UPDATED IMPACT ASSESSMENT IN RESPONSE TO WNC COMMENTS

NORTHAMPTON GATEWAY SRFI
DCO AMENDMENT TO INCREASE MEZZANINE FLOOR SPACE

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1.0 INTRODUCTION

1.1 This Technical Note presents an updated assessment of the transport impact of additional mezzanine floor space that is proposed at Northampton Gateway SRFI under the proposed amendment to the DCO.

1.2 It has been prepared in response to the comments received from West Northamptonshire Council (WNC). It considers a range of trip rate scenarios and provides an updated assessment of the operation of the site access junction and M1 Junction 15 using updated 2031 traffic flow forecasts provided by WNC from the latest version of their Northamptonshire Strategic Transport Model (NSTM).

2.0 COMPARISON OF TRIP RATES

2.1 In their comments on the TA Addendum WNC state that whilst they acknowledge that mezzanine floorspace does not generate trips on a pro-rata basis with conventional floor space, any reduction factors need to be evidenced based and fully justified.

2.2 The 50% factor for mezzanine floor space was agreed as part of the DCO. Therefore, as Segro are seeking an amendment to the DCO, it is ADC's view that it is appropriate to work within the agreed framework of the DCO. As was discussed during a meeting with WNC on 1 May 2025, National Highways are content with this approach. This approach was also accepted by WNC as recently as 2022, as part of the new planning application for Plot 7 at the site.

2.3 Nevertheless, during the 1 May 2025 meeting the more recent survey work that Sergo has undertaken at two of its large B8 warehousing and distribution sites was discussed. That work provides further information on the impact that mezzanine floor space has on vehicle trip rates. It was undertaken for Segro by ITP and is presented in their report 'Segro Logistics Park Rugby and Kettering Vehicle Trip Rate Comparison', a copy of which is provided at **Appendix A**.

2.4 The ITP report considers the vehicle trip rates observed at the large scale B8 warehousing and distribution units at Segro's Rugby Gateway and Kettering Gateway sites. The surveys were undertaken in 2023.

2.5 The report concludes "*…the analysis demonstrates that mezzanine levels do not appear to have a significant impact on vehicle trip rates; and that vehicle trip rates are more likely to be influenced by other factors such as the business model operations of occupiers. At both Rugby Gateway and Kettering Gateway, vehicle trip rates are in fact higher at units which do not have mezzanines; and therefore, may indicate that units with mezzanine space have business operations which result in lower vehicle trip rates than units which do not have mezzanine space.*"

2.6 Table 4.6 of the ITP report provides a comparison of the vehicle trip rates for units including mezzanine floor space and units with no mezzanine floor space. As shown, the units with mezzanine floor space have the lower vehicle trip rates.

2.7 During the 1 May 2025 meeting it was agreed to provide a comparison of the traffic generation based on the Northampton Gateway DCO trip rates vs the traffic generation based on the trip rates from the ITP report for units with mezzanine floor space.

2.8 The vehicle trip rates established in the DCO for the B8 warehousing and distribution uses at Northampton Gateway are provided below.

DCO vehicle trip rates

Two-way vehicle trip rates			
	Lights	HGV	Total
AM	0.142	0.046	0.188
PM	0.190	0.040	0.230

2.9 Vehicle trip rates observed from the ITP study for warehousing and distribution units that include mezzanine floor space are provided below.

Observed vehicle trip rates for units with mezzanine floor space

	Two-way vehicle trip rates		
	Lights	HGV	Total
AM	0.090	0.030	0.120
PM	0.070	0.030	0.100

2.10 From the above it can be seen that the vehicle trip rates observed for units that include mezzanine floor space are significantly lower than the trip rates used in the DCO.

2.11 A simplistic comparison of the vehicle trip generation associated with proposed additional mezzanine floor space can be made by applying the proposed 111,480 sqm of mezzanine floor space to the above trip rates. Note that in this comparison the 50% factor is applied to the DCO trip rates. This is set out in the tables below.

Vehicle trip generation based on DCO trip rates with 50% factor applied for mezzanine floor space

	Two-way vehicle trip generation		
	Lights	HGV	Total
AM	79	26	105
PM	106	22	128

Vehicle trip generation using observed vehicle trip rates for units with mezzanine floor space

	Two-way vehicle trip generation		
	Lights	HGV	Total
AM	100	33	134
PM	78	33	111

2.12 The comparison shows good correlation between the data sources, with the DCO based method resulting in 29 fewer trips in the morning peak hour, but 17 more trips in the evening peak hour.

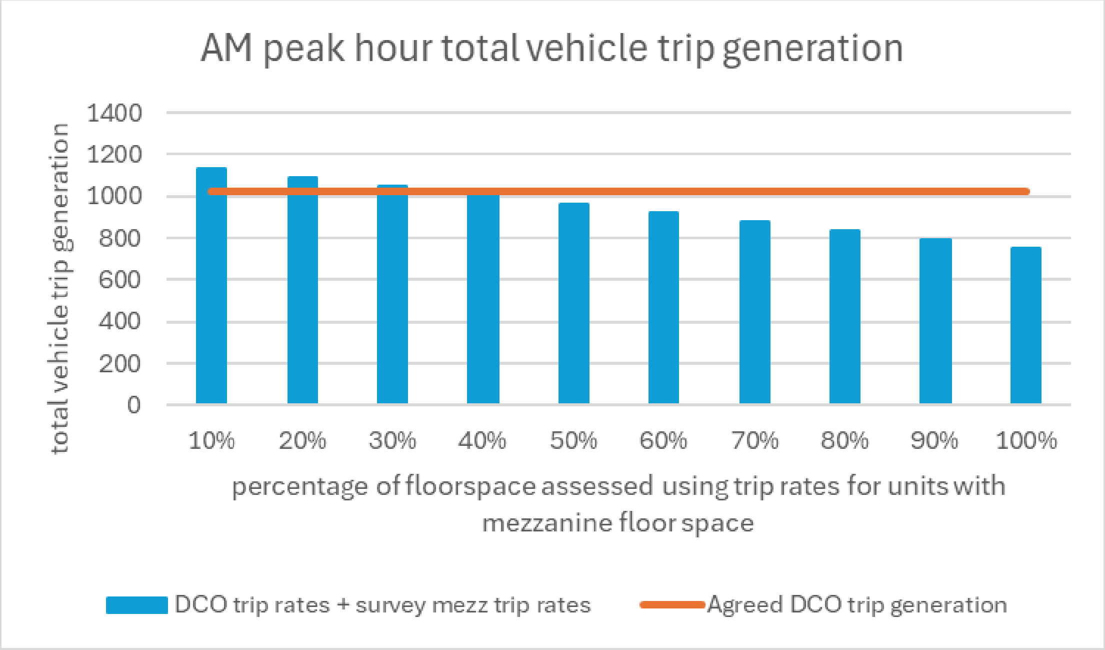
2.13 However, as discussed during the Teams call on 1 May 2025, the mezzanine space would not be constructed in isolation, rather it would be provided within a unit. Hence, any comparison should apply the appropriate trip rates to the full floor area for the unit. When this is accounted for, the greater the percentage of total floor space containing mezzanine floor space at the site, the lower the overall vehicle trip generation of the site.

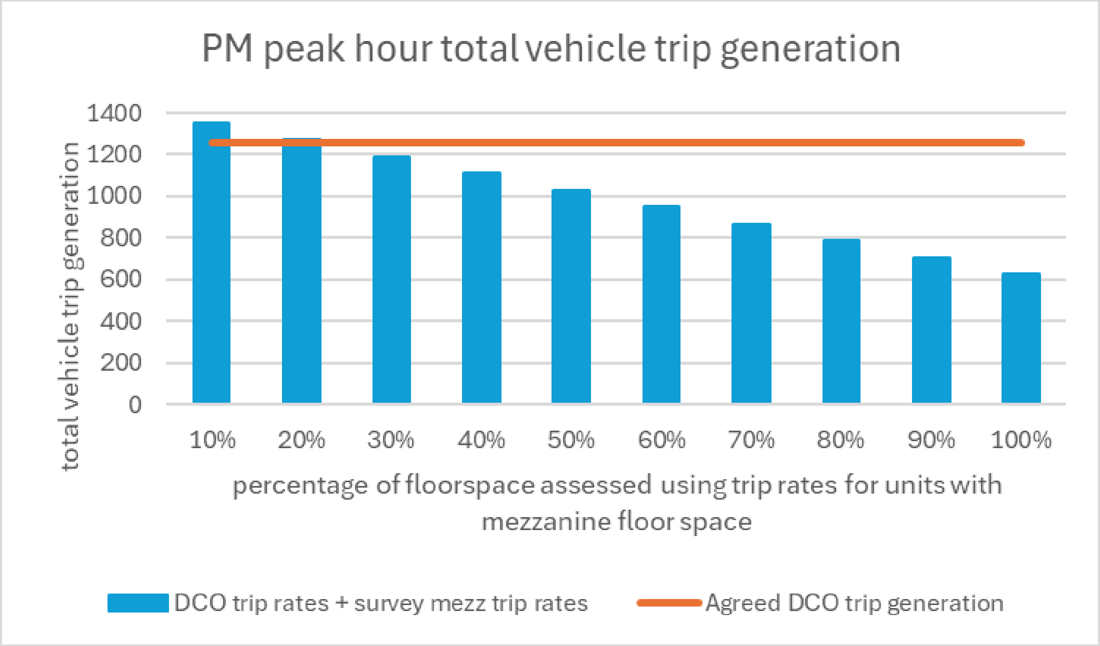
2.14 To illustrate this point, the series of charts shown overleaf plot the resulting total vehicle trip generation on the y-axis, plotted against the percentage of the total floor space containing mezzanine floor space.

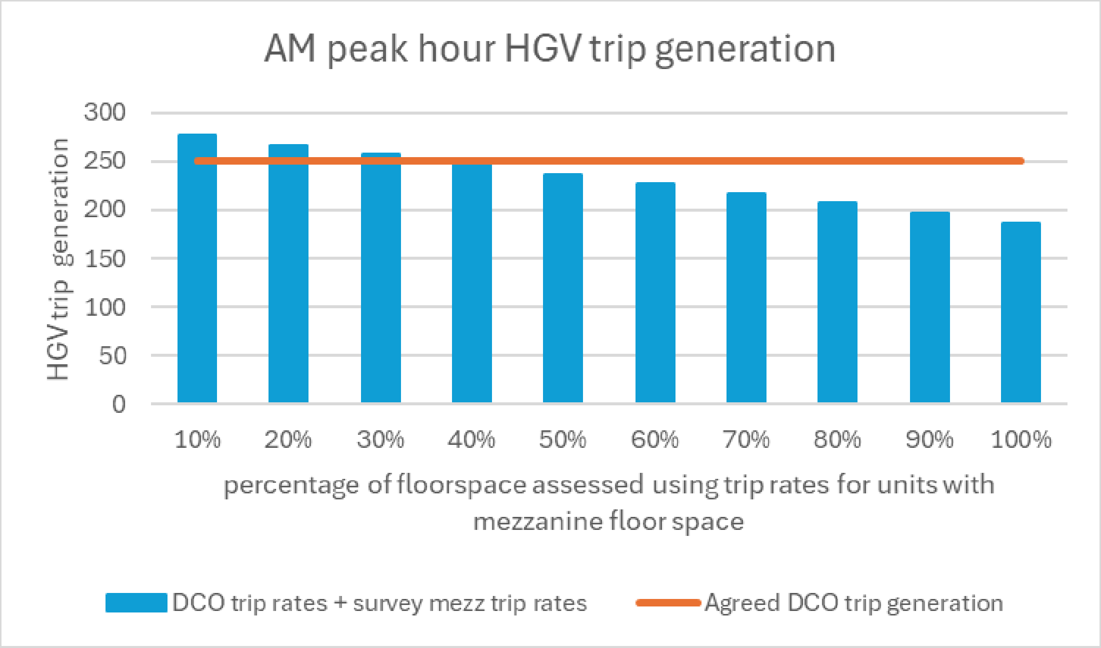
2.15 The orange line is the vehicle trip generation for the fully consented conventional floor space of 468,00 sqm + 155,000 sqm of mezzanine floor space, based on application of the DCO trips rates for the conventional floor space with the 50% DCO trip rate factor applied to the mezzanine floor space. As shown, this method results is a constant 1,026 vehicle trips in the morning peak hour and 1,255 vehicle trips in the evening peak hour, as in this method the percentage of the total floor space containing mezzanine floor space is not a variable.

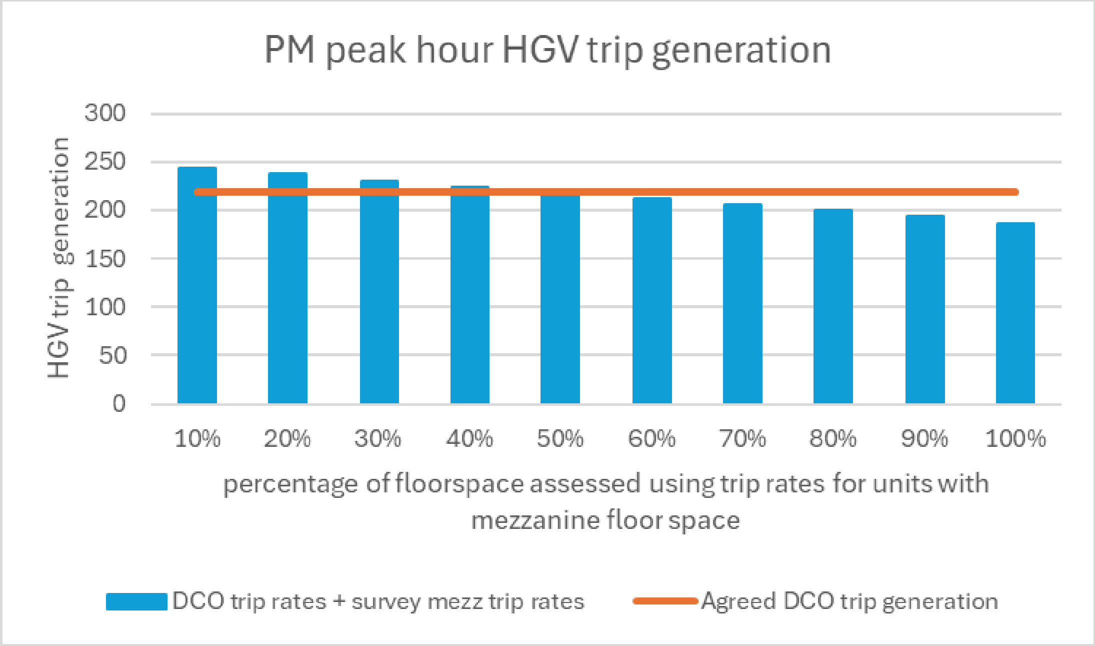
2.16 The blue bars are the calculated vehicle trip generation for the fully consented conventional floor space of 468,00 sqm + 155,000 sqm of mezzanine floor space, based on the application of the DCO trip rates for units without mezzanine floor space, but with the application of the observed ITP trip rates for units with mezzanine floor space. As shown, as the percentage of total floor space containing mezzanine floor space increases, the overall vehicle trip generation for the site reduces.

2.17 Charts are provided for the total number of vehicle trips for the morning and evening peak hours, along with the corresponding number of HGV trips.









2.18 The charts demonstrate that the greater the total floor space containing mezzanine floor space at the site, the lower the vehicle trip generation for the site. This applies to both HGV traffic and total traffic.

2.19 The table below compares the resultant total traffic generations based on the methodology adopted in the DCO (i.e. 50% factor applied to vehicle trip rates for mezzanine floor space), to the resultant traffic generation if the consented scheme is assessed using the surveyed ITP trip rates for units containing mezzanine floor space. As shown, there is a difference of only 4 vehicle trips in the morning peak hour and, in the evening peak hour, the DCO methodology results in 92 more vehicle trips than would be the case if the surveyed ITP data was applied.

Comparison of total vehicle trip generations in the DCO vs surveyed trip rates for units containing mezzanine floor space (based on consented scheme with 155,000 sqm mezzanine floor space

	DCO methodology 50% factor applied to trip rates for mezzanine floor space	Surveyed trip rates for units containing mezzanine floor space (ITP trip rates)
AM peak hour	1,026	1,030
PM peak hour	1,255	1,163

2.20 This comparison gives a high degree of confidence that the 50% factor applied in the DCO to assess mezzanine floor space provides a robust assessment of the traffic generations.

2.21 Nevertheless, for the purposes of this assessment, and as set out in the following section of this report, a range of trip rate scenarios have been tested.

3.0 TRIP GENERATION SCENARIOS

Vehicle trip generation

3.1 For the purposes of addressing WNC's comments the following trip rates/generation scenarios have been considered:

- Trip generation in accordance with the DCO trip rates as per the table at paragraph 2.8 of Technical Note (i.e. 50% factor applied for mezzanine floor space)
- Trip generation based on observed survey data for warehousing units with mezzanine floor space as per the table at paragraph 2.9 of this Technical Note (ITP trip rates)
- A sensitivity test, in which the DCO trip rates as per the table at paragraph 2.9 of this Technical Note are applied at 100%.

3.2 Application of the above trip rate scenarios to the proposed additional mezzanine floor space of 111,480 sqm gives the following vehicle trip generations.

Scenario (a): DCO trip rates @50%

	traffic generation based on DCO B8 vehicle trip rates and 50% mezzanine factor								
	(not accounting for Travel Plan and excluding reductions due to rail interaction)								
	light vehicles			heavy vehicles			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM	71	8	79	13	12	26	85	20	105
PM	23	82	105	12	11	22	35	93	128

Scenario (b): ITP trip rates

	traffic generation based on ITP vehicle trip rates								
	(not accounting for Travel Plan and excluding reductions due to rail interaction)								
	light vehicles			heavy vehicles			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM	90	10	100	17	16	33	108	26	134
PM	17	60	78	18	16	33	35	76	111

Scenario (c): DCO trip rates @ 100% (sensitivity test)

	sensitivity test (traffic generation based on DCO B8 vehicle trip rates and 100% mezzanine factor)								
	(not accounting for Travel Plan and excluding reductions due to rail interaction)								
	light vehicles			heavy vehicles			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM	143	16	158	27	25	51	169	40	210
PM	47	164	212	23	21	45	70	185	256

3.3 It should be noted that in scenario (b) (ITP trip rates) the trip generation has been applied directly to the additional mezzanine floor space, which is then added to the consented traffic generation for the site. It does not therefore account for the overall reduction in traffic that would result if the ITP trip rates were applied to the entirety of a units floor space. The assessment is therefore robust for the reason explained at paragraph 2.13.

3.4 Scenario (c) is provided as a sensitivity test only. It is not considered a realistic assessment, but it is included to demonstrate that the overall conclusions of the assessment work are not particularly sensitivity to the assumptions made around trip rates/traffic generation (i.e. there is sufficient capacity within the improved highway network to accommodate the extra traffic from the proposed additional mezzanine floor space).

Person trip generation

3.5 The TA Addendum submitted with the application for the DCO amendment included an assessment of the person trip generation associated with the additional mezzanine floor space based on scenario (a). This has been repeated below for scenario (b) and the scenario (c) sensitivity test.

3.6 The Public Transport Strategy, car share, and the pedestrian and cyclist strategy for the Northampton Gateway SRFI site were designed to positively influence the modal share to limit traffic generation. The approved Framework Travel Plan sets the following modal share targets for the Northampton Gateway SRFI site. The occupiers are required to develop their own detailed Travel Plan in accordance with the requirements of the Framework Travel Plan.

mode	**year 1**	**year 5**
single occupancy vehicle	92%	74%
car share	5%	12%
public transport	3%	10%
walking and cycling	0%	4%

3.7 The Framework Travel Plan has the following modal share targets:

- Achieve a 20% reduction in single occupancy car journeys within 5 years
- 12% of employees to car share within 5 years
- 10% of employee trips to be made by bus within 5 years
- 3% of employee trips to be made by bike and 1% by foot within 5 years.

3.8 Based on the above modal share targets, and the assessment of the light vehicle trips given at paragraph 3.2 (as HGV trips would not undergo a modal shift, as their primary purpose is the transportation of their cargo), the tables below summarises the forecast morning and evening peak hour, person trips that could be associated with the proposed additional mezzanine floor space at Northampton Gateway SRFI after 5 years, for the three trip generation scenarios.

AM peak hour person trips (two-way)			
mode	Scenario (a)	Scenario (b)	Scenario (c)
car driver	64	81	127
hgv driver	26	33	51
car share	10	13	21
public transport	9	11	17
walking/cycling	3	4	7
total	**112**	**143**	**223**

PM peak hour person trips (two-way)			
mode	Scenario (a)	Scenario (b)	Scenario (c)
car driver	85	62	169
hgv driver	22	33	45
car share	14	10	27
public transport	11	8	23
walking/cycling	5	3	9
total	**137**	**118**	**274**

3.9 Section 2 of the TA Addendum describes the walking and cycling strategies for Northampton Gateway SRFI that were developed in agreement with the highway authorities as part of the DCO. These provide enhanced connectivity from the SRFI site for pedestrians and cyclists to Collingtree, Northampton, and Roade. The measures are summarised as follows:

- A comprehensive network of both on street and off-street shared footway/cycleways throughout the SRFI site with appropriate crossing points provided.
- New footway/cycleway facilities alongside the A508, linking the site access roundabout with the Roade bypass to the south and M1 Junction 15 to the north, with signal controlled crossing facilities at the site access roundabout providing access to new bus stops.
- A comprehensive upgrade of walking and cycling facilities at M1 Junction 15 including Toucan crossings at all crossing points.
- New footway/cycleway between M1 Junction 15 and the junction with Watering Lane, with Toucan crossing to connect to the existing facilities to the north.
- Public footpaths KX17 and KX13 that cross the SRFI site have been diverted and extended to form a loop within the landscape bunding.
- A cycle track (for use by pedestrians and cyclists) connecting the development to Collingtree, and the wider Northampton area, via the existing bridge over the M1.

3.10 The internal and external footway/cycleway network provides significantly improved connections to the residential areas within the walking and cycling catchments and therefore, there are direct and safe walking and cycling routes to and from the SRFI. These measures would accommodate the modest increase in walking and cycling trips (3 to 5 additional trips, or up to 9 if considering the sensitivity test) associated with the additional mezzanine floor space.

3.11 As part of the DCO, a public transport strategy was developed which includes the introduction of a new bus service specifically serving the SRFI site, as well as building on the existing local bus network and providing additional bus stops on the A508 to the north and south of the A508/site access roundabout. The bus service improvement would accommodate the modest increase in public transport trips (8 to 11 trips, or up to 23 if considering the sensitivity test) associated with the additional mezzanine floor space.

4.0 ASSESSMENT OF IMPACTS

Background traffic flows

4.1 The junction assessments presented in the TA Addendum were undertaken using the 2031 morning and evening peak hour traffic flows with the SRFI and highway works in place (flow set J1d), which were extracted from the approved TA that was prepared to support the DCO. For the purposes of the TA Addendum those flows were the background traffic flows.

4.2 Since that time, WNC have provided updated 2031 traffic flows from the latest version of the NSTM. Those flows are provided at **Appendix B**. The updated traffic flows – referred to as 2031 Reference Case - include for the consented traffic associated with Northampton Gateway SRFI, but do not include for the extra traffic associated with the additional mezzanine floor space.

4.3 These are the updated 2031 background traffic flows, which have been extracted for the site access and M1 Junction 15 and are shown at **Diagrams 1 and 2**, respectively.

Development traffic flows

4.4 The development traffic associated with each of the three trip rates scenarios identified in Section 3 have been assigned to the highway network using the trip distribution extracted from the approved TA. It has been agreed via separate correspondence with WNC that this remains appropriate. The approved trip distribution is provided at **Diagrams 3 and 4** for the morning and evening peak hour period, respectively.

4.5 The resultant traffic from the additional mezzanine floor space is give at the following diagrams for the morning and evening peak hour periods:

- Scenario (a): DCO trip rates @50% - **Diagrams 5 and 6**
- Scenario (b): ITP trip rates- **Diagrams 7 and 8**
- Scenario (c): DCO trip rates @ 100% (sensitivity test) – **Diagrams 9 and 10**.

Total traffic flows

4.6 These have been added to the 2031 background traffic flows given at **Diagrams 1 and 2** to give the resultant 2031 total (with development) traffic flows for the morning and evening peak hour periods, as follows:

- Scenario (a): DCO trip rates @50% - **Diagrams 11 and 12**
- Scenario (b): ITP trip rates- **Diagrams 13 and 14**
- Scenario (c): DCO trip rates @ 100% (sensitivity test) – **Diagrams 15 and 16**.

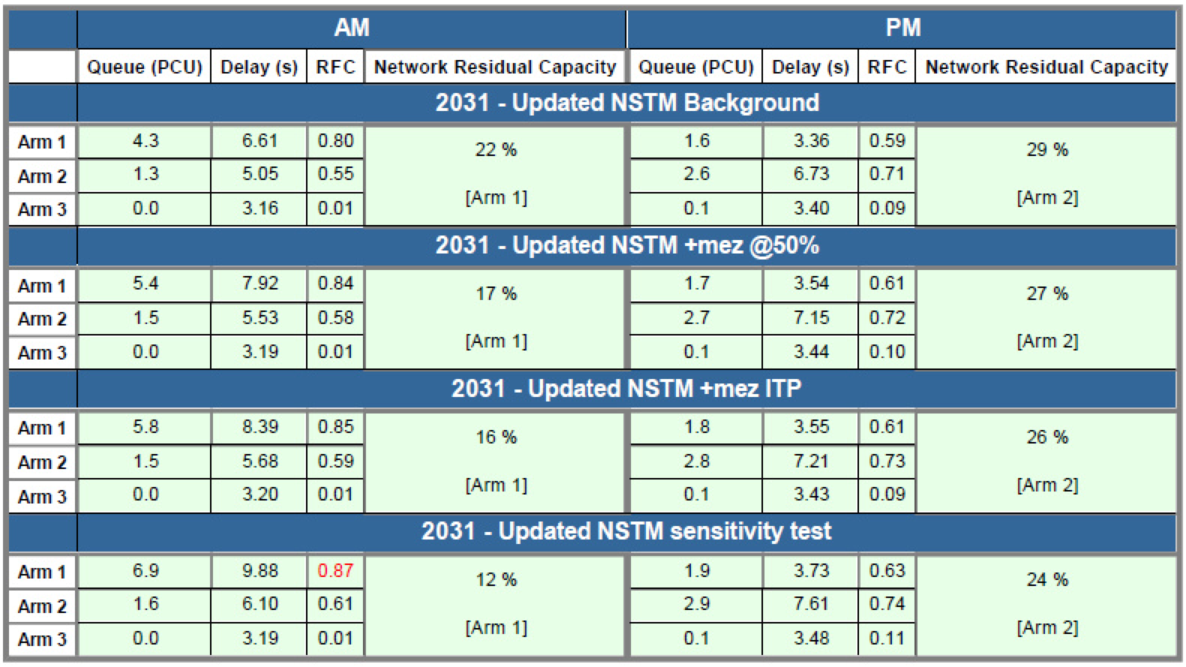
A508 site access roundabout

4.7 The TA submitted in support of the DCO application demonstrated that the A508 northbound and southbound approaches to the site access roundabout were forecast to operate at 85% and 82% of their full capacity by 2031, with the Northampton Gateway SRFI fully operational.

4.8 The TA Addendum concluded that since a ratio of flow to capacity of 0.85 (85%) is often considered to be the upper design capacity threshold, the increase in traffic flow due to an increase in the mezzanine floor space would cause the A508 northbound approach to operate above 85% of capacity and could also push the A508 southbound approach above 85%, and therefore mitigation would be required.

4.9 However, the revised traffic flows form the latest version of the NSTM are materially reduced compared to the previous traffic flow forecasts. The operation of the existing site access junction has therefore been modelled using the revised 2031 background traffic flows and each of the with development scenarios using the ARCADY module of the JUNCTIONS software. The ARACDY output, including the model geometries is provided at **Appendix C**. The assessment included for the signal crossings on the A508 north arm of the roundabout.

4.10 A summary of the results is provided in the table below. As shown, due to the reduction in the forecast traffic flows, there is an improvement in the operation of the roundabout in the 2031 background scenario as compared to that examined in the DCO. Further, in Scenario (a) and Scenario (b) all arms of the roundabout would continue to operate with a ratio of flow (RFC) to capacity of 0.85 or less, with minimal queuing and delay. Even in the unrealistic sensitivity test (Scenario (c)), the roundabout would continue to operate well within capacity, with only the A508 north arm nudging above 0.85 RFC, but with minimal delay and queuing.



	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity
	2031 - Updated NSTM Background							
Arm 1	4.3	6.61	0.80	22 % [Arm 1]	1.6	3.36	0.59	29 % [Arm 2]
Arm 2	1.3	5.05	0.55		2.6	6.73	0.71	
Arm 3	0.0	3.16	0.01		0.1	3.40	0.09	
	2031 - Updated NSTM +mez @50%							
Arm 1	5.4	7.92	0.84	17 % [Arm 1]	1.7	3.54	0.61	27 % [Arm 2]
Arm 2	1.5	5.53	0.58		2.7	7.15	0.72	
Arm 3	0.0	3.19	0.01		0.1	3.44	0.10	
	2031 - Updated NSTM +mez ITP							
Arm 1	5.8	8.39	0.85	16 % [Arm 1]	1.8	3.55	0.61	26 % [Arm 2]
Arm 2	1.5	5.68	0.59		2.8	7.21	0.73	
Arm 3	0.0	3.20	0.01		0.1	3.43	0.09	
	2031 - Updated NSTM sensitivity test							
Arm 1	6.9	9.88	0.87	12 % [Arm 1]	1.9	3.73	0.63	24 % [Arm 2]
Arm 2	1.6	6.10	0.61		2.9	7.61	0.74	
Arm 3	0.0	3.19	0.01		0.1	3.48	0.11	

Arm 1= A508 north, Arm 2 = A508 south, Arm 3 = SRFI site access

4.11 It is concluded that the traffic associated with the proposed amendment to the DCO to increase the mezzanine floor space would be satisfactory accommodated at the existing site access junction. The scheme of minor highway works that were previously proposed as part of the DCO amendment is not therefore required.

M1 Junction 15

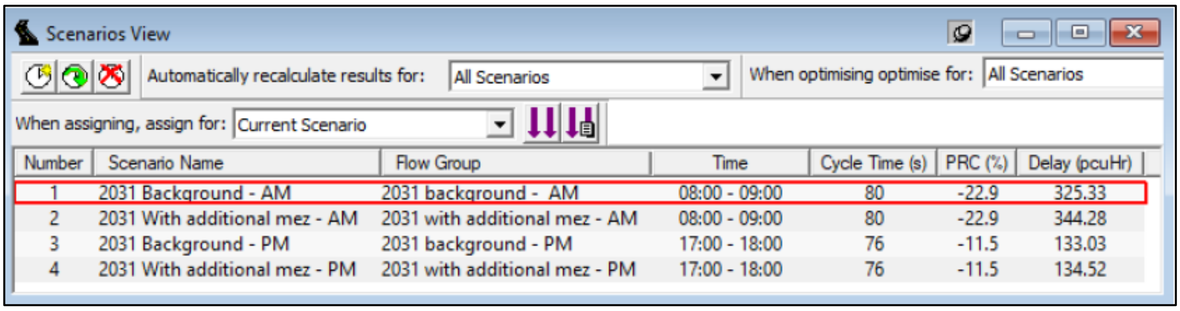
4.12 The highway improvement scheme at M1 Junction 15 was shown to provide a significantly better than nil detriment improvement with the 2031 background traffic plus SRFI traffic (J1d traffic flows) used in the DCO than when compared to the previous arrangement of the junction, without the SRFI traffic. The detailed junction modelling included in the TA submitted with the DCO showed that the total delay at the junction would reduce by more than 50% in both peak hours, with capacity improvements on all approaches to the junction.

4.13 However, despite the very significant improvements provided, in the 2031 assessment year considered in the DCO, the improved junction was still forecast to operate with a negative PRC, as show in the summary below that has been extracted from the DCO TA.

Summary of M1 J15 performance (extracted from the DCO TA)			
Scenario	**Peak**	**PRC (%)**	**Delay (pcuHr)**
2031 existing junction without SRFI development	AM	-100.1	871.69
	PM	-54.7	556.63
2031 with SRFI and highway improvement works	AM	-23.1	398.17
	PM	-9.9	186.26

4.14 The controller configuration for the as-built junction improvement scheme was provided by National Highways so that the approved LinSig model could be updated to reflect the changes made to the scheme during the detailed design and implementation phases. As a result, the phase and stage arrangement and the intergreen matrices have been updated to match the controller function on-street. The as-built junction information is provided at **Appendix D**. In their review of the TA Addendum, National Highways agreed that the changes made to the model were appropriate and that the model was fit for purpose.

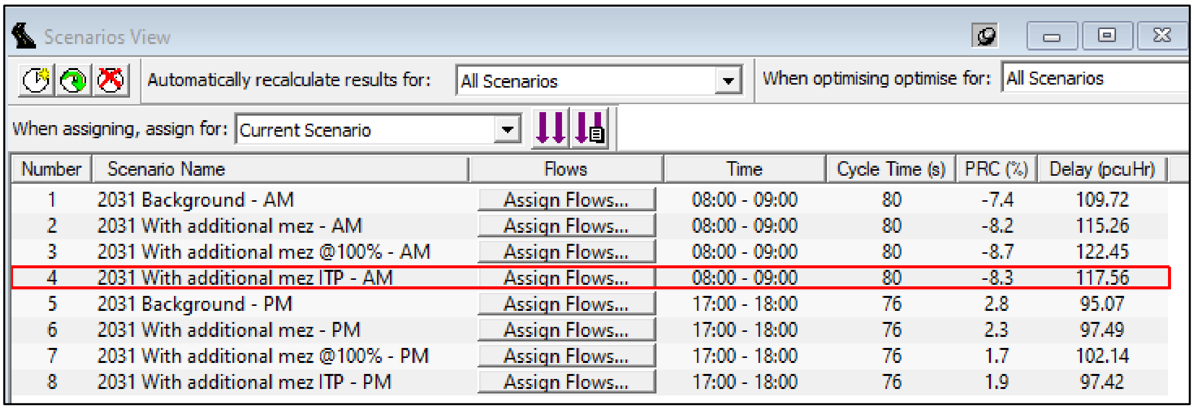
4.15 As part of the TA Addendum the operation of M1 Junction 15 was assessed using the original updated LinSig model and the 2031 traffic flow data. A summary of that assessment is presented in the table below. National Highway have accepted this level of operation and have no objection to the proposed amendment to the DCO to increase the mezzanine floor space on that basis.



Automatically recalculate results for: All Scenarios
When optimising optimise for: All Scenarios
When assigning, assign for: Current Scenario

Number	Scenario Name	Flow Group	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2031 Background - AM	2031 background - AM	08:00 - 09:00	80	-22.9	325.33
2	2031 With additional mez - AM	2031 with additional mez - AM	08:00 - 09:00	80	-22.9	344.28
3	2031 Background - PM	2031 background - PM	17:00 - 18:00	76	-11.5	133.03
4	2031 With additional mez - PM	2031 with additional mez - PM	17:00 - 18:00	76	-11.5	134.52

4.16 Following receipt of the revised traffic data from WNC, the operation of the junction has been assessed using the updated LinSIG model and using the revised 2031 background traffic flows and each of the 'with development' scenarios. The LinSig report is provided at **Appendix E** and a summary of the results is provided at the table below.



Automatically recalculate results for: All Scenarios
When optimising optimise for: All Scenarios
When assigning, assign for: Current Scenario

Number	Scenario Name	Flows	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2031 Background - AM	Assign Flows...	08:00 - 09:00	80	-7.4	109.72
2	2031 With additional mez - AM	Assign Flows...	08:00 - 09:00	80	-8.2	115.26
3	2031 With additional mez @100% - AM	Assign Flows...	08:00 - 09:00	80	-8.7	122.45
4	2031 With additional mez ITP - AM	Assign Flows...	08:00 - 09:00	80	-8.3	117.56
5	2031 Background - PM	Assign Flows...	17:00 - 18:00	76	2.8	95.07
6	2031 With additional mez - PM	Assign Flows...	17:00 - 18:00	76	2.3	97.49
7	2031 With additional mez @100% - PM	Assign Flows...	17:00 - 18:00	76	1.7	102.14
8	2031 With additional mez ITP - PM	Assign Flows...	17:00 - 18:00	76	1.9	97.42

4.17 For the 2031 background scenario, the results show that due to the reduction in the 2031 flows across the network, the junction operates significantly better when compared to the assessment presented in the both the TA and TA Addendum. The results summarised above show that in the morning peak hour, although the junction if still forecast to have a negative PRC, it would operate within 100% of capacity in all scenarios. In the evening peak hour, the junction is forecast to operate with a positive PRC in all scenarios.

4.18 The results show whilst there would be small increases in delay and queueing across the model associated with the additional mezzanine floor space, these could not be categorised as severe. The junction would continue to operate significantly better than without the SRFI traffic and associated highway improvements, with much improved performance as compared to that previously accepted.

4.19 It is concluded that the traffic associated with the proposed amendment to the DCO to increase the mezzanine floor space would be satisfactory accommodated at M1 Junction 15.

5.0 SUMMARY AND CONCLUSIONS

5.1 This Technical Note presents an updated assessment of the transport impact of additional mezzanine floor space that is proposed at Northampton Gateway SRFI under the proposed amendment to the DCO.

5.2 It has been prepared in response to the comments received from West Northamptonshire Council (WNC) on the TA Addendum. It considers a range of trip rate scenarios and provides an updated assessment of the operation of the site access junction and M1 Junction 15 using updated 2031 traffic flow forecasts provided by WNC from the latest version of their Northamptonshire Strategic Transport Model (NSTM).

5.3 WNC provided the traffic flow information from the latest version of the NSTM. This highlighted that the latest version of the NSTM forecasts substantial reductions in the future year (2031) background traffic flows near to the site on the A508 and at M1 Junction 15.

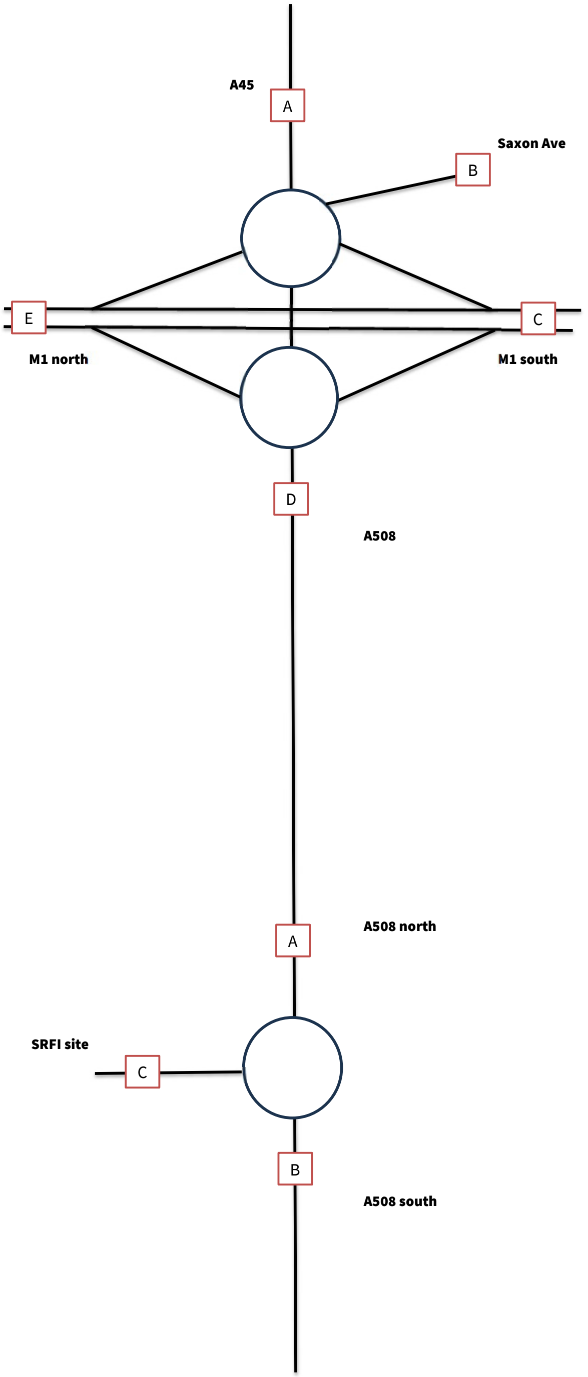
5.4 Segro have recently completed the significant infrastructure upgrades to the A508 and M1 Junction 15 (and M1 Junction 15a) that were demonstrated via the DCO to accommodate much greater traffic flows than are now forecast. It therefore follows that the completed highway improvements will provide significantly more headroom on the highway network to accommodate additional traffic than was assessed in the TA Addendum.

