Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 22.05 | 1.47 | 5.732 | A | A |
| Oxford Motor <br> Park | 0.91 | 0.06 | 3.164 | A | A |
| Langford Lane <br> (W) | 80.61 | 5.37 | 16.088 | C | A |
| The Boulevard | 3.18 | 0.21 | 4.873 | A | A |

Queueing Delay results: (08:30-08:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 14.41 | 0.96 | 4.391 | A |  |
| Oxford Motor <br> Park | 0.68 | 0.05 | 2.850 | A |  |
| Langford Lane <br> (W) | 32.94 | 2.20 | 7.208 | A |  |
| The Boulevard | 2.35 | 0.16 | 4.287 | A | A |

Queueing Delay results: (08:45-09:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.18 | 0.68 | 3.728 | A |  |
| Oxford Motor <br> Park | 0.53 | 0.04 | 2.655 | A |  |
| Langford Lane <br> (W) | 18.31 | 1.22 | 4.850 | A |  |
| The Boulevard | 1.79 | 0.12 | 3.913 | A | A |

## (Default Analysis Set) - 2025 Base, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(s) | Specific <br> Demand Set <br> (5) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type |  |  | Model <br> Time <br> Period <br> Length <br> (min) | Time <br> Segment Length (min) | Results For Central Hour Only | Single <br> Time <br> Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2025 <br> Base, <br> PM | $\begin{aligned} & 2025 \\ & \text { Base } \end{aligned}$ | PM |  | ONE HOUR | 16:15 | 17:45 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (5) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 5.52 | A |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Normalunknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

Roundabout Geometry

| Name | V - Approach road half- <br> width $(\mathbf{m})$ | E-Entry <br> width $(\mathbf{m})$ | r - Effective flare <br> length $(\mathrm{m})$ | R - Entry <br> radius $(\mathbf{m})$ | D - Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> $(\mathrm{E})$ | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> (W) | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

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

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

## Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Meh Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Proportions <br> Vary Over Entry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Percentages | 2.00 |  |  |  | $\checkmark$ | $\checkmark$ |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 619.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 142.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 360.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 831.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 56.000 | 503.000 | 60.000 |
|  | $\mathbf{2}$ | 69.000 | 0.000 | 64.000 | 9.000 |
|  | $\mathbf{3}$ | 275.000 | 37.000 | 0.000 | 48.000 |
|  | $\mathbf{4}$ | 398.000 | 9.000 | 424.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.09 | 0.81 | 0.10 |
|  | $\mathbf{2}$ | 0.49 | 0.00 | 0.45 | 0.06 |
|  | $\mathbf{3}$ | 0.76 | 0.10 | 0.00 | 0.13 |
|  | $\mathbf{4}$ | 0.48 | 0.01 | 0.51 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.000 | 1.028 | 1.177 |
|  | $\mathbf{2}$ | 1.034 | 1.000 | 1.019 | 1.137 |
|  | $\mathbf{3}$ | 1.060 | 1.000 | 1.000 | 1.271 |
|  | $\mathbf{4}$ | 1.021 | 1.264 | 1.011 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 0.000 | 2.800 | 17.700 |
|  | $\mathbf{2}$ | 3.400 | 0.000 | 1.900 | 13.700 |
|  | $\mathbf{3}$ | 6.000 | 0.000 | 0.000 | 27.100 |
|  | $\mathbf{4}$ | 2.100 | 26.400 | 1.100 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | Max Delay (s) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Vehmin) | Average Queueing Delay (s) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.50 | 5.23 | 0.98 | A | 568.00 | 852.01 | 62.01 | 4.37 | 0.69 | 62.02 | 4.37 |
| Oxford Motor Park | 0.14 | 3.81 | 0.17 | A | 130.30 | 195.45 | 10.97 | 3.37 | 0.12 | 10.97 | 3.37 |
| Langford Lane (W) | 0.24 | 2.80 | 0.31 | A | 330.34 | 495.51 | 21.83 | 2.64 | 0.24 | 21.83 | 2.64 |
| The Boulevard | 0.65 | 7.29 | 1.83 | A | 762.54 | 1143.81 | 106.21 | 5.57 | 1.18 | 106.22 | 5.57 |

## Main Results for each time segment

Main results: (16:15-16:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 466.02 | 116.50 | 464.18 | 556.52 | 352.28 | 0.00 | 1473.74 | 1404.05 | 0.316 | 0.00 | 0.46 | 3.560 | A |
| Oxford <br> Motor Park | 106.90 | 26.73 | 106.56 | 76.52 | 739.94 | 0.00 | 1336.63 | 748.31 | 0.080 | 0.00 | 0.09 | 2.926 | A |
| Langford <br> Lane (W) | 271.03 | 67.76 | 270.28 | 742.98 | 103.52 | 0.00 | 1716.05 | 1404.38 | 0.158 | 0.00 | 0.19 | 2.488 | A |
| The <br> Boulevard | 625.62 | 156.41 | 622.78 | 87.78 | 286.02 | 0.00 | 1499.96 | 614.11 | 0.417 | 0.00 | 0.71 | 4.091 | A |

Main results: (16:30-16:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{s})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 556.47 | 139.12 | 555.78 | 666.23 | 421.82 | 0.00 | 1429.80 | 1404.05 | 0.389 | 0.46 | 0.63 | 4.115 |
| Oxford <br> Motor Park | 127.65 | 31.91 | 127.54 | 91.60 | 886.00 | 0.00 | 1236.97 | 748.31 | 0.103 | 0.09 | 0.11 | 3.244 |
| Langford <br> Lane (W) | 323.63 | 80.91 | 323.44 | 889.61 | 123.93 | 0.00 | 1701.32 | 1404.38 | 0.190 | 0.19 | 0.23 | 2.612 |
| The <br> Boulevard | 747.05 | 186.76 | 745.75 | 105.08 | 342.29 | 0.00 | 1461.41 | 614.11 | 0.511 | 0.71 | 1.03 | 5.021 |

