

# DULWICH VILLAGE STREETSPACE

## OPTION REVIEW

LONDON BOROUGH OF SOUTHWARK



OPTION REVIEW

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# 1 INTRODUCTION

## 1.1 Background

- 1.1.1 Metis | Norman Rourke Pryme (Metis NRP) has been commissioned by the London Borough of Southwark (LBS) to review a number of options in association with the temporary Dulwich Streetspace scheme. An experimental scheme was implemented in the centre of Dulwich Village with the aim of limiting traffic in the area to make the village centre more desirable for pedestrians and cyclists.
- 1.1.2 The temporary Dulwich Village Streetspace scheme included introducing timed bus gates on Burbage Road, Townley Road and Turney Road. Calton Avenue has also been closed to motor vehicles at the junction with Dulwich Village/Turney Road, creating a modal filter to allow access for cyclists and pedestrians. A range of other measures were also implemented around the wider area including the areas of Champion Hill and East Dulwich.
- 1.1.3 Monitoring of the temporary Dulwich Village scheme has shown a local reduction of motor vehicular traffic of around 31% and an increase of cycle volumes of around 103% in the Dulwich Village area. Building upon the success of the temporary Streetspace scheme, LBS have an aspiration to further develop the measures. A number of potential alternative/additional options have been put forward by local resident groups. These schemes have been assessed alongside some additional measures suggested by LBS.

## 1.2 Option Assessment

- 1.2.1 The options considered in this report include the following:

**Option 1 – Removal of Streetspace scheme:** complete removal of the temporary scheme in the Dulwich Village area, including re-opening the Calton Avenue closure and removal of the existing bus gates..

**Option 2 – Permanent closure (except cyclists and emergency vehicles) of Calton Avenue at the Calton Avenue/Dulwich Village junction:** formalisation of the temporary scheme at the Calton Avenue/Dulwich Village junction, with the restricted movements enforced via cameras. This option also includes permanent kerb changes, changes to the traffic signal control, introduction of a new area of public realm and retaining the existing bus gates in the area.

**Option 3 - Townley Road scheme:** introduction of a Southbound modal filter on Townley Road and banned right-turns on Court Lane and Eynella Road into Lordship Lane.

**Option 4 - Dulwich Square scheme:** camera enforced modal filter to remain at Court Lane / Calton Avenue junction. Includes public realm features with the aim of enhancing the public realm into a square/plaza (alternative design to Option 2)

**Option 5 - Dulwich Alliance scheme:** replace the 24/7 closure of Dulwich Village junction and allow traffic through the junction (in both directions) with a timed westbound camera restriction on Calton Avenue to allow resident access through the junction outside of peak hours and outside of school term times. Existing bus gates elsewhere in Dulwich to remain, but with reduced hours of operation and only operational during school term times. No restrictions in place outside of term time.

**Option 6 - Reduced restricted hours of the bus gates:** reduce the hours of operation of all the camera restrictions in Dulwich Village to coincide with school journeys, during term time by using Variable Message Signage. No restrictions in place outside of term time.

**Option 7 - Southwark Cyclists and Southwark Living Streets Scheme:** improve cycle infrastructure on boundary roads and increase restrictions within residential areas to 24/7 physical or signed closures.

**Option 8 - Exempting blue badge holders:** formalisation of the temporary scheme at the Calton Avenue/Dulwich Village junction, with the restricted movements enforced via cameras. This option also includes permanent kerb changes, changes to the traffic signal control, introduction of a new area of public realm and retaining the existing bus gates in the area. White listing of Blue Badge holders to the proposed camera controlled closure at Court Lane/Calton Avenue would allow blue badge holders to drive through the junction.

1.2.2 The options have been assessed both in terms of their pros and cons and a number of objectives set by LBS. These objectives state the schemes should aim to:

- Improve road safety
- Reduce carbon emissions to help tackle the climate emergency
- Make walking and cycling an enjoyable, safe and easy way to get around
- Reduce inequalities in health and well being
- Reduce the amount of cut through traffic
- Reduce parking pressure for local residents
- Encourage people to shop locally to support businesses and reduce car use
- Improve air quality and reduce pollution and noise levels.

1.2.3 Each option has been considered in terms of its feasibility, safety and whether it will adhere to the Council's Transport Policy – Movement Plan 2019. The schemes have also been considered in terms of their likely impact on the local highway network, possible improvements to the public realm and impact on bus journey times on surroundings roads.

1.2.4 Each option has been assessed using a bespoke scoring criteria in order to rank each of the options. This scoring criteria has scored each option against all objectives using the following system:

- 2 significant benefit
- 1 minor benefit
- 0 neutral impact
- -1 minor impact
- -2 significant impact

1.2.5 Each option has been scored against the network conditions before the temporary Dulwich Village Streetspace scheme was implemented (i.e. no amendments to Dulwich Village/Calton Avenue junction and no northbound bus gates). This scoring methodology, whilst subjective, will provide an appropriate mechanism to rank the options in terms of their benefits and impacts so that conclusions can be drawn and next steps identified.

## 2 OPTION 1 – REMOVAL OF STREETSPACE SCHEME

### 2.1 Proposed Option

2.1.1 This option includes the complete removal of the temporary scheme in the Dulwich Village area, including re-opening the Calton Avenue closure and removal of the existing bus gates.

### 2.2 Option Assessment

2.2.1 Pros and cons for this option are listed in Table 1 below:

Table 1 – Pros and Cons for Option 1

Pros	Cons
<ul style="list-style-type: none"> <li>• Full vehicle access restored</li> <li>• Minimal impact on deliveries/servicing</li> <li>• Traffic pressure on surrounding roads (e.g. East Dulwich Grove) likely to reduce</li> <li>• Bus journey time impacts on East Dulwich Grove, Red Post Hill, Half Moon Lane, Grove Lane and Croxted Road (as a result of the temporary Streetspace scheme) likely to reduce</li> <li>• Minimal cost to implement</li> </ul>	<ul style="list-style-type: none"> <li>• Does not meet the objectives in the councils Movement Plan 2019</li> <li>• High volumes of vehicle movements in the area resulting in queues and congestion in the village during peak hours. Previous traffic volumes of over 1000 PCU/hr on Calton Avenue in AM and PM peaks could return if COVID recovery is car based</li> <li>• Risk of vehicle collisions when vehicle movements are permitted</li> <li>• No pedestrian or cyclist improvements</li> <li>• No public realm benefits at the Calton Avenue junction</li> <li>• Air and noise pollution worsened as a result of reintroducing traffic</li> </ul>

2.2.2 If Option 1 is implemented, it is possible that the traffic flows could return to similar volumes before the temporary Streetspace scheme was introduced (pre-Covid). Two-way traffic volumes on Calton Avenue were surveyed to be over 1000 PCU/hr during the AM peak and PM peak periods before the closure was introduced.

2.2.3 These vehicle volumes are beyond the recommended two-way flows of 500 PCU/hr which are deemed acceptable for cycling in the carriageway without a segregated cycle facility. As a result, a return of the vehicle volumes in the area would make the streets unsuitable for cycling. There is also likely to be an increase in air and noise pollution on Calton Avenue as a result of any increased traffic, making the area less desirable for both cyclists and pedestrians. More vehicle movements will also increase the risk of vehicle collisions occurring, therefore this option would be considered less safe than the temporary scheme. As a result, this option would go directly against many of the objectives within the Movement Plan 2019, particularly in terms of reducing noise pollution, delivering infrastructure to support active travel, improving safety, reducing exposure to air pollution and reducing traffic demand on streets.

