SOUTHVIEW FARM, DRYNHAM LANE, TROWBRIDGE, WILTSHIRE, BA14 0PL

TRANSPORT STATEMENT

PREPARED FOR

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MILES WHITE TRANSPORT

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1 INTRODUCTION

Brief

1.1 Miles White Transport Ltd (MWT) has been appointed by Coulston Estates Ltd to prepare a Transport Statement (TS) relating to a proposed development at Southview Farm, Drynham Road, Trowbridge. The location of the site in the context of Trowbridge is shown in **Figure 1.1** below.



FIGURE 1.1: Site Location

1.2 The formal description of the development proposal is as follows with the Architect's proposed layout plan attached as **Appendix A**.

"Demolition of redundant stone barns; conversion and extension of farmhouse to form co-working hub and children's nursery at ground level (Class E) and conversion of first floor to a single residential apartment (Class C3); erection of convenience store (Class E); and associated access and landscaping works."

1.3 This report covers the transport issues associated with the proposed development and is structured as follows:

- Section 2 describes the existing highway network in the vicinity of the site and identifies existing traffic flow and road safety conditions.
- Section 3 identifies the existing accessibility of the site by non-car modes of travel namely walking, cycling and public transport.
- Section 4 details the transport aspects of the development proposals and in particular the proposed site access arrangements, parking provision and vehicle turning facilities.
- Section 5 identifies the predicted trip generation and distribution associated with the development proposals.
- Section 6 considers the likely traffic impact of the proposed development and any mitigation measures necessary.
- Finally, Section 7 presents a summary of the report and identifies the main conclusions that can be drawn.

2 EXISTING HIGHWAY CONDITIONS

Site Description

2.1 The proposed development site is currently an unoccupied farmhouse with adjacent redundant barns within a 0.42 hectare site located toward the existing southern edge of Trowbridge. The site is bounded to the north by a Public Right of Way with residential properties beyond, to the east by the Trowbridge to Westbury railway line with residential properties beyond, to the south by vacant agricultural land that benefits from planning permission for residential development, and to the west by Drynham Road again with residential properties beyond.

Local Highway Network

2.2 The highway network in the context of Trowbridge is shown in Figure 1.1 while the local highway network in the vicinity of the proposed site is shown in **Figure 2.1** overleaf.

2.3 The site is currently accessed from Drynham Road via a residential gateway. Drynham Road heads northwest towards Trowbridge town centre becoming Dursley Road at its northern end. The road is primarily a residential distributor road with dwellings on both sides and varies in width along its length between approximately 5.5m and 7.5m. Some adjacent properties benefit from off-street parking while there are also some stretches of terraced housing where there is a high demand for on-street parking. This is controlled in places by double yellow line parking restrictions.

2.4 There are good quality footways on both sides of the carriageway along most of its length with street lighting also being provided. The speed limit is signed as 20mph.

2.5 At the northern end of the route, Dursley Road meets the A361 County Way at a restricted movement priority junction. Right turn movements from County Way into Dursley Road are prohibited as are most right turn movements out of Dursley Road. Buses and taxis are permitted to turn right out with other vehicles being required to turn left out and perform a U turn at the County Way / Bradley Road roundabout to the west.

2.6 This restriction serves to encourage through traffic to use the main Bradley Road route rather than to seek alternative routes via the Dursley Road / Drynham Road / Wiltshire Drive residential streets.

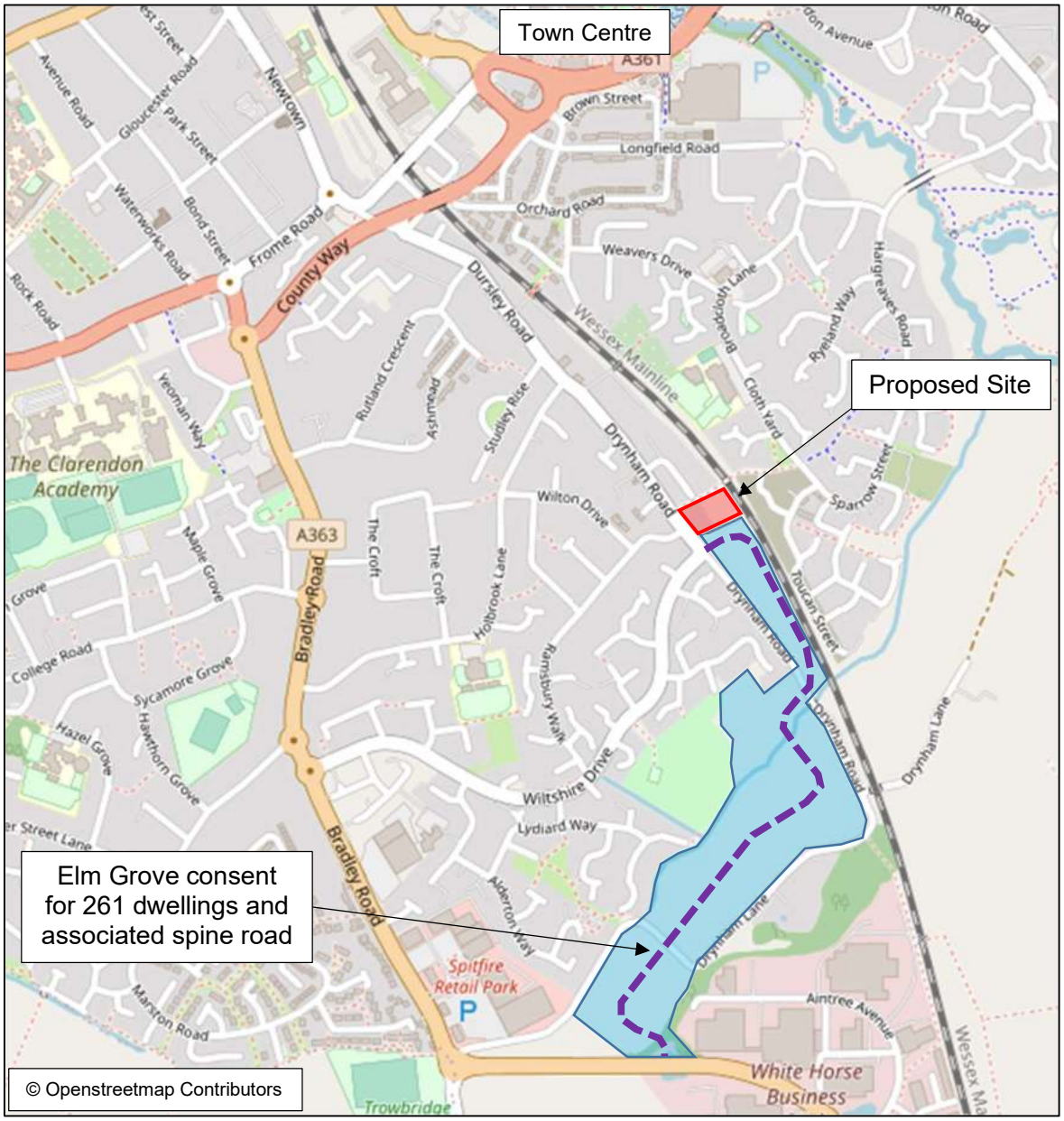


FIGURE 2.1: Local Highway Network

2.7 At the southern end of Drynham Road it turns sharply towards the southwest and becomes Wiltshire Drive before linking through to the A363 Bradley Road. Wiltshire Drive is a high standard local distributor road purpose built to serve previous residential developments in the area. It is 7.3m in width, has 2.0m footways on both sides, is street lit and subject to a 30mph speed limit. There is no direct frontage access for the adjacent properties with these being served from various cul-de-sacs that lead off Wiltshire Drive itself.

2.8 At its western end, Wiltshire Drive forms the side arm of a three-arm mini-roundabout junction with Bradley Road. This junction is approximately 60m centre to centre distant from another three-arm mini-roundabout where Silver Street Lane meets Bradley Road. The offset distance is such that the operation of one junction is occasionally influenced by the operation of the other.

2.9 The A363 Bradley Road is the main arterial route into Trowbridge from the south with out-of-town retail parks and residential distributor roads taking access therefrom. The route is generally of a good standard being a minimum of 6.5m in width, street lit and with footways on both sides. Ghost island right turn lanes, restricted turn junctions and parking restrictions are in place to minimise traffic delays.

2.10 As mentioned previously, Bradley Road passes through the mini-roundabout junctions with Wiltshire Drive and Silver Street Lane before eventually forming another three-arm mini-roundabout junction with the A361 County Way. Traffic heading through Trowbridge towards Frome or Bradford on Avon continue north across this junction while traffic heading towards the town centre, or through towards the Devizes and Chippenham directions turn east onto County Way.

2.11 County Way performs an inner bypass function linking the A363 Bradley Road to the Longfield signalised gyratory. This gyratory provides access to the town centre and through routes towards the east and north of the town.

2.12 County Way is of a high standard being 7.3m in width, street lit and subject to a 40mph speed limit. It also provides shared footway / cycleway facilities on both sides of the carriageway. Parking is restricted by double yellow lines along its length and there are only two side road junctions; one being a ghost island right turn access to the Lamplighters Walk residential estate and the other being the restricted movements junction with Dursley Road discussed previously.

2.13 The above roads form the main elements of the existing local highway network however there are numerous other residential streets in the vicinity of the site including Southview Road which forms the side arm of a priority junction with Drynham Road located broadly opposite the site. Southview Road is approximately 7m in width, street lit and with a 20mph speed limit. It provides direct frontage access to numerous dwellings before connecting through to Wiltshire Drive.

2.14 Outline planning consent for a large development of 261 dwellings at Elm Grove just south of the Southview Farm site was granted in October 2022 (reference 19/11459/OUT). This scheme will deliver a new 6.5m wide spine road that will convert the Drynham Road / Wiltshire Drive bend into a mini-roundabout and provide a new link road through to the A363 at the White Horse Business Park. A Reserved Matters planning application has been submitted (PL/2023/09425) and is currently being considered by Wiltshire Council.

2.15 Part of the committed highway works associated with the Elm Grove development is a road narrowing / traffic calming feature on Drynham Road located adjacent the Southview Farm site. The approved detail is shown on the plan attached as **Appendix B** with this taken as being a committed feature within the remainder of this report.

2.16 Completion of the spine road in due course will further improve the highway links in the vicinity of the Southview Farm site.

Existing Traffic Flows

2.17 A 12-hour turning count was undertaken at the Drynham Road / Southview Road priority junction on Tuesday 9th May 2023. The results of this survey are attached as **Appendix C** and are summarised in **Table 2.1** below.

Movement	12-Hour Day	AM Peak Hour 08:00 – 09:00	PM Peak Hour 17:00 – 18:00
Drynham Road North to Drynham Road South	657	79	98
Drynham Road North to Southview Road	108	1	18
Southview Road to Drynham Road North	89	9	7
Southview Road to Drynham Road South	23	1	3
Drynham Road South to Southview Road	30	0	2
Drynham Road South to Drynham Road North	314	35	61

TABLE 2.1: Traffic Survey Results (Vehicles)

2.18 The above identifies a two-way flow on Drynham Road to the north of the Southview Road junction of 1,168 two-way vehicles over a 12-hour day (07:00 to 19:00). In the AM peak hour 124 two-way vehicles were recorded while in the PM peak hour 184 two-way vehicles were recorded. These values represent low traffic flow conditions equating to approximately 2 two-way vehicles per minute in the morning peak and approximately 3 two-way vehicles per minute in the evening peak.

2.19 There is a clear directional bias with approximately twice as many vehicles heading south compared to north throughout the day and across the peak hours. This is likely a function of the restricted turns available at the Dursley Road / County Way junction.

2.20 Traffic flows on Southview Road are very low with only 11 two-way vehicles in the morning peak hour and only 30 two-way vehicles in the evening peak hour.

2.21 These survey results will be taken as representing the existing traffic flow conditions within the traffic impact assessments that form Section 6 of this report.

Existing Highway Safety Record

2.22 Personal Injury Collision (PIC) data for the local highway network has been obtained from the 'CrashMap' website. The location of the recorded collisions (red flag = 'serious' and orange flag = 'slight') covering the latest 5-year period for which data is available is shown in **Figure 2.2** overleaf with this being an annotated extract from the website.

2.23 The key area in relation to the site is that formed by County Way to the north, Dursley Road / Drynham Road to the east, Wiltshire Drive to the south and Bradley Road to the west. Within this, the length of Dursley Road / Drynham Road and Wiltshire Drive together with their junctions with County Way and Bradley Road are the most relevant.

2.24 The Figure identifies a series of predominantly 'slight' collisions along Bradley Road and at its junction with County Way. This is not unexpected given the high volume of traffic that use these roads and the numerous side road junctions and residential driveways accessed directly from Bradley Road. County Way has experienced less collisions which is likely a function of the limited number of side roads and no direct frontage access.

2.25 Two collisions have occurred at the Dursley Road / County Way junction, one on Dursley Road and one on Wiltshire Drive. The details of these can be summarised as follows:

Collision 1 – Friday February 14th 2020 – 17:25 – dark but with street lights – wet conditions – at County Way / Dursley Road junction – car collides with child pedestrian on the adjacent footway – one slight casualty.

Collision 2 – Tuesday March 28th 2017 – 15:07 – daylight – dry conditions – at County Way / Dursley Road junction – car collides with rear of vehicle in front which is slowing or stopped – one slight casualty.

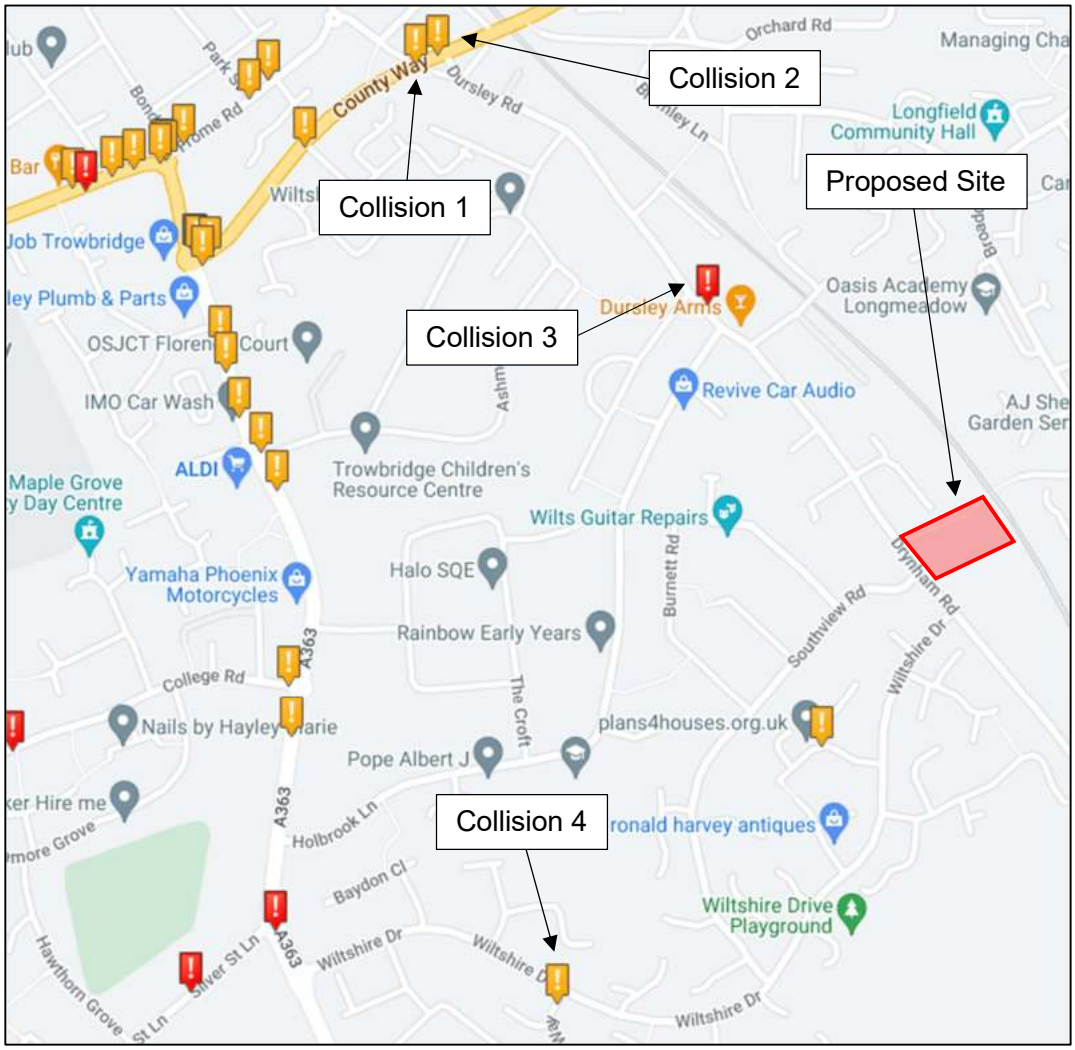


FIGURE 2.2: Annotated Extract from 'CrashMap' Website

Collision 3 – Friday January 31st 2020 – 17:40 – dark but with street lights – wet conditions – not at a junction – reversing car collides with elderly pedestrian on the adjacent footway – one serious casualty.