Main results: (16:45-17:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (5) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 681.53 | 170.38 | 680.15 | 815.14 | 515.83 | 0.00 | 1370.42 | 1404.05 | 0.497 | 0.63 | 0.98 | 5.204 | A |
| Oxford <br> Motor Park | 156.34 | 39.09 | 156.14 | 112.12 | 1083.86 | 0.00 | 1101.96 | 748.31 | 0.142 | 0.11 | 0.16 | 3.806 | A |
| Langford <br> Lane (W) | 396.37 | 99.09 | 396.07 | 1088.31 | 151.70 | 0.00 | 1681.26 | 1404.38 | 0.236 | 0.23 | 0.31 | 2.801 | A |
| The <br> Boulevard | 914.95 | 228.74 | 911.84 | 128.63 | 419.14 | 0.00 | 1408.78 | 614.11 | 0.649 | 1.03 | 1.81 | 7.197 | A |

Main results: (17:00-17:15)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (5) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 681.53 | 170.38 | 681.51 | 816.92 | 517.44 | 0.00 | 1369.41 | 1404.05 | 0.498 | 0.98 | 0.98 | 5.232 | A |
| Oxford <br> Motor Park | 156.34 | 39.09 | 156.34 | 112.30 | 1086.64 | 0.00 | 1100.07 | 748.31 | 0.142 | 0.16 | 0.17 | 3.813 | A |
| Langford <br> Lane (W) | 396.37 | 99.09 | 396.36 | 1091.04 | 151.94 | 0.00 | 1681.09 | 1404.38 | 0.236 | 0.31 | 0.31 | 2.801 | A |
| The <br> Boulevard | 914.95 | 228.74 | 914.87 | 128.82 | 419.49 | 0.00 | 1408.54 | 614.11 | 0.650 | 1.81 | 1.83 | 7.289 | A |

Main results: (17:15-17:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 556.47 | 139.12 | 557.84 | 668.84 | 424.17 | 0.00 | 1428.33 | 1404.05 | 0.390 | 0.98 | 0.64 | 4.143 | A |
| Oxford <br> Motor Park | 127.65 | 31.91 | 127.85 | 91.88 | 890.12 | 0.00 | 1234.17 | 748.31 | 0.103 | 0.17 | 0.12 | 3.256 | A |
| Langford <br> Lane (W) | 323.63 | 80.91 | 323.92 | 893.67 | 124.30 | 0.00 | 1701.05 | 1404.38 | 0.190 | 0.31 | 0.24 | 2.616 | A |
| The <br> Boulevard | 747.05 | 186.76 | 750.15 | 105.36 | 342.86 | 0.00 | 1461.03 | 614.11 | 0.511 | 1.83 | 1.06 | 5.085 | A |

Main results: (17:30-17:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( 5 ) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 466.02 | 116.50 | 466.72 | 559.46 | 354.56 | 0.00 | 1472.30 | 1404.05 | 0.317 | 0.64 | 0.47 | 3.584 | A |
| Oxford <br> Motor Park | 106.90 | 26.73 | 107.02 | 76.89 | 744.40 | 0.00 | 1333.60 | 748.31 | 0.080 | 0.12 | 0.09 | 2.936 | A |
| Langford <br> Lane (W) | 271.03 | 67.76 | 271.22 | 747.39 | 104.02 | 0.00 | 1715.69 | 1404.38 | 0.158 | 0.24 | 0.19 | 2.492 | A |
| The <br> Boulevard | 625.62 | 156.41 | 626.97 | 88.19 | 287.06 | 0.00 | 1499.25 | 614.11 | 0.417 | 1.06 | 0.72 | 4.134 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (16:15-16:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 6.74 | 0.45 | 3.560 | A |  |
| Oxford Motor <br> Park | 1.28 | 0.09 | 2.926 | A |  |
| Langford Lane <br> (W) | 2.76 | 0.18 | 2.488 | A |  |
| The Boulevard | 10.34 | 0.69 | 4.091 | A | A |

Queueing Delay results: (16:30-16:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 9.30 | 0.62 | 4.115 | A |  |
| Oxford Motor <br> Park | 1.70 | 0.11 | 3.244 | A |  |
| Langford Lane <br> (W) | 3.47 | 0.23 | 2.612 | A |  |
| The Boulevard | 15.09 | 1.01 | 5.021 | A | A |

Queueing Delay results: (16:45-17:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle ( $\mathbf{s})$ | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 14.25 | 0.95 | 5.204 | A |  |
| Oxford Motor <br> Park | 2.43 | 0.16 | 3.806 | A |  |
| Langford Lane <br> (W) | 4.55 | 0.30 | 2.801 | A |  |
| The Boulevard | 25.90 | 1.73 | 7.197 | A | A |

Queueing Delay results: (17:00-17:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 14.73 | 0.98 | 5.232 | A |  |
| Oxford Motor <br> Park | 2.47 | 0.16 | 3.813 | A |  |
| Langford Lane <br> (W) | 4.61 | 0.31 | 2.801 | A |  |
| The Boulevard | 27.37 | 1.82 | 7.289 | A | A |

Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay <br> $($ Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 9.88 | 0.66 | 4.143 | A |  |
| Oxford Motor <br> Park | 1.76 | 0.12 | 3.256 | A |  |
| Langford Lane <br> (W) | 3.58 | 0.24 | 2.616 | A |  |
| The Boulevard | 16.42 | 1.10 | 5.085 | A | A |

Queueing Delay results: (17:30-17:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 7.12 | 0.47 | 3.584 | A |  |
| Oxford Motor <br> Park | 1.33 | 0.09 | 2.936 | A |  |
| Langford Lane <br> (W) | 2.85 | 0.19 | 2.492 | A |  |
| The Boulevard | 11.09 | 0.74 | 4.134 | A | A |

## (Default Analysis Set) - 2015 Base + Development, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include in <br> Report | Use Specific <br> Demand Set(5) | Specific <br> Demand Set <br> (5) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | $\begin{gathered} \text { Model } \\ \text { Start } \\ \text { Time } \\ (\mathrm{HH}: \mathrm{mm}) \end{gathered}$ | Model Finish Time (HH:mm) | Model <br> Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use <br> Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 Base + <br> Development, AM | 2015 Base + Development | AM |  | ONE HOUR | 07:30 | 09:00 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 6.41 | A |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

## Roundabout Geometry

| Name | V - Approach road halfwidth ( m ) | E - Entry width ( m ) | ${ }^{1}$ - Effective flare length ( m ) | R - Entry radius (m) | D - Inscribed circle diameter ( m ) | PHI - Conflict (entry) angle (deg) | $\begin{aligned} & \text { Exit } \\ & \text { Only } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane (W) | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