2.2.4 The scoring for this option is the baseline against which all other options will be assessed, so this option scores a 0 (neutral impact) for all criteria. Table 2 below summarises the scoring criteria for Option 1 below:

Table 2 – Option 1 Scoring Criteria

Criteria	Score	Notes
Feasibility/buildability	0	
Transport Policy	0	
Public realm	0	
Road safety	0	
Reduced carbon emissions	0	
Encouraging walking and cycling	0	
Reduce inequalities in health and well being	0	
Reduce cut-through traffic	0	
Reduce parking pressure for local residents	0	
Encourage people to shop locally – reduce car use	0	
Improve air quality, reduce pollution and noise levels	0	
Impact on surrounding highway network	0	
Impact on bus journey times	0	
Enforceability	0	
<b>Total</b>	<b>0</b>	

## 2.3 Summary

2.3.1 This option does not meet any of the Movement Plan 2019 or LBS scheme objectives.

### 3 OPTION 2 – PERMANENT CALTON AVE CLOSURE

#### 3.1 Proposed Option

3.1.1 This option includes making the temporary Streetspace scheme in Dulwich Village a permanent feature, with the current physical restriction replaced with camera control. This option would involve introducing physical measures including new kerblines with landscaping and footway buildouts to reinforce the Calton Avenue closure at the Calton Avenue/Dulwich Village junction. The closure would provide access for cyclists only on the Calton Avenue arm of the junction with Dulwich Village but would be designed to accommodate emergency vehicle access.

3.1.2 A draft scheme design of the permanent Calton Avenue closure (except cycles) has been prepared by Metis NRP and is included in Appendix A. An extract of the proposed scheme drawing is provided in Figure 1 below:

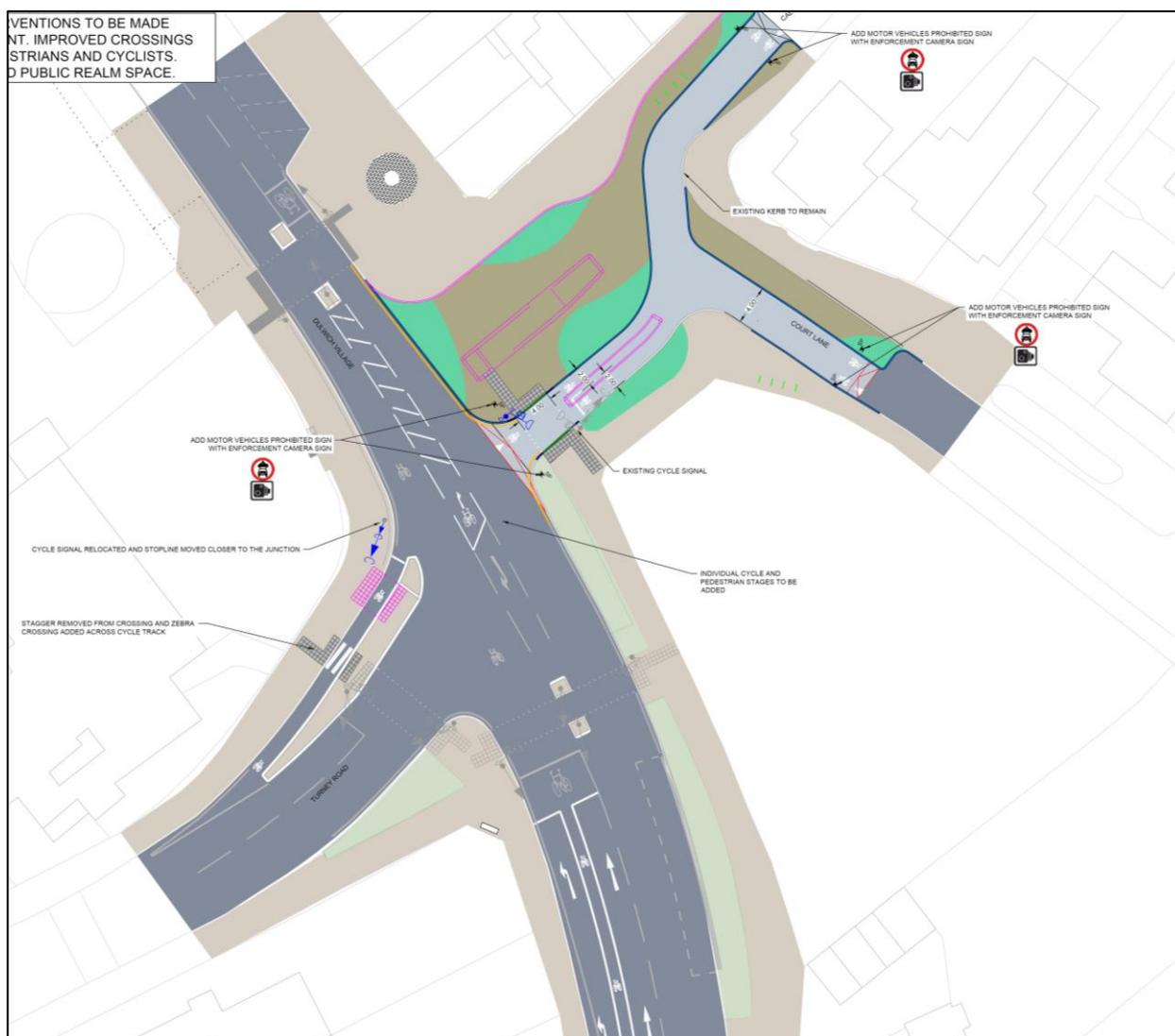


Figure 1 – Proposed Permanent Calton Avenue Closure

3.1.3 In addition to the permanent closure of the Calton Avenue arm of the junction, the proposed design will provide a separate cycle stage at the traffic signals for cyclists on both Calton Avenue and Turney Road. The scheme also proposes significant public realm improvements including wider footways and street greening. In addition to the proposed changes to the Calton Avenue/Dulwich Village junction, the bus gates implemented in the Dulwich Village area as part of the temporary streetspace scheme would remain in place.

