CITY OF LONDON

TESCO
ALDERSGATE
SERVICING STUDY

FINAL REPORT

Prepared for

City of London
Department of Planning & Transportation

by

Transport & Travel Research Ltd

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EXECUTIVE SUMMARY

Background

Transport & Travel Research Ltd (TTR) was commissioned in September 2008 by City of London to carry out the Tesco Aldersgate Servicing study. The aim of the study was to monitor, analyse and interpret loading and unloading activity relating to the Tesco Aldersgate store and to carry out a risk assessment to determine its potential impact on safe pedestrian movement within Carthusian Street. The study also aimed to assess the level of compliance with local agreements between City of London, local residents and The Charthouse Square School in response to concerns about Tesco’s servicing activity on Carthusian Street.

Methodology

The study methodology consisted of:

- video survey of the servicing and delivery activity on Carthusian Street
- video survey of pedestrian movement on Carthusian Street
- on-site audits
- a face-to-face interview with the Tesco store manager
- a telephone discussion with a representative of the local school
- data interpretation and analysis
- risk assessment
- reporting on the study methodology, results and recommendations

Key findings from observations and video surveys

Main findings from the analysis of schoolchildren movements:

In all instances, the busiest period for schoolchildren pedestrian movements was between 08.30am and 08.45am and the southside (location of Tesco) was significantly busier than the northside.

Main findings from the analysis of general pedestrian movements:

There were significant volumes of general pedestrian movement within the area between 0700 and 10.00 am, the majority of which occurs on the south side of Carthusian Street, where Tesco servicing activities also take place.

Both of these findings are important to consider, as Tesco servicing activity was observed to have exceeded the agreed finishing time of 8am on each day during the observation period, in some instances potentially crossing into the peak time for schoolchildren walking in either direction on the southside of Carthusian Street.
Main findings from the loading/unloading observations:

- Loading and unloading activity does take place in Carthusian Street before 07.00 for a range of premises (located both in Carthusian Street and on Aldersgate), particularly catering premises located towards Charterhouse Square

- The majority of vehicles use the southside of Carthusian Street for loading and unloading activity

- The majority of delivery and servicing activity is undertaken by vans

- There is extensive use of Carthusian Street for waiting/parking, particularly by vans left stationary with hazard warning lamps flashing, without any loading/unloading activity actually occurring

- Tesco deliveries/collections are undertaken by larger vehicles (predominantly 2 axle rigid and articulated vehicles), taking, on average, longer than one hour to load/unload

- Most other loading/unloading within Carthusian Street. is completed in 5 minutes or less

- The Tesco store does also receive an evening delivery at selected times throughout the week.

- There are identified instances of drivers parking in Carthusian Street to deliver to other premises on Aldersgate (other than to the Tesco store front doors).

- The number of store staff assisting with unloading of the Tesco delivery vehicle has relatively limited impact on the overall time taken to complete the delivery. In most cases, two store staff assisted the driver with vehicle offloading.

- Likely due to limited space within the store, at the beginning of each morning’s delivery operation, empty roll cages and roll cages filled with waste packaging are brought out of the store room and queued on the road in Carthusian Street.

Tesco compliance

On each weekday throughout the duration of the observation period, Tesco failed to comply with the requirement to carry out its weekday delivery between 07.00 and 08.00. On one occasion, the delivery was completed (i.e. the vehicle departed) almost on time, at 08.01, whereas on other occasions, the delivery was not completed until well after 09.00.

In terms of the weekend agreement, requiring delivery after 0900, on both Saturdays it was observed that the main Tesco delivery vehicle arrived in Carthusian Street shortly before 0900 only to move on without off-loading and then re-appearing shortly afterwards to offload via Aldersgate through the shop's front doors. This is thought to be as a result of the loading restrictions on Aldersgate not being applicable at the weekend.

No Tesco own vehicle deliveries were observed on Sundays.

Direct deliveries from the store’s bread supplier were observed as occurring both before the main Tesco delivery and at the same time as it, bearing in mind the local agreement requires supplier deliveries to take place after the main delivery.
Risk assessment

A risk assessment was carried out on 5 key risks identified during the observation:

Risk R1: Pedestrian injury (including schoolchildren) from Tesco own cross-kerb loading/unloading in peak periods

Risk R2: Pedestrian injury from Tesco own cross-kerb loading/unloading during evening

Risk R3: Pedestrian or other road user injury from Tesco own roll cages queued on road

Risk R4: Pedestrian or other road user injury from Tesco own vehicle reversing within Carthusian Street

Risk R5: Pedestrian injury from supplier deliveries wheeled along pavements

The risk assessment process (involving development of risk mitigation measures), coupled with the general findings from the observations led to the project team developing a proposed set of recommendations.

Recommendations

These proposed recommendations have been designed to help improve the safety and efficiency of loading/unloading operations at the Tesco Aldersgate store:

- A revision of the current agreement to allow 06.30am start time for weekday delivery (allowing 1 hr 30 mins for loading/unloading which would be sufficient for the majority of loading/unloading operations observed) – this would help to ensure the vehicle would have departed, ideally by 08.00am, before the time when the most significant schoolchildren pedestrian movements are observed. This proposed 06.30am start time is not inconsistent with the current extent of pre-07.00am loading/unloading activity already undertaken in Carthusian Street, servicing other premises

- Negotiations with Tesco Regional Distribution Centre managers to improve punctuality of vehicles

- Negotiations with Tesco store to ensure store staff are immediately available to assist with offloading, once the vehicle arrives

- Advance communication from vehicle/driver to alert store of imminent arrival

- Improved signage for pedestrians to explain loading/unloading underway

- Improved lighting (particularly for roll cages) for loading/unloading in darkness

- Consideration given to the use of audible warning devices to alert pedestrians to loading/unloading operations underway (to be used after an agreed time to reduce impact on local residents)

- Use of a banksman (trained store staff member) in all instances when vehicles are reversing

- Negotiations with Tesco store to ensure that all staff involved in cross-kerb loading/unloading operations wear appropriate hi-vis clothing
- Negotiations with Tesco store to assess potential for one member of staff to marshal roll cage movements, rather than directly taking part in loading/unloading.

- Traffic engineering solutions to calm traffic using Carthusian Street - (there were many observed ‘near misses’ and one observed instance of a coach colliding with a taxi at junction with Aldersgate) – including possible pedestrian crossing to increase pedestrian safety and deter use as a ‘through route’

- Guidance from school to advise parents and teachers, where practicable, to use northside pavement, which has fewer pedestrians and is used much less by delivery vehicles – guidance to be issued particularly to teachers taking children to the Leisure centre during the schoolday

- Potential for nighttime delivery pilot (pre-06.00am) complying with best practice in terms of acoustic audits and low noise technology for vehicles, roll cages, low noise store floors, driver training etc

- Review of loading restrictions on Aldersgate to partially relieve Carthusian Street of additional delivery/servicing traffic parked at a distance from delivery destinations

- Review of existing waiting restrictions on Carthusian Street with a view to introduction of loading bay(s) (accompanied by restrictions) to better control overall loading/unloading activity

- Targeted parking enforcement in Carthusian Street to tackle issue of drivers leaving vehicles unattended, with hazard warning lamps illuminated, when no loading/unloading activity is actually undertaken.
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1 INTRODUCTION

Transport & Travel Research Ltd (TTR) were commissioned by the City of London in September 2008 to conduct a servicing study of the Tesco Aldersgate store in Barbican, Central London.

The aim of the study was to monitor, analyse and interpret loading and unloading activity and pedestrian movements within Carthusian Street, in the City of London. Specific focus was given to the Tesco store on the corner of Aldersgate and Carthusian Street and the potential impacts of store-related loading and unloading activity on pedestrians and local residents.

The study was commissioned in response to concerns from local residents and the nearby primary school on Charterhouse Square around servicing activity relating to the Tesco store on the corner of Aldersgate and Carthusian Street.

The store is located in a busy location, near to Barbican underground station and various bus stops serving the area, resulting in a high pedestrian footfall during the morning peak. The store is serviced from the street, across the footway, resulting in potential conflict between this activity and pedestrians traversing the area. Of particular concern is any hazard presented to schoolchildren accessing the local preparatory school.

The store is open to the public from 6am to 11pm with shelf stocking and warehouse activities taking place around the clock. Nighttime and early morning activities have resulted in complaints from local residents, specifically those with flats above the store.

Other commercial premises are present within Carthusian Street, notably a public house, restaurant, cafes and hair salons, all of which would be expected to generate some form of delivery and servicing activity.

Discussions about relevant issues have been held between City of London, Tesco, The Charterhouse Square School and local residents with the following actions agreed so far:

- Loading restrictions on Aldersgate Street between 7 and 10am (the Tesco store is now serviced from Carthusian Street adjacent to the store’s loading bay);
- Improvements to the internal layout of the store to reduce noise for local residents;
- Main weekend delivery to be re-scheduled for 9am;
- Main weekday delivery to commence promptly at 7am and be completed by 8am.
- Direct deliveries e.g. bakery, milk, to take place after the main delivery is complete.

In addition to the above, the City of London has requested that all deliveries, including weekday deliveries, commence no earlier than 9am, but Tesco have stated that this is impractical due to congestion within the store during peak trading hours.
In light of this and prior to consideration of further loading restrictions, the City of London wishes to establish whether the voluntary agreement to complete the main delivery by 8am on weekdays is being met and whether servicing during the morning peak presents any hazard to pedestrians and schoolchildren using the adjacent footways.

For this particular study, TTR staff employed a specialist data collection sub-contractor, Count On Us, to capture activity within the survey area on video, throughout the duration of the survey period. TTR also carried out site audits to provide a control survey and quality check for the video surveys, as well as arranged an interview with the Tesco store manager to obtain first hand knowledge of servicing activity related to the Aldersgate store.

The study required more than simple data collection and enumeration, calling for knowledgeable interpretation of the pedestrian and loading/unloading activity, as well as a detailed risk assessment related to the observed delivery and servicing operations.

1.1 CENTRAL LONDON CONVENIENCE STORES - DELIVERY AND SERVICING ACTIVITY

Delivery and servicing activity to local convenience stores within Central London, such as to the Tesco Express store on the corner of Aldersgate and Carthusian Street, is essential to ensure that products, including fresh produce, required by consumers, are available at the right time and in the best possible condition.

