

|                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Junctions 11                                                                                                                                                     |
| ARCADY 11 - Roundabout Module                                                                                                                                    |
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**Filename:** J24\_A26 Vale Rd.j11  
**Path:** \\uk-lon-fas02\projects\UNIF\Projects\BESP0016 Kent Countywide Model\KCC Model Custodian Framework\Call-off Tasks\Tonbridge & Malling and Sevenoaks LP\15 Local Modelling\July 2025 Modelling\J24\_A26 Vale Rd\_A26 Woodgate Way  
**Report generation date:** 24.07.2025 14:55:20

- »AM Base - D1 - 2019 | Base | AM
- »PM Base - D2 - 2019 | Base | PM
- »AM Future Base - D3 - 2040 | Future Base | AM
- »PM Future Base - D4 - 2040 | Future Base | PM
- »AM LP - D5 - 2040 | LP test 2 | AM
- »PM LP - D6 - 2040 | LP test 2 | PM
- »AM LP High - D7 - 2040 | T&M LP\_High | AM
- »PM LP High - D8 - 2040 | T&M LP\_High | PM
- »AM Forecast BL - D9 - 2042 | Forecast Baseline | AM
- »PM Forecast BL - D10 - 2042 | Forecast Baseline | PM

## Summary of junction performance

|                      | AM                    |             |           |      |     |                                 |
|----------------------|-----------------------|-------------|-----------|------|-----|---------------------------------|
|                      | Set ID                | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity       |
|                      | AM Base - 2019 - Base |             |           |      |     |                                 |
| 1 - A26 Vale Road E  | A1<br>D1              | 3,7         | 12,34     | 0,79 | B   | -17 %<br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |                       | 38,3        | 119,16    | 1,05 | F   |                                 |
| 3 - Vale Road (S)    |                       | 0,7         | 5,94      | 0,41 | A   |                                 |

|                      | PM                    |             |           |      |     |                                |
|----------------------|-----------------------|-------------|-----------|------|-----|--------------------------------|
|                      | Set ID                | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity      |
|                      | PM Base - 2019 - Base |             |           |      |     |                                |
| 1 - A26 Vale Road E  | A2<br>D2              | 4,0         | 12,66     | 0,80 | B   | -8 %<br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |                       | 10,0        | 45,00     | 0,93 | E   |                                |
| 3 - Vale Road (S)    |                       | 1,0         | 6,08      | 0,49 | A   |                                |

|                      | AM                                  |             |           |      |     |                                 |
|----------------------|-------------------------------------|-------------|-----------|------|-----|---------------------------------|
|                      | Set ID                              | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity       |
|                      | AM Future Base - 2040 - Future Base |             |           |      |     |                                 |
| 1 - A26 Vale Road E  | A3<br>D3                            | 5,6         | 17,69     | 0,85 | C   | -22 %<br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |                                     | 70,8        | 198,19    | 1,11 | F   |                                 |
| 3 - Vale Road (S)    |                                     | 0,8         | 5,84      | 0,45 | A   |                                 |

|                      | PM                                  |             |           |      |     |                                 |
|----------------------|-------------------------------------|-------------|-----------|------|-----|---------------------------------|
|                      | Set ID                              | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity       |
|                      | PM Future Base - 2040 - Future Base |             |           |      |     |                                 |
| 1 - A26 Vale Road E  | A4<br>D4                            | 5,0         | 15,51     | 0,84 | C   | -14 %<br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |                                     | 23,9        | 92,07     | 1,01 | F   |                                 |
| 3 - Vale Road (S)    |                                     | 1,1         | 6,78      | 0,53 | A   |                                 |

|                      | AM                       |             |           |      |     |                                 |
|----------------------|--------------------------|-------------|-----------|------|-----|---------------------------------|
|                      | Set ID                   | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity       |
|                      | AM LP - 2040 - LP test 2 |             |           |      |     |                                 |
| 1 - A26 Vale Road E  | A5<br>D5                 | 8,1         | 25,22     | 0,90 | D   | -26 %<br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |                          | 111,7       | 350,86    | 1,19 | F   |                                 |
| 3 - Vale Road (S)    |                          | 0,9         | 6,27      | 0,49 | A   |                                 |

|                      | PM                       |             |           |      |     |                                 |
|----------------------|--------------------------|-------------|-----------|------|-----|---------------------------------|
|                      | Set ID                   | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity       |
|                      | PM LP - 2040 - LP test 2 |             |           |      |     |                                 |
| 1 - A26 Vale Road E  | A6<br>D6                 | 7,9         | 24,28     | 0,90 | C   | -16 %<br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |                          | 29,0        | 100,22    | 1,02 | F   |                                 |
| 3 - Vale Road (S)    |                          | 1,2         | 7,05      | 0,55 | A   |                                 |

|  | AM                              |             |           |     |     |                           |
|--|---------------------------------|-------------|-----------|-----|-----|---------------------------|
|  | Set ID                          | Queue (PCU) | Delay (s) | RFC | LOS | Network Residual Capacity |
|  | AM LP High - 2040 - T&M LP_High |             |           |     |     |                           |

|                      |          |       |        |      |   |                                     |
|----------------------|----------|-------|--------|------|---|-------------------------------------|
| 1 - A26 Vale Road E  | A7<br>D7 | 47,0  | 115,86 | 1,05 | F | -26 %<br><br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way |          | 100,4 | 324,54 | 1,17 | F |                                     |
| 3 - Vale Road (S)    |          | 1,0   | 6,39   | 0,49 | A |                                     |

|                                 |          |             |           |      |     |                                     |
|---------------------------------|----------|-------------|-----------|------|-----|-------------------------------------|
| PM                              |          |             |           |      |     |                                     |
|                                 | Set ID   | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity           |
| PM LP High - 2040 - T&M LP_High |          |             |           |      |     |                                     |
| 1 - A26 Vale Road E             | A8<br>D8 | 9,7         | 29,09     | 0,92 | D   | -19 %<br><br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way            |          | 44,1        | 154,17    | 1,07 | F   |                                     |
| 3 - Vale Road (S)               |          | 1,3         | 7,25      | 0,56 | A   |                                     |

|                                           |          |             |           |      |     |                                     |
|-------------------------------------------|----------|-------------|-----------|------|-----|-------------------------------------|
| AM                                        |          |             |           |      |     |                                     |
|                                           | Set ID   | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity           |
| AM Forecast BL - 2042 - Forecast Baseline |          |             |           |      |     |                                     |
| 1 - A26 Vale Road E                       | A9<br>D9 | 7,2         | 22,37     | 0,88 | C   | -24 %<br><br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way                      |          | 92,9        | 278,71    | 1,15 | F   |                                     |
| 3 - Vale Road (S)                         |          | 0,9         | 6,09      | 0,46 | A   |                                     |

|                                           |            |             |           |      |     |                                     |
|-------------------------------------------|------------|-------------|-----------|------|-----|-------------------------------------|
| PM                                        |            |             |           |      |     |                                     |
|                                           | Set ID     | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity           |
| PM Forecast BL - 2042 - Forecast Baseline |            |             |           |      |     |                                     |
| 1 - A26 Vale Road E                       | A10<br>D10 | 5,9         | 18,37     | 0,86 | C   | -13 %<br><br>[2 - A26 Woodgate Way] |
| 2 - A26 Woodgate Way                      |            | 20,7        | 80,04     | 1,00 | F   |                                     |
| 3 - Vale Road (S)                         |            | 1,3         | 7,23      | 0,56 | A   |                                     |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

|             |                 |
|-------------|-----------------|
| Title       |                 |
| Location    |                 |
| Site number |                 |
| Date        | 26.07.2024      |
| Version     |                 |
| Status      | (new file)      |
| Identifier  |                 |
| Client      |                 |
| Jobnumber   |                 |
| Enumerator  | JEGINTL\siudzis |
| Description |                 |

