



6 PLAN MONITORING AND ASSESSMENT

6.1.1 DfT best practice guidelines state that monitoring of the Travel Plan should normally take place on the following basis:

- Early on in the occupation period of the site - for example, triggered by 75% occupancy to provide the information base for the review of the plan;
- Annually or at least every two years thereafter to provide on-going information on the impact of the plan;
- Monitoring should take place over a wide range of time periods to reflect the different pattern of journeys that can be generated by residential development.

6.1.2 The monitoring could include items such as:

- Full residential surveys to be completed in year 1, year 3 and year 5 and snap shot surveys to be completed every 6 to 12 months.
- Feedback from bus operators to establish demand for local bus services.

6.1.3 Once planning permission has been granted, consideration will be given on how best to monitor and measure the success of the Travel Plan measures when preparing the final Travel Plan for the development. Appropriate monitoring arrangements will be discussed and agreed with the Council.

6.1.4 The monitoring and assessment of the Travel Plan will include the submission of annual progress reports detailing the results of the travel surveys with regards to targets, budgets, general effectiveness and current initiatives.

6.1.5 An annual report is to be submitted to the local authority no later than one month following the anniversary of the approval of the Travel Plan.



- 6.1.6 This will allow effective measures to be promoted and increased while ineffective measures can be revised and rectified. New initiatives for the coming year will also be contained within the report and submitted to officers at the Council.



7 CONCLUSIONS

- 7.1.1 This Travel Plan has detailed the proposals associated with the development site to promote sustainable modes of travel and reduce the dependency of the private car.
- 7.1.2 Additionally, the Travel Plan has presented a series of measures to be implemented to reduce the number of single car occupancy trips.
- 7.1.3 The information contained within the Travel Plan and details of sustainable modes of transport in the vicinity of the site will be accessible to residents and visitors to the development. The aim of the Travel Plan is:
- to encourage residents to use sustainable modes of transport to access the site;
 - reduce the reliance on single car occupancy journeys; and
 - generally reduce traffic related pollution and noise.
- 7.1.4 A wide range of measures and actions will be used to encourage car sharing, public transport use, cycling and walking.
- 7.1.5 The Travel Plan Co-ordinator will ensure the Travel Plan is implemented and is operating effectively.
- 7.1.6 A detailed resident Travel Survey will be undertaken to establish travel modes of residents and following this, specific targets will be set and agreed with the Travel Plan team at the Council.
- 7.1.7 The site has been demonstrated to benefit from excellent non-car accessibility and it should, therefore, be expected that the adoption of a Travel Plan would be particularly effective.
- 7.1.8 It can therefore be concluded that the proposals will provide a highly sustainable development and should be considered acceptable to the local highway authority.

APPENDIX 3

Survey Data

SURVEY CONTROL

Client: Croft Transport Planning & Design

Client Contact: Mark Cleary

Survey Location: Walmer

Date(s) of Survey: Wednesday 1 May 2019

Notes:

On Site Supervisor: Neil Harley

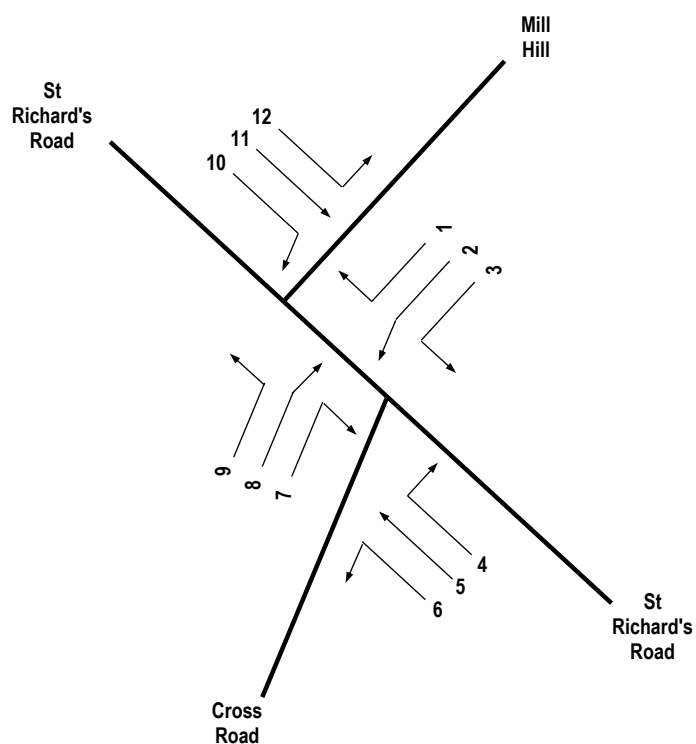
Data Checking: David Cheng

Survey Reference: 2019.091 Walmer

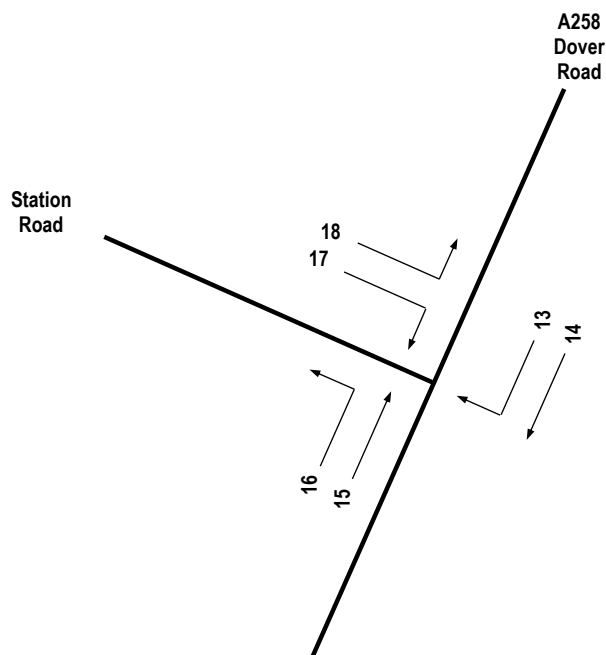
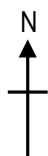
Status: Final

Date of Issue: 2 May 2019

JUNCTION 1



JUNCTION 2



DRAWING TITLE

TRAFFIC MOVEMENT REFERENCE

JOB TITLE

2019.091 WALMER

DRAWN BY

DC

DATE

MAY 2019

SCALE

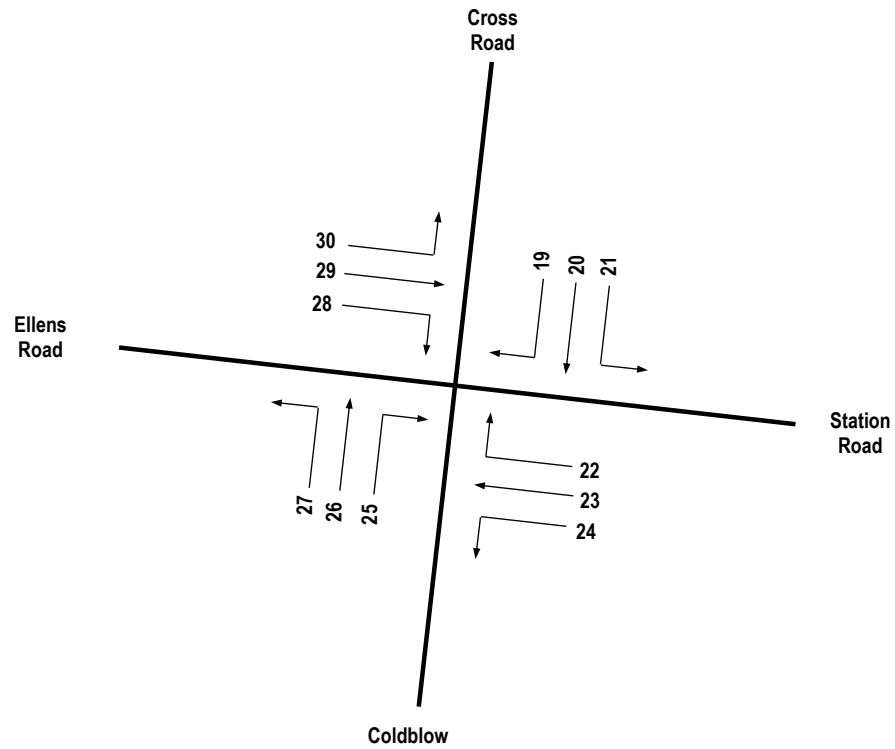
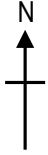
NTS

REF

FIGURE 1

signal surveys

Traffic Counts and Car Park Surveys
Parkway House, Palatine Road, Northenden, Manchester,
M22 4DB
Tel 0161 998 4226