Collision 4 – Friday November 9th 2018 – 18:00 – dark with no street lights – wet conditions – at Wiltshire Drive / Liddington Way junction – car collides with crossing pedestrian while turning in or out of the junction – one slight casualty.

2.26 The causation of the above collisions would appear to primarily be driver error rather than any particular deficiency with the local highway network.

2.27 It should be noted that the severity information is based on STATS19 Police Collision Reports which themselves identify the three categories of injury collision as follows:

- a fatal collision is one in which at least one person is fatally injured;
- a serious collision is one in which at least one person is seriously injured, but no-one suffers a fatal injury, and which is in one (or more) of the following categories:
  (a) an injury for which a person is detained in hospital as an in-patient; or
  (b) any of the following injuries (whether or not the person is detained in hospital): fractures, concussion, internal injuries, crushing, severe cuts and lacerations, severe general shock requiring treatment;
- a slight collision is one in which at least one person suffers "slight" injuries (i.e. a sprain, bruise or cut which is not judged to be severe, or slight shock requiring roadside attention), but no-one is seriously or fatally injured.

2.28 There may also have been 'damage only' collisions within the local area but detailed records of such occurrences are not taken by the emergency services, so such information is unknown.

2.29 Of particular note is the lack of PICs along Drynham Road where it passes the site and at the Drynham Road / Southview Road junction. The roads and junctions in the vicinity of the proposed development site therefore clearly operate safely under existing traffic flow conditions.

3 EXISTING NON-CAR ACCESSIBILITY

Introduction

3.1 The development proposals comprise a small new build convenience store, conversion of the existing farmhouse for co-working office space at ground floor level and an apartment at first floor level, with a new build extension to the rear of the farmhouse for a children's nursery. This section of the report therefore reviews the accessibility of the site by sustainable modes of transport in the context of the proposed land uses which are likely to be a net attractor of trips rather than a generator of trips. The accessibility of a site is important as it is likely to impact on the number of private car trips made to and from the site and the localised impacts of the additional traffic associated with the development.

3.2 In general, it should be noted that walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km. Cycling also has the potential to substitute for short car trips, particularly those under 5km. Both modes of travel have the potential to form part of a longer journey by public transport.

Walking

3.3 A convenience food store provides a local function and should therefore be readily accessible on foot by those living within say 800m or 10 minutes walk. **Figure 3.1** overleaf identifies an 800m walking isochrone from the entrance to the proposed store via the most direct publicly accessible route.

3.4 It is clear that the convenience store, together with the other uses on the site, will be accessible to a large local population including residents of the Elm Grove development once it has been built out. Similarly, and not shown on Figure 3.1, there are on-going proposals for further residential development to the east of the railway line which, once approved and constructed, could access the proposed convenience store via Sparrow Street and the existing shared use path that bridges over the railway, or the Drynham Lane underbridge of the railway. This latter route is proposed as a pedestrian and cycle link between the developments east and west of the railway line with further development therefore increasing the overall catchment area of the proposed store.



FIGURE 3.1: 800m Walking Isochrone

3.5 All the residential roads within the local area benefit from appropriate footway provision thereby encouraging and facilitating walking trips to and from the proposed convenience store, co-working office space and children's nursery.

3.6 Pedestrian access will also be further enhanced as part of the upcoming Elm Grove development which will deliver a new shared use path on the eastern side of Drynham Road, as shown on the plan attached as Appendix B. This will provide a direct and convenient pedestrian link between the Elm Grove site and the Southview Farm site.

3.7 The Chartered Institute of Highways and Transportation (CIHT) identifies that the preferred maximum walking distance when accessing employment is 2km with a significant proportion of the built-up area of Trowbridge and North Bradley being within such a walking distance. Future staff at the convenience store and children's nursery, together with users of the co-working office space, would therefore also have the opportunity to access the site by walking.

3.8 It is noted that the CIHT document 'Planning for Walking' published in March 2015 notes that approximately 80% of journeys shorter than 1 mile (1.6km) are made wholly on foot with this having changed little in 30 years. Clearly a significant proportion of trips to and from the site are likely to be undertaken on foot with this applying equally to all the proposed land uses.

Cycling

3.9 Cyclists in the local area are currently required to share the carriageway with vehicles. The only exception to this is the link over the railway that connects Drynham Road with Sparrow Street which has recently been upgraded to a shared use path. This link is directly adjacent the Southview Farm site and will help to encourage cycle trips from the residential areas east of the railway.

3.10 As identified previously, a new section of shared use path is also to be created beside Drynham Road across the Southview Farm frontage with this connecting the existing Sparrow Street link to Wiltshire Drive and beyond to the consented Elm Grove development. The existing Drynham Lane that continues south from Wiltshire Drive is also to be converted to pedestrian and cycle use only as part of the Elm Grove development.

3.11 New traffic free pedestrian and cycle routes will continue through Elm Grove towards North Bradley, the White Horse Business Park and under the railway towards the proposed residential developments to the east (Ashton Park). Cycle access within the local area is therefore rapidly improving which will assist in encouraging cycle use when accessing the Southview Farm site.

3.12 An acceptable day to day cycling distance is normally taken as being approximately 5km which means the whole of Trowbridge is accessible by cycling as are North Bradley, Southwick and parts of Bradford on Avon.

3.13 It should also be noted that the former Department for Transport (DfT) Local Transport Note 2/08: Cycle infrastructure Design, suggested that a trip distance of over five miles (8km) is not uncommon for commuter journeys by cycle which extends the potential cycle catchment area even further.

Public Transport

3.14 The nearest bus stop to the site is located on Southview Road approximately 100m from the site boundary, i.e., well within the 400m standard walking distance to a bus stop.

3.15 Weekday bus services from this stop are limited to the No.60 which provides a clockwise Trowbridge 'town' service running to an hourly frequency from the town centre via the southern residential areas to Studley Green and then back to the town centre via Southview Road, as shown in **Figure 3.2** below.

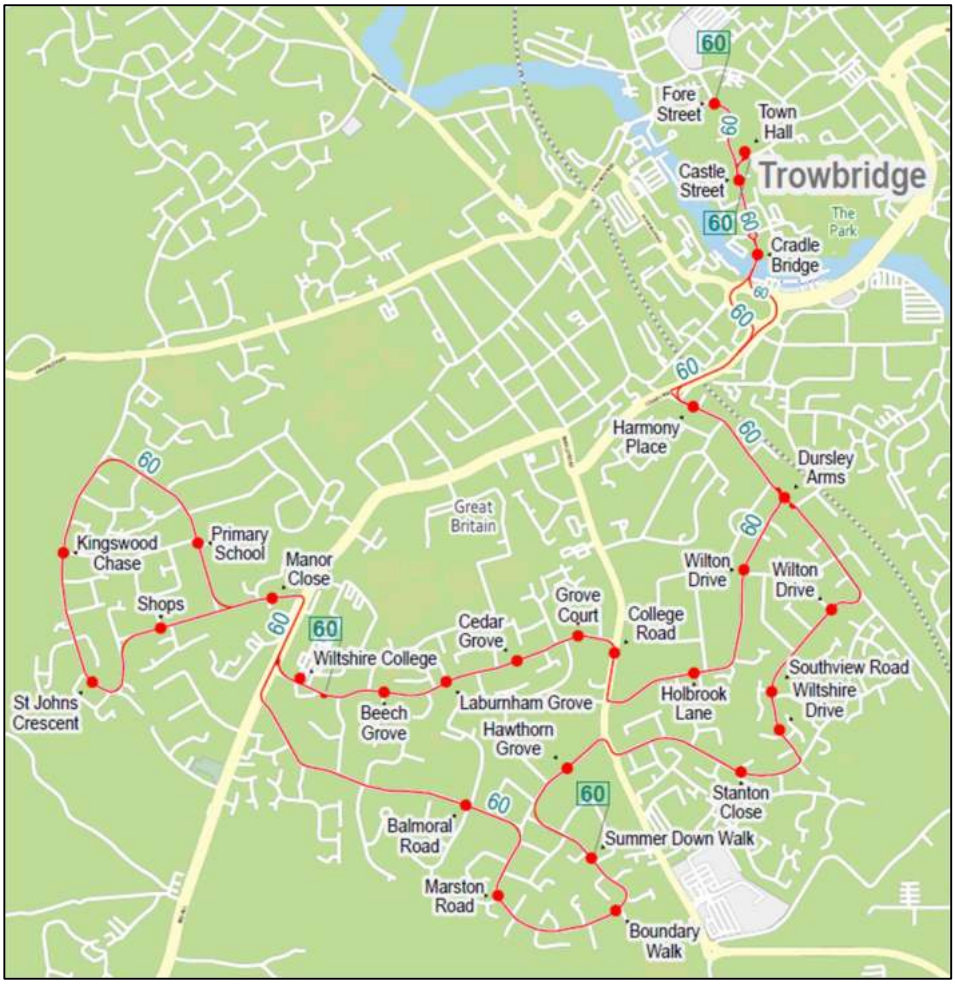


FIGURE 3.2: No.60 Bus Route

3.16 This service provides an hourly frequency between 08:54 and 13:54 with a final bus at 16:36. It provides public transport accessibility to much of the southern part of the Trowbridge built-up area. On Saturdays, service No.67A provides 7 buses over the course of the day that link North Bradley with Trowbridge town centre via Southview Road. There are no buses serving the Southview Road stop on Sundays.

3.17 Further bus services are available from stops on Bradley Road at a walking distance of approximately 900m with the D1 in particular providing good links to Westbury and Warminster in one direction and Trowbridge, Bradford on Avon and Bath in the other.

3.18 All bus services that operate through Trowbridge are available within the town centre at a walking distance of approximately 1.4km with Trowbridge Railway Station being approximately 1.5km walk from the site. These distances are within the 2km preferred maximum identified previously and could therefore also provide opportunities to access the various land uses within the proposed site by public transport / walking.

Summary

3.19 The proposed development will offer future customers, staff, employees, parents and residents with an excellent opportunity to walk or cycle when accessing the site. Public transport also offers good opportunities to access the site by non-car modes both from within Trowbridge and from other towns and cities in the region.

4 DEVELOPMENT PROPOSALS

Proposed Site Layout

4.1 The proposed development comprises a 304m^2 gross internal floor area (GIA) convenience store located along the northern boundary of the site with car parking to the front (west) and a turning head to the rear (east). The existing Southview Farm farmhouse is converted and extended to create 170m^2 (GIA) of co-working office space and 60m^2 (GIA) of children's nursery at the ground floor level with a single two-bedroom apartment created at first floor level. Appendix A of this report contains the Architect's proposed site layout plan with further information detailed within the Design and Access Statement that forms part of the planning application submission.

Site Access

4.2 Vehicle access to the site will be taken from Drynham Road with the proposed access arrangement attached as **Appendix D**.

4.3 As previously identified, a road narrowing / traffic calming feature and a new length of shared use path is to be introduced on Drynham Road as part of the consented Elm Grove development (see Appendix B). The road narrowing is just to the north of the site while the shared use path passes across the site frontage itself. The proposed site access arrangement has been designed to fully accommodate these works as committed development. Indeed, demolition of the existing stone barns in the northwest corner of the site could allow a further widening of this shared use path and potentially remove a localised 'pinch point' at the intersection with the shared use link to / from Sparrow Street.

4.4 Vehicle access is provided as a dropped kerb 'footway crossover' such that users of the shared use path will retain priority. This is considered appropriate particularly given the on-site access roads and parking will remain private rather than being offered for adoption.

4.5 Drynham Road changes from a 20mph speed limit to a 30mph speed limit in the immediate vicinity of the site. For completeness therefore, the access plan shows the availability of visibility splays of both 2.4m by 25m (suitable for a 20mph speed limit) and 2.4m by 43m (suitable for a 30mph speed limit). Such splays are readily available particularly given the proposed 3m shared use path beside Drynham Road and the proposed road narrowing feature just to the north. It should also be noted that the available visibility will in practice be greater than the 43m distance.

4.6 Speed surveys have not been undertaken to support this report as the road narrowing feature and additional turning movements associated with the proposed development will clearly serve to reduce future vehicle speeds as they pass the site.

4.7 It is acknowledged that the proposed shared use path and road narrowing are linked to construction of the consented Elm Grove residential development and that timing of their delivery cannot be guaranteed at present. However, the land required to create these features can be cleared in advance of their construction thereby ensuring that appropriate visibility will be available irrespective of when they are delivered.

4.8 It is also acknowledged that the proposed site access is broadly opposite the Southview Road side road junction and that right turning vehicles into the site and into Southview Road could potentially obstruct each other. The probability of this is considered extremely low particularly given that the traffic surveys identify a maximum of only 18 right turns into Southview Road in anyone hour across the day. For completeness however, it is proposed to provide 'Keep Clear' road markings on Drynham Road across the Southview Road bellmouth such that vehicles intending to turn right into the site do not obstruct those turning right into Southview Road.

4.9 Pedestrian access will be taken from the Drynham Road shared use path via a guided route across the car park to the customer entrance of the convenience store. A new footway link will also connect the shared use path to the co-working office space, the children's nursery and the residential apartment. These two pedestrian routes will be inter-linked within the site to ensure appropriate levels of connectivity and permeability.

Car Parking Provision

4.10 The proposals will provide car parking in line with the adopted Wiltshire Council Car Parking Strategy (March 2015).

4.11 The convenience store will be provided with 12 car parking spaces, the co-working offices with 6 spaces, the children's nursery with 3 spaces and the two-bedroom apartment with 1 parking space making 22 in total. These provisions are justified further below.

4.12 For a convenience store the Council's standards require a maximum of 1 space for every 35m^2 of gross floor area with the proposed 304m^2 therefore equating to 9 car parking spaces.

4.13 However, the Parking Strategy document identifies that the actual parking provision for developments should be negotiated between the Council and developers which allows for some flexibility in the interpretation of the standards. The development proposals were subject to an initial pre-application inquiry that proposed the 9 spaces identified by the standards to which the highway officer's response identified at least 2 additional spaces must be achieved. These have now been provided. A further additional space has also been included as it is considered important to ensure that the likely parking demand is fully accommodated within the site and that the risk of overspill parking on Drynham Lane or Southview Road is reduced as far as is practical.

4.14 For offices the Council's standards require a maximum of 1 space per 30m^2 of gross floor area with the proposed 170m^2 therefore equating to 6 car parking spaces, i.e. as proposed.

4.15 For a children's nursery the Council's standards require a maximum of 1 space per 12 pupils. At this stage it is not known how many children will be accommodated within the proposed 60m^2 floor area however allowing for toilets, storage and similar it is unlikely to exceed say 30 to 40. On this basis, the provision of 3 car parking spaces for the children's nursery complies with the parking standards.

4.16 A two-bedroom residential apartment should be provided with a minimum of 2 car parking spaces whereas it is proposed to provide only 1 space. As identified for the convenience store, the Parking Strategy document allows for a flexible interpretation of the standards particularly in the context of a dwelling's non-car accessibility and proximity to services and facilities.