### 3.2 Option Assessment

3.2.1 Pros and cons for this option are listed in Table 3 below:

Table 3 – Pros and Cons for Option 2

Pros	Cons
<ul style="list-style-type: none"> <li>• Achieves many of the council objectives within the Movement Plan 2019</li> <li>• Fewer vehicular movements through the Dulwich Village area, reduces the risks of vehicular collisions and provides a safer environment for pedestrians and cyclists</li> <li>• Likely to encourage walking and cycling through the area as a result of the reduced traffic and improved safety of the area</li> <li>• Increased cycling activity reported as a result of the temporary scheme of over 100% suggests that the temporary Streetspace scheme has already been successful in encouraging cycling</li> <li>• Reduced noise pollution and improved air quality</li> <li>• Potential for significant public realm improvements</li> <li>• Maintains access for emergency services</li> <li>• Improved pedestrian and cycle access to local businesses</li> <li>• Reduced traffic flow due to northbound bus gates has resulted in improved bus journey times through the Dulwich Village/Calton Avenue junction (source: monitoring data of temporary scheme)</li> </ul>	<ul style="list-style-type: none"> <li>• Some bus journey time impacts reported on East Dulwich Grove, Red Post Hill, Half Moon Lane, Grove Lane and Croxted Road since the Streetspace scheme was implemented</li> <li>• Increased travel distance for some local residents and businesses</li> <li>• Increased traffic flows on surrounding road network that require mitigation</li> <li>• Does not permit blue badge holders access to Calton Avenue from Dulwich Village</li> </ul>

3.2.2 This scheme and its impacts are very similar to the temporary Streetspace scheme currently in operation. Based on the monitoring surveys, local traffic in the Dulwich Village area reduced by 31% following the implementation of the temporary scheme. Additionally, cycling was reported to increase by 103% in the area, although some of this may also be a consequence of the Covid pandemic. The proposal is likely to help encourage more sustainable modes of transport locally, as traffic volumes will be reduced significantly on Calton Avenue, making for a more attractive environment for pedestrians and cyclists. The reduced traffic volumes are also likely to reduce the risk of vehicle collisions in the area between motorists and pedestrians/cyclists, making this option a safer alternative to option 1.

3.2.3 However, some residential groups have raised concerns on the lack of access through the area and may experience increased journey times. Residents on Townley Road have also raised concerns that traffic volumes have increased, particularly in a westbound direction, although the monitoring data for Townley Road suggests traffic flows here may have reduced. As a result of the current scheme, traffic has diverted to local roads resulting in some congestion and delays to buses. According to the monitoring of the temporary scheme, bus journey time increases have been reported on East Dulwich Grove, Red Post Hill, Half Moon Lane, Grove Lane and Croxted Road. These corridors are likely to experience a similar levels of delay with the permanent scheme, which may require additional bus priority measures.

3.2.4 Table 4 summarises the scoring criteria for Option 2 below:

Table 4 – Option 2 Scoring Criteria

Criteria	Score	Notes
Feasibility/buildability	2	This option is feasible, as demonstrated by the temporary streetspace scheme
Transport Policy	2	This option meets many of the Movement Plan objectives
Public Realm	2	Significant public realm improvements
Road safety	1	Improved road safety due to the reduced risks of collisions associated with lower traffic volumes in the area
Reduced carbon emissions	1	Reduced traffic in the area likely to encourage more sustainable forms of transport locally. Reduced emissions from standing vehicles
Encouraging walking and cycling	2	Reduced traffic in the area likely to encourage both walking and cycling in the local area
Reduce inequalities in health and well being	1	Promoting walking/cycling reduces inequalities
Reduce cut-through traffic	2	Cut-through traffic reduced significantly in the area
Reduce parking pressure for local residents	0	Neutral benefit – no impact on resident parking
Encourage people to shop locally – reduce car use	1	Reduced traffic locally may mean more trips to shops using sustainable modes. Improved public realm may attract more people to the area
Improve air quality, reduce pollution and noise levels	2	Reduced traffic will improve air quality and reduce noise pollution from standing traffic in the local area
Impact on surrounding highway network	-1	Closure on Calton Avenue will mean traffic reassigning to surrounding roads, potentially resulting in some congestion*
Impact on bus journey times	-1	Increased congestion on surrounding roads may result in some delays to bus services on the local network*
Enforceability	0	The scheme will easily be enforced with cameras at the junction closure and the existing bus gate locations
<b>Total</b>	<b>14</b>	

\*Extent of this would require a more detailed traffic assignment study

### 3.3 Summary

- 3.3.1 It is recommended this option is progressed with measures implemented on the surrounding road network to mitigate the impacts of traffic displacement as far as possible. Further investigation on traffic reassignment and modelling may be required to determine what mitigation will be required.

## 4 OPTION 3 - TOWNLEY ROAD SCHEME

### 4.1 Proposed Option

4.1.1 A group of local residents have proposed changes to the existing restrictions for Townley Road. This is a residential street, running east-west between A2214 East Dulwich Grove and A2216 Lordship Lane, providing access to Alleyn’s School and Townley Road Clinic. Under the existing Streetspace scheme, there is a restriction in place westbound on Townley Road (between Calton Avenue and East Dulwich Grove) limiting traffic to bus, cycle and taxi movements only Monday – Friday 8-10am and 3-6pm.

4.1.2 Following the closure of Calton Avenue, at the junction with Dulwich Village/Turney Road, residents have reported a noticeable increase in the volumes of traffic on Townley Road. It is believed this traffic has diverted from Calton Avenue which is currently closed to all motor vehicles. The increase in traffic on Townley Road is perceived to be an issue in terms of air quality, noise and safety for local residents.

4.1.3 As a result, the resident group have put forward three proposed changes to Townley Road including:

- Eastbound closure at the eastern end of Townley Road (supplemented with banning right turns from Eynella Road and Court Lane onto Lordship Lane) to minimise through traffic to Lordship Lane
- Extend the westbound vehicle restriction times to 7:30-10am
- Make Townley Road a school street to minimise vehicle movements associated with dropping off children at the school gates before and picking up after school

4.1.4 Figure 2 illustrates the combined scheme proposals suggested, with the proposals as sent by the residents in Appendix B:

