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|---|
| <h1>Junctions 8</h1> |
| <h2>ARCADY 8 - Roundabout Module</h2> |
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Filename: SR-VR-CR-SR AMEX2B.arc8

Path: \\READYNAS\Canwell\Highways\Schemes\Hall Green\2017_2018\School Road Traffic Study\Capacity Assessments\Existing\SR-VR-CR-SR RBTAM

Report generation date: 13/09/2017 19:34:05

« (Default Analysis Set) - Scenario 1, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Pedestrian Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

| | AM | | | |
|-------|-----------------|-----------|------|-----|
| | Queue (Veh) | Delay (s) | RFC | LOS |
| | A1 - Scenario 1 | | | |
| Arm 1 | 1.18 | 21.02 | 0.55 | C |
| Arm 2 | 0.25 | 8.03 | 0.20 | A |
| Arm 3 | 1.23 | 9.90 | 0.55 | A |
| Arm 4 | 0.69 | 16.62 | 0.41 | C |
| Arm 5 | 1.01 | 16.00 | 0.51 | C |

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

"D1 - Scenario 1, AM " model duration: 07:45 - 09:15

Run using Junctions 8.0.6.541 at 13/09/2017 19:34:04

File summary

| | |
|--------------------|---|
| Title | School Road Traffic Impact Study |
| Location | School Road-Valentine Road-Cambridge Road-Poplar Road-Springfield Road RBT JCN |
| Site Number | |
| Date | 04/07/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | Paul Wilkinson |
| Description | Yr 2017 Existing Junction Scenario AMEX2B (1) Zebra Crossing functionality assumed on two entries, to replicate effects of School Crossing Warden operation during AM Peak across the roundabout core itself. (2) Capacity Adjustment & Intercept Correction factors of 85% on all entries to replicate impacts on entry capacity of SCW operation. |

Analysis Options

| Vehicle Length (m) | Do Queue Variations | Calculate Residual Capacity | Residual Capacity Criteria Type | RFC Threshold | Average Delay Threshold (s) | Queue Threshold (PCU) |
|--------------------|---------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|
| 5.75 | | | N/A | 0.85 | 36.00 | 20.00 |

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 | Veh | Veh | perHour | s | -Min | perMin |

(Default Analysis Set) - Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| Name | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set (s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|-------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY | | ✓ | | | | 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 (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relations |
|----------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|-----------|
| Scenario 1, AM | Scenario 1 | AM | | ONE HOUR | 07:45 | 09:15 | 90 | 15 | | | | ✓ | | |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| 1 | untitled | Roundabout | 1,2,3,4,5 | | | | 13.81 | B |

Junction Network Options

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

Arms

Arms

| Arm | Arm | Name | Description |
|-----|-----|------------------|-------------|
| 1 | 1 | School Road | |
| 2 | 2 | Cambridge Road | |
| 3 | 3 | Springfield Road | |
| 4 | 4 | Poplar Road | |
| 5 | 5 | Valentine Road | |

Capacity Options

| Arm | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----|---------------------------|---------------------------|---------------------------|---------------------|
| 1 | 0.00 | 99999.00 | | 0.00 |
| 2 | 0.00 | 99999.00 | | 0.00 |
| 3 | 0.00 | 99999.00 | | 0.00 |
| 4 | 0.00 | 99999.00 | | 0.00 |
| 5 | 0.00 | 99999.00 | | 0.00 |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 | 2.94 | 3.28 | 0.94 | 5.00 | 25.20 | 41.50 | |
| 2 | 3.69 | 4.79 | 1.72 | 5.80 | 24.00 | 42.00 | |
| 3 | 4.63 | 5.04 | 13.40 | 5.20 | 20.00 | 35.50 | |
| 4 | 2.80 | 4.13 | 2.74 | 3.80 | 25.50 | 40.50 | |
| 5 | 2.75 | 4.03 | 2.70 | 5.12 | 21.20 | 43.50 | |

Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| 1 | Zebra |
| 2 | None |
| 3 | None |
| 4 | None |
| 5 | Zebra |

Zebra Crossings

| Arm | Space between crossing and junction entry (PCU) | Vehicles queueing on exit (PCU) | Central Refuge | Crossing Data Type | Crossing length (m) | Crossing time (s) | Crossing length (entry side) (m) | Crossing time (entry side) (s) | Crossing length (exit side) (m) | Crossing time (exit side) (s) |
|-----|---|---------------------------------|----------------|--------------------|---------------------|-------------------|----------------------------------|--------------------------------|---------------------------------|-------------------------------|
| 1 | 0.00 | 0.00 | | Distance | 10.60 | 7.57 | | | | |
| 5 | 0.00 | 0.00 | | Distance | 12.90 | 9.21 | | | | |

Slope / Intercept / Capacity

Arm Intercept Adjustments

| Arm | Type | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----|------------|--------|--------------------------------------|-------------------------------------|
| 1 | Percentage | | | 85.00 |
| 2 | Percentage | | | 85.00 |
| 3 | Percentage | | | 85.00 |
| 4 | Percentage | | | 85.00 |
| 5 | Percentage | | | 85.00 |

Roundabout Slope and Intercept used in model

| Arm | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| 1 | | (calculated) | (calculated) | 0.411 | 648.915 |
| 2 | | (calculated) | (calculated) | 0.474 | 874.997 |
| 3 | | (calculated) | (calculated) | 0.527 | 1084.693 |
| 4 | | (calculated) | (calculated) | 0.392 | 645.832 |
| 5 | | (calculated) | (calculated) | 0.419 | 680.653 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Direct Capacity Adjustment (PCU/hr) | Percentage Capacity Adjustment (%) |
|-----|------------|--------|-------------------------------------|------------------------------------|
| 1 | Percentage | | | 85.00 |
| 2 | Percentage | | | 85.00 |
| 3 | Percentage | | | 85.00 |
| 4 | Percentage | | | 85.00 |
| 5 | None | | | |

Traffic Flows

Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| | | ✓ | ✓ | HV Percentages | 2.00 | | | | ✓ | ✓ |

Entry Flows

General Flows Data

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----|--------------|--------------------|------------------------------|-------------------------|
| 1 | ONE HOUR | ✓ | 188.00 | 100.000 |
| 2 | ONE HOUR | ✓ | 103.00 | 100.000 |
| 3 | ONE HOUR | ✓ | 410.00 | 100.000 |
| 4 | ONE HOUR | ✓ | 137.00 | 100.000 |
| 5 | ONE HOUR | ✓ | 209.00 | 100.000 |

Pedestrian Flows

General Flows Data

| Arm | Profile Type | Average Pedestrian Flow (Ped/hr) |
|-----|--------------|----------------------------------|
| 1 | ONE HOUR | 230.00 |
| 2 | - | - |
| 3 | - | - |
| 4 | - | - |
| 5 | ONE HOUR | 230.00 |

Turning Proportions

Turning Counts / Proportions (Veh/hr) - Junction 1 (for whole period)

| | | To | | | | |
|------|---|--------|--------|---------|---------|---------|
| | | 1 | 2 | 3 | 4 | 5 |
| From | 1 | 0.000 | 4.000 | 93.000 | 84.000 | 7.000 |
| | 2 | 4.000 | 3.000 | 5.000 | 69.000 | 22.000 |
| | 3 | 71.000 | 7.000 | 7.000 | 132.000 | 193.000 |
| | 4 | 62.000 | 26.000 | 38.000 | 2.000 | 9.000 |
| | 5 | 12.000 | 17.000 | 154.000 | 22.000 | 4.000 |