DRAWING TITLE

TRAFFIC MOVEMENT REFERENCE

JOB TITLE

2019.091 WALMER

DRAWN BY

DC

DATE

MAY 2019

SCALE

NTS

REF

FIGURE 2

signal surveys

Traffic Counts and Car Park Surveys
 Parkway House, Palatine Road, Northenden, Manchester,
 M22 4DB
 Tel 0161 998 4226

signal surveys

| Time Beginning | Mill Hill/St Richard's Road/Cross Road - Wednesday 1 May 2019 | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | |
| | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV |
| 0730 | 2 | 0 | 4 | 0 | 5 | 0 | 0 | 0 | 42 | 0 | 7 | 1 | 3 | 0 | 3 | 0 | 32 | 3 | 14 | 1 | 54 | 0 | 3 | 0 |
| 0745 | 0 | 0 | 4 | 0 | 9 | 0 | 3 | 0 | 45 | 0 | 12 | 0 | 9 | 2 | 2 | 0 | 30 | 0 | 15 | 0 | 60 | 0 | 5 | 0 |
| 0800 | 2 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 36 | 0 | 8 | 2 | 14 | 0 | 1 | 0 | 29 | 2 | 16 | 1 | 56 | 0 | 2 | 0 |
| 0815 | 2 | 0 | 7 | 0 | 6 | 0 | 2 | 0 | 31 | 0 | 5 | 0 | 13 | 0 | 1 | 0 | 33 | 0 | 25 | 1 | 48 | 1 | 3 | 0 |
| 0830 | 4 | 0 | 8 | 0 | 6 | 0 | 5 | 0 | 45 | 0 | 17 | 2 | 26 | 0 | 5 | 0 | 41 | 2 | 22 | 1 | 50 | 1 | 2 | 0 |
| 0845 | 1 | 0 | 4 | 0 | 4 | 0 | 3 | 0 | 47 | 0 | 12 | 0 | 15 | 0 | 4 | 0 | 29 | 2 | 15 | 1 | 38 | 0 | 2 | 0 |
| 0900 | 0 | 0 | 10 | 0 | 6 | 0 | 1 | 0 | 41 | 0 | 16 | 1 | 13 | 0 | 4 | 0 | 42 | 3 | 16 | 0 | 44 | 1 | 1 | 0 |
| 0915 | 0 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 22 | 0 | 18 | 0 | 9 | 0 | 4 | 0 | 17 | 1 | 19 | 2 | 41 | 1 | 2 | 0 |
| Time Beginning | Mill Hill/St Richard's Road/Cross Road - Wednesday 1 May 2019 | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | |
| | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV |
| 1630 | 2 | 0 | 6 | 0 | 8 | 0 | 0 | 0 | 40 | 0 | 15 | 1 | 11 | 0 | 1 | 0 | 35 | 1 | 35 | 1 | 37 | 0 | 0 | 0 |
| 1645 | 1 | 0 | 8 | 0 | 3 | 0 | 4 | 0 | 65 | 1 | 8 | 0 | 8 | 0 | 3 | 0 | 30 | 1 | 39 | 0 | 41 | 0 | 3 | 0 |
| 1700 | 1 | 0 | 10 | 0 | 7 | 0 | 5 | 0 | 33 | 1 | 22 | 1 | 18 | 0 | 5 | 0 | 36 | 0 | 29 | 0 | 55 | 0 | 2 | 0 |
| 1715 | 0 | 0 | 9 | 0 | 3 | 0 | 7 | 0 | 34 | 0 | 18 | 0 | 7 | 0 | 11 | 0 | 29 | 0 | 37 | 0 | 47 | 0 | 1 | 0 |
| 1730 | 0 | 0 | 6 | 0 | 3 | 0 | 4 | 0 | 46 | 0 | 18 | 1 | 8 | 1 | 4 | 0 | 23 | 2 | 39 | 2 | 42 | 2 | 0 | 0 |
| 1745 | 2 | 0 | 6 | 0 | 2 | 0 | 0 | 0 | 26 | 0 | 24 | 0 | 13 | 0 | 5 | 0 | 27 | 1 | 41 | 1 | 39 | 0 | 1 | 0 |
| 1800 | 2 | 0 | 11 | 0 | 5 | 0 | 3 | 0 | 28 | 0 | 11 | 1 | 15 | 0 | 4 | 0 | 21 | 0 | 33 | 0 | 44 | 0 | 0 | 0 |
| 1815 | 2 | 0 | 9 | 0 | 1 | 0 | 1 | 0 | 38 | 0 | 18 | 0 | 7 | 0 | 8 | 0 | 35 | 0 | 24 | 1 | 43 | 0 | 0 | 0 |

signal surveys

| Time Beginning | Station Road/A258 Dover Road - Wednesday 1 May 2019 | | | | | | | | | | | |
|----------------|---|----|-----|----|-----|----|----|----|----|----|----|----|
| | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | |
| | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV |
| 0730 | 17 | 1 | 206 | 1 | 72 | 4 | 21 | 3 | 41 | 0 | 13 | 0 |
| 0745 | 8 | 0 | 209 | 3 | 100 | 3 | 23 | 0 | 41 | 5 | 10 | 0 |
| 0800 | 11 | 1 | 232 | 4 | 103 | 4 | 31 | 3 | 29 | 1 | 6 | 0 |
| 0815 | 9 | 3 | 187 | 3 | 92 | 4 | 20 | 0 | 34 | 0 | 10 | 1 |
| 0830 | 13 | 0 | 147 | 9 | 94 | 5 | 21 | 2 | 38 | 3 | 14 | 0 |
| 0845 | 23 | 0 | 144 | 0 | 132 | 4 | 16 | 1 | 29 | 0 | 20 | 0 |
| 0900 | 9 | 0 | 147 | 5 | 109 | 7 | 33 | 2 | 26 | 3 | 12 | 0 |
| 0915 | 5 | 2 | 122 | 3 | 96 | 3 | 20 | 1 | 33 | 2 | 16 | 0 |
| Time Beginning | Station Road/A258 Dover Road - Wednesday 1 May 2019 | | | | | | | | | | | |
| | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | |
| | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV |
| 1630 | 15 | 0 | 119 | 3 | 162 | 1 | 53 | 1 | 11 | 1 | 14 | 0 |
| 1645 | 13 | 0 | 125 | 2 | 156 | 3 | 54 | 0 | 23 | 0 | 15 | 0 |
| 1700 | 13 | 0 | 139 | 4 | 173 | 1 | 53 | 0 | 20 | 2 | 12 | 0 |
| 1715 | 9 | 1 | 114 | 0 | 181 | 3 | 68 | 1 | 18 | 0 | 16 | 0 |
| 1730 | 14 | 0 | 94 | 5 | 182 | 3 | 56 | 1 | 25 | 1 | 13 | 0 |
| 1745 | 10 | 0 | 89 | 1 | 201 | 0 | 52 | 2 | 18 | 0 | 9 | 0 |
| 1800 | 13 | 0 | 87 | 0 | 169 | 1 | 62 | 2 | 26 | 1 | 14 | 0 |
| 1815 | 8 | 0 | 90 | 0 | 166 | 1 | 33 | 1 | 23 | 0 | 12 | 0 |

signal surveys

| Time Beginning | Cross Road/Station Road/Coldblow/Ellens Road - Wednesday 1 May 2019 | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | |
| | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV |
| 0730 | 1 | 0 | 0 | 0 | 3 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 2 | 0 |
| 0745 | 2 | 0 | 0 | 0 | 4 | 0 | 8 | 0 | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 1 | 0 |
| 0800 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 |
| 0815 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 5 | 0 | 2 | 0 |
| 0830 | 4 | 0 | 0 | 0 | 3 | 0 | 5 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 |
| 0845 | 2 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 0 |
| 0900 | 0 | 0 | 0 | 0 | 2 | 0 | 8 | 0 | 4 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 0915 | 1 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 |

| Time Beginning | Cross Road/Station Road/Coldblow/Ellens Road - Wednesday 1 May 2019 | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | |
| | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV | LV | HV |
| 1630 | 3 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 4 | 0 |
| 1645 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 9 | 0 | 2 | 0 |
| 1700 | 2 | 0 | 0 | 0 | 3 | 0 | 9 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 3 | 0 |
| 1715 | 2 | 0 | 2 | 0 | 7 | 0 | 10 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 3 | 0 |
| 1730 | 0 | 0 | 0 | 0 | 3 | 0 | 8 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 0 |
| 1745 | 2 | 0 | 1 | 0 | 2 | 0 | 6 | 0 | 5 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 11 | 0 | 2 | 0 |
| 1800 | 0 | 0 | 0 | 0 | 4 | 0 | 11 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 0 |
| 1815 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 0 | 2 | 0 |

APPENDIX 4

PICADY Output – St Richard's Road/Cross Road/Mill Hill

| Junctions 9 | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| PICADY 9 - Priority Intersection Module | | | | | | | | |
| Version: 9.5.1.7462 © Copyright TRL Limited, 2019 | | | | | | | | |
| For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk | | | | | | | | |
| The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution | | | | | | | | |

Filename: Import of St Richard's Rd_Cross Rd_Mill Hill.j9

Path: Z:\projects\2243 Cross Road, Deal\Picady

Report generation date: 28/06/2021 13:09:13

- »Existing Layout - 2026 Base Flows, AM
- »Existing Layout - 2026 Base Flows, PM
- »Existing Layout - 2026 With Dev Flows, AM
- »Existing Layout - 2026 With Dev Flows, PM

Summary of junction performance

| | AM | | | | PM | | | |
|---------------------------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| Existing Layout - 2026 Base Flows | | | | | | | | |
| Stream B-ACD | 1.5 | 18.79 | 0.61 | C | 1.1 | 15.79 | 0.52 | C |
| Stream AB-CD | 0.1 | 5.00 | 0.06 | A | 0.3 | 5.28 | 0.13 | A |
| Stream D-ABC | 0.2 | 8.08 | 0.14 | A | 0.1 | 7.71 | 0.13 | A |
| Stream CD-AB | 0.7 | 7.37 | 0.33 | A | 1.7 | 12.48 | 0.57 | B |
| Existing Layout - 2026 With Dev Flows | | | | | | | | |
| Stream B-ACD | 2.1 | 23.96 | 0.69 | C | 1.4 | 18.17 | 0.58 | C |
| Stream AB-CD | 0.1 | 4.95 | 0.06 | A | 0.3 | 5.27 | 0.14 | A |
| Stream D-ABC | 0.2 | 8.16 | 0.15 | A | 0.2 | 7.89 | 0.14 | A |
| Stream CD-AB | 0.8 | 7.65 | 0.35 | A | 2.3 | 15.02 | 0.64 | C |

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 | St Richard's Road/Cross Road/Mill Hill |
| Location | Walmer |
| Site number | |
| Date | 05/05/2019 |
| Version | |
| Status | TIA |
| Identifier | |
| Client | |
| Jobnumber | 2243 |
| Enumerator | Mark Cleary |
| 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 |

Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------|-----------------------------|-----------------------|
| 5.75 | | | | 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) | Run automatically |
|----|---------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2026 Base Flows | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D2 | 2026 Base Flows | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D3 | 2026 With Dev Flows | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2026 With Dev Flows | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |

Analysis Set Details

| ID | Name | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-----------------|-------------------|---------------------------------|-------------------------------------|
| A1 | Existing Layout | ✓ | 100.000 | 100.000 |

Existing Layout - 2026 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|--|--------------------|----------------------|-----------------------|--------------------|--------------|
| 1 | St Richard's Road/Cross Road/Mill Hill | Left-Right Stagger | Two-way | | 4.23 | A |

Junction Network Options

| Driving side | Lighting |
|--------------|----------------|
| Left | Normal/unknown |

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-----------------------|-------------|----------|
| A | St Richard's Road (E) | | Major |
| B | Cross Road | | Minor |
| C | St Richard's Road (W) | | Major |
| D | Mill Hill | | 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 | 6.00 | | | 100.0 | ✓ | 0.00 |
| C | 6.00 | | | 0.0 | ✓ | 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 | 3.00 | 30 | 18 |
| D | One lane | 3.25 | 28 | 25 |

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

| 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 |
|--------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| AB-D | 632 | - | - | - | - | - | 0.245 | 0.245 | 0.245 | - | - |
| B-A | 496 | 0.090 | 0.228 | 0.228 | - | - | 0.144 | 0.326 | - | 0.144 | 0.326 |
| B-CD | 635 | 0.097 | 0.246 | 0.246 | - | - | - | - | - | - | - |
| CD-B | 574 | 0.222 | 0.222 | 0.222 | - | - | - | - | - | - | - |
| D-AB | 656 | - | - | - | - | - | 0.254 | 0.254 | 0.101 | - | - |
| D-C | 511 | - | 0.148 | 0.336 | 0.148 | 0.336 | 0.235 | 0.235 | 0.093 | - | - |

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) | Run automatically |
|----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2026 Base Flows | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓ | ✓ | HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 245 | 100.000 |
| B | | ONE HOUR | ✓ | 266 | 100.000 |
| C | | ONE HOUR | ✓ | 355 | 100.000 |
| D | | ONE HOUR | ✓ | 66 | 100.000 |

Origin-Destination Data

Demand (PCU/hr)

| | To | | | | |
|------|----|-----|----|-----|----|
| | | A | B | C | D |
| From | A | 0 | 59 | 175 | 11 |
| | B | 82 | 0 | 173 | 11 |
| | C | 243 | 99 | 0 | 13 |
| | D | 29 | 28 | 9 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | To | | | | |
|------|----|---|---|---|---|
| | | A | B | C | D |
| From | A | 0 | 0 | 0 | 0 |
| | B | 0 | 0 | 0 | 0 |
| | C | 0 | 0 | 0 | 0 |
| | D | 0 | 0 | 0 | 0 |

Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-ACD | 0.61 | 18.79 | 1.5 | C | 244 | 366 |
| A-B | | | | | 54 | 81 |
| A-C | | | | | 161 | 241 |
| A-D | | | | | 10 | 15 |
| AB-CD | 0.06 | 5.00 | 0.1 | A | 35 | 53 |
| AB-C | | | | | 304 | 456 |
| D-ABC | 0.14 | 8.08 | 0.2 | A | 61 | 91 |
| C-D | | | | | 12 | 18 |
| C-A | | | | | 223 | 334 |
| C-B | | | | | 91 | 136 |
| CD-AB | 0.33 | 7.37 | 0.7 | A | 184 | 276 |
| CD-A | | | | | 182 | 273 |

Main Results for each time segment

07:30 - 07:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 200 | 50 | 518 | 0.387 | 198 | 0.0 | 0.6 | 11.166 | B |
| A-B | 44 | 11 | | | 44 | | | | |
| A-C | 132 | 33 | | | 132 | | | | |
| A-D | 8 | 2 | | | 8 | | | | |
| AB-CD | 25 | 6 | 745 | 0.034 | 25 | 0.0 | 0.0 | 5.002 | A |
| AB-C | 252 | 63 | | | 252 | | | | |
| D-ABC | 50 | 12 | 555 | 0.090 | 49 | 0.0 | 0.1 | 7.115 | A |
| C-D | 10 | 2 | | | 10 | | | | |
| C-A | 183 | 46 | | | 183 | | | | |
| C-B | 75 | 19 | | | 75 | | | | |
| CD-AB | 137 | 34 | 677 | 0.202 | 135 | 0.0 | 0.3 | 6.640 | A |
| CD-A | 163 | 41 | | | 163 | | | | |

07:45 - 08:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 239 | 60 | 504 | 0.475 | 238 | 0.6 | 0.9 | 13.493 | B |
| A-B | 53 | 13 | | | 53 | | | | |
| A-C | 157 | 39 | | | 157 | | | | |
| A-D | 10 | 2 | | | 10 | | | | |
| AB-CD | 33 | 8 | 770 | 0.043 | 33 | 0.0 | 0.1 | 4.888 | A |
| AB-C | 299 | 75 | | | 299 | | | | |
| D-ABC | 59 | 15 | 540 | 0.110 | 59 | 0.1 | 0.1 | 7.490 | A |
| C-D | 12 | 3 | | | 12 | | | | |
| C-A | 218 | 55 | | | 218 | | | | |
| C-B | 89 | 22 | | | 89 | | | | |
| CD-AB | 176 | 44 | 698 | 0.252 | 176 | 0.3 | 0.5 | 6.894 | A |
| CD-A | 183 | 46 | | | 183 | | | | |

08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 293 | 73 | 484 | 0.605 | 291 | 0.9 | 1.5 | 18.374 | C |
| A-B | 65 | 16 | | | 65 | | | | |
| A-C | 193 | 48 | | | 193 | | | | |
| A-D | 12 | 3 | | | 12 | | | | |
| AB-CD | 46 | 11 | 804 | 0.057 | 46 | 0.1 | 0.1 | 4.747 | A |
| AB-C | 360 | 90 | | | 360 | | | | |
| D-ABC | 73 | 18 | 518 | 0.140 | 73 | 0.1 | 0.2 | 8.071 | A |
| C-D | 14 | 4 | | | 14 | | | | |
| C-A | 268 | 67 | | | 268 | | | | |
| C-B | 109 | 27 | | | 109 | | | | |
| CD-AB | 238 | 60 | 728 | 0.327 | 237 | 0.5 | 0.7 | 7.343 | A |
| CD-A | 201 | 50 | | | 201 | | | | |

08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 293 | 73 | 484 | 0.605 | 293 | 1.5 | 1.5 | 18.788 | C |
| A-B | 65 | 16 | | | 65 | | | | |
| A-C | 193 | 48 | | | 193 | | | | |
| A-D | 12 | 3 | | | 12 | | | | |
| AB-CD | 46 | 12 | 805 | 0.057 | 46 | 0.1 | 0.1 | 4.744 | A |
| AB-C | 361 | 90 | | | 361 | | | | |
| D-ABC | 73 | 18 | 518 | 0.140 | 73 | 0.2 | 0.2 | 8.078 | A |
| C-D | 14 | 4 | | | 14 | | | | |
| C-A | 268 | 67 | | | 268 | | | | |
| C-B | 109 | 27 | | | 109 | | | | |
| CD-AB | 239 | 60 | 729 | 0.327 | 238 | 0.7 | 0.7 | 7.371 | A |
| CD-A | 201 | 50 | | | 201 | | | | |

08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 239 | 60 | 504 | 0.475 | 241 | 1.5 | 0.9 | 13.850 | B |
| A-B | 53 | 13 | | | 53 | | | | |
| A-C | 157 | 39 | | | 157 | | | | |
| A-D | 10 | 2 | | | 10 | | | | |
| AB-CD | 34 | 8 | 771 | 0.044 | 34 | 0.1 | 0.1 | 4.883 | A |
| AB-C | 301 | 75 | | | 301 | | | | |
| D-ABC | 59 | 15 | 540 | 0.110 | 59 | 0.2 | 0.1 | 7.502 | A |
| C-D | 12 | 3 | | | 12 | | | | |
| C-A | 218 | 55 | | | 218 | | | | |
| C-B | 89 | 22 | | | 89 | | | | |
| CD-AB | 177 | 44 | 699 | 0.253 | 177 | 0.7 | 0.5 | 6.931 | A |
| CD-A | 182 | 46 | | | 182 | | | | |

08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 200 | 50 | 517 | 0.387 | 201 | 0.9 | 0.6 | 11.430 | B |
| A-B | 44 | 11 | | | 44 | | | | |
| A-C | 132 | 33 | | | 132 | | | | |
| A-D | 8 | 2 | | | 8 | | | | |
| AB-CD | 26 | 6 | 747 | 0.034 | 26 | 0.1 | 0.0 | 4.997 | A |
| AB-C | 254 | 63 | | | 254 | | | | |
| D-ABC | 50 | 12 | 555 | 0.090 | 50 | 0.1 | 0.1 | 7.128 | A |
| C-D | 10 | 2 | | | 10 | | | | |
| C-A | 183 | 46 | | | 183 | | | | |
| C-B | 75 | 19 | | | 75 | | | | |
| CD-AB | 138 | 34 | 678 | 0.203 | 138 | 0.5 | 0.4 | 6.688 | A |
| CD-A | 163 | 41 | | | 163 | | | | |

Existing Layout - 2026 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|--|--------------------|----------------------|-----------------------|--------------------|--------------|
| 1 | St Richard's Road/Cross Road/Mill Hill | Left-Right Stagger | Two-way | | 4.68 | 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) | Run automatically |
|----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2026 Base Flows | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓ | ✓ | HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 311 | 100.000 |
| B | | ONE HOUR | ✓ | 228 | 100.000 |
| C | | ONE HOUR | ✓ | 399 | 100.000 |
| D | | ONE HOUR | ✓ | 61 | 100.000 |