5.5 This Technical Note has assessed the impact of this new traffic flow information on the proposed DCO amendment, and specifically whether there would remain the requirement for the proposed minor improvement works at the site access junction.

5.6 The assessment demonstrates that with the materially lower traffic flows that are now forecast, the existing site access junction would operate satisfactorily including for the additional traffic associated with the proposed increase in mezzanine floor space for a range of traffic generation scenarios. Hence there is no requirement for the minor improvement works that were proposed in the DCO amendment. Segro therefore intend to amend the DCO amendment to exclude the minor improvement works at the site access.

5.7 The impact of the additional trips on transport infrastructure has been assessed. It is concluded that the transport impacts arising of the increased mezzanine floor space would continue to be mitigated by the infrastructure improvements consented and delivered as part of the DCO, with residual impacts reduced to acceptable levels. Accordingly, there should be no objection to the proposed amendment to the DCO.

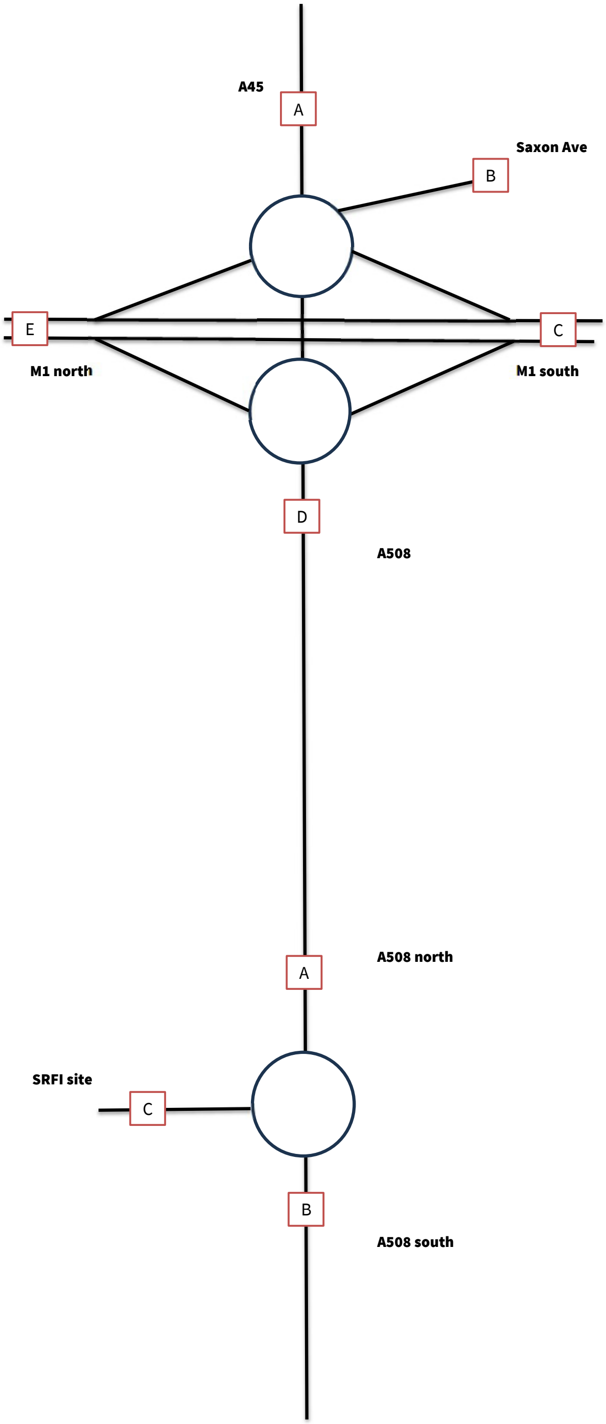
DIAGRAMS



PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A	44	28	644	1735	1274	**3725**
B	26	0	39	24	104	**193**
C	1093	37	0	40	0	**1170**
D	758	24	64	17	295	**1158**
E	1874	173	0	379	0	**2426**
Total	**3795**	**262**	**747**	**2195**	**1673**	**8672**

PCUs				
	A	**B**	**C**	**Total**
A	0	1323	861	**2183**
B	798	0	66	**865**
C	367	7	0	**374**
Total	**1165**	**1330**	**927**	**3422**

Diagram 1: 2031 reference case traffic flows with NGW SRFI in place - AM peak hour (from lastest version of NSTM)



PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A	24	302	843	1097	1129	**3395**
B	0	0	94	53	143	**290**
C	1196	27	0	74	0	**1297**
D	1473	5	23	1	721	**2223**
E	1258	83	0	406	0	**1747**
Total	**3951**	**417**	**960**	**1631**	**1993**	**8952**

PCUs				
	A	**B**	**C**	**Total**
A	0	1125	449	**1574**
B	1201	0	61	**1262**
C	1029	72	0	**1101**
Total	**2229**	**1197**	**510**	**3937**

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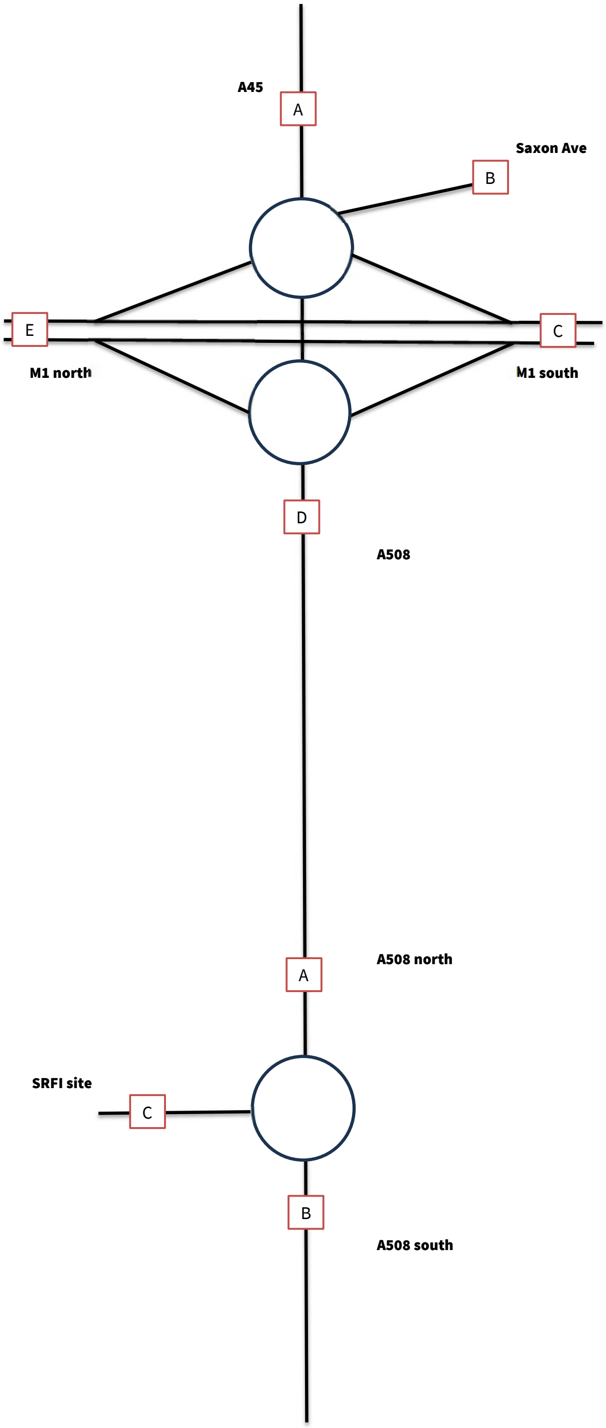
Diagram 2: 2031 reference case traffic flows with NGW SRFI in place - PM peak hour (from lastest version of NSTM)



Light Vehicles

	A	B	C	D	E	Total
A				38%		**38%**
B				0%		**0%**
C				26%		**26%**
D	51%	0%	14%	0%	17%	**82%**
E				21%		**21%**
Total	**51%**	**0%**	**14%**	**85%**	**17%**	

HGVs

	A	B	C	D	E	Total
A				36%		**36%**
B				0%		**0%**
C				29%		**29%**
D	40%	0%	32%	0%	29%	**100%**
E				26%		**26%**
Total	**40%**	**0%**	**32%**	**91%**	**29%**	

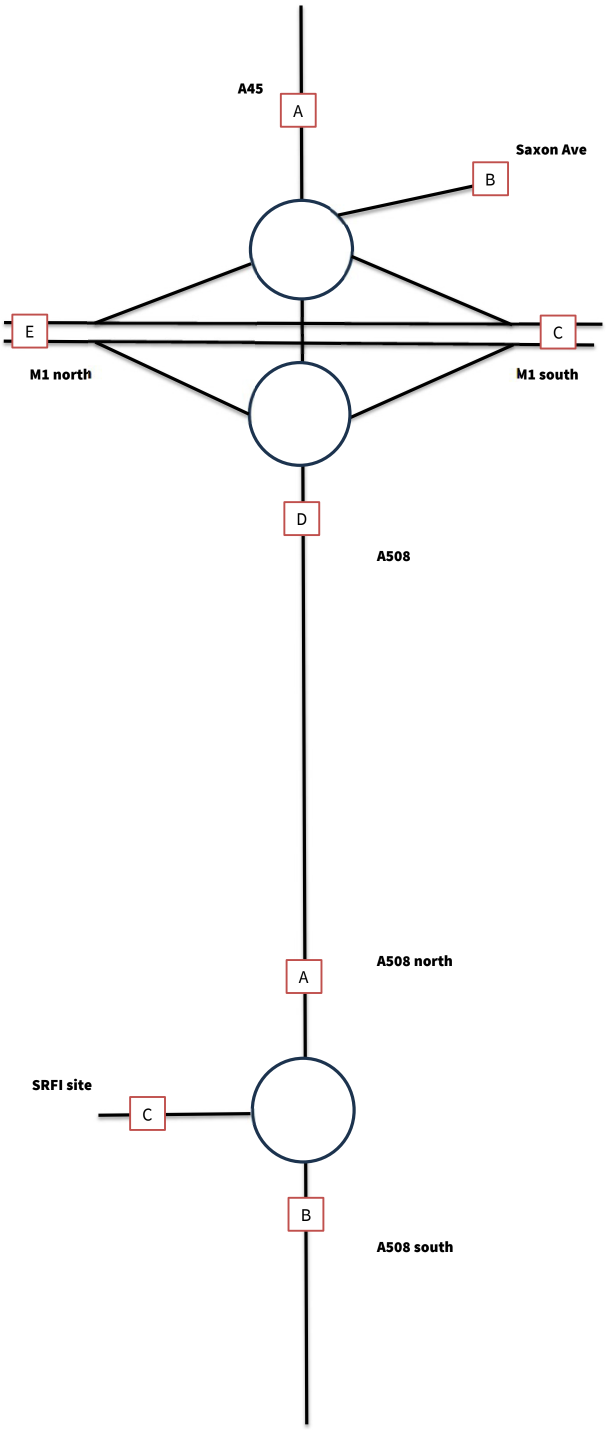
Light Vehicles

	A	B	C	Total
A			85%	**85%**
B			15%	**15%**
C	81%	19%		**100%**
Total	**81%**	**19%**	**100%**	

HGVs

	A	B	C	Total
A			91%	**91%**
B			9%	**9%**
C	100%	0%		**100%**
Total	**100%**	**0%**	**100%**	

Diagram 3: SRFI development traffic distribution - AM peak hour



Light Vehicles						
	A	**B**	**C**	**D**	**E**	**Total**
A				44%		**44%**
B				0%		**0%**
C				11%		**11%**
D	51%	0%	19%	0%	16%	**86%**
E				28%		**28%**
Total	**51%**	**0%**	**19%**	**82%**	**16%**	

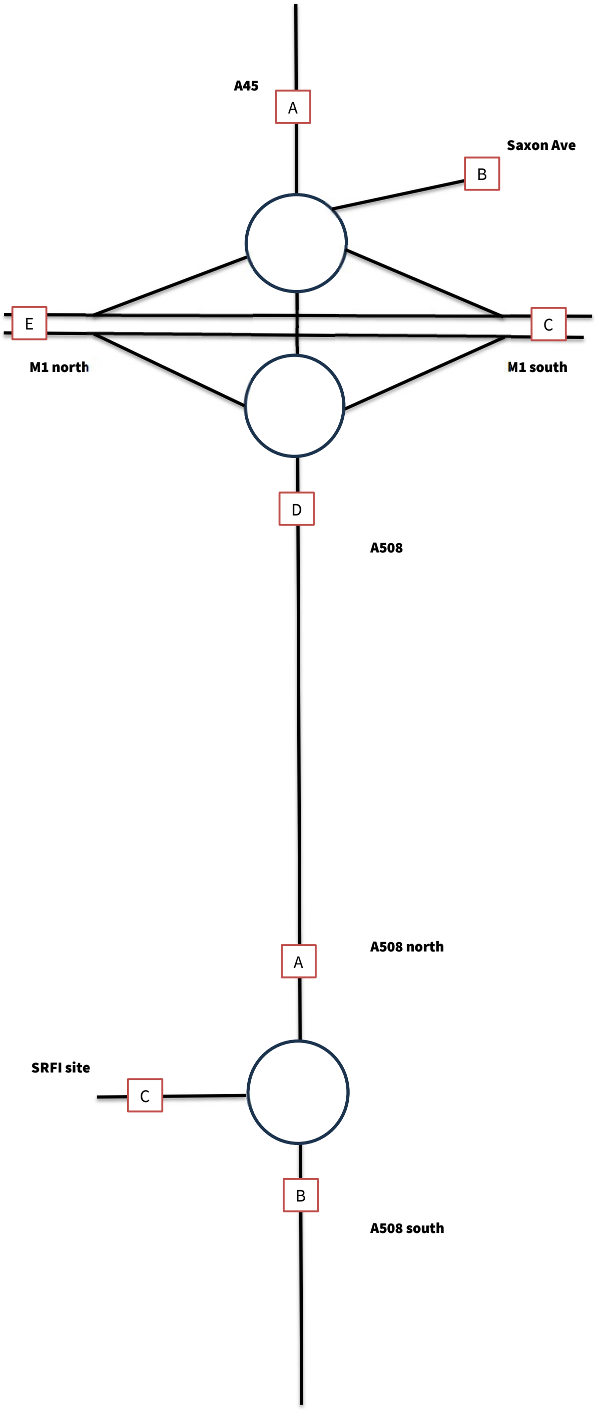
HGVs						
	A	**B**	**C**	**D**	**E**	**Total**
A				36%		**36%**
B				0%		**0%**
C				29%		**29%**
D	40%	0%	32%	0%	29%	**100%**
E				26%		**26%**
Total	**40%**	**0%**	**32%**	**91%**	**29%**	

Light Vehicles				
	A	**B**	**C**	**Total**
A			82%	**82%**
B			18%	**18%**
C	86%	14%		**100%**
Total	**86%**	**14%**	**100%**	

HGVs				
	A	**B**	**C**	**Total**
A			91%	**91%**
B			9%	**9%**
C	100%	0%		**100%**
Total	**100%**	**0%**	**100%**	

ADC INFRASTRUCTURE

Diagram 4: SRFI development traffic distribution - PM peak hour



Light Vehicles						
	A	**B**	**C**	**D**	**E**	**Total**
A				27		**27**
B				0		**0**
C				19		**19**
D	4	0	1	0	1	**6**
E				15		**15**
Total	**4**	**0**	**1**	**61**	**1**	**67**

HGVs						
	A	**B**	**C**	**D**	**E**	**Total**
A				5		**5**
B				0		**0**
C				4		**4**
D	5	0	4	0	4	**12**
E				3		**3**
Total	**5**	**0**	**4**	**12**	**4**	**24**

Total Vehicles						
	A	**B**	**C**	**D**	**E**	**Total**
A				32		**32**
B				0		**0**
C				22		**22**
D	9	0	5	0	5	**19**
E				18		**18**
Total	**9**	**0**	**5**	**73**	**5**	**91**

PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A				38		**38**
B				0		**0**
C				27		**27**
D	15	0	10	0	9	**35**
E				23		**23**
Total	**15**	**0**	**10**	**89**	**9**	**123**

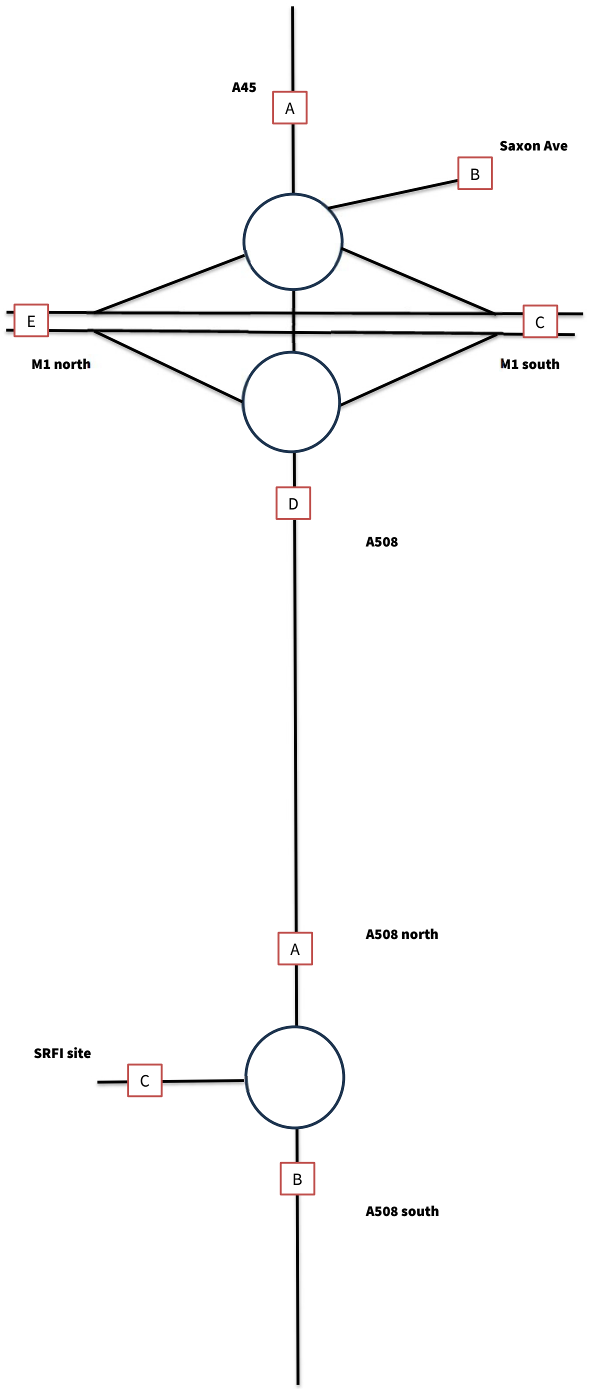
Light Vehicles				
	A	**B**	**C**	**Total**
A			61	**61**
B			11	**11**
C	6	1		**8**
Total	**6**	**1**	**71**	**79**

HGVs				
	A	**B**	**C**	**Total**
A			12	**12**
B			1	**1**
C	12	0		**12**
Total	**12**	**0**	**13**	**26**

Total Vehicles				
	A	**B**	**C**	**Total**
A			73	**73**
B			12	**12**
C	19	1		**20**
Total	**19**	**1**	**85**	**105**

PCUs				
	A	**B**	**C**	**Total**
A			89	**89**
B			13	**13**
C	35	1		**36**
Total	**35**	**1**	**102**	**138**

Diagram 5: additional mezzanine floor space development traffic - scenario (a)
AM peak hour



Light Vehicles

	A	B	C	D	E	Total
A				10		**10**
B				0		**0**
C				3		**3**
D	42	0	16	0	13	**70**
E				7		**7**
Total	**42**	**0**	**16**	**20**	**13**	**90**

HGVs

	A	B	C	D	E	Total
A				4		**4**
B				0		**0**
C				3		**3**
D	4	0	3	0	3	**11**
E				3		**3**
Total	**4**	**0**	**3**	**11**	**3**	**21**

Total Vehicles

	A	B	C	D	E	Total
A				14		**14**
B				0		**0**
C				6		**6**
D	46	0	19	0	16	**81**
E				10		**10**
Total	**46**	**0**	**19**	**30**	**16**	**111**

PCUs

	A	B	C	D	E	Total
A				20		**20**
B				0		**0**
C				10		**10**
D	51	0	23	0	20	**95**
E				14		**14**
Total	**51**	**0**	**23**	**44**	**20**	**139**

Light Vehicles

	A	B	C	Total
A			19	**19**
B			4	**4**
C	70	11		**82**
Total	**70**	**11**	**23**	**105**

HGVs

	A	B	C	Total
A			11	**11**
B			1	**1**
C	11	0		**11**
Total	**11**	**0**	**12**	**22**

Total Vehicles

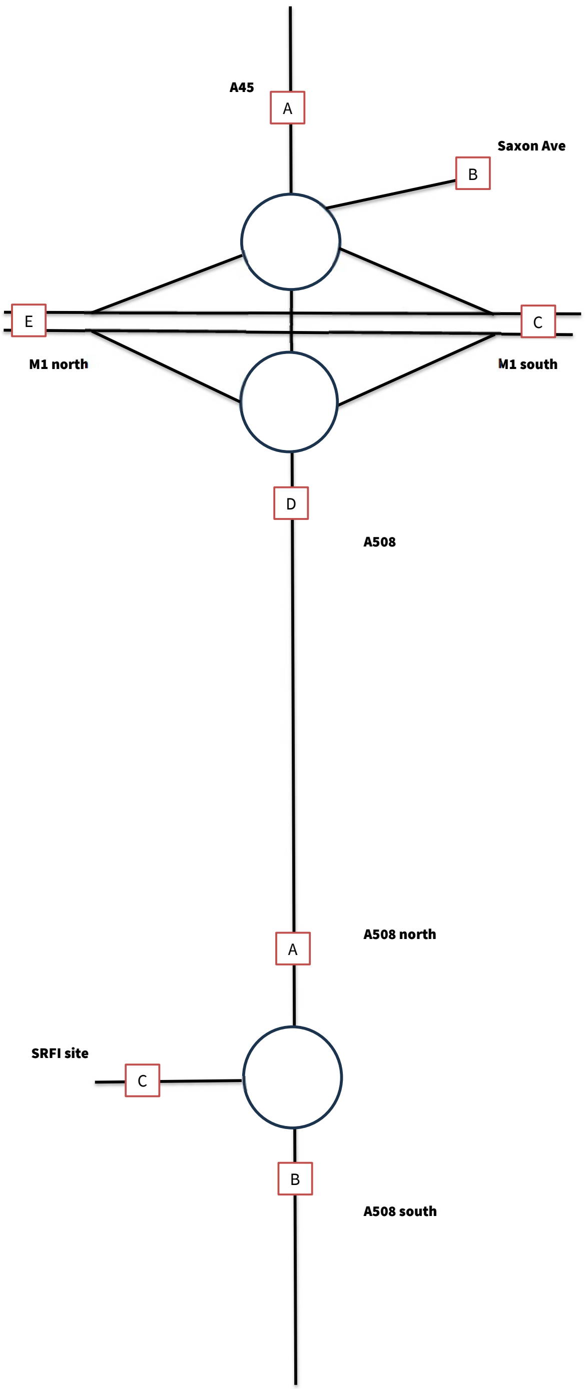
	A	B	C	Total
A			30	**30**
B			5	**5**
C	81	11		**93**
Total	**81**	**11**	**35**	**128**

PCUs

	A	B	C	Total
A			44	**44**
B			7	**7**
C	95	11		**106**
Total	**95**	**11**	**50**	**157**

ADC INFRASTRUCTURE

Diagram 6: additional mezzanine floor space development traffic - scenario (a) PM peak hour



Light Vehicles

	A	B	C	D	E	Total
A				34		**34**
B				0		**0**
C				24		**24**
D	5	0	1	0	2	**8**
E				19		**19**
Total	**5**	**0**	**1**	**77**	**2**	**85**

HGVs

	A	B	C	D	E	Total
A				6		**6**
B				0		**0**
C				5		**5**
D	6	0	5	0	5	**16**
E				5		**5**
Total	**6**	**0**	**5**	**16**	**5**	**32**

Total Vehicles

	A	B	C	D	E	Total
A				41		**41**
B				0		**0**
C				29		**29**
D	11	0	6	0	6	**24**
E				24		**24**
Total	**11**	**0**	**6**	**93**	**6**	**117**

PCUs

	A	B	C	D	E	Total
A				49		**49**
B				0		**0**
C				35		**35**
D	20	0	13	0	12	**45**
E				29		**29**
Total	**20**	**0**	**13**	**113**	**12**	**158**

Light Vehicles

	A	B	C	Total
A			77	**77**
B			14	**14**
C	8	2		**10**
Total	**8**	**2**	**90**	**100**

HGVs

	A	B	C	Total
A			16	**16**
B			2	**2**
C	16	0		**16**
Total	**16**	**0**	**17**	**33**

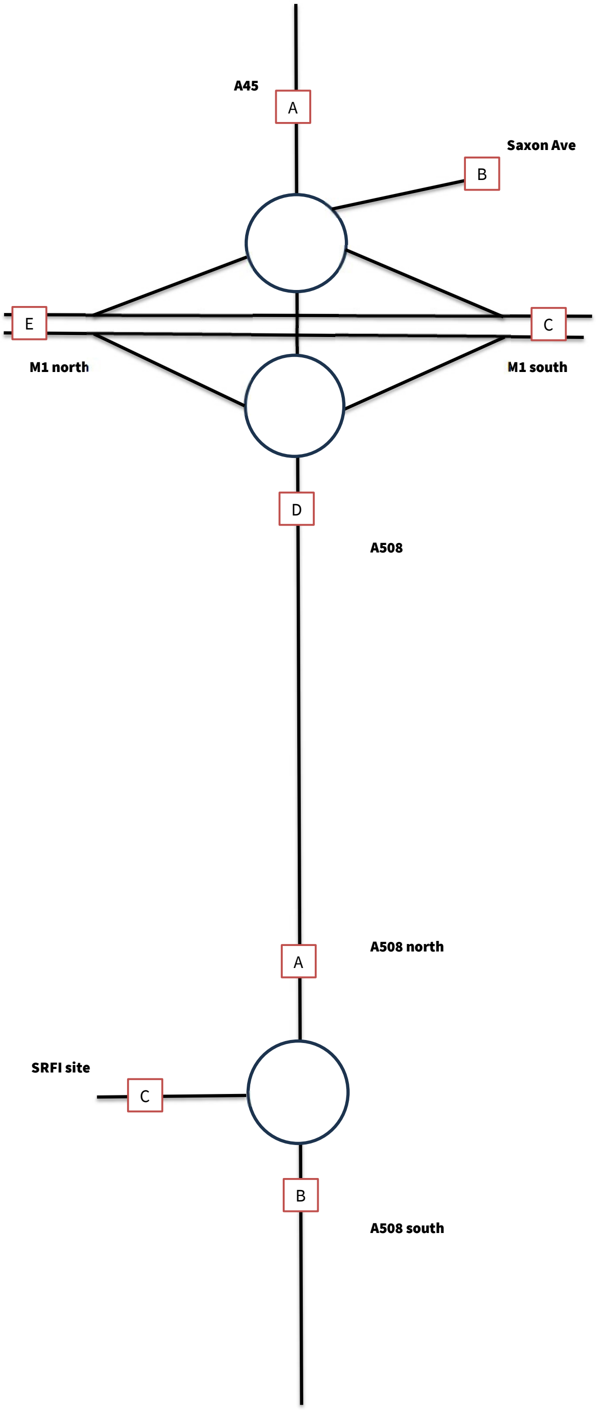
Total Vehicles

	A	B	C	Total
A			93	**93**
B			15	**15**
C	24	2		**26**
Total	**24**	**2**	**108**	**134**

PCUs

	A	B	C	Total
A			113	**113**
B			17	**17**
C	45	2		**47**
Total	**45**	**2**	**131**	**177**

Diagram 7: additional mezzanine floor space development traffic - senario (b)
AM peak hour



Light Vehicles

	A	B	C	D	E	Total
A				8		**8**
B				0		**0**
C				2		**2**
D	31	0	11	0	10	**52**
E				5		**5**
Total	**31**	**0**	**11**	**14**	**10**	**66**

HGVs

	A	B	C	D	E	Total
A				6		**6**
B				0		**0**
C				5		**5**
D	6	0	5	0	5	**16**
E				5		**5**
Total	**6**	**0**	**5**	**16**	**5**	**32**

Total Vehicles

	A	B	C	D	E	Total
A				14		**14**
B				0		**0**
C				7		**7**
D	37	0	17	0	14	**68**
E				10		**10**
Total	**37**	**0**	**17**	**30**	**14**	**98**

PCUs

	A	B	C	D	E	Total
A				22		**22**
B				0		**0**
C				14		**14**
D	45	0	23	0	20	**88**
E				15		**15**
Total	**45**	**0**	**23**	**51**	**20**	**140**

Light Vehicles

	A	B	C	Total
A			14	**14**
B			3	**3**
C	52	8		**60**
Total	**52**	**8**	**17**	**77**

HGVs

	A	B	C	Total
A			16	**16**
B			2	**2**
C	16	0		**16**
Total	**16**	**0**	**18**	**33**

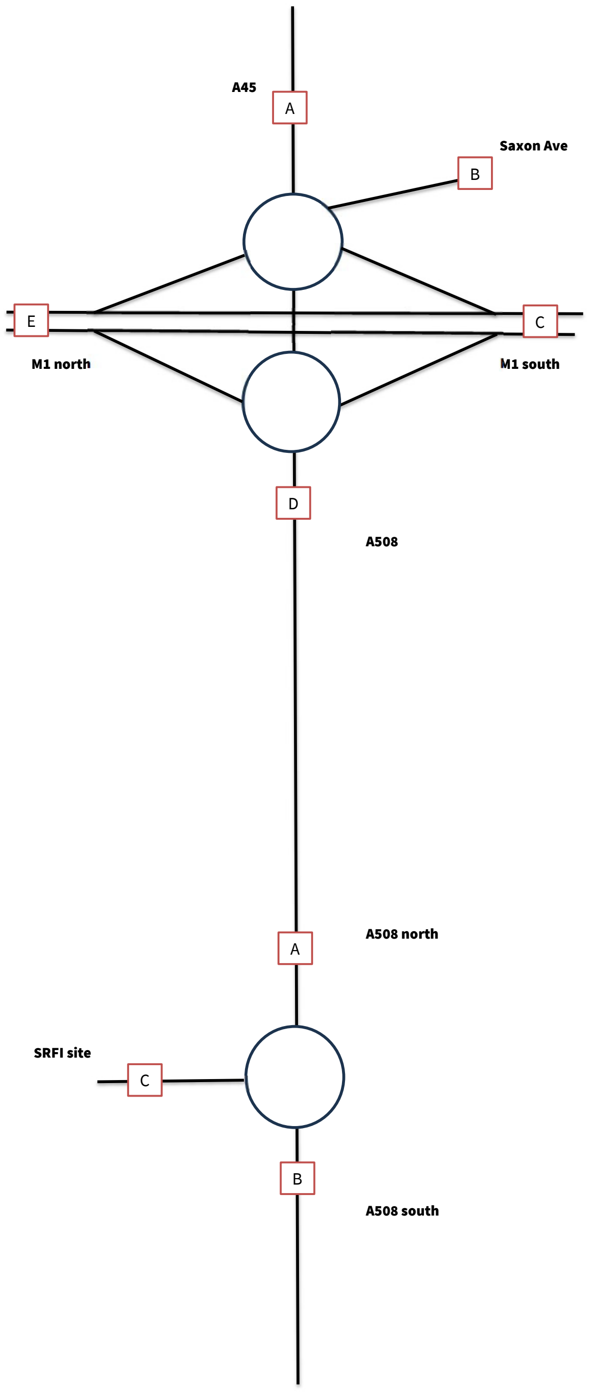
Total Vehicles

	A	B	C	Total
A			30	**30**
B			5	**5**
C	68	8		**76**
Total	**68**	**8**	**35**	**110**

PCUs

	A	B	C	Total
A			51	**51**
B			7	**7**
C	89	8		**97**
Total	**89**	**8**	**57**	**154**

Diagram 8: additional mezzanine floor space development traffic -scenario (b)
PM peak hour



Light Vehicles

	A	B	C	D	E	Total
A				54		**54**
B				0		**0**
C				37		**37**
D	8	0	2	0	3	**13**
E				30		**30**
Total	**8**	**0**	**2**	**121**	**3**	**134**

HGVs

	A	B	C	D	E	Total
A				10		**10**
B				0		**0**
C				8		**8**
D	10	0	8	0	7	**25**
E				7		**7**
Total	**10**	**0**	**8**	**24**	**7**	**49**

Total Vehicles

	A	B	C	D	E	Total
A				64		**64**
B				0		**0**
C				45		**45**
D	18	0	10	0	10	**37**
E				37		**37**
Total	**18**	**0**	**10**	**146**	**10**	**183**

PCUs

	A	B	C	D	E	Total
A				76		**76**
B				0		**0**
C				55		**55**
D	30	0	20	0	19	**69**
E				46		**46**
Total	**30**	**0**	**20**	**177**	**19**	**246**

Light Vehicles

	A	B	C	Total
A			121	**121**
B			21	**21**
C	13	3		**16**
Total	**13**	**3**	**143**	**158**

HGVs

	A	B	C	Total
A			24	**24**
B			2	**2**
C	25	0		**25**
Total	**25**	**0**	**27**	**51**

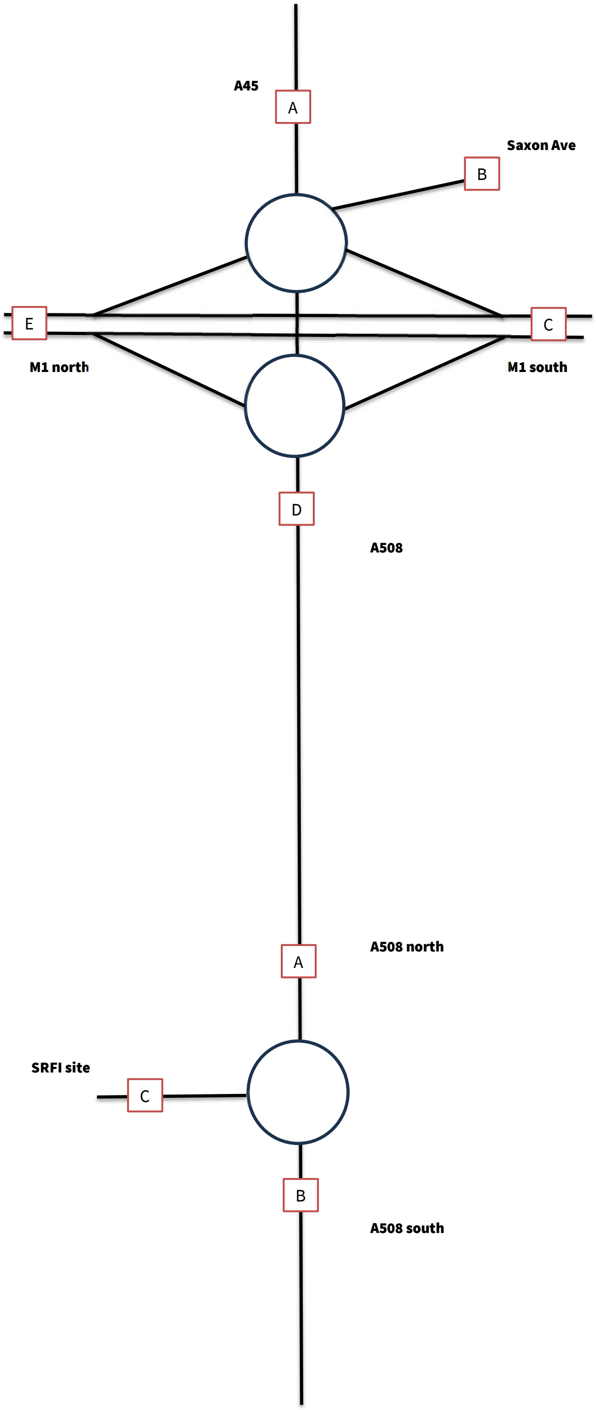
Total Vehicles

	A	B	C	Total
A			146	**146**
B			24	**24**
C	37	3		**40**
Total	**37**	**3**	**169**	**210**

PCUs

	A	B	C	Total
A			177	**177**
B			27	**27**
C	69	3		**72**
Total	**69**	**3**	**204**	**276**

Diagram 9: additional mezzanine floor space development traffic - scenario (c)
AM peak hour



Light Vehicles

	A	B	C	D	E	Total
A				20		**20**
B				0		**0**
C				5		**5**
D	84	0	31	0	26	**141**
E				13		**13**
Total	**84**	**0**	**31**	**39**	**26**	**179**

HGVs

	A	B	C	D	E	Total
A				8		**8**
B				0		**0**
C				7		**7**
D	8	0	7	0	6	**21**
E				6		**6**
Total	**8**	**0**	**7**	**21**	**6**	**42**

Total Vehicles

	A	B	C	D	E	Total
A				29		**29**
B				0		**0**
C				12		**12**
D	92	0	38	0	32	**162**
E				19		**19**
Total	**92**	**0**	**38**	**60**	**32**	**222**

PCUs

	A	B	C	D	E	Total
A				40		**40**
B				0		**0**
C				21		**21**
D	103	0	47	0	40	**190**
E				27		**27**
Total	**103**	**0**	**47**	**88**	**40**	**277**

Light Vehicles

	A	B	C	Total
A			38	**38**
B			8	**8**
C	141	23		**164**
Total	**141**	**23**	**47**	**211**

HGVs

	A	B	C	Total
A			21	**21**
B			2	**2**
C	21	0		**21**
Total	**21**	**0**	**23**	**45**