Turning Proportions (Veh) - Junction 1 (for whole period)

| | | To | | | | |
|------|---|------|------|------|------|------|
| | | 1 | 2 | 3 | 4 | 5 |
| From | 1 | 0.00 | 0.02 | 0.49 | 0.45 | 0.04 |
| | 2 | 0.04 | 0.03 | 0.05 | 0.67 | 0.21 |
| | 3 | 0.17 | 0.02 | 0.02 | 0.32 | 0.47 |
| | 4 | 0.45 | 0.19 | 0.28 | 0.01 | 0.07 |
| | 5 | 0.06 | 0.08 | 0.74 | 0.11 | 0.02 |

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

| | | To | | | | |
|------|---|-------|-------|-------|-------|-------|
| | | 1 | 2 | 3 | 4 | 5 |
| From | 1 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| | 2 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| | 3 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| | 4 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| | 5 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Heavy Vehicle Percentages - Junction 1 (for whole period)

| | To | | | | | |
|------|----|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | |
| From | 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) | Total Queueing Delay (Veh-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Total Queueing Delay (Veh-min) | Inclusive Average Queueing Delay (s) |
|-----|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|--|--------------------------------------|
| 1 | 0.55 | 21.02 | 1.18 | C | 172.51 | 258.77 | 70.57 | 16.36 | 0.78 | 70.59 | 16.37 |
| 2 | 0.20 | 8.03 | 0.25 | A | 94.51 | 141.77 | 17.23 | 7.29 | 0.19 | 17.23 | 7.29 |
| 3 | 0.55 | 9.90 | 1.23 | A | 376.22 | 564.33 | 76.56 | 8.14 | 0.85 | 76.58 | 8.14 |
| 4 | 0.41 | 16.62 | 0.69 | C | 125.71 | 188.57 | 42.26 | 13.45 | 0.47 | 42.26 | 13.45 |
| 5 | 0.51 | 16.00 | 1.01 | C | 191.78 | 287.67 | 61.00 | 12.72 | 0.68 | 61.02 | 12.73 |

Main Results for each time segment

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

| Arm | 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 |
|-----|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| 1 | 141.54 | 35.38 | 139.57 | 111.11 | 208.48 | 173.16 | 422.91 | 327.12 | 0.335 | 0.00 | 0.49 | 12.621 | B |
| 2 | 77.54 | 19.39 | 76.98 | 42.44 | 305.61 | 0.00 | 620.63 | 436.28 | 0.125 | 0.00 | 0.14 | 6.615 | A |
| 3 | 308.67 | 77.17 | 306.41 | 220.94 | 161.64 | 0.00 | 849.54 | 640.22 | 0.363 | 0.00 | 0.56 | 6.603 | A |
| 4 | 103.14 | 25.79 | 101.91 | 230.44 | 237.61 | 0.00 | 434.19 | 261.13 | 0.238 | 0.00 | 0.31 | 10.795 | B |
| 5 | 157.35 | 39.34 | 155.61 | 175.55 | 163.97 | 173.16 | 514.87 | 413.20 | 0.306 | 0.00 | 0.43 | 9.974 | A |

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

| Arm | 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 |
|-----|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| 1 | 169.01 | 42.25 | 168.17 | 133.54 | 250.77 | 206.77 | 403.01 | 324.71 | 0.419 | 0.49 | 0.70 | 15.271 | C |
| 2 | 92.59 | 23.15 | 92.43 | 51.06 | 367.89 | 0.00 | 595.54 | 440.75 | 0.155 | 0.14 | 0.18 | 7.154 | A |
| 3 | 368.58 | 92.15 | 367.72 | 265.90 | 194.42 | 0.00 | 834.85 | 639.34 | 0.441 | 0.56 | 0.78 | 7.691 | A |
| 4 | 123.16 | 30.79 | 122.68 | 276.94 | 285.20 | 0.00 | 406.63 | 255.85 | 0.303 | 0.31 | 0.43 | 12.656 | B |
| 5 | 187.89 | 46.97 | 187.17 | 210.74 | 197.14 | 206.77 | 488.61 | 404.88 | 0.385 | 0.43 | 0.61 | 11.914 | B |

