SURREY
COUNTY COUNCIL

C158 Milbourne Lane
Esher, Elmbridge

RSOS Improvements
Feasibility Study Report

November 2018

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Feasibility Study Report

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Prepared By: Print Ian Dent

Sign .....

Authorized By: Print Peter Shimadry

Sign .....

Amendment List

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1. INTRODUCTION:

A Road Safety Outside Schools (RSOS) assessment has been undertaken outside Esher Church School, Milbourne Lane, Esher. This report follows on from that assessment and documents feasible improvements that have the potential of making the environment safer and more accessible for pedestrians.

Photograph 1: Eastern end Milbourne Lane, Esher Church School entrance to right in picture (Source: Google Street View)

Photograph 2: Western end Milbourne Lane, Esher Lawn Tennis Club to left in picture (Source: Google Street View)

2. SITE ANALYSIS:

(Appendix A – Location plan)

The C158 Milbourne Lane is a through route, acting as a bypass, for motorists

seeking to avoid Esher as they travel between the A3 and the Scilly Isles roundabout (junction of A307 and A309).

The carriageway width varies but on average is 8.0m. Short sections of mandatory cycle lanes are present, 100m eastbound and 80m westbound. The adjacent footways range from a minimum width of 1.3m to a maximum of 3.4m, the average width being 1.8m. Sections of grass verges exist beyond the footways, but these are not congruent.

A speed limit of 30mph is in place on this section of Milbourne Lane.

London United Buses provide the K3 bus service that runs in both directions stopping approximately every 15 minutes outside of Esher Church School. Official bus stop lay-bys are present but are not supported with 'No stopping except buses' signs.

Apart from the two schools, Esher Church School and Shrewsbury Nursery and Pre-preparatory School, and Esher Lawn Tennis Club, the adjoining properties are residential with direct access. All adjoining properties have ample off-street parking. In addition to the bus stops and mandatory cycle lanes, there are "no waiting at any time" double yellow line restrictions in place around the junctions with Lynne Walk and Bracondale. Other than that, on-street parking does occur particularly during the school start and finish times, and during these times does include the bus lay-bys and the mandatory cycle lanes.

3. DATA COLLECTION:

The feasibility study has been initiated by concerns over safety in the vicinity of Esher Church School. Mindful of this, a search has been undertaken of available personal injury incidents data for this location.

Personal injury incident data is based on all road traffic incidents where injury and or fatality has occurred; the available data are details of those incidents recorded by the police. A search of the data base for the past three years and year to date indicate no personal injury incidents have occurred in the vicinity during this period; indeed no incidents have occurred at this location since 2012.

4. DISCUSSION AND OPTIONS:

The brief for this scheme seeks an informed investigation into feasible improvements following the outcome of a RSOS assessment, which took place outside Esher Church School at the beginning of December 2017. The objective being to improve pedestrian facilities and accessibility, manage vehicle speeds and driver behaviour.

Issues to be considered:

- Pedestrian desire lines.
- Vehicle movements.
- Review existing facilities and traffic calming features.
- Side accesses.
- Signs and markings: to highlight hazards / slow down motorized vehicles.

- Personal injury incidents data.

4.1. RSOS assessment report

The initial recommendations of the assessment are to investigate:

- Removal of underutilized cycle lane.
- Formalized parking.
- Placement of parking bays in place of the cycle lanes.

Full details of the RSOS assessment can be found in Appendix B.

4.2. Option 1 – Existing uncontrolled crossing points (Appendix C – Drawing PC0810/01)

At present pedestrians are served well with two uncontrolled crossing points. Both have Surrey County Council standard width/length refuge islands that assist pedestrians crossing the road in two stages during peak times when traffic is very heavy.

The 'T' shape of the tactile paving dates the installation of these crossing points to pre 1998, the "Guidance on the Use of Tactile Paving Surfaces" (1998) did away with the use of these shapes. There is a benefit of the 'T' shape to the visually impaired; it provides assistance in lining up the centre of the crossing, to safest line for pedestrians to travel. Regardless of this, the existing tactile paving is out of alignment, it would therefore be beneficial to upgrade this element of the crossings.

Upgrading uncontrolled crossings tactile paving.