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

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

[^0]
## Traffic Flows

## Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Mex Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Pary Oportions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Ventry |  |  |  |  |  |  |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 759.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 53.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 1005.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 124.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 84.000 | 262.000 | 413.000 |
|  | $\mathbf{2}$ | 25.000 | 0.000 | 26.000 | 2.000 |
|  | $\mathbf{3}$ | 506.000 | 102.000 | 0.000 | 397.000 |
|  | $\mathbf{4}$ | 66.000 | 5.000 | 53.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.11 | 0.35 | 0.54 |
|  | $\mathbf{2}$ | 0.47 | 0.00 | 0.49 | 0.04 |
|  | $\mathbf{3}$ | 0.50 | 0.10 | 0.00 | 0.40 |
|  | $\mathbf{4}$ | 0.53 | 0.04 | 0.43 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.012 | 1.058 | 1.025 |
|  | $\mathbf{2}$ | 1.040 | 1.000 | 1.000 | 1.462 |
|  | $\mathbf{3}$ | 1.034 | 1.000 | 1.000 | 1.015 |
|  | $\mathbf{4}$ | 1.339 | 1.000 | 1.305 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 1.200 | 5.800 | 2.500 |
|  | $\mathbf{2}$ | 4.000 | 0.000 | 0.000 | 46.200 |
|  | $\mathbf{3}$ | 3.400 | 0.000 | 0.000 | 1.500 |
|  | $\mathbf{4}$ | 33.900 | 0.000 | 30.500 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | Max (s) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Vehmin) | Average Queueing Delay (5) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.53 | 4.82 | 1.11 | A | 696.47 | 1044.71 | 71.26 | 4.09 | 0.79 | 71.27 | 4.09 |
| Oxford Motor Park | 0.05 | 2.95 | 0.05 | A | 48.63 | 72.95 | 3.34 | 2.75 | 0.04 | 3.34 | 2.75 |
| Langford Lane (W) | 0.71 | 8.12 | 2.46 | A | 922.21 | 1383.31 | 134.47 | 5.83 | 1.49 | 134.48 | 5.83 |
| The Boulevard | 0.14 | 4.40 | 0.17 | A | 113.78 | 170.68 | 11.48 | 4.04 | 0.13 | 11.48 | 4.04 |

## Main Results for each time segment

Main results: (07:30-07:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 571.42 | 142.85 | 569.25 | 447.52 | 119.94 | 0.00 | 1621.82 | 1339.39 | 0.352 | 0.00 | 0.54 | 3.413 |
| Oxford <br> Motor Park | 39.90 | 9.98 | 39.79 | 143.20 | 545.99 | 0.00 | 1455.46 | 728.99 | 0.027 | 0.00 | 0.03 | 2.542 |
| Langford <br> Lane (W) | 756.62 | 189.15 | 753.29 | 255.76 | 330.02 | 0.00 | 1659.04 | 1101.03 | 0.456 | 0.00 | 0.83 | 3.960 |
| The <br> Boulevard | 93.35 | 23.34 | 92.97 | 608.82 | 474.49 | 0.00 | 1070.19 | 789.02 | 0.087 | 0.00 | 0.10 | 3.684 |

Main results: (07:45-08:00)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | $\begin{aligned} & \text { Entry } \\ & \text { Flow } \\ & \text { (Veh/hr) } \end{aligned}$ | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 682.33 | 170.58 | 681.56 | 535.76 | 143.61 | 0.00 | 1605.52 | 1339.39 | 0.425 | 0.54 | 0.73 | 3.893 | A |
| Oxford Motor Park | 47.65 | 11.91 | 47.62 | 171.44 | 653.73 | 0.00 | 1380.17 | 728.99 | 0.035 | 0.03 | 0.04 | 2.701 | A |
| Langford Lane (W) | 903.48 | 225.87 | 901.77 | 306.23 | 395.12 | 0.00 | 1612.70 | 1101.03 | 0.560 | 0.83 | 1.26 | 5.051 | A |
| The Boulevard | 111.47 | 27.87 | 111.37 | 728.88 | 568.01 | 0.00 | 1021.40 | 789.02 | 0.109 | 0.10 | 0.12 | 3.956 | A |

Main results: (08:00-08:15)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{( 5 )}$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 835.68 | 208.92 | 834.19 | 654.85 | 175.61 | 0.00 | 1583.47 | 1339.39 | 0.528 | 0.73 | 1.11 | 4.794 | A |
| Oxford <br> Motor Park | 58.35 | 14.59 | 58.31 | 209.65 | 800.15 | 0.00 | 1277.84 | 728.99 | 0.046 | 0.04 | 0.05 | 2.951 | A |
| Langford <br> Lane (W) | 1106.53 | 276.63 | 1101.87 | 374.84 | 483.62 | 0.00 | 1549.70 | 1101.03 | 0.714 | 1.26 | 2.42 | 7.956 | A |
| The <br> Boulevard | 136.53 | 34.13 | 136.35 | 891.37 | 694.10 | 0.00 | 955.61 | 789.02 | 0.143 | 0.12 | 0.17 | 4.393 | A |

Main results: (08:15-08:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (5) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 835.68 | 208.92 | 835.65 | 657.23 | 176.15 | 0.00 | 1583.12 | 1339.39 | 0.528 | 1.11 | 1.11 | 4.816 | A |
| Oxford <br> Motor Park | 58.35 | 14.59 | 58.35 | 210.28 | 801.52 | 0.00 | 1276.88 | 728.99 | 0.046 | 0.05 | 0.05 | 2.953 | A |
| Langford <br> Lane (W) | 1106.53 | 276.63 | 1106.38 | 375.44 | 484.43 | 0.00 | 1549.12 | 1101.03 | 0.714 | 2.42 | 2.46 | 8.124 | A |
| The <br> Boulevard | 136.53 | 34.13 | 136.52 | 893.95 | 696.85 | 0.00 | 954.18 | 789.02 | 0.143 | 0.17 | 0.17 | 4.402 | A |