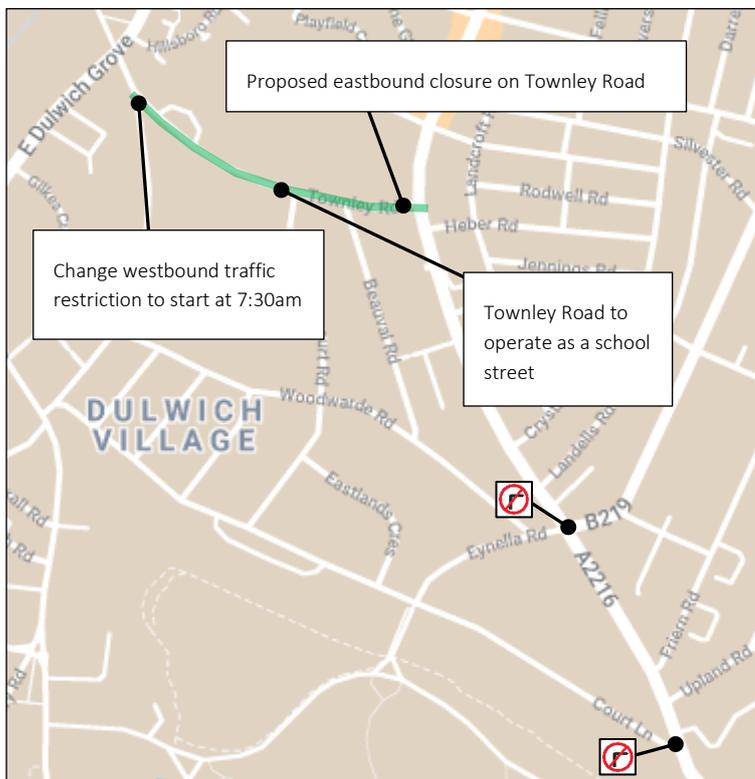


Figure 2 – Townley Road Proposals

## 4.2 Option Assessment

4.2.1 The pros and cons for this option are listed in Table 5 below:

Table 5 – Pros and Cons for Option 3

Pros	Cons
<ul style="list-style-type: none"> <li>• Achieves some of the council objectives within the Movement Plan 2019</li> <li>• Reduced eastbound through-traffic on Townley Road</li> <li>• Fewer vehicular movements, reduces the risks of vehicular collisions and provides a better environment pedestrians and cyclists</li> <li>• Likely to encourage walking and cycling through the area (or to school) as a result of the reduced traffic and improved safety of the area</li> <li>• Reduced noise pollution and improved air quality</li> </ul>	<ul style="list-style-type: none"> <li>• Reassigned traffic to surrounding roads of East Dulwich Grove and Lordship Lane – may result in more congestion and delays on these corridors</li> <li>• Right turn bans could increase traffic on alternative residential streets as people attempt to make southbound movements</li> <li>• Road closures and school streets would force traffic onto other residential streets in the area</li> <li>• Congestion and delays as a result of reassigned traffic likely to increase bus journey times</li> <li>• People dropping off children may continue to do so on surrounding local roads and there is no CPZ to manage this</li> <li>• Access for residents made worse, increasing journey times and limiting movements through the area</li> <li>• Access for school coaches will be affected, resulting in coaches having to find alternative locations to drop off students and negotiate residential roads to leave the area (unless made exempt from the school street).</li> <li>• Inconsistent signage – all vehicle restriction signs would need to be changed to 7:30am for consistency</li> </ul>

4.2.2 The proposed scheme would provide benefits for the immediate area but may move the issues of congestion to other locations on the highway network. It is noted that the monitoring surveys for this road suggest that traffic flows are actually lower than before the temporary Streetspace scheme was implemented. Some additional monitoring would be required to determine whether or not the reduction in traffic is related to the Covid pandemic or whether there is a genuine risk of traffic flows increasing in the area. The monitoring survey noted around a 20% increase in HGV movements on Townley Road following the implementation of the temporary scheme. Therefore, the reported increases in traffic could well be a perceived increase due to the increase in the volumes of larger vehicles.

4.2.3 The school street would encourage more sustainable modes of transport to and from the school and provide a safer environment for school children during the hours of operation. However, as it is not possible to have a school street on one arm of a signalised junction, it would need to be implemented east of Calton Avenue. This would likely result in increased traffic on Calton Avenue and Woodwarde Road.

4.2.4 There would be no immediate issue increasing the time of the westbound bus gate by half an hour, however this would need to be considered for all the bus gates in the area to ensure consistency of signage and hours of operation within the area. Further investigation of traffic volumes would be required to confirm if this option is feasible.

4.2.5 Table 6 summarises the scoring criteria for Option 3 below:

Table 6 – Option 3 scoring criteria

Criteria	Score	Notes
Feasibility/buildability	-1	It is not possible to introduce a school street on one arm of a signalised junction, so it would need to be east of Calton Avenue, forcing large volumes of traffic on alternative routes
Transport Policy	1	This scheme helps meets some of the councils Movement Plan 2019 objectives
Public Realm	0	No changes to public realm
Road safety	2	Improved road safety due to reduced vehicle movements through the local area, particularly at the start and end of the school day
Reduced carbon emissions	1	Reduced traffic through the area will reduce carbon emissions locally. School street may encourage more people to walk or cycle to school, especially given the safer environment as a result of reduced traffic
Encouraging walking and cycling	1	Reduced traffic and school street may encourage more people to walk or cycle to school
Reduce inequalities in health and well being	1	Promoting walking/cycling reduces inequalities
Reduce cut-through traffic	0	Cut-through traffic on Townley Road reduced, but may increase on other routes such as East Dulwich Grove
Reduce parking pressure for local residents	-1	Access to kerbside limited during hours of restriction which may become an issue for some residents
Encourage people to shop locally – reduce car use	1	Safer school street may encourage people to allow their children to walk or cycle to school
Improve air quality, reduce pollution and noise levels	1	Improved air quality and reduced noise/emissions in the local area
Impact on surrounding highway network	-1	Reassigned traffic likely to result in congestion on East Dulwich Grove and Lordship Lane*
Impact on bus journey times	-1	Increased congestion on East Dulwich Grove and Lordship Lane will result in longer bus journey times on these corridors*
Enforceability	1	This scheme would be easily enforced as per the temporary scheme, although some management of the school street would be required
<b>Total</b>	<b>5</b>	

\*Extent of this would require a more detailed traffic assignment study

### 4.3 Summary

- 4.3.1 Introducing a school street at this location would force traffic onto alternative residential streets and potentially increase delays to public transport. Furthermore monitoring data shows that traffic volumes on Townley Road have actually decreased compared to before the streetspace scheme was in place. It is recommended that monitoring of traffic flows on Townley Road continues to ensure volumes stay within acceptable levels.

## 5 OPTION 4 – FRIENDS OF DULWICH SQUARE SCHEME

### 5.1 Proposed Option

- 5.1.1 A local group (Coalition4Dulwich) have put forward a proposal to make the changes to the Calton Avenue/Dulwich Village junction permanent. The proposed scheme aims to develop the square into an area of public realm to create an accessible community space to be enjoyed by all as a place to meet, rest and shop.
- 5.1.2 The design proposals are very similar to the designs prepared for Option 2, but they present a slightly alternative arrangement. The proposal itself is high level and doesn't include details on the proposed crossing arrangement or cycle facilities through the junction.
- 5.1.3 The proposal show a 20x20m square defined by trees with traditional white posts separating out pedestrians and the high street, allowing for cyclist and emergency vehicle access.
- 5.1.4 The Coalition4Dulwich proposals for Dulwich Square are presented in both Figure 3 and Figure 4 with the full proposals provided in Appendix C.



Figure 3 – Dulwich Square Concept Design Proposals



Figure 4 - Visualisation of Option 4

5.1.5 This option is very similar to Option 2. The main differences in the Coalition4Dulwich design are:

- Alternative alignment of the cycle facility – tighter turns that may encourage slower cyclist speeds through the area
- Tighter kerb radii turning right into Court Lane (may need testing with tracking software to confirm emergency vehicle access can be maintained)
- Alternative greening/proposed tree arrangement
- Proposed fencing/white posts with chains

5.1.6 The Coalition4Dulwich design provides more segregation of pedestrians and cyclists with the proposed fencing set between the public realm and the cycle track. This may reduce the pedestrian permeability of the space compared to the option proposed by the design in Option 2.