Units

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

Analysis Options

|                    |                             |                                   |                                   |                                   |                             |                                 |               |                             |                       |                                    |                                    |
|--------------------|-----------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|------------------------------------|------------------------------------|
| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Show lane queues in feet / metres | Show all PICADY stream intercepts | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) | Use simulation for HCM roundabouts | Use iterations for HCM roundabouts |
| 5,75               |                             |                                   |                                   |                                   | ✓                           | RFC/DOS                         | 0,85          | 36,00                       | 20,00                 |                                    |                                    |

**Demand Set Summary**

| ID  | Year | Scenario          | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|------|-------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1  | 2019 | Base              | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |
| D2  | 2019 | Base              | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |
| D3  | 2040 | Future Base       | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |
| D4  | 2040 | Future Base       | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |
| D5  | 2040 | LP test 2         | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |
| D6  | 2040 | LP test 2         | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |
| D7  | 2040 | T&M LP_High       | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |
| D8  | 2040 | T&M LP_High       | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |
| D9  | 2042 | Forecast Baseline | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |
| D10 | 2042 | Forecast Baseline | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |

# AM Base - D1 - 2019 | Base | AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name    | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|---------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A1 | AM Base | ✓                 | ✓                          | D1                     | 100,000                         | 100,000                             |

## Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 55,72              | F            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -17                           | 2 - A26 Woodgate Way         | 55,72             | F           |

## Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 83,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 76,00                              |
| 3 - Vale Road (S)    | Percentage |        | 93,00                              |

## Traffic Demand

Demand Set Details

| ID | Year | Scenario | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|----------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2019 | Base     | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1004                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 992                     | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 389                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 747                  | 257               |
|      | 2 - A26 Woodgate Way | 762                 | 0                    | 230               |
|      | 3 - Vale Road (S)    | 309                 | 80                   | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 3                    | 1                 |
|      | 2 - A26 Woodgate Way | 2                   | 0                    | 1                 |
|      | 3 - Vale Road (S)    | 1                   | 2                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,79    | 12,34         | 3,7             | B       | 921                     | 1382                          |
| 2 - A26 Woodgate Way | 1,05    | 119,16        | 38,3            | F       | 910                     | 1365                          |
| 3 - Vale Road (S)    | 0,41    | 5,94          | 0,7             | A       | 357                     | 535                           |

Main Results for each time segment

08:00 - 08:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 756                   | 189                     | 60                        | 1418              | 0,533 | 751                 | 799                             | 0,0               | 1,2             | 5,494     | A                             |
| 2 - A26 Woodgate Way | 747                   | 187                     | 192                       | 1088              | 0,687 | 738                 | 619                             | 0,0               | 2,1             | 10,245    | B                             |
| 3 - Vale Road (S)    | 293                   | 73                      | 567                       | 1168              | 0,251 | 292                 | 363                             | 0,0               | 0,3             | 4,153     | A                             |

08:15 - 08:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 903                   | 226                     | 72                        | 1412              | 0,639 | 900                 | 955                             | 1,2               | 1,8             | 7,173     | A                             |
| 2 - A26 Woodgate Way | 892                   | 223                     | 230                       | 1070              | 0,834 | 882                 | 741                             | 2,1               | 4,6             | 18,602    | C                             |
| 3 - Vale Road (S)    | 350                   | 87                      | 678                       | 1107              | 0,316 | 349                 | 435                             | 0,3               | 0,5             | 4,807     | A                             |

## 08:30 - 08:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1105                  | 276                     | 88                        | 1403              | 0,788 | 1098                | 1119                            | 1,8               | 3,6             | 11,824    | B                             |
| 2 - A26 Woodgate Way | 1092                  | 273                     | 281                       | 1046              | 1,044 | 1015                | 905                             | 4,6               | 23,9            | 63,783    | F                             |
| 3 - Vale Road (S)    | 428                   | 107                     | 779                       | 1051              | 0,408 | 427                 | 516                             | 0,5               | 0,7             | 5,838     | A                             |

## 08:45 - 09:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1105                  | 276                     | 88                        | 1403              | 0,788 | 1105                | 1135                            | 3,6               | 3,7             | 12,336    | B                             |
| 2 - A26 Woodgate Way | 1092                  | 273                     | 283                       | 1045              | 1,045 | 1035                | 910                             | 23,9              | 38,3            | 119,160   | F                             |
| 3 - Vale Road (S)    | 428                   | 107                     | 795                       | 1042              | 0,411 | 428                 | 523                             | 0,7               | 0,7             | 5,935     | A                             |

## 09:00 - 09:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 903                   | 226                     | 72                        | 1412              | 0,639 | 910                 | 1061                            | 3,7               | 1,9             | 7,458     | A                             |
| 2 - A26 Woodgate Way | 892                   | 223                     | 233                       | 1069              | 0,834 | 1018                | 749                             | 38,3              | 6,7             | 77,797    | F                             |
| 3 - Vale Road (S)    | 350                   | 87                      | 782                       | 1049              | 0,333 | 350                 | 469                             | 0,7               | 0,5             | 5,221     | A                             |

## 09:15 - 09:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 756                   | 189                     | 60                        | 1418              | 0,533 | 759                 | 820                             | 1,9               | 1,2             | 5,618     | A                             |
| 2 - A26 Woodgate Way | 747                   | 187                     | 194                       | 1087              | 0,687 | 764                 | 625                             | 6,7               | 2,3             | 11,916    | B                             |
| 3 - Vale Road (S)    | 293                   | 73                      | 587                       | 1157              | 0,253 | 294                 | 371                             | 0,5               | 0,3             | 4,225     | A                             |

# PM Base - D2 - 2019 | Base | PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name    | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|---------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A2 | PM Base | ✓                 | ✓                          | D2                     | 100,000                         | 100,000                             |

## Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 21,95              | C            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -8                            | 2 - A26 Woodgate Way         | 21,95             | C           |

## Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 88,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 69,00                              |

## Traffic Demand

Demand Set Details

| ID | Year | Scenario | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|----------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2019 | Base     | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |



Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1055                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 781                     | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 517                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 746                  | 309               |
|      | 2 - A26 Woodgate Way | 662                 | 0                    | 119               |
|      | 3 - Vale Road (S)    | 372                 | 145                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 1                    | 0                 |
|      | 2 - A26 Woodgate Way | 1                   | 0                    | 0                 |
|      | 3 - Vale Road (S)    | 0                   | 1                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,80    | 12,66         | 4,0             | B       | 968                     | 1452                          |
| 2 - A26 Woodgate Way | 0,93    | 45,00         | 10,0            | E       | 717                     | 1075                          |
| 3 - Vale Road (S)    | 0,49    | 6,08          | 1,0             | A       | 474                     | 712                           |

Main Results for each time segment

17:00 - 17:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 794                   | 199                     | 109                       | 1476              | 0,538 | 790                 | 772                             | 0,0               | 1,2             | 5,252     | A                             |
| 2 - A26 Woodgate Way | 588                   | 147                     | 231                       | 971               | 0,606 | 582                 | 667                             | 0,0               | 1,5             | 9,198     | A                             |
| 3 - Vale Road (S)    | 389                   | 97                      | 493                       | 1299              | 0,300 | 388                 | 320                             | 0,0               | 0,4             | 3,953     | A                             |

17:15 - 17:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 948                   | 237                     | 130                       | 1463              | 0,648 | 946                 | 925                             | 1,2               | 1,8             | 6,971     | A                             |
| 2 - A26 Woodgate Way | 702                   | 176                     | 277                       | 951               | 0,738 | 697                 | 799                             | 1,5               | 2,7             | 14,027    | B                             |
| 3 - Vale Road (S)    | 465                   | 116                     | 591                       | 1241              | 0,374 | 464                 | 383                             | 0,4               | 0,6             | 4,641     | A                             |

## 17:30 - 17:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1162                  | 290                     | 159                       | 1446              | 0,803 | 1153                | 1118                            | 1,8               | 3,9             | 12,052    | B                             |
| 2 - A26 Woodgate Way | 860                   | 215                     | 338                       | 925               | 0,929 | 837                 | 975                             | 2,7               | 8,5             | 34,175    | D                             |
| 3 - Vale Road (S)    | 569                   | 142                     | 709                       | 1171              | 0,486 | 568                 | 465                             | 0,6               | 0,9             | 5,969     | A                             |

## 17:45 - 18:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1162                  | 290                     | 160                       | 1446              | 0,803 | 1161                | 1133                            | 3,9               | 4,0             | 12,663    | B                             |
| 2 - A26 Woodgate Way | 860                   | 215                     | 340                       | 924               | 0,930 | 854                 | 981                             | 8,5               | 10,0            | 45,002    | E                             |
| 3 - Vale Road (S)    | 569                   | 142                     | 724                       | 1163              | 0,490 | 569                 | 470                             | 0,9               | 1,0             | 6,083     | A                             |

## 18:00 - 18:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 948                   | 237                     | 131                       | 1463              | 0,648 | 957                 | 954                             | 4,0               | 1,9             | 7,279     | A                             |
| 2 - A26 Woodgate Way | 702                   | 176                     | 280                       | 950               | 0,739 | 730                 | 807                             | 10,0              | 3,0             | 18,320    | C                             |
| 3 - Vale Road (S)    | 465                   | 116                     | 619                       | 1225              | 0,379 | 466                 | 391                             | 1,0               | 0,6             | 4,766     | A                             |

## 18:15 - 18:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 794                   | 199                     | 109                       | 1475              | 0,538 | 797                 | 784                             | 1,9               | 1,2             | 5,370     | A                             |
| 2 - A26 Woodgate Way | 588                   | 147                     | 233                       | 970               | 0,606 | 594                 | 673                             | 3,0               | 1,6             | 9,790     | A                             |
| 3 - Vale Road (S)    | 389                   | 97                      | 503                       | 1293              | 0,301 | 390                 | 324                             | 0,6               | 0,4             | 3,999     | A                             |

AM Future Base - D3 - 2040 | Future Base | AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name           | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|----------------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A3 | AM Future Base | ✓                 | ✓                          | D3                     | 100,000                         | 100,000                             |

Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 89,76              | F            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -22                           | 2 - A26 Woodgate Way         | 89,76             | F           |

Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 85,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 78,00                              |

Traffic Demand

Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2040 | Future Base | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1076                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 1068                    | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 456                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 786                  | 290               |
|      | 2 - A26 Woodgate Way | 800                 | 0                    | 268               |
|      | 3 - Vale Road (S)    | 301                 | 155                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 4                    | 1                 |
|      | 2 - A26 Woodgate Way | 2                   | 0                    | 1                 |
|      | 3 - Vale Road (S)    | 1                   | 1                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,85    | 17,69         | 5,6             | C       | 987                     | 1481                          |
| 2 - A26 Woodgate Way | 1,11    | 198,19        | 70,8            | F       | 980                     | 1470                          |
| 3 - Vale Road (S)    | 0,45    | 5,84          | 0,8             | A       | 418                     | 628                           |

Main Results for each time segment

08:00 - 08:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 810                   | 203                     | 116                       | 1421              | 0,570 | 805                 | 820                             | 0,0               | 1,3             | 5,976     | A                             |
| 2 - A26 Woodgate Way | 804                   | 201                     | 217                       | 1105              | 0,728 | 794                 | 704                             | 0,0               | 2,6             | 11,432    | B                             |
| 3 - Vale Road (S)    | 343                   | 86                      | 594                       | 1239              | 0,277 | 342                 | 416                             | 0,0               | 0,4             | 4,045     | A                             |

08:15 - 08:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 967                   | 242                     | 139                       | 1408              | 0,687 | 964                 | 978                             | 1,3               | 2,2             | 8,293     | A                             |
| 2 - A26 Woodgate Way | 960                   | 240                     | 260                       | 1084              | 0,886 | 945                 | 843                             | 2,6               | 6,4             | 24,006    | C                             |
| 3 - Vale Road (S)    | 410                   | 102                     | 708                       | 1172              | 0,350 | 409                 | 497                             | 0,4               | 0,5             | 4,762     | A                             |

## 08:30 - 08:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1185                  | 296                     | 170                       | 1391              | 0,852 | 1172                | 1111                            | 2,2               | 5,3             | 16,140    | C                             |
| 2 - A26 Woodgate Way | 1176                  | 294                     | 316                       | 1057              | 1,113 | 1042                | 1027                            | 6,4               | 39,9            | 92,943    | F                             |
| 3 - Vale Road (S)    | 502                   | 126                     | 780                       | 1129              | 0,445 | 501                 | 577                             | 0,5               | 0,8             | 5,781     | A                             |

## 08:45 - 09:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1185                  | 296                     | 171                       | 1391              | 0,852 | 1184                | 1120                            | 5,3               | 5,6             | 17,694    | C                             |
| 2 - A26 Woodgate Way | 1176                  | 294                     | 319                       | 1055              | 1,114 | 1053                | 1035                            | 39,9              | 70,8            | 198,194   | F                             |
| 3 - Vale Road (S)    | 502                   | 126                     | 788                       | 1124              | 0,447 | 502                 | 583                             | 0,8               | 0,8             | 5,842     | A                             |