4.17 In this case the proposed dwelling will be adjacent to a convenience store and a children's nursery, within a convenient walking distance of the town centre and the large White Horse Business Park, and within approximately 500m walk of two primary schools. Opportunities to cycle and use public transport will also be available locally. This suggests that residential parking demand is likely to be low and that a reduced car parking provision is appropriate.

4.18 Blue badge parking is normally taken as being 5% of the overall number of parking spaces available which would equate to just over 1 space. 2 such spaces are therefore provided.

4.19 Electric Vehicle Charging Points will also be required to help facilitate a reduction in vehicle emissions and to accord with the Government's commitment to phase out the sale of petrol and diesel cars by 2030. The applicant is willing to provide such charging points and it is proposed that an appropriate number be discussed and agreed through the application process and secured through condition.

Cycle Parking Provision

4.20 The proposals will provide cycle parking in accordance with the adopted Wiltshire Council Cycling Strategy (March 2014).

4.21 The minimum cycle parking requirement for the convenience store is 1 space per 10 staff and 1 space per 15 cars. At 304m^2 the store is unlikely to have more than 10 staff at any one time which equates to 1 cycle parking space while the 12 car parking spaces equates to a further 1 cycle parking space. It is proposed that 6 cycle parking spaces be provided in a covered and secure location which exceeds the minimum requirement.

4.22 The number of employees within the co-working office space is not known so 4 cycle parking spaces will be required. For the children's nursery the standards identify a minimum of 1 cycle space per 10 staff and 1 cycle space per 45 pupils, i.e. 2 cycle parking spaces overall. With two bedrooms, the residential apartment also requires 2 cycle parking spaces. These levels of provision will be provided in covered and secure locations with full details to be discussed and agreed through the application process and secured through condition.

Servicing

4.23 The proposed site layout plan includes a turning head at the eastern end of the site with the swept path analysis attached as **Appendix E** demonstrating that this is of an appropriate size to accommodate the turning requirements of a large 11.3m Refuse Collection Vehicle and a large 10.35m rigid delivery lorry. The prospective occupier of the convenience store has confirmed deliveries will be made by vehicles no larger than that used within the analysis.

4.24 It is envisaged that the access road and turning head will not be offered for adoption and will remain private. They will however be constructed to an adoptable standard and an appropriate indemnity agreement provided to the Council to enable refuse collection vehicles to access the site should they need to do so.

4.25 Routing to and from the site by delivery vehicles is envisaged to be via Bradley Road and Wiltshire Drive given their higher standard. This will serve to minimise the impact of larger vehicles on the northern section of Drynham Road and Dursley Road beyond.

4.26 The proposed layout ensures that fire tenders can easily get within the prescribed 45m distance of each element of the development which accords fully with Building Regulations.

Travel Plans

4.27 The National Planning Policy Framework states that all developments which generate significant amounts of movement should be required to provide a Travel Plan (TP). Wiltshire Council's 'Development Related Travel Plans Guidance' provides more detail and identifies appropriate thresholds for their provision.

4.28 A convenience store requires a Travel Plan Statement (TPS) when there are more than 20 staff with the same requirement also applying to office uses. All schools are required to have a full TP although this is not thought to apply to children's nurseries. Residential developments require a TPS only where there are more than 20 units.

4.29 The floor area of the convenience store and the co-worker space are both small and unlikely to require 20 staff or to accommodate 20 office workers. The thresholds are therefore not met with neither element requiring a TPS. The diverse nature of the proposed development is also such that a combined TPS covering all the various elements would not be appropriate.

5 PREDICTED TRIP GENERATION AND DISTRIBUTION

Vehicle Trip Rates and Generation

5.1 The TRICS trip rate database has been interrogated to identify likely traffic flows associated with the proposed convenience store, co-working office space and children's nursery before being combined to represent the proposed development as a whole.

5.2 The TRICS search parameters have been adjusted where appropriate to ensure the results represent the site location and nature of the proposals as accurately as possible while still retaining sufficient survey sites to enable a robust average to be taken. For each land use all regions have been included apart from Greater London, Northern Ireland and Republic of Ireland, and similarly, only reference sites in a suburban, edge of town or neighbourhood centre location have been included. With the proposed land uses primarily likely to attract local trips only, no adjustments have been made to the residential population within the 1 mile or 5 mile catchments.

5.3 Average vehicle trip rates and associated trip generation for the various land uses are identified in **Table 5.1** below with the TRICS outputs being attached in full as **Appendix F**.

	AM Peak Hour (08:00 to 09:00)		PM Peak Hour (17:00 to 18:00)		12 Hour Day
	Arrive	**Depart**	**Arrive**	**Depart**	**Two-Way**
CONVENIENCE STORE					
Trip Rate per 100m^2	6.358	6.681	9.267	9.483	179.257
Proposed = 304m^2	19	20	28	29	545
CO-WORKING OFFICE					
Trip Rate per 100m^2	2.638	0.177	0.044	1.818	16.959
Proposed = 170m^2	5	1	0	3	29
CHILDREN'S NURSERY					
Trip Rate per 100m^2	4.111	3.785	3.002	3.556	36.374
Proposed = 60m^2	3	2	2	2	22
TOTAL TRIP GENERATION – SOUTHVIEW FARM					
TOTAL TRIPS	**27**	**23**	**30**	**34**	**596**

TABLE 5.1: Predicted Residential Vehicle Trips

5.4 It is clear from the above table that the small scale nature of the development proposals serves to keep the likely vehicle trip generation low.

5.5 The Co-working office and the children's nursery between them generate only 11 two-way vehicle movements in the morning peak hour, 7 two-way movements in the evening peak hour and approximately 50 two-way movements across a 12-hour day. The convenience store is the largest generator of vehicle trips with 39 two-way movements in the morning peak, 57 two-way movements in the evening peak and approximately 550 two-way movements across a 12-hour day.

5.6 Overall, trip generation equates to approximately 1 additional vehicle either arriving or departing the site every minute on average during the peak hours with less at other times of the day. This number of additional turning movements is considered modest and unlikely to have any material impact on highway capacity or road safety. Traffic impact is however considered further in Section 6 of this report.

5.7 TRICS research has identified that many of the vehicle trips associated with convenience retail stores are not new trips to the highway network. Many are already passing the site, (i.e. on the journey home from work or similar) and simply divert in and then out of the store car park when passing. These trips are classified as diverted or pass-by trips and must be reassigned to turn in and out the site to avoid double counting. Typical pass-by rates are taken as 30% (TRICS Report 95/2) with this factor having been applied within the following capacity assessments.

Vehicle Trip Distribution

5.8 The traffic survey results summarised in Table 2.1 identify that the turning restrictions in place at the County Way / Dursley Road junction lead to a higher number of vehicles heading southbound on Drynham Road than northbound throughout the day. When considering the straight-ahead movements through the Southview Road junction, this equates to a 70% / 30% bias in the morning peak hour and a 62% / 38% bias in the evening peak hour.

5.9 The nature of the various land uses within the site are such that they are likely to attract primarily local trips which in turn are likely to distribute in a similar manner to the existing local traffic flows. For simplicity, and to take account of the existing directional bias, the following assessment of traffic impact has distributed the additional vehicle movements generated by the proposed development to Drynham Lane on the basis of a 66% / 33% directional split in both highway peak hours.

6 PREDICTED TRAFFIC IMPACT

Assessment Scenarios

6.1 The volume of additional traffic predicted to be generated by the development proposals has been shown to be relatively low. This means its impact will only be felt in a local context close to the development site itself. The traffic impact assessments have therefore been limited to the proposed site access junction from Drynham Road and its interaction with the Southview Road junction opposite.

6.2 Traffic survey data has been obtained for 2023 therefore it is considered appropriate to assess traffic impact for a 2028 design year which represents the year of application plus 5 years, as per Department for Transport guidance.

6.3 Background traffic growth between 2023 and 2028 has been derived through use of TEMPro and in particular the National Traffic Model AF15 dataset for the Wiltshire Authority area. For the AM peak period this identifies a local traffic growth factor of 1.044 and for the PM peak period, 1.045.

6.4 Traffic associated with the consented Elm Grove site has also been included as committed development. The change in flows has been derived from the traffic modelling report that supported the 19/11459/OUT planning application.

6.5 The traffic flow diagrams attached as **Appendix G** summarise the above and identify the traffic flows used within the capacity assessments. The scenarios assessed are:

- 2023 base year – the existing situation with no development.
- 2028 design year including committed development – the future situation without the proposed development.
- 2028 design year including committed development and traffic generation – the future situation with the proposed development.

Capacity Assessments

6.6 The junction capacity assessments have been undertaken using the Junctions 9 computer programme written and published by the Transport Research Laboratory Ltd (TRL) and, in particular, the 'PICADY 9' priority intersection module. Priority junctions are modelled using well-established capacity relationships which intrinsically link junction geometries to driver behaviour and in turn predict capacities, queues and delays.

6.7 **Table 6.1** below sets out the junction capacity results for the proposed Drynham Road / site access junction together with its interaction with the Southview Road junction opposite. The full junction modelling results are attached as **Appendix H**.

	AM Peak (08:00 to 09:00)				PM Peak (17:00 to 18:00)			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Base				2023 Base			
Drynham Road (S)	-	-	-	-	-	-	-	-
Southview Road	0.0	6.32	0.02	A	0.0	6.88	0.02	A
Drynham Road (N)	0.0	6.24	0.00	A	0.1	6.34	0.04	A
Site Access	-	-	-	-	-	-	-	-
	2028 Design + Committed				2028 Design + Committed			
Drynham Road (S)	-	-	-	-	-	-	-	-
Southview Road	0.0	6.41	0.02	A	0.0	6.99	0.02	A
Drynham Road (N)	0.0	6.24	0.00	A	0.1	6.22	0.04	A
Site Access	-	-	-	-	-	-	-	-
	2028 Design + Committed + Proposed				2028 Design + Committed + Proposed			
Drynham Road (S)	0.0	6.37	0.02	A	0.0	6.41	0.02	A
Southview Road	0.0	6.41	0.02	A	0.0	6.94	0.02	A
Drynham Road (N)	0.0	6.25	0.02	A	0.1	6.16	0.04	A
Site Access	0.0	6.17	0.04	A	0.1	7.32	0.07	A

TABLE 6.1: Junction Capacity Results

6.8 The above demonstrates that the existing Drynham Road / Southview Road junction operates with minimal queuing and delay on both the Southview Road approach and the right turn movement from Drynham Road north into Southview Road. The maximum ratio of flow to capacity value (RFC) is identified as being 0.04 which is significantly below the 0.85 value normally taken as representing the practical capacity of a priority junction.

6.9 Adding traffic growth to 2028 and committed development to the existing junction makes little difference to the results with the maximum RFC value being unchanged.

6.10 The proposed development creates a new site access junction and additional turning movements, but the maximum RFC value only increases to 0.07 with queue lengths remaining less than 1 vehicle and delays being limited to just over 7 seconds. The level of service (LOS) value is 'A' both with and without the proposed development.

6.11 A key issue to consider is the right turn movements from Drynham Lane north into Southview Road and their interaction with the right turn movements from Drynham Lane south into the new site access. The above Table identifies that right turning movements will not be required to queue during the AM peak hour with queuing of only 0.1 vehicles predicted in the PM peak hour. This is the equivalent of only 1 in 10 vehicles being required to wait to turn right and even then, only for a matter of seconds.

6.12 Traffic flows will clearly remain low post development and at a level whereby the hooking right turn movements will not lead to any operational, capacity or road safety issues. The provision of 'Keep Clear' road markings on Drynham Lane where it passes the Southview Road bellmouth will further assist in ensuring no operational difficulties.

6.13 The traffic impact of the proposals is minimal and in no way can be considered 'severe' in the context of National Planning Policy Framework paragraph 111.

7 SUMMARY AND CONCLUSIONS

7.1 This Transport Statement has been prepared in support of a planning application for redevelopment of the existing Southview Farm, Drynham Lane, Trowbridge site to create a small convenience store, co-working offices, children's nursery, and a single residential apartment.

7.2 The report reviews the standard of the existing highway network, the non-car accessibility of the site, the vehicle access arrangements, and the effects of the likely increase in traffic flows on the operation of the local highway network.

7.3 In summary, this report identifies that:

- The site is located within a residential area of Trowbridge with convenient road access to the local and regional highway network. Collision data identifies that the local highway network currently operates relatively safely.
- The site is likely to be a net attractor of trips and has a large residential population within an appropriate walking distance. The town centre and various other services and facilities are also readily accessible by walking using existing footways and Public Rights of Way.
- Cycling allows access to the whole of Trowbridge with an existing shared use path running east-west over the railway just to the north of the site. A new north-south shared use path is also to be introduced beside Drynham Road and across the site frontage as part of the Elm Grove committed development site.
- Public transport provision in the vicinity of the site is reasonable with the No.60 Trowbridge town service using stops approximately 100m from the site. All the bus services through Trowbridge are available from the town centre within approximately 1.4km walk with the railway station being approximately 1.5km walk or cycle.
- The site will be accessed via a vehicle crossover of the shared use path that is to be implemented beside Drynham Road. Visibility on egress will be a minimum of 43m in both directions which is appropriate for the speed limits in place.
- A new turning head of appropriate dimensions will be provided within the site to allow refuse collection vehicles and convenience store delivery vehicles to enter and depart the site in a forward gear.

- The site will provide appropriate levels of car parking and cycle parking in accordance with the Wiltshire Council standards and in line with recommendations made by Wiltshire highways at the pre-application stage.
- Traffic generation associated with the development proposals will amount to approximately 64 two-way vehicles in the worst-case highway peak hour and approximately 600 two-way vehicles across a 12 hour day. Not all of these vehicle movements will be 'new' to the highway network as many of the convenience store trips are likely to be diverted trips associated with drivers already passing the site.
- The traffic impact of the proposal will be extremely small and will have no material effect on the operational capacity or safety of the local highway network. The maximum Ratio of Flow to Capacity value is 0.07 with a maximum delay of 7.3 seconds and a maximum queue length of 0.1 vehicles.
- The minimal queue lengths are such that the close proximity of the proposed site access junction to the Southview Road junction opposite will not lead to any adverse implications with hooking right turn movements. 'Keep Clear' road markings will further assist in reducing the risk of such issues occurring.