Origin-Destination Data

Demand (PCU/hr)

| | To | | | | |
|------|----|-----|-----|-----|----|
| | A | B | C | D | |
| From | A | 0 | 85 | 204 | 22 |
| | B | 51 | 0 | 149 | 28 |
| | C | 211 | 181 | 0 | 7 |
| | D | 18 | 41 | 2 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | To | | | | |
|------|----|---|---|---|---|
| | A | B | C | D | |
| From | A | 0 | 0 | 0 | 0 |
| | B | 0 | 0 | 0 | 0 |
| | C | 0 | 0 | 0 | 0 |
| | D | 0 | 0 | 0 | 0 |

Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-ACD | 0.52 | 15.79 | 1.1 | C | 209 | 314 |
| A-B | | | | | 78 | 117 |
| A-C | | | | | 187 | 281 |
| A-D | | | | | 20 | 30 |
| AB-CD | 0.13 | 5.28 | 0.3 | A | 81 | 121 |
| AB-C | | | | | 289 | 433 |
| D-ABC | 0.13 | 7.71 | 0.1 | A | 56 | 84 |
| C-D | | | | | 6 | 10 |
| C-A | | | | | 194 | 290 |
| C-B | | | | | 166 | 249 |
| CD-AB | 0.57 | 12.48 | 1.7 | B | 303 | 455 |
| CD-A | | | | | 110 | 166 |

Main Results for each time segment

16:30 - 16:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 172 | 43 | 520 | 0.330 | 170 | 0.0 | 0.5 | 10.223 | B |
| A-B | 64 | 16 | | | 64 | | | | |
| A-C | 154 | 38 | | | 154 | | | | |
| A-D | 17 | 4 | | | 17 | | | | |
| AB-CD | 58 | 15 | 741 | 0.079 | 58 | 0.0 | 0.1 | 5.269 | A |
| AB-C | 244 | 61 | | | 244 | | | | |
| D-ABC | 46 | 11 | 571 | 0.080 | 46 | 0.0 | 0.1 | 6.847 | A |
| C-D | 5 | 1 | | | 5 | | | | |
| C-A | 159 | 40 | | | 159 | | | | |
| C-B | 136 | 34 | | | 136 | | | | |
| CD-AB | 228 | 57 | 644 | 0.354 | 225 | 0.0 | 0.7 | 8.564 | A |
| CD-A | 111 | 28 | | | 111 | | | | |

16:45 - 17:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 205 | 51 | 503 | 0.407 | 204 | 0.5 | 0.7 | 12.012 | B |
| A-B | 76 | 19 | | | 76 | | | | |
| A-C | 183 | 46 | | | 183 | | | | |
| A-D | 20 | 5 | | | 20 | | | | |
| AB-CD | 77 | 19 | 765 | 0.100 | 76 | 0.1 | 0.2 | 5.231 | A |
| AB-C | 285 | 71 | | | 285 | | | | |
| D-ABC | 55 | 14 | 556 | 0.099 | 55 | 0.1 | 0.1 | 7.188 | A |
| C-D | 6 | 2 | | | 6 | | | | |
| C-A | 190 | 47 | | | 190 | | | | |
| C-B | 163 | 41 | | | 163 | | | | |
| CD-AB | 291 | 73 | 660 | 0.441 | 290 | 0.7 | 1.0 | 9.746 | A |
| CD-A | 114 | 29 | | | 114 | | | | |

17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 251 | 63 | 479 | 0.524 | 249 | 0.7 | 1.1 | 15.567 | C |
| A-B | 94 | 23 | | | 94 | | | | |
| A-C | 225 | 56 | | | 225 | | | | |
| A-D | 24 | 6 | | | 24 | | | | |
| AB-CD | 107 | 27 | 799 | 0.134 | 106 | 0.2 | 0.3 | 5.200 | A |
| AB-C | 336 | 84 | | | 336 | | | | |
| D-ABC | 67 | 17 | 534 | 0.126 | 67 | 0.1 | 0.1 | 7.705 | A |
| C-D | 8 | 2 | | | 8 | | | | |
| C-A | 232 | 58 | | | 232 | | | | |
| C-B | 199 | 50 | | | 199 | | | | |
| CD-AB | 390 | 97 | 681 | 0.572 | 387 | 1.0 | 1.7 | 12.252 | B |
| CD-A | 107 | 27 | | | 107 | | | | |

17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 251 | 63 | 479 | 0.524 | 251 | 1.1 | 1.1 | 15.793 | C |
| A-B | 94 | 23 | | | 94 | | | | |
| A-C | 225 | 56 | | | 225 | | | | |
| A-D | 24 | 6 | | | 24 | | | | |
| AB-CD | 107 | 27 | 800 | 0.134 | 107 | 0.3 | 0.3 | 5.206 | A |
| AB-C | 336 | 84 | | | 336 | | | | |
| D-ABC | 67 | 17 | 534 | 0.126 | 67 | 0.1 | 0.1 | 7.710 | A |
| C-D | 8 | 2 | | | 8 | | | | |
| C-A | 232 | 58 | | | 232 | | | | |
| C-B | 199 | 50 | | | 199 | | | | |
| CD-AB | 391 | 98 | 682 | 0.573 | 391 | 1.7 | 1.7 | 12.483 | B |
| CD-A | 106 | 26 | | | 106 | | | | |

17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 205 | 51 | 503 | 0.408 | 206 | 1.1 | 0.7 | 12.218 | B |
| A-B | 76 | 19 | | | 76 | | | | |
| A-C | 183 | 46 | | | 183 | | | | |
| A-D | 20 | 5 | | | 20 | | | | |
| AB-CD | 77 | 19 | 766 | 0.101 | 78 | 0.3 | 0.2 | 5.235 | A |
| AB-C | 286 | 72 | | | 286 | | | | |
| D-ABC | 55 | 14 | 556 | 0.099 | 55 | 0.1 | 0.1 | 7.196 | A |
| C-D | 6 | 2 | | | 6 | | | | |
| C-A | 190 | 47 | | | 190 | | | | |
| C-B | 163 | 41 | | | 163 | | | | |
| CD-AB | 292 | 73 | 661 | 0.442 | 295 | 1.7 | 1.0 | 9.965 | A |
| CD-A | 113 | 28 | | | 113 | | | | |

17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 172 | 43 | 519 | 0.330 | 172 | 0.7 | 0.5 | 10.401 | B |
| A-B | 64 | 16 | | | 64 | | | | |
| A-C | 154 | 38 | | | 154 | | | | |
| A-D | 17 | 4 | | | 17 | | | | |
| AB-CD | 59 | 15 | 742 | 0.079 | 59 | 0.2 | 0.1 | 5.276 | A |
| AB-C | 245 | 61 | | | 245 | | | | |
| D-ABC | 46 | 11 | 571 | 0.080 | 46 | 0.1 | 0.1 | 6.858 | A |
| C-D | 5 | 1 | | | 5 | | | | |
| C-A | 159 | 40 | | | 159 | | | | |
| C-B | 136 | 34 | | | 136 | | | | |
| CD-AB | 229 | 57 | 645 | 0.355 | 231 | 1.0 | 0.7 | 8.740 | A |
| CD-A | 110 | 28 | | | 110 | | | | |

Existing Layout - 2026 With Dev Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|--|--------------------|----------------------|-----------------------|--------------------|--------------|
| 1 | St Richard's Road/Cross Road/Mill Hill | Left-Right Stagger | Two-way | | 5.41 | 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) | Run automatically |
|----|---------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2026 With Dev Flows | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓ | ✓ | HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 249 | 100.000 |
| B | | ONE HOUR | ✓ | 302 | 100.000 |
| C | | ONE HOUR | ✓ | 362 | 100.000 |
| D | | ONE HOUR | ✓ | 68 | 100.000 |

Origin-Destination Data

Demand (PCU/hr)

| | To | | | | |
|------|----|-----|-----|-----|----|
| | A | B | C | D | |
| From | A | 0 | 63 | 175 | 11 |
| | B | 93 | 0 | 196 | 13 |
| | C | 243 | 106 | 0 | 13 |
| | D | 29 | 30 | 9 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | To | | | | |
|------|----|---|---|---|---|
| | A | B | C | D | |
| From | A | 0 | 0 | 0 | 0 |
| | B | 0 | 0 | 0 | 0 |
| | C | 0 | 0 | 0 | 0 |
| | D | 0 | 0 | 0 | 0 |

Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-ACD | 0.69 | 23.96 | 2.1 | C | 277 | 416 |
| A-B | | | | | 58 | 87 |
| A-C | | | | | 161 | 241 |
| A-D | | | | | 10 | 15 |
| AB-CD | 0.06 | 4.95 | 0.1 | A | 40 | 59 |
| AB-C | | | | | 323 | 484 |
| D-ABC | 0.15 | 8.16 | 0.2 | A | 62 | 94 |
| C-D | | | | | 12 | 18 |
| C-A | | | | | 223 | 334 |
| C-B | | | | | 97 | 146 |
| CD-AB | 0.35 | 7.65 | 0.8 | A | 197 | 296 |
| CD-A | | | | | 177 | 266 |

Main Results for each time segment

07:30 - 07:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 227 | 57 | 516 | 0.440 | 224 | 0.0 | 0.8 | 12.200 | B |
| A-B | 47 | 12 | | | 47 | | | | |
| A-C | 132 | 33 | | | 132 | | | | |
| A-D | 8 | 2 | | | 8 | | | | |
| AB-CD | 28 | 7 | 755 | 0.038 | 28 | 0.0 | 0.1 | 4.949 | A |
| AB-C | 267 | 67 | | | 267 | | | | |
| D-ABC | 51 | 13 | 554 | 0.092 | 51 | 0.0 | 0.1 | 7.150 | A |
| C-D | 10 | 2 | | | 10 | | | | |
| C-A | 183 | 46 | | | 183 | | | | |
| C-B | 80 | 20 | | | 80 | | | | |
| CD-AB | 147 | 37 | 676 | 0.217 | 145 | 0.0 | 0.4 | 6.767 | A |
| CD-A | 160 | 40 | | | 160 | | | | |