## 09:00 - 09:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 967                   | 242                     | 140                       | 1408              | 0,687 | 980                 | 1070                            | 5,6               | 2,3             | 8,935     | A                             |
| 2 - A26 Woodgate Way | 960                   | 240                     | 264                       | 1082              | 0,888 | 1066                | 856                             | 70,8              | 44,2            | 195,821   | F                             |
| 3 - Vale Road (S)    | 410                   | 102                     | 799                       | 1118              | 0,367 | 411                 | 532                             | 0,8               | 0,6             | 5,148     | A                             |

## 09:15 - 09:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 810                   | 203                     | 117                       | 1421              | 0,570 | 814                 | 953                             | 2,3               | 1,4             | 6,157     | A                             |
| 2 - A26 Woodgate Way | 804                   | 201                     | 219                       | 1103              | 0,729 | 969                 | 711                             | 44,2              | 3,0             | 53,441    | F                             |
| 3 - Vale Road (S)    | 343                   | 86                      | 726                       | 1161              | 0,296 | 344                 | 462                             | 0,6               | 0,4             | 4,452     | A                             |

# PM Future Base - D4 - 2040 | Future Base | PM

## Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| ID | Name           | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|----------------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A4 | PM Future Base | ✓                 | ✓                          | D4                     | 100,000                         | 100,000                             |

## Junction Network

### Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 39,60              | E            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -14                           | 2 - A26 Woodgate Way         | 39,60             | E           |

## Arms

### Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

### 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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

#### Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 88,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 69,00                              |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D4 | 2040 | Future Base | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1083                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 844                     | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 554                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 764                  | 319               |
|      | 2 - A26 Woodgate Way | 711                 | 0                    | 133               |
|      | 3 - Vale Road (S)    | 373                 | 181                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 1                    | 0                 |
|      | 2 - A26 Woodgate Way | 1                   | 0                    | 0                 |
|      | 3 - Vale Road (S)    | 0                   | 1                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,84    | 15,51         | 5,0             | C       | 994                     | 1491                          |
| 2 - A26 Woodgate Way | 1,01    | 92,07         | 23,9            | F       | 774                     | 1162                          |
| 3 - Vale Road (S)    | 0,53    | 6,78          | 1,1             | A       | 508                     | 763                           |

Main Results for each time segment

17:00 - 17:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 815                   | 204                     | 136                       | 1460              | 0,558 | 810                 | 809                             | 0,0               | 1,3             | 5,540     | A                             |
| 2 - A26 Woodgate Way | 635                   | 159                     | 239                       | 968               | 0,657 | 628                 | 707                             | 0,0               | 1,9             | 10,467    | B                             |
| 3 - Vale Road (S)    | 417                   | 104                     | 529                       | 1278              | 0,326 | 415                 | 338                             | 0,0               | 0,5             | 4,176     | A                             |

17:15 - 17:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 974                   | 243                     | 162                       | 1444              | 0,674 | 970                 | 968                             | 1,3               | 2,0             | 7,598     | A                             |
| 2 - A26 Woodgate Way | 759                   | 190                     | 286                       | 948               | 0,801 | 751                 | 847                             | 1,9               | 3,7             | 17,842    | C                             |
| 3 - Vale Road (S)    | 498                   | 125                     | 633                       | 1216              | 0,409 | 497                 | 404                             | 0,5               | 0,7             | 5,017     | A                             |

## 17:30 - 17:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1192                  | 298                     | 199                       | 1423              | 0,838 | 1182                | 1149                            | 2,0               | 4,7             | 14,375    | B                             |
| 2 - A26 Woodgate Way | 929                   | 232                     | 348                       | 921               | 1,009 | 878                 | 1032                            | 3,7               | 16,5            | 54,789    | F                             |
| 3 - Vale Road (S)    | 610                   | 152                     | 740                       | 1153              | 0,529 | 608                 | 486                             | 0,7               | 1,1             | 6,610     | A                             |

## 17:45 - 18:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1192                  | 298                     | 199                       | 1423              | 0,838 | 1192                | 1168                            | 4,7               | 5,0             | 15,508    | C                             |
| 2 - A26 Woodgate Way | 929                   | 232                     | 351                       | 920               | 1,010 | 899                 | 1040                            | 16,5              | 23,9            | 92,069    | F                             |
| 3 - Vale Road (S)    | 610                   | 152                     | 758                       | 1143              | 0,534 | 610                 | 493                             | 1,1               | 1,1             | 6,778     | A                             |

## 18:00 - 18:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 974                   | 243                     | 163                       | 1444              | 0,674 | 985                 | 1040                            | 5,0               | 2,1             | 8,081     | A                             |
| 2 - A26 Woodgate Way | 759                   | 190                     | 290                       | 946               | 0,802 | 836                 | 858                             | 23,9              | 4,7             | 44,624    | E                             |
| 3 - Vale Road (S)    | 498                   | 125                     | 704                       | 1174              | 0,424 | 500                 | 422                             | 1,1               | 0,7             | 5,365     | A                             |

## 18:15 - 18:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 815                   | 204                     | 137                       | 1459              | 0,559 | 819                 | 826                             | 2,1               | 1,3             | 5,689     | A                             |
| 2 - A26 Woodgate Way | 635                   | 159                     | 241                       | 967               | 0,657 | 646                 | 714                             | 4,7               | 2,0             | 11,678    | B                             |
| 3 - Vale Road (S)    | 417                   | 104                     | 544                       | 1269              | 0,329 | 418                 | 343                             | 0,7               | 0,5             | 4,251     | A                             |



# AM LP - D5 - 2040 | LP test 2 | AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name  | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A5 | AM LP | ✓                 | ✓                          | D5                     | 100,000                         | 100,000                             |

## Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 157,57             | F            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -26                           | 2 - A26 Woodgate Way         | 157,57            | F           |

## Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 85,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 79,00                              |

## Traffic Demand

Demand Set Details

| ID | Year | Scenario  | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-----------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D5 | 2040 | LP test 2 | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1111                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 1149                    | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 496                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 813                  | 298               |
|      | 2 - A26 Woodgate Way | 849                 | 0                    | 300               |
|      | 3 - Vale Road (S)    | 292                 | 204                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 3                    | 1                 |
|      | 2 - A26 Woodgate Way | 2                   | 0                    | 1                 |
|      | 3 - Vale Road (S)    | 1                   | 1                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,90    | 25,22         | 8,1             | D       | 1019                    | 1529                          |
| 2 - A26 Woodgate Way | 1,19    | 350,86        | 111,7           | F       | 1054                    | 1582                          |
| 3 - Vale Road (S)    | 0,49    | 6,27          | 0,9             | A       | 455                     | 683                           |

Main Results for each time segment

08:00 - 08:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 836                   | 209                     | 153                       | 1401              | 0,597 | 830                 | 848                             | 0,0               | 1,5             | 6,404     | A                             |
| 2 - A26 Woodgate Way | 865                   | 216                     | 223                       | 1116              | 0,775 | 852                 | 761                             | 0,0               | 3,3             | 13,291    | B                             |
| 3 - Vale Road (S)    | 373                   | 93                      | 629                       | 1218              | 0,306 | 372                 | 445                             | 0,0               | 0,4             | 4,285     | A                             |