Main results: (08:30-08:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( ) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 682.33 | 170.58 | 683.79 | 539.16 | 144.39 | 0.00 | 1605.01 | 1339.39 | 0.425 | 1.11 | 0.74 | 3.913 | A |
| Oxford <br> Motor Park | 47.65 | 11.91 | 47.69 | 172.35 | 655.84 | 0.00 | 1378.70 | 728.99 | 0.035 | 0.05 | 0.04 | 2.704 | A |
| Langford <br> Lane (W) | 903.48 | 225.87 | 908.16 | 307.15 | 396.37 | 0.00 | 1611.81 | 1101.03 | 0.561 | 2.46 | 1.29 | 5.151 | A |
| The <br> Boulevard | 111.47 | 27.87 | 111.65 | 732.62 | 571.90 | 0.00 | 1019.37 | 789.02 | 0.109 | 0.17 | 0.12 | 3.968 | A |

Main results: (08:45-09:00)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Entry Flow (Veh/hr) | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 571.42 | 142.85 | 572.21 | 450.42 | 120.69 | 0.00 | 1621.31 | 1339.39 | 0.352 | 0.74 | 0.55 | 3.435 | A |
| Oxford Motor Park | 39.90 | 9.98 | 39.93 | 144.07 | 548.82 | 0.00 | 1453.48 | 728.99 | 0.027 | 0.04 | 0.03 | 2.546 | A |
| Langford Lane (W) | 756.62 | 189.15 | 758.40 | 257.06 | 331.70 | 0.00 | 1657.85 | 1101.03 | 0.456 | 1.29 | 0.85 | 4.011 | A |
| The Boulevard | 93.35 | 23.34 | 93.46 | 612.45 | 477.65 | 0.00 | 1068.54 | 789.02 | 0.087 | 0.12 | 0.10 | 3.691 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (07:30-07:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 7.92 | 0.53 | 3.413 | A |  |
| Oxford Motor <br> Park | 0.42 | 0.03 | 2.542 | A |  |
| Langford Lane <br> (W) | 12.11 | 0.81 | 3.960 | A |  |
| The Boulevard | 1.40 | 0.09 | 3.684 | A | A |

Queueing Delay results: (07:45-08:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.79 | 0.72 | 3.893 | A |  |
| Oxford Motor <br> Park | 0.53 | 0.04 | 2.701 | A |  |
| Langford Lane <br> (W) | 18.30 | 1.22 | 5.051 | A |  |
| The Boulevard | 1.80 | 0.12 | 3.956 | A | A |

Queueing Delay results: (08:00-08:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle ( $\mathbf{s})$ | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 16.11 | 1.07 | 4.794 | A |  |
| Oxford Motor <br> Park | 0.71 | 0.05 | 2.951 | A |  |
| Langford Lane <br> (W) | 34.22 | 2.28 | 7.956 | A |  |
| The Boulevard | 2.45 | 0.16 | 4.393 | A | A |

Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 16.64 | 1.11 | 4.816 | A |  |
| Oxford Motor <br> Park | 0.72 | 0.05 | 2.953 | A |  |
| Langford Lane <br> (W) | 36.70 | 2.45 | 8.124 | A |  |
| The Boulevard | 2.49 | 0.17 | 4.402 | A | A |

Queueing Delay results: (08:30-08:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 11.44 | 0.76 | 3.913 | A |  |
| Oxford Motor <br> Park | 0.54 | 0.04 | 2.704 | A |  |
| Langford Lane <br> (W) | 20.13 | 1.34 | 5.151 | A |  |
| The Boulevard | 1.88 | 0.13 | 3.968 | A | A |

Queueing Delay results: (08:45-09:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> $\min /$ min $)$ | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 8.36 | 0.56 | 3.435 | A | A |
| Oxford Motor <br> Park | 0.43 | 0.03 | 2.546 | A | A |
| Langford Lane <br> (W) | 13.02 | 0.87 | 4.011 | A | A |
| The Boulevard | 1.46 | 0.10 | 3.691 | A | A |

## (Default Analysis Set) - 2015 Base + Development, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(s) | Specific <br> Demand Set <br> (s) | Locked | Network Floww <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |
| Analysis Set) |  |  |  |  |  |  |  |  |  |

## Demand Set Details

| Name | Scenario Name | Time <br> Period <br> Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model <br> Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2015 Base + <br> Development, PM | 2015 Base + <br> Development | PM |  | ONE HOUR | 16:15 | 17:45 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 4.49 | A |

Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

## Roundabout Geometry

| Name | V-Approach road half- <br> width $(\mathbf{m})$ | E Entry <br> width $(\mathbf{m})$ | r - Effective flare <br> length $(\mathbf{m})$ | R - Entry <br> radius $(\mathbf{m})$ | D - Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> $(W)$ | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

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

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Proportions <br> Vary Over Entry |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Percentages | 2.00 |  |  |  | $\checkmark$ | $\checkmark$ |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 533.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 121.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 337.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 721.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 48.000 | 433.000 | 52.000 |
|  | $\mathbf{2}$ | 59.000 | 0.000 | 55.000 | 7.000 |
|  | $\mathbf{3}$ | 265.000 | 31.000 | 0.000 | 41.000 |
|  | $\mathbf{4}$ | 346.000 | 8.000 | 367.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.09 | 0.81 | 0.10 |
|  | $\mathbf{2}$ | 0.49 | 0.00 | 0.45 | 0.06 |
|  | $\mathbf{3}$ | 0.79 | 0.09 | 0.00 | 0.12 |
|  | $\mathbf{4}$ | 0.48 | 0.01 | 0.51 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.000 | 1.028 | 1.176 |
|  | $\mathbf{2}$ | 1.034 | 1.000 | 1.019 | 1.137 |
|  | $\mathbf{3}$ | 1.053 | 1.000 | 1.000 | 1.270 |
|  | $\mathbf{4}$ | 1.021 | 1.260 | 1.011 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 0.000 | 2.800 | 17.600 |
|  | $\mathbf{2}$ | 3.400 | 0.000 | 1.900 | 13.700 |
|  | $\mathbf{3}$ | 5.300 | 0.000 | 0.000 | 27.000 |
|  | $\mathbf{4}$ | 2.100 | 26.000 | 1.100 | 0.000 |