07:45 - 08:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 271 | 68 | 502 | 0.541 | 270 | 0.8 | 1.1 | 15.412 | C |
| A-B | 57 | 14 | | | 57 | | | | |
| A-C | 157 | 39 | | | 157 | | | | |
| A-D | 10 | 2 | | | 10 | | | | |
| AB-CD | 37 | 9 | 783 | 0.048 | 37 | 0.1 | 0.1 | 4.829 | A |
| AB-C | 317 | 79 | | | 317 | | | | |
| D-ABC | 61 | 15 | 538 | 0.114 | 61 | 0.1 | 0.1 | 7.543 | A |
| C-D | 12 | 3 | | | 12 | | | | |
| C-A | 218 | 55 | | | 218 | | | | |
| C-B | 95 | 24 | | | 95 | | | | |
| CD-AB | 189 | 47 | 698 | 0.270 | 188 | 0.4 | 0.5 | 7.070 | A |
| CD-A | 178 | 45 | | | 178 | | | | |

08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 333 | 83 | 482 | 0.690 | 329 | 1.1 | 2.1 | 22.962 | C |
| A-B | 69 | 17 | | | 69 | | | | |
| A-C | 193 | 48 | | | 193 | | | | |
| A-D | 12 | 3 | | | 12 | | | | |
| AB-CD | 52 | 13 | 820 | 0.064 | 52 | 0.1 | 0.1 | 4.688 | A |
| AB-C | 380 | 95 | | | 380 | | | | |
| D-ABC | 75 | 19 | 516 | 0.145 | 75 | 0.1 | 0.2 | 8.152 | A |
| C-D | 14 | 4 | | | 14 | | | | |
| C-A | 268 | 67 | | | 268 | | | | |
| C-B | 117 | 29 | | | 117 | | | | |
| CD-AB | 255 | 64 | 728 | 0.351 | 254 | 0.5 | 0.8 | 7.618 | A |
| CD-A | 194 | 48 | | | 194 | | | | |

08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 333 | 83 | 482 | 0.690 | 332 | 2.1 | 2.1 | 23.960 | C |
| A-B | 69 | 17 | | | 69 | | | | |
| A-C | 193 | 48 | | | 193 | | | | |
| A-D | 12 | 3 | | | 12 | | | | |
| AB-CD | 53 | 13 | 821 | 0.064 | 53 | 0.1 | 0.1 | 4.685 | A |
| AB-C | 382 | 96 | | | 382 | | | | |
| D-ABC | 75 | 19 | 516 | 0.145 | 75 | 0.2 | 0.2 | 8.159 | A |
| C-D | 14 | 4 | | | 14 | | | | |
| C-A | 268 | 67 | | | 268 | | | | |
| C-B | 117 | 29 | | | 117 | | | | |
| CD-AB | 256 | 64 | 728 | 0.351 | 256 | 0.8 | 0.8 | 7.651 | A |
| CD-A | 194 | 48 | | | 194 | | | | |

08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 271 | 68 | 502 | 0.541 | 275 | 2.1 | 1.2 | 16.131 | C |
| A-B | 57 | 14 | | | 57 | | | | |
| A-C | 157 | 39 | | | 157 | | | | |
| A-D | 10 | 2 | | | 10 | | | | |
| AB-CD | 38 | 10 | 785 | 0.048 | 38 | 0.1 | 0.1 | 4.821 | A |
| AB-C | 320 | 80 | | | 320 | | | | |
| D-ABC | 61 | 15 | 538 | 0.114 | 61 | 0.2 | 0.1 | 7.556 | A |
| C-D | 12 | 3 | | | 12 | | | | |
| C-A | 218 | 55 | | | 218 | | | | |
| C-B | 95 | 24 | | | 95 | | | | |
| CD-AB | 189 | 47 | 698 | 0.271 | 190 | 0.8 | 0.5 | 7.117 | A |
| CD-A | 178 | 44 | | | 178 | | | | |

08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 227 | 57 | 516 | 0.441 | 229 | 1.2 | 0.8 | 12.612 | B |
| A-B | 47 | 12 | | | 47 | | | | |
| A-C | 132 | 33 | | | 132 | | | | |
| A-D | 8 | 2 | | | 8 | | | | |
| AB-CD | 29 | 7 | 758 | 0.038 | 29 | 0.1 | 0.1 | 4.941 | A |
| AB-C | 270 | 67 | | | 270 | | | | |
| D-ABC | 51 | 13 | 554 | 0.092 | 51 | 0.1 | 0.1 | 7.166 | A |
| C-D | 10 | 2 | | | 10 | | | | |
| C-A | 183 | 46 | | | 183 | | | | |
| C-B | 80 | 20 | | | 80 | | | | |
| CD-AB | 147 | 37 | 677 | 0.218 | 148 | 0.5 | 0.4 | 6.824 | A |
| CD-A | 160 | 40 | | | 160 | | | | |

Existing Layout - 2026 With Dev Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|--|--------------------|----------------------|-----------------------|--------------------|--------------|
| 1 | St Richard's Road/Cross Road/Mill Hill | Left-Right Stagger | Two-way | | 5.69 | 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) | Run automatically |
|----|---------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D4 | 2026 With Dev Flows | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓ | ✓ | HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 321 | 100.000 |
| B | | ONE HOUR | ✓ | 249 | 100.000 |
| C | | ONE HOUR | ✓ | 420 | 100.000 |
| D | | ONE HOUR | ✓ | 66 | 100.000 |

Origin-Destination Data

Demand (PCU/hr)

| | To | | | | |
|------|----|-----|-----|-----|----|
| | A | B | C | D | |
| From | A | 0 | 95 | 204 | 22 |
| | B | 56 | 0 | 163 | 30 |
| | C | 211 | 202 | 0 | 7 |
| | D | 18 | 46 | 2 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | To | | | | |
|------|----|---|---|---|---|
| | A | B | C | D | |
| From | A | 0 | 0 | 0 | 0 |
| | B | 0 | 0 | 0 | 0 |
| | C | 0 | 0 | 0 | 0 |
| | D | 0 | 0 | 0 | 0 |

Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-ACD | 0.58 | 18.17 | 1.4 | C | 228 | 343 |
| A-B | | | | | 87 | 131 |
| A-C | | | | | 187 | 281 |
| A-D | | | | | 20 | 30 |
| AB-CD | 0.14 | 5.27 | 0.3 | A | 86 | 129 |
| AB-C | | | | | 298 | 447 |
| D-ABC | 0.14 | 7.89 | 0.2 | A | 61 | 91 |
| C-D | | | | | 6 | 10 |
| C-A | | | | | 194 | 290 |
| C-B | | | | | 185 | 278 |
| CD-AB | 0.64 | 15.02 | 2.3 | C | 340 | 509 |
| CD-A | | | | | 98 | 147 |

Main Results for each time segment

16:30 - 16:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 187 | 47 | 516 | 0.363 | 185 | 0.0 | 0.6 | 10.810 | B |
| A-B | 72 | 18 | | | 72 | | | | |
| A-C | 154 | 38 | | | 154 | | | | |
| A-D | 17 | 4 | | | 17 | | | | |
| AB-CD | 62 | 15 | 745 | 0.083 | 61 | 0.0 | 0.2 | 5.266 | A |
| AB-C | 252 | 63 | | | 252 | | | | |
| D-ABC | 50 | 12 | 568 | 0.088 | 49 | 0.0 | 0.1 | 6.942 | A |
| C-D | 5 | 1 | | | 5 | | | | |
| C-A | 159 | 40 | | | 159 | | | | |
| C-B | 152 | 38 | | | 152 | | | | |
| CD-AB | 255 | 64 | 643 | 0.396 | 252 | 0.0 | 0.8 | 9.158 | A |
| CD-A | 104 | 26 | | | 104 | | | | |

16:45 - 17:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 224 | 56 | 498 | 0.449 | 223 | 0.6 | 0.8 | 13.031 | B |
| A-B | 85 | 21 | | | 85 | | | | |
| A-C | 183 | 46 | | | 183 | | | | |
| A-D | 20 | 5 | | | 20 | | | | |
| AB-CD | 82 | 20 | 770 | 0.106 | 81 | 0.2 | 0.2 | 5.231 | A |
| AB-C | 294 | 74 | | | 294 | | | | |
| D-ABC | 59 | 15 | 551 | 0.108 | 59 | 0.1 | 0.1 | 7.313 | A |
| C-D | 6 | 2 | | | 6 | | | | |
| C-A | 190 | 47 | | | 190 | | | | |
| C-B | 182 | 45 | | | 182 | | | | |
| CD-AB | 325 | 81 | 658 | 0.495 | 324 | 0.8 | 1.2 | 10.782 | B |
| CD-A | 103 | 26 | | | 103 | | | | |

17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 274 | 69 | 472 | 0.580 | 272 | 0.8 | 1.3 | 17.772 | C |
| A-B | 105 | 26 | | | 105 | | | | |
| A-C | 225 | 56 | | | 225 | | | | |
| A-D | 24 | 6 | | | 24 | | | | |
| AB-CD | 114 | 29 | 805 | 0.142 | 114 | 0.2 | 0.3 | 5.210 | A |
| AB-C | 345 | 86 | | | 345 | | | | |
| D-ABC | 73 | 18 | 529 | 0.137 | 73 | 0.1 | 0.2 | 7.888 | A |
| C-D | 8 | 2 | | | 8 | | | | |
| C-A | 232 | 58 | | | 232 | | | | |
| C-B | 222 | 56 | | | 222 | | | | |
| CD-AB | 436 | 109 | 679 | 0.642 | 432 | 1.2 | 2.2 | 14.563 | B |
| CD-A | 89 | 22 | | | 89 | | | | |