08:15 - 08:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 999                   | 250                     | 183                       | 1384              | 0,722 | 994                 | 1005                            | 1,5               | 2,6             | 9,373     | A                             |
| 2 - A26 Woodgate Way | 1033                  | 258                     | 267                       | 1094              | 0,944 | 1005                | 911                             | 3,3               | 10,2            | 33,658    | D                             |
| 3 - Vale Road (S)    | 446                   | 111                     | 743                       | 1151              | 0,387 | 445                 | 529                             | 0,4               | 0,6             | 5,144     | A                             |

## 08:30 - 08:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1223                  | 306                     | 224                       | 1361              | 0,899 | 1204                | 1104                            | 2,6               | 7,4             | 21,299    | C                             |
| 2 - A26 Woodgate Way | 1265                  | 316                     | 323                       | 1067              | 1,186 | 1060                | 1105                            | 10,2              | 61,3            | 133,040   | F                             |
| 3 - Vale Road (S)    | 546                   | 137                     | 784                       | 1127              | 0,484 | 545                 | 600                             | 0,6               | 0,9             | 6,232     | A                             |

## 08:45 - 09:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1223                  | 306                     | 225                       | 1360              | 0,899 | 1220                | 1108                            | 7,4               | 8,1             | 25,224    | D                             |
| 2 - A26 Woodgate Way | 1265                  | 316                     | 327                       | 1065              | 1,188 | 1064                | 1118                            | 61,3              | 111,7           | 299,047   | F                             |
| 3 - Vale Road (S)    | 546                   | 137                     | 786                       | 1126              | 0,485 | 546                 | 605                             | 0,9               | 0,9             | 6,272     | A                             |

## 09:00 - 09:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 999                   | 250                     | 184                       | 1383              | 0,722 | 1020                | 1062                            | 8,1               | 2,8             | 10,704    | B                             |
| 2 - A26 Woodgate Way | 1033                  | 258                     | 274                       | 1091              | 0,947 | 1081                | 930                             | 111,7             | 99,6            | 350,860   | F                             |
| 3 - Vale Road (S)    | 446                   | 111                     | 799                       | 1118              | 0,399 | 447                 | 556                             | 0,9               | 0,7             | 5,425     | A                             |

## 09:15 - 09:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 836                   | 209                     | 154                       | 1400              | 0,597 | 841                 | 1035                            | 2,8               | 1,5             | 6,657     | A                             |
| 2 - A26 Woodgate Way | 865                   | 216                     | 226                       | 1114              | 0,776 | 1103                | 769                             | 99,6              | 40,1            | 230,826   | F                             |
| 3 - Vale Road (S)    | 373                   | 93                      | 815                       | 1108              | 0,337 | 374                 | 514                             | 0,7               | 0,5             | 4,954     | A                             |

PM LP - D6 - 2040 | LP test 2 | PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name  | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A6 | PM LP | ✓                 | ✓                          | D6                     | 100,000                         | 100,000                             |

Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 47,25              | E            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -16                           | 2 - A26 Woodgate Way         | 47,25             | E           |

Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 86,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 74,00                              |

Traffic Demand

Demand Set Details

| ID | Year | Scenario  | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-----------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D6 | 2040 | LP test 2 | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1128                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 919                     | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 566                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 812                  | 316               |
|      | 2 - A26 Woodgate Way | 731                 | 0                    | 188               |
|      | 3 - Vale Road (S)    | 372                 | 194                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 1                    | 0                 |
|      | 2 - A26 Woodgate Way | 1                   | 0                    | 0                 |
|      | 3 - Vale Road (S)    | 0                   | 0                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,90    | 24,28         | 7,9             | C       | 1035                    | 1553                          |
| 2 - A26 Woodgate Way | 1,02    | 100,22        | 29,0            | F       | 843                     | 1265                          |
| 3 - Vale Road (S)    | 0,55    | 7,05          | 1,2             | A       | 519                     | 779                           |

Main Results for each time segment

17:00 - 17:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 849                   | 212                     | 145                       | 1421              | 0,598 | 843                 | 823                             | 0,0               | 1,5             | 6,213     | A                             |
| 2 - A26 Woodgate Way | 692                   | 173                     | 236                       | 1039              | 0,666 | 684                 | 752                             | 0,0               | 1,9             | 10,019    | B                             |
| 3 - Vale Road (S)    | 426                   | 107                     | 544                       | 1269              | 0,336 | 424                 | 376                             | 0,0               | 0,5             | 4,250     | A                             |

17:15 - 17:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1014                  | 254                     | 174                       | 1405              | 0,722 | 1010                | 985                             | 1,5               | 2,5             | 9,076     | A                             |
| 2 - A26 Woodgate Way | 826                   | 207                     | 283                       | 1018              | 0,812 | 818                 | 901                             | 1,9               | 4,0             | 17,493    | C                             |
| 3 - Vale Road (S)    | 509                   | 127                     | 651                       | 1206              | 0,422 | 508                 | 450                             | 0,5               | 0,7             | 5,152     | A                             |

## 17:30 - 17:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1242                  | 310                     | 213                       | 1383              | 0,898 | 1223                | 1165                            | 2,5               | 7,2             | 20,589    | C                             |
| 2 - A26 Woodgate Way | 1012                  | 253                     | 343                       | 990               | 1,022 | 951                 | 1093                            | 4,0               | 19,1            | 56,861    | F                             |
| 3 - Vale Road (S)    | 623                   | 156                     | 757                       | 1143              | 0,545 | 621                 | 537                             | 0,7               | 1,2             | 6,873     | A                             |

## 17:45 - 18:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1242                  | 310                     | 214                       | 1383              | 0,898 | 1239                | 1183                            | 7,2               | 7,9             | 24,275    | C                             |
| 2 - A26 Woodgate Way | 1012                  | 253                     | 347                       | 988               | 1,024 | 972                 | 1106                            | 19,1              | 29,0            | 100,215   | F                             |
| 3 - Vale Road (S)    | 623                   | 156                     | 773                       | 1133              | 0,550 | 623                 | 546                             | 1,2               | 1,2             | 7,053     | A                             |

## 18:00 - 18:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1014                  | 254                     | 175                       | 1405              | 0,722 | 1035                | 1068                            | 7,9               | 2,7             | 10,317    | B                             |
| 2 - A26 Woodgate Way | 826                   | 207                     | 290                       | 1014              | 0,814 | 921                 | 920                             | 29,0              | 5,2             | 53,245    | F                             |
| 3 - Vale Road (S)    | 509                   | 127                     | 733                       | 1157              | 0,440 | 510                 | 478                             | 1,2               | 0,8             | 5,580     | A                             |

## 18:15 - 18:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 849                   | 212                     | 146                       | 1421              | 0,598 | 854                 | 841                             | 2,7               | 1,5             | 6,452     | A                             |
| 2 - A26 Woodgate Way | 692                   | 173                     | 239                       | 1038              | 0,667 | 704                 | 761                             | 5,2               | 2,1             | 11,261    | B                             |
| 3 - Vale Road (S)    | 426                   | 107                     | 560                       | 1260              | 0,338 | 427                 | 383                             | 0,8               | 0,5             | 4,332     | A                             |