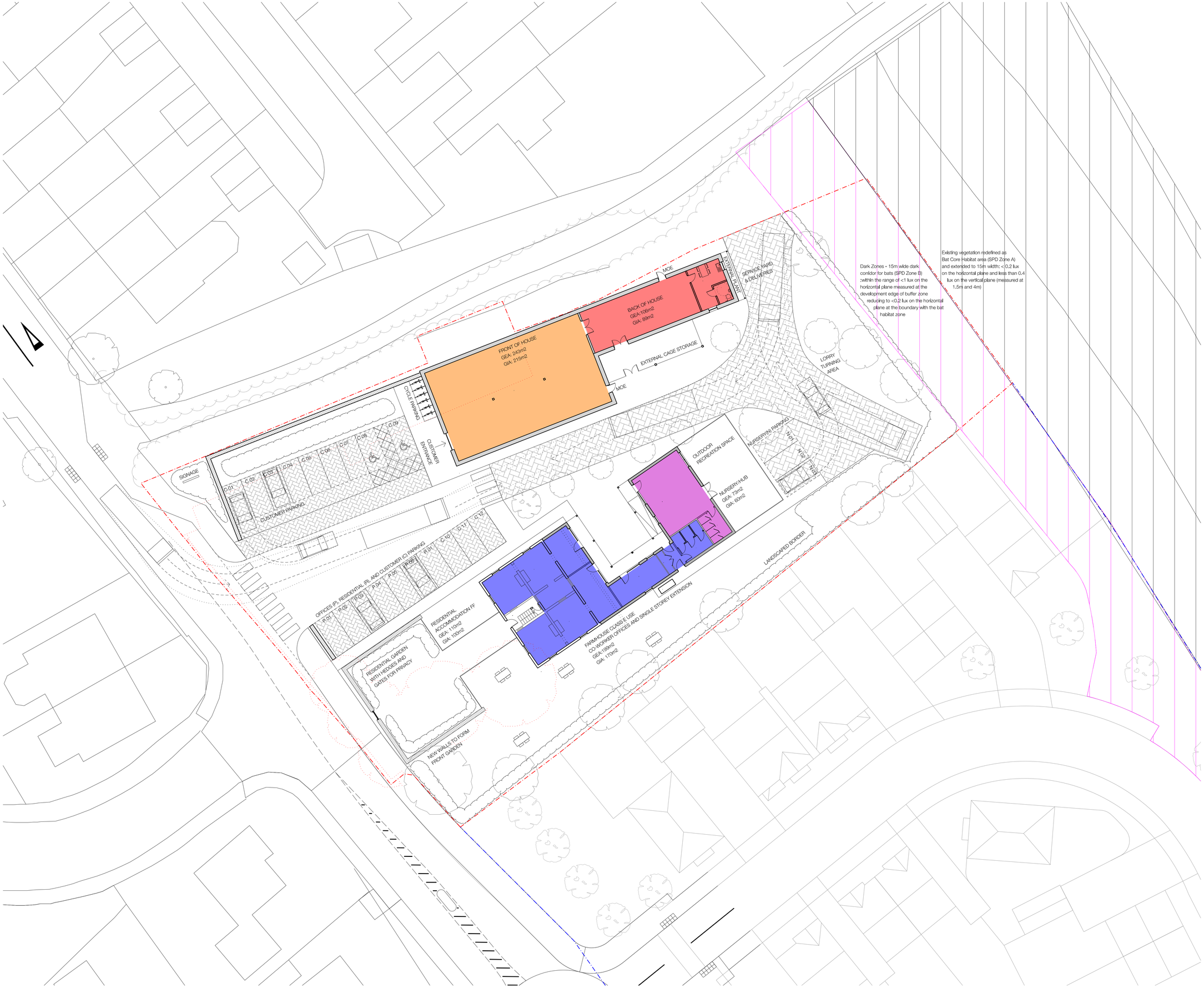
7.4 Paragraph 111 of the July 2021 National Planning Policy Framework, states that *"Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*

7.5 This report has demonstrated that the proposed development will not have an unacceptable impact on highway safety and will not have a 'severe' residual cumulative impact on the road network. As such, it is considered that there are no highway reasons that would warrant withholding planning permission for the proposed development of a convenience food store, co-working offices, a children's nursery, and a single residential apartment at Southview Farm, Drynham Road, Trowbridge, Wiltshire.

APPENDICES

APPENDIX A

Architect's Site Layout Plan



1:200

© MITCHELL ELEY GOULD ARCHITECTS, 01225 789033,
THE ICE HOUSE G/F NORTH OFFICE 124-126 WALCOT STREET BATH BA15BG

SCALE BAR 1:200

ACCOMMODATION SCHEDULE

- RETAIL FRONT OF HOUSE: (GIA) 215m² (GEA) 243m²
- RETAIL BACK OF HOUSE: (GIA) 89m² (GEA) 106m²
- CO-WORKING SPACE: (GIA)170m² (GEA) 191m²
- NURSERY/COMMUNITY SPACE: (GIA) 60m² (GEA) 70m²
- FARMHOUSE FF RESIDENTIAL: (GIA) 100m² (GEA) 110m²

K	MAY 2023	CLIENT ISSUE – updated landscape
J	MAY 2023	CLIENT ISSUE – updated landscape
H	APR 2023	CLIENT ISSUE – updated parking numbers
G	MAR 2023	CLIENT ISSUE – updated parking layout
F	MAR 2023	CLIENT ISSUE – updated layout
E	MAR 2023	CLIENT ISSUE – updated layout
D	NOV 2022	CLIENT ISSUE – updated nard layout
C	NOV 2022	CLIENT ISSUE – updated layout
B	OCT 2022	CLIENT ISSUE – updated layout
A	OCT 2022	CLIENT ISSUE – updated layout
REV	DATE	DETAILS

MITCHELL ELEY GOULD

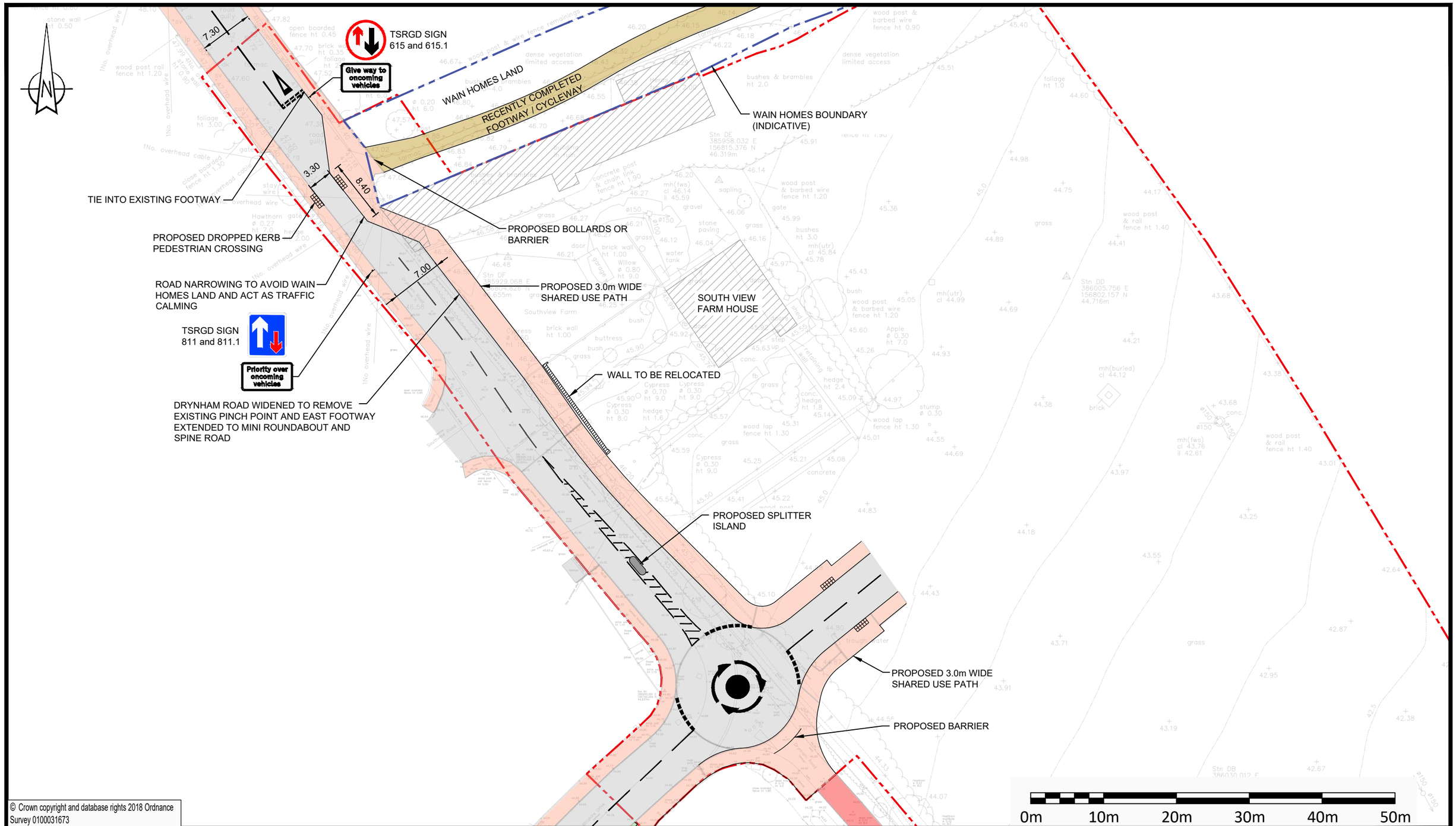
SOUTHVIEW FARM
MIXED USE - RETAIL, OFFICES, AND FLAT
PROPOSED LAYOUT PLAN

PLANNING	OCT 2022	1:200@A1	RM	GS
2226	AL(0)11		K	

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THE ICE HOUSE G/F NORTH OFFICE 124-126 WALCOT STREET BATH BA15BG

APPENDIX B

Committed Road Narrowing on Drynham Road



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REV	DETAILS	DRAWN	CHECKED	DATE
A	SPLITTER ISLAND ADDED	PD	BJC	18.07.2019
B	3.0m WIDE SHARED USE PATH ADDED	BJC	PD	03.04.2020
C	INTERNAL ROAD NETWORK AMENDED	BJC	PD	28.07.2020

NOTES:
1. This drawing is for illustrative purposes only and not for construction.
2. This drawing is to be read and printed in colour.
3. All dimensions are shown in metres, unless specified otherwise.

PROJECT: Elm Grove, Trowbridge

CLIENT: Coulston Estates Ltd

DRAWING TITLE: Proposed Wiltshire Drive / Drynham Lane Access Arrangement

Condon Drew Associates

DRAWN:	CHECKED:	DATE:	SCALES:	SHEET SIZE:	DRAWING NUMBER:	REVISION:
BJC	MM	30.10.2018	1:500	A3	1008-009	C

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN CONDON DREW ASSOCIATES LTD. IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

APPENDIX C

Turning Count Survey Results

Drynham, Tuesday 9th May 2023



Junction: 1
Approach: Drynham Road North

	Ahead to Drynham Road (South)					Right to Southview Road				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	1	0	0	1	1.0	2	0	0	2	2.0
07:15 - 07:30	6	0	0	6	6.0	0	0	0	0	0.0
07:30 - 07:45	8	0	0	8	8.0	0	0	0	0	0.0
07:45 - 08:00	18	0	0	18	18.0	0	0	0	0	0.0
Hourly Total	**33**	**0**	**0**	**33**	**33.0**	**2**	**0**	**0**	**2**	**2.0**
08:00 - 08:15	13	0	0	13	13.0	0	0	0	0	0.0
08:15 - 08:30	25	0	0	25	25.0	0	0	0	0	0.0
08:30 - 08:45	30	0	0	30	30.0	0	0	0	0	0.0
08:45 - 09:00	11	0	0	11	11.0	1	0	0	1	1.0
Hourly Total	**79**	**0**	**0**	**79**	**79.0**	**1**	**0**	**0**	**1**	**1.0**
09:00 - 09:15	9	0	0	9	9.0	3	0	0	3	3.0
09:15 - 09:30	8	0	0	8	8.0	1	0	0	1	1.0
09:30 - 09:45	12	0	0	12	12.0	0	0	1	1	2.0
09:45 - 10:00	11	0	0	11	11.0	4	0	0	4	4.0
Hourly Total	**40**	**0**	**0**	**40**	**40.0**	**8**	**0**	**1**	**9**	**10.0**
10:00 - 10:15	8	0	0	8	8.0	2	0	0	2	2.0
10:15 - 10:30	9	0	0	9	9.0	3	0	0	3	3.0
10:30 - 10:45	13	0	0	13	13.0	0	0	1	1	2.0
10:45 - 11:00	7	0	0	7	7.0	3	0	0	3	3.0
Hourly Total	**37**	**0**	**0**	**37**	**37.0**	**8**	**0**	**1**	**9**	**10.0**
11:00 - 11:15	7	0	0	7	7.0	1	0	0	1	1.0
11:15 - 11:30	8	0	0	8	8.0	3	0	0	3	3.0
11:30 - 11:45	15	0	0	15	15.0	1	0	1	2	3.0
11:45 - 12:00	15	0	0	15	15.0	2	0	0	2	2.0
Hourly Total	**45**	**0**	**0**	**45**	**45.0**	**7**	**0**	**1**	**8**	**9.0**
12:00 - 12:15	7	0	0	7	7.0	2	0	0	2	2.0
12:15 - 12:30	10	1	0	11	12.3	3	0	0	3	3.0
12:30 - 12:45	17	0	0	17	17.0	2	0	1	3	4.0
12:45 - 13:00	10	0	0	10	10.0	4	0	0	4	4.0
Hourly Total	**44**	**1**	**0**	**45**	**46.3**	**11**	**0**	**1**	**12**	**13.0**
13:00 - 13:15	10	0	0	10	10.0	3	0	0	3	3.0
13:15 - 13:30	10	0	0	10	10.0	1	0	0	1	1.0
13:30 - 13:45	17	0	0	17	17.0	3	0	0	3	3.0
13:45 - 14:00	6	0	0	6	6.0	3	0	0	3	3.0
Hourly Total	**43**	**0**	**0**	**43**	**43.0**	**10**	**0**	**0**	**10**	**10.0**
14:00 - 14:15	8	0	0	8	8.0	3	0	0	3	3.0
14:15 - 14:30	14	0	0	14	14.0	3	0	0	3	3.0
14:30 - 14:45	10	0	0	10	10.0	3	0	0	3	3.0
14:45 - 15:00	21	0	0	21	21.0	3	0	0	3	3.0
Hourly Total	**53**	**0**	**0**	**53**	**53.0**	**12**	**0**	**0**	**12**	**12.0**
15:00 - 15:15	12	0	0	12	12.0	2	0	0	2	2.0
15:15 - 15:30	23	0	0	23	23.0	1	0	0	1	1.0
15:30 - 15:45	15	0	0	15	15.0	0	0	0	0	0.0
15:45 - 16:00	13	0	0	13	13.0	3	0	0	3	3.0
Hourly Total	**63**	**0**	**0**	**63**	**63.0**	**6**	**0**	**0**	**6**	**6.0**
16:00 - 16:15	16	0	0	16	16.0	3	0	0	3	3.0
16:15 - 16:30	19	0	0	19	19.0	4	0	1	5	6.0
16:30 - 16:45	22	0	0	22	22.0	4	0	0	4	4.0
16:45 - 17:00	18	0	0	18	18.0	1	0	0	1	1.0
Hourly Total	**75**	**0**	**0**	**75**	**75.0**	**12**	**0**	**1**	**13**	**14.0**
17:00 - 17:15	16	0	0	16	16.0	5	0	0	5	5.0
17:15 - 17:30	31	0	0	31	31.0	6	0	0	6	6.0
17:30 - 17:45	32	0	0	32	32.0	3	0	0	3	3.0
17:45 - 18:00	19	0	0	19	19.0	4	0	0	4	4.0
Hourly Total	**98**	**0**	**0**	**98**	**98.0**	**18**	**0**	**0**	**18**	**18.0**
18:00 - 18:15	17	0	0	17	17.0	1	0	0	1	1.0
18:15 - 18:30	14	0	0	14	14.0	2	0	0	2	2.0
18:30 - 18:45	9	0	0	9	9.0	1	0	0	1	1.0
18:45 - 19:00	6	0	0	6	6.0	4	0	0	4	4.0
Hourly Total	**46**	**0**	**0**	**46**	**46.0**	**8**	**0**	**0**	**8**	**8.0**
TOTAL	**656**	**1**	**0**	**657**	**658.3**	**103**	**0**	**5**	**108**	**113.0**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Drynham, Tuesday 9th May 2023