## 5.2 Option Assessment

5.2.1 Pros and cons for this option are listed in Table 7 below:

Table 7 – Pros and Cons for Option 4

Pros	Cons
<ul style="list-style-type: none"> <li>• Achieves many of the council objectives within the Movement Plan 2019</li> <li>• Fewer vehicular movements through the area, reduces the risks of vehicular collisions and provides a safer environment pedestrians and cyclists</li> <li>• Likely to encourage walking and cycling through the area as a result of the reduced traffic and improved safety of the area</li> <li>• Increased cycling activity reported as a result of the temporary scheme of over 100% suggests that the temporary Streetspace scheme has already been successful in encouraging cycling</li> <li>• Reduced noise pollution and improved air quality</li> <li>• Alignment between Turney Road and Calton Avenue provides more of a bend that may encourage slower cyclist speeds through the area compared to Option 2</li> <li>• Segregation of cyclists and pedestrians introduces less pedestrian-cyclist conflict compared to Option 2</li> <li>• Improved pedestrian and cycle access to local businesses</li> <li>• Reduced traffic flow due to northbound bus gates has resulted in improved bus journey times through the Dulwich Village/Calton Avenue junction (source: monitoring data of temporary scheme)</li> </ul>	<ul style="list-style-type: none"> <li>• Some bus journey time impacts reported on East Dulwich Grove, Red Post Hill, Half Moon Lane, Grove Lane and Croxted Road since the Streetspace scheme was implemented</li> <li>• Increased travel distance for some local residents and businesses</li> <li>• Increased traffic flows on surrounding road network</li> <li>• Proposed fencing/white posts with chains and segregation of cyclists/pedestrians reduces pedestrian permeability through the area.</li> <li>• Alignment between Turney Road and Calton Avenue provides more of a bend that will reduce comfort of cyclists and may encourage cyclists to not use facilities provided compared to Option 2</li> </ul>

5.2.2 This scheme would see very similar benefits to Option 2. This alternative arrangement will segregate cyclist from the public realm reducing the risk of pedestrian-cycle conflicts. However, this may be at the expense of pedestrian comfort and permeability across the space.

5.2.3 Table 8 summarises the scoring criteria for Option 4 below:

Table 8 – Option 4 scoring criteria

Criteria	Score	Notes
Feasibility/buildability	2	This option is feasible, as demonstrated by the temporary streetspace scheme
Transport Policy	2	This option meets many of the Movement Plan objectives
Public Realm	2	Significant public realm improvements
Road safety	1	Improved road safety due to the reduced risks of collisions associated with lower traffic volumes in the area
Reduced carbon emissions	1	Reduced traffic in the area likely to encourage more sustainable forms of transport locally. Reduced emissions from standing vehicles
Encouraging walking and cycling	2	Reduced traffic in the area likely to encourage both walking and cycling in the local area
Reduce inequalities in health and well being	1	Promoting walking/cycling reduces inequalities
Reduce cut-through traffic	2	Cut-through traffic reduced significantly in the area
Reduce parking pressure for local residents	0	Neutral benefit – no impact on resident parking
Encourage people to shop locally – reduce car use	1	Reduced traffic locally may mean more trips to shops using sustainable modes. Improved public realm will attract more people to the local area
Improve air quality, reduce pollution and noise levels	2	Reduced traffic will improve air quality and reduce noise pollution from standing traffic in the local area
Impact on surrounding highway network	-1	Closure on Calton Avenue will mean traffic reassigning to surrounding roads, potentially resulting in some congestion*
Impact on bus journey times	-1	Increased congestion on surrounding roads may result in some delays to bus services on the local network*
Enforceability	0	The scheme will easily be enforced with cameras at the junction and at the existing bus gate locations
<b>Total</b>	<b>14</b>	

\*Extent of this would require a more detailed traffic assignment study

## 5.3 Summary

5.3.1 It is recommended aspects of this option are considered for inclusion into Option 2 where desirable.

## 6 OPTION 5 - DULWICH ALLIANCE SCHEME

### 6.1 Proposed Option

- 6.1.1 Dulwich Village, College Road and Woodyard Lane Residents Association have proposed that the closure of Calton Avenue at the junction with Dulwich Village is reopened. The proposals include opening the junction fully to north-eastbound traffic entering Calton Avenue, with a timed camera-controlled restriction for south-westbound traffic exiting Calton Avenue, with the times of operation aligned with school term times. The purpose of this change is to improve access for local traffic movements in the area, whilst also limiting peak hour through traffic.
- 6.1.2 The proposal suggests retaining the bus gates on Dulwich Village, Burbage Road, Turney Road and Townley Road. The full proposals provided can be seen in Appendix D.

### 6.2 Option Assessment

- 6.2.1 Pros and cons for this option are listed in Table 9 below:

Table 9 – Pros and Cons for Option 5

Pros	Cons
<ul style="list-style-type: none"> <li>Retains vehicular access though the area outside school term times</li> <li>Minimises impacts on local roads outside of peak hours – maintaining general traffic and bus journey times on the main bus corridors of East Dulwich Grove and Lordship Lane outside hours of operation</li> </ul>	<ul style="list-style-type: none"> <li>Does not meet many objectives in the councils Movement Plan 2019</li> <li>High volumes of vehicle movements in the area resulting in queues and congestion in the village. Previous traffic volumes of over 1000 PCU/hr on Calton Avenue in AM and PM could return if COVID recovery is car based</li> <li>Increased risk of vehicle collisions when vehicle movements are permitted</li> <li>Fewer pedestrian benefits possible compared to full closure</li> <li>Less public realm benefit compared to other options</li> <li>Increased air and noise pollution on Calton Avenue compared to other options</li> <li>Potential confusion of drivers regarding when the restrictions through the junction are in place</li> <li>Increased air and noise pollution in the area compared to other options</li> <li>Very high traffic volumes possible, it is likely to become a rat run outside of school term times</li> <li>Signage strategy would be challenging and could lead to user confusion</li> </ul>

- 6.2.2 The proposed scheme would provide better vehicular access for residents in the area compared to the current trial. However, the benefits gained are outweighed by the fact that this scheme may not achieve many of the Movement Plan 2019 and objectives for the scheme.

6.2.3 Table 10 summarises the scoring criteria for Option 5 below:

Table 10 – Option 5 Scoring Criteria

Criteria	Score	Notes
Feasibility/buildability	-1	Times and date of restrictions could lead to user confusion and be difficult to enforce
Transport Policy	1	This Option does not meet many of the Movement Plan objectives
Public Realm	0	Little to no public realm improvements possible
Road safety	1	Reduction in traffic movements at certain points of the day, likely to reduce the risk of a collision occurring
Reduced carbon emissions	1	Restrictions in place during the peak periods which will have a positive effect on emissions
Encouraging walking and cycling	1	It is assumed that segregated cycle facilities could be incorporated into the design
Reduce inequalities in health and well being	1	Promoting walking/cycling reduces inequalities
Reduce cut-through traffic	1	This scheme is likely to reduce cut-through traffic during hours of restrictions*
Reduce parking pressure for local residents	0	Pressure on parking for local residents is likely to be unaffected
Encourage people to shop locally – reduce car use	1	Scheme discourages car use during peak hours
Improve air quality, reduce pollution and noise levels	1	Air and noise pollution will decrease during the hours of operation
Impact on surrounding highway network	-1	Restricting some movements might have an impact on surrounding highway network*
Impact on bus journey times	-2	Reassignment would increase bus journey times on surrounding roads, whilst maintaining access would also increase bus journey times though the junction*
Enforceability	-1	Complex timed camera restrictions would likely have compliance and enforceability issues
<b>Total</b>	<b>3</b>	

\*Extent of this would require a more detailed traffic assignment study

## 6.3 Summary

- 6.3.1 Following the detailed review of the proposals contained within this chapter it is clear this option would not meet many of the Movement Plan or LBS scheme objectives.
- 6.3.2 Using the scoring system devised, this scheme scores very low compared to some of the alternative options. In addition under this scheme any pedestrian and streetscape improvements would be severely limited, it would also be challenging to introduce and would likely lead to driver confusion and compliance/enforceability issues.

