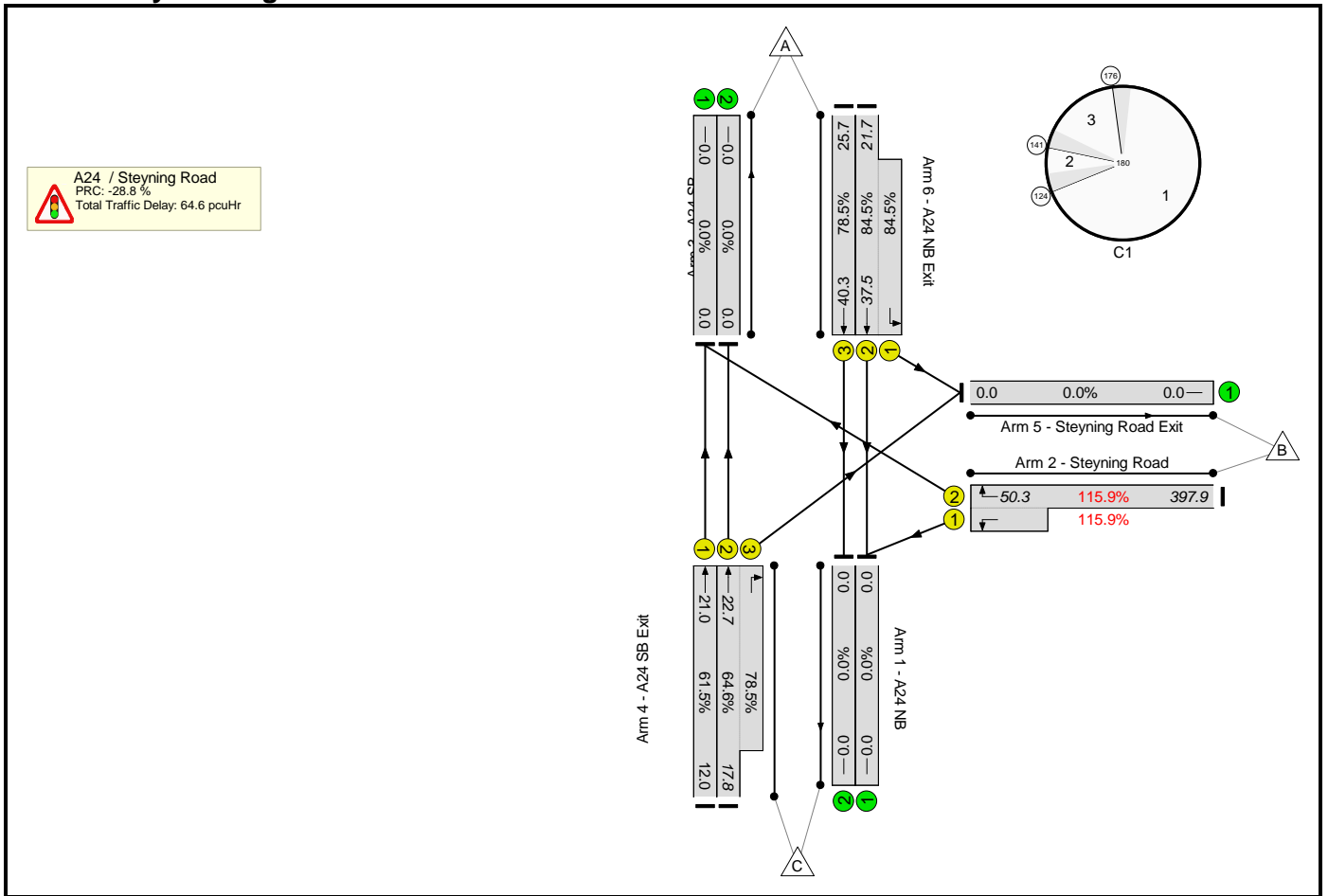


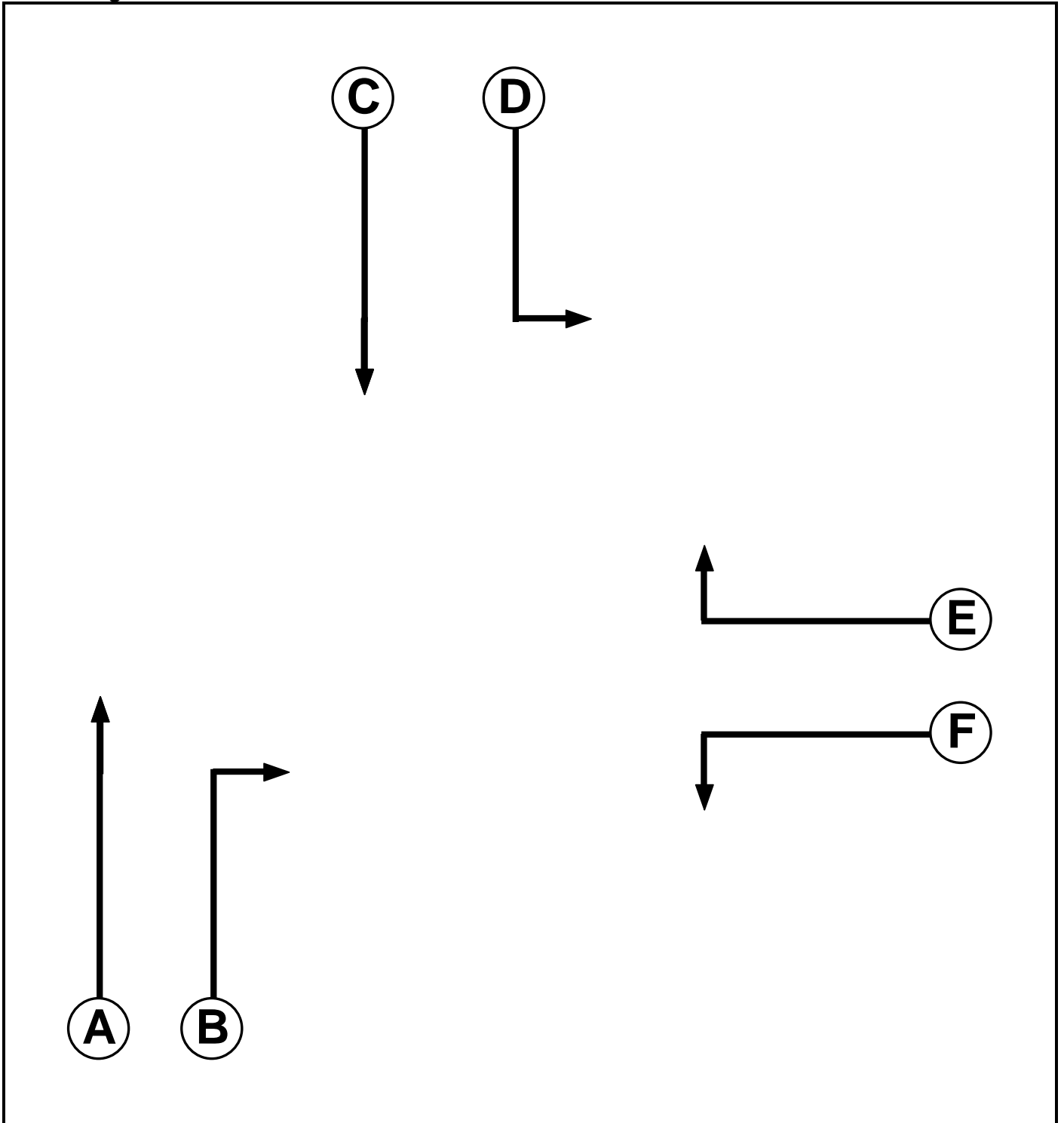
# Appendix L A24/Steyping Road Detailed Junction Modelling Outputs

Results Output  
**Results Output**

**Scenario 1: 'AM Peak' (FG1: 'AM', Plan 1: 'Network Control Plan 1')**  
**Network Layout Diagram**



Phase Diagram



Results Output

**Phase Intergreens Matrix**

|                   | Starting Phase |   |   |   |   |   |
|-------------------|----------------|---|---|---|---|---|
|                   | A              | B | C | D | E | F |
| Terminating Phase | A              | - | - | - | 7 | - |
|                   | B              | - | - | 7 | 7 | 7 |
|                   | C              | - | 7 | - | - | 7 |
|                   | D              | - | 7 | - | - | - |
|                   | E              | 7 | 7 | 7 | - | - |
|                   | F              | - | - | 7 | - | - |

**Lane Input Data**

| Junction: A24 / Steyning Road |           |        |             |           |                       |               |                                   |                |          |               |             |                    |
|-------------------------------|-----------|--------|-------------|-----------|-----------------------|---------------|-----------------------------------|----------------|----------|---------------|-------------|--------------------|
| Lane                          | Lane Type | Phases | Start Disp. | End Disp. | Physical Length (PCU) | Sat Flow Type | Def User Saturation Flow (PCU/Hr) | Lane Width (m) | Gradient | Nearside Lane | Turns       | Turning Radius (m) |
| 1/1 (A24 NB)                  | U         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 6 Ahead | Inf                |
| 1/2 (A24 NB)                  | U         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | N             | Arm 6 Ahead | Inf                |
| 1/3 (A24 NB)                  | U         | B      | 2           | 3         | 13.0                  | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 5 Right | 10.00              |
| 2/1 (Steyning Road)           | U         | F      | 2           | 3         | 5.0                   | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 4 Left  | 15.00              |
| 2/2 (Steyning Road)           | U         | E      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | Y             | Arm 6 Right | 20.00              |
| 3/1 (A24 SB)                  | U         | D      | 2           | 3         | 17.4                  | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 5 Left  | 15.00              |
| 3/2 (A24 SB)                  | U         | C      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | Y             | Arm 4 Ahead | Inf                |
| 3/3 (A24 SB)                  | U         | C      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | N             | Arm 4 Ahead | Inf                |
| 4/1 (A24 SB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 4/2 (A24 SB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 5/1 (Steyning Road Exit)      | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 6/1 (A24 NB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 6/2 (A24 NB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |

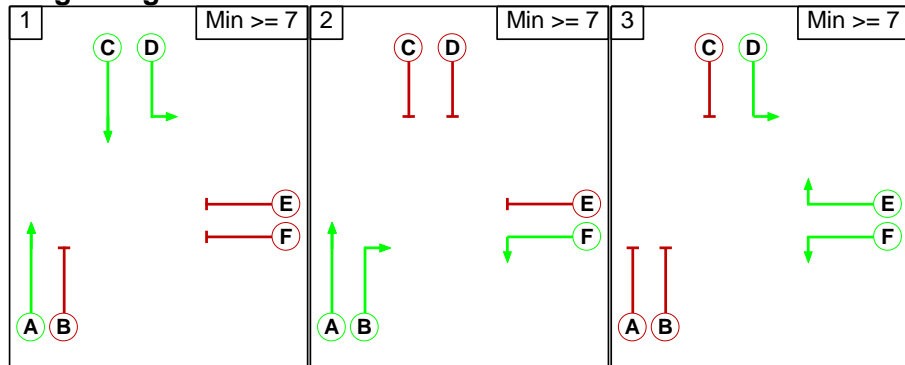
### Lane Saturation Flows

| Junction: A24 / Steyning Road      |                          |          |               |               |                    |               |                   |                          |
|------------------------------------|--------------------------|----------|---------------|---------------|--------------------|---------------|-------------------|--------------------------|
| Lane                               | Lane Width (m)           | Gradient | Nearside Lane | Allowed Turns | Turning Radius (m) | Turning Prop. | Sat Flow (PCU/Hr) | Flared Sat Flow (PCU/Hr) |
| 1/1<br>(A24 NB)                    | 3.50                     | 0.00     | Y             | Arm 6 Ahead   | Inf                | 100.0 %       | 1965              | 1965                     |
| 1/2<br>(A24 NB)                    | 3.65                     | 0.00     | N             | Arm 6 Ahead   | Inf                | 100.0 %       | 2120              | 2120                     |
| 1/3<br>(A24 NB)                    | 3.50                     | 0.00     | Y             | Arm 5 Right   | 10.00              | 100.0 %       | 1709              | 1709                     |
| 2/1<br>(Steyning Road)             | 3.50                     | 0.00     | Y             | Arm 4 Left    | 15.00              | 100.0 %       | 1786              | 1786                     |
| 2/2<br>(Steyning Road)             | 3.65                     | 0.00     | Y             | Arm 6 Right   | 20.00              | 100.0 %       | 1842              | 1842                     |
| 3/1<br>(A24 SB)                    | 3.50                     | 0.00     | Y             | Arm 5 Left    | 15.00              | 100.0 %       | 1786              | 1786                     |
| 3/2<br>(A24 SB)                    | 3.65                     | 0.00     | Y             | Arm 4 Ahead   | Inf                | 100.0 %       | 1980              | 1980                     |
| 3/3<br>(A24 SB)                    | 3.65                     | 0.00     | N             | Arm 4 Ahead   | Inf                | 100.0 %       | 2120              | 2120                     |
| 4/1<br>(A24 SB Exit Lane 1)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 4/2<br>(A24 SB Exit Lane 2)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 5/1<br>(Steyning Road Exit Lane 1) | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 6/1<br>(A24 NB Exit Lane 1)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 6/2<br>(A24 NB Exit Lane 2)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |

### Stage Timings

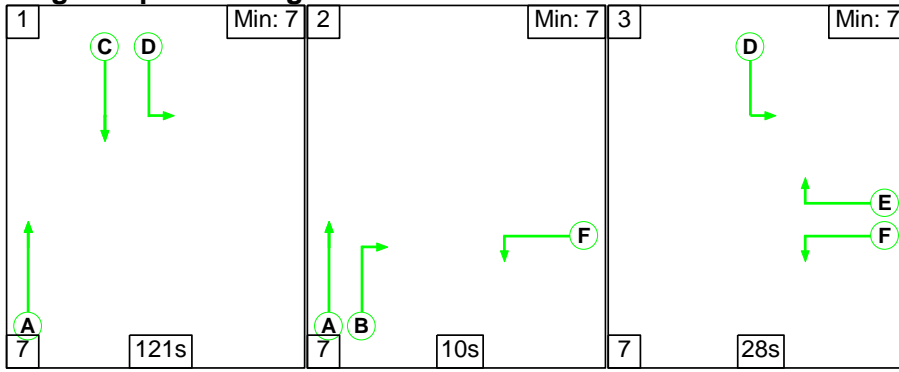
| Stage        | 1   | 2   | 3   |
|--------------|-----|-----|-----|
| Duration     | 121 | 10  | 28  |
| Change Point | 176 | 124 | 141 |