However, local convenience stores often have limited (if any) private, off-street loading and unloading facilities, meaning that most delivery and servicing activity has to take place on street, across the kerb, direct into store-room or through the shop-front.

This on-street, across the kerb delivery and servicing activity can potentially lead to negative local environmental and safety impacts, including:

♦ Impact on availability of road-space and free flow of traffic
♦ Undesirable visual intrusion and noise within residential areas
♦ Safety of pedestrians traversing footways, across which deliveries/collections are being undertaken
♦ Safety of loading/unloading staff during the delivery and servicing activity (particularly where desirable goods are being moved) and security of the vehicle and load, if left unattended

On street, across-kerb delivery and servicing activity for retail premises is commonplace across London. Voluntary agreements, such as those established between Tesco and City of London, can be effective measures to better manage the timings and procedures used for loading/unloading activity.

These voluntary agreements are often preferable to additional statutory restrictions which would legally limit the time and location of delivery and servicing activity. It is important, however, that when voluntary agreements are put in place, that they are adhered to by the relevant parties.

This study aims to assess the extent to which the local agreements established for the Tesco store are being adhered to.
This report has been prepared following the acceptance of the project proposal submitted in September 2008 and subsequent survey work. It consists of the description of the methodology statement and survey approach in Chapter 2, survey findings and data analysis in Chapter 3, risk assessment in Chapter 4 and the consultants’ recommendations in Chapter 5.
2 SURVEY METHODOLOGY

The project methodology was devised to provide the best possible research approach to establish the degree to which voluntary agreements, relating to delivery and servicing activity at the Tesco Aldersgate store, are being complied with and the nature and extent of risks to pedestrians (schoolchildren in particular) and other road users resulting from store-related loading and unloading activity.

The complete methodology consisted of video survey of the servicing and delivery activity, site audits, a face-to-face interview with the Tesco store manager and a telephone discussion with a representative of the local school. The study required experience of observing and interpreting loading and unloading activity, sound processes for robust data capture and an understanding of risk management processes and conducting risk assessment.

2.1 AIM

The aim of the study was to monitor, analyse and interpret loading and unloading activity relating to the Tesco Aldersgate store and its potential impact on pedestrian movement within Carthusian Street, in the City of London.

2.2 OBJECTIVES

Objectives of the study were:

- to assess the extent to which the Tesco store is adhering to the voluntary agreements between the City of London, local residents and The Charterhouse Square School, specifically to complete the main Tesco-controlled delivery by 8am on weekdays; and also
- to establish whether servicing activity during the morning peak presents any hazard to pedestrians (particularly schoolchildren) using the footways

2.3 STUDY APPROACH

The tasks required to successfully deliver the study within the timescales are summarised in Figure 1 below.
Figure 1: Project Methodology

**Task 1**
Inception Meeting
(ongoing project management and client liaison)

**Task 2**
Two week activity monitoring
(all activity, on site video camera)

**Task 3**
Supporting on-site loading/unloading observational surveys

Output:
- Pedestrian Directional Counts
- Loading/unloading activities

**Task 4**
Analysis and Enumeration

**Task 5**
Risk Assessment - Tesco-related loading/unloading activity

**Task 6**
Project Reporting (including loading/unloading activity and pedestrian count summaries, key factors and issues and Risk Assessment)

Output: Loading/unloading activities

**Task 7**
Project Close-Out Meeting and Presentation
Task 1: Inception Meeting (Leading to Ongoing Project Management & Client Liaison)

The study commenced with a project inception meeting held on Wednesday 8th October, 2008, to discuss the exact scope of the work programme with the client and the dates for the survey activity.

Task 2: Two Week Activity Monitoring

As required within the project brief, a monitoring study was conducted on Carthusian Street for the duration of two weeks, during term-time.

This monitoring study involved recording all activity along the 80 metre length of Carthusian Street (indicated in Figure 2 below), using video camera equipment. The pole on which the camera was set up is located in Aldersgate, immediately opposite the entrance to Carthusian Street.

Figure 2: Carthusian Street, City of London

The practice adopted was to record, on video, all vehicle and pedestrian movements on site using high-level cameras attached to street furniture. The camera was checked regularly by technical staff to maintain quality assurance.
The video survey work comprised of:

- Logging of all loading activity on Carthusian Street between 7am and 7pm, including arrival time, waiting time, loading time and departure time. The video surveys took place between 13th and 19th October 2008, 27th October and 1st November 2008 and on 9th November 2008. Originally, the Sunday of 2nd November 2008 was due to be surveyed, as agreed at the meeting with Simon Phillips on 8 October, however, unexpectedly, the position of the camera was moved and the subsequent recording did not adequately capture servicing activities. It was decided that the recording of the second Sunday would take place on 9th November. We are of the opinion that this did not compromise the quality of data.

- Pedestrian movement on Carthusian Street between 7am and 10am, Monday to Friday between 13th and 17th October 2008 and 27th October and 31st October 2008.

Due to the time of year of the survey work, we ensured that appropriate camera equipment, suitable for adequately recording movements in daylight and darkness, was used.

**Task 3: Supporting on-site observations**

The video survey work was designed to capture all vehicle and pedestrian activity along Carthusian Street, within the agreed time periods, for the duration of the requested two week monitoring period.

The study team also carried out physical on-site observations at selected times during the two week period to validate the video recordings and also to obtain additional data outside of the agreed video recorded hours.

On three separate weekdays, during term-time, and on the Saturday at the end of the first week’s recording, we were physically present, on site, in Carthusian Street to observe delivery and servicing activity at first hand.

These site audits were conducted on Wednesday, 15th October, Saturday, 18th October, Tuesday 28th October and Thursday, 30th October 2008 between 6.00am and 10.00am, 3.00pm and 5.00pm and 7.00pm and 9.00pm.

These on-site observations were not simply intended to duplicate information already being recorded by the video camera but involved more in-depth observations, at close quarters, of loading/unloading activity, including identifying the types of handling units used and goods delivered into the Tesco store and also into other premises along the street.

Importantly, we also carried out on-site loading and unloading observations outside of the recording times of the camera. It was agreed that the camera would record activity each day, during a two-week period from 7am to 7pm. To ensure that the voluntary agreement between Tesco and City of London was being complied with, on each of the four physical on-site observation days the study team was present at:
- 6am (to see whether activity along Carthusian Street takes place prior to 7am)
- 7am-10am to observe loading/unloading activity, within the morning peak period
- Mid-afternoon (from 3pm-5pm to observe activity during school finishing time)
- After 7pm to record any delivery activity which may occur after the camera
  recording period (both Tesco-related activity and otherwise)

**Task 4: Analysis and enumeration**

A team of enumerators performed the manual analysis of the pedestrian data captured
by the video camera. All count data was summarised in 15 minute periods, with hourly
totals. The differentiation between schoolchildren and others was counted to the
enumerators’ best estimate.

The TTR project team undertook detailed analysis of the loading and unloading activity
recorded during the survey period, including arrival time, dwell time, loading/unloading
time and departure time of delivery vehicles (part-validated by the on-site observations),
to better understand the nature of goods delivered both by Tesco own vehicles and into
the store direct from suppliers.

The focus of the overall project was on activity relating to the Tesco store but it is also
important to understand the delivery and servicing activity generated by other premises
within Carthusian Street (and also in Aldersgate), including the local restaurants, cafes,
hair salons and public house. Although these were not the primary project focus, they
inevitably impact on local residents’ and parents' overall concerns.

**Task 5: Risk Assessment**

As required in the brief, following the detailed review of Tesco-related loading and
unloading activity (undertaken by analysis of video recordings and the supplementary
on-site observational work) we carried out a risk assessment of loading/unloading
activity which was recorded as taking place between 7am and 10am on weekdays. It
was also discovered that Tesco store servicing occurs in the evening (albeit when no
schoolchildren are present) and this operation was also considered within the risk
assessment.

We used TTR’s own PRAM process which comprised of:

- identifying hazards observed relating to loading and unloading at the Tesco store
- quantifying the associated risk in terms of likelihood, frequency and severity
- identifying parties at risk
- selecting mitigation measures to control the level of risk
- forecasting risk levels after mitigation measures have been applied

The detailed risk assessment is presented, complete with individual probability-impact
(P-I) tables, in Chapter 4.

The generic PRAM process is outlined within the project report, as an appendix. This
process is made available for City of London to use as a template on similar activities in
other locations.
Task 6: Project Reporting

The project report contains detailed summaries of:

- all logged loading and unloading activity observed between 7am and 7pm, during the survey period
- supplementary loading and unloading activity (or absence of it) observed outside of the video-recorded hours, while physically on site
- pedestrian directional counts
- interpretation and comment on key issues identified from the data collected
- detailed risk assessment for each Tesco loading/unloading-related risk identified
- Recommendations for measures to reduce risk relating to the loading/unloading activity

Task 7: Project Close-out Meeting and Presentation

This involved a final meeting with the client to hand over the study report, present and discuss the work and findings reported and to address any issues or queries.
3 SURVEY FINDINGS AND DATA ANALYSIS

All data collection surveys were conducted in line with the requirements of the study methodology. Video data for both pedestrian counts and loading/unloading activity were reviewed, along with additional supporting data from physical site audits. Notes were also made during a face-to-face meeting with the Tesco store manager and following a telephone consultation with the administrator at Charterhouse Square School.

3.1 VIDEO SURVEY OF PEDESTRIAN COUNTS

Survey data was video recorded, reviewed and supplied in Excel spreadsheet format for detailed analysis, which comprised a statistical assessment of pedestrian counts and schoolchildren walking in both directions, Westbound and Eastbound on the Northside and Southside pavements of Carthusian Street between 7.00am and 10.00am.

Two types of analysis were conducted, for pedestrians as a whole and also specifically for schoolchildren. Although schoolchildren are pedestrians, for the purposes of this study we have distinguished schoolchildren from pedestrians as a group which is easily visually identified as being of a primary school age.

The results of the analysis for schoolchildren are presented below, followed by the results for all pedestrians.

Schoolchildren

The analysis focuses on the number of schoolchildren observed walking along both sides of Carthusian Street in both directions between 8.00am and 9.15am Monday to Friday, to establish their interaction with Tesco servicing activities.

Although the data is available for the time between 7.00am and 10.00am for the purposes of this study it is thought to be more appropriate to focus particularly on the busiest times for children walking to and from the school in the morning.