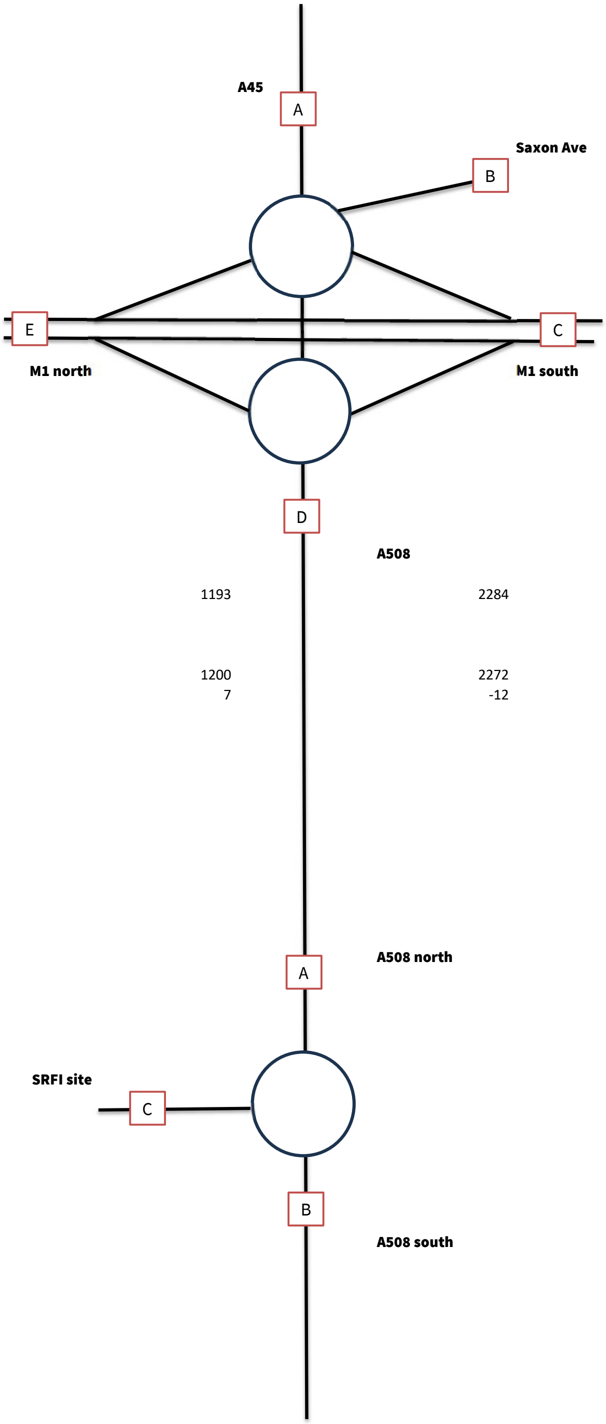
Total Vehicles

	A	B	C	Total
A			60	**60**
B			11	**11**
C	162	23		**185**
Total	**162**	**23**	**70**	**255**

PCUs

	A	B	C	Total
A			87	**87**
B			13	**13**
C	190	23		**213**
Total	**190**	**23**	**101**	**313**

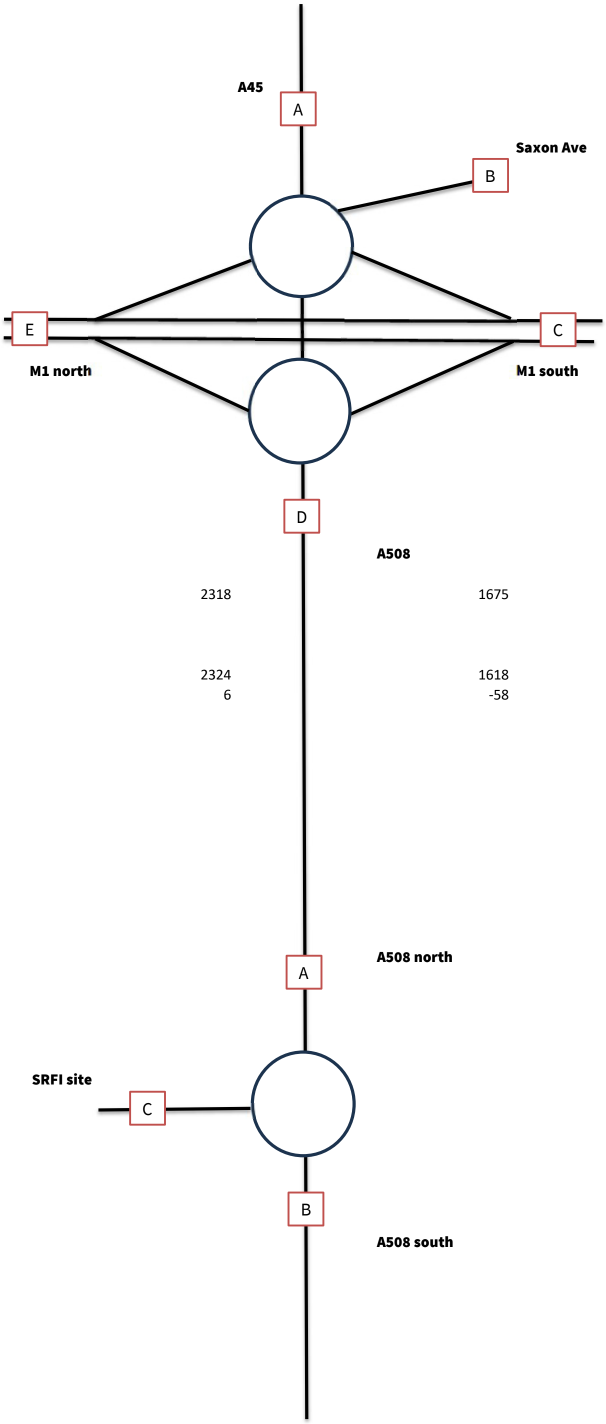
Diagram 10: additional mezzanine floor space development traffic - scenario (c)
PM peak hour



PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A	44	28	644	1773	1274	**3763**
B	26	0	39	24	104	**193**
C	1093	37	0	67	0	**1197**
D	773	24	74	17	304	**1193**
E	1874	173	0	402	0	**2449**
Total	**3810**	**262**	**757**	**2284**	**1682**	**8795**

PCUs				
	A	**B**	**C**	**Total**
A	0	1323	949	**2272**
B	798	0	80	**878**
C	401	9	0	**410**
Total	**1200**	**1331**	**1029**	**3560**

Diagram 11: 2031 total traffic flows - scenario (a) - AM peak hour

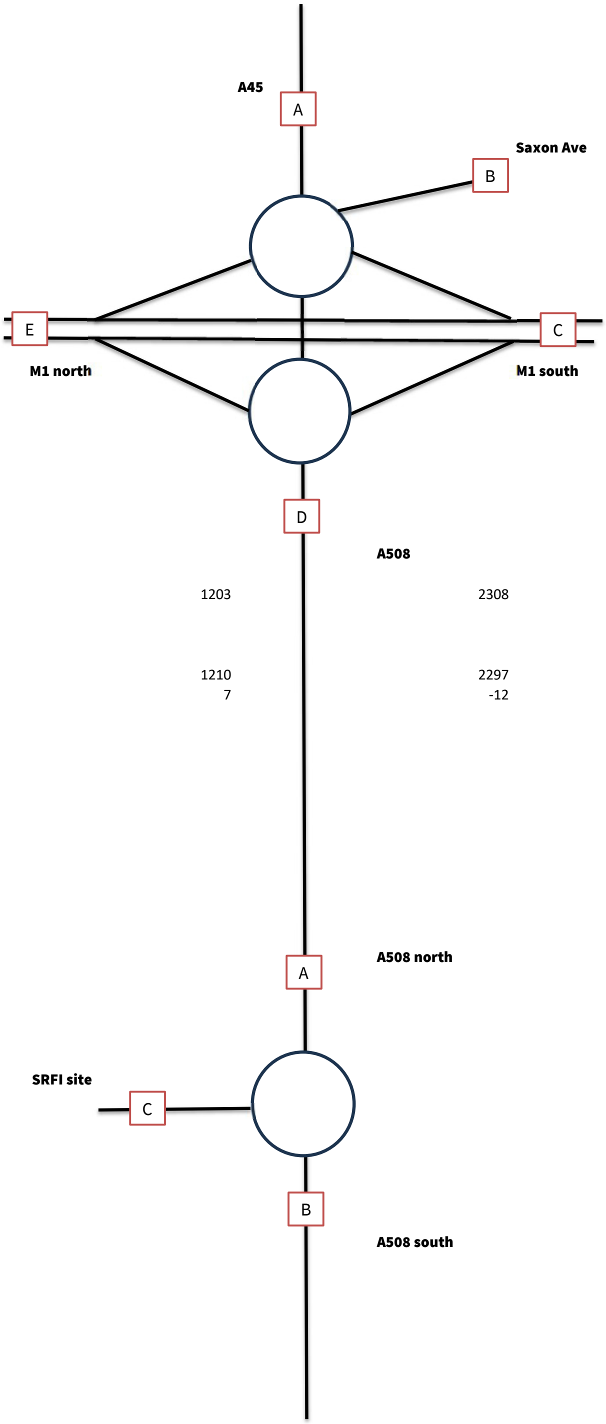


PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A	24	302	843	1117	1129	**3415**
B	0	0	94	53	143	**290**
C	1196	27	0	84	0	**1307**
D	1524	5	46	1	741	**2318**
E	1258	83	0	420	0	**1761**
Total	**4002**	**417**	**983**	**1675**	**2013**	**9091**

PCUs				
	A	**B**	**C**	**Total**
A	0	1125	493	**1618**
B	1201	0	68	**1268**
C	1123	84	0	**1207**
Total	**2324**	**1209**	**561**	**4093**

ADC INFRASTRUCTURE

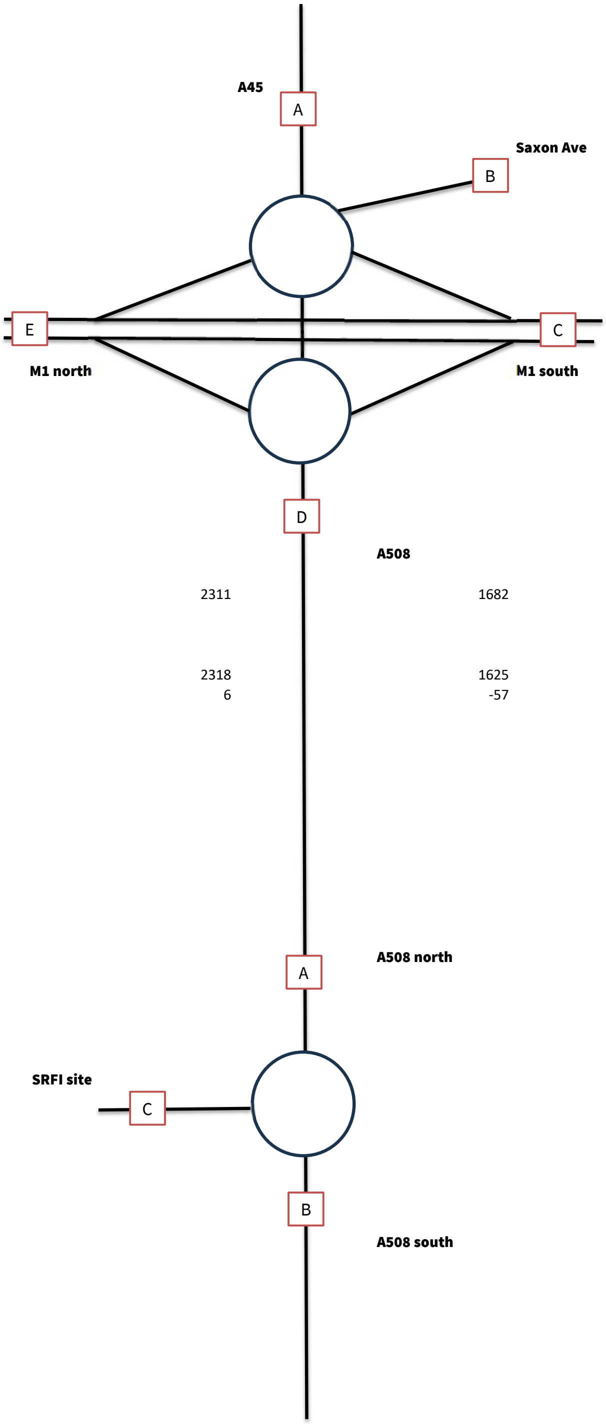
Diagram 12: 2031 total traffic flows - scenario (a) - PM peak hour



PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A	44	28	644	1784	1274	**3774**
B	26	0	39	24	104	**193**
C	1093	37	0	75	0	**1205**
D	778	24	77	17	307	**1203**
E	1874	173	0	408	0	**2455**
Total	**3815**	**262**	**760**	**2308**	**1685**	**8830**

PCUs				
	A	**B**	**C**	**Total**
A	0	1323	974	**2297**
B	798	0	84	**882**
C	412	9	0	**421**
Total	**1210**	**1332**	**1058**	**3600**

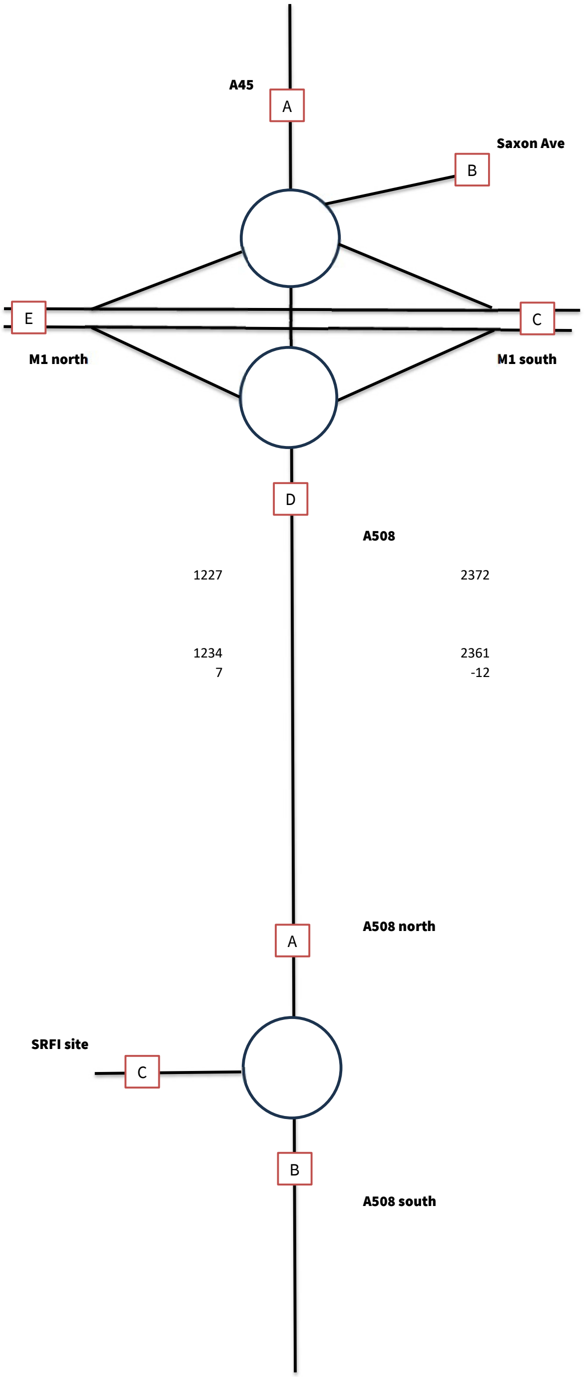
Diagram 13: 2031 total traffic flows - senario (b) - AM peak hour



PCUs						
	A	**B**	**C**	**D**	**E**	**Total**
A	24	302	843	1119	1129	**3417**
B	0	0	94	53	143	**290**
C	1196	27	0	88	0	**1311**
D	1518	5	46	1	741	**2311**
E	1258	83	0	421	0	**1762**
Total	**3996**	**417**	**983**	**1682**	**2013**	**9092**

PCUs				
	A	**B**	**C**	**Total**
A	0	1125	500	**1625**
B	1201	0	68	**1268**
C	1117	80	0	**1197**
Total	**2318**	**1205**	**568**	**4091**

Diagram 14: 2031 total traffic flows - scenario (b) - PM peak hour



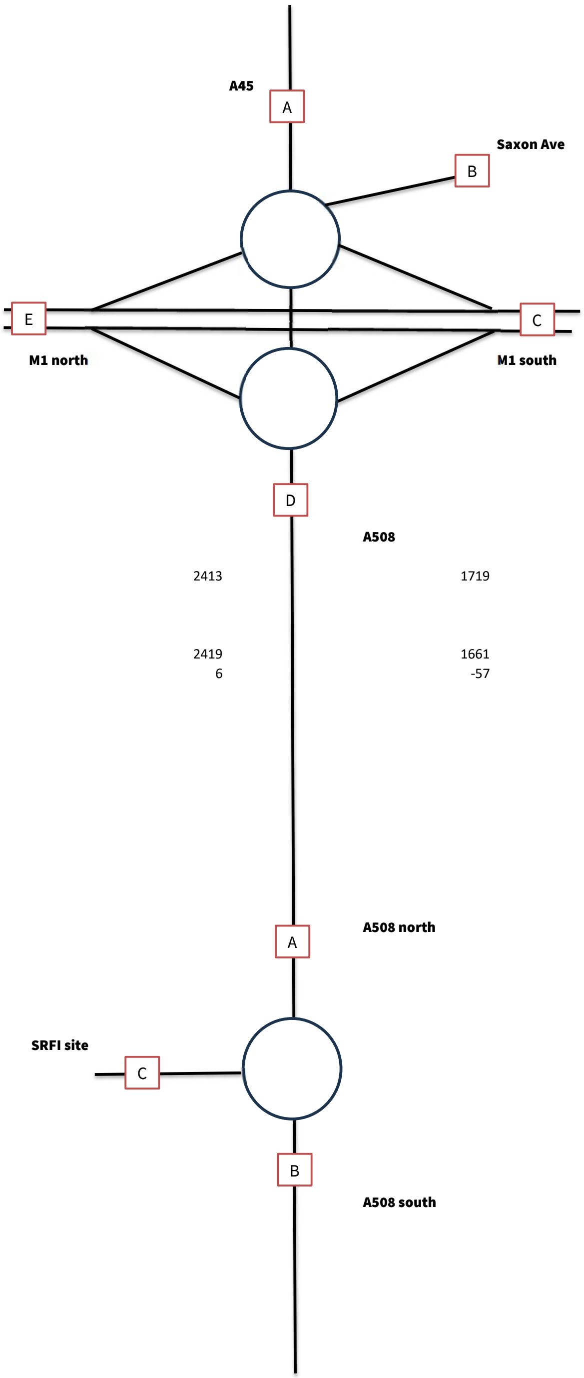
PCUs

	A	B	C	D	E	Total
A	44	28	644	1811	1274	**3801**
B	26	0	39	24	104	**193**
C	1093	37	0	95	0	**1225**
D	788	24	84	17	314	**1227**
E	1874	173	0	425	0	**2472**
Total	**3825**	**262**	**767**	**2372**	**1692**	**8918**

PCUs

	A	B	C	Total
A	0	1323	1038	**2361**
B	798	0	93	**892**
C	436	10	0	**446**
Total	**1234**	**1333**	**1131**	**3698**

Diagram 15: 2031 total traffic flows - scenario (c) - AM peak hour



PCUs						
	A	B	C	D	E	Total
A	24	302	843	1137	1129	**3435**
B	0	0	94	53	143	**290**
C	1196	27	0	95	0	**1318**
D	1576	5	70	1	761	**2413**
E	1258	83	0	433	0	**1774**
Total	**4054**	**417**	**1007**	**1719**	**2033**	**9229**

PCUs				
	A	B	C	Total
A	0	1125	536	**1661**
B	1201	0	74	**1275**
C	1218	95	0	**1313**
Total	**2419**	**1220**	**611**	**4250**

Diagram 16: 2031 total traffic flows - secanrio (c) - PM peak hour

APPENDIX A

Segro Logistics Park Rugby and Kettering Vehicle Trip Rate Comparison, ITP November 2023

SEGRO Logistics Park
Rugby and Kettering

Vehicle Trip Rate Comparison

November 2023

a company of Royal HaskoningDHV

SEGRO Logistics Park

Rugby and Kettering

Version 2-0

November 2023

Produced by:

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Executive Summary

Integrated Transport Planning Ltd (ITP) has been commissioned by SEGRO to carry out a vehicle trip rate assessment to understand if mezzanine levels at units at SEGRO Logistics Park Rugby Gateway (Rugby Gateway) and SEGRO Park Kettering Gateway (Kettering Gateway) have an impact on the number of vehicles at each site.

To obtain accurate on-site traffic data at both Rugby Gateway and Kettering Gateway, camera surveys were undertaken between the dates of Thursday 13th July 2023 and Wednesday 19th July 2023, capturing data for a 7-day period.

To streamline the raw data in the analysis process, an average calculation at each site has been completed for the data covering Thursday 13th July 2023, Tuesday 18th July 2023 and Wednesday 19th July 2023. For each unit, three time periods have been assessed which mirror those considered in a previous East Midlands Gateway study: AM Peak (08:00 – 09:00), PM Peak (17:00 – 18:00) and 24-hour period (00:00 – 00:00).

Using the assessment of the recorded number of vehicle trips from each unit, and the Gross Floor Area (sqm), the associated vehicle trip rates per 100sqm were calculated.

Analysis at both Rugby Gateway and Kettering Gateway demonstrated that the surveyed vehicle trip rates were higher for units without mezzanine, compared to units with mezzanine. The following surveyed vehicle trip rates presents both sites combined into either units with mezzanine or without mezzanine:

- AM Peak two-way trip rate: With mezzanine 0.11, without mezzanine 0.19
- PM Peak two-way trip rate: With mezzanine 0.10, without mezzanine 0.25
- Daily two-way trip rate: With mezzanine 2.47, without mezzanine 4.25

In conclusion, **the analysis demonstrates that mezzanine levels do not appear to have a significant impact on vehicle trip rates; and that vehicle trip rates are more likely to be influenced by other factors such as the business model operations of occupiers**. At both Rugby Gateway and Kettering Gateway, vehicle trip rates are in fact higher at units which do not have mezzanines; and therefore, may indicate that units with mezzanine space have business operations which result in lower vehicle trip rates than units which do not have mezzanine space.

Analysis understanding the impact of mezzanines has been conducted at both site-wide level at both Rugby Gateway and Kettering Gateway, as well as consolidating all surveyed data together; with the survey results indicating that surveyed vehicle trip rates are higher at units which do not have mezzanine space.

1. Introduction

1.1 Integrated Transport Planning Ltd (ITP) has been commissioned by SEGRO to carry out a vehicle trip rate assessment to understand if mezzanine levels at units at SEGRO Logistics Park Rugby Gateway (Rugby Gateway) and SEGRO Park Kettering Gateway (Kettering Gateway) have an impact on the number of vehicles at each site.

1.2 This analysis builds on a similar comparative mezzanine trip rate assessment carried out at SEGRO Logistics Park East Midlands Gateway in July 2022 by ITP.

1.3 Across these three large logistics parks this report aims to draw together an evidence base to determine the impact of mezzanines on traffic numbers at the site.

1.4 For reference throughout this report:

- "Surveyed vehicle trip rates" refers to those derived from traffic survey data collected in July 2023
- "Assessed vehicle trip rates" refers to those derived from the TRICS trip rate database and agreed with the Local Highway Authority and used within the respective Transport Assessments for the Rugby, Kettering and East Midlands Gateway logistics sites.

Report Structure

1.5 This report is organised into the following sections:

- Section 2 provides background to the two sites including details of each unit.
- Section 3 details the methodology to obtain 2023 traffic volumes.
- Section 4 presents the findings of 2023 surveyed movements apportioned to individual units; and compares the surveyed traffic between units with and without mezzanines.
- Section 5 compares the surveyed traffic volumes with assessed trips from respective Transport Assessments.
- Section 6 provides a summary of the key findings from the assessment and draws together the conclusions.

2. Site Overview

Rugby Gateway

2.1 Rugby Gateway is a 120-acre logistics and distribution park located approximately 4.5km north of Rugby town centre and adjacent to Junction 1 of the M6. Outline planning permission was granted in August 2013 (Rugby planning portal ref: R10/1272) and construction of the five units was fully completed in 2017.

2.2 In July 2023, there were five tenants on-site – Amazon, DHL, Evri, H&M and TJX. The locations of these units are presented in Figure 2-1.

Figure 2-1: Kettering Gateway Unit Locations

Source: Microsoft Bing Maps (2023)

2.3 Table 2-1 details the occupiers and Gross Floor Area (GFA) of the five units as of July 2023, when the traffic surveys were completed.

Table 2-1: Rugby Gateway Occupiers and Gross Floor Area

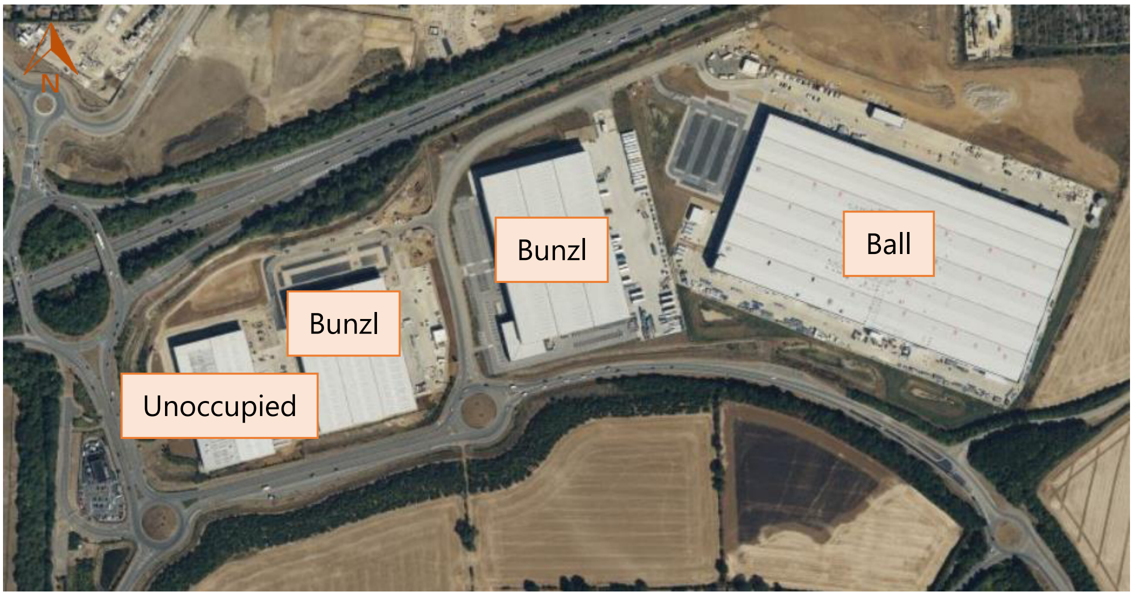
Plot	Occupier	2023 Gross Floor Area (sqm)		
		Floor Area	Mezzanine	Total
1	H&M	22,111	6,503	28,614
2	Amazon	27,128	35,856	62,984
3	DHL	16,769	0	16,769
4	TJX	20,996	19,881	40,877
5	Evri	21,925	0	21,925
Total		**108,929**	**62,240**	**171,169**

Kettering Gateway

2.5 Kettering Gateway is a 70-acre logistics and distribution park located approximately 4km south of Kettering town centre, near Burton Latimer and Junction 10 of the A14. Outline planning permission was granted in December 2018 (Kettering planning portal ref: KET/2018/0774) and construction of the four units was fully completed in 2022.

2.6 In July 2023, there were two tenants on-site – Bunzl (occupying two units) and Ball. One of the four units is unoccupied. This unoccupied unit has been excluded from the analysis herein. The locations of these units are presented in Figure 2-2 .

Figure 2-2: Kettering Gateway Unit Locations



Source: Microsoft Bing Maps (2023)

2.7 Kettering Gateway was sold by SEGRO in July 2023.

2.8 Table 2-2 details the occupiers and GFA of the three occupied units as of July 2023, when the traffic surveys were completed.

Table 2-2: Kettering Gateway Occupiers and Gross Floor Area

Plot	**Occupier**	**2023 Gross Floor Area (sqm)**		
		Floor Area	**Mezzanine**	**Total**
3	Bunzl	13,935	1,152	15,087
4A	Bunzl	21,793	0	21,793
4B	Ball	57,767	0	57,767
Total		**93,496**	**1,152**	**94,648**

3. 2023 Survey Methodology

3.1 To obtain accurate on-site traffic data at both Rugby Gateway and Kettering Gateway, camera surveys were undertaken between the dates of Thursday 13th July 2023 and Wednesday 19th July 2023, capturing data for a 7-day period. The traffic surveys were completed by an independent third-party traffic survey specialist.

3.2 In total, 10 cameras were installed at Rugby Gateway and 6 cameras at Kettering Gateway to cover all vehicular access points for both HGVs and employees at all occupied units. A summary of the camera locations is shown in Table 3-1.

Table 3-1: Camera survey locations

Site	Plot	Occupier	Camera Locations	Camera Reference
Rugby	1	H&M	• Employee Car Park (Inbound/Outbound) & HGV (Inbound/Outbound)	• 1
	2	Amazon	• Employee Outbound • HGV (Inbound/Outbound) & Employee Inbound Entrance	• 2A • 2B
	3	DHL	• HGV (Inbound/Outbound) • Employee Car Park (Inbound/Outbound)	• 3A • 3B
	4	TJX	• HGV (Inbound/Outbound) • Employee Car Park (Inbound/Outbound)	• 4A • 4B
	5	Evri	• HGV (Inbound) • HGV (Outbound) • Employee Car Park (Inbound/Outbound)	• 5A • 5B • 5C
Kettering	3	Bunzl	• Employee Car Park (Inbound/Outbound) • HGV (Inbound/Outbound)	• 3A • 3B
	4A	Bunzl	• Employee Car Park (Inbound/Outbound) • HGV (Inbound/Outbound)	• 4A1 • 4A2
	4B	Ball	• Employee Car Park (Inbound/Outbound) • HGV (Inbound/Outbound)	• 4B1 • 4B2

3.3 The raw data from each camera survey has been consolidated by ITP to obtain an overall number of vehicle trips per unit and considers all accesses.

3.4 For this assessment, vehicle classes have been summarised into either Light Vehicle of Heavy Goods Vehicle (HGV):

- Light Vehicle: Motorcycle, car, van, Light Goods Vehicle <3.5 tonnes
- Heavy Goods Vehicle: >3.5 tonnes, 2 or more axles rigid, 3 or more axles artic

3.5 To streamline the raw data in the analysis process, an average calculation has been completed for the data covering Thursday 13th July 2023, Tuesday 18th July 2023 and Wednesday 19th July 2023. This has been done to ensure comparability with the East Midlands Gateway (EMG1) analysis which also considered these three 'neutral' days and has been deemed appropriate to provide a typical weekday representation of vehicle movements.

3.6 For each unit, three time periods have been assessed which mirror those considered in the previous EMG1 study:

- 08:00 – 09:00
- 17:00 – 18:00
- 00:00 – 00:00 (24-hour period)

4. 2023 Traffic Survey Trip Rate Analysis

Surveyed Vehicle Trip Rate Findings

4.1 The findings from the July 2023 camera survey data have been presented in the following tables:

- Table 4-1: AM Peak Two-Way Trips (08:00 – 09:00)
- Table 4-2: PM Peak Two-Way Trips (17:00 – 18:00)
- Table 4-3: Daily (24 hour) Two-Way Trips

4.2 Using the assessment of the recorded number of vehicle trips from each unit, and the Gross Floor Area (sqm), the associated vehicle trip rates per 100sqm have been calculated and are also presented in the following tables.

4.3 The tables also include mezzanine area (sqm), to demonstrate units with mezzanine areas, however the vehicle trip rates calculated are based on the Gross Floor Area (sqm) to robustly enable analysis to compare whether surveyed vehicle trip rates are impacted by mezzanine areas.

4.4 Please note, as an average of vehicle trips has been calculated covering 3 days of data; some total vehicle trips may not appear to add up between light and HGV due to rounding; however, vehicle trip rates are calculated from the true, non-rounded value.

Table 4-1: 2023 camera survey AM Peak Two-Way Trips (08:00 – 09:00)

Site	Plot	Occupier	(sqm)		Surveyed Trips (2023)			Trip Rate (per 100sqm GFA)		
			GFA	Mezzanine	Light	HGV	Total	Light	HGV	Total
Rugby	1	H&M	22,111	6,503	6	7	**14**	0.03	0.03	**0.06**
	2	Amazon	27,128	35,856	26	6	**32**	0.10	0.02	**0.12**
	3	DHL	16,769	0	18	10	**28**	0.11	0.06	**0.17**
	4	TJX	20,996	19,881	31	4	**35**	0.15	0.02	**0.17**
	5	Evri	21,925	0	63	59	**121**	0.29	0.27	**0.55**
	-	Total	108,929	62,240	145	86	**231**	0.13	0.08	**0.21**
Kettering	3	Bunzl	13,935	1,152	9	6	**15**	0.06	0.04	**0.11**
	4A	Bunzl	21,793	0	31	6	**37**	0.14	0.03	**0.17**
	4B	Ball	57,767	0	35	4	**39**	0.06	0.01	**0.07**
	-	Total	93,496	1,152	74	17	**91**	0.08	0.02	**0.10**

Table 4-2: 2023 camera survey PM Peak Two-Way Trips (17:00 – 18:00)

Site	**Plot**	**Occupier**	**(sqm)**		**Surveyed Trips (2023)**			**Trip Rate (per 100sqm GFA)**		
			GFA	**Mezzanine**	**Light**	**HGV**	**Total**	**Light**	**HGV**	**Total**
Rugby	1	H&M	22,111	6,503	4	7	**11**	0.02	0.03	**0.05**
	2	Amazon	27,128	35,856	29	13	**42**	0.11	0.05	**0.15**
	3	DHL	16,769	0	29	7	**36**	0.17	0.04	**0.21**
	4	TJX	20,996	19,881	24	1	**25**	0.11	0.00	**0.12**
	5	Evri	21,925	0	96	75	**171**	0.44	0.34	**0.78**
	-	Total	108,929	62,240	182	102	**284**	0.17	0.09	**0.26**
Kettering	3	Bunzl	13,935	1,152	3	3	**6**	0.02	0.02	**0.04**
	4A	Bunzl	21,793	0	24	2	**26**	0.11	0.01	**0.12**
	4B	Ball	57,767	0	54	4	**58**	0.09	0.01	**0.10**
	-	Total	93,496	1,152	81	9	**90**	0.09	0.01	**0.10**

Table 4-3: 2023 camera survey Daily (24 hour) Two-Way Trips

Site	Plot	Occupier	(sqm)		Surveyed Trips (2023)			Trip Rate (per 100sqm GFA)		
			GFA	Mezzanine	Light	HGV	Total	Light	HGV	Total
Rugby	1	H&M	22,111	6,503	360	131	**491**	1.63	0.59	**2.22**
	2	Amazon	27,128	35,856	565	149	**714**	2.08	0.55	**2.63**
	3	DHL	16,769	0	525	230	**755**	3.13	1.37	**4.50**
	4	TJX	20,996	19,881	667	46	**713**	3.18	0.22	**3.40**
	5	Evri	21,925	0	1,759	1,464	**3,223**	8.02	6.68	**14.70**
	-	Total	108,929	62,240	3,877	2,020	**5,897**	3.56	1.85	**5.41**
Kettering	3	Bunzl	13,935	1,152	100	63	**163**	0.72	0.45	**1.17**
	4A	Bunzl	21,793	0	357	88	**446**	1.64	0.41	**2.04**
	4B	Ball	57,767	0	509	87	**596**	0.88	0.15	**1.03**
	-	Total	93,496	1,152	966	239	**1,204**	1.03	0.26	**1.29**

4.5 The tables above detail the surveyed trips and surveyed vehicle trip rates across the AM Peak, PM Peak and 24 hour period for all units across both Rugby Gateway and Kettering Gateway, with the key findings summarised:

- Rugby Gateway generated a significantly higher number of vehicle trips compared to Kettering Gateway in the AM Peak, PM Peak and 24 hours, as such also resulting in higher vehicle trip rates across all periods:
    - AM Peak two-way trip rate: Rugby 0.21, Kettering 0.10
    - PM Peak two-way trip rate: Rugby 0.26, Kettering 0.10
    - Daily two-way trip rate: Rugby 5.41, Kettering 1.29
- Plot 5 (Evri) at Rugby Gateway recorded the highest two-way traffic volumes and trip rates across all time periods, with total daily two-way surveyed trips at 3,223 vehicles (1,759 light vehicles and 1,464 HGVs). It is noted that the Evri plot does not have mezzanine, despite having the highest vehicle trip rates, with analysis of the impact of mezzanines provided in the following section.
- At both sites, there was a higher proportion of light vehicles compared to HGVs:
    - Rugby Gateway – A total of 5,897 vehicles were recorded entering and exiting the site across a 24-hour period, with 3,877 (66%) of these being light vehicles and 2,020 (34%) being HGVs.
    - Kettering Gateway – A total of 1,204 vehicles were recorded entering and exiting the site across a 24-hour period, with 966 (80%) of these being light vehicles and 239 (20%) being HGVs.

4.6 The subsequent section of this report provides analysis of the key aspect of the study, to understand the impact that mezzanines could have on surveyed vehicle trips and surveyed vehicle trip rates.

Analysis of Mezzanine Impact on Trip Rates

4.7 To further understand the impact that mezzanines could have on surveyed vehicle trip rates at both Rugby Gateway and Kettering Gateway, the units at both logistics parks have been aggregated into 'with mezzanine' and 'without mezzanine'.

4.8 Classifying the units by whether they contain a mezzanine or not enables comparisons of vehicle trip rates to determine if mezzanines have any impact on the number of vehicle trips at Rugby Gateway and Kettering Gateway.