### Stage Diagram

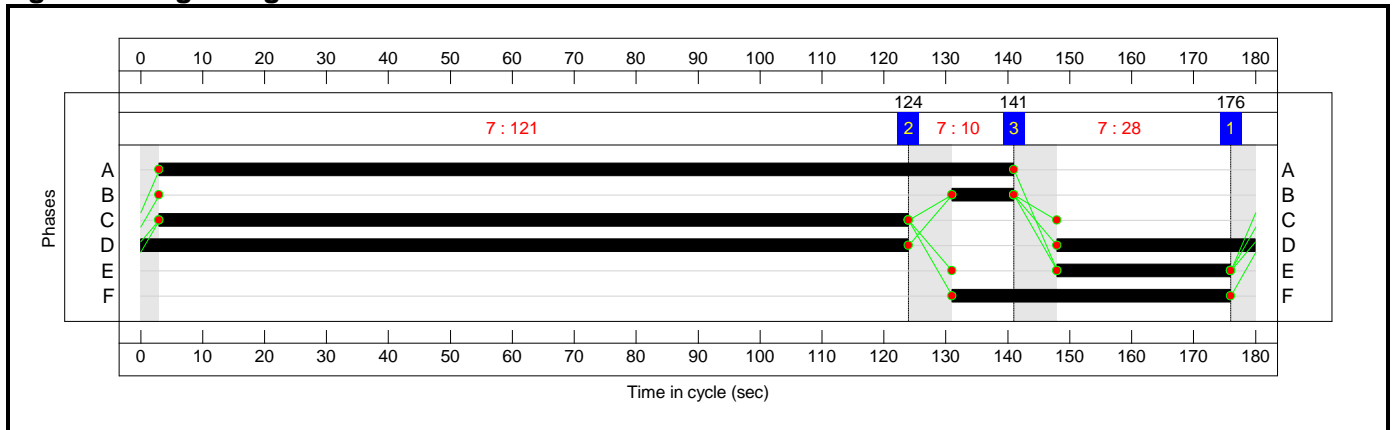


Results Output

Stage Sequence Diagram



Signal Timings Diagram



Results Output

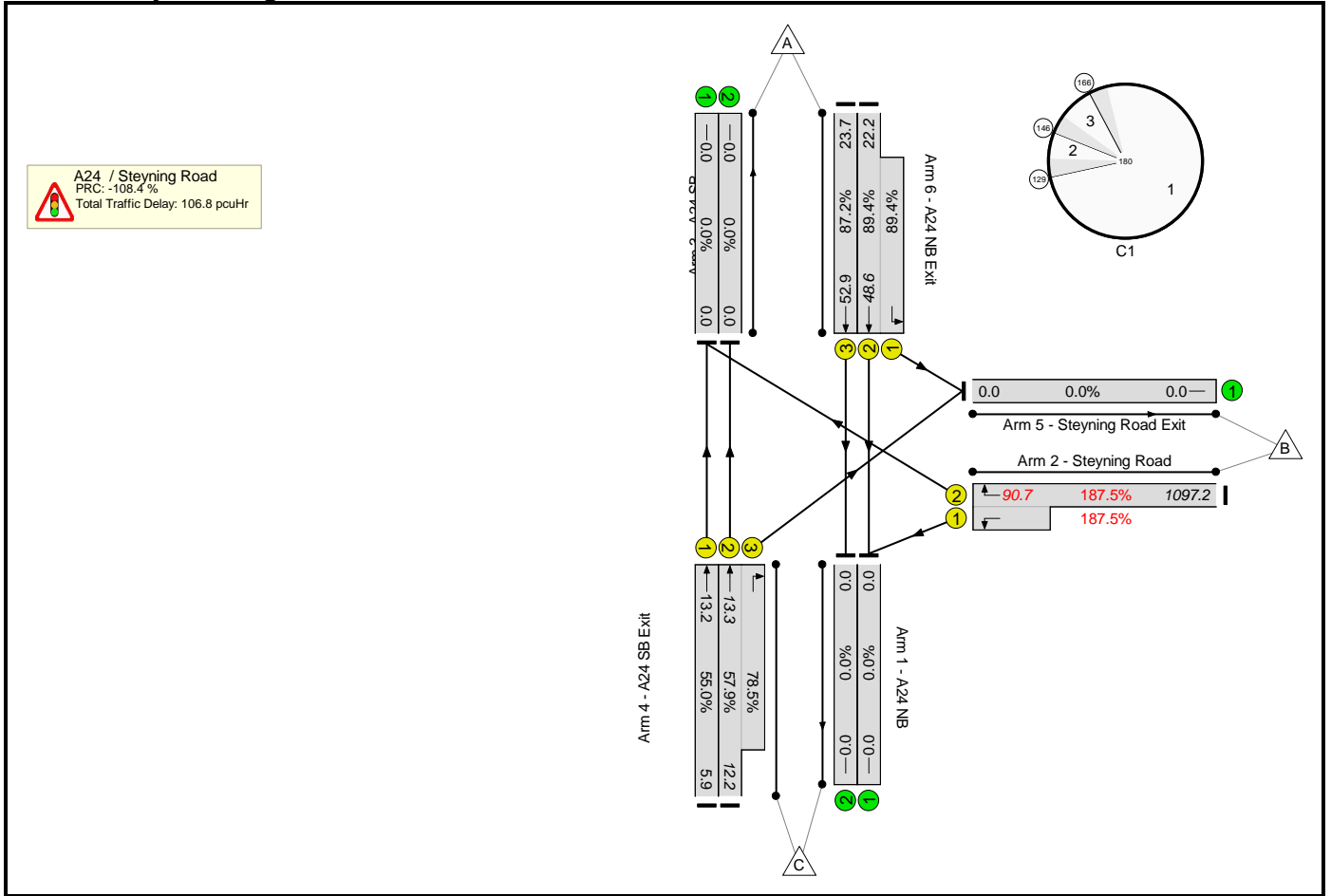
**Network Results**

| Item                | Lane Description         | Full Phase | Arrow Phase | Total Green (s)              | Start Green (s) | End Green (s)                            | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu)      | Deg Sat (%)    | Arriving (pcu) | Leaving (pcu) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---------------------|--------------------------|------------|-------------|------------------------------|-----------------|--|-------------------|-------------------|---------------------|----------------|----------------|---------------|---------------------------|----------------------|
| Network             | -                        | -          |             | -                            | -               | -  | -                 | -                 | -                   | 115.9%         | -              | -             | -                         | -                    |
| A24 / Steyning Road | -                        | -          |             | -                            | -               | -  | -                 | -                 | -                   | 115.9%         | -              | -             | -                         | -                    |
| 1/1                 | A24 NB Ahead             | A          |             | 138                          | 3               | 141                                      | 933               | 1965              | 1517                | 61.5%          | 933            | 933           | 12.0                      | 21.0                 |
| 1/2+1/3             | A24 NB Right Ahead       | A B        |             | 138:10                       | 3:131           | 141                                      | 1056              | 2120:1709         | 1508+104            | 64.6 : 78.5%   | 1056           | 1056          | 17.8                      | 22.7                 |
| 2/2+2/1             | Steyning Road Left Right | E F        |             | 28:45                        | 148:131         | 176                                      | 369               | 1842:1786         | 254+64              | 115.9 : 115.9% | 369            | 318           | 397.9                     | 50.3                 |
| 3/2+3/1             | A24 SB Ahead Left        | C D        |             | 121:156                      | 3:148           | 124                                      | 1229              | 1980:1786         | 1041+413            | 84.5 : 84.5%   | 1229           | 1229          | 21.7                      | 37.5                 |