AM LP High - D7 - 2040 | T&M LP\_High | AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name       | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|------------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A7 | AM LP High | ✓                 | ✓                          | D7                     | 100,000                         | 100,000                             |

Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 179,07             | F            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -26                           | 2 - A26 Woodgate Way         | 179,07            | F           |

Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 81,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 78,00                              |

Traffic Demand

Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D7 | 2040 | T&M LP_High | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1236                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 1127                    | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 497                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 944                  | 292               |
|      | 2 - A26 Woodgate Way | 842                 | 0                    | 285               |
|      | 3 - Vale Road (S)    | 296                 | 201                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 6                    | 2                 |
|      | 2 - A26 Woodgate Way | 4                   | 0                    | 2                 |
|      | 3 - Vale Road (S)    | 2                   | 2                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 1,05    | 115,86        | 47,0            | F       | 1134                    | 1701                          |
| 2 - A26 Woodgate Way | 1,17    | 324,54        | 100,4           | F       | 1034                    | 1551                          |
| 3 - Vale Road (S)    | 0,49    | 6,39          | 1,0             | A       | 456                     | 684                           |

Main Results for each time segment

08:00 - 08:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 931                   | 233                     | 151                       | 1336              | 0,697 | 921                 | 846                             | 0,0               | 2,3             | 8,931     | A                             |
| 2 - A26 Woodgate Way | 848                   | 212                     | 218                       | 1104              | 0,768 | 836                 | 854                             | 0,0               | 3,2             | 13,302    | B                             |
| 3 - Vale Road (S)    | 374                   | 94                      | 624                       | 1222              | 0,306 | 372                 | 429                             | 0,0               | 0,4             | 4,316     | A                             |

08:15 - 08:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1111                  | 278                     | 180                       | 1320              | 0,842 | 1100                | 1004                            | 2,3               | 5,0             | 16,440    | C                             |
| 2 - A26 Woodgate Way | 1013                  | 253                     | 260                       | 1084              | 0,935 | 988                 | 1021                            | 3,2               | 9,5             | 32,471    | D                             |
| 3 - Vale Road (S)    | 447                   | 112                     | 738                       | 1154              | 0,387 | 446                 | 510                             | 0,4               | 0,6             | 5,180     | A                             |



## 08:30 - 08:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1361                  | 340                     | 221                       | 1298              | 1,048 | 1265                | 1115                            | 5,0               | 28,9            | 60,235    | F                             |
| 2 - A26 Woodgate Way | 1241                  | 310                     | 299                       | 1065              | 1,165 | 1057                | 1187                            | 9,5               | 55,5            | 122,895   | F                             |
| 3 - Vale Road (S)    | 547                   | 137                     | 790                       | 1124              | 0,487 | 546                 | 566                             | 0,6               | 1,0             | 6,343     | A                             |

## 08:45 - 09:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1361                  | 340                     | 221                       | 1298              | 1,048 | 1288                | 1119                            | 28,9              | 47,0            | 115,858   | F                             |
| 2 - A26 Woodgate Way | 1241                  | 310                     | 304                       | 1062              | 1,168 | 1061                | 1205                            | 55,5              | 100,4           | 272,887   | F                             |
| 3 - Vale Road (S)    | 547                   | 137                     | 793                       | 1122              | 0,488 | 547                 | 573                             | 1,0               | 1,0             | 6,391     | A                             |

## 09:00 - 09:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1111                  | 278                     | 181                       | 1320              | 0,842 | 1270                | 1054                            | 47,0              | 7,4             | 76,903    | F                             |
| 2 - A26 Woodgate Way | 1013                  | 253                     | 300                       | 1064              | 0,952 | 1054                | 1151                            | 100,4             | 90,3            | 324,536   | F                             |
| 3 - Vale Road (S)    | 447                   | 112                     | 787                       | 1125              | 0,397 | 448                 | 566                             | 1,0               | 0,7             | 5,431     | A                             |

## 09:15 - 09:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 931                   | 233                     | 152                       | 1335              | 0,697 | 950                 | 1036                            | 7,4               | 2,5             | 10,276    | B                             |
| 2 - A26 Woodgate Way | 848                   | 212                     | 224                       | 1101              | 0,771 | 1088                | 877                             | 90,3              | 30,3            | 203,112   | F                             |
| 3 - Vale Road (S)    | 374                   | 94                      | 813                       | 1110              | 0,337 | 375                 | 500                             | 0,7               | 0,5             | 5,002     | A                             |

PM LP High - D8 - 2040 | T&M LP\_High | PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

| ID | Name       | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|------------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A8 | PM LP High | ✓                 | ✓                          | D8                     | 100,000                         | 100,000                             |

Junction Network

Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 66,13              | F            |

Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -19                           | 2 - A26 Woodgate Way         | 66,13             | F           |

Arms

Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 85,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 67,00                              |

Traffic Demand

Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D8 | 2040 | T&M LP_High | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1158                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 871                     | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 574                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 840                  | 318               |
|      | 2 - A26 Woodgate Way | 759                 | 0                    | 112               |
|      | 3 - Vale Road (S)    | 413                 | 161                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 1                    | 0                 |
|      | 2 - A26 Woodgate Way | 2                   | 0                    | 1                 |
|      | 3 - Vale Road (S)    | 1                   | 1                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,92    | 29,09         | 9,7             | D       | 1063                    | 1594                          |
| 2 - A26 Woodgate Way | 1,07    | 154,17        | 44,1            | F       | 799                     | 1199                          |
| 3 - Vale Road (S)    | 0,56    | 7,25          | 1,3             | A       | 527                     | 790                           |

Main Results for each time segment

17:00 - 17:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 872                   | 218                     | 121                       | 1419              | 0,615 | 865                 | 873                             | 0,0               | 1,6             | 6,486     | A                             |
| 2 - A26 Woodgate Way | 656                   | 164                     | 238                       | 940               | 0,697 | 647                 | 748                             | 0,0               | 2,2             | 12,158    | B                             |
| 3 - Vale Road (S)    | 432                   | 108                     | 564                       | 1258              | 0,344 | 430                 | 321                             | 0,0               | 0,5             | 4,384     | A                             |

17:15 - 17:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1041                  | 260                     | 144                       | 1405              | 0,741 | 1036                | 1043                            | 1,6               | 2,8             | 9,700     | A                             |
| 2 - A26 Woodgate Way | 783                   | 196                     | 285                       | 921               | 0,850 | 772                 | 896                             | 2,2               | 5,0             | 23,094    | C                             |
| 3 - Vale Road (S)    | 516                   | 129                     | 673                       | 1193              | 0,433 | 515                 | 384                             | 0,5               | 0,8             | 5,357     | A                             |