4.9 As such, the camera survey data and vehicle trip rates have been consolidated into the following three tables:

- Table 4-4 comparing vehicle trips rates at Rugby Gateway (mezzanine versus no mezzanine) in the AM Peak, PM Peak and Daily
- Table 4-5 comparing vehicle trips rates at Kettering Gateway (mezzanine versus no mezzanine) in the AM Peak, PM Peak and Daily
- Table 4-6 comparing vehicle trips rates at both Rugby Gateway and Kettering Gateway (mezzanine versus no mezzanine) in the AM Peak, PM Peak and Daily

Table 4-4: Rugby Vehicle Trip Rates (Mezzanine versus No Mezzanine)

Period	**Mezzanine?**	**(sqm)**		**Surveyed Trips (2023)**			**Trip Rate (per 100sqm GFA)**		
		GFA	**Mezzanine**	**Light**	**HGV**	**Total**	**Light**	**HGV**	**Total**
AM	With	70,235	62,240	64	17	**81**	0.09	0.02	**0.12**
	Without	38,694	0	81	69	**150**	0.21	0.18	**0.39**
PM	With	70,235	62,240	57	20	**77**	0.08	0.03	**0.11**
	Without	38,694	0	125	82	**207**	0.32	0.21	**0.53**
Daily	With	70,235	62,240	1,592	326	**1,918**	2.27	0.46	**2.73**
	Without	38,694	0	2,285	1,694	**3,979**	5.90	4.38	**10.28**

*Rugby with Mezzanine includes Plot 1 H&M, Plot 2 Amazon and Plot 4 TJX, Rugby without Mezzanine includes Plot 3 DHL and Plot 5 Evri

Table 4-5: Kettering Vehicle Trip Rates (Mezzanine versus No Mezzanine)

Period	**Mezzanine?**	**(sqm)**		**Surveyed Trips (2023)**			**Trip Rate (per 100sqm GFA)**		
		GFA	**Mezzanine**	**Light**	**HGV**	**Total**	**Light**	**HGV**	**Total**
AM	With	13,935	1,152	9	6	**15**	0.06	0.04	**0.11**
	Without	79,560	0	65	11	**76**	0.08	0.01	**0.10**
PM	With	13,935	1,152	3	3	**6**	0.02	0.02	**0.04**
	Without	79,560	0	78	6	**84**	0.10	0.01	**0.11**
Daily	With	13,935	1,152	100	63	**163**	0.72	0.45	**1.17**
	Without	79,560	0	866	176	**1,042**	1.09	0.22	**1.31**

*Kettering with Mezzanine includes Plot 3 Bunzl, Kettering without Mezzanine includes Plot 4A Bunzl and Plot 4B Ball

Table 4-6: Rugby and Kettering Combined Vehicle Trip Rates (Mezzanine versus No Mezzanine)

Period	**Mezzanine?**	**(sqm)**		**Surveyed Trips (2023)**			**Trip Rate (per 100sqm GFA)**		
		GFA	**Mezzanine**	**Light**	**HGV**	**Total**	**Light**	**HGV**	**Total**
AM	With	84,170	63,392	73	23	**96**	0.09	0.03	**0.11**
	Without	118,255	0	146	79	**226**	0.12	0.07	**0.19**
PM	With	84,170	63,392	60	23	**83**	0.07	0.03	**0.10**
	Without	118,255	0	203	88	**291**	0.17	0.07	**0.25**
Daily	With	84,170	63,392	1,692	389	**2,081**	2.01	0.46	**2.47**
	Without	118,255	0	3,151	1,870	**5,020**	2.66	1.58	**4.25**

*Rugby with Mezzanine includes Plot 1 H&M, Plot 2 Amazon and Plot 4 TJX, Rugby without Mezzanine includes Plot 3 DHL and Plot 5 Evri

*Kettering with Mezzanine includes Plot 3 Bunzl, Kettering without Mezzanine includes Plot 4A Bunzl and Plot 4B Ball

4.10 To summarise the tables above, the **surveyed vehicle trip rates are not impacted by the presence of mezzanines at units**. At both Rugby Gateway and Kettering Gateway, vehicle trip rates are in fact **higher at units which do not have mezzanines**; and therefore, mezzanines did not increase vehicle trip rates. Further analysis elaborating on these results is provided below.

Rugby Gateway – Analysis of mezzanine impact on trip rates

4.11 At Rugby Gateway, 3 units (Plot 1 H&M, Plot 2 Amazon and Plot 4 TJX) contained mezzanine space, with a combined floor area of 70,235sqm and mezzanine space of 62,240sqm; totalling 132,475 sqm. In contrast, 2 units (Plot 3 DHL and Plot 5 Evri) did not have mezzanines and had a combined floor area of 38,694 sqm.

4.12 The following surveyed vehicle trip rates at Rugby Gateway were identified:

- AM Peak two-way trip rate: With mezzanine 0.12, without mezzanine 0.39
- PM Peak two-way trip rate: With mezzanine 0.11, without mezzanine 0.53
- Daily two-way trip rate: With mezzanine 2.73, without mezzanine 10.28

4.13 During all three time periods analysed, the surveyed vehicle trip rates were higher for units without mezzanine, compared to units with mezzanine.

4.14 As noted earlier in the report, Plot 5 (Evri) at Rugby Gateway recorded the highest two-way traffic volumes and trip rates across all time periods, with total daily two-way surveyed trips at 3,223 vehicles (1,759 light vehicles and 1,464 HGVs). As such, to demonstrate that Plot 5 Evri did not skew the results, further analysis was undertaken which discounted the Evri unit; completing the analysis for no mezzanines with Plot 3 DHL only.

4.15 The following surveyed vehicle trip rates were identified:

- AM Peak two-way trip rate: With mezzanine 0.12, without mezzanine 0.17
- PM Peak two-way trip rate: With mezzanine 0.11, without mezzanine 0.21
- Daily two-way trip rate: With mezzanine 2.73, without mezzanine 4.50

4.16 Although the trip rates for Evri, the highest vehicle traffic volumes from the surveys, have been discounted, the above analysis still demonstrates that surveyed vehicle trip rates were still higher for units without mezzanine, compared to Plot 3 DHL (with mezzanine).

Kettering Gateway – Analysis of mezzanine impact on trip rates

4.17 At Kettering Gateway, only 1 unit (Plot 3 Bunzl) contained mezzanine space, with a floor area of 13,935 sqm and mezzanine space of 1,152 sqm. In contrast, 2 units (Plot 4A Bunzl and Plot 4B Ball) did not have mezzanines and had a combined floor area of 79,560 sqm.

4.18 The following surveyed vehicle trip rates at Kettering Gateway were identified:

- AM Peak two-way trip rate: With mezzanine 0.11, without mezzanine 0.10
- PM Peak two-way trip rate: With mezzanine 0.04, without mezzanine 0.11
- Daily two-way trip rate: With mezzanine 1.17, without mezzanine 1.31

4.19 During all both the PM Peak and 24-hour periods, the surveyed vehicle trip rates were higher for units without mezzanine, compared to units with mezzanine. In the AM Peak, vehicle trip rates were 0.01 higher for units with mezzanine; however, the daily vehicle trip rates demonstrate that overall, the surveyed vehicle trip rates over a 24-hour period are higher in units without mezzanines at Kettering Gateway.

Rugby Gateway and Kettering Gateway – Analysis of mezzanine impact on trip rates

4.20 When considering both sites together, 4 units contained mezzanine space, with a combined floor area of 84,170 sqm and mezzanine space of 63,392 sqm. In contrast, 4 units did not have mezzanines and had a combined floor area of 118,255 sqm.

4.21 The following surveyed vehicle trip rates at both sites combined were identified:

- AM Peak two-way trip rate: With mezzanine 0.11, without mezzanine 0.19
- PM Peak two-way trip rate: With mezzanine 0.10, without mezzanine 0.25
- Daily two-way trip rate: With mezzanine 2.47, without mezzanine 4.25

4.22 When considering both sites combined, the surveyed vehicle trip rates were higher for units without mezzanine, compared to units with mezzanine during all three time periods.

4.23 To summarise, **the analysis demonstrates that mezzanine levels do not appear to have a significant impact on vehicle trip rates; and that vehicle trip rates are more likely to be influenced by other factors such as the business model operations of occupiers**. At both Rugby Gateway and Kettering Gateway, vehicle trip rates are in fact higher at units which do not have mezzanines; and therefore, may indicate that units with mezzanine space have business operations which result in lower vehicle trip rates than units which do not have mezzanine space.

4.24 Analysis understanding the impact of mezzanines has been conducted at both site-wide level at both Rugby Gateway and Kettering Gateway, as well as consolidating all surveyed data together; with the survey results indicating that surveyed vehicle trip rates are higher at units which do not have mezzanine space.

5. Surveyed v Assessed Trip Rate Comparisons

5.1 This chapter of the report provides a comparative assessment of the agreed vehicle trip rates determined at the planning stage of Rugby Gateway, Kettering Gateway and EMG1 (data taken from the previous 2022 study) and the surveyed vehicle trip rates.

5.2 It is understood that mezzanine floor areas were not considered at the point of any of the planning applications being submitted, however as set out in this document, many units now include mezzanine floor area. As such, this comparative assessment further helps determine whether this additional mezzanine floor space has impacted vehicle trip rates.

5.3 It is noted that the 'surveyed vehicle trip rates' for EMG1 are derived from traffic survey data collected in May 2022. For further information regarding this assessment methodology and full details of the analysis, please refer to document *'SEGRO Logistics Park East Midlands Gateway Vehicle Trip Rate Comparison'* (July 2022).

5.4 For Rugby Gateway and Kettering Gateway, 'surveyed vehicle trip rates' are derived from the July 2023 camera surveys as set out in the methodology chapter of this report.

5.5 'Assessed vehicle trip rates' are derived from the following Transport Assessments (TAs):

- Rugby Gateway – 2010 Transport Assessment
- Kettering Gateway – 2013 Transport Assessment
- EMG1 – 2014 Transport Assessment

5.6 Due to both the Rugby Gateway TA and Kettering Gateway TA providing assessed vehicle trip rates for the AM peak and PM peak only, these peaks were used for the comparative assessment in this chapter.

5.7 As such, the AM peak and PM peak vehicle trip rates were used as the basis of comparison, unlike the EMG1 vehicle trip rate assessment undertaken in 2022, which also included comparisons of daily trip rates.

Floor Area and Mezzanine Summary

5.8 To provide further context for the trip rate comparisons, Table 5-1 summarises the floor areas and mezzanine space at all three sites; comparing the floor areas which were assessed in the three respective TAs and the floor areas at the time of the traffic surveys (July 2023 for Rugby Gateway and Kettering Gateway, May 2022 for EMG1).

Table 5-1: Floor area and mezzanine summary

	TA sqm			**Surveyed sqm**		
	Floor Area	**Mezzanine**	**Total**	**Floor Area**	**Mezzanine**	**Total**
Rugby	131,000	0	131,000	108,929	62,240	171,169
Kettering	121,043	0	121,043	93,496	1,152	94,648
EMG1	557,414	0	557,414	288,479	138,306	426,785

5.9 It is understood that mezzanine floor areas were not considered at the point of any of the planning applications being submitted, therefore mezzanine space is assumed as 0 for all three sites in the TAs.

5.10 The following floor areas were used to compare vehicle trip rates, whereby mezzanine floor areas were not included for comparative assessment purposes:

- Rugby Gateway – Assessed (131,000 sqm) v surveyed (108,929 sqm)
- Kettering Gateway – Assessed (121,043 sqm) v surveyed (93,496 sqm)
- EMG1 – Assessed (557,414 sqm) v surveyed (288,479 sqm)

Rugby Gateway Trip Rate Comparisons

5.11 Table 5-2 presents the assessed AM peak and PM peak vehicle trip rates based on the 2010 TA and its associated 131,000 sqm floor area. Table 5-3 presents the surveyed AM peak and PM peak vehicle trip rates based on the current floor area of 108,929 sqm (62,240 sqm mezzanine floor area not included for comparative assessment purposes).

Table 5-2: Rugby Gateway assessed vehicle trip rates (2010 TA) (131,000 sqm)

	Trip Generation			**Trip Rates**		
	Inbound	**Outbound**	**Two-way**	**Inbound**	**Outbound**	**Two-way**
AM Peak	180	91	271	0.14	0.07	0.21
PM Peak	70	176	246	0.05	0.13	0.19

Table 5-3: Rugby Gateway surveyed vehicle trip rates (108,929 sqm)

	Trip Generation			**Trip Rates**		
	Inbound	**Outbound**	**Two-way**	**Inbound**	**Outbound**	**Two-way**
AM Peak	148	83	231	0.14	0.08	0.21
PM Peak	126	158	284	0.12	0.15	0.26

5.12 Comparisons of the assessed vehicle trip rates and surveyed vehicle trip rates show that the traffic volumes and vehicle trip rates are comparable in both the AM peak and PM peak.

5.13 Overall, there are 40 fewer two-way surveyed vehicle trips made in the AM peak and 38 more two-way surveyed vehicle trips made in the PM peak, when comparing against the 2010 assessed vehicle trip generation. As can be seen from the above tables, the surveyed vehicle trip rates and the assessed vehicle trip rates are both 0.21 for the AM peak. However, the surveyed vehicle trip rate is 0.26 compared to the assessed vehicle trip rate of 0.19 (0.07 higher).

5.14 Notwithstanding this, it is noted that in the Rugby Gateway 2013 TA, an ambitious proposed modal share of 49.6% was applied to car/van driver, compared to the existing modal share of 69.6%.

5.15 Table 5-4 demonstrates the assessed vehicle trip rates should the ambitious modal share targets not be applied, and the existing modal share split be applied.

Table 5-4: Rugby Gateway assessed vehicle trip rates without modal share targets (2010 TA) (131,000 sqm)

	Trip Generation			Trip Rates		
	Inbound	**Outbound**	**Two-way**	**Inbound**	**Outbound**	**Two-way**
AM Peak	253	128	380	0.19	0.10	0.29
PM Peak	98	247	345	0.07	0.19	0.26

5.16 Should the existing modal share of 69.6% car driver be applied, 380 two-way trips would be made in the AM peak and 345 two-way trips would be made in the PM peak; thus, significantly higher than both the surveyed vehicle trips and assessed (based on 49.6% car driver).

5.17 In addition, the assessed vehicle trip rate based on existing modal share would be higher than the surveyed vehicle trip rates in the AM peak, and the same in the PM peak.

5.18 Ultimately, this demonstrates that sustainable measures to meet the ambitious modal share targets of 49.6% may not have been implemented effectively to date. This may be a contributing factor as to why surveyed vehicle trip rates are slightly higher than assessed vehicle trip rates, rather than the influence of mezzanine floor area which has been demonstrated in Chapter 4 to not impact vehicle trip rates on a unit-by-unit basis at Rugby Gateway.

Kettering Gateway Trip Rate Comparisons

5.19 Table 5-5 presents the assessed AM peak and PM peak vehicle trip rates based on the 2013 TA and its associated 121,043 sqm floor area. Table 5-6 presents the surveyed AM peak and PM peak vehicle trip rates based on the current floor area of 93,496 sqm (1,152 sqm mezzanine floor area not included for comparative assessment purposes).

Table 5-5: Kettering Gateway assessed vehicle trip rates (2013 TA) (121,043sqm)

	Trip Generation			**Trip Rates**		
	Inbound	**Outbound**	**Two-way**	**Inbound**	**Outbound**	**Two-way**
AM Peak	521	147	668	0.43	0.12	0.55
PM Peak	92	435	527	0.08	0.36	0.44

Table 5-6: Kettering Gateway surveyed vehicle trip rates (93,496 sqm)

	Trip Generation			**Trip Rates**		
	Inbound	**Outbound**	**Two-way**	**Inbound**	**Outbound**	**Two-way**
AM Peak	74	17	91	0.08	0.02	0.10
PM Peak	15	75	90	0.02	0.08	0.10

5.20 Comparisons of the assessed vehicle trip rates and surveyed vehicle trip rates show that the traffic volumes and vehicle trip rates are lower in 2023 in both the AM peak and PM peak.

5.21 Overall, there are 577 fewer two-way surveyed vehicle trips made in the AM peak and 437 fewer two-way surveyed vehicle trips made in the PM peak, when comparing against the 2013 assessed vehicle trip generation. As can be seen from the above tables, the surveyed vehicle trip rates are significantly lower than the assessed vehicle trip rates.

EMG1 Trip Rate Comparisons

5.22 Table 5-7 presents the assessed AM peak and PM peak vehicle trip rates based on the 2014 TA and its associated 557,414 sqm floor area. Table 5-8 presents the surveyed AM peak and PM peak vehicle trip rates based on the current floor area of 288,479 sqm (138,306 sqm mezzanine floor area not included for comparative assessment purposes).

Table 5-7: EMG1 assessed vehicle trip rates (2014 TA) (557,414 sqm)

	Trip Generation			Trip Rates		
	Inbound	Outbound	Two-way	Inbound	Outbound	Two-way
AM Peak	780	201	981	0.140	0.036	0.176
PM Peak	273	736	1,009	0.049	0.132	0.181

Table 5-8: EMG1 2022 surveyed vehicle trip rates (288,479 sqm)

	Trip Generation			Trip Rates		
	Inbound	Outbound	Two-way	Inbound	Outbound	Two-way
AM Peak	320	111	431	0.111	0.038	0.149
PM Peak	210	248	458	0.073	0.086	0.159

5.23 Comparisons of the assessed vehicle trip rates and surveyed vehicle trip rates show that the traffic volumes and vehicle trip rates are lower in 2022 in both the AM peak and PM peak.

5.24 Overall, there are 550 fewer two-way surveyed vehicle trips made in the AM peak and 551 fewer two-way surveyed vehicle trips made in the PM peak, when comparing against the 2014 assessed vehicle trip generation. As can be seen from the above tables, the surveyed vehicle trip rates are also lower than the assessed vehicle trip rates.

6. Summary and Conclusion

6.1 Integrated Transport Planning Ltd has been commissioned by SEGRO to carry out a vehicle trip rate assessment to understand if mezzanine levels at units at SEGRO Logistics Park Rugby Gateway (Rugby Gateway) and SEGRO Park Kettering Gateway (Kettering Gateway) have an impact on the number of vehicles at each site.

6.2 To obtain accurate on-site traffic data at both Rugby Gateway and Kettering Gateway, camera surveys were undertaken between the dates of Thursday 13th July 2023 and Wednesday 19th July 2023, capturing data for a 7-day period.

6.3 To streamline the raw data in the analysis process, an average calculation has been completed for the data covering Thursday 13th July 2023, Tuesday 18th July 2023 and Wednesday 19th July 2023. For each unit, three time periods have been assessed which mirror those considered in the previous EMG1 study: AM Peak (08:00 – 09:00), PM Peak (17:00 – 18:00) and 24-hour period (00:00 – 00:00).

6.4 Using the assessment of the recorded number of vehicle trips from each unit, and the Gross Floor Area (sqm), the associated vehicle trip rates per 100sqm were calculated.

6.5 Analysis at both Rugby Gateway and Kettering Gateway demonstrated that the surveyed vehicle trip rates were higher for units without mezzanine, compared to units with mezzanine. The following surveyed vehicle trip rates presents both sites combined into either units with mezzanine or without mezzanine:

- AM Peak two-way trip rate: With mezzanine 0.11, without mezzanine 0.19
- PM Peak two-way trip rate: With mezzanine 0.10, without mezzanine 0.25
- Daily two-way trip rate: With mezzanine 2.47, without mezzanine 4.25

6.6 In conclusion, **the analysis demonstrates that mezzanine levels do not appear to have a significant impact on vehicle trip rates; and that vehicle trip rates are more likely to be influenced by other factors such as the business model operations of occupiers**. At both Rugby Gateway and Kettering Gateway, vehicle trip rates are in fact higher at units which do not have mezzanines; and therefore, may indicate that units with mezzanine space have business operations which result in lower vehicle trip rates than units which do not have mezzanine space.

6.7 Analysis understanding the impact of mezzanines has been conducted at both site-wide level at both Rugby Gateway and Kettering Gateway, as well as consolidating all surveyed data together; with the survey results indicating that surveyed vehicle trip rates are higher at units which do not have mezzanine space.

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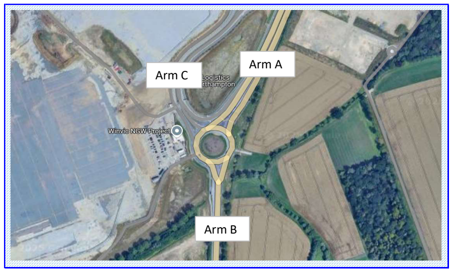
APPENDIX B

2031 traffic flows data from latest version of NSTM

Junction Turning Flows, Units: PCUs Actual Flows

Junction: **Northampton Gateway Site Access**



Arm Description

Arm	Description
A	*A508 North*
B	*A508 South*
C	*Site Access*

2031 Ref Case AM Peak

MODELLED									
All Vehicle		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	1323	861					2183
	B	798	0	66					865
	C	367	7	0					374
	D								
	E								
	F								
	G								
	TOTAL	1165	1330	927					3422

By Vehicle Type:

MODELLED									
Car		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	1018	553					1570
	B	649	0	49					698
	C	62	6	0					68
	D								
	E								
	F								
	G								
	TOTAL	711	1023	602					2336

MODELLED									
LGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	231	20					251
	B	87	0	17					104
	C	3	1	0					4
	D								
	E								
	F								
	G								
	TOTAL	90	233	37					360

MODELLED									
HGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	68	288					357
	B	57	0	0					57
	C	301	0	0					301
	D								
	E								
	F								
	G								
	TOTAL	358	68	288					715

MODELLED									
Fixed		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	5	0					5
	B	6	0	0					6
	C	0	0	0					0
	D								
	E								
	F								
	G								
	TOTAL	6	5	0					11

2031 Ref Case PM Peak

MODELLED									
All Vehicle		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	1125	449					1574
	B	1201	0	61					1262
	C	1029	72	0					1101
	D								
	E								
	F								
	G								
	TOTAL	2229	1197	510					3937

By Vehicle Type:

MODELLED									
Car		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	1056	180					1236
	B	912	0	22					933
	C	699	67	0					766
	D								
	E								
	F								
	G								
	TOTAL	1611	1122	202					2935

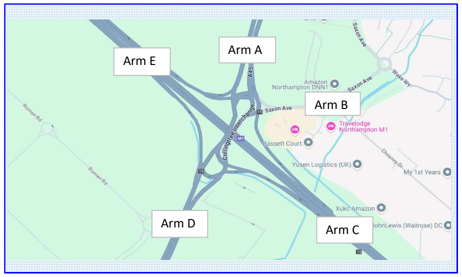
MODELLED									
LGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	50	11					60
	B	186	0	1					187
	C	31	6	0					36
	D								
	E								
	F								
	G								
	TOTAL	217	55	11					284

MODELLED									
HGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	14	258					272
	B	97	0	39					136
	C	299	0	0					299
	D								
	E								
	F								
	G								
	TOTAL	396	14	297					707

MODELLED									
Fixed		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	6	0					6
	B	6	0	0					6
	C	0	0	0					0
	D								
	E								
	F								
	G								
	TOTAL	6	6	0					11

Junction Turning Flows, Units: PCUs Actual Flows

Junction: **M1 Junction 15**



Arm Description

Arm	Description
A	*A45*
B	*Saxon Avenue*
C	*M1 Southeast*
D	*A508*
E	*M1 Northwest*

2031 Ref Case AM Peak

MODELLED									
All Vehicle		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	44	28	644	1735	1274			3725
	B	26	0	39	24	104			193
	C	1093	37	0	40	0			1170
	D	758	24	64	17	295			1158
	E	1874	173	0	379	0			2426
	F								
	G								
	TOTAL	3795	262	747	2195	1673			8672

By Vehicle Type:

MODELLED									
Car		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	42	26	305	1209	907			2489
	B	26	0	35	24	103			188
	C	933	36	0	37	0			1006
	D	501	24	64	0	124			713
	E	1333	171	0	293	0			1797
	F								
	G								
	TOTAL	2835	257	404	1563	1134			6193

MODELLED									
LGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	2	2	92	230	62			388
	B	0	0	0	0	1			1
	C	82	1	0	3	0			86
	D	83	0	0	0	7			90
	E	184	2	0	19	0			205
	F								
	G								
	TOTAL	351	5	92	252	70			770

MODELLED									
HGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	0	247	296	305			848
	B	0	0	4	0	0			4
	C	78	0	0	0	0			78
	D	174	0	0	17	164			355
	E	357	0	0	67	0			424
	F								
	G								
	TOTAL	609	0	251	380	469			1709

MODELLED									
Fixed		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A								0
	B								0
	C								0
	D								0
	E								0
	F								
	G								
	TOTAL	0	0	0	0	0			0

2031 Ref Case PM Peak

MODELLED									
All Vehicle		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	24	302	843	1097	1129			3395
	B	0	0	94	53	143			290
	C	1196	27	0	74	0			1297
	D	1473	5	23	1	721			2223
	E	1258	83	0	406	0			1747
	F								
	G								
	TOTAL	3951	417	960	1631	1993			8952

By Vehicle Type:

MODELLED									
Car		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	24	256	597	940	938			2755
	B	0	0	93	40	92			225
	C	921	25	0	8	0			954
	D	1041	5	21	0	545			1612
	E	923	31	0	303	0			1257
	F								
	G								
	TOTAL	2909	317	711	1291	1575			6803

MODELLED									
LGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	6	135	26	42			209
	B	0	0	1	8	2			11
	C	172	0	0	1	0			173
	D	179	0	2	0	38			219
	E	158	2	0	27	0			187
	F								
	G								
	TOTAL	509	8	138	62	82			799

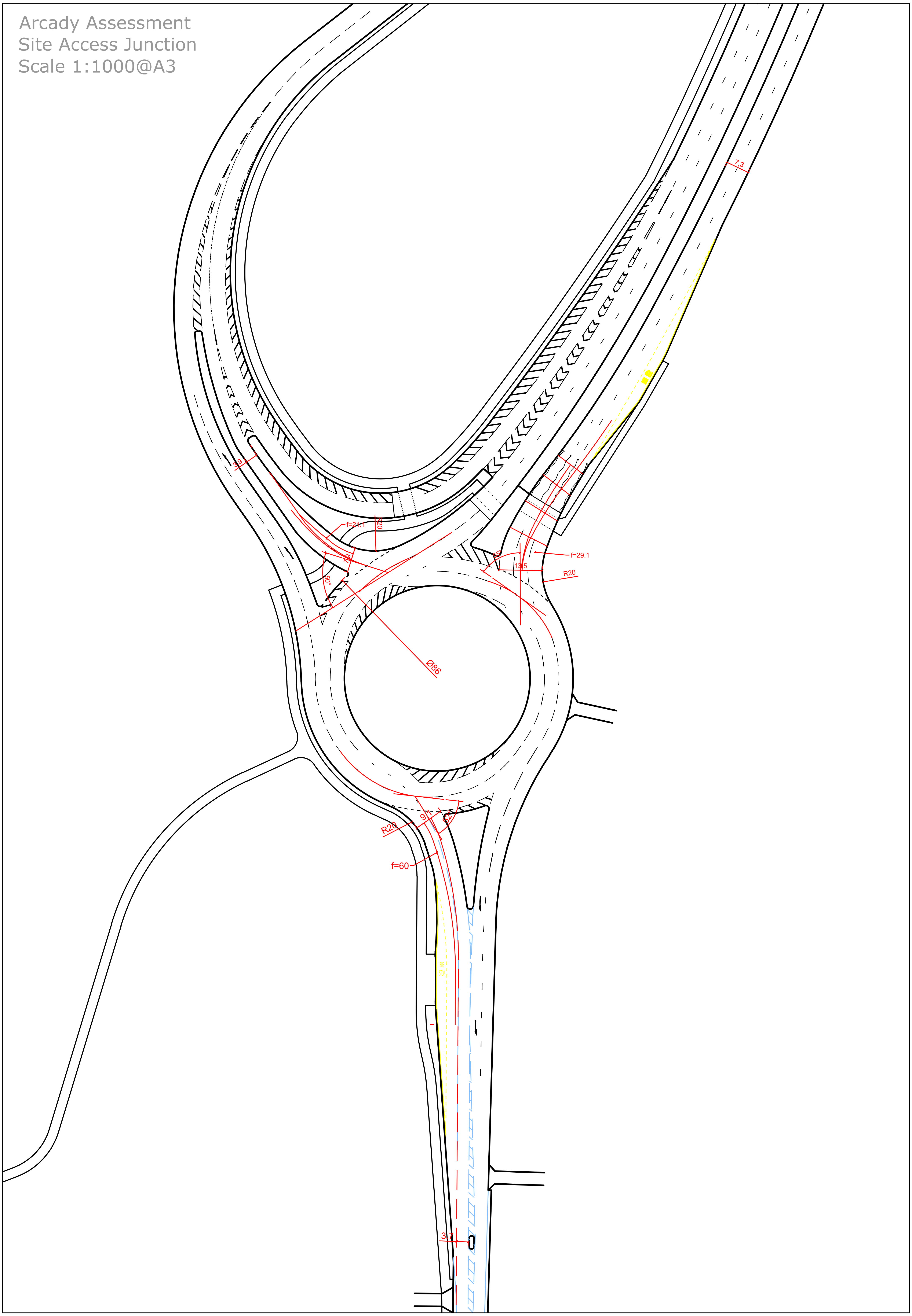
MODELLED									
HGV		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A	0	40	111	131	149			431
	B	0	0	0	5	49			54
	C	103	2	0	65	0			170
	D	253	0	0	1	138			392
	E	177	50	0	76	0			303
	F								
	G								
	TOTAL	533	92	111	278	336			1350

MODELLED									
Fixed		To Arm							
		A	B	C	D	E	F	G	TOTAL
From Arm	A								0
	B								0
	C								0
	D								0
	E								0
	F								
	G								
	TOTAL	0	0	0	0	0			0

APPENDIX C

A508 site access ARCADY geometry and outputs

Arcady Assessment
Site Access Junction
Scale 1:1000@A3



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

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Filename: ADC3519 SRFI site acess_A508 - new NSTM.j9
Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3519 SLP- DCO amendment to mezzanine space\Calculations\Modelling\ADC3519 site access
Report generation date: 26/06/2025 14:28:52

- »2031 - Updated NSTM Background, AM
- »2031 - Updated NSTM Background, PM
- »2031 - Updated NSTM +mez @50%, AM
- »2031 - Updated NSTM +mez @50%, PM
- »2031 - Updated NSTM +mez ITP, AM
- »2031 - Updated NSTM +mez ITP, PM
- »2031 - Updated NSTM sensitivity test, AM
- »2031 - Updated NSTM sensitivity test, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity
	2031 - Updated NSTM Background							
Arm 1	4.3	6.61	0.80	22 % [Arm 1]	1.6	3.36	0.59	29 % [Arm 2]
Arm 2	1.3	5.05	0.55		2.6	6.73	0.71	
Arm 3	0.0	3.16	0.01		0.1	3.40	0.09	
	2031 - Updated NSTM +mez @50%							
Arm 1	5.4	7.92	0.84	17 % [Arm 1]	1.7	3.54	0.61	27 % [Arm 2]
Arm 2	1.5	5.53	0.58		2.7	7.15	0.72	
Arm 3	0.0	3.19	0.01		0.1	3.44	0.10	
	2031 - Updated NSTM +mez ITP							
Arm 1	5.8	8.39	0.85	16 % [Arm 1]	1.8	3.55	0.61	26 % [Arm 2]
Arm 2	1.5	5.68	0.59		2.8	7.21	0.73	
Arm 3	0.0	3.20	0.01		0.1	3.43	0.09	
	2031 - Updated NSTM sensitivity test							
Arm 1	6.9	9.88	0.87	12 % [Arm 1]	1.9	3.73	0.63	24 % [Arm 2]
Arm 2	1.6	6.10	0.61		2.9	7.61	0.74	
Arm 3	0.0	3.19	0.01		0.1	3.48	0.11	

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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	ADC3519
Location	A508 site access
Site number	
Date	13/05/2024
Version	
Status	(new file)
Identifier	
Client	SEGRO
Jobnumber	ADC3519
Enumerator	ADC-TOSHIBA-AIO\ADC
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

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Updated NSTM Background	AM	ONE HOUR	07:45	09:15	15
D2	Updated NSTM Background	PM	ONE HOUR	16:45	18:15	15
D3	Updated NSTM +mez @50%	AM	ONE HOUR	07:45	09:15	15
D4	Updated NSTM +mez @50%	PM	ONE HOUR	16:45	18:15	15
D5	Updated NSTM +mez ITP	AM	ONE HOUR	07:45	09:15	15
D6	Updated NSTM +mez ITP	PM	ONE HOUR	16:45	18:15	15
D7	Updated NSTM sensitivity test	AM	ONE HOUR	07:45	09:15	15
D8	Updated NSTM sensitivity test	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	2031	100.000

2031 - Updated NSTM Background, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	5.84	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	Arm 1

Arms

Arms

Arm	Name	Description
1	A508 north	
2	A508 south	
3	SRFI site access	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	7.30	13.50	29.1	20.0	86.0	55.0	
2	3.70	9.10	60.0	20.0	86.0	52.0	
3	3.90	7.90	21.1	20.0	86.0	50.0	

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1		
2		
3	✓	98

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	3.00	3.00	2.90	1.00	7.00	10.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.634	3040
2	0.517	2209
3	0.461	1802

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Updated NSTM Background	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	2184	100.000
2		✓	864	100.000
3		✓	376	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	**2**	**3**
From	**1**	0	1323	861
	2	798	0	66
	3	367	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	**2**	**3**
From	**1**	0	4	15
	2	6	0	27
	3	63	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.80	6.61	4.3	A
2	0.55	5.05	1.3	A
3	0.01	3.16	0.0	A

2031 - Updated NSTM Background, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	4.45	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	29	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Updated NSTM Background	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1574	100.000
2		✓	1262	100.000
3		✓	1101	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1125	449
	2	1201	0	61
	3	1029	72	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	**2**	**3**
From	**1**	0	5	35
	2	4	0	55
	3	15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.59	3.36	1.6	A
2	0.71	6.73	2.6	A
3	0.09	3.40	0.1	A

2031 - Updated NSTM +mez @50%, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	6.79	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Updated NSTM +mez @50%	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	2272	100.000
2		✓	878	100.000
3		✓	410	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	**2**	**3**
From	**1**	0	1323	949
	2	798	0	80
	3	401	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	15
	2	6	0	26
	3	63	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.84	7.92	5.4	A
2	0.58	5.53	1.5	A
3	0.01	3.19	0.0	A

2031 - Updated NSTM +mez @50%, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	4.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	27	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Updated NSTM +mez @50%	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1618	100.000
2		✓	1269	100.000
3		✓	1207	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1125	493
	2	1201	0	68
	3	1123	84	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	**2**	**3**
From	**1**	0	5	35
	2	4	0	52
	3	15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.61	3.54	1.7	A
2	0.72	7.15	2.7	A
3	0.10	3.44	0.1	A

2031 - Updated NSTM +mez ITP, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	7.12	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	16	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Updated NSTM +mez ITP	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	2297	100.000
2		✓	882	100.000
3		✓	421	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1323	974
	2	798	0	84
	3	412	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	4	15
	2	6	0	26
	3	63	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.85	8.39	5.8	A
2	0.59	5.68	1.5	A
3	0.01	3.20	0.0	A

2031 - Updated NSTM +mez ITP, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	4.65	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Updated NSTM +mez ITP	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1625	100.000
2		✓	1269	100.000
3		✓	1197	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1125	500
	2	1201	0	68
	3	1117	80	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	**2**	**3**
From	**1**	0	5	35
	2	4	0	52
	3	15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.61	3.55	1.8	A
2	0.73	7.21	2.8	A
3	0.09	3.43	0.1	A

2031 - Updated NSTM sensitivity test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	8.16	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	Updated NSTM sensitivity test	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	2361	100.000
2		✓	891	100.000
3		✓	446	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1323	1038
	2	798	0	93
	3	436	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	**2**	**3**
From	**1**	0	4	15
	2	6	0	26
	3	63	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.87	9.88	6.9	A
2	0.61	6.10	1.6	A
3	0.01	3.19	0.0	A

2031 - Updated NSTM sensitivity test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A508 site access	Standard Roundabout		1, 2, 3	4.82	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	24	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	Updated NSTM sensitivity test	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	1661	100.000
2		✓	1275	100.000
3		✓	1313	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	10.00
2	
3	

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	1125	536
	2	1201	0	74
	3	1218	95	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	**2**	**3**
From	**1**	0	5	35
	2	4	0	52
	3	15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.63	3.73	1.9	A
2	0.74	7.61	2.9	A
3	0.11	3.48	0.1	A

APPENDIX D

M1 Junction 15 as-built information

PASSIVE POLE NOTES

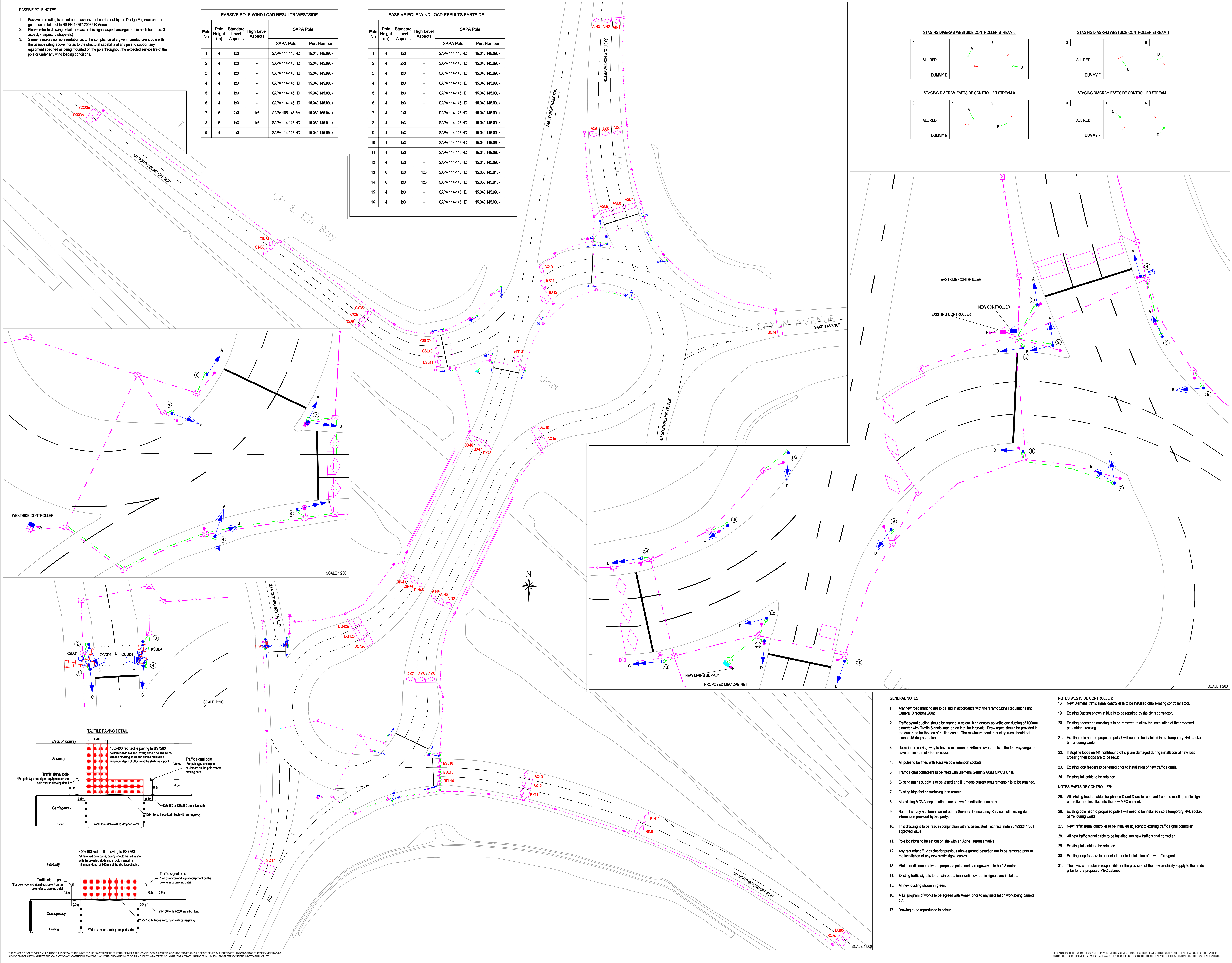
1. Passive pole rating is based on an assessment carried out by the Design Engineer and the guidance as laid out in BS EN 12767:2007 UK Annex.
2. Please refer to drawing detail for exact traffic signal aspect arrangement in each head (i.e. 3 aspect, 4 aspect, L shape etc)
3. Siemens makes no representation as to the compliance of a given manufacturer's pole with the passive rating above, nor as to the structural capability of any pole to support any equipment specified as being mounted on the pole throughout the expected service life of the pole or under any wind loading conditions.