## 7 OPTION 6 - REDUCED RESTRICTED HOURS

### 7.1 Proposed Option

7.1.1 Dulwich Village, College Road and Woodyard Lane Residents Association have also recommended that the existing hours of operation of the bus, taxi and cycle only signs (currently operating 8-10am and 3-6pm everyday) are reduced to coincide with school journeys and term times. The proposal would seek to reduce the hours of operation with the bus gates operational during school drop off and pick up times (exact hours to be agreed) and remove the restrictions entirely outside of school term time. This option would also consider the use of Variable Messaging Signs (VMS) to communicate when the restrictions are in force.

7.1.2 This option could potentially be included with all other options at the Dulwich Village/Calton Avenue Junction. However, the analysis contained within this report looks at this option in isolation (i.e. the current bus gates would be kept, but with reduced hours of operation and only during school term time).

### 7.2 Option Assessment

7.2.1 Pros and cons for this option are listed in Table 11 below:

Table 11 – Pros and Cons for Option 6

Pros	Cons
<ul style="list-style-type: none"> <li>Better vehicular access though the area compared to some options</li> <li>Minimises impacts on local roads – maintaining general traffic and bus journey times on the main bus corridors of East Dulwich Grove and Lordship Lane outside of school term time</li> <li>Focuses on reducing traffic that is caused by the journeys to/from school</li> </ul>	<ul style="list-style-type: none"> <li>Does not meet many objectives in the councils Movement Plan 2019</li> <li>High levels of traffic in the area outside of school term times</li> <li>Risk of vehicle collisions when vehicle movements are permitted</li> <li>Little benefit to pedestrians</li> <li>No public realm benefit</li> <li>Potential confusion of drivers who may not have an understanding of school terms</li> <li>Minimal improvements air and noise pollution in the area</li> <li>Very high traffic volumes possible, it is likely to become a rat run outside of school term times</li> <li>Allowing some access through closures would lead to complex signage arrangement, which could lead to user confusion and enforcement issues</li> <li>Variable traffic order will require substantial monitoring and management to ensure enforceability</li> </ul>

7.2.2 The proposed scheme would provide better vehicular access outside of school term times and school drop off/pick up hours compared to the trial scheme. However, this option does not achieve many of the Movement Plan 2019 and objectives for the scheme.

7.2.3 Whilst it is possible to display any item in TSRGD on a VMS, the benefits of doing so in this case are uncertain. If the restrictions are either on or off when a driver passes through, they have no way of knowing what time the restrictions are in force without a sign plate showing the hours and dates of operation. The dates on any conventional sign plates would need to be updated annually to reflect varying term times. This large plate would negate the benefits of using VMS to display the information.

7.2.4 Table 12 summarises the scoring criteria for Option 6 below:

Table 12 – Scoring Criteria for Option 6

Criteria	Score	Notes
Feasibility/buildability	0	Times and date of restrictions would be challenging to communicate and include in TROs
Transport Policy	1	This option does not meet many of the Movement Plan objectives
Public Realm	0	Little to no public realm improvements possible
Road safety	1	Reduces traffic movements at certain points of the day, likely to reduce the risk of a collision occurring
Reduced carbon emissions	1	Restriction is in place during the peak periods which may have some positive effect
Encouraging walking and cycling	1	Restriction is in place during the peak periods which may have some positive effect
Reduce inequalities in health and well being	1	Promoting walking/cycling reduces inequalities
Reduce cut-through traffic	1	This option is likely to reduce cut-through traffic during peak hours*
Reduce parking pressure for local residents	0	Pressure on parking for local residents is likely to be unaffected
Encourage people to shop locally – reduce car use	1	Scheme discourages car use during hours of operation
Improve air quality, reduce pollution and noise levels	1	Air and noise pollution will decrease during the hours of operation
Impact on surrounding highway network	-1	The scheme may impact the surrounding highway network during hours of operation*
Impact on bus journey times	-1	The scheme may impact the surrounding bus network during hours of operation*
Enforceability	-1	Difficult to communicate hours of operation and enforce in the TMO given the flexible nature of the school term times
<b>Total</b>	<b>5</b>	

\*Extent of this would require a more detailed traffic assignment study

## 7.3 Summary

- 7.3.1 The more the hours/days of operation of the restrictions are reduced, the further away from the Movement Plan and LBS objectives the schemes become.
- 7.3.2 Using the scoring system devised, this scheme scores lower compared to alternative options that restrict private motor vehicle movements for longer periods. In addition the signage required would be complex and potentially lead to driver confusion and compliance/enforcement issues.
- 7.3.3 The use of VMS signage has been investigated and whilst it would be possible the benefit of doing so are limited in this instance. An alternative option would be to not enforce the restriction outside of school term times, allowing local residents access. However, this would be challenging to communicate and would not be reflected in the TRO.

## 8 OPTION 7 - SOUTHWARK CYCLISTS AND SOUTHWARK LIVING STREETS

### 8.1 Proposed Option

- 8.1.1 Southwark Cyclists and Southwark Living Streets have proposed a number of significant changes in the area with the aim to help improve cycle connectivity and reduce the over reliance of private car use.
- 8.1.2 The proposals include a wide range of mitigation measures including the following:
- 24/7 modal filters
  - Two-way bus gates
  - Junction improvements
  - Introduction of two-way cycle tracks in various locations
- 8.1.3 As there are a high number of mitigation measures, these have been assessed as one single scheme, incorporating all the proposed changes. However, the individual changes have also been reviewed in isolation, with the review of the individual elements contained in Appendix F.
- 8.1.4 Figure 5 illustrates the scheme proposals, with the full proposal provided in Appendix E.