Junction: 1
Approach: Drynham Road South

	Left to Southview Road					Ahead to Drynham Road (North)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	3	0	0	3	3.0
07:15 - 07:30	1	0	0	1	1.0	3	0	0	3	3.0
07:30 - 07:45	0	0	0	0	0.0	7	0	0	7	7.0
07:45 - 08:00	0	0	0	0	0.0	5	0	0	5	5.0
Hourly Total	**1**	**0**	**0**	**1**	**1.0**	**18**	**0**	**0**	**18**	**18.0**
08:00 - 08:15	0	0	0	0	0.0	7	0	0	7	7.0
08:15 - 08:30	0	0	0	0	0.0	9	0	0	9	9.0
08:30 - 08:45	0	0	0	0	0.0	12	0	0	12	12.0
08:45 - 09:00	0	0	0	0	0.0	7	0	0	7	7.0
Hourly Total	**0**	**0**	**0**	**0**	**0.0**	**35**	**0**	**0**	**35**	**35.0**
09:00 - 09:15	0	0	0	0	0.0	3	0	0	3	3.0
09:15 - 09:30	0	0	0	0	0.0	1	0	0	1	1.0
09:30 - 09:45	0	0	0	0	0.0	4	0	0	4	4.0
09:45 - 10:00	0	0	0	0	0.0	7	0	0	7	7.0
Hourly Total	**0**	**0**	**0**	**0**	**0.0**	**15**	**0**	**0**	**15**	**15.0**
10:00 - 10:15	1	0	0	1	1.0	0	0	0	0	0.0
10:15 - 10:30	0	0	0	0	0.0	5	0	0	5	5.0
10:30 - 10:45	0	0	0	0	0.0	3	0	0	3	3.0
10:45 - 11:00	2	0	0	2	2.0	2	0	0	2	2.0
Hourly Total	**3**	**0**	**0**	**3**	**3.0**	**10**	**0**	**0**	**10**	**10.0**
11:00 - 11:15	1	0	0	1	1.0	4	0	0	4	4.0
11:15 - 11:30	0	0	0	0	0.0	6	0	0	6	6.0
11:30 - 11:45	0	0	0	0	0.0	5	0	0	5	5.0
11:45 - 12:00	0	0	0	0	0.0	3	0	0	3	3.0
Hourly Total	**1**	**0**	**0**	**1**	**1.0**	**18**	**0**	**0**	**18**	**18.0**
12:00 - 12:15	0	0	0	0	0.0	6	0	0	6	6.0
12:15 - 12:30	2	0	0	2	2.0	7	0	0	7	7.0
12:30 - 12:45	0	0	0	0	0.0	7	0	0	7	7.0
12:45 - 13:00	2	0	0	2	2.0	7	0	0	7	7.0
Hourly Total	**4**	**0**	**0**	**4**	**4.0**	**27**	**0**	**0**	**27**	**27.0**
13:00 - 13:15	0	0	0	0	0.0	2	0	0	2	2.0
13:15 - 13:30	1	0	0	1	1.0	1	0	0	1	1.0
13:30 - 13:45	2	0	0	2	2.0	7	0	0	7	7.0
13:45 - 14:00	2	0	0	2	2.0	8	0	0	8	8.0
Hourly Total	**5**	**0**	**0**	**5**	**5.0**	**18**	**0**	**0**	**18**	**18.0**
14:00 - 14:15	1	0	0	1	1.0	7	0	0	7	7.0
14:15 - 14:30	0	0	0	0	0.0	5	0	0	5	5.0
14:30 - 14:45	0	0	0	0	0.0	4	0	0	4	4.0
14:45 - 15:00	0	0	0	0	0.0	3	0	0	3	3.0
Hourly Total	**1**	**0**	**0**	**1**	**1.0**	**19**	**0**	**0**	**19**	**19.0**
15:00 - 15:15	1	1	0	2	3.3	9	0	0	9	9.0
15:15 - 15:30	1	0	0	1	1.0	9	0	0	9	9.0
15:30 - 15:45	1	0	0	1	1.0	7	0	0	7	7.0
15:45 - 16:00	2	0	0	2	2.0	3	0	0	3	3.0
Hourly Total	**5**	**1**	**0**	**6**	**7.3**	**28**	**0**	**0**	**28**	**28.0**
16:00 - 16:15	1	0	0	1	1.0	5	0	0	5	5.0
16:15 - 16:30	3	0	0	3	3.0	8	0	0	8	8.0
16:30 - 16:45	0	0	0	0	0.0	11	0	0	11	11.0
16:45 - 17:00	1	0	0	1	1.0	7	0	0	7	7.0
Hourly Total	**5**	**0**	**0**	**5**	**5.0**	**31**	**0**	**0**	**31**	**31.0**
17:00 - 17:15	0	0	0	0	0.0	8	0	0	8	8.0
17:15 - 17:30	1	0	0	1	1.0	14	0	0	14	14.0
17:30 - 17:45	1	0	0	1	1.0	23	0	0	23	23.0
17:45 - 18:00	0	0	0	0	0.0	16	0	0	16	16.0
Hourly Total	**2**	**0**	**0**	**2**	**2.0**	**61**	**0**	**0**	**61**	**61.0**
18:00 - 18:15	2	0	0	2	2.0	14	0	0	14	14.0
18:15 - 18:30	0	0	0	0	0.0	7	0	0	7	7.0
18:30 - 18:45	0	0	0	0	0.0	4	0	0	4	4.0
18:45 - 19:00	0	0	0	0	0.0	9	0	0	9	9.0
Hourly Total	**2**	**0**	**0**	**2**	**2.0**	**34**	**0**	**0**	**34**	**34.0**
TOTAL	**29**	**1**	**0**	**30**	**31.3**	**314**	**0**	**0**	**314**	**314.0**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Drynham, Tuesday 9th May 2023



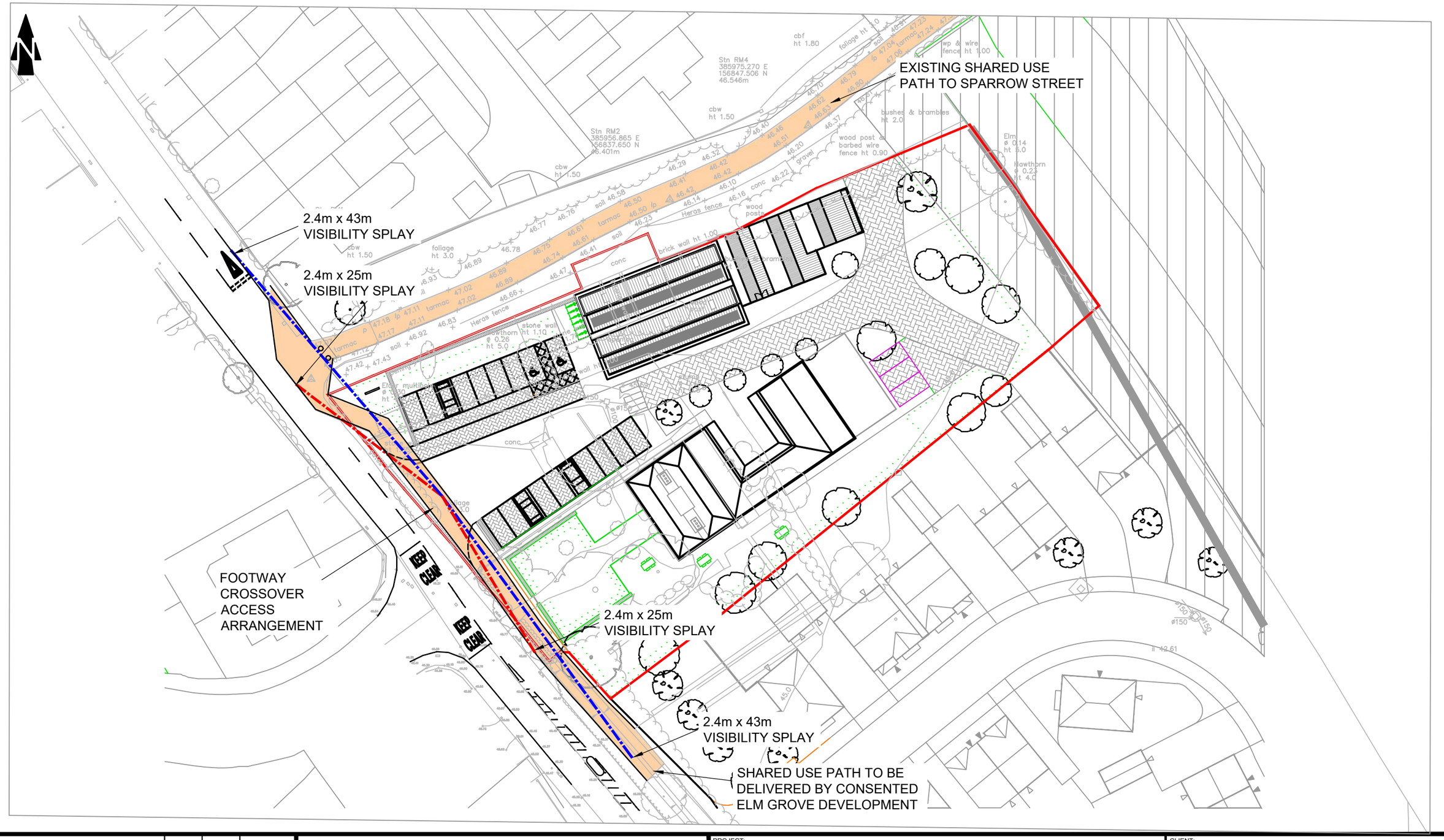
Junction: 1
Approach: Southview Road

	Left to Drynham Road (North)					Right to Drynham Road (South)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	1	0	0	1	1.0
07:15 - 07:30	2	0	0	2	2.0	0	0	0	0	0.0
07:30 - 07:45	7	0	0	7	7.0	0	0	0	0	0.0
07:45 - 08:00	5	0	0	5	5.0	2	0	0	2	2.0
Hourly Total	**14**	**0**	**0**	**14**	**14.0**	**3**	**0**	**0**	**3**	**3.0**
08:00 - 08:15	2	0	0	2	2.0	0	0	0	0	0.0
08:15 - 08:30	1	0	0	1	1.0	0	0	0	0	0.0
08:30 - 08:45	4	0	0	4	4.0	0	0	0	0	0.0
08:45 - 09:00	2	0	0	2	2.0	1	0	0	1	1.0
Hourly Total	**9**	**0**	**0**	**9**	**9.0**	**1**	**0**	**0**	**1**	**1.0**
09:00 - 09:15	2	0	0	2	2.0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	3	0	0	3	3.0	0	0	0	0	0.0
09:45 - 10:00	2	0	0	2	2.0	1	0	0	1	1.0
Hourly Total	**7**	**0**	**0**	**7**	**7.0**	**1**	**0**	**0**	**1**	**1.0**
10:00 - 10:15	2	0	0	2	2.0	1	0	0	1	1.0
10:15 - 10:30	2	0	0	2	2.0	1	0	0	1	1.0
10:30 - 10:45	1	0	0	1	1.0	1	0	0	1	1.0
10:45 - 11:00	2	0	0	2	2.0	0	0	0	0	0.0
Hourly Total	**7**	**0**	**0**	**7**	**7.0**	**3**	**0**	**0**	**3**	**3.0**
11:00 - 11:15	3	0	0	3	3.0	2	0	0	2	2.0
11:15 - 11:30	0	0	0	0	0.0	0	0	0	0	0.0
11:30 - 11:45	2	0	0	2	2.0	0	0	0	0	0.0
11:45 - 12:00	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	**6**	**0**	**0**	**6**	**6.0**	**2**	**0**	**0**	**2**	**2.0**
12:00 - 12:15	0	0	0	0	0.0	0	0	0	0	0.0
12:15 - 12:30	1	0	0	1	1.0	1	0	0	1	1.0
12:30 - 12:45	3	0	0	3	3.0	0	0	0	0	0.0
12:45 - 13:00	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	**4**	**0**	**0**	**4**	**4.0**	**1**	**0**	**0**	**1**	**1.0**
13:00 - 13:15	2	0	0	2	2.0	0	0	0	0	0.0
13:15 - 13:30	2	0	0	2	2.0	0	0	0	0	0.0
13:30 - 13:45	0	0	0	0	0.0	0	0	0	0	0.0
13:45 - 14:00	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	**5**	**0**	**0**	**5**	**5.0**	**0**	**0**	**0**	**0**	**0.0**
14:00 - 14:15	1	0	0	1	1.0	0	0	0	0	0.0
14:15 - 14:30	1	0	0	1	1.0	1	0	0	1	1.0
14:30 - 14:45	4	0	0	4	4.0	0	0	0	0	0.0
14:45 - 15:00	3	0	0	3	3.0	0	0	0	0	0.0
Hourly Total	**9**	**0**	**0**	**9**	**9.0**	**1**	**0**	**0**	**1**	**1.0**
15:00 - 15:15	1	0	0	1	1.0	0	0	0	0	0.0
15:15 - 15:30	0	0	0	0	0.0	4	0	0	4	4.0
15:30 - 15:45	1	0	0	1	1.0	2	0	0	2	2.0
15:45 - 16:00	4	0	0	4	4.0	0	0	0	0	0.0
Hourly Total	**6**	**0**	**0**	**6**	**6.0**	**6**	**0**	**0**	**6**	**6.0**
16:00 - 16:15	1	0	0	1	1.0	1	0	0	1	1.0
16:15 - 16:30	2	0	0	2	2.0	1	0	0	1	1.0
16:30 - 16:45	3	0	0	3	3.0	0	0	0	0	0.0
16:45 - 17:00	3	0	0	3	3.0	0	0	0	0	0.0
Hourly Total	**9**	**0**	**0**	**9**	**9.0**	**2**	**0**	**0**	**2**	**2.0**
17:00 - 17:15	3	0	0	3	3.0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0.0	2	0	0	2	2.0
17:30 - 17:45	3	0	0	3	3.0	0	0	0	0	0.0
17:45 - 18:00	1	0	0	1	1.0	1	0	0	1	1.0
Hourly Total	**7**	**0**	**0**	**7**	**7.0**	**3**	**0**	**0**	**3**	**3.0**
18:00 - 18:15	0	0	0	0	0.0	0	0	0	0	0.0
18:15 - 18:30	2	0	0	2	2.0	0	0	0	0	0.0
18:30 - 18:45	2	0	0	2	2.0	0	0	0	0	0.0
18:45 - 19:00	2	0	0	2	2.0	0	0	0	0	0.0
Hourly Total	**6**	**0**	**0**	**6**	**6.0**	**0**	**0**	**0**	**0**	**0.0**
TOTAL	**89**	**0**	**0**	**89**	**89.0**	**23**	**0**	**0**	**23**	**23.0**

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

APPENDIX D

Site Access Plan



REV	DETAILS	DRAWN	CHECKED	DATE
A	FOOTWAY CROSSOVER AND 'KEEP CLEAR' ROAD MARKINGS ADDED	SLW	CDM	21.02.2023
B	ARCHITECTS LAYOUT UPDATED	SLW	CDM	19.05.2023

NOTES:

1. This drawing is for illustrative purposes only and not for construction.
2. This drawing is to be read and printed in colour.

0 5 10 25 50m

SCALE 1:500

PROJECT: SOUTHVIEW FARM, DRYNHAM ROAD, TROWBRIDGE

CLIENT: COULSTON ESTATES LTD

DRAWING TITLE:

PROPOSED SITE ACCESS

MILES WHITE TRANSPORT

DRAWN:	CHECKED:	DATE:	SCALES:	SHEET SIZE:	DRAWING NUMBER:	REVISION:
SLW	CDM	01.12.2022	1:500	A3	22051-GA01	B

NOTE: THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN MILES WHITE TRANSPORT LTD. IT MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR PRIOR WRITTEN CONSENT.

APPENDIX E

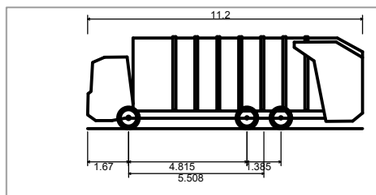
Swept Path Analysis



11.2m LARGE REFUSE VEHICLE
SWEPT PATH ANALYSIS



10.35m HG RIGID VEHICLE
SWEPT PATH ANALYSIS

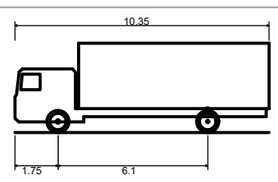


Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)	
Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

11.2m LARGE REFUSE VEHICLE PROFILE

0 5 10 25 50m

SCALE 1:500



10.35 FTA Design HG Rigid Vehicle (1998)	
Overall Length	10.350m
Overall Width	2.500m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

10.35m HG RIGID VEHICLE PROFILE

REV	DETAILS	DRAWN	CHECKED	DATE

NOTES:
1. This drawing is for illustrative purposes only and not for construction.
2. This drawing is to be read and printed in colour.