Budget cost estimate: £6,000

4.3. Option 2 – Existing cycle lanes (Appendix C – Drawing PC0810/01)

There are two short sections of mandatory cycle lanes, one in each direction— 100m section eastbound and 80m westbound. These are accompanied with separation islands towards the end of the two sections; as they are away from the refuge islands they do not appear to be directly for cyclist's safety but more for general calming of motor vehicle traffic.

Observations during the RSOS assessment counted a number of commuter cyclists travelling along this stretch of Milbourne Lane but they were not observed using the cycle lanes. This maybe be due to the difficulty in navigating a path between vehicles to them and the relative effectiveness to the short sections. Their greatest usage is likely to be outside peak times, when vehicular movement is not normally restricted by volume.

Although the road markings indicate the cycle lanes are mandatory, continuous lines to TSRGD diagram 1049B, the pre TSRGD 2016 requirement for a supporting traffic regulation order (TRO) has been lifted. Their removal could now be undertaken without recourse to TRO consultation procedure.

As the effectiveness of the cycle lanes is small there is a case for not maintaining their long term upkeep. It may therefore be prudent to remove them to avoid their continued maintenance. This cannot equally be said of the separation islands, which act well as traffic calming features.

Removal of cycle lanes.

Budget cost estimate:

Abrasive removal	£6,000
Hydro blasting removal	£11,000

4.4. Option 3 – Formalization of parking (Appendix C – Drawing PC0810/02)

Currently, all adjoining properties appear to have ample off-street parking. As there are no waiting restrictions in place on-street parking does occur normally along the northern side of Milbourne Lane. Avoiding the double height kerb, bus stop, cycle lane refuge island and crossing points, tend to be the main reasons why parking is not prominent along the southern side; although parking does occur in the cycle lane during the school start and finish times, as does parking in the eastbound bus stop and on the adjacent verge.

Formalized parking would require the requisite TRO and enforcement for it to work effectively. Introducing such a formal arrangement may well attract objections during the TRO consultation process; and would lead to ongoing maintenance enforcement costs.

The bus stop clearway to the east of the Bracondale junction is to militate vehicles preventing buses stopping by the bus stop flag: adjacent to the kerb; out of the flow of traffic; away from the side road. The intention is for the clearway to be in force at all times: drivers currently using this location to park during school start and finish times may ignore the clearway or seek alternative nearby locations, which may impact on safety.

Although informal on-street parking is an issue during the school start and finish times, it does appear to work well at all other times. Creating lay-bys along the edge of the road would assist in directing drivers to park in suitable locations.

Removing the westbound cycle lane would open up the opportunity to create a small lay-by along the southern side; resolving the issue of those parking in the cycle lane.

There appears to be a practice of drivers parking vehicles on the footway and verge between the bus stop lay-by and the pedestrian entrance to the tennis club, particularly during school start and finish times. This has the potential of obscuring the view of pedestrians using western crossing. A measure to mitigate this practice would be to install bollards along this short section. (An existing ‘School’ sign and wig-wag lights would ideally be placed on new post, with an offset bracket post, to avoid conflict with the bollards).

On-street parking improvements.

Budget cost estimate: £50,000

Lay-bys	£40,000
Bollards/sign installation	£10,000

4.5. Option 4 – Enhancements to uncontrolled crossing points (Appendix C – Drawing PC0810/02)

There is scope to enhance the crossing points by building out the kerb line, creating pinch points at the central refuge islands.

This has the potential to increased pedestrian safety. Firstly, the pinch point will have a traffic calming effect on vehicles. A secondary benefit will be the shorter distances pedestrians need to negotiate in crossing the carriageway; which will result in less time they will be on the carriageway. This enhancement is dependent on the removal of the cycle lanes, but designed not to impact on cyclists (the width between the build outs and refuge islands being either less than 3.1m or greater than 3.9m, the former having a greater traffic calming effect).

In addition to, or as an alternative to creating pinch points, would be to place the crossing points onto raised tables. This feature would act as a method to calm traffic and provide a level surface for pedestrians. However, as Milbourne Lane forms part of a regular bus service route the tables would need to be the extended version, 7.5m instead of the minimum 4.0m.

Uncontrolled crossings enhancements.