17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 274 | 69 | 472 | 0.581 | 274 | 1.3 | 1.4 | 18.166 | C |
| A-B | 105 | 26 | | | 105 | | | | |
| A-C | 225 | 56 | | | 225 | | | | |
| A-D | 24 | 6 | | | 24 | | | | |
| AB-CD | 115 | 29 | 806 | 0.143 | 115 | 0.3 | 0.3 | 5.216 | A |
| AB-C | 346 | 87 | | | 346 | | | | |
| D-ABC | 73 | 18 | 529 | 0.137 | 73 | 0.2 | 0.2 | 7.893 | A |
| C-D | 8 | 2 | | | 8 | | | | |
| C-A | 232 | 58 | | | 232 | | | | |
| C-B | 222 | 56 | | | 222 | | | | |
| CD-AB | 438 | 109 | 680 | 0.643 | 437 | 2.2 | 2.3 | 15.025 | C |
| CD-A | 88 | 22 | | | 88 | | | | |

17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 224 | 56 | 497 | 0.450 | 226 | 1.4 | 0.8 | 13.360 | B |
| A-B | 85 | 21 | | | 85 | | | | |
| A-C | 183 | 46 | | | 183 | | | | |
| A-D | 20 | 5 | | | 20 | | | | |
| AB-CD | 83 | 21 | 772 | 0.107 | 83 | 0.3 | 0.2 | 5.235 | A |
| AB-C | 296 | 74 | | | 296 | | | | |
| D-ABC | 59 | 15 | 551 | 0.108 | 59 | 0.2 | 0.1 | 7.321 | A |
| C-D | 6 | 2 | | | 6 | | | | |
| C-A | 190 | 47 | | | 190 | | | | |
| C-B | 182 | 45 | | | 182 | | | | |
| CD-AB | 327 | 82 | 660 | 0.496 | 331 | 2.3 | 1.3 | 11.162 | B |
| CD-A | 102 | 25 | | | 102 | | | | |

17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-ACD | 187 | 47 | 515 | 0.364 | 188 | 0.8 | 0.6 | 11.048 | B |
| A-B | 72 | 18 | | | 72 | | | | |
| A-C | 154 | 38 | | | 154 | | | | |
| A-D | 17 | 4 | | | 17 | | | | |
| AB-CD | 63 | 16 | 746 | 0.084 | 63 | 0.2 | 0.2 | 5.274 | A |
| AB-C | 254 | 63 | | | 254 | | | | |
| D-ABC | 50 | 12 | 567 | 0.088 | 50 | 0.1 | 0.1 | 6.957 | A |
| C-D | 5 | 1 | | | 5 | | | | |
| C-A | 159 | 40 | | | 159 | | | | |
| C-B | 152 | 38 | | | 152 | | | | |
| CD-AB | 256 | 64 | 644 | 0.398 | 258 | 1.3 | 0.8 | 9.407 | A |
| CD-A | 103 | 26 | | | 103 | | | | |

APPENDIX 5

Level Crossing Impact Assessment

PROPOSED RESIDENTIAL DEVELOPMENT, CROSS ROAD, DEAL COLDBLOW LEVEL CROSSING IMPACT ASSESSMENT – JULY 2020

Introduction

Croft have been instructed by Gladman Developments Ltd to advise on the traffic and transportation issues relating to a proposed residential development for up to 140 dwellings on land to the west of Cross Road in Deal, Kent.

Croft previously provided advice on an outline planning application (ref: 20/01125) for up to 100 dwellings on land to the east of Cross Road, which was subsequently approved.

Background

This Level Crossing Impact Assessment has been produced to assist Network Rail's consideration of the application; Network Rail submitted a holding objection in relation to the previously application due to safety concerns relating to the operation of the Coldblow User-worked level crossing, located approximately 600-metres to the south of the proposed development site.

In its comments, Network Rail stated:

"Coldblow Level Crossing is a User-Worked type of crossing and therefore reliance is placed on the user (member of public) opening the gates when it is safe to do so, which on this crossing is indicated by a green light. The user then traverses the crossing and closes the gates behind them."

Network rail went on to state:

"However, the user may not always be aware of the dangers and as a result misuse does occur. Recently a near miss occurred when numerous drivers chose to use Coldblow level crossing to bypass roadworks on Dover Road but failed to close the gates behind them. This highlights when traffic issues occur on Station Road or Dover Road it results in the level crossing becoming a "rat run" for drivers.

The introduction of this up to 100 dwelling development is likely to generate more traffic in the area, a proportion of which will choose to use the level crossing. Any increase in the usage of the level crossing results in an increasing of the risk & increase the risk of misuse.

Croft provided Network Rail with additional information and Network Rail removed their objection. This note has therefore been prepared to provide information to assist Network Rail to carry out a full assessment of the level crossing based on the current proposals.



Figure 1 Application Site and Coldblow Level Crossing Location

Coldblow Level Crossing

As previously discussed, the Coldblow level crossing is located approximately 600-metres to the south of the application site and 450-metres to the south of Station Road.

Coldblow is a single-lane carriageway of approximately 2.2-metres width. Street lighting and footways are not provided along its length between its junction with Station Road and the level crossing. The restricted width of the carriageway does not facilitate two-way traffic flows, with vehicles only able to pass one another at the two field accesses along this section of carriageway.

As shown in **Figure 3** below, no destinations are sign-posted along this route, with cycle route directions signed along Station Road.



Figure 3 Coldblow Looking from Station Road Junction

Given the rural nature of this route it is not considered there will be a high traffic demand along Coldblow.

The ABC Railway Guide is an online guide to Britain's railway infrastructure, including the Coldblow level crossing. The guide (accessed at <http://abcrailwayguide.uk/cold-blow-public-level-crossing-kent>) includes traffic and pedestrian usage at the Cold Blow level crossing, recorded in 2015, stating:

- 8-vehicles; and
- 122 Pedestrians or cyclists.

Given the location of the level crossing and nature of Coldblow, it is not considered current usage figures will differ significantly from the recorded usage.

Level Crossing Impact Assessment

Introduction

This section outlines the assessment undertaken to determine an estimate of additional potential movements at the level crossing as a result of the proposed development.

Level Crossing User Numbers

The Railway Guide survey data and survey data collected as part of the Transport Assessment submitted in support of the planning application has been used to determine the current traffic demand along Coldblow, with reference to TRICS database-derived trip generation and 2011 National Census Journey Purpose data to establish the forecast trips potentially generated by the proposed development.

As discussed in Section 5 and depicted in Plan 4 of the submitted Transport Assessment, all of the facilities typically used by residents are located to the north and east of the application site in Walmer and Upper Deal, including Walmer station and the nearest bus stops to the site, located along Station Road and Court Road. All of these locations can be accessed directly via Station Road and Cross Road.

As shown in Plan 1 of the Transport Assessment, and Figures 1 and 2 of this Technical Note, the area to the south and east of the Coldblow level crossing is predominantly rural in nature, with no employment, retail, medical or educational facilities. It is therefore considered that residents may only regularly use Coldblow for leisure/recreational purposes, rather than daily commuting, retail, Health Visit or Education journey purposes.

Nevertheless, as shown in Figures 11 and 12 of the submitted Transport Assessment, a single outbound and single inbound car-based trip is forecast to pass along Coldblow during the morning peak and evening peak periods. It is, however, important to recognise that the reported development distribution is based upon observed traffic turning proportions at the Station Road/Coldblow junction as stated in paragraph 7.7:

"The directional distribution for the proposed development has been based on the current pattern of traffic flows on the local highway network."

Given the previously discussed lack of employment/retail and education destinations accessible via Coldblow, it is considered highly unlikely that development traffic will use Coldblow and the level crossing on a daily basis.

The reported trip generation considers the forecast peak hour traffic generated by the proposed development for capacity analysis purposes. It is assumed that the majority of this traffic is (home to work, home to school and vice-versa) commuter traffic.

Given there are no destinations signed via Coldblow and the level crossing, it is reasonable to assume the recorded users of the level crossing are associated with the local population. Assuming the previously discussed 8 cars and 122 cycles/pedestrians previously recorded as using the crossing on a daily basis are associated with the population residing in the Dover 007 Middle Layer Super Output Area (MSOA) area, as shown in **Figure 4** below, closest to the level crossing. The crossing catchment area includes up to a total of 7,610 people (taken from the 2011 National Census).

Of this catchment population, a total of 8 cars and 122 cycle/pedestrians are recorded as using the level crossing, representing 0.11% of the population traveling by car and 1.60% travelling by foot/cycle.