PROJECT: SOUTHVIEW FARM, DRYNHAM ROAD, TROWBRIDGE

CLIENT: COULSTON ESTATES LTD

DRAWING TITLE:
LARGE REFUSE AND DELIVERY VEHICLE SWEPT PATH ANALYSIS

MILES WHITE TRANSPORT

DRAWN:	CHECKED:	DATE:	SCALES:	SHEET SIZE:	DRAWING NUMBER:	REVISION:
SLW	CDM	19.05.2023	1:500	A3	22051-SPA01	-

APPENDIX F

TRICS Data Sheets

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : O - CONVENIENCE STORE
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	WS	WEST SUSSEX	1 days
03	**SOUTH WEST**		
	BC	BOURNEMOUTH CHRISTCHURCH & POOLE	1 days
	SD	SWINDON	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days
11	**SCOTLAND**		
	AS	ABERDEENSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 275 to 550 (units: sqm)
Range Selected by User: 100 to 600 (units: sqm)

Parking Spaces Range: Selected: 5 to 20 Actual: 1 to 36

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 29/09/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Wednesday	2 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	3
High Street	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	3 days - Selected

Secondary Filtering selection:

Use Class:

E(a)	4 days
F2(a)	1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	5 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **AS-01-O-01** **CO-OP** **ABERDEENSHIRE**
REDCLOAK DRIVE
STONEHAVEN

Edge of Town
Residential Zone
Total Gross floor area: 275 sqm
Survey date: WEDNESDAY *20/04/22* *Survey Type: MANUAL*

2 **BC-01-O-01** **SAINSBURY'S LOCAL** **BOURNEMOUTH CHRISTCHURCH & POOLE**
WIMBORNE ROAD
BOURNEMOUTH
WINTON
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 550 sqm
Survey date: THURSDAY *29/09/22* *Survey Type: MANUAL*

3 **SD-01-O-01** **ONE STOP** **SWINDON**
THE CIRCLE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 292 sqm
Survey date: FRIDAY *23/09/16* *Survey Type: MANUAL*

4 **TW-01-O-02** **CO-OPERATIVE** **TYNE & WEAR**
ETHEL TERRACE
SUNDERLAND
CASTLETOWN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 330 sqm
Survey date: FRIDAY *07/04/17* *Survey Type: MANUAL*

5 **WS-01-O-02** **SAINSBURY'S LOCAL** **WEST SUSSEX**
GORING ROAD
WORTHING
GORING-BY-SEA
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 409 sqm
Survey date: WEDNESDAY *11/05/22* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	480	0.521	2	480	0.209	2	480	0.730
07:00 - 08:00	5	371	5.765	5	371	5.280	5	371	11.045
08:00 - 09:00	5	371	6.358	5	371	6.681	5	371	13.039
09:00 - 10:00	5	371	6.735	5	371	5.819	5	371	12.554
10:00 - 11:00	5	371	6.250	5	371	5.765	5	371	12.015
11:00 - 12:00	5	371	7.381	5	371	7.112	5	371	14.493
12:00 - 13:00	**5**	**371**	**9.375**	5	371	9.429	**5**	**371**	**18.804**
13:00 - 14:00	5	371	6.789	5	371	6.304	5	371	13.093
14:00 - 15:00	5	371	6.735	5	371	6.950	5	371	13.685
15:00 - 16:00	5	371	8.190	5	371	8.136	5	371	16.326
16:00 - 17:00	5	371	9.321	5	371	8.136	5	371	17.457
17:00 - 18:00	5	371	9.267	**5**	**371**	**9.483**	5	371	18.750
18:00 - 19:00	5	371	8.890	5	371	9.106	5	371	17.996
19:00 - 20:00	5	371	7.220	5	371	7.597	5	371	14.817
20:00 - 21:00	4	391	3.581	4	391	4.476	4	391	8.057
21:00 - 22:00	3	430	2.017	3	430	2.327	3	430	4.344
22:00 - 23:00	2	480	0.730	2	480	0.417	2	480	1.147
23:00 - 24:00	1	409	0.000	1	409	0.244	1	409	0.244
Total Rates:			105.125			103.471			208.596

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	275 - 550 (units: sqm)
Survey date date range:	01/01/15 - 29/09/22
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
04	**EAST ANGLIA**		
	NF	NORFOLK	1 days
06	**WEST MIDLANDS**		
	WK	WARWICKSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 186 to 1800 (units: sqm)
Range Selected by User: 118 to 2000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 23/11/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	3 days
Wednesday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	1
Residential Zone	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	5 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	5 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **ES-02-A-11** **HOUSING COMPANY** **EAST SUSSEX**
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 186 sqm
Survey date: TUESDAY *17/11/15* *Survey Type: MANUAL*

2 **NF-02-A-04** **BUILDING CONSULTANT** **NORFOLK**
WHITING ROAD
NORWICH

Edge of Town
Commercial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY *13/11/19* *Survey Type: MANUAL*

3 **WK-02-A-03** **ENGINEERING CONSULTANTS** **WARWICKSHIRE**
BUDBROOKE ROAD
WARWICK

Edge of Town
Industrial Zone
Total Gross floor area: 796 sqm
Survey date: WEDNESDAY *23/11/22* *Survey Type: MANUAL*

4 **WM-02-A-04** **OFFICE** **WEST MIDLANDS**
BOURNVILLE LANE
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1800 sqm
Survey date: TUESDAY *10/11/15* *Survey Type: MANUAL*

5 **WY-02-A-05** **OFFICES** **WEST YORKSHIRE**
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Gross floor area: 1230 sqm
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
BG-02-A-01	06/05/21	Covid restrictions in place
GM-02-A-10	19/04/21	Covid restrictions in place
MS-02-A-03	20/04/21	Covid restrictions in place

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	902	0.266	5	902	0.022	5	902	0.288
07:30 - 08:00	5	902	0.754	5	902	0.000	5	902	0.754
08:00 - 08:30	**5**	**902**	**1.574**	5	902	0.066	5	902	1.640
08:30 - 09:00	5	902	1.064	5	902	0.111	5	902	1.175
09:00 - 09:30	5	902	0.643	5	902	0.177	5	902	0.820
09:30 - 10:00	5	902	0.199	5	902	0.177	5	902	0.376
10:00 - 10:30	5	902	0.199	5	902	0.111	5	902	0.310
10:30 - 11:00	5	902	0.310	5	902	0.133	5	902	0.443
11:00 - 11:30	5	902	0.177	5	902	0.133	5	902	0.310
11:30 - 12:00	5	902	0.266	5	902	0.310	5	902	0.576
12:00 - 12:30	5	902	0.377	5	902	0.576	5	902	0.953
12:30 - 13:00	5	902	0.244	5	902	0.554	5	902	0.798
13:00 - 13:30	5	902	0.488	5	902	0.199	5	902	0.687
13:30 - 14:00	5	902	0.399	5	902	0.377	5	902	0.776
14:00 - 14:30	5	902	0.177	5	902	0.133	5	902	0.310
14:30 - 15:00	5	902	0.266	5	902	0.222	5	902	0.488
15:00 - 15:30	5	902	0.222	5	902	0.377	5	902	0.599
15:30 - 16:00	5	902	0.155	5	902	0.332	5	902	0.487
16:00 - 16:30	5	902	0.199	5	902	0.621	5	902	0.820
16:30 - 17:00	5	902	0.288	**5**	**902**	**1.529**	**5**	**902**	**1.817**
17:00 - 17:30	5	902	0.022	5	902	1.020	5	902	1.042
17:30 - 18:00	5	902	0.022	5	902	0.798	5	902	0.820
18:00 - 18:30	4	821	0.091	4	821	0.427	4	821	0.518
18:30 - 19:00	4	821	0.000	4	821	0.152	4	821	0.152
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			8.402			8.557			16.959

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	186 - 1800 (units: sqm)
Survey date date range:	01/01/15 - 23/11/22
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : D - NURSERY
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	BH	BRIGHTON & HOVE	1 days
03	**SOUTH WEST**		
	BA	BATH & NORTH EAST SOMERSET	1 days
	SD	SWINDON	1 days
04	**EAST ANGLIA**		
	PB	PETERBOROUGH	1 days
05	**EAST MIDLANDS**		
	DY	DERBY	1 days
06	**WEST MIDLANDS**		
	WK	WARWICKSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	1 days
09	**NORTH**		
	TV	TEES VALLEY	1 days
11	**SCOTLAND**		
	DU	DUNDEE CITY	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 150 to 500 (units: sqm)
Range Selected by User: 120 to 500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 15/09/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	2 days
Thursday	3 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	8

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	1 days - Selected
Servicing vehicles Excluded	8 days - Selected

Secondary Filtering selection:

Use Class:

E(f)	9 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	9 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	9 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	**BA-04-D-02**	**NURSERY**		**BATH & NORTH EAST SOMERSET**
	MIDFORD ROAD			
	BATH			
	COMBE DOWN			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:	300 sqm		
	Survey date: THURSDAY	*15/09/22*	*Survey Type: MANUAL*	
2	**BH-04-D-01**	**NURSERY**		**BRIGHTON & HOVE**
	CONNAUGHT ROAD			
	BRIGHTON			
	HOVE			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:	185 sqm		
	Survey date: FRIDAY	*22/09/17*	*Survey Type: MANUAL*	
3	**DU-04-D-01**	**NURSERY**		**DUNDEE CITY**
	LONGTOWN TERRACE			
	DUNDEE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	325 sqm		
	Survey date: MONDAY	*24/04/17*	*Survey Type: MANUAL*	
4	**DY-04-D-02**	**NURSERY**		**DERBY**
	MAXWELL AVENUE			
	DERBY			
	DARLEY ABBEY			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	415 sqm		
	Survey date: THURSDAY	*12/07/18*	*Survey Type: MANUAL*	
5	**NY-04-D-02**	**NURSERY**		**NORTH YORKSHIRE**
	OAKNEY WOOD ROAD			
	SELBY			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:	450 sqm		
	Survey date: TUESDAY	*10/05/22*	*Survey Type: MANUAL*	
6	**PB-04-D-01**	**NURSERY**		**PETERBOROUGH**
	EASTFIELD ROAD			
	PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	400 sqm		
	Survey date: TUESDAY	*18/10/16*	*Survey Type: MANUAL*	
7	**SD-04-D-01**	**NURSERY**		**SWINDON**
	SHREWSBURY ROAD			
	SWINDON			
	WALCOT			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	500 sqm		
	Survey date: THURSDAY	*22/09/16*	*Survey Type: MANUAL*	
8	**TV-04-D-01**	**NURSERY**		**TEES VALLEY**
	COTSWOLD DRIVE			
	REDCAR			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	150 sqm		
	Survey date: FRIDAY	*19/05/17*	*Survey Type: MANUAL*	
9	**WK-04-D-01**	**NURSERY**		**WARWICKSHIRE**
	THE RIDGEWAY			
	STRATFORD UPON AVON			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	340 sqm		
	Survey date: FRIDAY	*29/06/18*	*Survey Type: MANUAL*	

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	3	383	0.174	3	383	0.000	3	383	0.174
07:00 - 08:00	9	341	3.002	9	341	1.501	9	341	4.503
08:00 - 09:00	**9**	**341**	**4.111**	**9**	**341**	**3.785**	**9**	**341**	**7.896**
09:00 - 10:00	9	341	1.338	9	341	1.077	9	341	2.415
10:00 - 11:00	9	341	0.783	9	341	0.424	9	341	1.207
11:00 - 12:00	9	341	0.718	9	341	0.555	9	341	1.273
12:00 - 13:00	9	341	0.946	9	341	1.207	9	341	2.153
13:00 - 14:00	9	341	0.816	9	341	1.207	9	341	2.023
14:00 - 15:00	9	341	0.457	9	341	0.685	9	341	1.142
15:00 - 16:00	9	341	1.109	9	341	1.142	9	341	2.251
16:00 - 17:00	9	341	1.762	9	341	1.990	9	341	3.752
17:00 - 18:00	9	341	3.002	9	341	3.556	9	341	6.558
18:00 - 19:00	8	364	0.343	8	364	0.858	8	364	1.201
19:00 - 20:00	2	425	0.118	2	425	1.176	2	425	1.294
20:00 - 21:00	1	450	0.000	1	450	0.000	1	450	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			18.679			19.163			37.842

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	150 - 500 (units: sqm)
Survey date date range:	01/01/15 - 15/09/22
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX G