PASSIVE POLE WIND LOAD RESULTS WESTSIDE

Pole No	Pole Height (m)	Standard Level Aspects	High Level Aspects	SAPA Pole	
				SAPA Pole	Part Number
1	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
2	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
3	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
4	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
5	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
6	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
7	6	2x3	1x3	SAPA 165-145 6m	15.060.165.04uk
8	6	1x3	1x3	SAPA 114-145 HD	15.060.145.01uk
9	4	2x3	-	SAPA 114-145 HD	15.040.145.09uk

PASSIVE POLE WIND LOAD RESULTS EASTSIDE

Pole No	Pole Height (m)	Standard Level Aspects	High Level Aspects	SAPA Pole	
				SAPA Pole	Part Number
1	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
2	4	2x3	-	SAPA 114-145 HD	15.040.145.09uk
3	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
4	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
5	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
6	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
7	4	2x3	-	SAPA 114-145 HD	15.040.145.09uk
8	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
9	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
10	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
11	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
12	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
13	6	1x3	1x3	SAPA 114-145 HD	15.060.145.01uk
14	6	1x3	1x3	SAPA 114-145 HD	15.060.145.01uk
15	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk
16	4	1x3	-	SAPA 114-145 HD	15.040.145.09uk



GENERAL NOTES:

1. Any new road marking are to be laid in accordance with the 'Traffic Signs Regulations and General Directions 2002'.
2. Traffic signal ducting should be orange in colour, high density polyethelene ducting of 100mm diameter with 'Traffic Signals' marked on it at 1m intervals. Draw ropes should be provided in the duct runs for the use of pulling cable. The maximum bend in ducting runs should not exceed 45 degree radius.
3. Ducts in the carriageway to have a minimum of 750mm cover, ducts in the footway/verge to have a minimum of 450mm cover.
4. All poles to be fitted with Passive pole retention sockets.
5. Traffic signal controllers to be fitted with Siemens Gemini2 GSM OMCU Units.
6. Existing mains supply is to be tested and if it meets current requirements it is to be retained.
7. Existing high friction surfacing is to remain.
8. All existing MOVA loop locations are shown for indicative use only.
9. No duct survey has been carried out by Siemens Consultancy Services, all existing duct information provided by 3rd party.
10. This drawing is to be read in conjunction with its associated Technical note 854832241/001 approved issue.
11. Pole locations to be set out on site with an Aone+ representative.
12. Any redundant ELV cables for previous above ground detection are to be removed prior to the installation of any new traffic signal cables.
13. Minimum distance between proposed poles and carriageway is to be 0.8 meters.
14. Existing traffic signals to remain operational until new traffic signals are installed.
15. All new ducting shown in green.
16. A full program of works to be agreed with Aone+ prior to any installation work being carried out.
17. Drawing to be reproduced in colour.

NOTES WESTSIDE CONTROLLER:

18. New Siemens traffic signal controller is to be installed onto existing controller stool.
19. Existing Ducting shown in blue is to be repaired by the civils contractor.
20. Existing pedestrian crossing is to be removed to allow the installation of the proposed pedestrian crossing.
21. Existing pole near to proposed pole 7 will need to be installed into a temporary NAL socket / barrel during works.
22. If stopline loops on M1 northbound off slip are damaged during installation of new road crossing then loops are to be recut.
23. Existing loop feeders to be tested prior to installation of new traffic signals.
24. Existing link cable to be retained.

NOTES EASTSIDE CONTROLLER:

25. All existing feeder cables for phases C and D are to removed from the existing traffic signal controller and installed into the new MEC cabinet.
26. Existing pole near to proposed pole 1 will need to be installed into a temporary NAL socket / barrel during works.
27. New traffic signal controller to be installed adjacent to existing traffic signal controller.
28. All new traffic signal cable to be installed into new traffic signal controller.
29. Existing link cable to be retained.
30. Existing loop feeders to be tested prior to installation of new traffic signals.
31. The civils contractor is responsible for the provision of the new electricity supply to the haldo pillar for the proposed MEC cabinet.

DRAWING N° 854832241/D/001 | ISSUE 4

KEY:-

NEW SIGNAL EQUIPMENT

●	4m Straight Passive Signal Pole
●	6m Straight Traffic Passive Signal Pole
◐	6m Straight Traffic Passive Signal Pole
◀—	Primary 3 Aspect RAG CLS LED ELV Traffic Signal Head
◀—	Secondary 3 Aspect RAG CLS LED ELV Traffic Signal Head
◀—	Secondary 3 Aspect RAG CLS LED ELV Traffic Signal Head fitted with Tunnel Hoods
C	Combined ELV TOUCAN Nearside Indicator With Push Button and Wai Indicator fitted with rotating tactile device and audible's.
◀	ELV Pedestrian Demand Unit and Wait Indicator fitted with rotating tacti device
—<	Pedestrian Oncrossing Detector (OCDn) (e.g. Siemens Heimdall)
—<	Pedestrian Kerbside Detector (KSDn) (e.g.Siemens Heimdall)
PE	Photoelectric Cell
■	Siemens ST950 ELV Traffic Signal Controller with integral MOVA and Siemens Gemini2 GSM OMCU RMS Unit
■	MEC Cabinet
①	Pole Number
H ■	New Electricity Supply Pillar for MEC Cabinet

EXISTING SIGNAL EQUIPMENT

H ■	Electricity Supply Pillar
●	6m Straight Wide Base Traffic Signal Pole
●	4m Straight Traffic Signal Pole
■	Traffic Signal Controller
◇ □	MOVA Loops

NEW CIVILS EQUIPMENT

□	NAL115 Passive Pole Retention Socket with Duck Foot for 4m Pole
□	NAL168 Passive Pole Retention Socket with Duck Foot for 6m Pole
— · —	1 x 100mm Dia Orange High Density Polyethylene Traffic Signal Duct
— · · —	2 x 100mm Dia Orange High Density Polyethylene Traffic Signal Duct
——	1 x 50mm Orange High Density Polyethylene Electricity Duct
▦	Red Tactile Paving

EXISTING CIVIL EQUIPMENT

⊠	Existing Medium Duct Box
— · —	1 x 100mm Dia Orange High Density Polyethylene Traffic Signal Duct
— · · —	2 x 100mm Dia Orange High Density Polyethylene Traffic Signal Duct
— x —	Unknown Number of Dia Orange High Density Polyethylene Traffic Sigr Duct
——	1 x 50mm Dia Orange High Density Polyethylene Traffic Signal Duct

DUCTING TO BE REPAIRED

— · · —	2 x 100mm Dia Orange High Density Polyethylene Traffic Signal Duct

DO NOT SCALE

ISSUE	DESCRIPTION	DRN	CHK	DATE
4	Drawing approved for construction.	LB	NR	06/01/14
3	Amend following comments from AS at Aone +.	LB	NR	12/12/13
2	Amend following comments from AS at Aone +.	LB	NR	25/11/13

SIEMENS

DRAWING STATUS

APPROVED

CUSTOMER

AONE+

SCHEME TITLE

M1 / JUNCTION 15
ELV TRAFFIC SIGNAL UPGRADE DESIGN
AREA 7

DATE: 6.1.14 | SCALE: A/S | DRN: LB | CHKD: NR | APP: ---

Siemens Mobility & Logistics, Traffic Solutions
Ashby Park
Coalfield Way
Ashby de la Zouch
Leicestershire, LE65 1JD
Tel: 01530 258000
Fax: 01530 258008
www.siemens.co.uk/traffic

DRAWING N°: 854832241/D/001

PAPER SIZE: A0

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Administration

General Specifications

Customer Name: National Highways - Area 7

Intersection/ General Description: M1 Junction 15, Controller 1 (North)
Site Ref: 7100

Controller: ● New ○ Modification

Area Specifications/ Customer Drawings:

Specification Section:

Contract/Tender Ref:

Quotation No.:

Works Order No.: 857993755

Customer Order No.: 857993755

Controller/ Serial Number: 7100

S.T.S. /EM Number: NN0014 Issue 4

Equipment Installation by: Yunex Traffic

Slot Cutting by:

Civil Works by:

Customer's Engineer:

Telephone Number:

Signal Company Use Only

Signal Engineer: [redacted] (Yunex Traffic)

(IF PROM Label as >) PROM Number 16260 PROM Variant 14

Configuration Check Value: EF D 11 30

Controller Options

Hardware: ST950 ELV Firmware Type and Issue: 46059 ISS 26 Other Options

ST950/ST900/ST750 Series Cabinet Options

Cabinet/Rack: Cabinet

Kit Type Options: ● UK-Std ○ Non-UK ○ ○

Cabinet/Rack Variant: Grey

Cuckoo Options: None

Gemini Unit Fitted ☐

Mains Supply: 230 Volts 50 Hz

Peak Lamp Current: 1 Amps

Average Lamp Power: 1 Watts

Total Average Power: 230 Watts

Dimming: 27.5 V

Low Inrush Transformer ☑

Answer Issue: 0

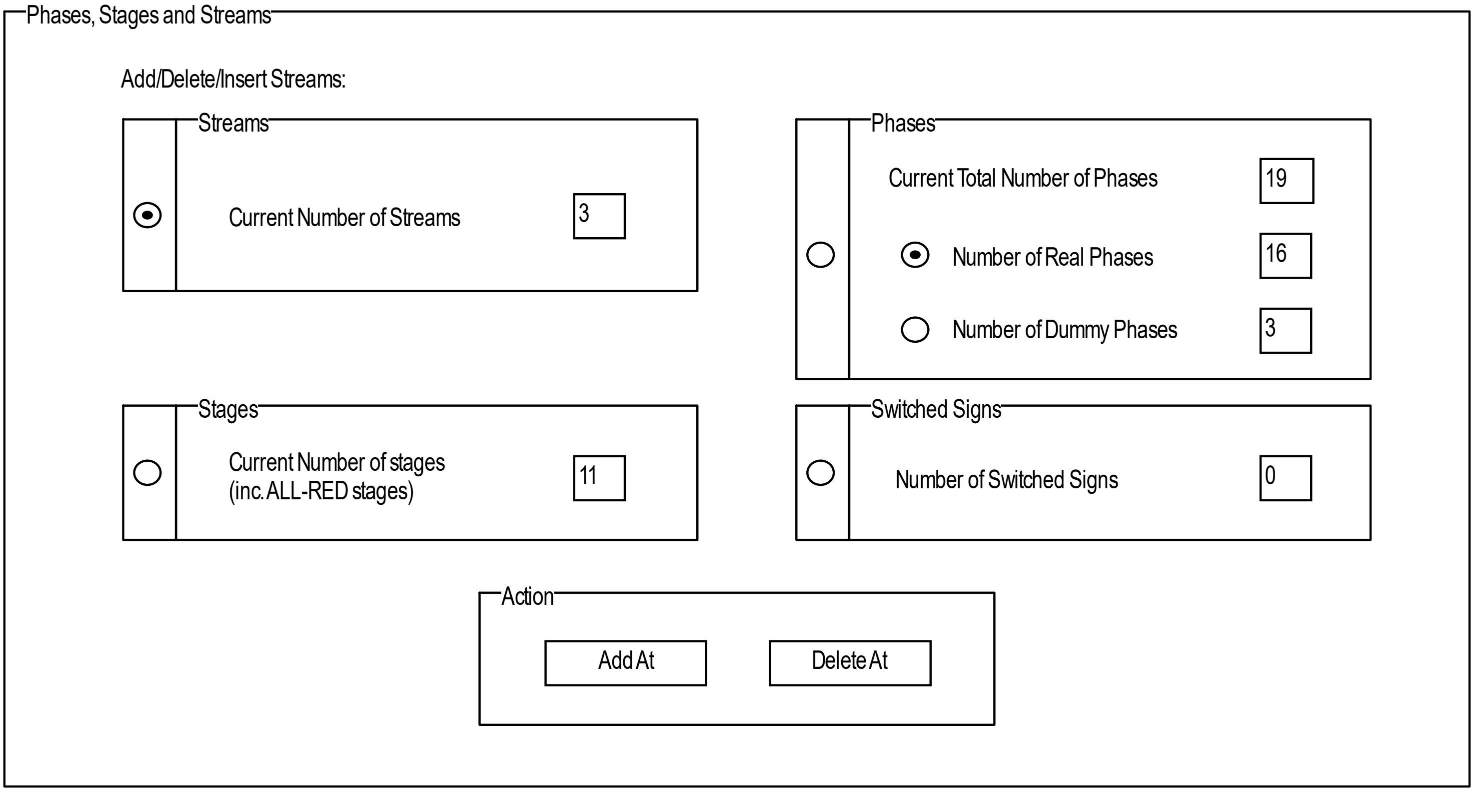
Edit Issue: 13

Date Created: 07/06/2022

Power feed fuse rating: requires 30 Amp minimum for controller, 15 Amp minimum for pelican/lightly loaded controller

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phases, Stages and Streams



Phases, Stages and Streams

Add/Delete/Insert Streams:

Streams
● Current Number of Streams: 3

Phases
○ Current Total Number of Phases: 19
● Number of Real Phases: 16
○ Number of Dummy Phases: 3

Stages
○ Current Number of stages (inc. ALL-RED stages): 11

Switched Signs
○ Number of Switched Signs: 0

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Facilities/Modes Enabled and Mode Priority Levels

Facilities

UTC

☑ Serial/Internal UTMC OTU
☐ Free-standing OTU
☐
☐

12 Starting Intergreen

☑ Master Time Clock
☐ Holiday Clock
☑ FT To Current MAX
☐ Linked Fixed Time

☑ Lamp Monitoring
☑ RED Lamp Monitoring
☑ Pelican/Puffin/Toucan
☐ Standalone Manual

☐ Extend All Red
☐ Speed Measurement
☐ Ripple Change
☐
☐ DVI35

☐ Non-UK
☐ Fail to Part Time
☐
☐
☐ Download To Level 3

Mode Priority

	1	2	3	4	5	6	7	8	9	10	11	12	13
☐ Part Time	○	○	○	○	○	○	○	○	○	○	○	○	○
☐ Emergency Vehicles	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ Hurry Call	○	○	●	○	○	○	○	○	○	○	○	○	○
☐ LRT	○	○	○	○	○	○	○	○	○	○	○	○	○
☐ Priority Vehicle	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ Manual Control	●	○	○	○	○	○	○	○	○	○	○	○	○
☐ Manual Step On	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ Selected FT or VA or CLF	○	●	○	○	○	○	○	○	○	○	○	○	○
☑ UTC	○	○	○	●	○	○	○	○	○	○	○	○	○
☑ MOVA Mode	○	○	○	○	●	○	○	○	○	○	○	○	○
☐ CLF (Non-Base Time)	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ CLF (Base Time)	○	○	○	○	○	●	○	○	○	○	○	○	○
☑ Vehicle Actuated	○	○	○	○	○	○	●	○	○	○	○	○	○
☑ Fixed Time	○	○	○	○	○	○	○	●	○	○	○	○	○

Configuration Complexity

○ Low ○ Medium ○ High ● Maximum

standard46059.8df
Default PROM data file

Correspondence Monitoring to inc.

☑ Reds ☑ Ambers
☐ Switched Signs ☐

Flash Rate (ms)

400 Off 400 On

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phases in Stages

Phases

In Stages

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
0																	🟥		
1	🟥	🟥			🟥	🟥													
2			🟥	🟥			🟥												
3																		🟥	
4								🟥	🟥			🟥	🟥						
5										🟥	🟥								
6																			🟥
7														🟥	🟥				
8																🟥			
9														🟥					
10															🟥				

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Stages in Streams

Stages in Streams

	0	1	2	3	4	5	6	7
Phase or Stage to revert to in absence of demands/extensions	1	4	7					
Startup Stage	1	4	7					
Switch Off Stage	1	4	7					
Standalone Pedestrian	☐	☐	☐	☐	☐	☐	☐	☐

Note: For a Stand-Alone Stream, the reversion must be to All Red stage or Traffic stage/phase to meet the relevant standard or specification.

Stages

In Stream	0	1	2	3	4	5	6	7	8	9	10
0	🟥	🟥	🟥								
1				🟥	🟥	🟥					
2							🟥	🟥	🟥	🟥	🟥

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Type and Conditions

Phase Type and Conditions

● Phases A to P ○ Phases Q to F2 Improved GA Appearance ☐ Manual Output Allocation ☑

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs "R"	"A"	"G"	H/W Fail Flash	Critical Phase
A	GYRATORY X M1 SOUTHBOUND OFF SLIP	0 - UK Traffic	0	0 - Ei		1	1	1		☐
B	GYRATORY X M1 SOUTHBOUND OFF SLIP RIGHT	0 - UK Traffic	0	0 - Ei		1	1	1		☐
C	M1 SOUTHBOUND OFF SLIP AHEAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
D	M1 SOUTHBOUND OFF SLIP LEFT	0 - UK Traffic	0	0 - Ei		1	1	1		☐
E	PED X M1 SOUTHBOUND OFF SLIP AHEAD	3 - UK Near Side Pedestrian	0	0 - Ei		1	1	2		☐
F	PED X M1 SOUTHBOUND OFF SLIP LEFT	3 - UK Near Side Pedestrian	0	0 - Ei		1	1	2		☐
G	PED X GYRATORY	3 - UK Near Side Pedestrian	0	0 - Ei		1	1	2		☐
H	GYRATORY RIGHT X A45 LONDON ROAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
I	GYRATORY AHEAD X A45 LONDON ROAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
J	A45 LONDON ROAD AHEAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
K	A45 LONDON ROAD LEFT	0 - UK Traffic	0	0 - Ei		1	1	1		☐
L	PED X A45 LONDON ROAD AHEAD	3 - UK Near Side Pedestrian	0	0 - Ei		1	1	2		☐
M	PED X A45 LONDON ROAD LEFT	3 - UK Near Side Pedestrian	0	0 - Ei		1	1	2		☐
N	GYRATORY AHEAD X SAXON AVENUE	0 - UK Traffic	0	0 - Ei		1	1	1		☐
O	GYRATORY LEFT X SAXON AVENUE	0 - UK Traffic	0	0 - Ei		1	1	1		☐
P	SAXON AVENUE	0 - UK Traffic	0	0 - Ei		1	1	1		☐

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The H/W Fail Flash fields are for information only on all but ST900 ELV and ST950 ELV Controllers. For other controllers, physical switches or links (etc.), select which aspects flash; these need to be set up manually.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Type and Conditions

Phase Type and Conditions

○ Phases A to P ● Phases Q to F2 Improved GA Appearance ☐ Manual Output Allocation ☑

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs "R"	"A"	"G"	H/W Fail Flash	Critical Phase
Q	STREAM 0 ALL RED DUMMY PHASE	2 - UK GreenArrow	0	0 - Ei						☐
R	STREAM 1 ALL RED DUMMY PHASE	2 - UK GreenArrow	0	0 - Ei						☐
S	STREAM 2 ALL RED DUMMY PHASE	2 - UK GreenArrow	0	0 - Ei						☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐
										☐

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
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Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Opposing and Conflicting Phases

Select Stream(s) To Configure
○ All ○ 0 ○ 1 ○ 2 ○ ○ ○ ○ ○

Initialise

☑ Amber Conflict Monitoring

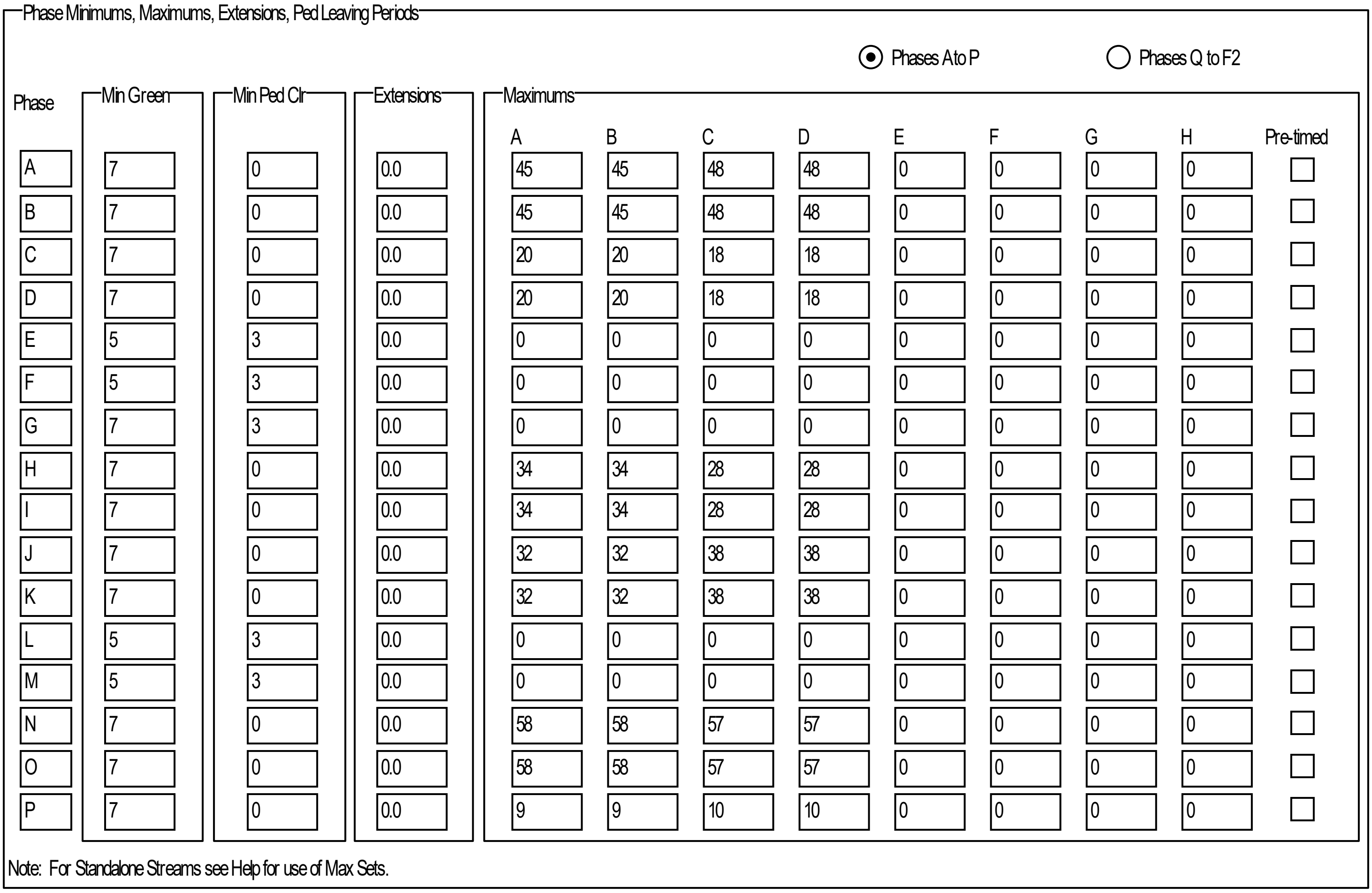
To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
A	■	o	Co	Co	o	o	Co										o		
B	o	■	Co	o	o	o	o										o		
C	Co	Co	■	o	Co	o	o										o		
D	Co	o	o	■	o	Co	o										o		
E	o	o	Co	o	■	o	o										o		
F	o	o	o	Co	o	■	o										o		
G	Co	o	o	o	o	o	■										o		
H								■	o	Co	o	o	o					o	
I								o	■	Co	Co	o	o					o	
J								Co	Co	■	o	Co	o					o	
K								o	Co	o	■	o	Co					o	
L								o	o	Co	o	■	o					o	
M								o	o	o	Co	o	■					o	
N														■	o	Co			o
O														o	■	Co			o
P														Co	Co	■			o
Q	o	o	o	o	o	o	o										■		
R								o	o	o	o	o	o					■	
S														o	o	o			■

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Minimums, Maximums, Extensions, Ped Leaving Periods



Phase Minimums, Maximums, Extensions, Ped Leaving Periods

● Phases A to P ○ Phases Q to F2

Phase	Min Green	Min Ped Clr	Extensions	Maximums A	Maximums B	Maximums C	Maximums D	Maximums E	Maximums F	Maximums G	Maximums H	Pre-timed
A	7	0	0.0	45	45	48	48	0	0	0	0	☐
B	7	0	0.0	45	45	48	48	0	0	0	0	☐
C	7	0	0.0	20	20	18	18	0	0	0	0	☐
D	7	0	0.0	20	20	18	18	0	0	0	0	☐
E	5	3	0.0	0	0	0	0	0	0	0	0	☐
F	5	3	0.0	0	0	0	0	0	0	0	0	☐
G	7	3	0.0	0	0	0	0	0	0	0	0	☐
H	7	0	0.0	34	34	28	28	0	0	0	0	☐
I	7	0	0.0	34	34	28	28	0	0	0	0	☐
J	7	0	0.0	32	32	38	38	0	0	0	0	☐
K	7	0	0.0	32	32	38	38	0	0	0	0	☐
L	5	3	0.0	0	0	0	0	0	0	0	0	☐
M	5	3	0.0	0	0	0	0	0	0	0	0	☐
N	7	0	0.0	58	58	57	57	0	0	0	0	☐
O	7	0	0.0	58	58	57	57	0	0	0	0	☐
P	7	0	0.0	9	9	10	10	0	0	0	0	☐

Note: For Standalone Streams see Help for use of Max Sets.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Minimums, Maximums, Extensions, Ped Leaving Periods

Phase Minimums, Maximums, Extensions, Ped Leaving Periods

○ Phases A to P ● Phases Q to F2

Phase	Min Green	Min Ped Clr	Extensions	Maximums								
				A	B	C	D	E	F	G	H	Pre-timed
Q	10	0	0.0	0	0	0	0	0	0	0	0	☐
R	10	0	0.0	0	0	0	0	0	0	0	0	☐
S	10	0	0.0	0	0	0	0	0	0	0	0	☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐
												☐

Note: For Standalone Streams see Help for use of Max Sets.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Intergreen Times

Select Stream(s) To Configure

○ All ○ 0 ○ 1 ○ 2 ○ ○ ○ ○ ○

Note: On a Stand Alone Pelican/Toucan/Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below.

To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
A	■		5	7			8										3		
B		■	5														3		
C	9	9	■		7												3		
D	9			■		7											3		
E			5		■												3		
F				5		■											3		
G	5						■										3		
H								■		5								3	
I									■	5	6							3	
J								9	8	■		7						3	
K									7		■		7					3	
L										5		■						3	
M											5		■					3	
N														■		5			5
O															■	6			6
P														10	7	■			3
Q	2	2	2	2	2	2	2										■		
R								2	2	2	2	2	2					■	
S														2	2	2			■

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Intergreen Handset Limits

HIGH 30

Copy Intergreen Values

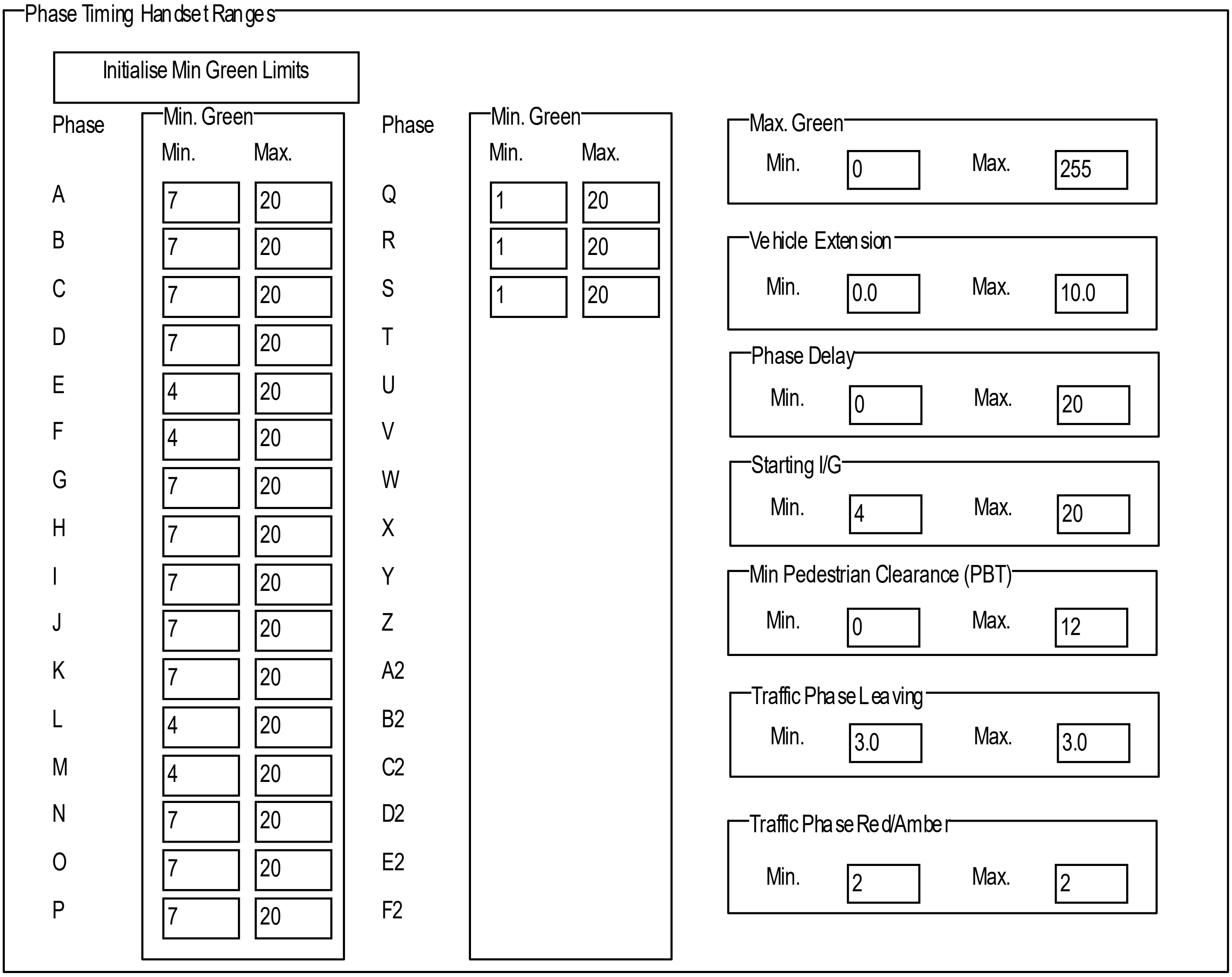
To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
A	■		5	6			7										3		
B		■	5														3		
C	7	8	■		6												3		
D	6			■		6											3		
E					■												3		
F						■											3		
G							■										3		
H								■		5								3	
I									■	5	5							3	
J								8	7	■		6						3	
K									6		■		6					3	
L												■						3	
M													■					3	
N														■		5			3
O															■	5			3
P														9	6	■			3
Q	2	2	2	2	2	2	2										■		
R								2	2	2	2	2	2					■	
S														2	2	2			■

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Timing Handset Ranges



Phase Timing Handset Ranges

Initialise Min Green Limits

Phase	Min. Green Min.	Min. Green Max.	Phase	Min. Green Min.	Min. Green Max.
A	7	20	Q	1	20
B	7	20	R	1	20
C	7	20	S	1	20
D	7	20	T		
E	4	20	U		
F	4	20	V		
G	7	20	W		
H	7	20	X		
I	7	20	Y		
J	7	20	Z		
K	7	20	A2		
L	4	20	B2		
M	4	20	C2		
N	7	20	D2		
O	7	20	E2		
P	7	20	F2		

	Min.	Max.
Max. Green	0	255
Vehicle Extension	0.0	10.0
Phase Delay	0	20
Starting I/G	4	20
Min Pedestrian Clearance (PBT)	0	12
Traffic Phase Leaving	3.0	3.0
Traffic Phase Red/Amber	2	2

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

VA Demand and Extend Definitions

VA Demand and Extend Definitions

● Phases A to P ○ Phases Q to F2

Demands

For Unlatched demands precede the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase				
A	AX1	AX2	AX3	
B	BX4			
C	CX13	CX14	CX15	CSL19
D	DX10	DX11	DX12	DSL16
E	EPBU126	EPBU128	EPBU127	EPBU129
F	FPBU118	FPBU120	FPBU119	FPBU121
G	GPBU122	GPBU116	GPBU123	GPBU124
H				
I				
J	JX8	JX9	JX10	JSL13
K	KX6	KX7	KSL11	KSL12
L	LPBU101	LPBU103	LPBU102	LPBU104
M	MPBU105	MPBU107	MPBU106	MPBU108
N				
O				
P	PX2	PX3	PSL4	PSL5

Extensions

AX1	AX2	AX3	
BX4			
CX13	CX14	CX15	CSL19
DX10	DX11	DX12	DSL16
JX8	JX9	JX10	JSL13
KX6	KX7	KSL11	KSL12
PX2	PX3	PSL4	PSL5

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

VA Demand and Extend Definitions

VA Demand and Extend Definitions

○ Phases A to P ● Phases Q to F2

Demands

For Unlatched demands precede the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase				
Q				
R				
S				

Extensions

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehicle Responsive Demands

A ☑ B ☑ C ☑ D ☑ E ☑ F ☑ G ☑ H ☑ I ☑ J ☑ K ☑ L ☑ M ☑ N ☑ O ☑ P ☑
Q ☐ R ☐ S ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Demands Inserted When Leaving Manual and Fixed Time Modes

A ☑ B ☑ C ☑ D ☑ E ☑ F ☑ G ☑ H ☑ I ☑ J ☑ K ☑ L ☑ M ☑ N ☑ O ☑ P ☑
Q ☐ R ☐ S ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Unlatched Demands that Start Max Timers

A ☑ B ☑ C ☑ D ☑ E ☑ F ☑ G ☑ H ☑ I ☑ J ☑ K ☑ L ☑ M ☑ N ☑ O ☑ P ☑
Q ☑ R ☑ S ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

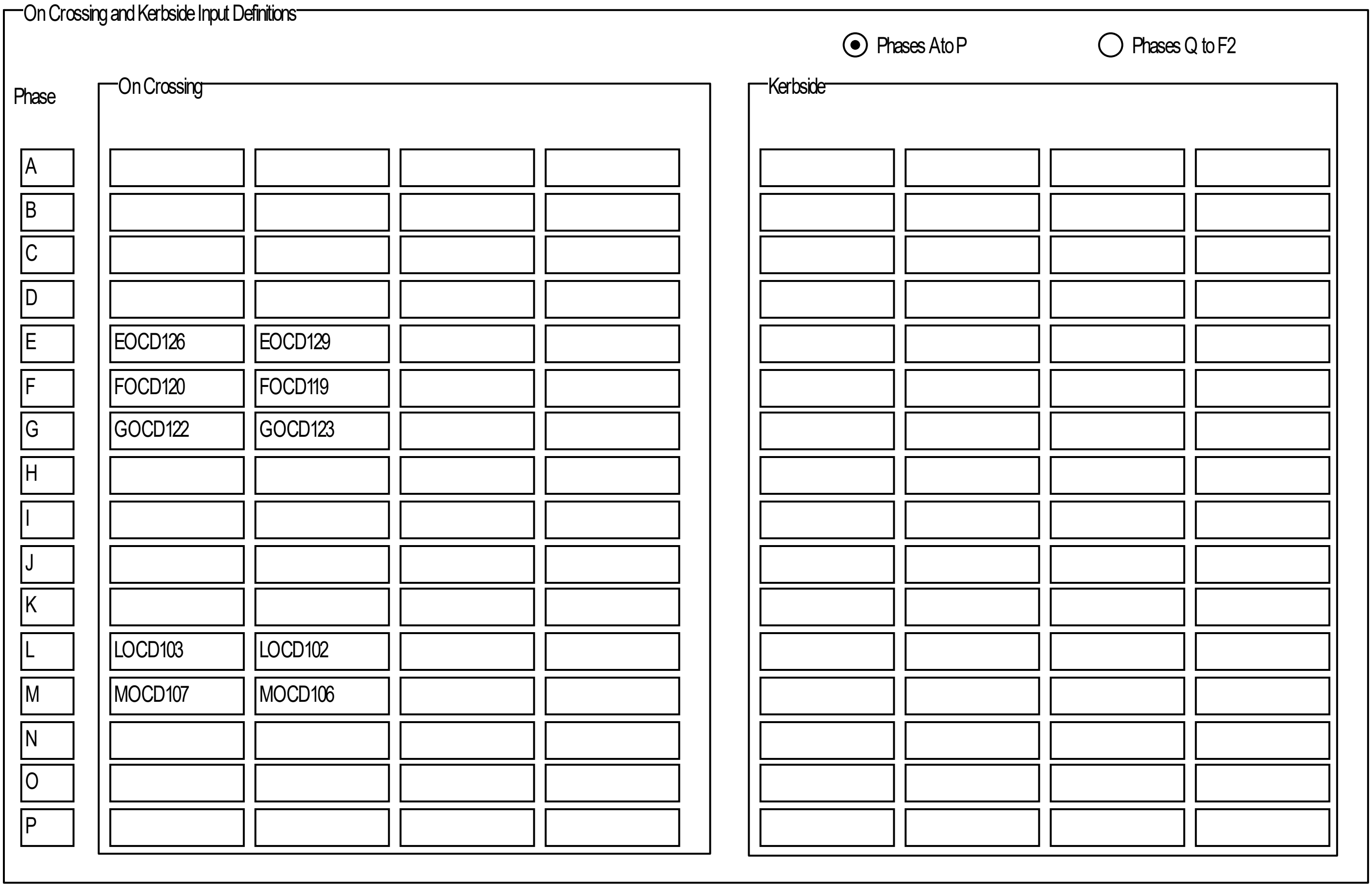
Revertive Phase Demands

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase - On Crossing and Kerbside Detector Definitions



On Crossing and Kerbside Input Definitions

● Phases A to P ○ Phases Q to F2

Phase	On Crossing				Kerbside			
A								
B								
C								
D								
E	EOCD126	EOCD129						
F	FOCD120	FOCD119						
G	GOCD122	GOCD123						
H								
I								
J								
K								
L	LOCD103	LOCD102						
M	MOCD107	MOCD106						
N								
O								
P								

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase - On Crossing and Kerbside Detector Definitions

On Crossing and Kerbside Input Definitions

○ Phases A to P ● Phases Q to F2

Phase	On Crossing				Kerbside			
Q								
R								
S								

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Stream - Pelican/Puffin/Toucan Times

Stream - Pelican/Puffin/Toucan Times

Pedestrian Enable VA Mode (PEV)

Streams

0	1	2	3	4	5	6	7

Pedestrian All Red Times (Vehicle to Pedestrian)

Streams	0	1	2	3	4	5	6	7
(PAR n 0) VA Gap Change								
(PAR n 1) VA Max Change								
(PAR n 2) FVP Change								
(PAR n 3) UTC Change								
(PAR n 4) Local Link Change								

Pelican Intergreen times

(PIT n 0) Veh Red/Ped Flash Green
(PIT n 1) Veh Flash Amber/Ped Flash Green
(PIT n 2) Veh Flash Amber/Ped red
(PIT n 3) Veh Flash Amber/Ped Red Quiescent

Handset Range Limits

	Min	Max
(PAR n 2) FVP Change	0	0
(PIT n 0) Veh Red/Ped Flash Green	0	0
(PIT n 1) Veh Flash Amber/Ped Flash Green	0	0
(PIT n 2) Veh Flash Amber/Ped red	0	0
(PIT n 3) Veh Flash Amber/Ped Red Quiescent	0	0

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase - Pelican, Puffin and Toucan Times

Phase - Pelican, Puffin and Toucan Times

● Phases A to P ○ Phases Q to F2

Phase	PDD Ped Demand Delay	PDX Ped Demand Hold	CMX Clearance Maximum	CDY 0 Clearance Delay Gap Change	CDY 1 Clearance Delay Max Change	CRD Clearance Minimum Red
A	0	0.0	0	0	0	0
B	0	0.0	0	0	0	0
C	0	0.0	0	0	0	0
D	0	0.0	0	0	0	0
E	0	0.0	10	0	0	0
F	0	0.0	11	0	0	0
G	0	0.0	10	0	0	0
H	0	0.0	0	0	0	0
I	0	0.0	0	0	0	0
J	0	0.0	0	0	0	0
K	0	0.0	0	0	0	0
L	0	0.0	10	0	0	0
M	0	0.0	6	0	0	0
N	0	0.0	0	0	0	0
O	0	0.0	0	0	0	0
P	0	0.0	0	0	0	0

☐

☐

Pedestrian Handset Range Limits

	MIN	MAX
Demand Delay PDD	0	5
Demand Hold PDX	0.0	5.0
Clearance Maximum CMX	0	30
Clearance Delays CDY 0 and CDY1	0	5
Clearance Minimum Red CRD	0	5

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Phase - Pelican, Puffin and Toucan Times

Phase - Pelican, Puffin and Toucan Times

○ Phases A to P ● Phases Q to F2

Phase	PDD Ped Demand Delay	PDX Ped Demand Hold	CMX Clearance Maximum	CDY 0 Clearance Delay Gap Change	CDY 1 Clearance Delay Max Change	CRD Clearance Minimum Red
Q	0	0.0	0	0	0	0
R	0	0.0	0	0	0	0
S	0	0.0	0	0	0	0

☐

☐

Pedestrian Handset Range Limits

	MIN	MAX
Demand Delay PDD	0	5
Demand Hold PDX	0.0	5.0
Clearance Maximum CMX	0	30
Clearance Delays CDY 0 and CDY1	0	5
Clearance Minimum Red CRD	0	5

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

IO and Link - Pelican/Puffin/Toucan Times

I/O and Link - Pelican/Puffin/Toucan Times

Streams	0	1	2	3	4	5	6	7
Computer Control								
PV								
Window Time UIE								
Local Link								
PV1								
Link Delay Time LKD								
Link Window Time LKW								
Link Override Time LKO								

Kerbside Mat Test Output ☐

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

	Phase Demand	KBS		Phase Demand	KBS		Phase Demand	KBS		Phase Demand	KBS
0			16			32			48		
1			17			33			49		
2			18			34			50		
3			19			35			51		
4			20			36			52		
5			21			37			53		
6			22			38			54		
7			23			39			55		
8			24			40			56		
9			25			41			57		
10			26			42			58		
11			27			43			59		
12			28			44			60		
13			29			45			61		
14			30			46			62		
15			31			47			63		

Note: Any association pushed off the screen will have any previous association blanked.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Stage Internal Demands/Pedestrian Window Times

Stage Internal Demands/Pedestrian Window Times

Start-up Vehicle Responsive Demands

0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	8 ☐	9 ☐	10 ☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demands Inserted When Leaving Manual and Fixed Time Modes

0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	8 ☐	9 ☐	10 ☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Unlatched Demands that Start Maximum Timers

0 ☑	1 ☑	2 ☑	3 ☑	4 ☑	5 ☑	6 ☑	7 ☑	8 ☑	9 ☑	10 ☑	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Window Times

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	0	0	0	0	0	0	0	0	0					
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Exceptional Stages

0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	8 ☐	9 ☐	10 ☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Fixed Time

Fixed Time

Stage Moves & Times (Not Fixed Time to Current Max)

Current Stage	0	1	2	3	4	5	6	7
Next Stage	1	2	1	4	5	4	7	8
Time	0	45	20	0	34	32	0	58
Current Stage	8	9	10	11	12	13	14	15
Next Stage	9	10	8					
Time	10	7	7					
Current Stage	16	17	18	19	20	21	22	23
Next Stage								
Time								
Current Stage	24	25	26	27	28	29	30	31
Next Stage								
Time								

Note:
Fixed Time mode may be used by the Reserve State, therefore, the Stage Moves and Times section should always be configured (unless Linked Fixed Time is selected instead).