The Charterhouse Square School is located on the south side of Charterhouse Square and is accessible via Carthusian Street from Aldersgate in a westbound direction and from Charterhouse Street in an eastbound direction. The majority of children use the southside pavement on Carthusian Street to walk to school in the westbound direction from Aldersgate.

In week 1, 381 schoolchildren were observed walking in the westbound direction on Carthusian Street between 8.00am and 9.00am, 289 or 75.85% on the southside pavement, where Tesco servicing activities take place, and 92 or 24.15% on the northside pavement.

Northside pavement:

6 schoolchildren were observed walking in the westbound direction between 8.00am and 8.15am, 27 between 8.15am and 8.30am, 48 between 8.30am and 8.45am and 11 between 8.45 and 9.00am.
Southside pavement:

8 schoolchildren were observed walking in the westbound direction between 8.00am and 8.15am, 77 between 8.15am and 8.30am, 184 between 8.30am and 8.45am and 20 between 8.45 and 9.00am.

In week 2, 312 schoolchildren were observed walking in the westbound direction on Carthusian Street between 8.00am and 9.00am, 250 or 80.13% on the southside pavement and 62 or 19.87% on the northside pavement.

There were 69 fewer schoolchildren observed walking in a westbound direction on Carthusian Street in week 2, which is possibly explained due to half term in nearby schools where some of the children’s siblings are schooled.

Northside pavement:

1 schoolchild was observed walking in the westbound direction between 8.00am and 8.15am, 14 between 8.15am and 8.30am, 43 between 8.30am and 8.45am and 4 between 8.45 and 9.00am.

Southside pavement:

4 schoolchildren were observed walking in the westbound direction between 8.00am and 8.15am, 80 between 8.15am and 8.30am, 139 between 8.30am and 8.45am and 27 between 8.45 and 9.00am.

In the same period in week 1, 12 children were observed walking in the eastbound direction on the northside pavement on Carthusian Street and 62 on the southside pavement towards Aldersgate.

In the same period in week 2, 1 child was observed walking in the eastbound direction on the northside pavement on Carthusian Street and 20 on the southside pavement towards Aldersgate.

It may be likely that these schoolchildren are heading eastbound to use the shops on Aldersgate in the morning.

It should be noted that there were also groups of children observed walking on the southside pavement in the eastbound direction on Carthusian Street, past Tesco, onto Aldersgate, each morning between 9.00am and 9.15am. In week 1, 208 children were observed walking this route and in week 2, 202.

As will be seen from the telephone consultation with the school’s administrator, some children have sports activities in the morning in Golden Lane Leisure Centre and they walk from the school to the sports centre. These trips are organised by the school.

The analysis shows that in week 1 there were 497 schoolchildren using the southbound pavement in both directions on Carthusian Street between 8.00am and 9.15am (6.6 per minute) and 452 (6 per minute) in week 2. This demonstrates a significant volume of
children, in a relatively short time, using the side of the street where Tesco servicing activities take place.

In all instances, the busiest period for schoolchildren pedestrian movements was between 08.30am and 08.45am.

This is important to consider, as Tesco servicing activity was observed to have exceeded the agreed finishing time of 8am on each day during the observation period, in some instances potentially crossing into the peak time for schoolchildren walking in either direction on the southside of Carthusian Street.

**Figure 3: Schoolchildren counts**

**Week 1**

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### SOUTH SIDE PAVEMENT

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**Pedestrians**

This analysis focuses on the number of pedestrians observed walking along both sides of Carthusian Street in both directions on all survey dates between 7.00am and 10.00am Monday to Sunday.

The majority of pedestrians use the southside pavement on Carthusian Street, walking in the westbound direction from Aldersgate.

In week 1, 15916 pedestrians were observed walking in both directions on both sides of Carthusian Street between 7.00am and 10.00am.

**Northside pavement:**

4105 pedestrians or an average of 22.8 per minute were observed walking in the westbound direction and 2445 or an average of 13.6 per minute in the eastbound direction between 7.00am and 10.00am.
Southside pavement:

6192 pedestrians or an average of 34.4 per minute were observed walking in the westbound direction and 3174 or an average of 17.6 per minute in the eastbound direction between 7.00am and 10.00am on the southside of the street, where Tesco servicing activity takes place.

In week 2, 13938 pedestrians were observed walking in both directions on both sides of Carthusian Street between 7.00am and 10.00am.

Northside pavement:

3400 pedestrians or an average of 18.9 per minute were observed walking in the westbound direction and 2009 or an average of 11.2 per minute in the eastbound direction between 7.00am and 10.00am.

Southside pavement:

5483 pedestrians or an average of 30.5 per minute were observed walking in the westbound direction and 3046 or an average of 16.9 in the eastbound direction between 7.00am and 10.00am on the southside of the street where Tesco servicing activity takes place.

This demonstrates significant volumes of pedestrian movement within the area between 0700 and 10.00 am, the majority of which occurs on the south side of Carthusian Street, where Tesco servicing activities also take place.

Again, this is important to consider, as Tesco servicing activity was observed to have exceeded the agreed finishing time of 8am on each day during the observation period, potentially crossing into the peak time for pedestrians walking in either direction on the southside of Carthusian Street.

Figure 4: Pedestrian counts

Week 1

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### 3.2 VIDEO SURVEYING OF LOADING AND UNLOADING ACTIVITY

To develop a detailed understanding of loading and unloading activity relating to the Tesco store, as well as to other premises on Carthusian Street and adjacent Aldersgate, in-depth analysis of video footage was undertaken by TTR’s specialist freight staff.
Although the brief for the project requested video surveying from 7am to 7pm each day within the survey period, full 24hour recordings were in fact made and subsequently analysed in full to understand the extent of ‘out-of-hours’ loading/unloading activity.

The video analysis was supported by the results of the on-site physical audits which included an assessment of activity both within the 7am to 7pm period, as well as shortly before and shortly after.

The results for the loading/unloading surveys are presented below for each individual day of the survey period, along with information on key issues observed relating to that day’s activity.

It should be noted that only vehicles actually observed as being engaged in loading/unloading activity were including in the analysis, meaning that, for example, a commercial vehicle which was merely parked up on Carthusian Street while its driver went to the local newsagent to buy a newspaper, was not included in the results.

This is important, as significant volumes of commercial vehicle movements were observed within the survey, which did not actually involve any loading/unloading. These non-servicing movements (including parking up for the driver to access shops etc) inevitably had an impact on local traffic flow and also on ease of access for those vehicles with legitimate loading/unloading operations.

A single representative day (Wednesday 15th October 2008) was also analysed to record obvious visible parking/waiting offences, i.e. where vehicles were left unattended on the double yellow lines on either side of Carthusian Street, without loading/unloading activity actually occurring. The results of this analysis of offences are also presented within this section.
Date: Monday 13th October 2008

Deliveries

- pre 7am: 15
- post 7pm: 1
Total deliveries: 66

Location

- northside: 7
- southside: 59

Vehicle Type

- 2-axle rigid: 13
- 3-axle rigid: 2
- Artic: 3
- Van: 48

Duration

- 5 minutes or less: 50
- 5-10 minutes: 10
- 10-20 minutes: 4
- 20+ minutes: 2

Premises Serviced

- Others: 61 (5 on Aldersgate)
- Tesco: 5

Main Tesco Delivery

- Arrival: 07:09
- Start unloading/loading: 07:35
- Finish unloading/loading: 09:20
- Departure: 09:32
- Number of store staff assisting driver: 2

Key Issues Observed:

- Noticeable number of commercial vehicles parking in Carthusian Street and then delivering to premises elsewhere or not undertaking loading/unloading activity, merely accessing shops etc.
- Early hours operations (pre-07.00am) appear to be catering trade-related, servicing premises beyond Chamber of Shipping, towards Charterhouse Square

- Tesco pm delivery involved roll cages being queued on the road before being moved across the kerb into the store. Similarly, empty roll cages awaiting loading were queued on the road outside the loading doors.

Image 1 – Early morning, pre-0700 delivery activity in Carthusian St
Date: Tuesday 14th October 2008

Deliveries

- pre 7am: 10
- post 7pm: 0
Total deliveries: 41

Location

- northside: 7
- southside: 34

Vehicle Type

- 2-axle rigid: 7
- 3-axle rigid: 0
- Artic: 2
- Van: 32

Duration

- 5 minutes or less: 30
- 5-10 minutes: 4
- 10-20 minutes: 5
- 20+ minutes: 2

Premises Serviced

- Others: 31 (11 on Aldersgate)
- Tesco: 10

Main Tesco Delivery

- Arrival: 06:49
- Start unloading/loading: 07:03
- Finish unloading/loading: 08:16
- Departure: 08:19
- Number of store staff assisting driver: 2

Key Issues Observed:

- Still dark at 07.06 and Tesco roll cages were queued on the road.
- Queued roll cages on road protruded beyond width of the vehicle
• Tesco vehicle was loaded with empties but not all roll cages would fit. Those unable to be loaded remained in the road unattended until approx. 09.45am

• Tesco pm load delivered during busy pedestrian time with cross-kerb movements

Image 2 - Abandoned rollcages left unattended in Carthusian Street after Tesco main delivery vehicle has departed
Date: Wednesday 15th October

Deliveries

- pre 7am: 18
- post 7pm: 1
Total deliveries: 51

Location

- northside: 6
- southside: 45

Vehicle Type

- 2-axle rigid: 8
- 3-axle rigid: 3
- Artic: 2
- Van: 38

Duration

- 5 minutes or less: 40
- 5-10 minutes: 6
- 10-20 minutes: 2
- 20+ minutes: 3

Premises Serviced

- Others: 40 (9 on Aldersgate)
- Tesco: 11

Main Tesco Delivery

- Arrival: 07:01
- Start unloading/loading: 07:13
- Finish unloading/loading: 08:17
- Departure: 08:20
- Number of store staff assisting driver: 2 (second joined at 07:42)

Key Issues Observed:

- Tesco main delivery involved queuing of roll cages in the road. Still dark at 07.11am and no lighting affixed to roll cages to alert oncoming drivers
• Direct delivery of milk from supplier (11.29am) wheeled along pavement and in through front doors

• On northside (12.17) building products pushed along pavement to other premises
Date: Thursday 16th October