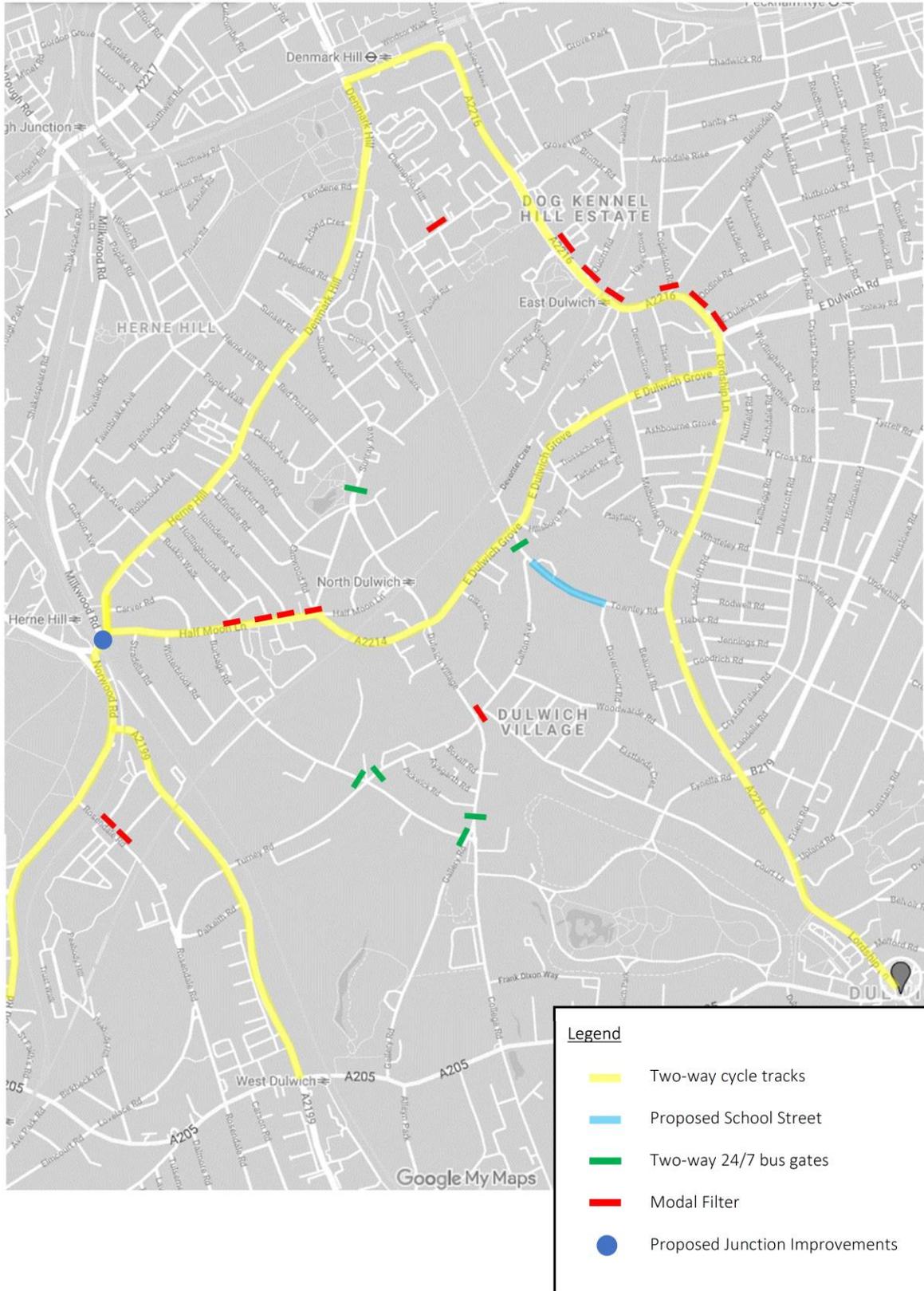


Figure 5 – Southwark Cyclists and Living Streets Proposals

## 8.2 Option Assessment

8.2.1 Pros and cons for this option are listed in Table 13 below:

Table 13 – Pros and Cons of Southwark Cyclists and Living Streets Proposals

Pros	Cons
<ul style="list-style-type: none"> <li>• Achieves many of the council objectives within the Movement Plan 2019</li> <li>• Reduced through-traffic in the area.</li> <li>• Fewer vehicular movements, reduces the risks of vehicular collisions and provides a better environment pedestrians and cyclists in the area.</li> <li>• Significant improvements to the cycle facilities within the study area</li> <li>• Likely to encourage walking and cycling through the area or to school as a result of the reduced traffic and improved safety</li> <li>• Reduced noise pollution and improved air quality in key locations such as Red Post Hill, Burbage Road, Sun Ray Avenue and Townley Road and generally throughout the study area</li> </ul>	<ul style="list-style-type: none"> <li>• Congestion and delays as a result of reassigned traffic likely to increase bus journey times on East Dulwich Grove and Lordship Lane and potentially other bus corridors</li> <li>• Need to provide bus boarders/by-pass features that could further exacerbate journey times as bus cages may need to be positioned in line with traffic, resulting in buses preventing the progression of traffic when serving the bus stops</li> <li>• Impacts of increased traffic on East Dulwich Grove and Lordship Lane likely to affect more residents on these roads</li> <li>• People dropping off school children may continue to do so on surrounding local roads and there is no CPZ to manage this</li> <li>• Increased travel distance for some local residents and businesses</li> <li>• Significant loss of kerbside parking/loading which would have implications on business access and operations</li> <li>• Significant loss of on-street parking, including residential parking where there is no alternative off street parking</li> </ul>

8.2.2 The proposed scheme would provide many benefits for the local area, particularly for cyclists. There are also measures to help reduce traffic through the area, including bus priority routes and modal filters. This will help reduce the likelihood of vehicles cutting through the area and will help improve air quality.

8.2.3 While there are some prioritisation measures being introduced on some bus routes it is likely that bus journey times will increase as a result of increased congestion on key traffic corridors. This congestion would result from potential reassigned traffic using these routes and also increased friction around bus stops as the cycle tracks may result in some bus cages being in line with traffic, resulting in potential delays to traffic and bus services as they will no longer be able to overtake a bus serving the stop.

8.2.4 On-street parking will also be significantly reduced where cycle tracks are proposed. While this may help reduce car use in the area, a lot of these parking bays are on-street residential parking bays for properties that have no alternative off-street parking facility. There would also be some impacts on kerbside servicing and loading for businesses which would need to be carefully considered as part of the design if this option is developed further.

8.2.5 Table 14 summarises the scoring criteria for Option 7 below:

Table 14 – Scoring Criteria for Option 7

Criteria	Score	Notes
Feasibility/buildability	-2	This scheme may be expensive to implement and may require further mitigation elsewhere to accommodate the reassigned traffic*
Transport Policy	2	This scheme helps meets many of the Movement Plan 2019 and scheme objectives
Public Realm	2	Significant public realm improvements possible
Road safety	2	Improved road safety due to reduced vehicle movements through the local area
Reduced carbon emissions	2	Reduced traffic through the area will reduce carbon emissions locally. School street may encourage more people to walk or cycle to school, especially given the safer environment as a result of reduced traffic
Encouraging walking and cycling	2	Reduced traffic in the area and improved cycle infrastructure will help encourage walking and cycling
Reduce inequalities in health and well being	0	Neutral benefit. Benefits to cycling and walking are offset but disbenefits to buses
Reduce cut-through traffic	2	Cut-through traffic through the area will be significantly reduced
Reduce parking pressure for local residents	-2	Significant loss of on-street parking for residents with no off-street alternative
Encourage people to shop locally – reduce car use	1	Improved cycle facilities and reduced traffic may encourage more local trips using alternative modes but bus journey times likely to be affected
Improve air quality, reduce pollution and noise levels	1	Improved air quality and reduced noise/emissions in the local area, but worsened elsewhere
Impact on surrounding highway network	-2	Reassigned traffic likely to result in congestion on the surrounding highway network*
Impact on bus journey times	-2	Reassigned traffic likely to result in increased bus journey times on the surrounding network*
Enforceability	0	Neutral benefit
<b>Total</b>	<b>6</b>	

\*Extent of this would require a more detailed traffic assignment study

## 8.3 Summary

- 8.3.1 This option would be beneficial in providing significant improvements to cycle infrastructure, reducing the amount of through traffic in the area and would therefore meet many of the scheme objectives and objectives in the Movement Plan 2019. However, the impacts of the full scheme remain uncertain without significant additional investigations.
- 8.3.2 It is recommended that a scoping study is undertaken to confirm feasibility and impacts on the highway network of each of the individual measures and how they would complement any other proposals. The full scheme is likely to have a considerable impact on the highway network and bus journey times as a result.