Phases Demanded and Extended under Fixed Time to Current Max.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Demand	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Extend	☑	☑	☑	☑	☐	☐	☐	☐	☑	☑	☑	☐	☐	☑	☑	☑

	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Demand	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Plan(s)

CLF - Plan(s)

Plan No. 1

Copy From

Plan Specifics

Influence Set 1

Copy From

Entry Point (secs): 255
Exit Point (secs): 255
Cycle Time (secs): 80

Smooth CLF

Slow: 0
Fast: 0

Group Offset Handset Range
Min.: 0
Max.: 255

Group/Influence

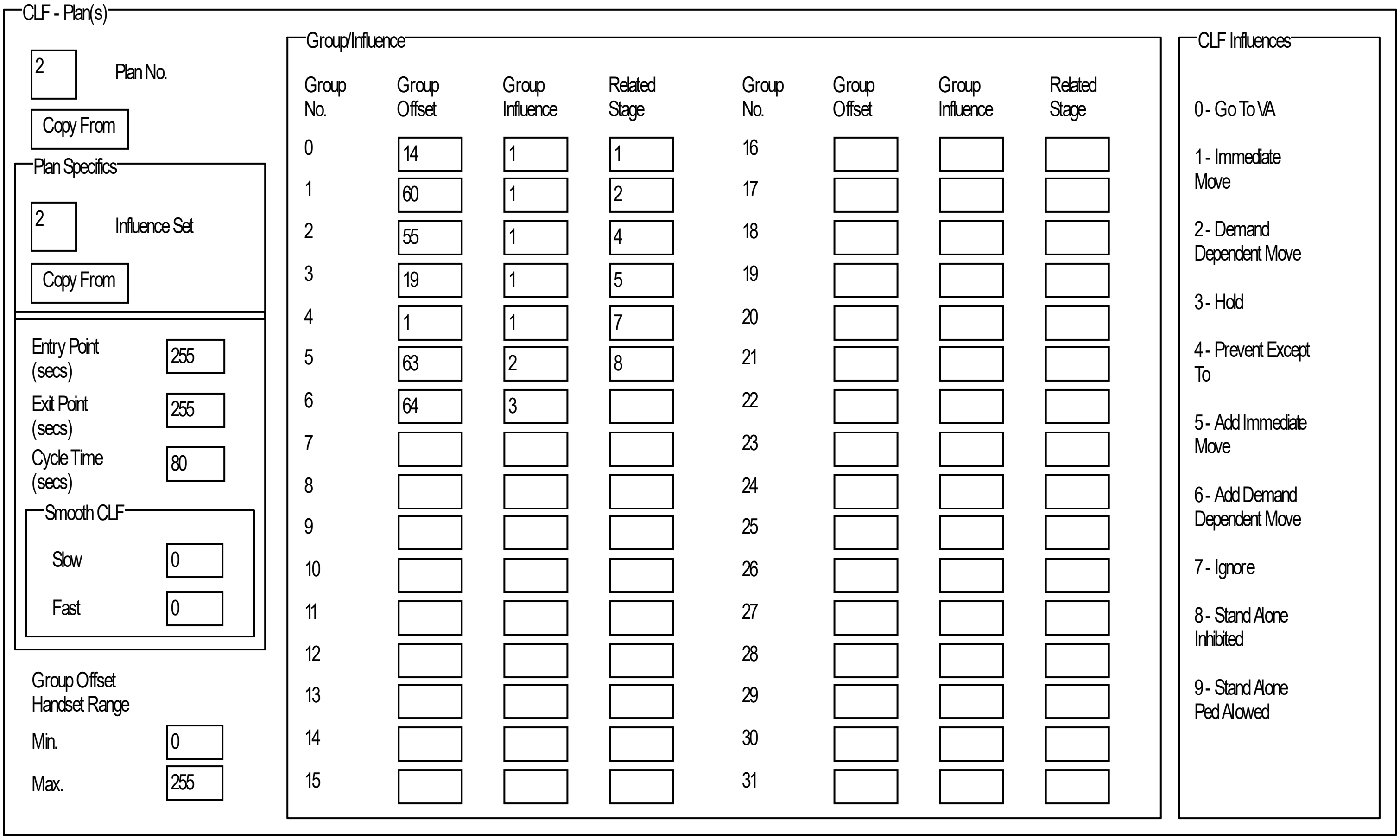
Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	14	1	1	16			
1	60	1	2	17			
2	55	1	4	18			
3	19	1	5	19			
4	1	1	7	20			
5	63	2	8	21			
6	64	3		22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

- 0 - Go To VA
- 1 - Immediate Move
- 2 - Demand Dependent Move
- 3 - Hold
- 4 - Prevent Except To
- 5 - Add Immediate Move
- 6 - Add Demand Dependent Move
- 7 - Ignore
- 8 - Stand Alone Inhibited
- 9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Plan(s)



CLF - Plan(s)

Plan No. 2

Copy From

Plan Specifics

Influence Set 2

Copy From

Entry Point (secs) 255
Exit Point (secs) 255
Cycle Time (secs) 80

Smooth CLF
Slow 0
Fast 0

Group Offset Handset Range
Min. 0
Max. 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	14	1	1	16			
1	60	1	2	17			
2	55	1	4	18			
3	19	1	5	19			
4	1	1	7	20			
5	63	2	8	21			
6	64	3		22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Plan(s)

CLF - Plan(s)

Plan No. 3

Copy From

Plan Specifics

Influence Set 3

Copy From

Entry Point (secs) 255
Exit Point (secs) 255
Cycle Time (secs) 80

Smooth CLF

Slow 0
Fast 0

Group Offset Handset Range
Min. 0
Max. 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	14	1	1	16			
1	60	1	2	17			
2	55	1	4	18			
3	19	1	5	19			
4	1	1	7	20			
5	63	2	8	21			
6	64	3		22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Plan(s)

CLF - Plan(s)

Plan No.: 4

Copy From

Plan Specifics

Influence Set: 4

Copy From

Entry Point (secs): 255
Exit Point (secs): 255
Cycle Time (secs): 80

Smooth CLF

Slow: 0
Fast: 0

Group Offset Handset Range
Min.: 0
Max.: 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	14	1	1	16			
1	60	1	2	17			
2	55	1	4	18			
3	19	1	5	19			
4	1	1	7	20			
5	63	2	8	21			
6	64	3		22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Plan(s)

CLF - Plan(s)

Plan No. 5

Copy From

Plan Specifics

Influence Set 5

Copy From

Entry Point (secs) 255
Exit Point (secs) 255
Cycle Time (secs) 76

Smooth CLF

Slow 0
Fast 0

Group Offset Handset Range
Min. 0
Max. 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	14	1	1	16			
1	69	1	2	17			
2	50	1	4	18			
3	19	1	5	19			
4	69	1	9	20			
5	36	1	10	21			
6	54	2	8	22			
7	56	3		23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Base Time

CLF - Base Time

Controller Base Date: XX/XX/XX

Controller Base Time: 02:00:00

Plan Offset

	Minutes	Seconds		Minutes	Seconds
Plan 0	0	0	Plan 8	0	0
Plan 1	0	0	Plan 9	0	0
Plan 2	0	0	Plan 10	0	0
Plan 3	0	0	Plan 11	0	0
Plan 4	0	0	Plan 12	0	0
Plan 5	0	0	Plan 13	0	0
Plan 6	0	0	Plan 14	0	0
Plan 7	0	0	Plan 15	0	0

Handset Range Limits

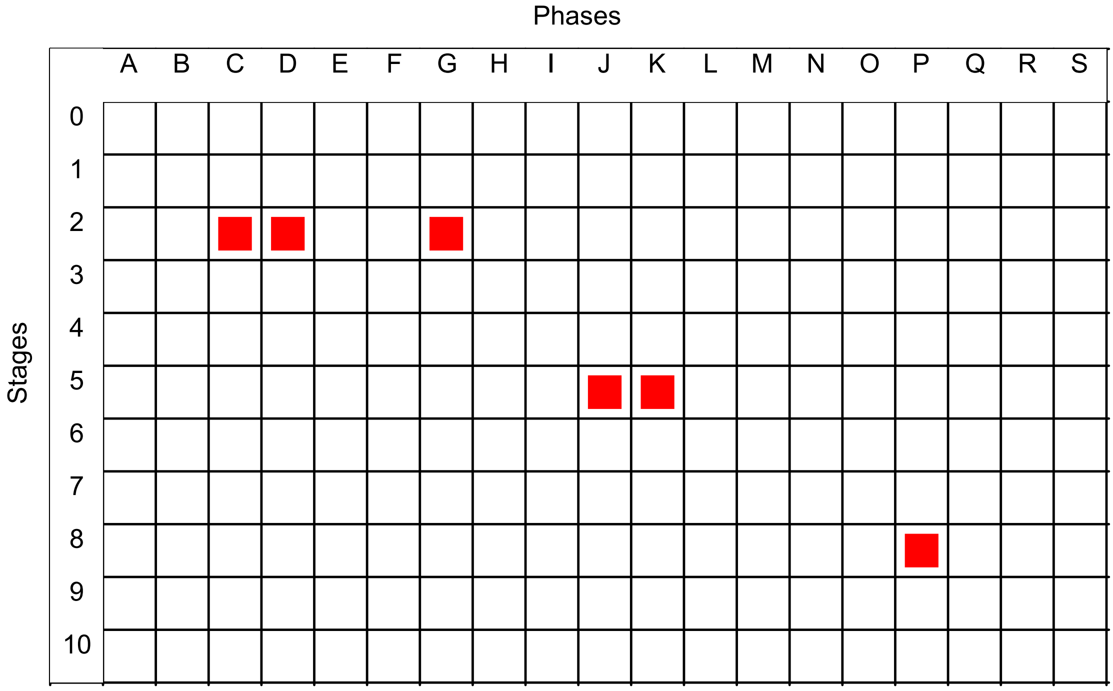
	Minutes	Seconds
Min	0	0
Max	255	59

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

CLF - Demand Dependent Moves

Clear Grid Data

Notes:
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.



Phases

Stages

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
0																			
1																			
2			🟥	🟥			🟥												
3																			
4																			
5										🟥	🟥								
6																			
7																			
8																🟥			
9																			
10																			

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC General Data

UTC General Data

Type of UTC

● 106 ○ 316

Integral OTU Address

4 Number of Control Words

4 Number of Reply Words

☐ Controller to respond to TC bit.

☐ Introduction of UTC to be disabled by Priority and LRT M

Non UTC RTC synchronisation input name

RTC Synchronisation Times

Clock Synchronise Time (UTC TS input)

Day	Time
Time Only	12:00:00

Clock Confirm Time (UTC RT output)

Day	Time
Time Only	00:00:00

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC Control and Reply Data Format

UTC Control and Reply Data Format

Control Words

	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
Word 1	1F1	#1F2	1D2	1DX				
Word 2				1MO				SO
Word 3	TS	2F4	#2F5	2D5	2DX	2MO		
Word 4	3F7	#3F8	3F9	3F10	3D8	3DX	3MO	

Reply Words

Word 1	1G1	1G2	1DR2	DF	RR	LF1	LF2	LF3
Word 2	CF	LO	MC	1MR	1ML	1MF	1HC	SB
Word 3	CC	2G4	2G5	2DR5	2HC	2MR	2ML	2MF
Word 4	3G7	3G8	3G9	3G10	3DR8	3HC	3MR	3ML
Word 5								
Word 6								
Word 7								
Word 8								
Word 9								
Word 10								
Word 11								
Word 12								
Word 13								
Word 14								

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC Phase Demand and Extend Definitions

UTC Demand and Extend Definitions

● Phases A to P ○ Phases Q to F2

For Unlatched demands, preceed the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase	Demands				Extensions			
A	1DX				1DX			
B	1DX				1DX			
C	1DX	1D2			1DX	1D2		
D	1DX	1D2			1DX	1D2		
E	1DX							
F	1DX							
G	1DX	1D2						
H	2DX				2DX			
I	2DX				2DX			
J	2DX	2D5			2DX	2D5		
K	2DX	2D5			2DX	2D5		
L	2DX							
M	2DX							
N	3DX				3DX			
O	3DX				3DX			
P	3DX	3D8			3DX	3D8		

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC Phase Demand and Extend Definitions

UTC Demand and Extend Definitions

○ Phases A to P ● Phases Q to F2

Demands

For Unlatched demands, preceed the name with a #.
Conditioning MUST be used to specify unlatched demands.

Extensions

Phase	Demands				Extensions			
Q								
R								
S								

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC Stage and Mode Data Definitions

UTC Stage and Mode Data Definitions

Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit
0				16			
1	1F1	1G1		17			
2	#1F2	1G2	1DR2	18			
3				19			
4	2F4	2G4		20			
5	#2F5	2G5	2DR5	21			
6				22			
7	3F7	3G7		23			
8	#3F8	3G8	3DR8	24			
9	3F9	3G9		25			
10	3F10	3G10		26			
11				27			
12				28			
13				29			
14				30			
15				31			

Mode Data Definitions

Manual Mode Operative:
☐ G1/G2 ☑ RR ☐

Manual Mode Selected:
☐ G1/G2 ☑ RR ☐

No Lamp Power, or Lamps Off due to RLM or Part Time:
☑ G1/G2 ☐ ☐

Detector Fault:
☐ ☐ ☑ DF

Normal NOT selected on the Manual Panel:
☐ G1/G2 ☑ RR ☐

RR Button Selected:
☐ G1/G2 ☐ RR ☐

If UTC Reply Confirms are required for a Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC Demand Dependent Forces

Clear Grid Data

Notes:
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.

Phases

Stages	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
0																			
1																			
2			🟥	🟥			🟥												
3																			
4																			
5										🟥	🟥								
6																			
7																			
8																🟥			
9																			
10																			

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

MOVA Stages

MOVA Stages

Stage	Force Bit	Green Confirm Bit	Stage	Force Bit	Green Confirm Bit
0			16		
1	MOVA0F1	MOVA0CON1	17		
2	MOVA0F2	MOVA0CON2	18		
3			19		
4	MOVA1F1	MOVA1CON1	20		
5	MOVA1F2	MOVA1CON2	21		
6			22		
7	MOVA2F1	MOVA2CON1	23		
8	MOVA2F2	MOVA2CON2	24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		

Mode Data Definitions

Manual Mode Operative:
☐ G1/G2 ☐ RR/CRB

Manual Mode Selected:
☐ G1/G2 ☐ RR/CRB

No Lamp Power, or Lamps Off due to RLM or Part Time:
☐ G1/G2 ☐ RR/CRB

Normal NOT selected on the Manual Panel:
☐ G1/G2 ☐ RR/CRB

RR Button Selected:
☐ G1/G2 ☐ RR/CRB

Report as UTC Mode ☐

MOVA Control Timer (x10): 12
MOVA Deactivate Timer: 2.0
MOVA Release Timer: 1

NOTE: If a MOVA Kernel does not map to the same numbered stream (0-3), refer to the help.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☐ Combined

Set Selection

● UTC ○ MOVA 0 ○ MOVA 1 ○ MOVA 2 ○ MOVA 3

1		2		3		4		5		6		7		8	
9		10		11		12		13		14		15		16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44	PIN1	45	JIN5	46	JIN4	47	JIN3	48	KIN2
49	KIN1	50	CIN9	51	CIN8	52	DIN7	53	DIN6	54	DIN5	55	AIN24	56	AIN23
57	SCOOT8	58	SCOOT7	59	SCOOT6	60	SCOOT5	61	SCOOT4	62	SCOOT3	63	SCOOT2	64	SCOOT1

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☐ Combined

Set Selection

○ UTC ● MOVA 0 ○ MOVA 1 ○ MOVA 2 ○ MOVA 3

1	AX1	2	AX2	3	AX3	4	BX4	5	DIN5	6	DIN6	7	DIN7	8	CIN8
9	CIN9	10	DX10	11	DX11	12	DX12	13	CX13	14	CX14	15	CX15	16	DSL16
17	DSL17	18	DSL18	19	CSL19	20	CSL20	21	CSL21	22		23	AIN23	24	AIN24
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☐ Combined

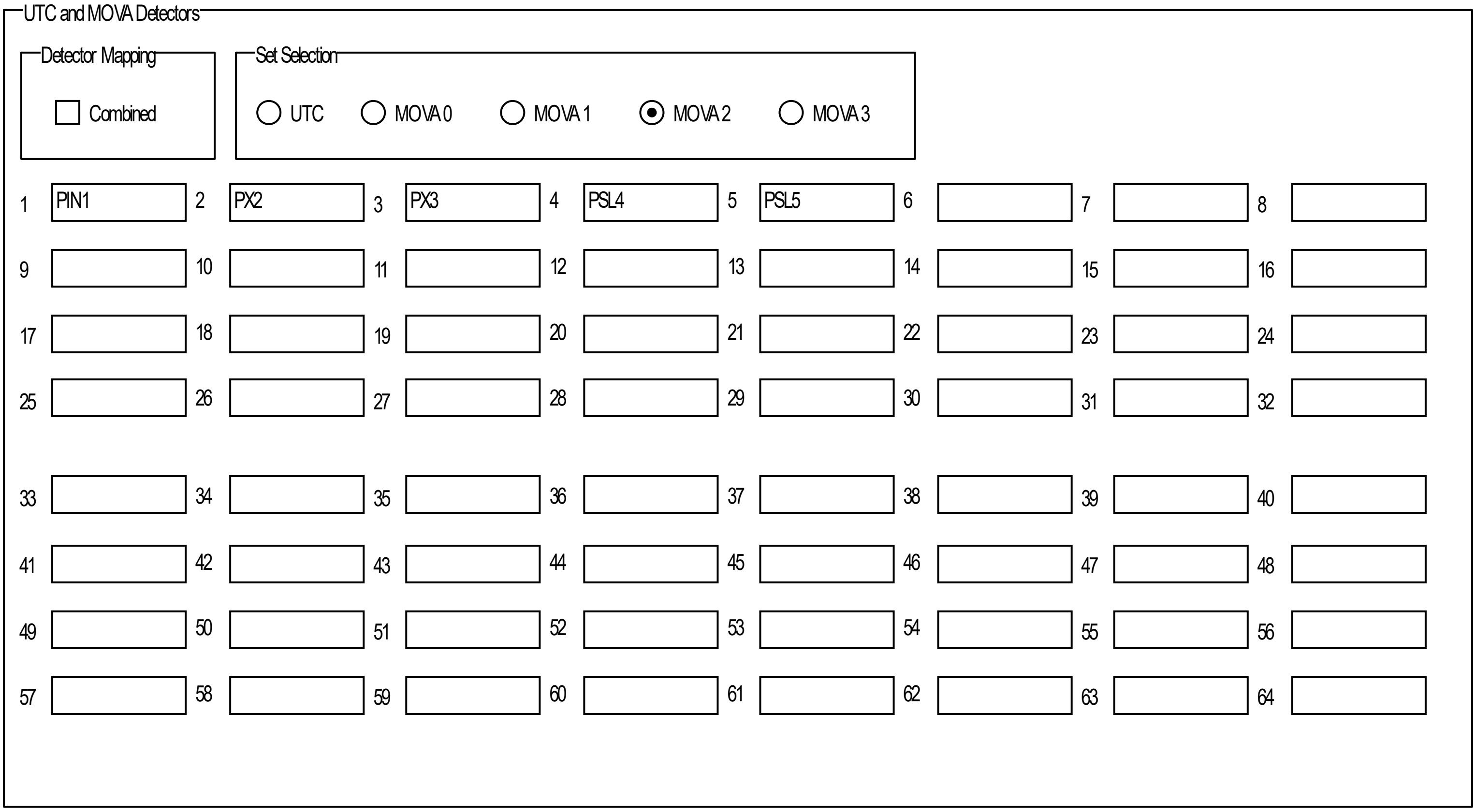
Set Selection

○ UTC ○ MOVA 0 ● MOVA 1 ○ MOVA 2 ○ MOVA 3

1	KIN1	2	KIN2	3	JIN3	4	JIN4	5	JIN5	6	KX6	7	KX7	8	JX8
9	JX9	10	JX10	11	KSL11	12	KSL12	13	JSL13	14	JSL14	15	JSL15	16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

UTC and MOVA Detectors



UTC and MOVA Detectors

Detector Mapping
☐ Combined

Set Selection
○ UTC ○ MOVA 0 ○ MOVA 1 ● MOVA 2 ○ MOVA 3

1	PIN1	2	PX2	3	PX3	4	PSL4	5	PSL5	6		7		8	
9		10		11		12		13		14		15		16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

MTC - Time Switch Parameters

MTC - Time Switch Parameters

	Type	Event
0	Alternate Max	MAXSETA
1	Alternate Max	MAXSETB
2	Alternate Max	MAXSETC
3	Alternate Max	MAXSETD
4	Alternate DFM	ALTDFMA
5	Alternate DFM	ALTDFMB
6	Alternate DFM	ALTDFMC
7	Alternate DFM	ALTDFMD
8	Conditioning	MTCF0
9	No Action	
10	No Action	
11	No Action	
12	No Action	
13	No Action	
14	No Action	
15	No Action	

	Type	Event
16	No Action	
17	No Action	
18	No Action	
19	No Action	
20	No Action	
21	No Action	
22	No Action	
23	No Action	
24	No Action	
25	No Action	
26	No Action	
27	No Action	
28	No Action	
29	No Action	
30	No Action	
31	No Action	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

MTC - Time Switch Parameters Array

Parameters

Events	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAXSETA	🟥																															
MAXSETB		🟥																														
MAXSETC			🟥																													
MAXSETD				🟥																												
ALTDFMA																																
ALTDFMB																																
ALTDFMC																																
ALTDFMD																																
MTCF0																																
Unused																																
Unused																																
Unused																																
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Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

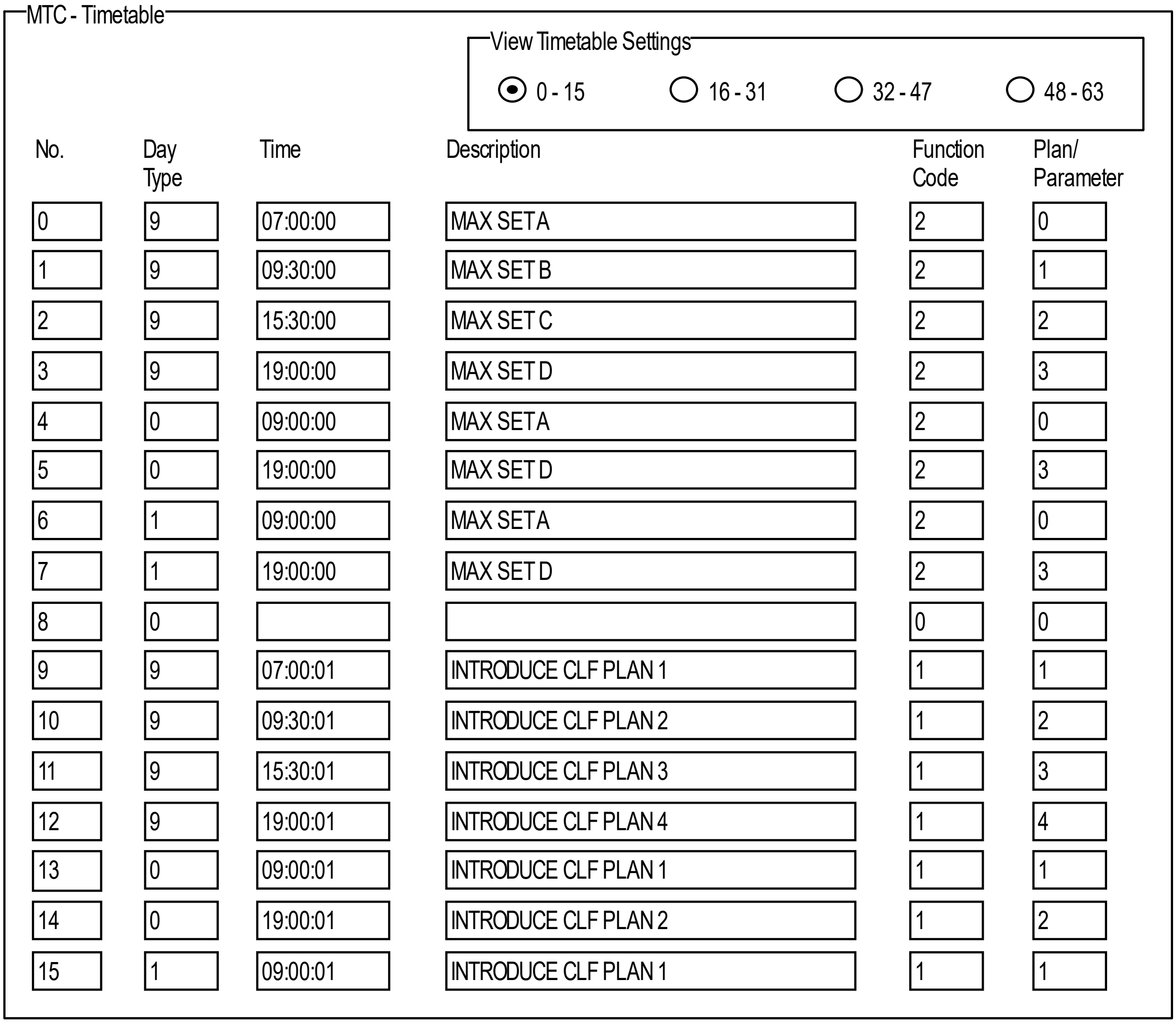
MTC - Day Type

MTC - Day Type

No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0	☐	☐	☐	☐	☐	☑	☐
1	☐	☐	☐	☐	☐	☐	☑
2	☑	☐	☐	☐	☐	☐	☐
3	☐	☑	☐	☐	☐	☐	☐
4	☐	☐	☑	☐	☐	☐	☐
5	☐	☐	☐	☑	☐	☐	☐
6	☐	☐	☐	☐	☑	☐	☐
7	☑	☑	☑	☑	☑	☑	☑
8	☑	☑	☑	☑	☑	☑	☐
9	☑	☑	☑	☑	☑	☐	☐
10	☐	☐	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐	☐	☐
14	☐	☐	☐	☐	☐	☐	☐
15	☐	☐	☐	☐	☐	☐	☐

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

MTC - Timetable



No.	Day Type	Time	Description	Function Code	Plan/ Parameter
0	9	07:00:00	MAX SET A	2	0
1	9	09:30:00	MAX SET B	2	1
2	9	15:30:00	MAX SET C	2	2
3	9	19:00:00	MAX SET D	2	3
4	0	09:00:00	MAX SET A	2	0
5	0	19:00:00	MAX SET D	2	3
6	1	09:00:00	MAX SET A	2	0
7	1	19:00:00	MAX SET D	2	3
8	0			0	0
9	9	07:00:01	INTRODUCE CLF PLAN 1	1	1
10	9	09:30:01	INTRODUCE CLF PLAN 2	1	2
11	9	15:30:01	INTRODUCE CLF PLAN 3	1	3
12	9	19:00:01	INTRODUCE CLF PLAN 4	1	4
13	0	09:00:01	INTRODUCE CLF PLAN 1	1	1
14	0	19:00:01	INTRODUCE CLF PLAN 2	1	2
15	1	09:00:01	INTRODUCE CLF PLAN 1	1	1

Function Codes:

0 = Isolate From CLF

1 = Introduce a CLF Plan

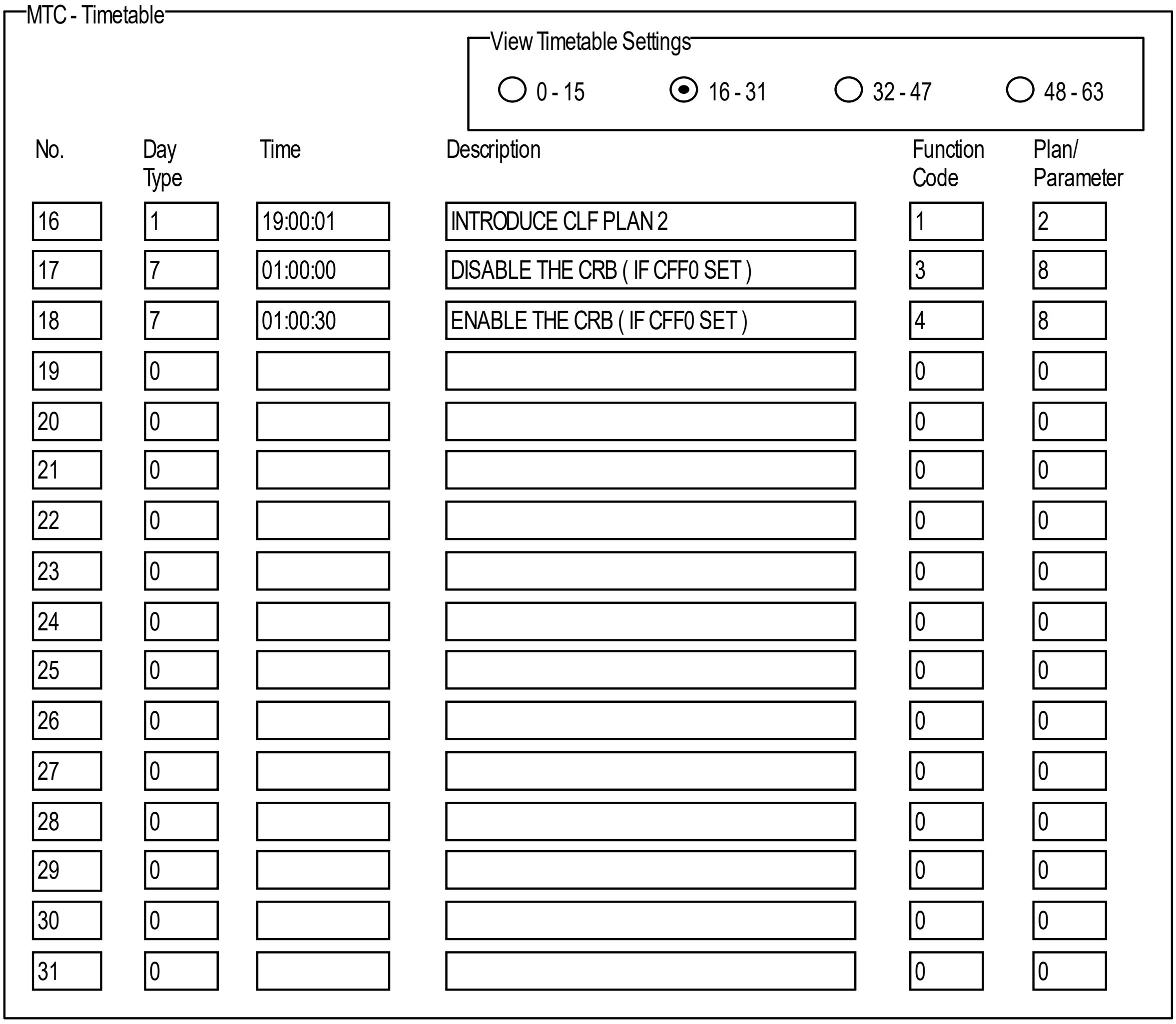
2 = Introduce a Parameter (Combination of event switches)

3 = Selects an Individual event switch to be set

4 = Selects an Individual event switch to be cleared.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

MTC - Timetable



MTC - Timetable

View Timetable Settings

○ 0 - 15 ● 16 - 31 ○ 32 - 47 ○ 48 - 63

No.	Day Type	Time	Description	Function Code	Plan/ Parameter
16	1	19:00:01	INTRODUCE CLF PLAN 2	1	2
17	7	01:00:00	DISABLE THE CRB (IF CFF0 SET)	3	8
18	7	01:00:30	ENABLE THE CRB (IF CFF0 SET)	4	8
19	0			0	0
20	0			0	0
21	0			0	0
22	0			0	0
23	0			0	0
24	0			0	0
25	0			0	0
26	0			0	0
27	0			0	0
28	0			0	0
29	0			0	0
30	0			0	0
31	0			0	0

Function Codes:

0 = Isolate From CLF

1 = Introduce a CLF Plan

2 = Introduce a Parameter (Combination of event switches)

3 = Selects an Individual event switch to be set

4 = Selects an Individual event switch to be cleared.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

LMU - General

LMU - General

Lamp Monitoring - LMU Voltage

○ ● 48
○ ○

Red Lamp Monitoring

Max Red Bulb Wattage

First Red Lamp Fault Speed: 0

☐ RLF2 Cancels RLM additional Intergreens

☑ RLF2 Only Cleared by RFL = 1

☐ RLF1 Only Cleared by RFL = 1

RLM Additional Intergreen Handset Limits

Minimum	Maximum
2	10

Streams with Phase BlackOut on RLF2

☐ 0 ☐ 1 ☐ 2 ☐ ☐ ☐ ☐ ☐

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

LMU Sensors (Built-in)

LMU Sensors (Built-in)

No. of LSLS cards fitted	HPU Connection
2	1

Sensor Configuration For LSLS 1 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
A	Red	1	As Seq.	F	Red	7	R,G
A	Amber	1	As Seq.	F	Amber	8	Wait
A	Green	1	As Seq.	F	Green	7	R,G
B	Red	2	As Seq.	F	Green	N/A	
B	Amber	2	As Seq.	G	Red	9	R,G
B	Green	2	As Seq.	G	Amber	10	Wait
C	Red	3	As Seq.	G	Green	9	R,G
C	Amber	3	As Seq.	G	Green	N/A	
C	Green	3	As Seq.	H	Red	11	As Seq.
D	Red	4	As Seq.	H	Amber	11	As Seq.
D	Amber	4	As Seq.	H	Green	11	As Seq.
D	Green	4	As Seq.	I	Red	12	As Seq.
E	Red	5	R,G	I	Amber	12	As Seq.
E	Amber	6	Wait	I	Green	12	As Seq.
E	Green	5	R,G	J	Red	13	As Seq.
E	Green	N/A		J	Amber	13	As Seq.