Deliveries

- pre 7am: 23
- post 7pm: 0
Total deliveries: 50

Location

- northside: 11
- southside: 39

Vehicle Type

- 2-axle rigid: 6
- 3-axle rigid: 2
- Artic: 2
- Van: 40

Duration

- 5 minutes or less: 40
- 5-10 minutes: 5
- 10-20 minutes: 2
- 20+ minutes: 3

Premises Serviced

- Others: 41 (7 on Aldersgate)
- Tesco: 9

Main Tesco Delivery

- Arrival: 07:44
- Start unloading/loading: 07:50
- Finish unloading/loading: 08:52
- Departure: 09:06
- Number of store staff assisting driver: 1

Key Issues Observed:

- Particularly heavy traffic noticeable throughout the day, possibly due to incident elsewhere on road network
• Bread delivery direct from supplier arrived before main Tesco at 07.02 am and was pushed along the pavement in the dark

• Main Tesco delivery involved queuing of roll cages in the road

• Tesco pm delivery (1748) involved long queue of roll cages in the road when dark

Image 3 – Supplier direct delivery undertaken along pavement before main Tesco delivery (supplier vehicle indicated with arrow)
Date: Friday 17th October 2008

Deliveries

- pre 7am: 14
- post 7pm: 1
Total deliveries: 41

Location

- northside: 3
- southside: 38

Vehicle Type

- 2-axle rigid: 7
- 3-axle rigid: 2
- Artic: 3
- Van: 29

Duration

- 5 minutes or less: 32
- 5-10 minutes: 4
- 10-20 minutes: 2
- 20+ minutes: 3

Premises Serviced

- Others: 32 (3 on Aldersgate)
- Tesco: 9

Main Tesco Delivery

- Arrival: 07:05
- Start unloading/loading: 07:20
- Finish unloading/loading: 08:04
- Departure: 08:19
- Number of store staff assisting driver: 2

Key Issues Observed:

- Tesco Bread delivery undertaken at same time as main Tesco delivery
- Roll cages were left on the pavement during Tesco loading/unloading
• Member of store staff assisting unloading was without hi-vis clothing

• Direct supplier delivery vehicle ticketed while carrying out Tesco delivery (note: only observed presence from parking enforcement officers throughout full duration of study)

• Tesco pm delivery undertaken in the dark (19.40 to 20.32) without any obvious lighting to warn pedestrians
Date: Saturday 18th October 2008

Deliveries

- pre 9am: 6
- post 7pm: 1
Total deliveries: 11

Location

- northside: 0
- southside: 11

Vehicle Type

- 2-axle rigid: 1
- 3-axle rigid: 1
- Artic: 3
- Van: 6

Duration

- 5 minutes or less: 8
- 5-10 minutes: 2
- 10-20 minutes: 0
- 20+ minutes: 1

Premises Serviced

- Others: 4 (0 on Aldersgate)
- Tesco: 7

Main Tesco Delivery

- Arrival: 08:55
- Start unloading>Loading: unknown
- Finish unloading>Loading: unknown
- Departure: 09:01
- Number of store staff assisting driver: unknown
(Didn’t offload Carthusian Street. Departed and re-appeared Aldersgate to offload)
Key Issues Observed:

- Tesco delivery not carried out on Carthusian Street via loading doors, rather on Aldersgate via shop front doors
- Tesco pm delivery (19.18) undertaken in the dark without lighting or signage to alert pedestrians
Date: Sunday 19th October 2008

Deliveries

- pre 9am: 5
- post 7pm: 2
Total deliveries: 9

Location

- northside: 2
- southside: 7

Vehicle Type

- 2-axle rigid: 1
- 3-axle rigid: 1
- Artic: 1
- Van: 6

Duration

- 5 minutes or less: 7
- 5-10 minutes: 2
- 10-20 minutes: 0
- 20+ minutes: 0

Premises Serviced

- Others: 4 (1 on Aldersgate)
- Tesco: 5

Main Tesco Delivery

- Arrival: none (supplier direct only)
- Start unloading/loading: n/a
- Finish unloading/loading: n/a
- Departure: n/a
- Number of store staff assisting driver: n/a

Key Issues Observed:

- Direct delivery from milk supplier through shop front doors
• Direct bread delivery from supplier wheeled along pavement and into Tesco shop through front doors
Date: Monday 27th October 2008

Deliveries

- pre 7am: 9
- post 7pm: 1
Total deliveries: 32

Location

- northside: 5
- southside: 27

Vehicle Type

- 2-axle rigid: 8
- 3-axle rigid: 2
- Artic: 2
- Van: 20

Duration

- 5 minutes or less: 22
- 5-10 minutes: 3
- 10-20 minutes: 2
- 20+ minutes: 5

Premises Serviced

- Others: 24 (4 on Aldersgate)
- Tesco: 8

Main Tesco Delivery

- Arrival: 07:19
- Start unloading/loading: 07:21
- Finish unloading/loading: 08:43
- Departure: 08:45
- Number of store staff assisting driver: 2

Key Issues Observed:

- Tesco store helper moves roll cages full of packaging out into road before vehicle is offloaded and main delivery is received. Empties and those roll cages containing waste are then loaded onto vehicle
• Not all Tesco staff involved in loading/unloading are wearing hi-vis clothing and direct bread supplier driver pushes trolley while speaking on mobile

• During time Tesco vehicle is present on-site, driver reverses into improved positions on a number of occasions, with each incidence of reversing carrying its own risks

• At 08.21 and shortly after, there are observed near misses/close incidents between cross-kerb delivery and pedestrian flows
Date: Tuesday 28th October 2008

Deliveries

- pre 7am: 7
- post 7pm: 1
Total deliveries: 27

Location

- northside: 2
- southside: 25

Vehicle Type

- 2-axle rigid: 6
- 3-axle rigid: 1
- Artic: 2
- Van: 18

Duration

- 5 minutes or less: 17
- 5-10 minutes: 5
- 10-20 minutes: 2
- 20+ minutes: 3

Premises Serviced

- Others: 20 (2 on Aldersgate)
- Tesco: 7

Main Tesco Delivery

- Arrival: 07:33
- Start unloading/loading: 07:35
- Finish unloading/loading: 08:52
- Departure: 08:59
- Number of store staff assisting driver: 1

Key Issues Observed

- Empty Tesco roll cages and others containing waste queued on the road (07:33am)
• Not all store staff wearing hi-vis clothing while assisting with unloading/loading

• Large number of schoolchildren observed walking towards Aldersgate (via Southside) at 09.06 when loading and unloading of other vehicles taking place

• P&H direct supplier delivery driver not wearing hi-vis clothing and pushing roll cages along the road, across kerb and into Tesco store through front doors
Date: Wednesday 29th October 2008

Deliveries

- pre 7am: 11
- post 7pm: 1
Total deliveries: 29

Location

- northside: 7
- southside: 22

Vehicle Type

- 2-axle rigid: 7
- 3-axle rigid: 1
- Artic: 2
- Van: 19

Duration

- 5 minutes or less: 23
- 5-10 minutes: 2
- 10-20 minutes: 1
- 20+ minutes: 3

Premises Serviced

- Others: 21 (3 on Aldersgate)
- Tesco: 8

Main Tesco Delivery

- Arrival: 07:13
- Start unloading/loading: 07:21
- Finish unloading/loading: 08:25
- Departure: 08:35
- Number of staff assisting driver: 2 (one joining mid-operation)

Key Issues Observed

- Roll cages containing waste rolled out and queued in road before main Tesco delivery received (0713)
• Not all store staff wearing hi-vis clothing while assisting with unloading/loading
• Roll cages queued in road for Tesco pm delivery (1910)
Date: Thursday 30th October 2008

Deliveries

- pre 7am: 4
- post 7pm: 1
Total deliveries: 27

Location

- northside: 2
- southside: 25

Vehicle Type

- 2-axle rigid: 4
- 3-axle rigid: 1
- Artic: 3
- Van: 19

Duration

- 5 minutes or less: 20
- 5-10 minutes: 3
- 10-20 minutes: 1
- 20+ minutes: 3

Premises Serviced

- Others: 20 (2 on Aldersgate)
- Tesco: 7

Main Tesco Delivery

- Arrival: 07:15
- Start unloading/loading: 07:19
- Finish unloading/loading: 08:13
- Departure: 08:18
- Number of store staff assisting driver: 2

Key Issues Observed:

- Direct bread supplier delivery carried out through Tesco store front door
- Not all store staff wearing hi-vis clothing while assisting unloading/loading
**Date: Friday 31st October**

**Deliveries**

- pre 7am: 7
- post 7pm: 1

Total deliveries: 33

**Location**

- northside: 4
- southside: 29

**Vehicle Type**

- 2-axle rigid: 9
- 3-axle rigid: 2
- Artic: 2
- Van: 20

**Duration**

- 5 minutes or less: 22
- 5-10 minutes: 8
- 10-20 minutes: 1
- 20+ minutes: 2

**Premises Serviced**

- Others: 27 (0 on Aldersgate)
- Tesco: 6

**Main Tesco Delivery**

- Arrival: 07:07
- Start unloading/loading: 07:09
- Finish unloading/loading: 07:54
- Departure: 08:01
- Number of store staff assisting driver: 2

**Key Issues Observed:**

- Direct bread supplier delivery (08.40) observed being wheeled length of Carthusian Street and delivered through Tesco store front doors
• Delivery vehicle door (10.29) observed being left wide open partly blocking pavement for pedestrians
Date: Saturday 1st November

Deliveries

- pre 9am: 5
- post 7pm: 1
Total deliveries: 10

Direction

- northside: 1
- southside: 9

Vehicle Type

- 2-axle rigid: 1
- 3-axle rigid: 0
- Artic: 3
- Van: 6

Duration

- 5 minutes or less: 9
- 5-10 minutes: 0
- 10-20 minutes: 0
- 20+ minutes: 1

Premises Serviced

- Others: 4 (1 on Aldersgate)
- Tesco: 6

Main Tesco Delivery

- Arrival: 08:43
- Start unloading/loading: unknown
- Finish unloading/loading: unknown
- Departure: 08:45
- Number of store staff assisting driver: unknown
  (didn’t offload Carthusian Street, re-appeared Aldersgate Street to offload)

Key Issues Observed:

- Tesco main delivery vehicle arrived in Carthusian Street but did not
  offload, moving on to offload via front doors using Aldersgate
• Direct bread supplier delivery wheeled along pavement and in through Tesco front doors

• Direct milk delivery wheeled across kerb and delivered in through front doors

• Tesco pm delivery (19.57) undertaken in the dark without obvious lighting or warning to pedestrians
Date: Sunday 9th November

Deliveries

- pre 9am: 3
- post 7pm: 1
Total deliveries: 7

Location

- northside: 2
- southside: 5

Vehicle Type

- 2-axle rigid: 1
- 3-axle rigid: 2
- Artic: 1
- Van: 3

Duration

- 5 minutes or less: 7
- 5-10 minutes: 0
- 10-20 minutes: 0
- 20+ minutes: 0

Premises Serviced

- Others: 3 (0 on Aldersgate)
- Tesco: 4

Main Tesco Delivery

- Arrival: no main Tesco delivery – direct supplier only (bread/milk)
- Start unloading/loading: n/a
- Finish unloading/loading: n/a
- Departure: n/a
- Number of store staff assisting driver: n/a

Key Issues Observed:

- Both bread and milk deliveries undertaken by suppliers were presented through the Tesco store’s front doors.
3.3 SUMMARY OF KEY ASPECTS OF LOADING AND UNLOADING OBSERVATIONS IN CARTHUSIAN STREET

The summary findings of the loading and unloading observations are:

- Loading and unloading activity does take place in Carthusian Street before 07.00 for a range of premises (located both in Carthusian Street and on Aldersgate), particularly catering premises located towards Charterhouse Square.