| 3/3                 | A24 SB Ahead             | C          |             | 121                          | 3               | 124                                      | 1128              | 2120              | 1437                | 78.5%          | 1128           | 1128          | 25.7                      | 40.3                 |
| 4/1                 | A24 SB Exit              | -          |             | -                            | -               | -  | 954               | Inf               | Inf                 | 0.0%           | 944            | 944           | 0.0                       | 0.0                  |
| 4/2                 | A24 SB Exit              | -          |             | -                            | -               | -  | 1128              | Inf               | Inf                 | 0.0%           | 1128           | 1128          | 0.0                       | 0.0                  |
| 5/1                 | Steyning Road Exit       | -          |             | -                            | -               | -  | 431               | Inf               | Inf                 | 0.0%           | 431            | 431           | 0.0                       | 0.0                  |
| 6/1                 | A24 NB Exit              | -          |             | -                            | -               | -  | 1228              | Inf               | Inf                 | 0.0%           | 1187           | 1187          | 0.0                       | 0.0                  |
| 6/2                 | A24 NB Exit              | -          |             | -                            | -               | -  | 974               | Inf               | Inf                 | 0.0%           | 974            | 974           | 0.0                       | 0.0                  |
| C1                  |                          |            |             | PRC for Signalled Lanes (%): | -28.8           | Total Delay for Signalled Lanes (pcuHr): |                   | 64.57             | Cycle Time (s): 180 |                |                |               |                           |                      |
|                     |                          |            |             | PRC Over All Lanes (%):      | -28.8           | Total Delay Over All Lanes(pcuHr):       |                   | 64.57             |                     |                |                |               |                           |                      |