Budget cost estimate: up to £70,000

4.6. Option 5 – Controlled crossing traffic calming enhancements (Appendix C – Drawing PC0810/03)

At present the two existing uncontrolled crossings work well for the current situation. Pedestrians are able to use the refuge islands in crossing the road in two stages, thereby not be held up waiting for a gap in passing traffic from both directions, as would be the case without the islands. If for any reason this existing arrangement was not meeting the demand at off-peak as well as at peak times, the number of pedestrians increase, or they are unable to cross the road because of high vehicle flow for example, consideration could then be given to the installation of a controlled crossing.

With two crossing points currently in existence, analysis of pedestrian crossing movements may not be conclusive in determining the desire line for a single crossing. However, it is probable the best location may well be one that is nearest to the school entrance and mid-way between the two bus stops.

Realistically, the introduction of a controlled crossing should only be considered as part of a large scale traffic calming enhancement scheme, e.g. removal of cycle lanes, formation of parking lay-bys, reducing the number of crossing points from two to one.

Controlled crossing and traffic calming enhancements.

Budget cost estimate: £145,000

5. CONCLUSION AND RECOMMENDATIONS

Following the investigation into feasible designs for improvements in the vicinity of Esher Church School, it has been found that a number of small scale improvements can be undertaken individually or as a whole. There is also the option of a larger scale scheme to enhance Milbourne Lane.

The following options identified in this feasibility study are recommended, based on likely benefits and anticipated costs.

- Option 3 – bollards to prevent vehicles parking on the footway and improve visibility for pedestrians. Cost estimate: £10,000.
- Option 4 – enhance the crossing points by creating pinch points to provide traffic calming effects, with the option of raising onto tables. This is dependent on the removal of the cycle lanes and would need to consider the bus service. Cost estimate: up to £70,000

It should be noted that the Esher Transport Study, which aims to improve traffic flow through the town centre, is ongoing. Should viable measures be progressed for the town centre, leading to improved traffic flow, this is likely to result in less traffic using Milbourne Lane.