Note : A (*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

LMU Sensors (Built-in)

LMU Sensors (Built-in)

No. of LSLS cards fitted	HPU Connection
2	1

Sensor Configuration For LSLS 2 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
J	Green	13	As Seq.	O	Amber	20	As Seq.
K	Red	14	As Seq.	O	Green	20	As Seq.
K	Amber	14	As Seq.	P	Red	21	As Seq.
K	Green	14	As Seq.	P	Amber	21	As Seq.
L	Red	15	R,G	P	Green	21	As Seq.
L	Amber	16	Wait	N/A	N/A		
L	Green	15	R,G	N/A	N/A		
L	Green	N/A		N/A	N/A		
M	Red	17	R,G	N/A	N/A		
M	Amber	18	Wait	N/A	N/A		
M	Green	17	R,G	N/A	N/A		
M	Green	N/A		N/A	N/A		
N	Red	19	As Seq.	N/A	N/A		
N	Amber	19	As Seq.	N/A	N/A		
N	Green	19	As Seq.	N/A	N/A		
O	Red	20	As Seq.	N/A	N/A		

Note : A (*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

LMU Sensors (External) for Regulatory Signs

LMU Sensors (External) for Regulatory Signs

External Sensors (1)

Sensor	Sensor Type
96	Regulatory Sign
95	Regulatory Sign
94	Regulatory Sign
93	Regulatory Sign

External Sensors (2)

Sensor	Sensor Type
92	Regulatory Sign
91	Regulatory Sign
90	Regulatory Sign
89	Regulatory Sign

External Sensors (3)

Sensor	Sensor Type

External Sensors (4)

Sensor	Sensor Type

External Sensors (5)

Sensor	Sensor Type

External Sensors (6)

Sensor	Sensor Type

Note: Sensors which have been used as Onboard sensors will not be available here.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

LMU Sensor Load Types

LMU Sensor Load Types

Page

1 of 2

Sensor	Phase	Sensor Type	LED R+W	RLM	Load Type	LLF Profile
1	A	As Seq.	Auto	Auto	1: Siemens Helios ELV	
2	B	As Seq.	Auto	Auto	1: Siemens Helios ELV	
3	C	As Seq.	Auto	Auto	1: Siemens Helios ELV	
4	D	As Seq.	Auto	Auto	1: Siemens Helios ELV	
5	E	R,G	Auto	Auto	3: Siemens LED Near Side Indicator	
6	E	Wait	Auto	Auto	2: Siemens LED Demand Indicator	
7	F	R,G	Auto	Auto	3: Siemens LED Near Side Indicator	
8	F	Wait	Auto	Auto	2: Siemens LED Demand Indicator	
9	G	R,G	Auto	Auto	3: Siemens LED Near Side Indicator	
10	G	Wait	Auto	Auto	2: Siemens LED Demand Indicator	
11	H	As Seq.	Auto	Auto	1: Siemens Helios ELV	
12	I	As Seq.	Auto	Auto	1: Siemens Helios ELV	
13	J	As Seq.	Auto	Auto	1: Siemens Helios ELV	
14	K	As Seq.	Auto	Auto	1: Siemens Helios ELV	
15	L	R,G	Auto	Auto	3: Siemens LED Near Side Indicator	
16	L	Wait	Auto	Auto	2: Siemens LED Demand Indicator	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

LMU Sensor Load Types

LMU Sensor Load Types

Page

2 of 2

Sensor	Phase	Sensor Type	LED R+W	RLM	Load Type	LLF Profile
17	M	R,G	Auto	Auto	3: Siemens LED Near Side Indicator	
18	M	Wait	Auto	Auto	2: Siemens LED Demand Indicator	
19	N	As Seq.	Auto	Auto	1: Siemens Helios ELV	
20	O	As Seq.	Auto	Auto	1: Siemens Helios ELV	
21	P	As Seq.	Auto	Auto	1: Siemens Helios ELV	
89	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
90	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
91	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
92	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
93	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
94	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
95	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
96	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

RLM Additional Intergreens

Phases Delayed

Phases with RLF1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
A	■						2												
B		■																	
C			■		2														
D				■		2													
E					■														
F						■													
G							■												
H								■											
I									■										
J										■		2							
K											■		2						
L												■							
M													■						
N														■					
O															■				
P																■			
Q																	■		
R																		■	
S																			■

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

RLM Phase Inhibits

Phases Inhibited/Blacked-Out

Phases with RLF2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
A							🟥												
B																			
C					🟥														
D						🟥													
E																			
F																			
G																			
H																			
I																			
J												🟥							
K													🟥						
L																			
M																			
N																			
O																			
P																			
Q																			
R																			
S																			

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Hurry Call

Hurry Call

Hurry Call	Stage Called	Call Input Name	Cancel Input Name	Confirm Output Name	Delay Time	Hold Time	Prevent Time
0	0	*SCRT10			0	1	0
1	3	*SCRT1			0	1	0
2	6	*SCRT2			0	1	0
3	2	*SCRT3			0	20	0
4	4	*SCRT4			0	20	0
5	7	*SCRT5			0	20	0
6	4	*SCRT6			0	20	180
7	1	*SCRT7			0	20	180

Hurry Call Limit Values

	Min.	Max.
Call Delay	0	255
Call Hold	0	255
Call Prevent	0	255

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Manual Panel

Manual Panel

Stage Buttons and LEDs

Button No.	Title	Called Stage for Stream 0	1	2	3	4	5	6	7
0	ALL RED	0	3	6					
1	GYRATORIES	1	4	7					
2	SAXON AVENUE	1	4	8					
3	M1 OFF SLIP	2	4	7					
4	A45 LONDON ROAD	1	5	7					
5									
6									
7									

General LEDs

	AUX 1	AUX 2	AUX 3	AUX 4 (Hurry Call)	AUX 5 (Higher Priority)
Conditioned	☑	☑	☑	☑	☑

Manual Mode Enable

● Always
○ When Handset Plugged in (Note 1)
○ When 'MND' Command Entered

NOTE:
For this to operate Special Conditioning is required.

General Buttons

	None	SW1	SW2	SW3
Momentary		☐	☐	☐
Dim Override	●	○	○	○
RR	●	○	○	○

Manual Signals On

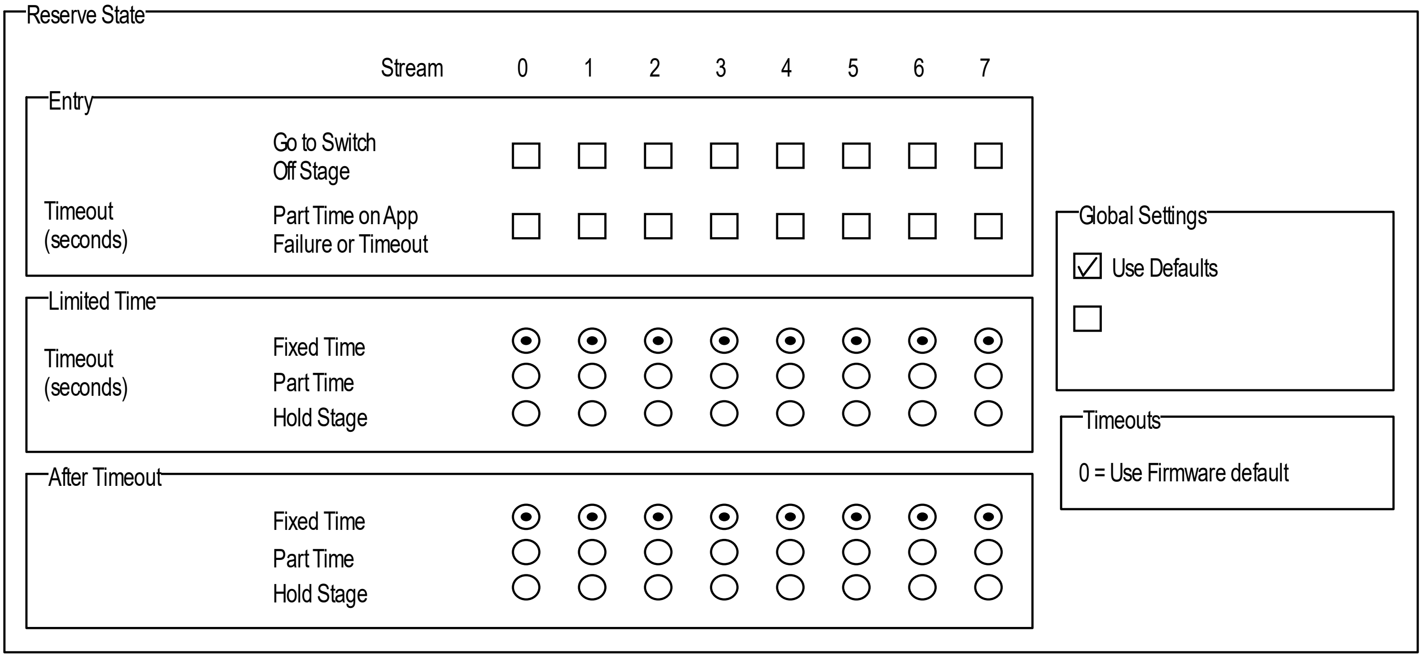
○ Immediate Signals On
● As Start-Up

Mode Select Switches Disabled

☑ VA ☑ Fixed Time ☐ CLF

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Reserve State



Reserve State

	Stream	0	1	2	3	4	5	6	7
Entry									
	Go to Switch Off Stage	☐	☐	☐	☐	☐	☐	☐	☐
Timeout (seconds)	Part Time on App Failure or Timeout	☐	☐	☐	☐	☐	☐	☐	☐
Limited Time									
Timeout (seconds)	Fixed Time	●	●	●	●	●	●	●	●
	Part Time	○	○	○	○	○	○	○	○
	Hold Stage	○	○	○	○	○	○	○	○
After Timeout									
	Fixed Time	●	●	●	●	●	●	●	●
	Part Time	○	○	○	○	○	○	○	○
	Hold Stage	○	○	○	○	○	○	○	○

Global Settings

☑ Use Defaults

☐

Timeouts

0 = Use Firmware default

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
; MANUAL PANEL
; ============

    IFT (MODE0 EQL<6>+MODE1 EQL<6>+MODE2 EQL<6>) THN
        TRUE = MIL17
    ELS
        IFT (MODE0 EQL<16>.MODE1 EQL<16>.MODE2 EQL<16>) THN
            CNDTMA93 = MIL17
        ELS
            (MODE0 EQL<16>+MODE1 EQL<16>+MODE2 EQL<16>).CNDTMA83 = MIL17
        END
    END

    IFT (/CNDTMA93./CNDPRV93) THN                       ; SLOW PULSE UNIT
        RUN<93>
    END

    IFT (/CNDTMA83./CNDPRV83) THN                       ; FAST FLASH UNIT
        RUN<83>
    END



; PERMANENT DEMANDS AND EXTENSIONS
; ================================

   TRUE::=+UCPHH                            ; PERMANENT DEMAND FOR PHASE H
        *=+EXOH                             ; PERMANENT EXTENSIONS FOR PHASE H
        *=+EXCH                             ;     "          "      "    "   H

   TRUE::=+UCPHI                            ; PERMANENT DEMAND FOR PHASE I
        *=+EXOI                             ; PERMANENT EXTENSIONS FOR PHASE I
        *=+EXCI                             ;     "          "      "    "   I

   TRUE::=+UCPHN                            ; PERMANENT DEMAND FOR PHASE N
        *=+EXON                             ; PERMANENT EXTENSIONS FOR PHASE N
        *=+EXCN                             ;     "          "      "    "   N

   TRUE::=+UCPHO                            ; PERMANENT DEMAND FOR PHASE O
        *=+EXOO                             ; PERMANENT EXTENSIONS FOR PHASE O
        *=+EXCO                             ;     "          "      "    "   O



; EXTRA DETECTOR INPUTS
; =====================

(CSL20_EXT+CSL21_EXT)::=+EXOC               ; CSL20,21 DETECTORS TO DEMAND AND EXTEND PHASE C
                      *=+EXCC
                      *=+LCPHC

(DSL17_EXT+DSL18_EXT)::=+EXOD               ; DSL17,18 DETECTORS TO DEMAND AND EXTEND PHASE D
                      *=+EXCD
                      *=+LCPHD

(JSL14_EXT+JSL15_EXT)::=+EXOJ               ; JSL14,15 DETECTORS TO DEMAND AND EXTEND PHASE J
                      *=+EXCJ
                      *=+LCPHJ
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
; PHASE REVERTIVE DEMANDS ACTIVE UNLESS IN MOVA MODE
; ================================================

NOT(MODE0 EQL<16>).FZTMEXA=+LCPHA
NOT(MODE0 EQL<16>).FZTMEXB=+LCPHB
NOT(MODE0 EQL<16>).FZTMEXC=+LCPHC
NOT(MODE0 EQL<16>).FZTMEXD=+LCPHD

NOT(MODE1 EQL<16>).FZTMEXH=+LCPHH
NOT(MODE1 EQL<16>).FZTMEXI=+LCPHI
NOT(MODE1 EQL<16>).FZTMEXJ=+LCPHJ
NOT(MODE1 EQL<16>).FZTMEXK=+LCPHK

NOT(MODE2 EQL<16>).FZTMEXN=+LCPHN
NOT(MODE2 EQL<16>).FZTMEXO=+LCPHO
NOT(MODE2 EQL<16>).FZTMEXP=+LCPHP



; U.T.C. CONTROL AND REPLY BITS
; =============================

; Inhibit MOVA on stream 0 when U.T.C. comms active and 1MO bit is 0
; NB: Requires mapping of TC to port csi.cond.out.1 bit 1 (conditioning bit ESPRX0) on the I/O Mapping Web Page

; CFF1000=1 -   Simulate U.T.C. Comms (ESPRX0, ENABLE FOR EMULATOR TESTING)
; CFF20=1   -   REMOVES THE REQUIREMENT FOR 1MO,2MO OR 3MO ON STREAMS 0
; CFF21=1   -   REMOVES THE REQUIREMENT FOR 1MO,2MO OR 3MO ON STREAMS 1
; CFF22=1   -   REMOVES THE REQUIREMENT FOR 1MO,2MO OR 3MO ON STREAMS 2
; ===========================================================================

    IFT (MANDOORSW+ESPRX0) THN
        FALSE = CFF1000                      ; TC
        FALSE = CFF1001                      ; SF1
        FALSE = CFF1002                      ; SF2
        FALSE = CFF1003                      ; SF3
        FALSE = CFF1004                      ; SF4
    END

    IFT /(ESPRX0+CFF1000) THN                ; U.T.M.C. NOT ONLINE, RESTART DELAY (3)
        RUN<31>                              ; TIMER 31 SET TO 3 SECONDS - U.T.C. COMMS DELAY
    END

    (ESPRX0+CFF1000)./(1MO+CNDTMA31+CFF20)=2SCRT200
    (ESPRX0+CFF1000)./(2MO+CNDTMA31+CFF21)=2SCRT201
    (ESPRX0+CFF1000)./(3MO+CNDTMA31+CFF22)=2SCRT202

    NOT(1MO)=1MR                             ; REPLY FOR 1MR CONFIRM
    NOT(2MO)=2MR                             ; REPLY FOR 2MR CONFIRM
    NOT(3MO)=3MR                             ; REPLY FOR 3MR CONFIRM

    NOT(MODE0 EQL<16>)=1ML                   ; MOVA ON CONTROL REPLY 1ML
    NOT(MODE1 EQL<16>)=2ML                   ; MOVA ON CONTROL REPLY 2ML
    NOT(MODE2 EQL<16>)=3ML                   ; MOVA ON CONTROL REPLY 3ML

    NOT(MOVA0MF)=1MF                         ; MOVA IN FAULT STATE REPLY 1MF
    NOT(MOVA1MF)=2MF                         ; MOVA IN FAULT STATE REPLY 2MF
    MOVA2MF = ESPTX0                         ; MOVA IN FAULT STATE REPLY 3MF

    NOT(FLFCOM) = CF
    NOT(MODE0 EQL<4>) = MC
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
    NOT(FLF55) = LF1
    NOT(LMP1RED0+LMP1RED1+LMP1RED2+LMP1RED3) = LF2
    NOT(LMP2RED0+LMP2RED1+LMP2RED2+LMP2RED3) = LF3
    LMPON./FLF17 = LO
    LMPDIM = SB

    NOT((HRYSTA0 EQL<1>+HRYSTA0 EQL<2>+HRYSTA0 EQL<3>)+(MINQ+MINR+MINS))=1HC
    NOT((HRYSTA1 EQL<1>+HRYSTA1 EQL<2>+HRYSTA1 EQL<3>)+(MINQ+MINR+MINS))=2HC
    NOT((HRYSTA2 EQL<1>+HRYSTA2 EQL<2>+HRYSTA2 EQL<3>)+(MINQ+MINR+MINS))=3HC


    (ESPRX1+CFF1001)::: = ESPTX1                ; SF1/SC1
                      * = MOVA0DET41
                      * = MOVA1DET41
                      * = MOVA2DET41

    (ESPRX2+CFF1002)::: = ESPTX2
                      * = MOVA0DET42
                      * = MOVA1DET42
                      * = MOVA2DET42

    (ESPRX3+CFF1003)::: = ESPTX3
                      * = MOVA0DET43
                      * = MOVA1DET43
                      * = MOVA2DET43

    (ESPRX4+CFF1004)::: = ESPTX4
                      * = MOVA0DET44
                      * = MOVA1DET44
                      * = MOVA2DET44

    CCTO6 = ESPTX5                             ; CLOSEO

    /ONBAT  = ESPTX6                           ; UPS - NC Outputs
    /LOWBAT = ESPTX7
    /UPSWRN = ESPTX8
    /UPSFLT = ESPTX9




; INPUTS FROM CONTROLLER 2 AQA,B,C AQ HURRY CALL STAGE 1
; =======================================================

IFT CCTO3.NOT(2SCRT3) THN
    RUN<3>
END

;CNDTMA3=SCRT7

CCTO3=2SCRT3

IFT CCTO4.NOT(2SCRT4) THN
    RUN<4>
END

;CNDTMA4=SCRT7

CCTO4=2SCRT4
```

Special Conditioning

```
IFT CCTO5.NOT(2SCRT5) THN
    RUN<5>
END

(CNDTMA3+CNDTMA4+CNDTMA5)=SCRT7

CCTO5=2SCRT5

; CQ AND DQ HURRY CALLS FOR STAGES 2,4 AND 7
; ============================================

IFT CCTO0.NOT(2SCRT6).NOT(CNDTMA1) THN
    RUN<6>
    RUN<1>
END

;CNDTMA6=SCRT3

CCTO0=2SCRT6

IFT CCTO1.NOT(2SCRT7).NOT(CNDTMA1) THN
    RUN<7>
    RUN<1>
END

(CNDTMA6+CNDTMA7)::=SCRT3
                  *=SCRT4
                  *=SCRT5

CCTO1=2SCRT7

; MC1 OR MC2 MOTORWAY CLOSED INPUTS ACTIVE HURRY CALL ALL RED STAGES ON ALL STREAMS
; ===================================================================================

    (MC1+MC2)=SCRT0
    NOT(MC1+MC2)=ROUGH0

    IFT CCTO6.NOT(1SCRT0) THN
        RUN<10>
        RUN<11>
        RUN<12>
    END

    CNDTMA10=SCRT10
    CNDTMA11=SCRT1
    CNDTMA12=SCRT2

    CCTO6=1SCRT0

    (MINQ+MINR+MINS)::::::::=1SCRT1             ; PREVENT MOVES FROM ALL RED STAGES TILL ALL STREAMS
                           *=PRVST1             ; HAVE RUN 10 SECONDS ( MIN GREENS TIMED OFF )
                           *=PRVST2
                           *=PRVST4
                           *=PRVST5
                           *=PRVST7
                           *=PRVST8
                           *=PRVST9
                           *=PRVST10

; MOTORWAY CLOSED INPUT ACTIVE PREVENT MOVA ON ALL STREAMS AND CALL CLF PLAN 5 TILL INPUT CLEARS
; ================================================================================================
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
IFT CCTO6 THN                             ; IF MC1 OR MC2 (CCTO6) BIT ACTIVE REQUEST CLF PLAN 5
    LOD <5>1REQPLN
END

IFT NOT(CCTO6).NOT(1SCRT40) THN           ; IF MC1 OR MC2 (CCTO6) BIT CLEARS REVERT TO CURRENT TIMETABLED
    RUN<13>                               ; CLF PLAN
END

IFT CNDTMA13 THN
    LOD <1>1CALCKP
END

NOT(CCTO6)=1SCRT40

(MTCF0.CFF0)+(CCTO6):::::+2SCRT200=DISMOVA0
                        *+2SCRT201=DISMOVA1
                        *+2SCRT202=DISMOVA2
                        *=DISUTC0
                        *=DISUTC1
                        *=DISUTC2
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
; MOVA STREAM 0
; =============

; LINK 11 = WC FROM PHASE E MOVA0DET25
; ====================================

VRDMNDE=MOVA0DET25

; LINK 12 = WC FROM PHASE F MOVA0DET26
; ====================================

VRDMNDF=MOVA0DET26

; LINK 13 = WC FROM PHASE G MOVA0DET27
; ====================================

VRDMNDG=MOVA0DET27

; AQ = MOVA0DET28
; ===============

 (CCTO3+CCTO4+CCTO5)=MOVA0DET28

; BQx = MOVA0DET29
; ================

BQ=MOVA0DET29

; CQ = MOVA0DET30
; ===============

CQ=MOVA0DET30

; DQ = MOVA0DET31
; ===============

DQ=MOVA0DET31

; MOVA 8 LINKING STAGE CONFIRMS BETWEEN STREAMS
; =============================================

 (NXTSTG0 EQL<1>)=MOVA0DET32
 (NXTSTG0 EQL<2>)=MOVA0DET33
 (NXTSTG1 EQL<4>)=MOVA0DET34
 (NXTSTG1 EQL<5>)=MOVA0DET35
 (NXTSTG2 EQL<7>)=MOVA0DET36
 (NXTSTG2 EQL<8>)=MOVA0DET37

; EXTERNAL STAGE CONFIRMS FROM CONTROLLER 2
; =========================================

C2S2=MOVA0DET38
C2S5=MOVA0DET39

; MOVA Stream 0
; =============

MOVA1OUT0=MOVA0DET63
MOVA2OUT1=MOVA0DET64

; MOVA Stream 1
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
; =============

MOVA0OUT0=MOVA1DET63
MOVA2OUT1=MOVA1DET64

; MOVA Stream 2
; =============

MOVA0OUT0=MOVA2DET63
MOVA1OUT1=MOVA2DET64
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
; MOVA STREAM 1
; =============

BX4=MOVA1DET16

CCTO2=MOVA1DET17

; LINK 6 = WC FROM PHASE L MOVA1DET25
; ===================================

VRDMNDL=MOVA1DET25

; LINK 7 = WC FROM PHASE M MOVA1DET26
; ===================================

VRDMNDM=MOVA1DET26

; MOVA 8 LINKING STAGE CONFIRMS BETWEEN STREAMS
; =============================================

(NXTSTG0 EQL<1>)=MOVA1DET32
(NXTSTG0 EQL<2>)=MOVA1DET33
(NXTSTG1 EQL<4>)=MOVA1DET34
(NXTSTG1 EQL<5>)=MOVA1DET35
(NXTSTG2 EQL<7>)=MOVA1DET36
(NXTSTG2 EQL<8>)=MOVA1DET37

; EXTERNAL STAGE CONFIRMS FROM CONTROLLER 2
; =========================================

C2S2=MOVA1DET38
C2S5=MOVA1DET39
```

Special Conditioning

```
; MOVA STREAM 2
; =============

; MOVA 8 LINKING STAGE CONFIRMS BETWEEN STREAMS
; =============================================

(NXTSTG0 EQL<1>)=MOVA2DET32
(NXTSTG0 EQL<2>)=MOVA2DET33
(NXTSTG1 EQL<4>)=MOVA2DET34
(NXTSTG1 EQL<5>)=MOVA2DET35
(NXTSTG2 EQL<7>)=MOVA2DET36
(NXTSTG2 EQL<8>)=MOVA2DET37

; EXTERNAL STAGE CONFIRMS FROM CONTROLLER 2
; =========================================

C2S2=MOVA2DET38
C2S5=MOVA2DET39
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning

```
; LINKING TO AND FROM CONTROLLER 2 SOUTH
; ====================================

C2AQA=C2AQAOUT
C2AQB=C2AQBOUT
C2AQC=C2AQCOUT


(NXTSTG0 EQL<2>)=C1S2
(NXTSTG1 EQL<5>)=C1S5
(NXTSTG2 EQL<8>)=C1S8
```

Special Conditioning Timers

Special Conditioning Timers

Timers

0-31

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0		0	255	☐		16		0	255	☐	
1	180	0	255	☐	CQ AND DQ HURRY CALL O/RIDE	17		0	255	☐	
2		0	255	☐		18		0	255	☐	
3	2	0	255	☐	C2AQA HURRY CALL STAGE 1	19		0	255	☐	
4	2	0	255	☐	C2AQB HURRY CALL STAGE 1	20		0	255	☐	
5	2	0	255	☐	C2AQC HURRY CALL STAGE 1	21		0	255	☐	
6	2	0	255	☐	CQ HURRY CALLS STAGES 2/4/7	22		0	255	☐	
7	2	0	255	☐	DQ HURRY CALLS STAGES 2/4/7	23		0	255	☐	
8		0	255	☐		24	0.6	0.6	31.8	☑	FLASH ON TIMER
9		0	255	☐		25	0.6	0.6	31.8	☑	FLASH OFF TIMER
10	2	0	255	☐	MC HURRY CALL STREAM 0	26		0	255	☐	
11	2	0	255	☐	MC HURRY CALL STREAM 1	27		0	255	☐	
12	2	0	255	☐	MC HURRY CALL STREAM 2	28		0	255	☐	
13	1	0	255	☐	CLEAR CLF PLAN 5 REQUEST	29		0	255	☐	
14	1	0	255	☐	CLEAR DISABLE CLF REQUEST	30		0	255	☐	
15		0	255	☐		31	3	0	255	☐	U.T.C. COMMS DELAY

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Conditioning Timers

Special Conditioning Timers

Timers

64-95

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
64		0	255	☐		80		0	255	☐	
65		0	255	☐		81		0	255	☐	
66		0	255	☐		82		0	255	☐	
67		0	255	☐		83	0.4	0.4	1	☑	LED - Fast Flash
68		0	255	☐		84		0	255	☐	
69		0	255	☐		85		0	255	☐	
70		0	255	☐		86		0	255	☐	
71		0	255	☐		87		0	255	☐	
72		0	255	☐		88		0	255	☐	
73		0	255	☐		89		0	255	☐	
74		0	255	☐		90		0	255	☐	
75		0	255	☐		91		0	255	☐	
76		0	255	☐		92		0	255	☐	
77		0	255	☐		93	3	2	5	☑	LED - Slow Pulse
78		0	255	☐		94		0	255	☐	
79		0	255	☐		95		0	255	☐	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Fault Log Flags

Fault Log Flags

Fault No	Cond Flag	Act Flag	Fault No	Cond Flag	Act Flag	Fault No	Cond Flag	Act Flag	Fault No	Cond Flag	Act Flag
0	☑	☐	16	☑	☐	32	☑	☐	48	☑	☐
1	☑	☐	17	☐	☐	33	☑	☐	49	☑	☐
2	☑	☐	18	☑	☐	34	☑	☐	50	☑	☐
3	☑	☐	19	☑	☐	35	☑	☐	51	☑	☐
4	☑	☐	20	☑	☐	36	☑	☐	52	☑	☐
5	☑	☐	21	☑	☐	37	☑	☐	53	☑	☐
6	☑	☐	22	☐	☐	38	☑	☐	54	☑	☐
7	☑	☐	23	☑	☐	39	☑	☐	55	☐	☐
8	☑	☐	24	☑	☐	40	☑	☐	56	☑	☐
9	☑	☐	25	☑	☐	41	☑	☐	57	☑	☐
10	☑	☐	26	☑	☐	42	☑	☐	58	☑	☐
11	☑	☐	27	☑	☐	43	☑	☐	59	☑	☐
12	☐	☐	28	☑	☐	44	☑	☐	60	☑	☐
13	☑	☐	29	☑	☐	45	☑	☐	61	☑	☐
14	☑	☐	30	☑	☐	46	☑	☐	62	☑	☐
15	☑	☐	31	☑	☐	47	☑	☐	63	☑	☐

Note:

Cond Flag -
If a fault occurs which sets a fault log flag that has been checked for this Cond flag option then a flag will be set that can be read in Conditioning.

Act Flag -
If a fault occurs which sets a fault log flag that has been checked for this Act flag option then firstly the lamps

will be switched OFF and secondly a flag will be set that can be read in conditioning, to allow any further actions required to be performed by conditioning.

Clearance of Special Conditionir ☐

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Instructions

```
NN0014
Card Type                       Rack Posn   Addr.   Port    Type    Line        Term Posn
Intelligent Backplane 16/0      Rack        01      0       I       000 - 007   2 LT1
Intelligent Backplane 16/0      Rack        01      1       I       008 - 015   2 LT1
Intelligent Backplane 16/0      Rack        02      2       I       016 - 023   2 LT2
Intelligent Backplane 16/0      Rack        02      3       I       024 - 031   2 LT2
Intelligent Backplane 16/0      Rack        03      4       I       032 - 039   2 LT3
Intelligent Backplane 16/0      Rack        03      5       I       040 - 047   2 LT3
Intelligent Backplane 16/0      Rack        04      6       I       048 - 055   2 LT4
Intelligent Backplane 16/0      Rack        04      7       I       056 - 063   2 LT4
Serial IO 24/16                 1 I/O1      05      8       I       064 - 071   1 I/O1
Serial IO 24/16                 1 I/O1      05      9       I       072 - 079   1 I/O1
Serial IO 24/16                 1 I/O1      05      10      I       080 - 087   1 I/O1
Serial IO 24/16                 1 I/O1      05      11      O       088 - 095   1 I/O1
Serial IO 24/16                 1 I/O1      05      12      O       096 - 103   1 I/O1
Serial IO 24/4                  1 I/O2      06      13      I       104 - 111   1 I/O2
Serial IO 24/4                  1 I/O2      06      14      I       112 - 119   1 I/O2
Serial IO 24/4                  1 I/O2      06      15      I       120 - 127   1 I/O2
Serial IO 24/4                  1 I/O2      06      16      O       128 - 131   1 I/O2
CPU                             A
```

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Instructions

ST950 ELV CONTROLLER ITEMS LIST SHEET 1 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
1					
2	667/1/45950/020	ST950ELV CAB UK 20A 1LSLS GRY	1		
3	667/1/45950/040	ST950ELV CAB UK 40A 1LSLS GRY			
4	667/1/45950/021	ST950ELV CAB UK 20A 1LSLS BLK			
5	667/1/45950/041	ST950ELV CAB UK 40A 1LSLS BLK			
6	667/1/45950/520	ST950ELV CAB UK 20A 1LSLS LOW INRUSH GRY			
7	667/1/45950/521	ST950ELV CAB UK 20A 1LSLS LOW INRUSH BLK			
8					
9	667/1/32943/001	ELV Lamp switch (LSLS) kit	1		
10	667/1/32960/001	ELV Lamp switch (LSLS) backplane kit	1		
11	667/1/46085/002	I/O card kit (4 outputs)	1		
12	667/1/46085/001	I/O card kit (16 outputs)	1		
13	667/1/46015/001	ST950 CPU I/O kit (4 outputs)			
14	667/1/45952/001	ST950 CPU I/O kit (4 outputs) cableform			
15					
16					
17					
18	667/1/32910/950	Intelligent detector backplane kit	4		
19	667/1/33002/000	ELV detector 6U rack expansion kit	1		
20	667/1/33074/000	ST900 ELV 24 V detector supply Kit (6A)			
21	667/1/20690/001	19" Detector Rack			
22					
23	667/1/32980/040	ELV 20A to 40A upgrade kit			
24					
25					
26	667/1/33070/000	ELV Regulatory Sign expansion kit			
27	667/1/32955/000	ELV Audible supply kit			
28	667/1/27117/000	ST900 300mA RCD kit			
29					
30	667/1/32900/001	Expansion cabinet kit - Black			
31	667/1/32900/000	Expansion cabinet kit - Grey			
32	667/1/33072/000	Cabinet mounted cut-out connection kit			
33	667/1/33007/000	LSLS Expansion cabinet kit			
34					
35					
36	667/1/27056/001	Manual Panel Full kit			
37	667/1/27110/000	Manual Panel RS232 kit			
38					
39					
40					

Note 1:
Please refer to special instruction pages for additional information on items marked with an '*'.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Instructions

ST950 ELV CONTROLLER ITEMS LIST SHEET 2 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
41					
42	667/1/45990/000	ST950ELV CUCKOO KIT - T400L			
43	667/1/45991/000	ST950ELV CUCKOO KIT - ST800			
44	667/1/45992/000	ST950ELV CUCKOO KIT - MICROSENSE MTC			
45	667/1/45993/000	ST950ELV CUCKOO KIT - MICROSENSE SENTNL			
46	667/1/45994/000	ST950ELV CUCKOO KIT - PEEK TSC3			
47	667/1/45995/000	ST950ELV CUCKOO KIT - PEEK TRX			
48					
49					
50					
51					
52	667/1/33073/000	ST900 Isolator locking kit			
53	667/2/20234/000	Screw Lock Key			
54					
55					
56	667/1/27104/000	ST800 / ST900 DFM Lens Kit			
57	667/7/46690/000	NAL CONTROLLER CABINET BASE GREY			
58	667/7/46690/001	NAL CONTROLLER CABINET BASE BLACK			
59	667/2/27096/000	ST800 / ST900 Mounting Stool			
60					
61					
62	667/1/26271/000	Telephone Kit (Lightning protection)			
63	667/1/27118/000	Surge Arrester (Lightning protection)			
64					
65	667/1/45950/120	ST950 ELV Cabinet Export 20A 1 LSLS - Grey			
66	667/1/45950/140	ST950 ELV Cabinet Export 40A 1 LSLS - Grey			
67	667/1/45950/951	ST950 ELV RACK 19" 1LSLS			
68	667/1/32945/000	ST900 ELV additional LSLS rack wiring kit			
69					
70	667/1/45980/000	ST900 ELV to ST950 ELV conversion kit			
71	667/1/27056/300	Manual Panel Signals off only			
72	667/1/45966/001	Temporary USB Wi-Fi Dongle			
73	667/1/45970/000	ST950 RTC backup battery			
74	667/1/33080/100	Mains kit (ST950ELV) - No maint sockets			
75	667/1/31625/019	2U 19" UTMC communications tray			
76	667/6/46680/000	Anti graffiti coating			
77	667/1/33080/000	Mains kit (ST950ELV)			
78	667/1/33075/000	ELV 24V detector supply kit (2A)			
79	667/1/27018/950	GPS Clock Kit			
80					

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Instructions

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Special Instructions

******PLEASE NOTE ********

ALL OF THE CAMERA INPUT'S HAVE BEEN INVERTED

THIS INCLUDES THE VECHICLE MVD'S, KERBSIDES AND ONCROSSINGS, YOU WILL NEED TO MAKE SURE THE INSTALLER IS AWARE OF THIS SO THE CORRECT OUTPUT WIRING FROM THE MVD'S IS CONNECTED.

THIS IS TO MAKE SURE THE INPUT GOES ACTIVE OR P.D. IF ANY OF THE MVD'S ARE DISCONNECTED.

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

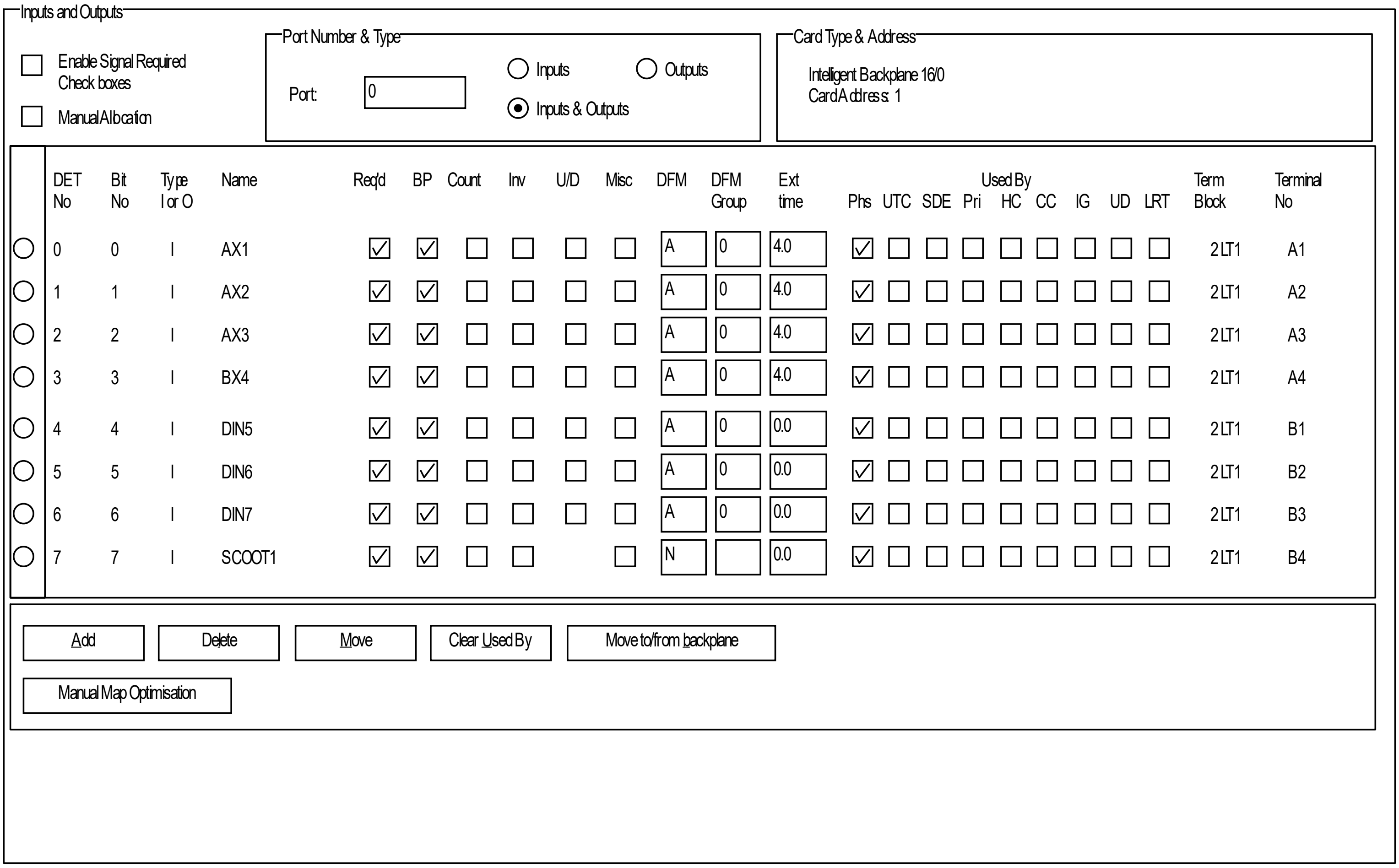
Call Cancel

Call Cancel

Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
0	CQ	25	2	
1	DQ	25	2	
2	BQ	15	2	
3	C1AQAIN	20	2	
4	C1AQBIN	20	2	
5	C1AQCIN	20	2	
6	*SCRT0	0	255	
7		0	0	

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

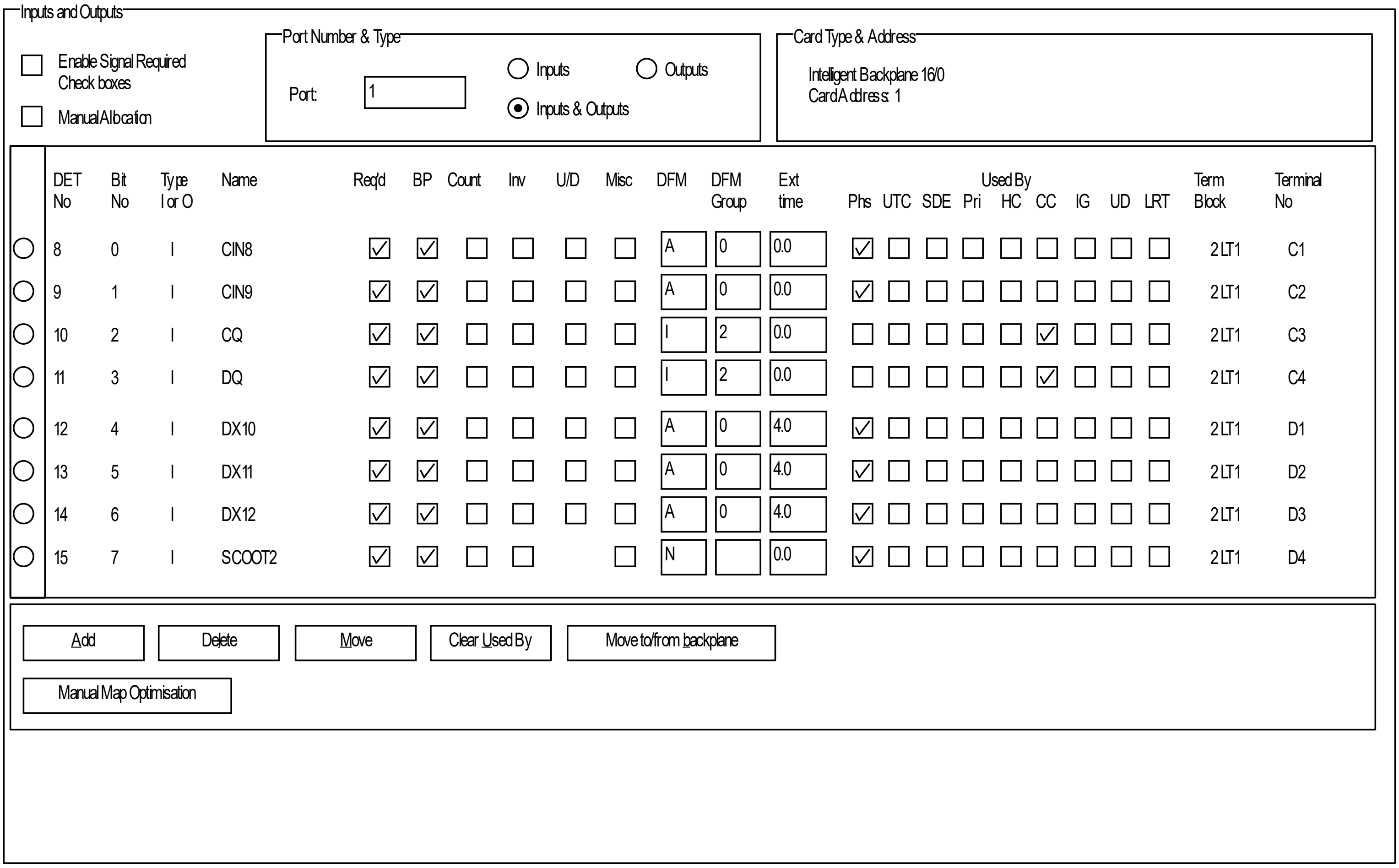
Port Number & Type
Port: 0
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	0	0	I	AX1	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A1
○	1	1	I	AX2	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A2
○	2	2	I	AX3	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A3
○	3	3	I	BX4	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A4
○	4	4	I	DIN5	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B1
○	5	5	I	DIN6	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B2
○	6	6	I	DIN7	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B3
○	7	7	I	SCOOT1	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