Results Output

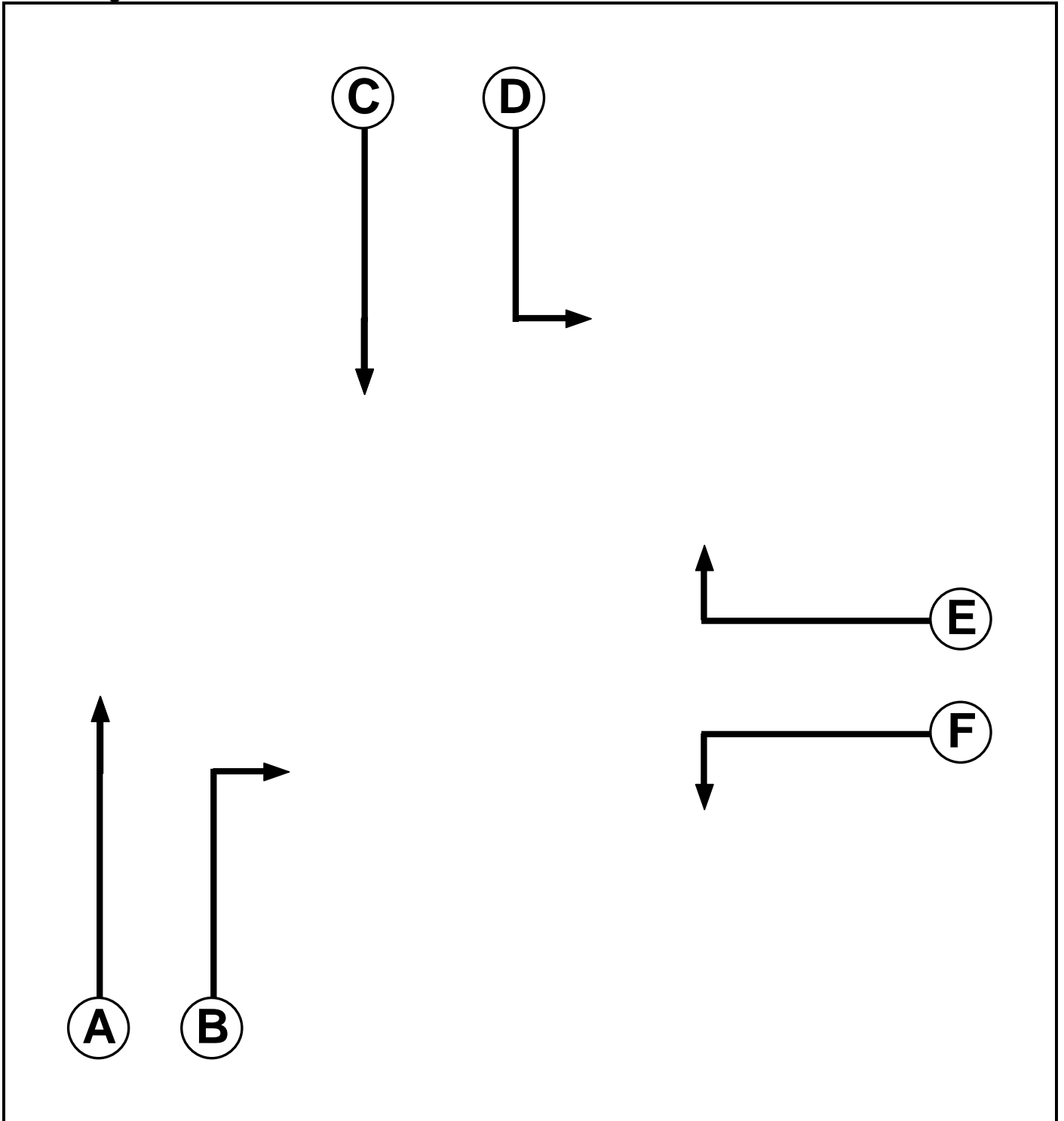
Scenario 2: 'PM Peak' (FG2: 'PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram





Phase Diagram



Results Output

**Phase Intergreens Matrix**

|                   | Starting Phase |   |   |   |   |   |
|-------------------|----------------|---|---|---|---|---|
|                   | A              | B | C | D | E | F |
| Terminating Phase | A              | - | - | - | 7 | - |
|                   | B              | - | 7 | 7 | 7 | - |
|                   | C              | - | 7 | - | 7 | 7 |
|                   | D              | - | 7 | - | - | - |
|                   | E              | 7 | 7 | 7 | - | - |
|                   | F              | - | - | 7 | - | - |

**Lane Input Data**

| Junction: A24 / Steyning Road |           |        |             |           |                       |               |                                   |                |          |               |             |                    |
|-------------------------------|-----------|--------|-------------|-----------|-----------------------|---------------|-----------------------------------|----------------|----------|---------------|-------------|--------------------|
| Lane                          | Lane Type | Phases | Start Disp. | End Disp. | Physical Length (PCU) | Sat Flow Type | Def User Saturation Flow (PCU/Hr) | Lane Width (m) | Gradient | Nearside Lane | Turns       | Turning Radius (m) |
| 1/1 (A24 NB)                  | U         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 6 Ahead | Inf                |
| 1/2 (A24 NB)                  | U         | A      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | N             | Arm 6 Ahead | Inf                |
| 1/3 (A24 NB)                  | U         | B      | 2           | 3         | 13.0                  | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 5 Right | 10.00              |
| 2/1 (Steyning Road)           | U         | F      | 2           | 3         | 5.0                   | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 4 Left  | 15.00              |
| 2/2 (Steyning Road)           | U         | E      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | Y             | Arm 6 Right | 20.00              |
| 3/1 (A24 SB)                  | U         | D      | 2           | 3         | 17.4                  | Geom          | -                                 | 3.50           | 0.00     | Y             | Arm 5 Left  | 15.00              |
| 3/2 (A24 SB)                  | U         | C      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | Y             | Arm 4 Ahead | Inf                |
| 3/3 (A24 SB)                  | U         | C      | 2           | 3         | 60.0                  | Geom          | -                                 | 3.65           | 0.00     | N             | Arm 4 Ahead | Inf                |
| 4/1 (A24 SB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 4/2 (A24 SB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 5/1 (Steyning Road Exit)      | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 6/1 (A24 NB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |
| 6/2 (A24 NB Exit)             | U         |        | 2           | 3         | 60.0                  | Inf           | -                                 | -              | -        | -             | -           | -                  |