- The majority of vehicles use the southside of Carthusian Street for loading and unloading activity.

- The majority of delivery and servicing activity is undertaken by vans.

- There is extensive use of Carthusian Street for waiting/parking, particularly by vans left stationary with hazard warning lamps flashing, without any loading/unloading activity actually occurring.

- Tesco deliveries/collections are undertaken by larger vehicles (predominantly 2 axle rigid and articulated vehicles), taking, on average, longer than one hour to load/unload.

- Most other loading/unloading within Carthusian Street is completed in 5 minutes or less.

- The Tesco store does also receive an evening delivery at selected times throughout the week. Although the risk to schoolchildren does not exist with this delivery, it is undertaken across the kerb and was observed being carried out in darkness while pedestrians continued to use the southside pavement.

- There are identified instances of drivers parking in Carthusian Street to deliver to other premises on Aldersgate (other than to the Tesco store front doors). The extent of this activity varied from day to day, ranging from 0 observed vehicles on certain survey days to greater than 25% of all deliveries observed on a specific day using Carthusian Street for parking while servicing premises on Aldersgate. This activity is felt to be as a result of the loading restrictions currently in place on Aldersgate. If these restrictions were to be removed, it is likely that this displacement of vehicles could be reduced.

- The number of store staff assisting with unloading of the Tesco delivery vehicle has relatively limited impact on the overall time taken to complete the delivery. In most cases, two store staff assisted the driver with vehicle offloading. In a number of cases, one store staff member started the operation, with a second store staff member joining later (presumably when they became available having completed other duties). Although unloading with only one store staff member took longer, in most cases unloading with two store staff members still took longer than one hour to complete. The time taken to complete unloading (and then subsequent loading of empty roll cages) is obviously dependent on the number of units to be delivered/collected.

- Likely due to limited space within the store, at the beginning of each morning delivery operation, empty roll cages and roll cages filled with waste packaging are brought out of the store room and queued on the road in Carthusian Street. This creates
sufficient space for receipt of the delivery and, once the vehicle has been offloaded, the empty/waste roll cages can be loaded (from the road).

3.4 TESCO COMPLIANCE WITH LOCAL AGREEMENTS

It is clear from the daily analysis presented above that, on each weekday throughout the duration of the observation period, Tesco failed to comply with the requirement to carry out its weekday delivery between 07.00 and 08.00. On one occasion, the delivery was completed (i.e. the vehicle departed) almost on time, at 08.01, whereas on other occasions, the delivery was not completed until well after 09.00.

In terms of the weekend agreement, requiring delivery after 0900, on both Saturdays it was observed that the main Tesco delivery vehicle arrived in Carthusian Street shortly before 0900 only to move on without off-loading and then re-appearing shortly afterwards to offload via Aldersgate through the shop’s front doors. This is thought to be as a result of the loading restrictions on Aldersgate not being applicable at the weekend. However, on one of the Saturdays it was observed that the Tesco delivery vehicle offloading on Aldersgate encroached into an adjacent bus stop, leading to a subsequent dispute with a bus driver.

No Tesco own vehicle deliveries were observed on Sundays.

Direct deliveries from the store’s bread supplier were observed as occurring both before the main Tesco delivery and at the same time as it, bearing in mind the local agreement requires supplier deliveries to take place after the main delivery.

Image 4 – Late departure of Tesco vehicle following completion of main delivery
3.5 OBSERVED PARKING/WAITING OFFENCES ON CARTHUSIAN STREET

During analysis of the video footage of vehicle movements throughout the survey period, it was observed that a significant number of drivers (of cars and vans predominantly) park on the double yellow lines on both sides of Carthusian Street (southside predominantly) and leave their vehicles unattended, with hazard warning lamps flashing, to access local premises, with no loading or unloading activity actually taking place.

To highlight this issue, 24hour footage from a representative survey day, Wednesday 15th October 2008, was reviewed again and a tally was kept of obvious visible offences (where vehicles were left unattended on double yellow lines with no loading/unloading occurring).

A total of 19 easily identifiable instances of offences being committed were observed on that day. 10 of these involved vans. 5 of these were directly related to the refurbishment of the premises on the northside of Carthusian Street, opposite the Tesco storeroom doors.

The results for vehicles left unattended, not engaged in loading/unloading activity are presented below:

<table>
<thead>
<tr>
<th>Arrival Time</th>
<th>Departure Time</th>
<th>Vehicle Type</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.59</td>
<td>06.02</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>05.59</td>
<td>06.04</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>06.18</td>
<td>06.25</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>06.57</td>
<td>06.59</td>
<td>Van</td>
<td></td>
</tr>
<tr>
<td>07.12</td>
<td>07.16</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>08.03</td>
<td>08.08</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>09.20</td>
<td>11.52</td>
<td>Van</td>
<td>Moved at 10.19, accessed refurbished premises</td>
</tr>
<tr>
<td>09.36</td>
<td>10.25</td>
<td>Van</td>
<td></td>
</tr>
<tr>
<td>12.05</td>
<td>13.02</td>
<td>Van</td>
<td>Accessed refurbished premises</td>
</tr>
<tr>
<td>13.14</td>
<td>13.16</td>
<td>Van</td>
<td></td>
</tr>
<tr>
<td>14.02</td>
<td>15.39</td>
<td>Van</td>
<td>Accessed refurbished premises</td>
</tr>
<tr>
<td>15.38</td>
<td>15.46</td>
<td>Car</td>
<td>Taxi</td>
</tr>
<tr>
<td>16.18</td>
<td>17.09</td>
<td>Van</td>
<td>Accessed refurbished premises</td>
</tr>
<tr>
<td>18.10</td>
<td>19.34</td>
<td>Van</td>
<td></td>
</tr>
<tr>
<td>19.16</td>
<td>19.19</td>
<td>Van</td>
<td></td>
</tr>
<tr>
<td>19.57</td>
<td>20.01</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>? Unclear – pre 20.00</td>
<td>21.46</td>
<td>Van</td>
<td>Accessed refurbished premises</td>
</tr>
<tr>
<td>22.14</td>
<td>22.20</td>
<td>Car</td>
<td></td>
</tr>
<tr>
<td>22.46</td>
<td>22.54</td>
<td>Car</td>
<td></td>
</tr>
</tbody>
</table>

Increased targeted parking enforcement throughout the day could help to reduce the number of instances of offences being committed, acting as a deterrent to car and van drivers inclined to leave their vehicles unattended without a valid delivery/servicing-related purpose. This, in turn, could also help to free up available space for vehicles with legitimate loading/unloading-related reasons for stopping on Carthusian Street.
3.6  TELEPHONE CONSULTATION WITH THE ADMINISTRATOR AT CHARTERHOUSE SQUARE SCHOOL

To obtain first hand information on schoolchildren’s experiences walking to school on Carthusian Street, it was felt that The Charterhouse Square School could provide useful insight as a key stakeholder in the voluntary agreements between the City of London, local residents and Tesco.

A telephone discussion with the school’s Administrator took place on Friday, 21st November between 2.00pm and 2.30pm.

The views expressed by the Administrator during the conversation:

1. In the morning there are large Tesco lorries on Carthusian Street and sometimes, admittedly rarely, roll cages are left on the pavement which can pose a hazard for children walking to school on the southside pavement.
2. There is poor visibility on Carthusian Street because of Tesco lorries, increasing potential risk to small children.
3. The school would like deliveries to finish by 8.00am, as per the local agreement.
4. The school has observed that Tesco lorries are still on the street after 8.00am
5. The busiest time for children arriving in the area is between 8.05am - 8.10am and 9.00am.
6. The school opens in the morning between 8.30am and 8.45am and the children are required to get to school between these times. There are frequently latecomers.
7. There are 2 classes of schoolchildren on Mondays, Tuesdays and Thursdays and 1 class on Wednesdays and Fridays who attend sports activities in Golden Lane Leisure Centre. Between 9.00am and 9.15am schoolchildren walk accompanied on the southside pavement in the eastbound direction on Carthusian Street towards Aldersgate, they turn right at the Tesco store and continue to the Barbican Tube station, where they use the walkway to get across Aldersgate on their way to the sports centre.
8. There have been no incidents involving the schoolchildren and Tesco lorries but there was recently an accident between a taxi and a schoolgirl at around 8.30am to 8.35am which was luckily only a minor incident.
9. It is an opinion of the school that a zebra crossing on Carthusian Street is a necessity to maintain the safety of the schoolchildren in the busy traffic area.
10. Children go home from school between 3.00pm and 3.30pm and there are no Tesco lorries on Carthusian Street at this time in the afternoon.

It was apparent from the conversation that the school would like Tesco to complete its servicing activities each morning by 8.00am to minimise potential hazards to schoolchildren walking to school. The school would also like to see an introduction of a zebra crossing because of heavy volumes of traffic on Carthusian Street, although no specific location was mentioned. The school considers child safety of paramount importance and believes that if the store could complete deliveries on time it would help to provide a safe journey for children to school.

3.7  FACE-TO-FACE MEETING WITH TESCO STORE MANAGER

A meeting with Tesco’s store manager took place on Tuesday 11th November 2008 between 3.00pm and 4.00pm to discuss delivery activities to the store.