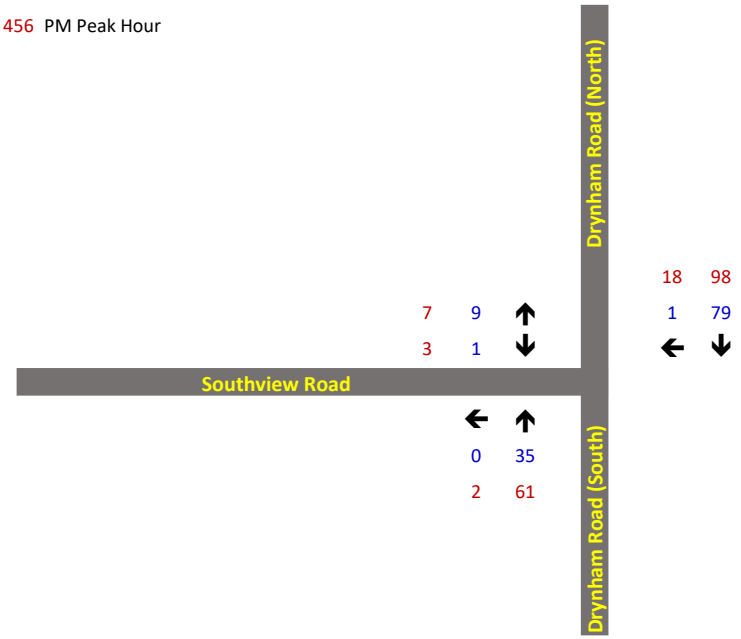
Traffic Flow Diagrams

KEY

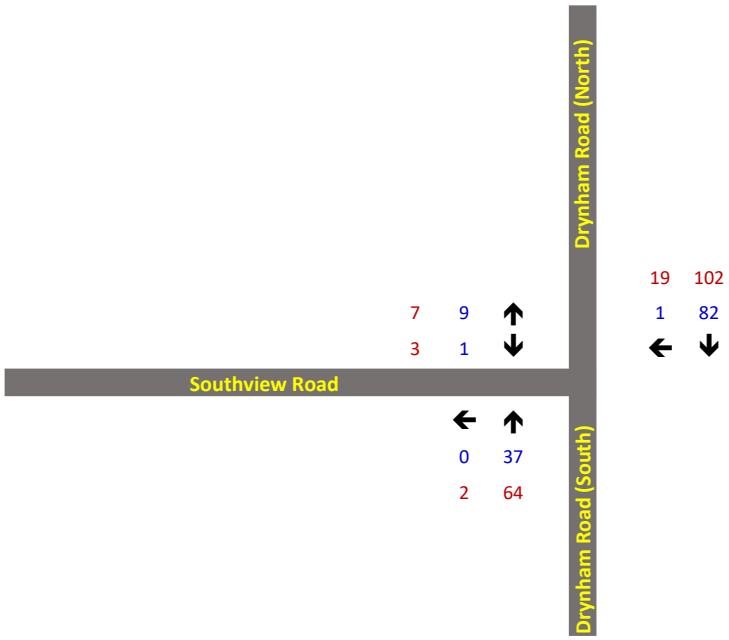
123 AM Peak Hour

456 PM Peak Hour

2023 Surveyed Flows



2028 Base Flows



PM Growth Factor: 1.0440

AM Growth Factor: 1.0451

MILES WHITE TRANSPORT

22051: Southview Farm, Trowbridge

2023 Surveyed Flows and 2028 Base Flows (PCUs)

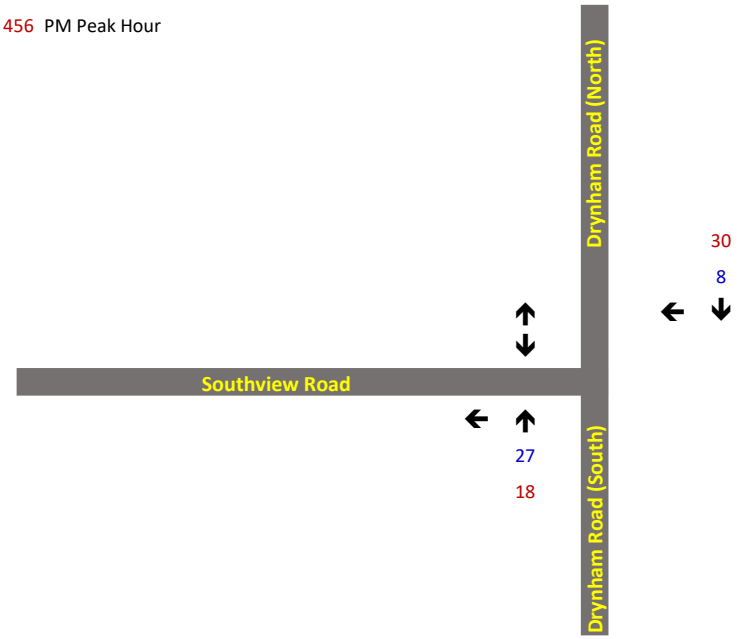
TIA-01

KEY

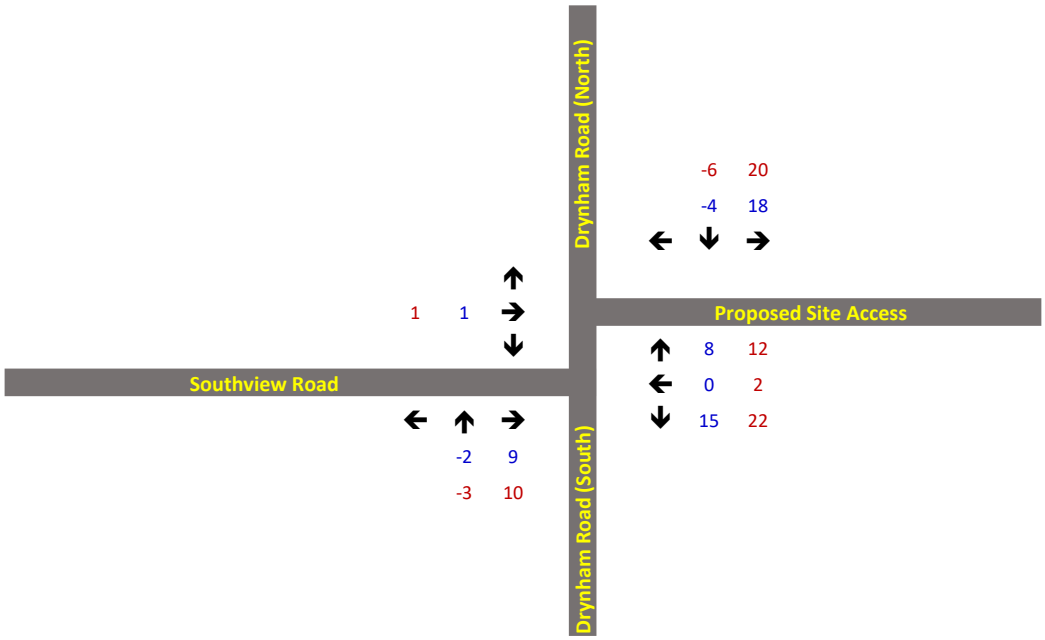
123 AM Peak Hour

456 PM Peak Hour

Elm Grove Committed Development Trips



Proposed Development Trips



MILES WHITE TRANSPORT

22051: Southview Farm, Trowbridge

Committed Development Flows & Proposed Development Flows (PCUs)

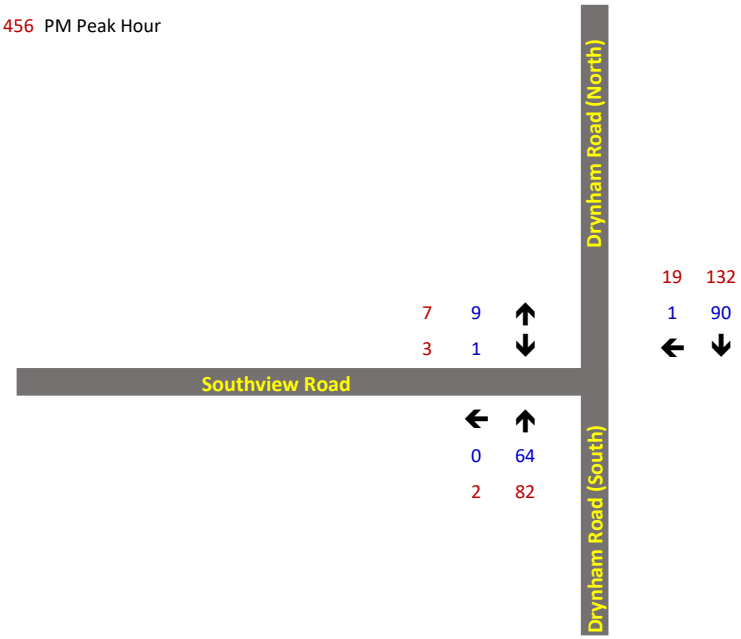
TIA-02

KEY

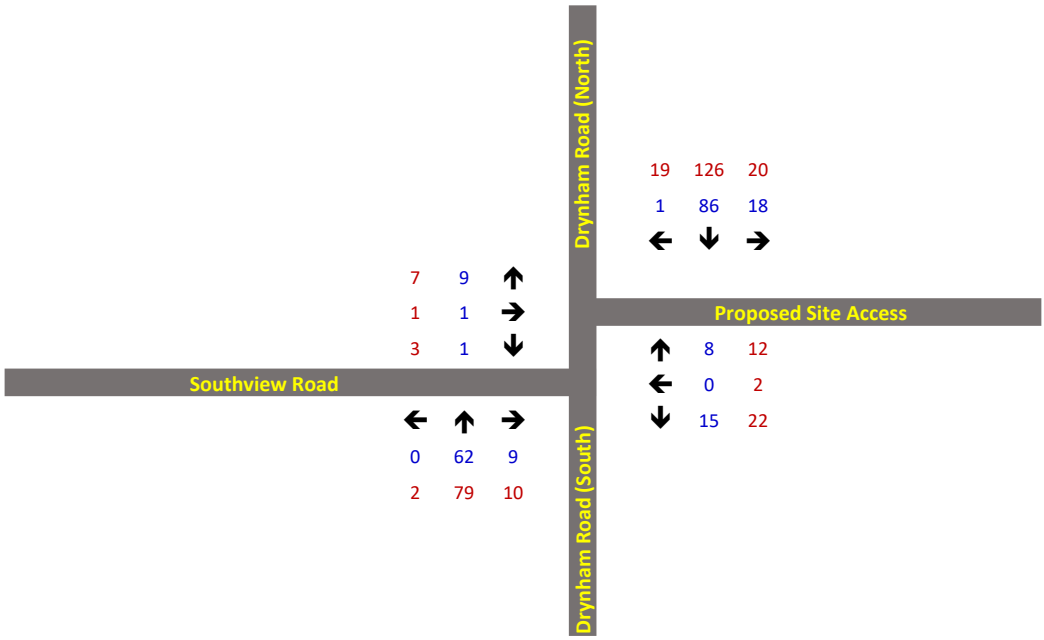
123 AM Peak Hour

456 PM Peak Hour

2028 Base + Elm Grove Committed Development Trips



2028 Base + Committed Development + Proposed Development Trips



MILES WHITE TRANSPORT

22051:Southview Farm, Trowbridge

2028 Base Flows
+ Committed Development Flows
& Proposed Development Flows
(PCUs)

TIA-03

APPENDIX H

Junction Capacity Assessments

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: 2023-05-19 Ex Junction-v01.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1100-1199\1135-MWT Technical Support\22051-Southview Farm\02-Analysis\PICADY
Report generation date: 19/05/2023 13:32:46

»2023 Surveyed, AM
»2023 Surveyed, PM
»2028 Base, AM
»2028 Base, PM
»2028 Base + Com Dev, AM
»2028 Base + Com Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Surveyed							
Stream B-AC	0.0	6.32	0.02	A	0.0	6.88	0.02	A
Stream C-AB	0.0	6.24	0.00	A	0.1	6.34	0.04	A
	2028 Base							
Stream B-AC	0.0	6.33	0.02	A	0.0	6.90	0.02	A
Stream C-AB	0.0	6.23	0.00	A	0.1	6.34	0.04	A
	2028 Base + Com Dev							
Stream B-AC	0.0	6.41	0.02	A	0.0	6.99	0.02	A
Stream C-AB	0.0	6.24	0.00	A	0.1	6.22	0.04	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

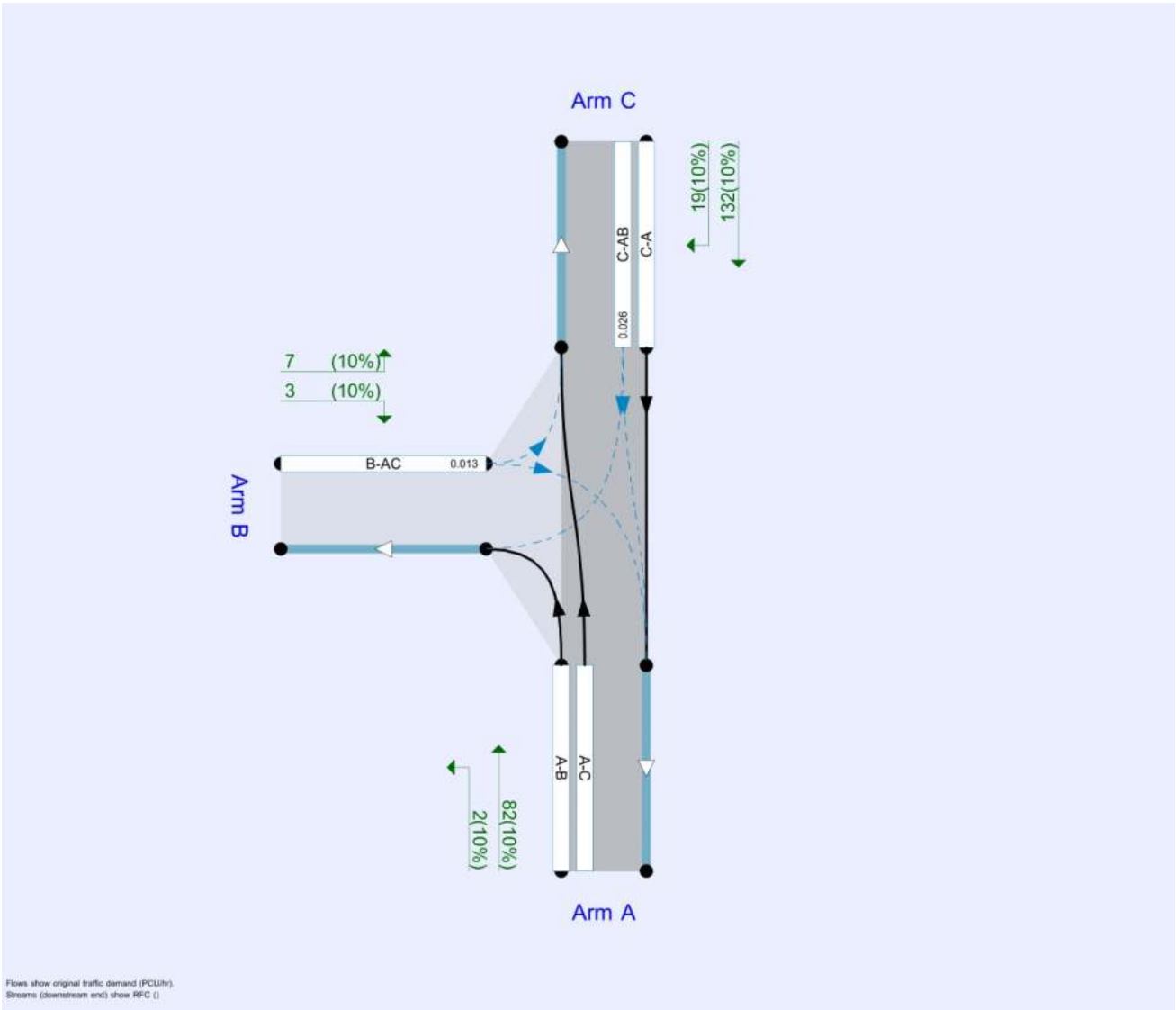
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	19/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Surveyed	AM	ONE HOUR	08:00	09:30	15
D2	2023 Surveyed	PM	ONE HOUR	17:00	18:30	15
D3	2028 Base	AM	ONE HOUR	08:00	09:30	15
D4	2028 Base	PM	ONE HOUR	17:00	18:30	15
D5	2028 Base + Com Dev	AM	ONE HOUR	08:00	09:30	15
D6	2028 Base + Com Dev	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Surveyed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Drynham Road (South)		Major
B	Southview Road		Minor
C	Drynham Road (North)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.50			48.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.60	14	11

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	517	0.096	0.243	0.153	0.347
1	B-C	669	0.105	0.265	-	-
1	C-B	602	0.238	0.238	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Surveyed	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	35	100.000
B		✓	10	100.000
C		✓	80	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	35
	B	1	0	9
	C	79	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.32	0.0	A
C-AB	0.00	6.24	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	641	0.012	7	0.0	6.248	A
C-AB	0.83	635	0.001	0.82	0.0	6.240	A
C-A	59			59			
A-B	0			0			
A-C	26			26			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	640	0.014	9	0.0	6.279	A
C-AB	1	642	0.002	1	0.0	6.178	A
C-A	71			71			
A-B	0			0			
A-C	31			31			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	637	0.017	11	0.0	6.322	A
C-AB	1	651	0.002	1	0.0	6.094	A
C-A	87			87			
A-B	0			0			
A-C	39			39			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	637	0.017	11	0.0	6.322	A
C-AB	1	651	0.002	1	0.0	6.097	A
C-A	87			87			
A-B	0			0			
A-C	39			39			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	640	0.014	9	0.0	6.279	A
C-AB	1	642	0.002	1	0.0	6.178	A
C-A	71			71			
A-B	0			0			
A-C	31			31			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	641	0.012	8	0.0	6.248	A
C-AB	0.83	635	0.001	0.83	0.0	6.240	A
C-A	59			59			
A-B	0			0			
A-C	26			26			

2023 Surveyed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Surveyed	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	63	100.000
B		✓	10	100.000
C		✓	116	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	61
	B	3	0	7
	C	98	18	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.88	0.0	A
C-AB	0.04	6.34	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	595	0.013	7	0.0	6.734	A
C-AB	15	640	0.024	15	0.0	6.338	A
C-A	72			72			
A-B	2			2			
A-C	46			46			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	592	0.015	9	0.0	6.794	A
C-AB	19	648	0.029	19	0.0	6.296	A
C-A	86			86			
A-B	2			2			
A-C	55			55			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	587	0.019	11	0.0	6.879	A
C-AB	24	658	0.036	24	0.1	6.242	A
C-A	104			104			
A-B	2			2			
A-C	67			67			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	587	0.019	11	0.0	6.879	A
C-AB	24	658	0.036	24	0.1	6.245	A
C-A	104			104			
A-B	2			2			
A-C	67			67			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	592	0.015	9	0.0	6.797	A
C-AB	19	648	0.029	19	0.0	6.300	A
C-A	86			86			
A-B	2			2			
A-C	55			55			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	595	0.013	8	0.0	6.737	A
C-AB	15	640	0.024	15	0.0	6.341	A
C-A	72			72			
A-B	2			2			
A-C	46			46			

2028 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2028 Base	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	37	100.000
B		✓	10	100.000
C		✓	83	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	37
	B	1	0	9
	C	82	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.33	0.0	A
C-AB	0.00	6.23	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	641	0.012	7	0.0	6.253	A
C-AB	0.83	636	0.001	0.83	0.0	6.229	A
C-A	62			62			
A-B	0			0			
A-C	28			28			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	639	0.014	9	0.0	6.284	A
C-AB	1	643	0.002	1	0.0	6.165	A
C-A	74			74			
A-B	0			0			
A-C	33			33			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	637	0.017	11	0.0	6.329	A
C-AB	1	653	0.002	1	0.0	6.078	A
C-A	90			90			
A-B	0			0			
A-C	41			41			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	637	0.017	11	0.0	6.329	A
C-AB	1	653	0.002	1	0.0	6.081	A
C-A	90			90			
A-B	0			0			
A-C	41			41			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	639	0.014	9	0.0	6.285	A
C-AB	1	643	0.002	1	0.0	6.167	A
C-A	74			74			
A-B	0			0			
A-C	33			33			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	641	0.012	8	0.0	6.253	A
C-AB	0.83	636	0.001	0.84	0.0	6.231	A
C-A	62			62			
A-B	0			0			
A-C	28			28			