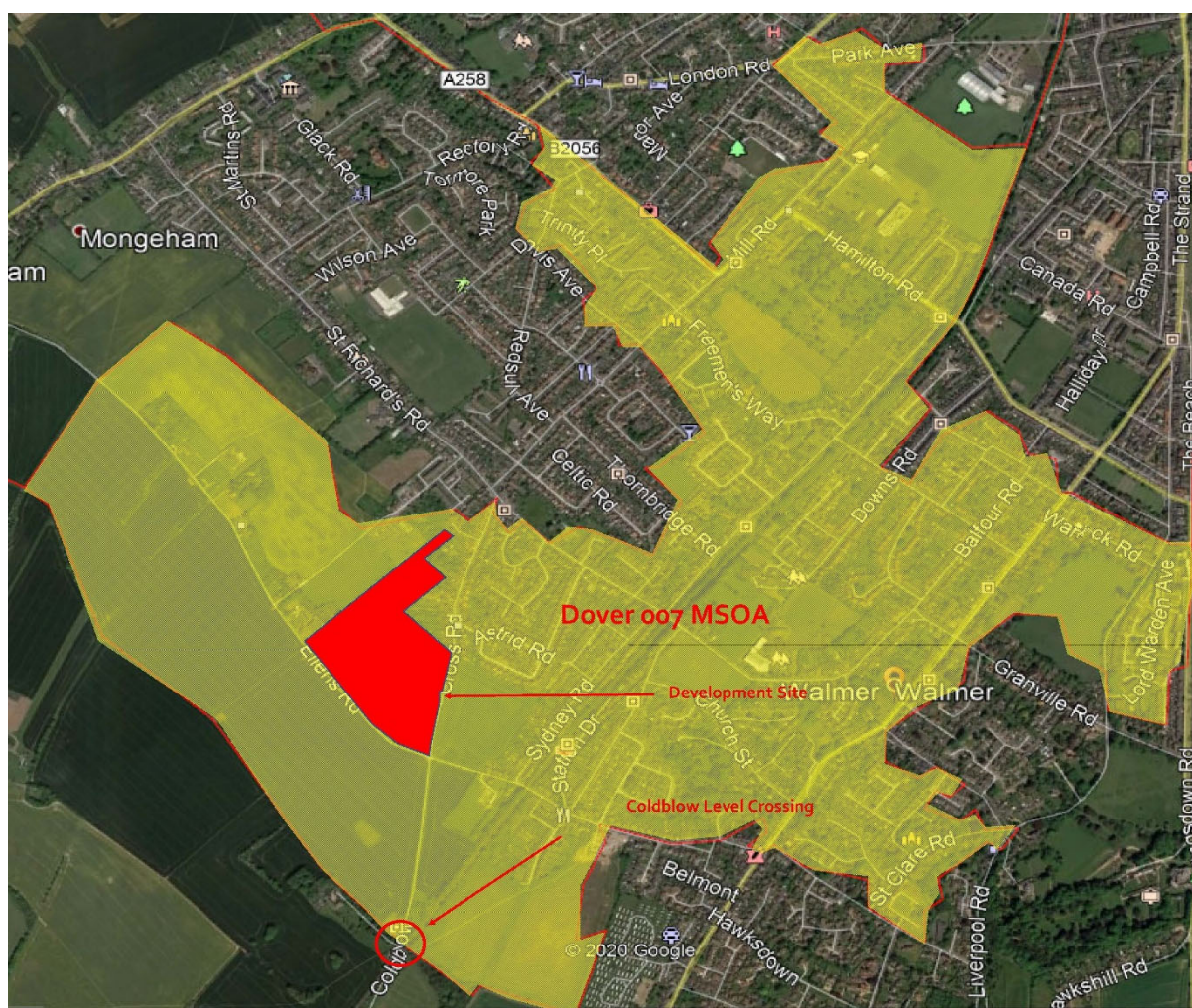


Figure 4 Dover 007 Middle Layer Super Output Area

The Transport Assessment has adopted previously agreed trip rates supplied by the Local Highway Authority (LHA), which demonstrates that only one vehicle during the morning and two vehicles during the evening peaks are forecast to pass along Coldblow.

As previously discussed, the proposed development will consist of up to 140 dwellings. No schedule of accommodation is currently available for the proposed development.

In order to forecast the development population, 2011 National census data for the Dover 007 MSOA has been used to determine the 'typical' number of bedrooms per household as summarised in **Table 1** below.

| Bedrooms | All categories: Household composition | Proportion |
|--------------------|--|------------|
| 1 bedroom | 321 | 10% |
| 2 bedrooms | 1,001 | 30% |
| 3 bedrooms | 1,626 | 48% |
| 4 or more bedrooms | 406 | 12% |
| TOTAL | 3,354 | 100% |

Table 1 Proportion of Bedrooms per Household in Dover 007 MSOA

In order to calculate the average population per bedroom within the Dover 007 MSOA area, reference has been made to the national census tenure by number of persons per bedroom in household by accommodation type data summarised in **Table 2** below.

| Persons per bedroom | Number | Proportion |
|--|--------|------------|
| All categories: Number of persons per bedroom in household | 1,777 | |
| Up to 0.5 persons per bedroom | 561 | 32% |
| Over 0.5 and up to 1.0 persons per bedroom | 939 | 53% |
| Over 1.0 and up to 1.5 persons per bedroom | 201 | 11% |
| Over 1.5 persons per bedroom | 76 | 4% |

Table 2 Dover 007 MSOA Persons per Bedroom

It can be seen in Table 2 that the majority of properties (53%) are occupied by 0.5 to 1.0 persons per bedroom.

It is assumed that the final development will consist of dwellings with a mixture of 2-4 bedrooms. Given that 2/3-bedroom properties form the bulk of dwellings within the Dover 007 MSOA, only these properties have been considered in the development population calculation summarised in **Table 3** below and that each bedroom is occupied by 1 person.

| Bedrooms | All categories: Household composition | Proportion | Number of Bedrooms | Population |
|------------|---|------------|-----------------------|------------|
| 2 bedrooms | 1,001 | 38% | 106 | 106 |
| 3 bedrooms | 1,626 | 62% | 260 | 260 |
| TOTAL | 2,627 | 100% | 366 | 366 |

Table 3 Forecast Development Population

The table above demonstrates that a total of 366 bedrooms are assumed to be provided within the 140-dwelling development. When the calculated population density is applied to the number of bedrooms a development population of 366 people is forecast.

When the proportions of level crossing-users are applied to the forecast development population, no additional car-based and 6 additional pedestrian/cycle-based trips are forecast to use the Coldblow level crossing on a daily basis.

It should be noted that 2011 National census data is routinely used for a range of forecasting purposes and will continue to be used until 2021 National census data becomes available. Any increase in the local population after the 2011 census and up to the point where the 2015 Railway Guide level crossing patronage data was compiled would only serve to reduce the ratio of crossing user versus catchment population.

For example, if 122 daily foot/cycle trips (ref Railway Guide data) arise from a population of 7,610 (1.6%), any increase in the catchment population from 2011 to 2015, say from 7,610 to 10,000, would only serve to reduce the percentage use from 1.6% to 1.2%. Accordingly, the number of crossing users estimated from the proposed development population of 366 would therefore reduce from $1.6\% \times 366$ to $1.2\% \times 366$, a reduction of 6 users to 4.

Notwithstanding this the number of crossing users estimated to arise solely from the new development is at such a low level, 0.3 by car and 4 on foot, that we could incur a doubling of the development size and still only generate less than 1 crossing by car and only 8 by foot.

It is therefore concluded that the proposed development will not generate a significant increase in the number of car, pedestrian or cycle-based journeys across the Coldblow level crossing.

Impact Resulting from Station Road Traffic Congestion

Network Rail also previously raised comments regarding the implication of highway works proposed along Station Road as part of Phase 1 on potential rat-running via the crossing and on replacement bus services.

Notwithstanding Network Rail were ultimately satisfied that the works would not have an adverse impact on these matters, the now-approved works will have been delivered in advance of the proposed development coming forward and are not therefore a matter of concern associated with the current development proposals.

Conclusions

This technical note has been prepared to advise Network Rail on the potential impact of the proposed development on the operation of the Coldblow user-worked level crossing.

The assessment has demonstrated that the proposed 140-dwelling residential development will not generate any material additional car, pedestrian or cycle-based journeys across the Coldblow level crossing.

The forecast number of additional pedestrian/cycle movements across the level crossing equates to a single additional movement every 2-hours (based on a 12-hour day). This is considered to be an imperceptible increase in pedestrian and cycle movements across the crossing on a daily basis, based on robust parameters.

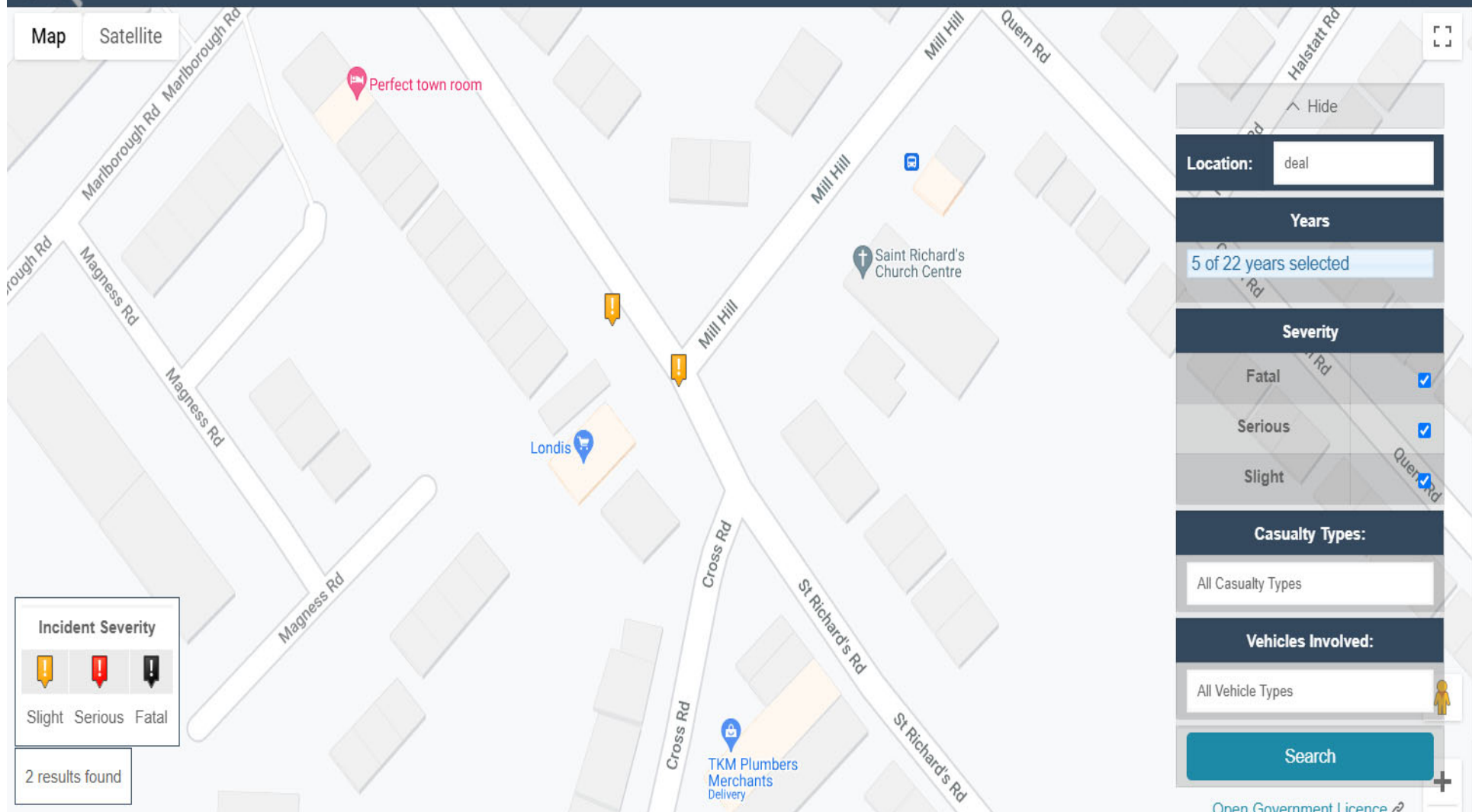
Furthermore, as previously stated, the submitted Transport Assessment distributed two vehicles along Coldblow during the morning and evening peak hours, based upon observed turning traffic movements at the Station Road/Coldblow junction. However, given there are no employment, retail or education destinations accessible via Coldblow, it is extremely unlikely that any development traffic will use this route in practice.