A request for the meeting came from the client to find out if Tesco are meeting the objectives of the agreement between City of London, local residents, The Charterhouse Square School
and Tesco. The main focus of the meeting was to establish if the objective of completing the delivery by 8.00am is working for Tesco, what could be done to make deliveries easier, what would be the impact of delaying deliveries until after 9.00am and what is Tesco’s view of deliveries before 8.00am or starting after 9.00am.

The views expressed by the Store Manager in the interview:

1. When Tesco started trading in these premises 2.5 years ago, deliveries took place at 5.00am, meaning all fresh products could be on shelves by 8.00am. 1.5 years ago the residents moved into the flats above the Tesco store and started complaining about the noise of delivery activities on Carthusian Street early in the morning.
2. In March 2008, City of London requested that Tesco start deliveries at 7.00am which meant revisiting the distribution patterns for the store.
3. Because of the nearby Charterhouse School children use Carthusian Street to walk to school. Deliveries must therefore be completed by 8.00am to protect the safety of passing children. If children are present when the morning delivery takes place, then the tail lift delivery stops to allow children to walk past before it restarts.
4. Tesco have made modifications to the store delivery floor surface area and roll cage wheels to reduce the noise of roll cages being pushed through the store.
5. Tesco feel that the morning delivery times between 7.00 and 8.00am do not really work for them but they believe in a good neighbour policy and are doing what they have agreed to do.
6. Tesco feel that they have to cope with the permitted delivery time allocated to them. The store manager said that, as a result of the 7.00 to 8.00am delivery time restriction, the store is losing £10,000 worth of sales each week because the new delivery pattern has affected his trading pattern. Fresh products being delivered in the morning are not actually on the shelves in time to catch the morning trade.
7. Ideally, Tesco would like to start delivering at 5.00am which would help the operational aspect of filling the store, giving customers what they want at the time they want it and also avoiding the passing schoolchildren. They could also deliver through the night.
8. To have all morning deliveries after 9.00am would not be viable.
9. Tesco have a weekly delivery log for monitoring deliveries from suppliers.
10. A new delivery schedule ‘Deliveries & Good Neighbourhood’ has been produced to take account of the agreement between City of London, residents, Charterhouse School and Tesco. According to the schedule, there are no deliveries taking place between 9.30am and 6.00pm.

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Days</th>
<th>Times</th>
<th>Risk Assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harlow</td>
<td>Monday – Friday</td>
<td>7.00am – 8.00am</td>
<td>Carthusian Street</td>
<td>Main Tesco delivery of fresh products, 18-19 roll cages</td>
</tr>
<tr>
<td>Harlow</td>
<td>Saturday – Sunday</td>
<td>9.00am</td>
<td>Aldersgate</td>
<td>Smaller Tesco delivery, 8-9 roll cages</td>
</tr>
<tr>
<td>British Bakeries</td>
<td>Monday – Sunday</td>
<td>7.30am</td>
<td>Aldersgate</td>
<td>Supplier delivery on trays, 10 min</td>
</tr>
<tr>
<td>Palmer &amp; Harvey (frozen foods)</td>
<td>Monday – Saturday</td>
<td>9.00am</td>
<td>Carthusian Street</td>
<td>Supplier delivery on trays, 10-15 min, not on Tuesdays</td>
</tr>
<tr>
<td>Arla Foods (milk)</td>
<td>Monday – Sunday</td>
<td>9.30am</td>
<td>Aldersgate</td>
<td>Supplier delivery on trays, 10 min</td>
</tr>
<tr>
<td>Bradgate (sandwiches)</td>
<td>Monday – Thursday</td>
<td>8.00am</td>
<td>Aldersgate</td>
<td>Supplier delivery on trays brought into the shop</td>
</tr>
<tr>
<td>Thurrock (ambient)</td>
<td>Monday – Saturday</td>
<td>6.00pm – 11.00pm</td>
<td>Carthusian Street</td>
<td>Smaller Tesco delivery, 8-12 roll cages</td>
</tr>
</tbody>
</table>
It can be seen that Tesco are finding it hard to comply with the agreement of morning deliveries between 7.00am and 8.00am mainly because of:
- the limited time available for servicing the store and
- the presence of schoolchildren walking on the pavement near the store means that the delivery is (reportedly) stopped to allow children to walk to school.

Tesco would potentially benefit from night time deliveries or deliveries taking place from 6.30am. This would reduce the potential conflict with schoolchildren and would, in theory, allow enough time to complete the servicing activity by 8.00am each day.
4 TESCO LOADING/UNLOADING - RISK ASSESSMENT

TTR’s ‘PRAM’ (Project Risk Analysis and Management) process has been used on a wide range of projects for clients to assess the risks of implementation of various measures or actions.

The process is deemed suitable to use within this study, to assess the risks related to loading and unloading at the Tesco Aldersgate store, observed during the survey period.

4.1 THE TTR PRAM PROCESS

Risk management is a formal process enabling the identification, assessment, planning and management of risks associated with an activity.

The BS6079 definition of ‘risk’ is ‘a combination of the probability, or frequency, of an occurrence of a defined threat or opportunity and the magnitude of the consequences of the occurrence.’

TTR’s PRAM process (which is outlined in more detail in Annex A) has been designed to identify, assess, mitigate and plan risks.

Figure 5 below illustrates the key stages of TTR’s PRAM process;

Figure 5: TTR PRAM Process
Step 1 - Define & Focus

The process to be applied within this specific risk assessment has been agreed with the client and is expected to cover loading and unloading operations at the Tesco Aldersgate store, relating to both deliveries/collections undertaken by Tesco’s own vehicles and those carried out directly by Tesco’s suppliers.

Step 2 - Risk Identification

The second stage of the PRAM process involves identifying all risks associated with the activities or tasks. This includes actual risks observed and those other potential risks which have not specifically been observed but which could, potentially, be associated with the activity. The range of parties likely to be exposed to the variety of risks is also to be identified.

The risks identified relating to loading and unloading activity at the Tesco Aldersgate store are:

Risk R1: Pedestrian injury (including schoolchildren) from Tesco own cross-kerb loading/unloading in peak periods

Risk R2: Pedestrian injury from Tesco own cross-kerb loading/unloading during evening

Risk R3: Pedestrian or other road user injury from Tesco own roll cages queued on road

Risk R4: Pedestrian or other road user injury from Tesco own vehicle reversing within Carthusian Street

Risk R5: Pedestrian injury from supplier deliveries wheeled along pavements

Step 3 - Risk Assessment

The third stage of the PRAM process requires a qualitative assessment of each identified risk to be carried out and involves scoring each in terms of probability and impact.

Results of the assessment are visually represented in a Probability and Impact (P-I) Grid and listed in a risk register (Annex B).

Where, for example, the probability of a risk is deemed to be high (it is likely to occur and may occur frequently) and the impact (in terms of severity and likely personal injury) is also deemed high, that particular risk would be given a red ‘High Risk – Urgent Attention’ rating.

The assessments for the risks identified in Step 2 above follow in sequence below:

Risk R1: Pedestrian injury (including schoolchildren) from Tesco own cross-kerb loading/unloading in peak periods

Image 5 - Tesco main cross-kerb delivery activity
Risk R1, involving potential injury to pedestrians (including schoolchildren) due to Tesco’s own loading/unloading activity has been assessed as a Medium Probability and a Medium Impact.

To date, there appears to be no recorded incident involving a pedestrian and basic procedures appear to be in place to prevent an incident, such as drivers and staff (some, if not always all, wearing hi-vis clothing), a Tesco own risk assessment which has been carried out and observing driver/unloading staff checking pedestrian presence before moving roll cages or exiting the storeroom.

Nevertheless, current practices whereby the vehicle is offloaded in peak pedestrian periods (particularly peak schoolchildren pedestrian movements in the mornings) means the likelihood of pedestrian injury must be seriously considered.

The impact of pedestrian injury would also be significant, meriting a medium rating on the impact scale.

This gives risk R1 an overall rating of Medium Risk (as per the P-I Grid below) and the requirement for regular review to assess if the risk has increased.
Risk R2: Pedestrian injury from Tesco own cross-kerb loading/unloading during evening

Image 6 – Tesco evening cross-kerb delivery, with roll cages queued on road in Carthusian St
Risk R2, involving potential injury to pedestrians due to Tesco’s own loading/unloading activity during the evening has been assessed as a Medium Probability and a Medium Impact.

To date, there appears to be no recorded incident involving a pedestrian and very basic procedures appear to be in place to prevent an incident, such as drivers and staff (some, if not always all, wearing hi-vis clothing) and a Tesco own risk assessment which has been carried out.

Nevertheless, current practices whereby the vehicle is offloaded and goods delivered across the kerb during the evening (in darkness for many months of the year), when there is still a significant pedestrian presence on Carthusian Street, means the likelihood of pedestrian injury must be seriously considered.

The impact of pedestrian injury would also be significant, meriting a medium rating on the impact scale.

This gives risk R2 an overall rating of Medium Risk (as per the P-I Grid below) and the requirement for regular review to assess if the risk has increased.

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**Risk R3**: Pedestrian or other road user injury from Tesco own roll cages queued on road

Image 7 – Tesco roll cages (empty and containing waste) queued on road in Carthusian Street
Risk R3, involving pedestrian or other road user injury from Tesco own roll cages being queued on the road at the beginning and throughout the unloading/loading operation has been assessed as a High Probability and a High Impact.

To date, although there is no evidence of an incident involving a pedestrian, motorist or other road user related to the queuing of the roll cages, this practice occurs with each and every Tesco own delivery undertaken, encroaching on available road space, often within close proximity to the corner of Carthusian Street and Aldersgate, limiting pedestrian visibility and driver response time. This practice also occurs regularly in darkness (morning deliveries during winter months and in the evenings) without illumination of the roll cages. Harsh braking by motorists turning into Carthusian Street to avoid collision with the units was observed during the video analysis.

The likely impact of an incident involving the queued roll cages and a pedestrian, motorist or other road user is considered to be High Impact. These are metal handling units present within the road on what is a busy pedestrian thoroughfare and traffic through-route, without illumination to warn motorists or pedestrians of their presence. If a collision between a vehicle and the roll cages were to occur, it is likely that the stacked queue of handling units would be scattered across the road and the pavement, posing additional risks to other third parties.

This gives risk R3 an overall assessment of High Risk (as per the P-I grid below) and the need to give this risk urgent attention.
Risk R4: Pedestrian or other road user injury from Tesco own vehicle reversing within Carthusian Street

Risk R4, involving potential injury to pedestrians or other road users by a Tesco own vehicle reversing within Carthusian Street has been given a Medium Probability and High Impact.