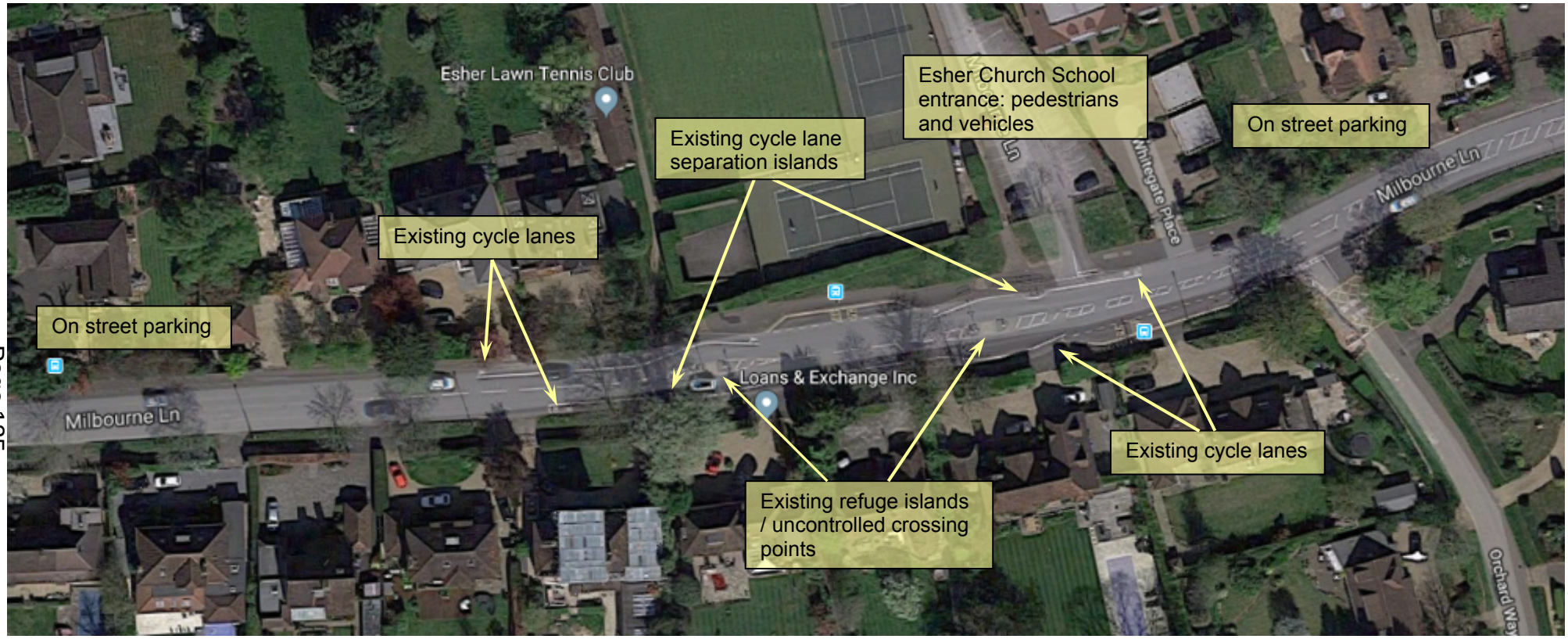
APPENDIX A: Location Plan

APPENDIX B: RSOS Assessment Report

APPENDIX C: Drawings

Drawing PC0810/01 – Options 1 & 2
Drawing PC0810/02 – Options 3 & 4
Drawing PC0810/03 – Option 5

APPENDIX A: Location Plan



APPENDIX B: RSOS Assessment Report

ROAD SAFETY OUTSIDE SCHOOLS SITE VISIT TEMPLATE

1. REQUEST RECEIVED

Date request received	October 2017
Comm Engagement Officer	Edward Cowley
Requestors details	Parent at the school and concerns from the local resident
School Name	Esher Church School
District	Elmbridge
Divisional Member	Mike Bennison

2. SCHOOL INFORMATION

Head Teacher	Cathy Bell
School Address	Esher Church School Milbourne Ln, Esher KT10 9DU
Telephone number	01372 463 139
Email address	office@esherchurchschool.org.uk

3. CONTACT OFFICERS

Highways Engineers	Peter Shimadry
Road Safety Team	Nigel Pond
Surrey Police	Danny Bond
Other	Edward Cowley

4. ASSESSMENT DETAILS

Date	1st December 2017
Time **Officers Attending**	08:15am
Location (Road names)	Milbourne Lane
Weather Conditions	Dry/ Bright/ Cold 5C/41F
Other controlling factors	

5. CASUALTY DATA (Provided by Road Safety Team)

There have been no accidents within 350m in Milbourne Lane since 2012.

6. SPEED LIMIT

What is the Road Speed limit?	30mph
Is there SDR data Date	
What is the mean speed?	

7. INFRASTRUCTURE what infrastructure is currently in place?

Controlled Crossing	No
Pedestrian Island	Yes outside the front entrance
Raised Table	No
Guard Railing	Outside school entrance
Wig Wags	Yes on the main road approach to the school
School Signage	Yes
Dropped kerbs	Yes
Pinch points/build outs	Yes
Zig-Zag road markings	Yes
SCP	No

8. ROAD USER BEHAVIOURS/OBSERVATIONS

PEDESTRIAN (Inc ped count at desired crossing point)

The school site is located on a busy residential road. Many of pupils do walk, however a significant proportion of children are brought to school by car. The behaviour of those walking was good. Also because of low speeds along Milbroune lane, pedestrians were able to cross using the Island outside the school.

CYCLISTS/Scooters (nos of cycles/scooters in storage)

There were a number of children scooting to school during the time of observation. There were a number of commuter cyclists, but there was no cyclists observed going to school.

VEHICLE BEHAVIOUR (typical manoeuvres carried out/other parking locations)

The school is situated in a 30mph speed limit. Milbourne Lane is a through route from Claygate and Chessington to Esher. Milborune Lane is very busy outside the school and is often used as cut through to bypass Esher town centre. There is also very limited parking for parents turning up to school to drop off. There was a few parents that parked outside the school irresponsible and illegally. Cars were also using the bus stop near the school as a place to park.

OTHER OBSERVATIONS

9. SCHOOL OBSERVATIONS/COMMENTS

10. INITIAL RECOMENDATIONS

- **Offer road safety education.**
- **Arrange a meeting to discuss the findings of the report.**
- **Investigate the removal of cycle lane that was not being used.**
- **Carry out an investigation into options for formalising the parking in Milbourne Lane.**
- **If the cycle lane were to be removed, an investigation could be done to put parking bays in their place.**