## Results

## Results Summary for whole modelled period

| Name | $\begin{aligned} & \text { Max } \\ & \text { RFC } \end{aligned}$ | Max Delay (s) | Max Queue (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Vehmin) | Average Queueing Delay (5) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.42 | 4.35 | 0.71 | A | 489.09 | 733.63 | 46.39 | 3.79 | 0.52 | 46.39 | 3.79 |
| Oxford Motor Park | 0.11 | 3.37 | 0.12 | A | 111.03 | 166.55 | 8.47 | 3.05 | 0.09 | 8.47 | 3.05 |
| Langford <br> Lane (W) | 0.22 | 2.69 | 0.28 | A | 309.24 | 463.85 | 19.75 | 2.55 | 0.22 | 19.75 | 2.55 |
| The Boulevard | 0.56 | 5.67 | 1.24 | A | 661.60 | 992.40 | 76.65 | 4.63 | 0.85 | 76.66 | 4.63 |

## Main Results for each time segment

Main results: (16:15-16:30)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Entry Flow (Veh/hr) | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 401.27 | 100.32 | 399.82 | 502.68 | 304.44 | 0.00 | 1503.93 | 1417.64 | 0.267 | 0.00 | 0.36 | 3.256 | A |
| Oxford Motor Park | 91.10 | 22.77 | 90.82 | 65.28 | 638.98 | 0.00 | 1406.39 | 744.96 | 0.065 | 0.00 | 0.07 | 2.736 | A |
| Langford Lane (W) | 253.71 | 63.43 | 253.03 | 641.25 | 88.54 | 0.00 | 1738.84 | 1415.98 | 0.146 | 0.00 | 0.17 | 2.421 | A |
| The Boulevard | 542.81 | 135.70 | 540.59 | 75.05 | 266.53 | 0.00 | 1514.00 | 600.49 | 0.359 | 0.00 | 0.56 | 3.691 | A |

Main results: (16:30-16:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 479.15 | 119.79 | 478.67 | 601.72 | 364.51 | 0.00 | 1465.97 | 1417.64 | 0.327 | 0.36 | 0.48 | 3.644 | A |
| Oxford <br> Motor Park | 108.78 | 27.19 | 108.69 | 78.14 | 765.05 | 0.00 | 1320.33 | 744.96 | 0.082 | 0.07 | 0.09 | 2.970 | A |
| Langford <br> Lane (W) | 302.95 | 75.74 | 302.79 | 767.75 | 105.99 | 0.00 | 1726.16 | 1415.98 | 0.176 | 0.17 | 0.21 | 2.529 | A |
| The <br> Boulevard | 648.17 | 162.04 | 647.29 | 89.83 | 318.95 | 0.00 | 1478.24 | 600.49 | 0.438 | 0.56 | 0.77 | 4.328 | A |

Main results: (16:45-17:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (5) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 586.84 | 146.71 | 585.96 | 736.54 | 446.04 | 0.00 | 1414.47 | 1417.64 | 0.415 | 0.48 | 0.70 | 4.340 | A |
| Oxford <br> Motor Park | 133.22 | 33.31 | 133.09 | 95.67 | 936.33 | 0.00 | 1203.38 | 744.96 | 0.111 | 0.09 | 0.12 | 3.363 | A |
| Langford <br> Lane (W) | 371.04 | 92.76 | 370.79 | 939.66 | 129.76 | 0.00 | 1708.87 | 1415.98 | 0.217 | 0.21 | 0.28 | 2.690 | A |
| The <br> Boulevard | 793.84 | 198.46 | 792.01 | 109.98 | 390.57 | 0.00 | 1429.39 | 600.49 | 0.555 | 0.77 | 1.23 | 5.632 | A |

Main results: (17:00-17:15)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 586.84 | 146.71 | 586.83 | 737.67 | 446.99 | 0.00 | 1413.87 | 1417.64 | 0.415 | 0.70 | 0.71 | 4.352 |
| Oxford <br> Motor Park | 133.22 | 33.31 | 133.22 | 95.79 | 938.04 | 0.00 | 1202.22 | 744.96 | 0.111 | 0.12 | 0.12 | 3.366 |
| Langford <br> Lane (W) | 371.04 | 92.76 | 371.04 | 941.35 | 129.92 | 0.00 | 1708.76 | 1415.98 | 0.217 | 0.28 | 0.28 | 2.690 |
| The <br> Boulevard | 793.84 | 198.46 | 793.80 | 110.10 | 390.86 | 0.00 | 1429.19 | 600.49 | 0.555 | 1.23 | 1.24 | 5.665 |

Main results: (17:15-17:30)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 479.15 | 119.79 | 480.03 | 603.45 | 365.95 | 0.00 | 1465.07 | 1417.64 | 0.327 | 0.71 | 0.49 | 3.656 |
| Oxford <br> Motor Park | 108.78 | 27.19 | 108.91 | 78.33 | 767.65 | 0.00 | 1318.56 | 744.96 | 0.083 | 0.12 | 0.09 | 2.978 |
| Langford <br> Lane (W) | 302.95 | 75.74 | 303.21 | 770.32 | 106.24 | 0.00 | 1725.97 | 1415.98 | 0.176 | 0.28 | 0.21 | 2.530 |
| The <br> Boulevard | 648.17 | 162.04 | 649.98 | 90.02 | 319.43 | 0.00 | 1477.92 | 600.49 | 0.439 | 1.24 | 0.79 | 4.357 |

Main results: (17:30-17:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> FFow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{~})$ | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 401.27 | 100.32 | 401.76 | 505.02 | 306.14 | 0.00 | 1502.85 | 1417.64 | 0.267 | 0.49 | 0.37 | 3.270 | A |
| Oxford <br> Motor Park | 91.10 | 22.77 | 91.18 | 65.57 | 642.33 | 0.00 | 1404.11 | 744.96 | 0.065 | 0.09 | 0.07 | 2.741 | A |
| Langford <br> Lane (W) | 253.71 | 63.43 | 253.88 | 644.58 | 88.93 | 0.00 | 1738.56 | 1415.98 | 0.146 | 0.21 | 0.17 | 2.426 | A |
| The <br> Boulevard | 542.81 | 135.70 | 543.71 | 75.36 | 267.45 | 0.00 | 1513.37 | 600.49 | 0.359 | 0.79 | 0.56 | 3.715 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (16:15-16:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 5.32 | 0.35 | 3.256 | A |  |
| Oxford Motor <br> Park | 1.02 | 0.07 | 2.736 | A |  |
| Langford Lane <br> (W) | 2.52 | 0.17 | 2.421 | A |  |
| The Boulevard | 8.12 | 0.54 | 3.691 | A | A |