## 9 OPTION 8 – BLUE BADGE EXEMPTIONS

### 9.1 Proposed Option

9.1.1 This option would consider the principles of Option 2 making the closure on Calton Avenue, at the Calton Avenue/Dulwich Village, a permanent feature. However, this option would also provide access through the junction for blue badge holders. This would require a change to the design presented in Option 2 and would reduce the amount of public realm improvements provided.

### 9.2 Option Assessment

9.2.1 Pros and cons for this option are listed in Table 15 below:

Table 15 - Pros and Cons for Option 8

Pros	Cons
<ul style="list-style-type: none"> <li>Improved accessibility for blue badge users compared to full closure</li> <li>Helps achieve the Movement Plan 2019 action of <i>'Movement to, within and from town centres is easy, safe and accessible for all'</i></li> </ul>	<ul style="list-style-type: none"> <li>Increased risk of vehicle collisions when vehicle movements are permitted</li> <li>Fewer pedestrian benefits than alternative options</li> <li>Less public realm benefit compared to other options</li> <li>Increased air and noise pollution on Calton Avenue compared to other options</li> <li>Possible to control with camera enforcement but will require resource to manage and control</li> <li>Potentially confusing for drivers and blue badge users</li> </ul>

9.2.2 The intention behind this option is to help improve access to the Dulwich Village for disabled drivers. This scheme would improve accessibility but at the cost of public realm and pedestrian benefits at the junction.

9.2.3 There may also be issues relating to enforcing access as this would require camera enforcement and a list of vehicle registration details. This would require a resource to update and maintain the records to ensure any legitimate blue badge driver is not unfairly fined. Furthermore, Blue Badges are allocated to an individual not their vehicle, as such a Blue Badge holder travelling through the restrictions in a different vehicle than their own would be fined.

9.2.4 An alternative option could be to consider allowing blue badge access through all camera controlled points within the LTN but not at Calton Avenue as this would require a design change that will significantly undermine the local benefits in terms of public realm that can be achieved.

9.2.5 Table 16 summarises the scoring criteria for Option 8 below:

Table 16 – Scoring Criteria for Option 8

Criteria	Score	Notes
Feasibility/buildability	-1	White list of blue badge holders would require ongoing maintenance and updating
Transport Policy	1	This scheme helps meets some of the Movement Plan 2019 and scheme objectives
Public Realm	0	Little to no public realm improvements possible
Road safety	-1	Confusion introduced as pedestrians will think traffic has been restricted
Reduced carbon emissions	1	Reduced traffic in the area likely to encourage more sustainable forms of transport locally. Reduced emissions from standing vehicles
Encouraging walking and cycling	1	Reduced traffic in the area likely to encourage both walking and cycling in the local area. Allowing blue badge drivers through the junction would likely result in less public realm improvements and worse conditions for pedestrians
Reduce inequalities in health and well being	1	Access for disabled drivers improved. Some improvements to walking/cycling
Reduce cut-through traffic	1	Cut-through traffic reduced in the area
Reduce parking pressure for local residents	0	Neutral benefit – no impact on resident parking
Encourage people to shop locally – reduce car use	1	Reduced traffic locally may mean more trips to shops using sustainable modes
Improve air quality, reduce pollution and noise levels	1	Reduced standing traffic will improve air quality and reduce noise pollution from standing traffic in the local area
Impact on surrounding highway network	-1	Closure on Calton Avenue will mean traffic reassigning to surrounding roads, which may result in some congestion*
Impact on bus journey times	-1	Increased congestion on surrounding roads may result in some delays to bus services on the local network*
Enforceability	-1	Option would require camera enforcement at the junction which would detect drivers on a blue badge database. Some resource would be required to maintain this system.
<b>Total</b>	<b>2</b>	

\*Extent of this would require a more detailed traffic assignment study

## 9.3 Summary

- 9.3.1 Using the scoring system devised, this scheme scores very low compared to some of the alternative options. Maintaining blue badge holder access on Calton Avenue would require the design to allow two way access, reducing the benefits of the scheme significantly. Only limited public realm, cyclist and pedestrian benefits would be possible. Furthermore effectively closing Calton Avenue but allowing some vehicular use could cause user confusion and potentially propose a safety risk.

## 10 SUMMARY

10.1.1 A summary of the analysis and criteria scores contained within this report are highlighted below in Table 17 for ease of reference.

Table 17 - Summary of Scores

Option	Score	Summary
Option 1 – removal of all existing temporary measures	0	This option doesn't meet the councils Movement Plan or scheme objectives resulting in a 0 criteria score.
Option 2 – permanent closure at Dulwich Village/Calton Avenue Junction, timed northbound restrictions elsewhere	14	It is recommended this option is progressed as it is by far the highest scoring option. It is also recommended additional mitigation measures are investigated and implemented on the surrounding network.
Option 3 – Townley Road scheme	5	Additional closures and the introduction of a school street on Townley Road would cause significant traffic reassignment in the area. Furthermore monitoring data shows that traffic volumes on Townley Road have decreased compared to before the streetspace scheme was in place. It is recommended that monitoring of traffic flows on Townley Road continues to ensure volumes stay within acceptable levels.
Option 4 – Dulwich Square Scheme	14	It is recommended that the preferred public realm design elements from this option are incorporated into Option 2
Option 5 – Dulwich Alliance Scheme	2	This option scores very low compared to some of the alternative options. In addition the scheme could lead to driver confusion and compliance/enforcement issues.
Option 6 – reduced restricted hours	5	The more the hours/days of operation of the restrictions are reduced, the further away from the Movement Plan and LBS objectives the schemes become.  Using the scoring system devised, this scheme scores lower compared to alternative options that restrict private motor vehicle movements for longer periods. In addition the signage required would be complex and potentially lead to driver confusion and compliance/enforcement issues.
Option 7 – Southwark Living Streets and Southwark Cyclists Scheme	6	It is recommended that a scoping study is undertaken to confirm the feasibility and impacts on the highway network of each of the individual measures and how they would compliment any proposals.
Option 8 – Blue Badge Exemptions	3	This scheme scores very low compared to some of the alternative options. Maintaining blue badge holder access on Calton Avenue would require the design to allow two way access, reducing the benefits to public realm, cycling, walking and safety.

# APPENDIX A: EXISTING DESIGN FOR PERMANENT SCHEME



## APPENDIX B: TOWNLEY ROAD RESIDENTS PROPOSALS



# APPENDIX C: FRIENDS OF DULWICH SQUARE PROPOSALS



## APPENDIX D: DULWICH ALLIANCE PROPOSALS



# APPENDIX E: SOUTHWARK CYCLISTS PROPOSALS

# APPENDIX F: ASSESSMENT OF INDIVIDUAL SOUTHWARK CYCLISTS PROPOSALS

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