## 17:30 - 17:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1275                  | 319                     | 177                       | 1387              | 0,919 | 1252                | 1215                            | 2,8               | 8,6             | 23,484    | C                             |
| 2 - A26 Woodgate Way | 959                   | 240                     | 344                       | 896               | 1,070 | 874                 | 1085                            | 5,0               | 26,3            | 78,973    | F                             |
| 3 - Vale Road (S)    | 632                   | 158                     | 761                       | 1140              | 0,554 | 630                 | 456                             | 0,8               | 1,2             | 7,099     | A                             |

## 17:45 - 18:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1275                  | 319                     | 177                       | 1387              | 0,919 | 1271                | 1228                            | 8,6               | 9,7             | 29,092    | D                             |
| 2 - A26 Woodgate Way | 959                   | 240                     | 349                       | 894               | 1,073 | 888                 | 1099                            | 26,3              | 44,1            | 154,171   | F                             |
| 3 - Vale Road (S)    | 632                   | 158                     | 774                       | 1133              | 0,558 | 632                 | 463                             | 1,2               | 1,3             | 7,253     | A                             |

## 18:00 - 18:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1041                  | 260                     | 145                       | 1405              | 0,741 | 1068                | 1154                            | 9,7               | 3,0             | 11,532    | B                             |
| 2 - A26 Woodgate Way | 783                   | 196                     | 293                       | 917               | 0,854 | 896                 | 920                             | 44,1              | 15,7            | 125,487   | F                             |
| 3 - Vale Road (S)    | 516                   | 129                     | 781                       | 1129              | 0,457 | 518                 | 408                             | 1,3               | 0,9             | 5,965     | A                             |

## 18:15 - 18:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 872                   | 218                     | 122                       | 1418              | 0,615 | 877                 | 929                             | 3,0               | 1,6             | 6,770     | A                             |
| 2 - A26 Woodgate Way | 656                   | 164                     | 241                       | 939               | 0,698 | 709                 | 758                             | 15,7              | 2,5             | 19,361    | C                             |
| 3 - Vale Road (S)    | 432                   | 108                     | 618                       | 1226              | 0,353 | 433                 | 332                             | 0,9               | 0,6             | 4,596     | A                             |

# AM Forecast BL - D9 - 2042 | Forecast Baseline | AM

## Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| ID | Name           | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|----------------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A9 | AM Forecast BL | ✓                 | ✓                          | D9                     | 100,000                         | 100,000                             |

## Junction Network

### Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 125,56             | F            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -24                           | 2 - A26 Woodgate Way         | 125,56            | F           |

## Arms

### Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

### 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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

#### Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 85,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 79,00                              |

Traffic Demand

Demand Set Details

| ID | Year | Scenario          | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|-------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2042 | Forecast Baseline | AM          | ONE HOUR             | 08:00              | 09:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1106                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 1115                    | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 474                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 805                  | 301               |
|      | 2 - A26 Woodgate Way | 828                 | 0                    | 287               |
|      | 3 - Vale Road (S)    | 303                 | 171                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

| From | To                   |                     |                      |                   |
|------|----------------------|---------------------|----------------------|-------------------|
|      |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|      | 1 - A26 Vale Road E  | 0                   | 7                    | 2                 |
|      | 2 - A26 Woodgate Way | 4                   | 0                    | 2                 |
|      | 3 - Vale Road (S)    | 2                   | 2                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,88    | 22,37         | 7,2             | C       | 1015                    | 1522                          |
| 2 - A26 Woodgate Way | 1,15    | 278,71        | 92,9            | F       | 1023                    | 1535                          |
| 3 - Vale Road (S)    | 0,46    | 6,09          | 0,9             | A       | 435                     | 652                           |

Main Results for each time segment

08:00 - 08:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 833                   | 208                     | 128                       | 1414              | 0,589 | 827                 | 842                             | 0,0               | 1,5             | 6,406     | A                             |
| 2 - A26 Woodgate Way | 839                   | 210                     | 225                       | 1115              | 0,753 | 828                 | 730                             | 0,0               | 3,0             | 12,503    | B                             |
| 3 - Vale Road (S)    | 357                   | 89                      | 615                       | 1227              | 0,291 | 355                 | 438                             | 0,0               | 0,4             | 4,203     | A                             |

## 08:15 - 08:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 994                   | 249                     | 153                       | 1400              | 0,710 | 990                 | 1001                            | 1,5               | 2,5             | 9,179     | A                             |
| 2 - A26 Woodgate Way | 1002                  | 251                     | 269                       | 1093              | 0,917 | 981                 | 874                             | 3,0               | 8,3             | 28,935    | D                             |
| 3 - Vale Road (S)    | 426                   | 107                     | 729                       | 1160              | 0,367 | 425                 | 522                             | 0,4               | 0,6             | 4,997     | A                             |

## 08:30 - 08:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1218                  | 304                     | 188                       | 1381              | 0,882 | 1201                | 1117                            | 2,5               | 6,7             | 19,523    | C                             |
| 2 - A26 Woodgate Way | 1228                  | 307                     | 327                       | 1065              | 1,153 | 1055                | 1062                            | 8,3               | 51,3            | 114,029   | F                             |
| 3 - Vale Road (S)    | 522                   | 130                     | 784                       | 1127              | 0,463 | 521                 | 599                             | 0,6               | 0,9             | 6,045     | A                             |

## 08:45 - 09:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1218                  | 304                     | 188                       | 1381              | 0,882 | 1216                | 1122                            | 6,7               | 7,2             | 22,373    | C                             |
| 2 - A26 Woodgate Way | 1228                  | 307                     | 331                       | 1063              | 1,155 | 1062                | 1073                            | 51,3              | 92,9            | 252,086   | F                             |
| 3 - Vale Road (S)    | 522                   | 130                     | 788                       | 1124              | 0,464 | 522                 | 604                             | 0,9               | 0,9             | 6,094     | A                             |

## 09:00 - 09:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 994                   | 249                     | 154                       | 1400              | 0,710 | 1012                | 1074                            | 7,2               | 2,7             | 10,229    | B                             |
| 2 - A26 Woodgate Way | 1002                  | 251                     | 275                       | 1090              | 0,920 | 1078                | 891                             | 92,9              | 74,0            | 278,708   | F                             |
| 3 - Vale Road (S)    | 426                   | 107                     | 801                       | 1117              | 0,381 | 427                 | 553                             | 0,9               | 0,6             | 5,328     | A                             |

## 09:15 - 09:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 833                   | 208                     | 129                       | 1414              | 0,589 | 837                 | 1044                            | 2,7               | 1,5             | 6,642     | A                             |
| 2 - A26 Woodgate Way | 839                   | 210                     | 228                       | 1113              | 0,754 | 1098                | 738                             | 74,0              | 9,3             | 142,378   | F                             |
| 3 - Vale Road (S)    | 357                   | 89                      | 815                       | 1108              | 0,322 | 357                 | 510                             | 0,6               | 0,5             | 4,893     | A                             |

# PM Forecast BL - D10 - 2042 | Forecast Baseline | PM

## Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| ID  | Name           | Include in report | Use specific Demand Set(s) | Specific Demand Set(s) | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|-----|----------------|-------------------|----------------------------|------------------------|---------------------------------|-------------------------------------|
| A10 | PM Forecast BL | ✓                 | ✓                          | D10                    | 100,000                         | 100,000                             |