Queueing Delay results: (16:30-16:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 7.12 | 0.47 | 3.644 | A |  |
| Oxford Motor <br> Park | 1.33 | 0.09 | 2.970 | A |  |
| Langford Lane <br> (W) | 3.15 | 0.21 | 2.529 | A |  |
| The Boulevard | 11.36 | 0.76 | 4.328 | A | A |

Queueing Delay results: (16:45-17:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.31 | 0.69 | 4.340 | A |  |
| Oxford Motor <br> Park | 1.83 | 0.12 | 3.363 | A |  |
| Langford Lane <br> (W) | 4.09 | 0.27 | 2.690 | A |  |
| The Boulevard | 17.86 | 1.19 | 5.632 | A | A |

Queueing Delay results: (17:00-17:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.58 | 0.71 | 4.352 | A |  |
| Oxford Motor <br> Park | 1.86 | 0.12 | 3.366 | A |  |
| Langford Lane <br> (W) | 4.15 | 0.28 | 2.690 | A |  |
| The Boulevard | 18.56 | 1.24 | 5.665 | A | A |

Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 7.48 | 0.50 | 3.656 | A |  |
| Oxford Motor <br> Park | 1.37 | 0.09 | 2.978 | A |  |
| Langford Lane <br> (W) | 3.24 | 0.22 | 2.530 | A |  |
| The Boulevard | 12.14 | 0.81 | 4.357 | A | A |

Queueing Delay results: (17:30-17:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 5.58 | 0.37 | 3.270 | A |  |
| Oxford Motor <br> Park | 1.06 | 0.07 | 2.741 | A |  |
| Langford Lane <br> (W) | 2.60 | 0.17 | 2.426 | A |  |
| The Boulevard | 8.61 | 0.57 | 3.715 | A | A |

## (Default Analysis Set) - 2021 Base + Development, AM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(5) | Specific <br> Demand Set <br> (5) | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type |  | Model Finish Time (HH:mm) | Model <br> Time <br> Period <br> Length <br> (min) | Time <br> Segment Length (min) | Results For Central Hour Only | Single <br> Time <br> Segment Only | Locked | Run Automatically | Use Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021 Base + Development, AM | 2021 Base + Development | AM |  | ONE HOUR | 07:30 | 09:00 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

## Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 8.89 | A |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

## Roundabout Geometry

| Name | V - Approach road half- <br> width $(\mathrm{m})$ | E-Entry <br> width $(\mathbf{m})$ | r - Effective flare <br> length $(\mathrm{m})$ | R - Entry <br> radius $(\mathbf{m})$ | D - Inscribed circle <br> diameter $(\mathrm{m})$ | PHI - Conflict (entry) <br> angle $($ deg $)$ | Exit <br> Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> $(\mathrm{E})$ | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor <br> Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane <br> $(W)$ | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

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

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) |  | (calculated) | (calculated) | 0.647 | 1763.975 |
| Oxford Motor Park |  | (calculated) | (calculated) | 0.685 | 1903.704 |
| Langford Lane (W) |  | (calculated) | (calculated) | 0.709 | 1937.620 |
| The Boulevard |  | (calculated) | (calculated) | 0.665 | 1727.286 |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Flows

Demand Set Data Options

| Default <br> Vehicle <br> Mix | Vehicle <br> Mix Varies <br> Over Time | Vehicle <br> Mix Varies <br> Over Turn | Vehicle Mix <br> Varies <br> Over Entry | Vehicle Mix <br> Source | PCU <br> Factor for <br> a HV <br> (PCU) | Default <br> Turning <br> Proportions | Estimate <br> from <br> entry/exit <br> counts | Turning <br> Proportions <br> Vary Over Time | Turning <br> Proportions <br> Vary Over Turn | Turning <br> Proportions <br> Vary Over Entry |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\checkmark$ | $\checkmark$ | HV <br> Percentages | 2.00 |  |  |  | $\checkmark$ | $\checkmark$ |  |

## Entry Flows

## General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | ONE HOUR | $\checkmark$ | 900.00 | 100.000 |
| Oxford Motor Park | ONE HOUR | $\checkmark$ | 59.00 | 100.000 |
| Langford Lane (W) | ONE HOUR | $\checkmark$ | 1107.00 | 100.000 |
| The Boulevard | ONE HOUR | $\checkmark$ | 136.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 92.000 | 359.000 | 449.000 |
|  | $\mathbf{2}$ | 28.000 | 0.000 | 29.000 | 2.000 |
|  | $\mathbf{3}$ | 564.000 | 112.000 | 0.000 | 431.000 |
|  | $\mathbf{4}$ | 72.000 | 6.000 | 58.000 | 0.000 |

Turning Proportions (Veh) - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.00 | 0.10 | 0.40 | 0.50 |
|  | $\mathbf{2}$ | 0.47 | 0.00 | 0.49 | 0.03 |
|  | $\mathbf{3}$ | 0.51 | 0.10 | 0.00 | 0.39 |
|  | $\mathbf{4}$ | 0.53 | 0.04 | 0.43 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 1.000 | 1.012 | 1.053 | 1.025 |
|  | $\mathbf{2}$ | 1.040 | 1.000 | 1.000 | 1.465 |
|  | $\mathbf{3}$ | 1.038 | 1.000 | 1.000 | 1.015 |
|  | $\mathbf{4}$ | 1.340 | 1.000 | 1.307 | 1.000 |

Heavy Vehicle Percentages - Spires Business Park roundabout (for whole period)

|  | To |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| From |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
|  | $\mathbf{1}$ | 0.000 | 1.200 | 5.300 | 2.500 |
|  | $\mathbf{2}$ | 4.000 | 0.000 | 0.000 | 46.500 |
|  | $\mathbf{3}$ | 3.800 | 0.000 | 0.000 | 1.500 |
|  | $\mathbf{4}$ | 34.000 | 0.000 | 30.700 | 0.000 |