To date, there is no evidence to indicate an incident involving a Tesco own vehicle reversing into position outside the storeroom doors on Carthusian Street. However, due to the timing of the Tesco main delivery and the busy nature of Carthusian Street, in terms of pedestrians, motorists and other road users at that time, reversing of a Tesco articulated goods vehicle (both to get into position at the beginning of the operation and, as observed during the video analysis, to secure an improved position mid-way during the operation) poses a frequent risk to third parties.

The impact of an incident involving a reversing Tesco articulated vehicle would be High. This could involve personal injury to pedestrians (including schoolchildren) and other road users, as well as damage to vehicles travelling on Carthusian Street, as well as those vehicles stationary in the adjacent area.

This gives risk R4 an overall risk assessment of Medium Risk (as per the P-I Grid below) and the requirement for regular review to assess if the risk has increased.
### Risk R5: Pedestrian injury from supplier deliveries wheeled along pavements

Image 8 – Supplier deliveries wheeled along pavements, direct into store (supplier delivery vehicle indicated with arrow)
Risk R5, involving the potential for pedestrian injury from supplier deliveries wheeled along pavements, has been assessed as a High Probability and a Medium Impact.

During the survey period, it was observed that direct supplier deliveries, particularly of bread and milk, involve products being wheeled (in roll cages and on roller trays) along Carthusian Street for delivery to the Tesco store, via its front doors.

This delivery through the front doors is undertaken to allow the products to be placed on shelves, ready for sale in the shortest possible timeframe, without spending time moving through the storeroom.

It was observed that this activity occurred each and every day of the survey period, therefore posing a frequent risk to pedestrians, with an associated increased probability of an incident occurring.

The impact of an incident involving supplier deliveries wheeled along the pavement could be significant, potentially involving personal injury in the event of a collision between a roll cage and a pedestrian (possibly caused by limited visibility of the delivery driver pushing/pulling the handling unit).

This gives risk R5 an overall risk assessment of Medium Risk (as per the P-I Grid below) and the requirement for regular review to assess if the risk has increased.

Step 4 - Risk Planning

Following the risk assessment, the next stage in the PRAM process involves developing a risk reduction plan. Each identified risk is addressed by one of the following reduction strategies:
• Eliminate uncertainty (avoid): activities are no longer to take place
• Reduce to “acceptable” (mitigation): activities with high/medium risks that can be mitigated by a variety of measures. In such cases, risks will be reduced to an acceptable level and regularly reviewed.
• Accept and manage residual risk (control): activities associated with low risks will be accepted, but reviewed and re-assessed at agreed intervals.

Each risk is recorded in a risk register (see Annex B), created to contain a summary of each risk identified and the response strategy developed. This register is also used to record and monitor ownership, response and action that will be assigned to each risk.

The risk reduction strategies applicable to the risks identified in Step 2 are:

Risk R1: Pedestrian injury (including schoolchildren) from Tesco own cross-kerb loading/unloading in peak periods

To significantly reduce the risk of pedestrian injury, Tesco loading and unloading could be removed from the morning peak period. Moving delivery activity to later in the morning would reduce risk (due to reduced pedestrian flows) but potentially not significantly. Moving delivery activity to earlier in the morning (pre-7.00am) could help to reduce risk significantly as pedestrian movements would be far fewer. However, although this could reduce risk of pedestrian injury, it may have an adverse environmental impact on local residents.

To reduce current risk levels, while operating within the timeframe of the local agreement, mitigation measures should be considered and implemented within the operation, for example, all loading/unloading staff must wear hi-vis clothing, one member of staff be responsible for marshalling movements, rather than being involved in actual manual handling, lighting to be used to illuminate delivery area and roll cages when early morning activity is underway during winter months and/or use of audible warning alarms to alert pedestrians.

A combination of these measures would be expected to reduce the risk to a Low Risk assessment, requiring ongoing monitoring.

Risk R2: Pedestrian injury from Tesco own cross-kerb loading/unloading during evening

It is unrealistic to suggest that all Tesco loading and unloading activity should only be undertaken during daylight hours. However, to significantly reduce the risk of pedestrian injury as a result of loading/unloading activity undertaken during the evening (and, for many months of the year, therefore in darkness), mitigation measures should be considered and implemented within the operation.

These mitigation measures would include all staff involved in loading/unloading being required to wear hi-vis clothing and lighting being used to illuminate the delivery area and the roll cages, to alert pedestrians of loading and unloading activity. A member of store staff could also be used to marshal roll cage movements across the kerb, rather than being directly involved in their movement. This marshalling would ensure that cross-kerb movements only take place when the adjacent pavement is clear of pedestrians.

These measures would be expected to reduce the risk to a Low Risk assessment, requiring ongoing monitoring.

Risk R3: Pedestrian or other road user injury from Tesco own roll cages queued on road
Throughout the 2 week loading and unloading survey period, it was observed that each Tesco own vehicle delivery commenced with roll cages (both empty and containing waste packaging) being moved out of the storeroom, across the kerb and then queued behind the vehicle on the road in Carthusian Street. These roll cages remain in this position for the duration of the unloading activity until they are then loaded onto the empty Tesco vehicle (in one instance, surplus roll cages which were unable to be loaded on the Tesco vehicle due to lack of space were left standing on the road, unattended, even after the Tesco vehicle had departed).

It is felt that this practice of queuing roll cages on the road in both daylight and darkness poses a High Risk to pedestrians and other road users and requires urgent attention.

To remove this risk entirely, Tesco should cease to queue the roll cages on the road at the beginning of the unloading operation. Roll cages should remain within the premises until vehicle unloading has been completed, when they would then be wheeled out of the storeroom, across the kerb, to be loaded directly onto the vehicle. The risk associated with this cross-kerb movement (and associated mitigation measures) would then be equivalent to those for R1 and R2.

It is likely that Tesco carries out this practice due to limited space within its storeroom and may suggest that receiving offloaded goods would not be possible without first moving empty roll cages and those containing waste packaging out of the storeroom to create sufficient space for inbound goods.

Although by no means recommended, if this ongoing practice is deemed acceptable, then it is imperative that mitigation measures are used to reduce the risk from High to Low. These measures include use of lighting to illuminate the roll cages during the hours of darkness (and to indicate a potential hazard during daylight hours) to ensure they are visible to pedestrians, motorists and other road users, as well as instructions to drivers and store staff to ensure roll cages are not queued in close proximity to the corner of Carthusian Street and Aldersgate and also that they must not protrude beyond the width of the vehicle. All roll cages should have brakes and these should be applied when queued on the road to ensure roll cages remain in position.

A combination of these measures employed would be expected to reduce the risk to a Low Risk assessment, requiring ongoing monitoring.

*Risk R4: Pedestrian or other road user injury from Tesco own vehicle reversing within Carthusian Street.*

Tesco own vehicle reversing occurs frequently to manoeuvre the vehicle to an appropriate position adjacent to the storeroom doors on Carthusian Street, enabling unloading activity to commence. On some occasions, reversing also occurs during unloading operations to enable the vehicle to access an improved position in closer proximity to the storeroom doors than was originally secured when the vehicle first arrived on site.

Basic safety measures are already employed when the Tesco own vehicles reverse, including use of hazard warning lamps (flashing) and use of audible vehicle reversing alarms. However, the potential impact of an incident involving a Tesco own vehicle reversing is deemed sufficiently significant to merit additional measures to further mitigate existing risk.

It would be unrealistic to expect Tesco to completely avoid articulated vehicle reversing, i.e. by suggesting vehicles could only reposition by driving forward, rather than by reversing. However, in all cases when Tesco own vehicles are reversing, it is recommended that a trained banksman (i.e. a trained store staff member), wearing hi-vis clothing, be used to
provide instructions to the vehicle driver. The role of the banksman would be to observe pedestrian and other road user activity to the rear of the vehicle and to advise the driver (using standardised hand signals) when it is safe to reverse.

Employment of a trained banksman would be expected to reduce the risk to a Low Risk assessment, requiring ongoing monitoring.

**Risk R5: Pedestrian injury from supplier deliveries wheeled along pavements**

Deliveries direct from suppliers to the Tesco store occur daily. To significantly reduce the risk of injury to pedestrians, Tesco could stipulate that supplier direct deliveries should not be received through the front doors of the store, rather using the storeroom doors on Carthusian Street, thereby reducing the distance products are pushed along the pavements in potential direct conflict with pedestrians.

Delivering through the storeroom doors would still require cross-kerb activity but would reduce the risk to the equivalent level of R1 & R2 and could be further mitigated by the relevant measures described for these risks, above.

Tesco may suggest that receiving these direct supplier deliveries through the storeroom doors is impractical and their preference would be to continue to instruct suppliers to deliver through the store front doors. If that is deemed acceptable, then it is recommended that additional measures are implemented to reduce the risk of collision with a pedestrian.

The delivery operative moving the handling unit along the pavement should, on all occasions, wear hi-vis clothing. Linked to this, the roll cage, roller tray or other handling unit should also be made clearly visible to pedestrians (of particular importance for deliveries in darkness during winter months). Due to the limited field of vision of the delivery operative moving the handling unit along the pavement, it is recommended that a member of store staff (also wearing hi-vis clothing) accompanies the delivery movement, alerting pedestrians, as required.

Employment of a combination of these measures would be expected to reduce the risk to a Low Risk assessment, requiring ongoing monitoring.

**Step 5 - Risk Management**

The final stage of the TTR PRAM process involves production of a Risk Management Plan.

This Plan names each identified risk and is designed to enable regular risk reviews to be undertaken by agreed parties to assess whether or not levels of risk have increased, decreased or remained constant in light of any observed/reported incidents in the intervening periods. Additional risks identified over time should also be added to the Risk Management Plan and corresponding risk register.

When mitigation measures are introduced to manage current risks, ongoing monitoring is necessary.

The plan contains suitable review periods where stakeholders will assess and update the risk register, as necessary.

The proposed Risk Management Plan developed within this study is outlined below and refers to the risk register (Annex B).
It should be noted that this suggested Risk Management Plan which would require buy-in from each named party to agree to involvement in the risk reviews.