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

| Arm | 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 |
|-----|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| 1 | 206.99 | 51.75 | 205.19 | 163.21 | 306.32 | 253.23 | 378.28 | 321.32 | 0.547 | 0.70 | 1.15 | 20.575 | C |
| 2 | 113.41 | 28.35 | 113.14 | 62.37 | 449.14 | 0.00 | 562.80 | 446.72 | 0.202 | 0.18 | 0.25 | 8.001 | A |
| 3 | 451.42 | 112.85 | 449.69 | 324.68 | 237.59 | 0.00 | 815.50 | 638.18 | 0.554 | 0.78 | 1.21 | 9.794 | A |
| 4 | 150.84 | 37.71 | 149.85 | 338.50 | 348.78 | 0.00 | 368.04 | 248.27 | 0.410 | 0.43 | 0.67 | 16.422 | C |
| 5 | 230.11 | 57.53 | 228.61 | 257.71 | 240.92 | 253.23 | 455.26 | 394.13 | 0.505 | 0.61 | 0.99 | 15.775 | C |

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

| Arm | 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 |
|-----|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| 1 | 206.99 | 51.75 | 206.88 | 164.02 | 308.20 | 253.23 | 377.81 | 321.32 | 0.548 | 1.15 | 1.18 | 21.023 | C |
| 2 | 113.41 | 28.35 | 113.40 | 62.74 | 452.33 | 0.00 | 561.51 | 446.72 | 0.202 | 0.25 | 0.25 | 8.033 | A |
| 3 | 451.42 | 112.85 | 451.36 | 326.88 | 238.85 | 0.00 | 814.94 | 638.18 | 0.554 | 1.21 | 1.23 | 9.896 | A |
| 4 | 150.84 | 37.71 | 150.79 | 340.13 | 350.08 | 0.00 | 367.32 | 248.27 | 0.411 | 0.67 | 0.69 | 16.623 | C |
| 5 | 230.11 | 57.53 | 230.04 | 258.70 | 242.17 | 253.23 | 454.79 | 394.13 | 0.506 | 0.99 | 1.01 | 16.004 | C |

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

| Arm | 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 |
|-----|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| 1 | 169.01 | 42.25 | 170.75 | 134.77 | 253.63 | 206.77 | 402.25 | 324.70 | 0.420 | 1.18 | 0.74 | 15.667 | C |
| 2 | 92.59 | 23.15 | 92.85 | 51.62 | 372.76 | 0.00 | 593.57 | 440.75 | 0.156 | 0.25 | 0.19 | 7.192 | A |
| 3 | 368.58 | 92.15 | 370.27 | 269.25 | 196.37 | 0.00 | 833.98 | 639.34 | 0.442 | 1.23 | 0.80 | 7.791 | A |
| 4 | 123.16 | 30.79 | 124.12 | 279.45 | 287.19 | 0.00 | 405.55 | 255.85 | 0.304 | 0.69 | 0.44 | 12.837 | B |
| 5 | 187.89 | 46.97 | 189.35 | 212.27 | 199.04 | 206.77 | 487.88 | 404.88 | 0.385 | 1.01 | 0.64 | 12.117 | B |

Main results: (09:00-09:15)

| Arm | 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 |
|-----|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| 1 | 141.54 | 35.38 | 142.46 | 112.61 | 211.80 | 173.16 | 422.00 | 327.12 | 0.335 | 0.74 | 0.51 | 12.919 | B |
| 2 | 77.54 | 19.39 | 77.71 | 43.11 | 311.15 | 0.00 | 618.39 | 436.28 | 0.125 | 0.19 | 0.14 | 6.662 | A |
| 3 | 308.67 | 77.17 | 309.57 | 224.78 | 164.08 | 0.00 | 848.45 | 640.22 | 0.364 | 0.80 | 0.58 | 6.693 | A |
| 4 | 103.14 | 25.79 | 103.65 | 233.53 | 240.11 | 0.00 | 432.86 | 261.13 | 0.238 | 0.44 | 0.32 | 10.953 | B |
| 5 | 157.35 | 39.34 | 158.11 | 177.46 | 166.30 | 173.16 | 513.97 | 413.20 | 0.306 | 0.64 | 0.45 | 10.139 | B |