## Results

Results Summary for whole modelled period

| Name | $\begin{aligned} & \operatorname{Max} \\ & \text { RFC } \end{aligned}$ | Max Delay (5) | Max <br> Queue <br> (Veh) | $\begin{aligned} & \text { Max } \\ & \text { LOS } \end{aligned}$ | Average <br> Demand <br> (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Veh$\mathrm{min})$ | Average Queueing Delay (s) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.63 | 6.20 | 1.69 | A | 825.86 | 1238.78 | 102.05 | 4.94 | 1.13 | 102.06 | 4.94 |
| Oxford Motor Park | 0.06 | 3.25 | 0.06 | A | 54.14 | 81.21 | 4.01 | 2.97 | 0.04 | 4.01 | 2.97 |
| Langford Lane (W) | 0.80 | 12.06 | 3.97 | B | 1015.80 | 1523.70 | 193.73 | 7.63 | 2.15 | 193.75 | 7.63 |
| The Boulevard | 0.16 | 4.72 | 0.20 | A | 124.80 | 187.19 | 13.32 | 4.27 | 0.15 | 13.32 | 4.27 |

## Main Results for each time segment

Main results: (07:30-07:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 677.57 | 169.39 | 674.69 | 497.50 | 131.88 | 0.00 | 1613.76 | 1342.42 | 0.420 | 0.00 | 0.72 | 3.822 |
| Oxford <br> Motor Park | 44.42 | 11.10 | 44.29 | 157.37 | 649.21 | 0.00 | 1386.16 | 727.76 | 0.032 | 0.00 | 0.03 | 2.682 |
| Langford <br> Lane (W) | 833.41 | 208.35 | 829.29 | 334.38 | 359.11 | 0.00 | 1634.91 | 1142.31 | 0.510 | 0.00 | 1.03 | 4.447 |
| The <br> Boulevard | 102.39 | 25.60 | 101.95 | 660.98 | 527.43 | 0.00 | 1041.59 | 770.54 | 0.098 | 0.00 | 0.11 | 3.829 |

Main results: (07:45-08:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{~})$ | Los |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 809.08 | 202.27 | 807.88 | 595.55 | 157.90 | 0.00 | 1595.83 | 1342.42 | 0.507 | 0.72 | 1.02 | 4.562 | A |
| Oxford <br> Motor Park | 53.04 | 13.26 | 53.00 | 188.40 | 777.39 | 0.00 | 1296.59 | 727.76 | 0.041 | 0.03 | 0.04 | 2.894 | A |
| Langford <br> Lane (W) | 995.17 | 248.79 | 992.65 | 400.39 | 429.99 | 0.00 | 1584.56 | 1142.31 | 0.628 | 1.03 | 1.66 | 6.057 | A |
| The <br> Boulevard | 122.26 | 30.57 | 122.13 | 791.32 | 631.33 | 0.00 | 987.22 | 770.54 | 0.124 | 0.11 | 0.14 | 4.161 | A |

Main results: (08:00-08:15)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Entry Flow (Veh/hr) | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 990.92 | 247.73 | 988.29 | 726.47 | 192.79 | 0.00 | 1571.76 | 1342.42 | 0.630 | 1.02 | 1.68 | 6.141 | A |
| Oxford Motor Park | 64.96 | 16.24 | 64.90 | 230.05 | 951.03 | 0.00 | 1175.25 | 727.76 | 0.055 | 0.04 | 0.06 | 3.241 | A |
| Langford <br> Lane (W) | 1218.83 | 304.71 | 1210.06 | 489.88 | 526.04 | 0.00 | 1516.34 | 1142.31 | 0.804 | 1.66 | 3.85 | 11.438 | B |
| The Boulevard | 149.74 | 37.43 | 149.52 | 966.37 | 769.73 | 0.00 | 914.79 | 770.54 | 0.164 | 0.14 | 0.19 | 4.703 | A |

Main results: (08:15-08:30)

| Name | Total Demand (Veh/hr) | Junction Arrivals (Veh) | $\begin{aligned} & \text { Entry } \\ & \text { Flow } \\ & \text { (Veh/hr) } \end{aligned}$ | Exit Flow (Veh/hr) | Circulating Flow (Veh/hr) | Pedestrian Demand (Ped/hr) | Capacity (Veh/hr) | Saturation Capacity (Veh/hr) | RFC | Start Queue (Veh) | End Queue (Veh) | Delay (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 990.92 | 247.73 | 990.85 | 730.83 | 193.73 | 0.00 | 1571.16 | 1342.42 | 0.631 | 1.68 | 1.69 | 6.201 | A |
| Oxford Motor Park | 64.96 | 16.24 | 64.96 | 231.16 | 953.43 | 0.00 | 1173.59 | 727.76 | 0.055 | 0.06 | 0.06 | 3.246 | A |
| Langford <br> Lane (W) | 1218.83 | 304.71 | 1218.34 | 491.03 | 527.36 | 0.00 | 1515.41 | 1142.31 | 0.804 | 3.85 | 3.97 | 12.064 | B |
| The Boulevard | 149.74 | 37.43 | 149.73 | 970.88 | 774.82 | 0.00 | 912.13 | 770.54 | 0.164 | 0.19 | 0.20 | 4.721 | A |

Main results: (08:30-08:45)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> Flow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> (s) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 809.08 | 202.27 | 811.69 | 601.65 | 159.23 | 0.00 | 1594.97 | 1342.42 | 0.507 | 1.69 | 1.04 | 4.612 | A |
| Oxford <br> Motor Park | 53.04 | 13.26 | 53.10 | 189.97 | 780.95 | 0.00 | 1294.12 | 727.76 | 0.041 | 0.06 | 0.04 | 2.902 | A |
| Langford <br> Lane (W) | 995.17 | 248.79 | 1004.18 | 402.11 | 431.94 | 0.00 | 1583.18 | 1142.31 | 0.629 | 3.97 | 1.72 | 6.310 | A |
| The <br> Boulevard | 122.26 | 30.57 | 122.47 | 797.71 | 638.41 | 0.00 | 983.51 | 770.54 | 0.124 | 0.20 | 0.14 | 4.183 | A |