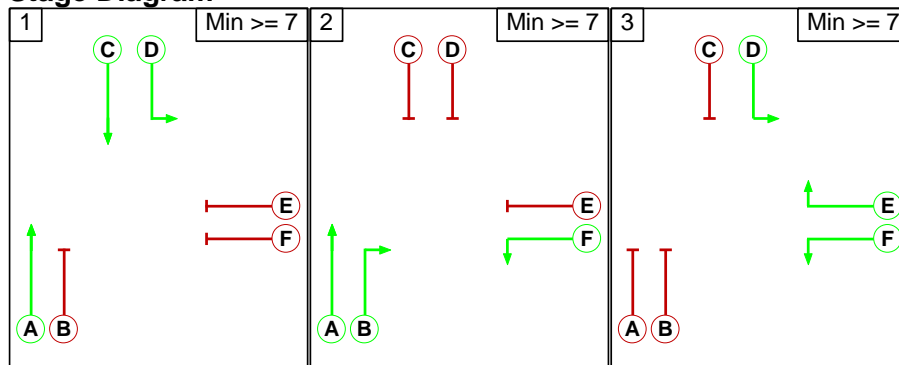
### Lane Saturation Flows

| Junction: A24 / Steyning Road      |                          |          |               |               |                    |               |                   |                          |
|------------------------------------|--------------------------|----------|---------------|---------------|--------------------|---------------|-------------------|--------------------------|
| Lane                               | Lane Width (m)           | Gradient | Nearside Lane | Allowed Turns | Turning Radius (m) | Turning Prop. | Sat Flow (PCU/Hr) | Flared Sat Flow (PCU/Hr) |
| 1/1<br>(A24 NB)                    | 3.50                     | 0.00     | Y             | Arm 6 Ahead   | Inf                | 100.0 %       | 1965              | 1965                     |
| 1/2<br>(A24 NB)                    | 3.65                     | 0.00     | N             | Arm 6 Ahead   | Inf                | 100.0 %       | 2120              | 2120                     |
| 1/3<br>(A24 NB)                    | 3.50                     | 0.00     | Y             | Arm 5 Right   | 10.00              | 100.0 %       | 1709              | 1709                     |
| 2/1<br>(Steyning Road)             | 3.50                     | 0.00     | Y             | Arm 4 Left    | 15.00              | 100.0 %       | 1786              | 1786                     |
| 2/2<br>(Steyning Road)             | 3.65                     | 0.00     | Y             | Arm 6 Right   | 20.00              | 100.0 %       | 1842              | 1842                     |
| 3/1<br>(A24 SB)                    | 3.50                     | 0.00     | Y             | Arm 5 Left    | 15.00              | 100.0 %       | 1786              | 1786                     |
| 3/2<br>(A24 SB)                    | 3.65                     | 0.00     | Y             | Arm 4 Ahead   | Inf                | 100.0 %       | 1980              | 1980                     |
| 3/3<br>(A24 SB)                    | 3.65                     | 0.00     | N             | Arm 4 Ahead   | Inf                | 100.0 %       | 2120              | 2120                     |
| 4/1<br>(A24 SB Exit Lane 1)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 4/2<br>(A24 SB Exit Lane 2)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 5/1<br>(Steyning Road Exit Lane 1) | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 6/1<br>(A24 NB Exit Lane 1)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |
| 6/2<br>(A24 NB Exit Lane 2)        | Infinite Saturation Flow |          |               |               |                    |               | Inf               | Inf                      |

### Stage Timings

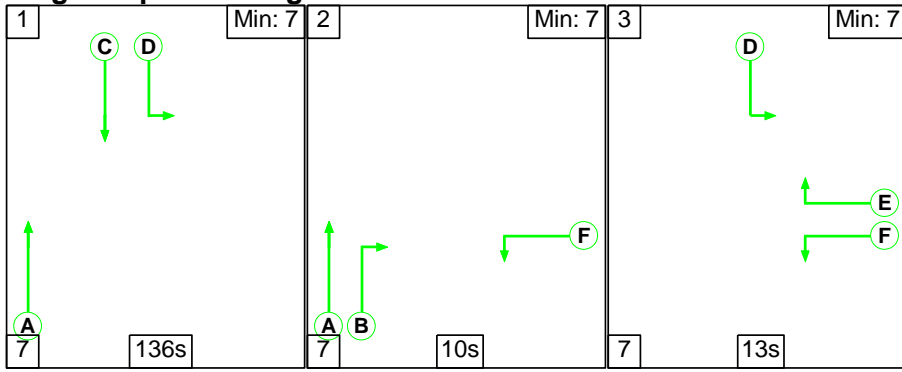
| Stage        | 1   | 2   | 3   |
|--------------|-----|-----|-----|
| Duration     | 136 | 10  | 13  |
| Change Point | 166 | 129 | 146 |