It is therefore concluded that the proposed development will not impact the operation of the Coldblow user-worked level crossing and there should be no objections by Network Rail to the proposals on this basis.

APPENDIX 6

Accident Data

Map Satellite



Map

Satellite

Perfect town room

Londis

Saint Richard's Church Centre

TKM Plumbers Merchants Delivery

Incident Severity



Slight Serious Fatal

2 results found

Location:

deal

Years

5 of 22 years selected

Severity

Fatal



Serious



Slight



Casualty Types:

All Casualty Types

Vehicles Involved:

All Vehicle Types




Search

[Open Government Licence](#)

Map Satellite



Incident Severity


Slight Serious Fatal

1 results found

^ Hide

Location: deal

Years

5 of 22 years selected

Severity

Fatal ☒

Serious ☒

Slight ☒

Casualty Types:

All Casualty Types

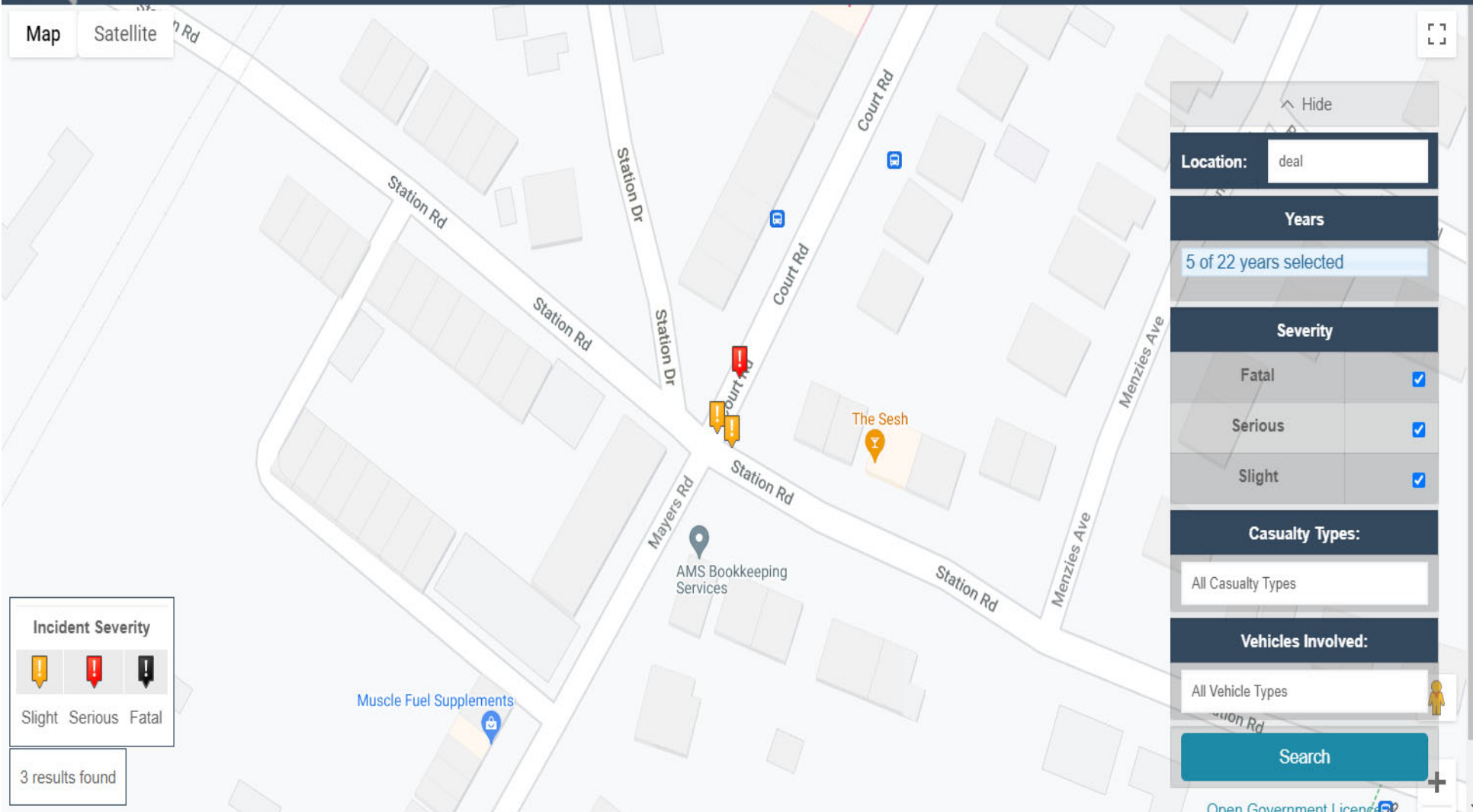
Vehicles Involved:

All Vehicle Types

Search

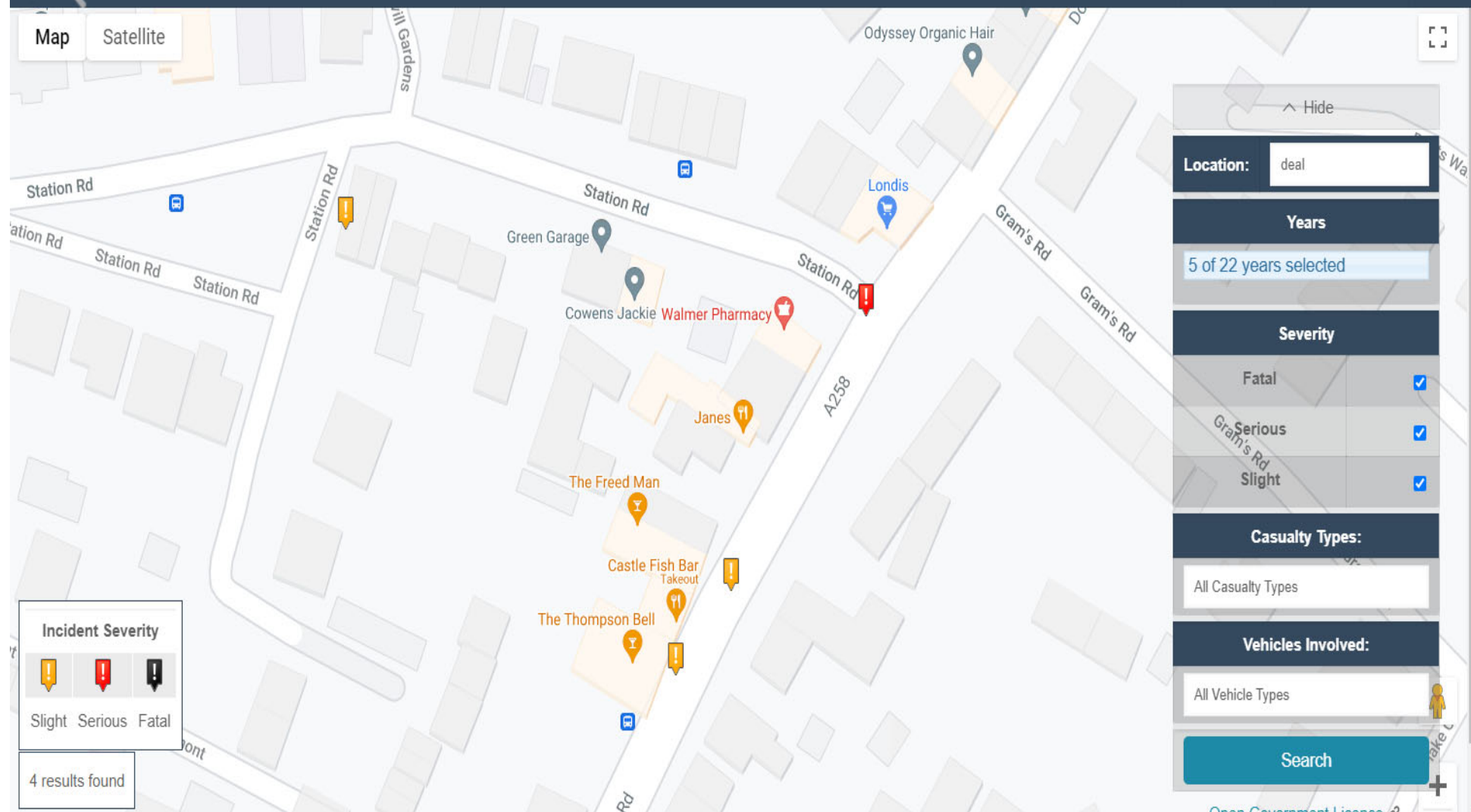
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Map Satellite





Map Satellite





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