- Friday Street C132 from its junction with B4069 to its junction with
- Station Road C118 from its junction with B4069

Goatacre - temporary 7.5 t weight limit on the following lengths of road.

- New Zealand from its junction with the A3102 to its junction with Quakers Walk
- Quakers Lane from its junction with the A3102 to its junction with Quakers Walk
- Beacon Hill C111 from its junction with the A3102 to its junction with Catcomb Street

Potential diversion routes

Formal diversion route =21 miles

Diversion using Bowd's lane = 5.5 miles

Diversion via RWB/ Grittenham/ B4069 =10.7

Foxham diversion = 12 miles

Positives

- Removes rat running traffic using Hollow Way and Clack Hill
- Removes rat running HGV's
- Removes the current issue of vehicles obstructing the junction of Clack Hill
- Addresses the noise/ driver behaviour issues at junction Clack Hill and the narrow section of Hollow Way
- Addresses the complaints of the residents living in the nearby vicinity

Negatives

- Involves a minimum diversion route of 5.5 miles
- Involves a large number of additional restrictions needed to manage traffic rat running on unsuitable roads within the local network.

- Additional closures required on Trow Lane and Cheeseley Hill will result in other issues raised within the local area due to displaced traffic.
- Additional carbon footprint due to extra mileage involved.

Option 9 - Take no action

In the absence of a significant level of support for any of the options outlined, with the acceptance of the negatives for each scenario, no further action would be taken at this stage other than the continuance of monitoring work. This will not however address any of the issues currently reported.

Prepared by Highway Assets and Commissioning Team

Wiltshire Council

August 2022