Main results: (08:45-09:00)

| Name | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals <br> (Veh) | Entry <br> FFow <br> (Veh/hr) | Exit Flow <br> (Veh/hr) | Circulating <br> Flow (Veh/hr) | Pedestrian <br> Demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | Saturation <br> Capacity <br> (Veh/hr) | RFC | Start <br> Queue <br> (Veh) | End <br> Queue <br> (Veh) | Delay <br> ( $\mathbf{( )}$ ) | LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford <br> Lane (E) | 677.57 | 169.39 | 678.81 | 501.35 | 132.83 | 0.00 | 1613.11 | 1342.42 | 0.420 | 1.04 | 0.73 | 3.859 | A |
| Oxford <br> Motor Park | 44.42 | 11.10 | 44.46 | 158.50 | 653.14 | 0.00 | 1383.41 | 727.76 | 0.032 | 0.04 | 0.03 | 2.690 | A |
| Langford <br> Lane (W) | 833.41 | 208.35 | 836.09 | 336.34 | 361.26 | 0.00 | 1633.39 | 1142.31 | 0.510 | 1.72 | 1.05 | 4.531 | A |
| The <br> Boulevard | 102.39 | 25.60 | 102.52 | 665.68 | 531.67 | 0.00 | 1039.37 | 770.54 | 0.099 | 0.14 | 0.11 | 3.844 | A |

## Queueing Delay Results for each time segment

Queueing Delay results: (07:30-07:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 10.48 | 0.70 | 3.822 | A |  |
| Oxford Motor <br> Park | 0.49 | 0.03 | 2.682 | A |  |
| Langford Lane <br> (W) | 14.91 | 0.99 | 4.447 | A |  |
| The Boulevard | 1.59 | 0.11 | 3.829 | A | A |

Queueing Delay results: (07:45-08:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 14.89 | 0.99 | 4.562 | A | A |
| Oxford Motor <br> Park | 0.63 | 0.04 | 2.894 | A | A |
| Langford Lane <br> (W) | 23.91 | 1.59 | 6.057 | A | A |
| The Boulevard | 2.08 | 0.14 | 4.161 | A | A |

Queueing Delay results: (08:00-08:15)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 24.12 | 1.61 | 6.141 | A |  |
| Oxford Motor <br> Park | 0.86 | 0.06 | 3.241 | A |  |
| Langford Lane <br> (W) | 52.37 | 3.49 | 11.438 | A |  |
| The Boulevard | 2.87 | 0.19 | 4.703 | B | B |

Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 25.28 | 1.69 | 6.201 | A | A |
| Oxford Motor <br> Park | 0.88 | 0.06 | 3.246 | A |  |
| Langford Lane <br> (W) | 58.89 | 3.93 | 12.064 | A |  |
| The Boulevard | 2.93 | 0.20 | 4.721 | A | A |

Queueing Delay results: (08:30-08:45)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 16.09 | 1.07 | 4.612 | A |  |
| Oxford Motor <br> Park | 0.65 | 0.04 | 2.902 | A |  |
| Langford Lane <br> (W) | 27.37 | 1.82 | 6.310 | A |  |
| The Boulevard | 2.18 | 0.15 | 4.183 | A | A |

Queueing Delay results: (08:45-09:00)

| Name | Queueing Total Delay <br> (Veh-min) | Queueing Rate Of Delay (Veh- <br> min/min) | Average Delay Per Arriving <br> Vehicle (s) | Unsignalised Level Of <br> Service | Signalised Level Of <br> Service |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 11.19 | 0.75 | 3.859 | A |  |
| Oxford Motor <br> Park | 0.50 | 0.03 | 2.690 | A |  |
| Langford Lane <br> (W) | 16.28 | 1.09 | 4.531 | A |  |
| The Boulevard | 1.67 | 0.11 | 3.844 | A |  |

## (Default Analysis Set) - 2021 Base + Development, PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name | Roundabout <br> Capacity Model | Description | Include In <br> Report | Use Specific <br> Demand Set(s) | Specific <br> Demand Set <br> ( $\mathbf{5})$ | Locked | Network Flow <br> Scaling Factor <br> (\%) | Network Capacity <br> Scaling Factor (\%) | Reason For <br> Scaling <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Default <br> Analysis Set) | ARCADY |  | $\checkmark$ |  |  |  | 100.000 | 100.000 |  |

## Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time <br> ( $\mathrm{HH}: \mathrm{mm}$ ) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use <br> Relationship | Rela |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021 Base + <br> Development, PM | 2021 Base + Development | PM |  | ONE <br> HOUR | 16:15 | 17:45 | 90 | 15 |  |  |  | $\checkmark$ |  |  |

## Junction Network

Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (5) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spires Business Park roundabout | Roundabout | $1,2,3,4$ |  |  |  | 5.36 |  |

## Junction Network Options

| Driving Side | Lighting |
| :---: | :---: |
| Left | Norma/unknown |

## Arms

## Arms

| Name | Name | Description |
| :---: | :---: | :---: |
| Langford Lane (E) | Langford Lane (E) |  |
| Oxford Motor Park | Oxford Motor Park |  |
| Langford Lane (W) | Langford Lane (W) |  |
| The Boulevard | The Boulevard |  |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
| :---: | :---: | :---: | :---: | :---: |
| Langford Lane (E) | 0.00 | 99999.00 |  | 0.00 |
| Oxford Motor Park | 0.00 | 99999.00 |  | 0.00 |
| Langford Lane (W) | 0.00 | 99999.00 |  | 0.00 |
| The Boulevard | 0.00 | 99999.00 |  | 0.00 |

Roundabout Geometry

| Name | V - Approach road halfwidth (m) | E - Entry width (m) | r - Effective flare length (m) | R - Entry radius ( m ) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Langford Lane <br> (E) | 3.80 | 8.10 | 14.00 | 10.00 | 40.00 | 23.00 |  |
| Oxford Motor Park | 3.50 | 7.80 | 24.00 | 15.00 | 40.00 | 23.00 |  |
| Langford Lane (W) | 3.50 | 7.00 | 28.50 | 25.00 | 40.00 | 14.50 |  |
| The Boulevard | 4.60 | 5.70 | 9.00 | 22.50 | 40.00 | 15.00 |  |

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

## Pedestrian Crossings

| Name | Crossing Type |
| :---: | :---: |
| Langford Lane (E) | None |
| Oxford Motor Park | None |
| Langford Lane (W) | None |
| The Boulevard | None |


[^0]:    The slope and intercept shown above include any corrections and adjustments.