2028 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2028 Base	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	66	100.000
B		✓	10	100.000
C		✓	121	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	64
	B	3	0	7
	C	102	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.90	0.0	A
C-AB	0.04	6.34	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	595	0.013	7	0.0	6.744	A
C-AB	16	642	0.025	16	0.0	6.332	A
C-A	75			75			
A-B	2			2			
A-C	48			48			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	591	0.015	9	0.0	6.807	A
C-AB	20	649	0.031	20	0.0	6.290	A
C-A	89			89			
A-B	2			2			
A-C	58			58			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	585	0.019	11	0.0	6.895	A
C-AB	25	660	0.038	25	0.1	6.234	A
C-A	108			108			
A-B	2			2			
A-C	70			70			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	585	0.019	11	0.0	6.896	A
C-AB	25	660	0.038	25	0.1	6.235	A
C-A	108			108			
A-B	2			2			
A-C	70			70			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	591	0.015	9	0.0	6.810	A
C-AB	20	649	0.031	20	0.0	6.294	A
C-A	89			89			
A-B	2			2			
A-C	58			58			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	595	0.013	8	0.0	6.747	A
C-AB	16	642	0.025	16	0.0	6.336	A
C-A	75			75			
A-B	2			2			
A-C	48			48			

2028 Base + Com Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Base + Com Dev	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	64	100.000
B		✓	10	100.000
C		✓	91	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	64
	B	1	0	9
	C	90	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.41	0.0	A
C-AB	0.00	6.24	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	635	0.012	7	0.0	6.307	A
C-AB	0.84	636	0.001	0.84	0.0	6.235	A
C-A	68			68			
A-B	0			0			
A-C	48			48			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	632	0.014	9	0.0	6.351	A
C-AB	1	643	0.002	1	0.0	6.172	A
C-A	81			81			
A-B	0			0			
A-C	58			58			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	629	0.018	11	0.0	6.411	A
C-AB	1	652	0.002	1	0.0	6.086	A
C-A	99			99			
A-B	0			0			
A-C	70			70			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	629	0.018	11	0.0	6.411	A
C-AB	1	652	0.002	1	0.0	6.088	A
C-A	99			99			
A-B	0			0			
A-C	70			70			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	632	0.014	9	0.0	6.353	A
C-AB	1	643	0.002	1	0.0	6.172	A
C-A	81			81			
A-B	0			0			
A-C	58			58			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	635	0.012	8	0.0	6.308	A
C-AB	0.84	636	0.001	0.84	0.0	6.238	A
C-A	68			68			
A-B	0			0			
A-C	48			48			

2028 Base + Com Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Base + Com Dev	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	84	100.000
B		✓	10	100.000
C		✓	151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	82
	B	3	0	7
	C	132	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.99	0.0	A
C-AB	0.04	6.22	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	590	0.013	7	0.0	6.803	A
C-AB	17	654	0.026	17	0.0	6.217	A
C-A	97			97			
A-B	2			2			
A-C	62			62			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	585	0.015	9	0.0	6.879	A
C-AB	21	664	0.031	21	0.0	6.156	A
C-A	115			115			
A-B	2			2			
A-C	74			74			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	578	0.019	11	0.0	6.987	A
C-AB	27	678	0.039	27	0.1	6.076	A
C-A	140			140			
A-B	2			2			
A-C	90			90			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	11	578	0.019	11	0.0	6.987	A
C-AB	27	678	0.039	27	0.1	6.080	A
C-A	140			140			
A-B	2			2			
A-C	90			90			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	9	585	0.015	9	0.0	6.879	A
C-AB	21	664	0.031	21	0.0	6.158	A
C-A	115			115			
A-B	2			2			
A-C	74			74			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-AC	8	589	0.013	8	0.0	6.804	A
C-AB	17	654	0.026	17	0.0	6.219	A
C-A	97			97			
A-B	2			2			
A-C	62			62			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.2.5947
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Filename: 2023-05-19 PR Junction-v01.j9
Path: C:\Users\brian.condon\Condondrew Associates\Condon Drew Associates Ltd. - Documents\CDA Projects\1100-1199\1135-MWT Technical Support\22051-Southview Farm\02-Analysis\PICADY
Report generation date: 19/05/2023 14:10:07

»2028 Base + Com Dev + Development, AM
»2028 Base + Com Dev + Development, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Base + Com Dev + Development							
Stream B-ACD	0.0	6.41	0.02	A	0.0	6.94	0.02	A
Stream AB-CD	0.0	6.37	0.02	A	0.0	6.41	0.02	A
Stream D-ABC	0.0	6.17	0.04	A	0.1	7.32	0.07	A
Stream CD-AB	0.0	6.25	0.02	A	0.1	6.16	0.04	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

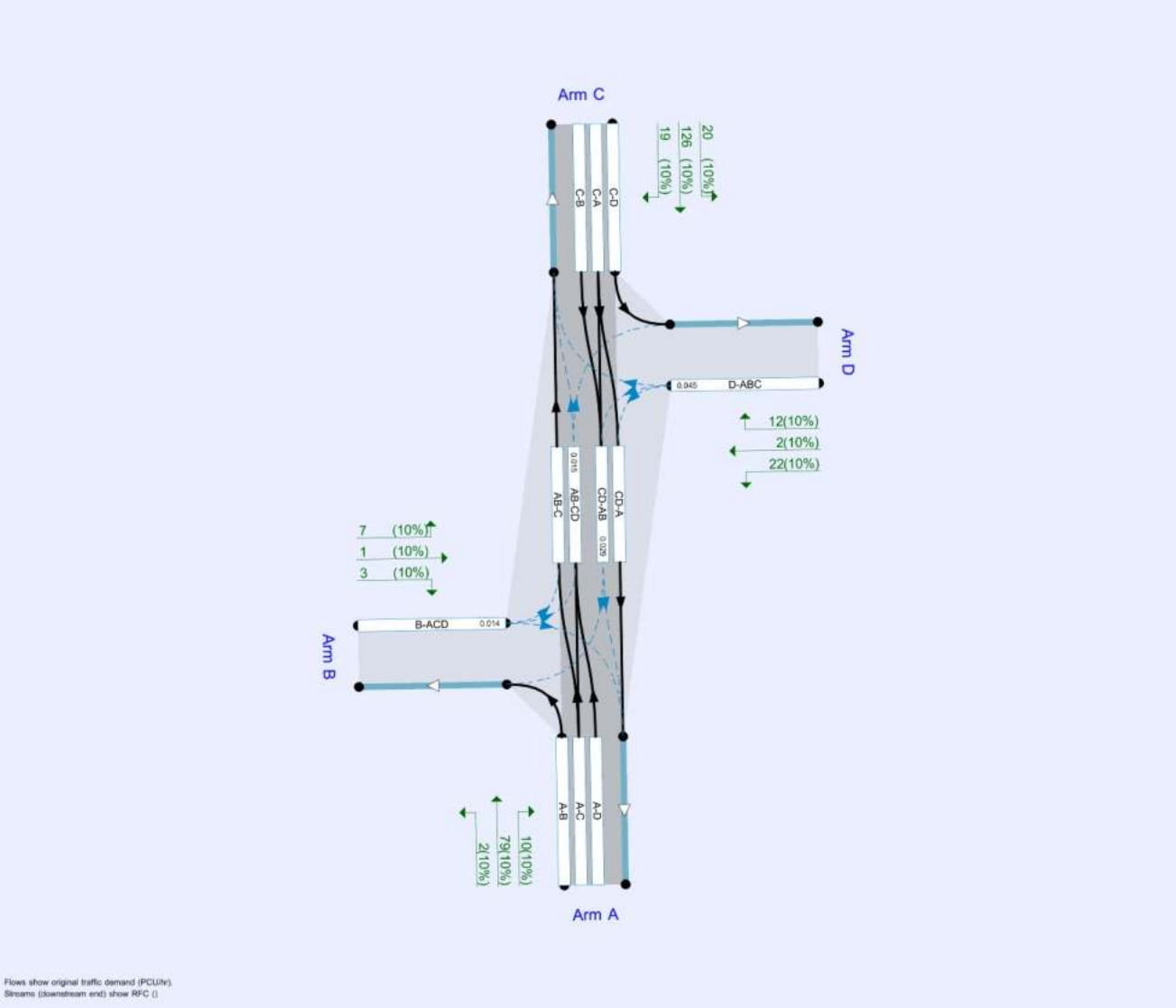
File summary

File Description

Title	(untitled)
Location	
Site number	
Date	19/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	briancondon-PC\brian.condon
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Base + Com Dev + Development	AM	ONE HOUR	08:00	09:30	15
D6	2028 Base + Com Dev + Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Base + Com Dev + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	0.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Drynham Road (South)		Major
B	Southview Road		Minor
C	Drynham Road (North)		Major
D	Proposed Site Access		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.90			65.0	✓	0.00
C	7.15			48.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.60	14	11
D	One lane	4.00	13	11

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
1	AB-D	612	-	-	-	-	-	0.228	0.228	0.228	-	-
1	B-A	517	0.089	0.226	0.226	-	-	0.142	0.323	-	0.142	0.323
1	B-CD	669	0.097	0.246	0.246	-	-	-	-	-	-	-
1	CD-B	602	0.221	0.221	0.221	-	-	-	-	-	-	-
1	D-AB	694	-	-	-	-	-	0.258	0.258	0.102	-	-
1	D-C	536	-	0.149	0.339	0.149	0.339	0.237	0.237	0.094	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2028 Base + Com Dev + Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	71	100.000
B		✓	11	100.000
C		✓	105	100.000
D		✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	0	62	9
	B	1	0	9	1
	C	86	1	0	18
	D	15	8	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	10	10	10
	B	10	0	10	10
	C	10	10	0	10
	D	10	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.02	6.41	0.0	A
A-B				
A-C				
A-D				
AB-CD	0.02	6.37	0.0	A
AB-C				
D-ABC	0.04	6.17	0.0	A
C-D				
C-A				
C-B				
CD-AB	0.02	6.25	0.0	A
CD-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	8	636	0.013	8	0.0	6.304	A
A-B	0			0			
A-C	47			47			
A-D	7			7			
AB-CD	8	629	0.013	8	0.0	6.374	A
AB-C	53			53			
D-ABC	17	676	0.026	17	0.0	6.013	A
C-D	14			14			
C-A	65			65			
C-B	0.75			0.75			
CD-AB	8	641	0.012	8	0.0	6.251	A
CD-A	75			75			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	10	633	0.016	10	0.0	6.350	A
A-B	0			0			
A-C	56			56			
A-D	8			8			
AB-CD	10	633	0.016	10	0.0	6.355	A
AB-C	63			63			
D-ABC	21	672	0.031	21	0.0	6.077	A
C-D	16			16			
C-A	77			77			
C-B	0.90			0.90			
CD-AB	9	649	0.014	9	0.0	6.192	A
CD-A	89			89			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	12	629	0.019	12	0.0	6.415	A
A-B	0			0			
A-C	68			68			
A-D	10			10			
AB-CD	13	638	0.020	13	0.0	6.330	A
AB-C	77			77			
D-ABC	25	667	0.038	25	0.0	6.168	A
C-D	20			20			
C-A	95			95			
C-B	1			1			
CD-AB	12	660	0.018	12	0.0	6.113	A
CD-A	109			109			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	12	629	0.019	12	0.0	6.415	A
A-B	0			0			
A-C	68			68			
A-D	10			10			
AB-CD	13	638	0.020	13	0.0	6.330	A
AB-C	77			77			
D-ABC	25	667	0.038	25	0.0	6.168	A
C-D	20			20			
C-A	95			95			
C-B	1			1			
CD-AB	12	660	0.018	12	0.0	6.116	A
CD-A	109			109			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	10	633	0.016	10	0.0	6.351	A
A-B	0			0			
A-C	56			56			
A-D	8			8			
AB-CD	10	633	0.016	10	0.0	6.358	A
AB-C	63			63			
D-ABC	21	672	0.031	21	0.0	6.078	A
C-D	16			16			
C-A	77			77			
C-B	0.90			0.90			
CD-AB	9	649	0.015	9	0.0	6.195	A
CD-A	89			89			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	8	636	0.013	8	0.0	6.305	A
A-B	0			0			
A-C	47			47			
A-D	7			7			
AB-CD	8	629	0.013	8	0.0	6.374	A
AB-C	53			53			
D-ABC	17	676	0.026	17	0.0	6.016	A
C-D	14			14			
C-A	65			65			
C-B	0.75			0.75			
CD-AB	8	641	0.012	8	0.0	6.254	A
CD-A	75			75			

2028 Base + Com Dev + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Left-Right Stagger	Two-way	1.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2028 Base + Com Dev + Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	91	100.000
B		✓	11	100.000
C		✓	165	100.000
D		✓	36	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	2	79	10
	B	3	0	7	1
	C	126	19	0	20
	D	22	2	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	10	10	10
	B	10	0	10	10
	C	10	10	0	10
	D	10	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.02	6.94	0.0	A
A-B				
A-C				
A-D				
AB-CD	0.02	6.41	0.0	A
AB-C				
D-ABC	0.07	7.32	0.1	A
C-D				
C-A				
C-B				
CD-AB	0.04	6.16	0.1	A
CD-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	8	594	0.014	8	0.0	6.757	A
A-B	2			2			
A-C	59			59			
A-D	8			8			
AB-CD	9	627	0.015	9	0.0	6.408	A
AB-C	64			64			
D-ABC	27	597	0.045	27	0.1	6.945	A
C-D	15			15			
C-A	95			95			
C-B	14			14			
CD-AB	19	662	0.029	19	0.0	6.159	A
CD-A	108			108			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	10	589	0.017	10	0.0	6.833	A
A-B	2			2			
A-C	71			71			
A-D	9			9			
AB-CD	11	630	0.018	11	0.0	6.396	A
AB-C	76			76			
D-ABC	32	590	0.055	32	0.1	7.099	A
C-D	18			18			
C-A	113			113			
C-B	17			17			
CD-AB	24	674	0.035	24	0.1	6.091	A
CD-A	128			128			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	12	582	0.021	12	0.0	6.941	A
A-B	2			2			
A-C	87			87			
A-D	11			11			
AB-CD	14	635	0.022	14	0.0	6.379	A
AB-C	93			93			
D-ABC	40	581	0.068	40	0.1	7.319	A
C-D	22			22			
C-A	139			139			
C-B	21			21			
CD-AB	30	690	0.044	30	0.1	6.001	A
CD-A	156			156			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	12	582	0.021	12	0.0	6.941	A
A-B	2			2			
A-C	87			87			
A-D	11			11			
AB-CD	14	635	0.022	14	0.0	6.379	A
AB-C	93			93			
D-ABC	40	581	0.068	40	0.1	7.319	A
C-D	22			22			
C-A	139			139			
C-B	21			21			
CD-AB	30	690	0.044	30	0.1	6.005	A
CD-A	156			156			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	10	589	0.017	10	0.0	6.836	A
A-B	2			2			
A-C	71			71			
A-D	9			9			
AB-CD	11	630	0.018	11	0.0	6.399	A
AB-C	76			76			
D-ABC	32	590	0.055	32	0.1	7.101	A
C-D	18			18			
C-A	113			113			
C-B	17			17			
CD-AB	24	674	0.035	24	0.1	6.095	A
CD-A	128			128			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-ACD	8	594	0.014	8	0.0	6.760	A
A-B	2			2			
A-C	59			59			
A-D	8			8			
AB-CD	9	627	0.015	9	0.0	6.409	A
AB-C	64			64			
D-ABC	27	597	0.045	27	0.1	6.949	A
C-D	15			15			
C-A	95			95			
C-B	14			14			
CD-AB	19	662	0.029	19	0.0	6.162	A
CD-A	108			108			