## Junction Network

### Junctions

| Junction | Name     | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | untitled | Standard Roundabout |                       | 1, 2, 3   | 36,74              | E            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -13                           | 2 - A26 Woodgate Way         | 36,74             | E           |

## Arms

### Arms

| Arm | Name             | Description | No give-way line |
|-----|------------------|-------------|------------------|
| 1   | A26 Vale Road E  |             |                  |
| 2   | A26 Woodgate Way |             |                  |
| 3   | Vale Road (S)    |             |                  |

### 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) | Entry only | Exit only |
|----------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 - A26 Vale Road E  | 3,60                             | 8,22                | 13,6                            | 11,2                 | 36,0                              | 21,0                               |            |           |
| 2 - A26 Woodgate Way | 2,92                             | 6,58                | 17,8                            | 14,3                 | 36,0                              | 25,0                               |            |           |
| 3 - Vale Road (S)    | 4,40                             | 7,09                | 11,5                            | 19,6                 | 36,0                              | 63,0                               |            |           |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm                  | Final slope | Final intercept (PCU/hr) |
|----------------------|-------------|--------------------------|
| 1 - A26 Vale Road E  | 0,657       | 1748                     |
| 2 - A26 Woodgate Way | 0,619       | 1550                     |
| 3 - Vale Road (S)    | 0,593       | 1592                     |

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

#### Arm Capacity Adjustments

| Arm                  | Type       | Reason | Percentage capacity adjustment (%) |
|----------------------|------------|--------|------------------------------------|
| 1 - A26 Vale Road E  | Percentage |        | 87,00                              |
| 2 - A26 Woodgate Way | Percentage |        | 71,00                              |



Traffic Demand

Demand Set Details

| ID  | Year | Scenario          | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|------|-------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2042 | Forecast Baseline | PM          | ONE HOUR             | 17:00              | 18:30               | 15                        | ✓                 |

Demand overview (Traffic)

| Arm                  | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A26 Vale Road E  |            | ONE HOUR     | ✓            | 1093                    | 100,000            |
| 2 - A26 Woodgate Way |            | ONE HOUR     | ✓            | 858                     | 100,000            |
| 3 - Vale Road (S)    |            | ONE HOUR     | ✓            | 578                     | 100,000            |

Origin-Destination Data

Demand (PCU/hr)

|  | To                   |                     |                      |                   |
|--|----------------------|---------------------|----------------------|-------------------|
|  |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|  | 1 - A26 Vale Road E  | 0                   | 778                  | 315               |
|  | 2 - A26 Woodgate Way | 711                 | 0                    | 147               |
|  | 3 - Vale Road (S)    | 380                 | 198                  | 0                 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2,00                      |

Heavy Vehicle %

|  | To                   |                     |                      |                   |
|--|----------------------|---------------------|----------------------|-------------------|
|  |                      | 1 - A26 Vale Road E | 2 - A26 Woodgate Way | 3 - Vale Road (S) |
|  | 1 - A26 Vale Road E  | 0                   | 1                    | 0                 |
|  | 2 - A26 Woodgate Way | 2                   | 0                    | 1                 |
|  | 3 - Vale Road (S)    | 1                   | 1                    | 0                 |

Results

Results Summary for whole modelled period

| Arm                  | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A26 Vale Road E  | 0,86    | 18,37         | 5,9             | C       | 1003                    | 1504                          |
| 2 - A26 Woodgate Way | 1,00    | 80,04         | 20,7            | F       | 787                     | 1181                          |
| 3 - Vale Road (S)    | 0,56    | 7,23          | 1,3             | A       | 530                     | 796                           |

Main Results for each time segment

17:00 - 17:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 823                   | 206                     | 148                       | 1436              | 0,573 | 818                 | 814                             | 0,0               | 1,3             | 5,812     | A                             |
| 2 - A26 Woodgate Way | 646                   | 161                     | 236                       | 997               | 0,648 | 639                 | 730                             | 0,0               | 1,8             | 10,035    | B                             |
| 3 - Vale Road (S)    | 435                   | 109                     | 529                       | 1278              | 0,341 | 433                 | 345                             | 0,0               | 0,5             | 4,294     | A                             |

## 17:15 - 17:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 983                   | 246                     | 178                       | 1419              | 0,692 | 979                 | 975                             | 1,3               | 2,2             | 8,170     | A                             |
| 2 - A26 Woodgate Way | 771                   | 193                     | 282                       | 977               | 0,790 | 764                 | 875                             | 1,8               | 3,5             | 16,736    | C                             |
| 3 - Vale Road (S)    | 520                   | 130                     | 633                       | 1216              | 0,427 | 519                 | 413                             | 0,5               | 0,7             | 5,207     | A                             |

## 17:30 - 17:45

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1203                  | 301                     | 217                       | 1397              | 0,862 | 1190                | 1162                            | 2,2               | 5,5             | 16,562    | C                             |
| 2 - A26 Woodgate Way | 945                   | 236                     | 343                       | 950               | 0,994 | 899                 | 1064                            | 3,5               | 14,9            | 49,673    | E                             |
| 3 - Vale Road (S)    | 636                   | 159                     | 745                       | 1150              | 0,553 | 634                 | 497                             | 0,7               | 1,2             | 7,028     | A                             |

## 17:45 - 18:00

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 1203                  | 301                     | 218                       | 1396              | 0,862 | 1202                | 1182                            | 5,5               | 5,9             | 18,366    | C                             |
| 2 - A26 Woodgate Way | 945                   | 236                     | 346                       | 948               | 0,996 | 921                 | 1074                            | 14,9              | 20,7            | 80,042    | F                             |
| 3 - Vale Road (S)    | 636                   | 159                     | 763                       | 1139              | 0,559 | 636                 | 504                             | 1,2               | 1,3             | 7,228     | A                             |

## 18:00 - 18:15

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 983                   | 246                     | 179                       | 1419              | 0,693 | 997                 | 1036                            | 5,9               | 2,3             | 8,863     | A                             |
| 2 - A26 Woodgate Way | 771                   | 193                     | 287                       | 974               | 0,792 | 837                 | 888                             | 20,7              | 4,3             | 34,962    | D                             |
| 3 - Vale Road (S)    | 520                   | 130                     | 694                       | 1180              | 0,440 | 521                 | 431                             | 1,3               | 0,8             | 5,534     | A                             |

## 18:15 - 18:30

| Arm                  | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|----------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| 1 - A26 Vale Road E  | 823                   | 206                     | 149                       | 1435              | 0,573 | 827                 | 830                             | 2,3               | 1,4             | 5,994     | A                             |
| 2 - A26 Woodgate Way | 646                   | 161                     | 238                       | 996               | 0,649 | 655                 | 738                             | 4,3               | 1,9             | 11,045    | B                             |
| 3 - Vale Road (S)    | 435                   | 109                     | 543                       | 1270              | 0,343 | 436                 | 351                             | 0,8               | 0,5             | 4,369     | A                             |