Queueing Delay Results for each time segment
Queueing Delay results: (07:45-08:00)

| Arm | Queueing Total Delay (Veh-min) | Queueing Rate Of Delay (Veh-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----|--------------------------------|--------------------------------------|--|-------------------------------|-----------------------------|
| 1 | 6.95 | 0.46 | 12.621 | B | B |
| 2 | 2.06 | 0.14 | 6.615 | A | A |
| 3 | 8.13 | 0.54 | 6.603 | A | A |
| 4 | 4.37 | 0.29 | 10.795 | B | B |
| 5 | 6.18 | 0.41 | 9.974 | A | A |

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

| Arm | Queueing Total Delay (Veh-min) | Queueing Rate Of Delay (Veh-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----|--------------------------------|--------------------------------------|--|-------------------------------|-----------------------------|
| 1 | 10.05 | 0.67 | 15.271 | C | B |
| 2 | 2.68 | 0.18 | 7.154 | A | A |
| 3 | 11.32 | 0.75 | 7.691 | A | A |
| 4 | 6.16 | 0.41 | 12.656 | B | B |
| 5 | 8.82 | 0.59 | 11.914 | B | B |

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

| Arm | Queueing Total Delay (Veh-min) | Queueing Rate Of Delay (Veh-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----|--------------------------------|--------------------------------------|--|-------------------------------|-----------------------------|
| 1 | 16.10 | 1.07 | 20.575 | C | C |
| 2 | 3.65 | 0.24 | 8.001 | A | A |
| 3 | 17.34 | 1.16 | 9.794 | A | A |
| 4 | 9.58 | 0.64 | 16.422 | C | B |
| 5 | 13.97 | 0.93 | 15.775 | C | B |

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

| Arm | Queueing Total Delay (Veh-min) | Queueing Rate Of Delay (Veh-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----|--------------------------------|--------------------------------------|--|-------------------------------|-----------------------------|
| 1 | 17.56 | 1.17 | 21.023 | C | C |
| 2 | 3.76 | 0.25 | 8.033 | A | A |
| 3 | 18.31 | 1.22 | 9.896 | A | A |
| 4 | 10.22 | 0.68 | 16.623 | C | B |
| 5 | 14.99 | 1.00 | 16.004 | C | B |

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

| Arm | Queueing Total Delay (Veh-min) | Queueing Rate Of Delay (Veh-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----|--------------------------------|--------------------------------------|--|-------------------------------|-----------------------------|
| 1 | 11.84 | 0.79 | 15.667 | C | B |
| 2 | 2.87 | 0.19 | 7.192 | A | A |
| 3 | 12.53 | 0.84 | 7.791 | A | A |
| 4 | 6.98 | 0.47 | 12.837 | B | B |
| 5 | 10.07 | 0.67 | 12.117 | B | B |

Queueing Delay results: (09:00-09:15)

| Arm | Queueing Total Delay (Veh-min) | Queueing Rate Of Delay (Veh-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----|--------------------------------|--------------------------------------|--|-------------------------------|-----------------------------|
| 1 | 8.07 | 0.54 | 12.919 | B | B |
| 2 | 2.22 | 0.15 | 6.662 | A | A |
| 3 | 8.93 | 0.60 | 6.693 | A | A |
| 4 | 4.94 | 0.33 | 10.953 | B | B |
| 5 | 6.97 | 0.46 | 10.139 | B | B |