### Stage Diagram

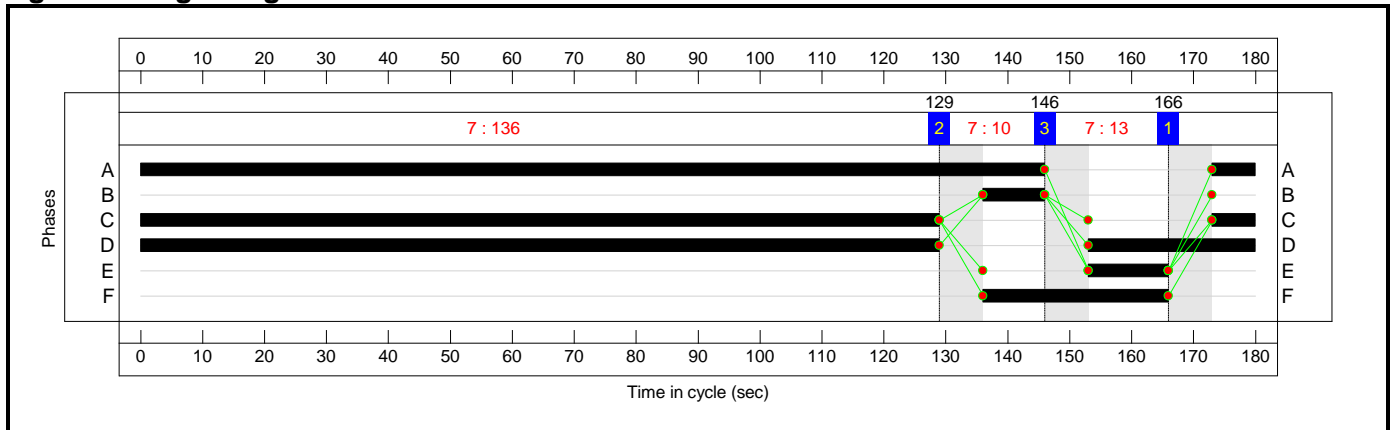


# Results Output

## Stage Sequence Diagram



## Signal Timings Diagram



Results Output

**Network Results**

| Item                | Lane Description         | Full Phase                   | Arrow Phase | Total Green (s) | Start Green (s) | End Green (s)                            | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)     | Arriving (pcu) | Leaving (pcu) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---------------------|--------------------------|------------------------------|-------------|-----------------|-----------------|--|-------------------|-------------------|----------------|-----------------|----------------|---------------|---------------------------|----------------------|
| Network             | -                        | -                            |             | -               | -               | -  | -                 | -                 | -              | 187.5%          | -              | -             | -                         | -                    |
| A24 / Steyning Road | -                        | -                            |             | -               | -               | -  | -                 | -                 | -              | 187.5%          | -              | -             | -                         | -                    |
| 1/1                 | A24 NB Ahead             | A                            |             | 153             | 173             | 146                                      | 924               | 1965              | 1681           | 55.0%           | 924            | 924           | 5.9                       | 13.2                 |
| 1/2+1/3             | A24 NB Right Ahead       | A B                          |             | 153:10          | 173:136         | 146                                      | 1046              | 2120:1709         | 1666+104       | 57.9 : 78.5%    | 1046           | 1046          | 12.2                      | 13.3                 |
| 2/2+2/1             | Steyning Road Left Right | E F                          |             | 13:30           | 153:136         | 166                                      | 275               | 1842:1786         | 139+8          | 187.5 : 187.5%  | 275            | 147           | 1097.2                    | 90.7                 |
| 3/2+3/1             | A24 SB Ahead Left        | C D                          |             | 136:156         | 173:153         | 129                                      | 1400              | 1980:1786         | 1277+290       | 89.4 : 89.4%    | 1400           | 1400          | 22.2                      | 48.6                 |
| 3/3                 | A24 SB Ahead             | C                            |             | 136             | 173             | 129                                      | 1407              | 2120              | 1614           | 87.2%           | 1407           | 1407          | 23.7                      | 52.9                 |
| 4/1                 | A24 SB Exit              | -                            |             | -               | -               | -  | 1156              | Inf               | Inf            | 0.0%            | 1149           | 1149          | 0.0                       | 0.0                  |
| 4/2                 | A24 SB Exit              | -                            |             | -               | -               | -  | 1407              | Inf               | Inf            | 0.0%            | 1407           | 1407          | 0.0                       | 0.0                  |
| 5/1                 | Steyning Road Exit       | -                            |             | -               | -               | -  | 341               | Inf               | Inf            | 0.0%            | 341            | 341           | 0.0                       | 0.0                  |
| 6/1                 | A24 NB Exit              | -                            |             | -               | -               | -  | 1184              | Inf               | Inf            | 0.0%            | 1063           | 1063          | 0.0                       | 0.0                  |
| 6/2                 | A24 NB Exit              | -                            |             | -               | -               | -  | 964               | Inf               | Inf            | 0.0%            | 964            | 964           | 0.0                       | 0.0                  |
| C1                  |                          | PRC for Signalled Lanes (%): |             | -108.4          |                 | Total Delay for Signalled Lanes (pcuHr): |                   | 106.78            |                | Cycle Time (s): |                | 180           |                           |                      |
|                     |                          | PRC Over All Lanes (%):      |             | -108.4          |                 | Total Delay Over All Lanes(pcuHr):       |                   | 106.78            |                |                 |                |               |                           |                      |