<table>
<thead>
<tr>
<th>Named Risk</th>
<th>Risk Register Review Period</th>
<th>Parties involved in Risk Register Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk R1</strong>: Pedestrian injury (including schoolchildren) from Tesco own cross-kerb loading/unloading in peak periods</td>
<td>Quarterly</td>
<td>Tesco Aldersgate (and Tesco distribution representatives), City of London, Charterhouse School</td>
</tr>
<tr>
<td><strong>Risk R2</strong>: Pedestrian injury from Tesco own cross-kerb loading/unloading during evening</td>
<td>Quarterly</td>
<td>Tesco Aldersgate (and Tesco distribution representatives), City of London</td>
</tr>
<tr>
<td><strong>Risk R3</strong>: Pedestrian or other road user injury from Tesco own roll cages queued on road</td>
<td>Immediately Then Quarterly</td>
<td>Tesco Aldersgate (and Tesco distribution representatives), City of London and other relevant stakeholders (potentially including City of London Police Road Policing Unit)</td>
</tr>
<tr>
<td><strong>Risk R4</strong>: Pedestrian or other road user injury from Tesco own vehicle reversing within Carthusian Street</td>
<td>Quarterly</td>
<td>Tesco Aldersgate (and Tesco distribution representatives), City of London and other relevant stakeholders (potentially including City of London Police Road Policing Unit)</td>
</tr>
<tr>
<td><strong>Risk R5</strong>: Pedestrian injury from supplier deliveries wheeled along pavements</td>
<td>Quarterly</td>
<td>Tesco Aldersgate (and potentially Tesco distribution representatives), bread and milk supplier representatives, City of London (and potentially City of London Police Road Policing Unit)</td>
</tr>
</tbody>
</table>
5 RECOMMENDATIONS

Building on the risk assessment process outlined in the previous chapter, the project team has developed a set of proposed recommendations designed to help improve the safety and efficiency of loading/unloading operations at the Tesco Aldersgate store.

- A revision of the current agreement to allow 06.30am start time for weekday delivery (allowing 1 hr 30 mins for loading/unloading which would be sufficient for majority of loading/unloading operations observed) – this would help to ensure the vehicle would have departed, ideally by 08.00am, before the time when the most significant schoolchildren pedestrian movements are observed. This proposed 06.30am start time is not inconsistent with the current extent of pre-07.00am loading/unloading activity already undertaken in Carthusian Street, servicing other premises

- Negotiations with Tesco Regional Distribution Centre managers to improve punctuality of vehicles

- Negotiations with Tesco store to ensure store staff are immediately available to assist with offloading, once vehicle arrives

- Advance communication from vehicle/driver to alert store of imminent arrival with offloading, once vehicle arrives

- Improved signage for pedestrians to explain loading/unloading underway

- Improved lighting (particularly for roll cages) for loading/unloading in darkness

- Use of audible warning devices to alert pedestrians to loading/unloading operations underway (to be used after an agreed time to reduce impact on local residents)

- Use of a banksman (trained store staff member) in all instances when vehicles are reversing

- Negotiations with Tesco store to ensure that all staff involved in cross-kerb loading/unloading operations wear appropriate hi-vis clothing

- Negotiations with Tesco store to assess potential for one member of staff to marshal roll cage movements, rather than directly taking part in loading/unloading.

- Traffic engineering solutions to calm traffic using Carthusian Street - (there were many observed ‘near misses’ and one observed instance of a coach colliding with a taxi at junction with Aldersgate) – including possible pedestrian crossing to increase pedestrian safety and deter use as a ‘through route’

- Guidance from school to advise parents and teachers, where practicable, to use northside pavement, which has fewer pedestrians and is used much less by delivery vehicles – guidance to be issued particularly to teachers taking children to the Leisure centre during the schoolday

- Potential for nighttime delivery pilot (pre-06.00am) complying with best practice in terms of acoustic audits and low noise technology for vehicles, roll cages, low noise store floors, driver training etc
• Review of loading restrictions on Aldersgate to partially relieve Carthusian Street of additional delivery/servicing traffic parked at a distance from delivery destinations

• Review of existing waiting restrictions on Carthusian Street with a view to introduction of loading bay(s) (accompanied by restrictions) to better control overall loading/unloading activity

• Targeted parking enforcement in Carthusian Street to tackle issue of drivers leaving vehicles unattended, with hazard warning lamps illuminated, when no loading/unloading activity is actually undertaken.
ANNEX A

RISK ASSESSMENT TEMPLATE
TTR’s ‘PRAM’ (Project Risk Analysis and Management) process (which conforms to BS6079, the Association for Project Management’s Body of Knowledge), has been used on a wide range of projects for clients to assess the risks of implementation of potential measures.

The BS6079 definition of ‘risk’ is ‘a combination of the probability, or frequency, of an occurrence of a defined threat or opportunity and the magnitude of the consequences of the occurrence.’

**The TTR PRAM Process**

Risk management is a formal process enabling the identification, assessment, planning and management of risks associated with an activity.

TTR’s PRAM procedure has been designed to identify, assess, mitigate and plan risks.

Figure 6 illustrates the key stages of TTR’s PRAM process;

**Figure 6: TTR PRAM Process**

**TTR PRAM Process**
Step 1 - Define & Focus

The first stage of the TTR PRAM process defines the risk process to be used for each task or activity. This will effectively involve agreeing the process with the client and finalising which elements are appropriate to be assessed.

Step 2 - Risk Identification

The second stage of the process identifies all risks associated with the activities or tasks. This will include actual risks observed and those other potential risks which have not specifically been observed but which could, potentially, be associated with the activity. The range of parties likely to be exposed to the variety of risks is also to be identified.

Step 3 - Risk Assessment

The third stage of the PRAM process requires a qualitative assessment of each identified risk to be carried out and involves scoring each in terms of probability and impact.

Results of the assessment are then recorded in a risk register and visually represented in a Probability and Impact (P-I) Grid (see Figure 7 below).

Where possible, quantitative results can be used as supporting evidence to quantify the probability of each risk occurring.

Figure 7: An example P-I Grid
To illustrate, where the probability of a risk is deemed to be high (in other words, it is likely to occur and may occur frequently) and the impact (in terms of severity and likely personal injury) is also deemed high, that particular risk would be given a red ‘High Risk – Urgent Attention’ rating (indicated by the ‘x’ in the relevant square in figure 2, above).

**Step 4 - Risk Planning**

Following the risk assessment, the next stage in the PRAM process involves developing a risk reduction plan. Each identified risk is addressed by one of the following reduction strategies:

- Eliminate uncertainty (avoid): activities are no longer to take place
- Reduce to “acceptable” (mitigation): activities with high/medium risks that can be mitigated by a variety of measures. In such cases, risks will be reduced to an acceptable level and regularly reviewed.
- Accept and manage residual risk (control): activities associated with low risks will be accepted, but reviewed and re-assessed at agreed intervals.

Each risk will be recorded in a risk database, created to contain a summary of each risk identified and the response strategy developed. This information can be summarised in a risk register that will be used to monitor and record ownership, response and action that will be assigned to each risk.

**Step 5 - Risk Management**

The final stage of the TTR PRAM process involves production of a Risk Management Plan that will enable regular risk reviews to be undertaken by agreed parties.

The plan contains suitable review periods where stakeholders will review the risk register and update it as necessary.
ANNEX B

RISK REGISTER
<table>
<thead>
<tr>
<th>Risk No.</th>
<th>Risk Title &amp; Description of Consequence</th>
<th>Without Mitigation Measures</th>
<th>Within Mitigation Measures</th>
<th>Action Required</th>
<th>Obligation &amp; Planning</th>
<th>Risk Status</th>
<th>Risk Last Reviewed on</th>
<th>Risk Owner</th>
<th>Notes Recorded Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>Pedestrian injury (including schoolchildren) from Tesco own cross road livestock movement, pedestrians moving in the evening so damage to livestock and impact of pedestrian injury must be seriously considered</td>
<td>M</td>
<td>N</td>
<td>MED</td>
<td>N</td>
<td>MED</td>
<td>L0</td>
<td>L0</td>
<td>Remedial review, followed by ongoing monitoring after implementation of mitigation measures consisting of potential removal of crossing livestock from evening peak though action that is trained all staff involved in handling livestock to wear live in clothing on sale staff members to be responsible for monitoring all cattle movement; lighting for delivery area and cattle passports possible use of additional monitoring.</td>
</tr>
<tr>
<td>R2</td>
<td>Pedestrian injury from Tesco own cross road livestock movement, pedestrians moving in the evening so damage to livestock and impact of pedestrian injury must be seriously considered</td>
<td>M</td>
<td>N</td>
<td>MED</td>
<td>N</td>
<td>MED</td>
<td>L0</td>
<td>L0</td>
<td>Remedial review, followed by ongoing monitoring after implementation of mitigation measures consisting of potential removal of crossing livestock from evening peak through action that is trained all staff involved in handling livestock to wear live in clothing on sale staff members to be responsible for monitoring all cattle movement; lighting for delivery area and cattle passports possible use of additional monitoring.</td>
</tr>
<tr>
<td>R3</td>
<td>Pedestrian or other road user injury from Tesco own vehicle movement during evening</td>
<td>M</td>
<td>N</td>
<td>MED</td>
<td>N</td>
<td>MED</td>
<td>L0</td>
<td>L0</td>
<td>Emergency attention, followed by period review, followed by ongoing monitoring after implementation of mitigation measures consisting of potential road safety guidance to both staff and all other users regarding vehicle entry to both pedestrian and vehicle facilities.</td>
</tr>
<tr>
<td>R4</td>
<td>Pedestrian or other road user injury from Tesco own vehicle movement during evening</td>
<td>M</td>
<td>N</td>
<td>MED</td>
<td>N</td>
<td>MED</td>
<td>L0</td>
<td>L0</td>
<td>Remedial review, followed by ongoing monitoring after implementation of mitigation measures consisting of potential road safety guidance to both staff and all other users regarding vehicle entry to both pedestrian and vehicle facilities.</td>
</tr>
<tr>
<td>R5</td>
<td>Pedestrian injury from supplier deliveries vehicle driving on pavement</td>
<td>M</td>
<td>N</td>
<td>MED</td>
<td>N</td>
<td>MED</td>
<td>L0</td>
<td>L0</td>
<td>Remedial review, followed by ongoing monitoring after implementation of mitigation measures consisting of potential road safety guidance to both staff and all other users regarding vehicle entry to both pedestrian and vehicle facilities.</td>
</tr>
</tbody>
</table>

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