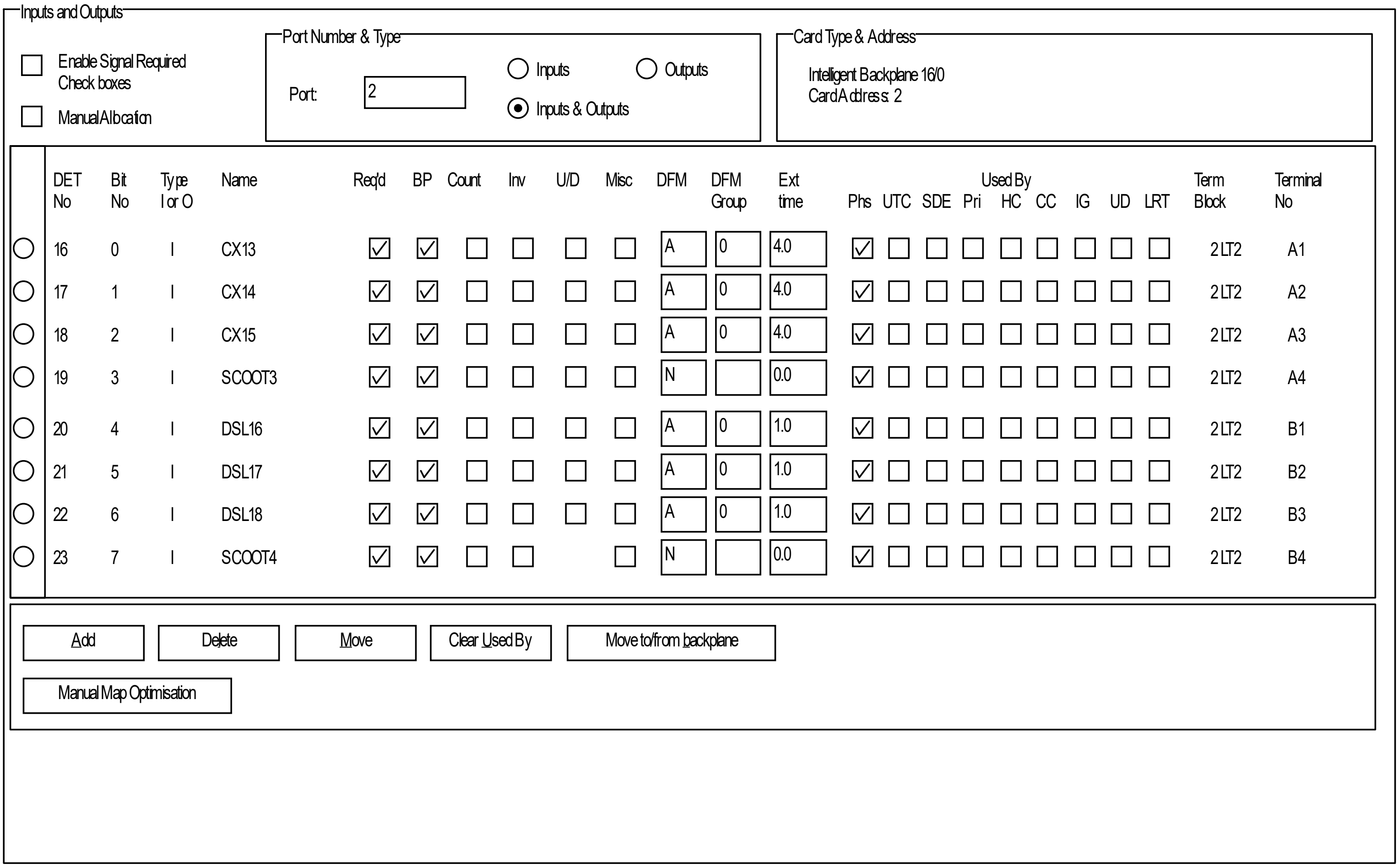
Port Number & Type
Port: 1
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	8	0	I	CIN8	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2LT1	C1
○	9	1	I	CIN9	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2LT1	C2
○	10	2	I	CQ	☑	☑	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	2LT1	C3
○	11	3	I	DQ	☑	☑	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	2LT1	C4
○	12	4	I	DX10	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2LT1	D1
○	13	5	I	DX11	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2LT1	D2
○	14	6	I	DX12	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2LT1	D3
○	15	7	I	SCOOT2	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2LT1	D4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 2

○ Inputs ○ Outputs

● Inputs & Outputs

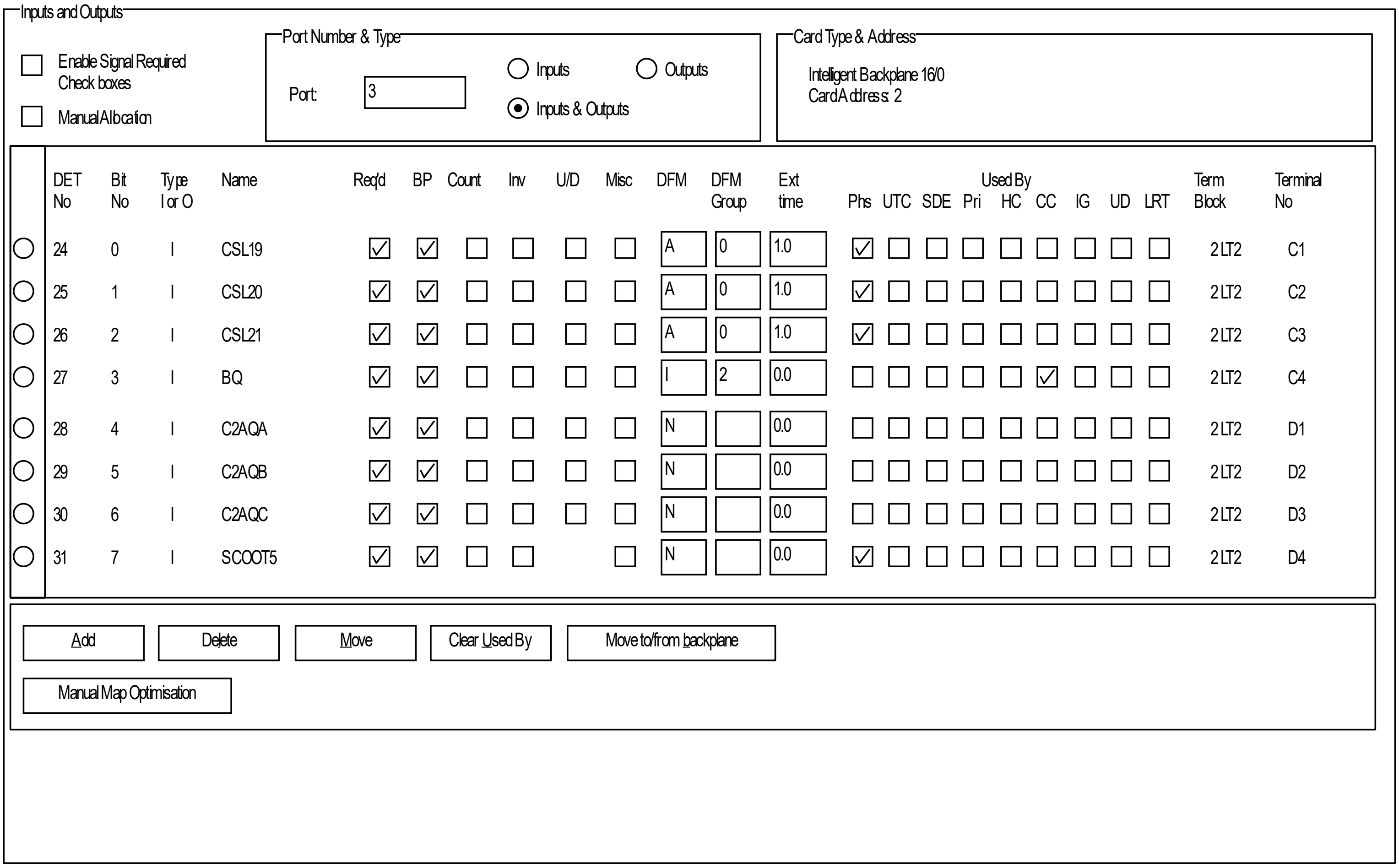
Card Type & Address

Intelligent Backplane 16/0
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	16	0	I	CX13	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A1
○	17	1	I	CX14	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A2
○	18	2	I	CX15	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A3
○	19	3	I	SCOOT3	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A4
○	20	4	I	DSL16	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B1
○	21	5	I	DSL17	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B2
○	22	6	I	DSL18	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B3
○	23	7	I	SCOOT4	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 3

○ Inputs ○ Outputs

● Inputs & Outputs

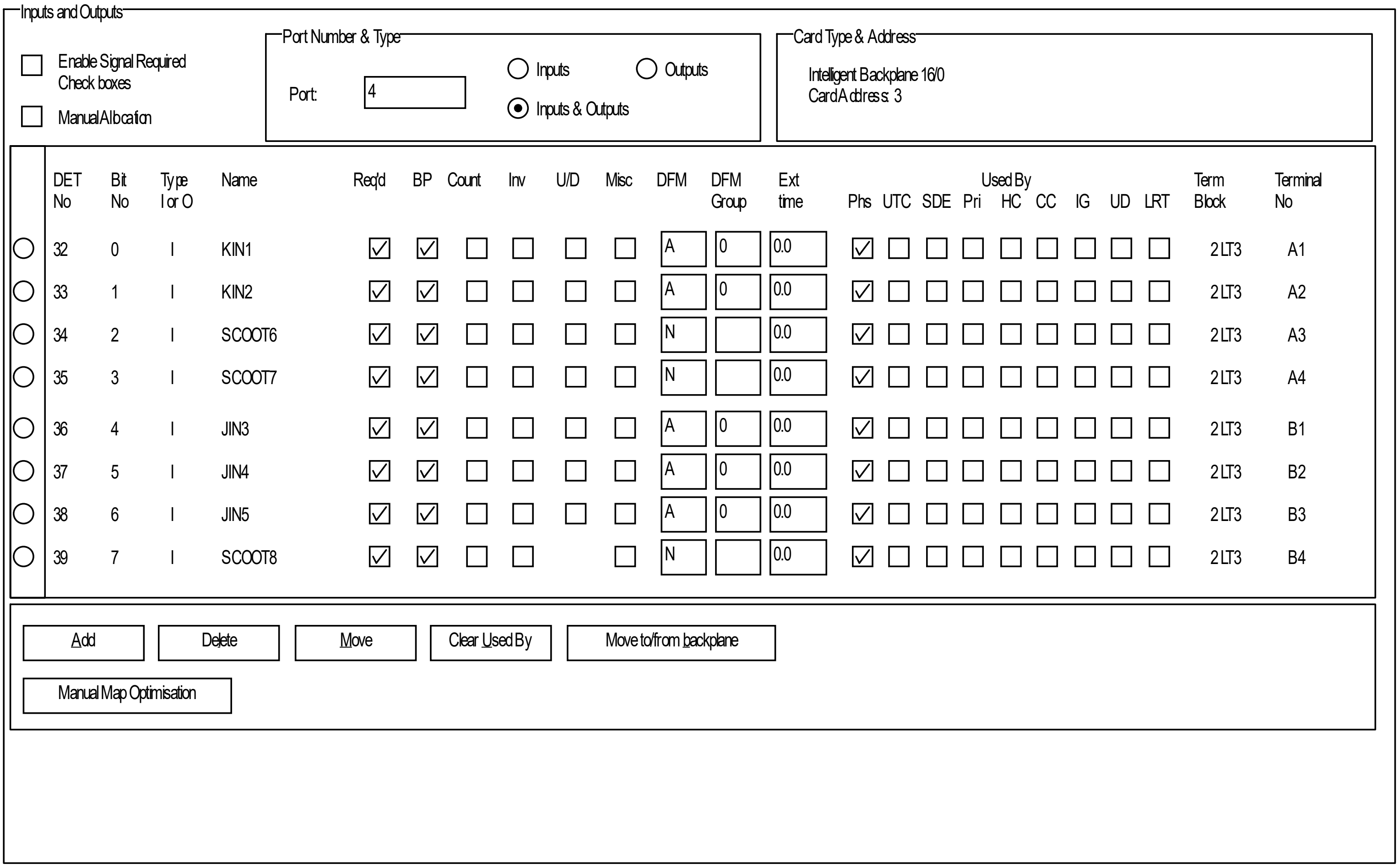
Card Type & Address

Intelligent Backplane 16/0
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	24	0	I	CSL19	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C1
○	25	1	I	CSL20	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C2
○	26	2	I	CSL21	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C3
○	27	3	I	BQ	☑	☑	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	2 LT2	C4
○	28	4	I	C2AQA	☑	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D1
○	29	5	I	C2AQB	☑	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D2
○	30	6	I	C2AQC	☑	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D3
○	31	7	I	SCOOT5	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 4

○ Inputs ○ Outputs

● Inputs & Outputs

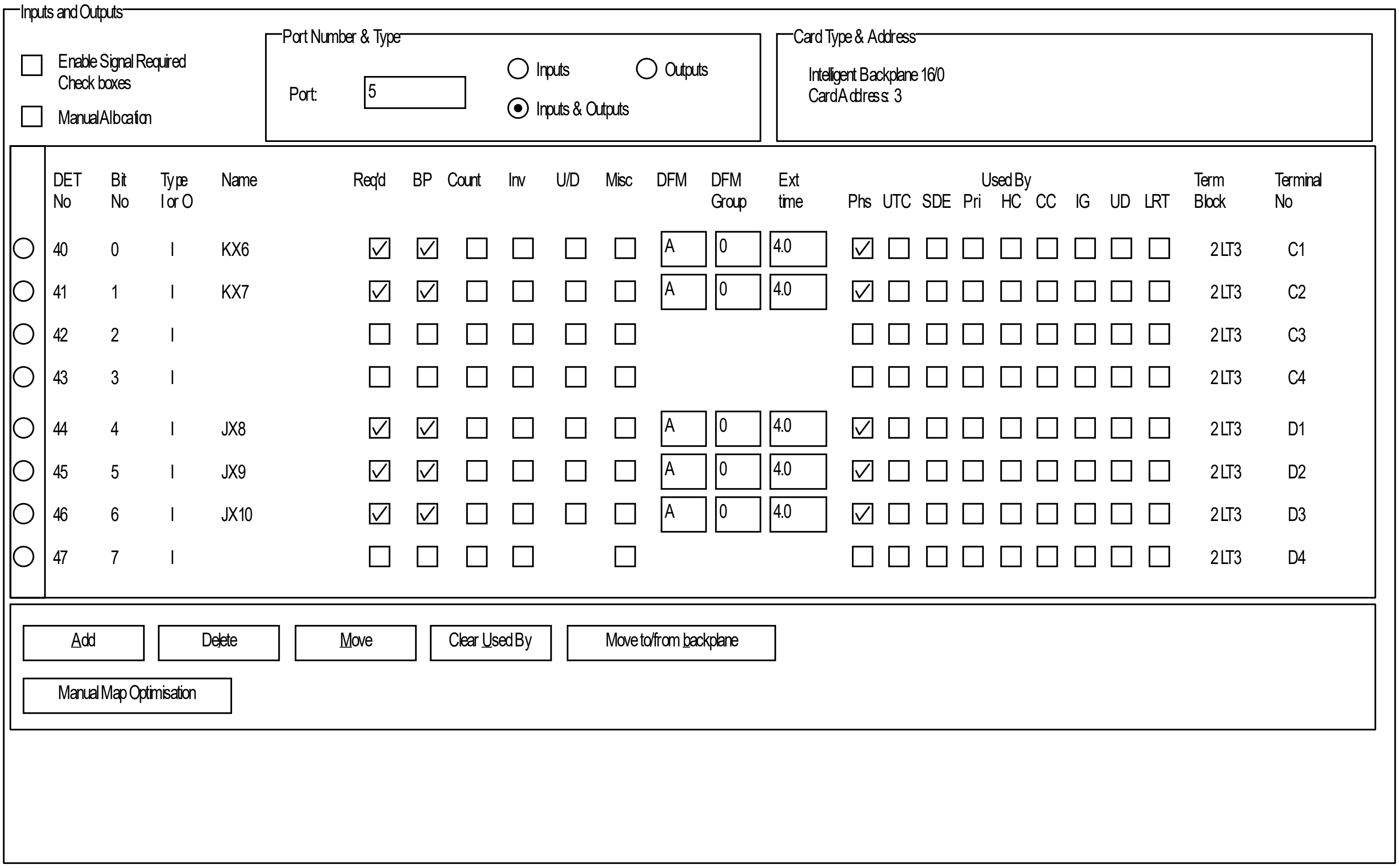
Card Type & Address

Intelligent Backplane 16/0
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	32	0	I	KIN1	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A1
○	33	1	I	KIN2	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A2
○	34	2	I	SCOOT6	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A3
○	35	3	I	SCOOT7	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A4
○	36	4	I	JIN3	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B1
○	37	5	I	JIN4	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B2
○	38	6	I	JIN5	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B3
○	39	7	I	SCOOT8	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

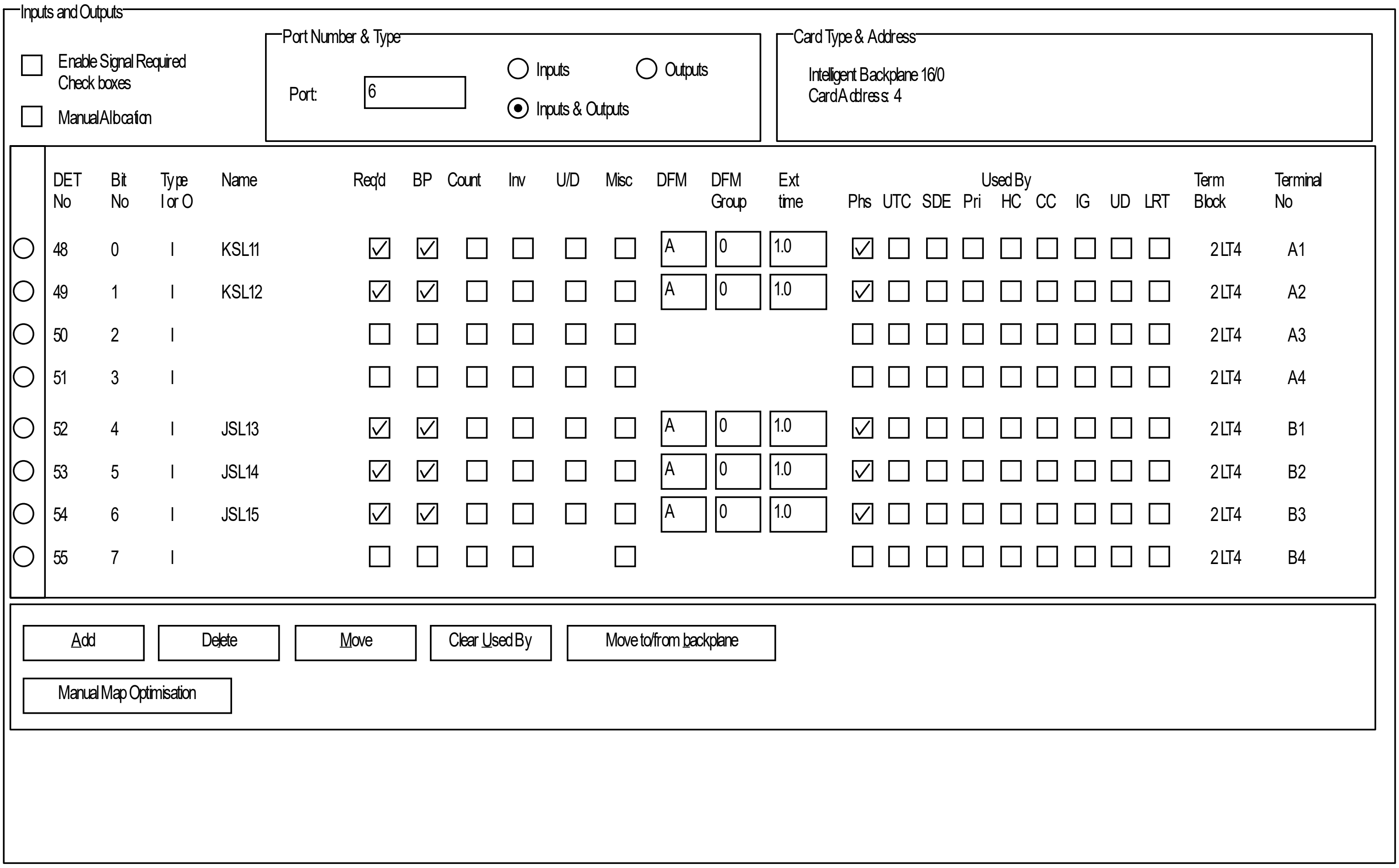
Port Number & Type
Port: 5
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	40	0	I	KX6	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C1
○	41	1	I	KX7	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C2
○	42	2	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C3
○	43	3	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C4
○	44	4	I	JX8	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D1
○	45	5	I	JX9	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D2
○	46	6	I	JX10	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D3
○	47	7	I		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



☐ Enable Signal Required Check boxes
☐ Manual Allocation

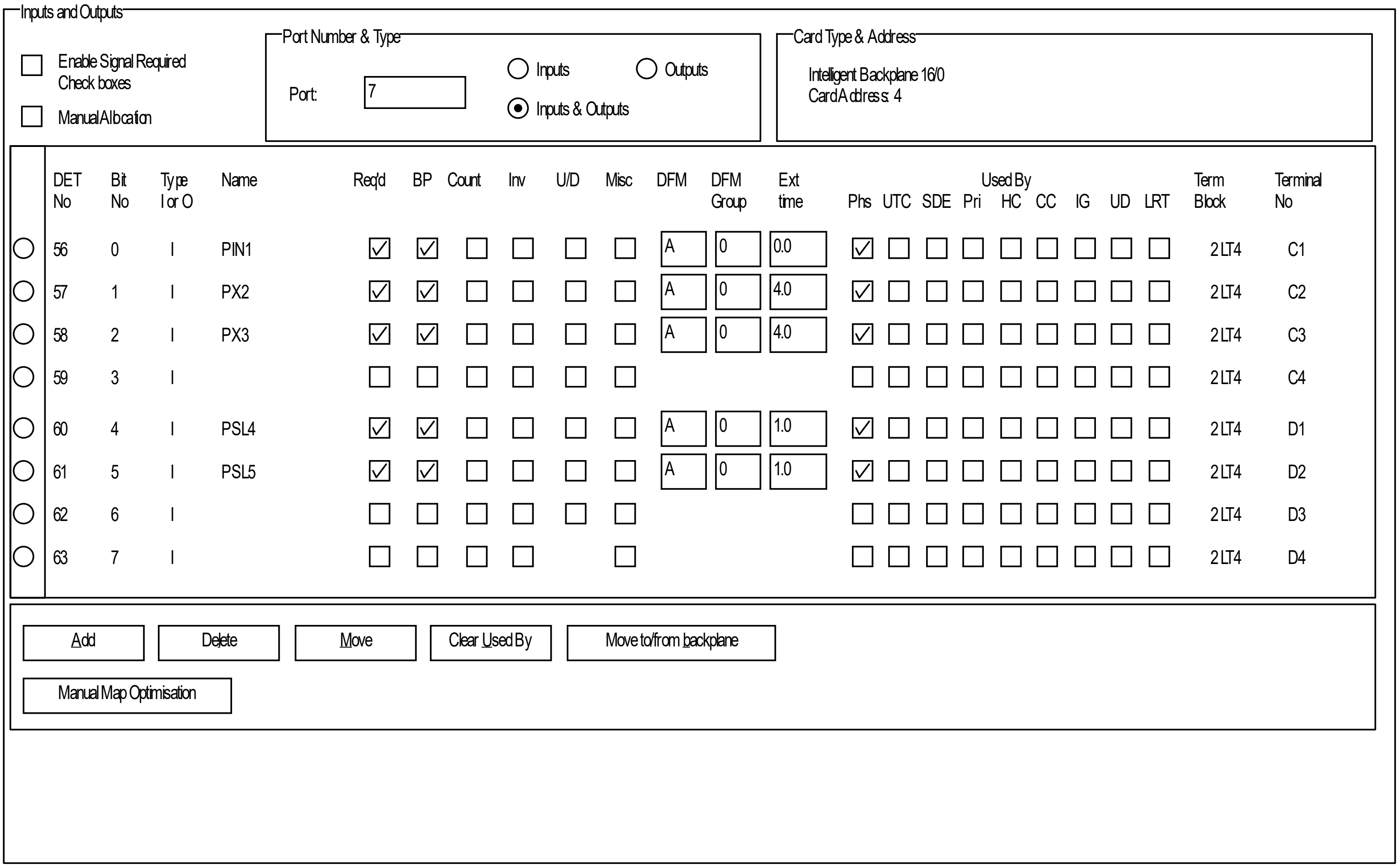
Port Number & Type
Port: 6
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 4

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	48	0	I	KSL11	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A1
○	49	1	I	KSL12	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A2
○	50	2	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A3
○	51	3	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A4
○	52	4	I	JSL13	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B1
○	53	5	I	JSL14	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B2
○	54	6	I	JSL15	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B3
○	55	7	I		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

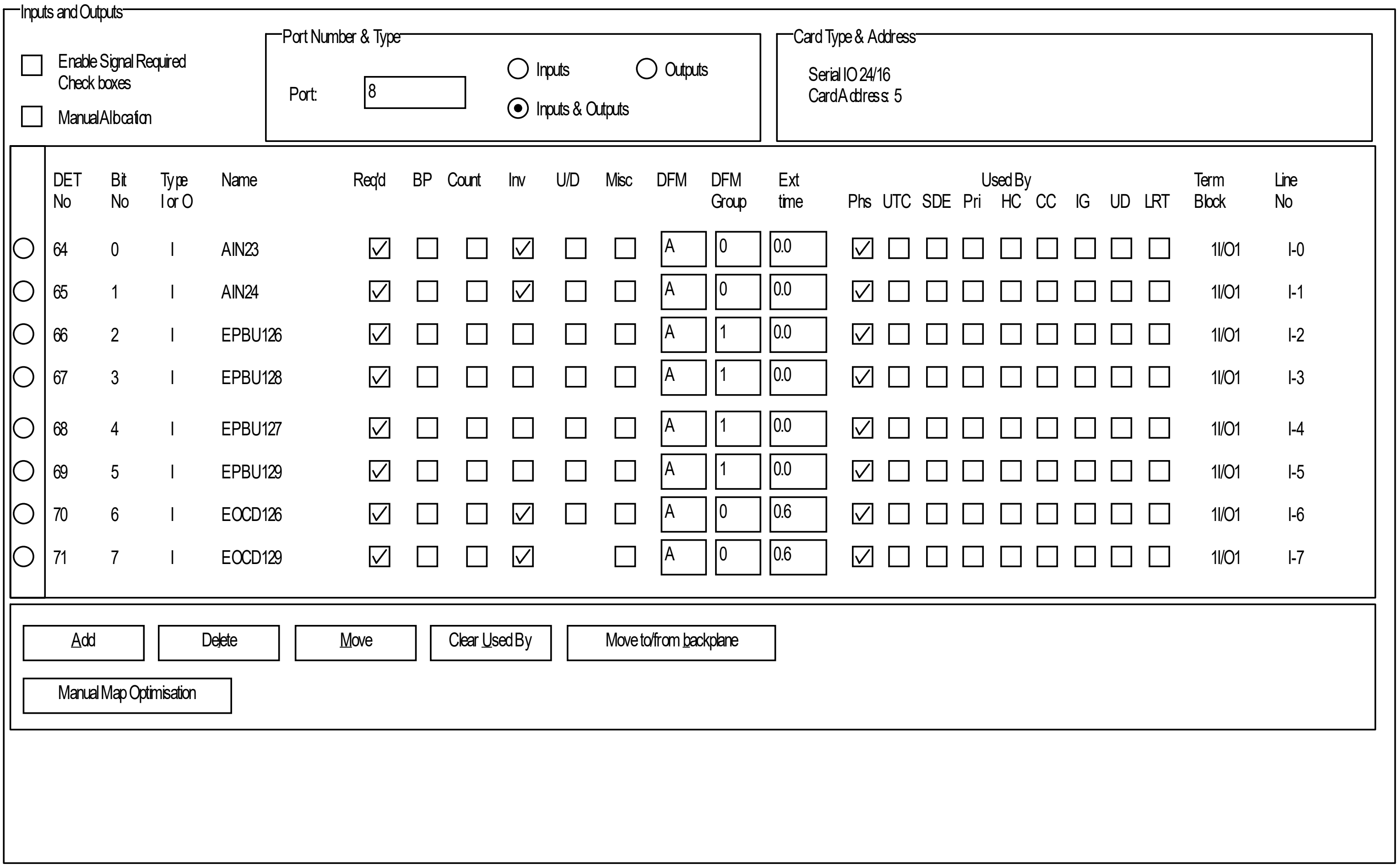
Port Number & Type
Port: 7
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 4

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	56	0	I	PIN1	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	C1
○	57	1	I	PX2	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	C2
○	58	2	I	PX3	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	C3
○	59	3	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	C4
○	60	4	I	PSL4	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	D1
○	61	5	I	PSL5	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	D2
○	62	6	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	D3
○	63	7	I		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	D4

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 8

○ Inputs ○ Outputs

● Inputs & Outputs

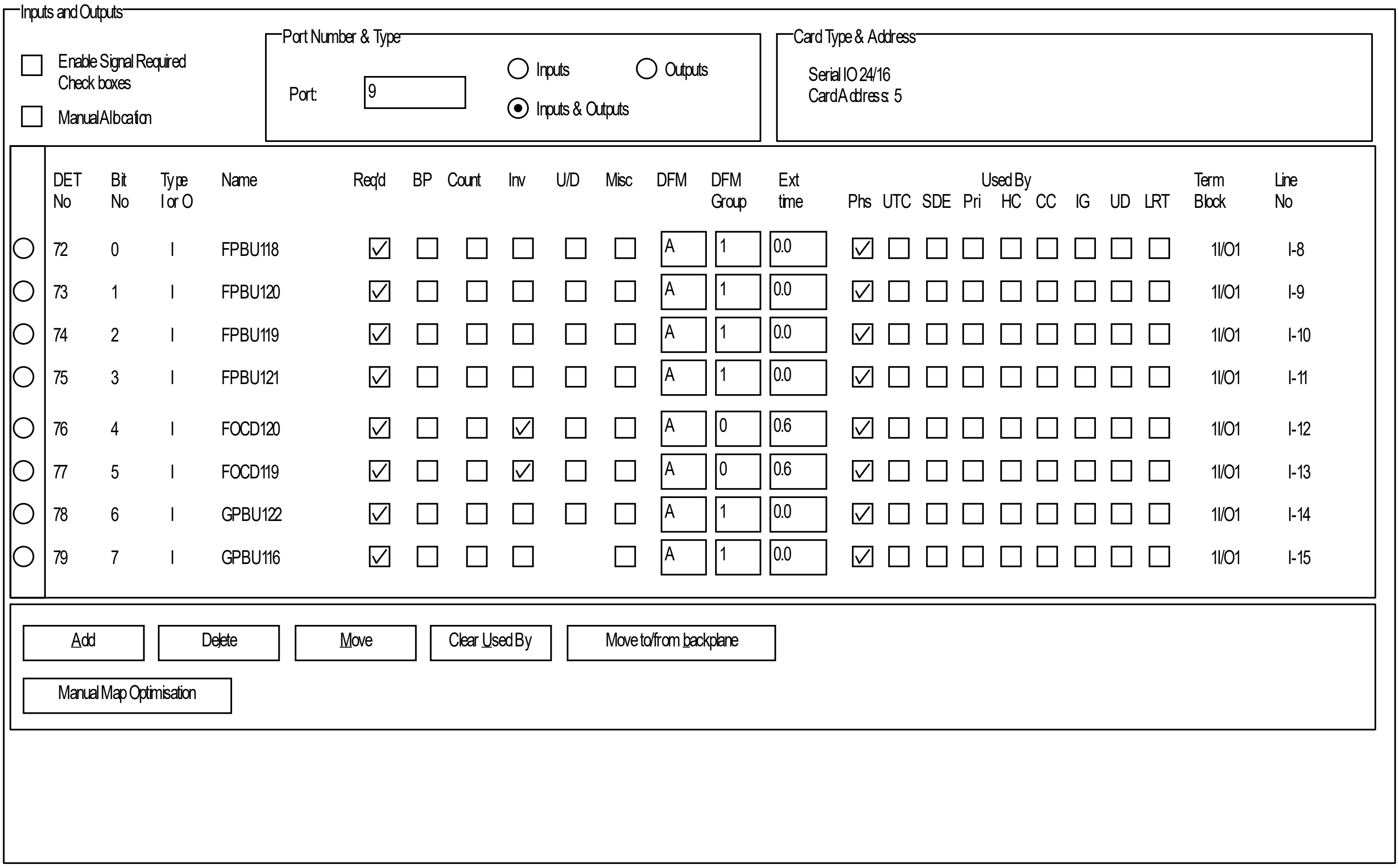
Card Type & Address

Serial IO 24/16
Card Address: 5

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Line No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	64	0	I	AIN23	☑	☐	☐	☑	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-0
○	65	1	I	AIN24	☑	☐	☐	☑	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-1
○	66	2	I	EPBU126	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-2
○	67	3	I	EPBU128	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-3
○	68	4	I	EPBU127	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-4
○	69	5	I	EPBU129	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-5
○	70	6	I	EOCD126	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-6
○	71	7	I	EOCD129	☑	☐	☐	☑		☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-7

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

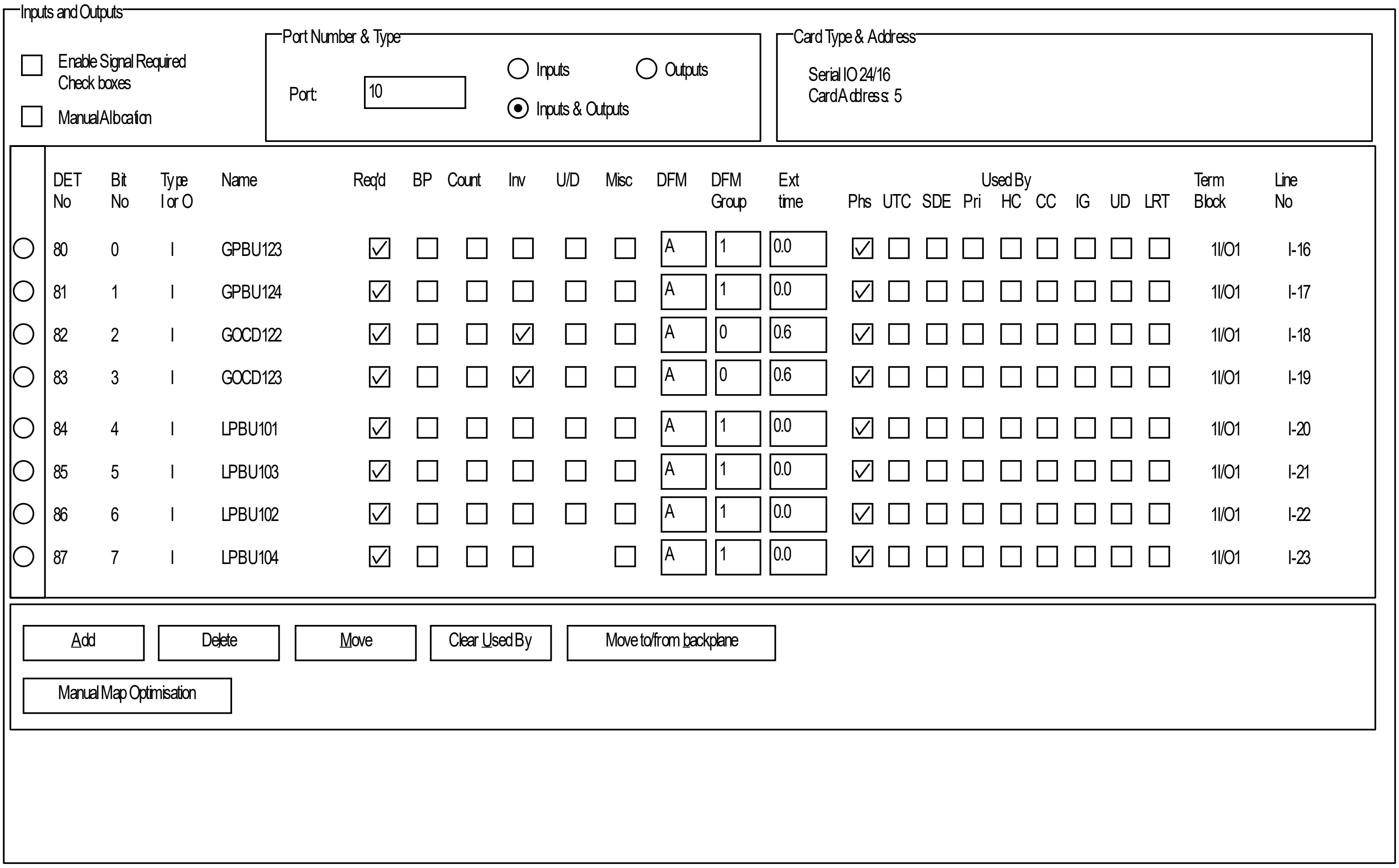
Port Number & Type
Port: 9
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Serial IO 24/16
Card Address: 5

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Line No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	72	0	I	FPBU118	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-8
○	73	1	I	FPBU120	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-9
○	74	2	I	FPBU119	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-10
○	75	3	I	FPBU121	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-11
○	76	4	I	FOCD120	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-12
○	77	5	I	FOCD119	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-13
○	78	6	I	GPBU122	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-14
○	79	7	I	GPBU116	☑	☐	☐	☐		☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-15

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

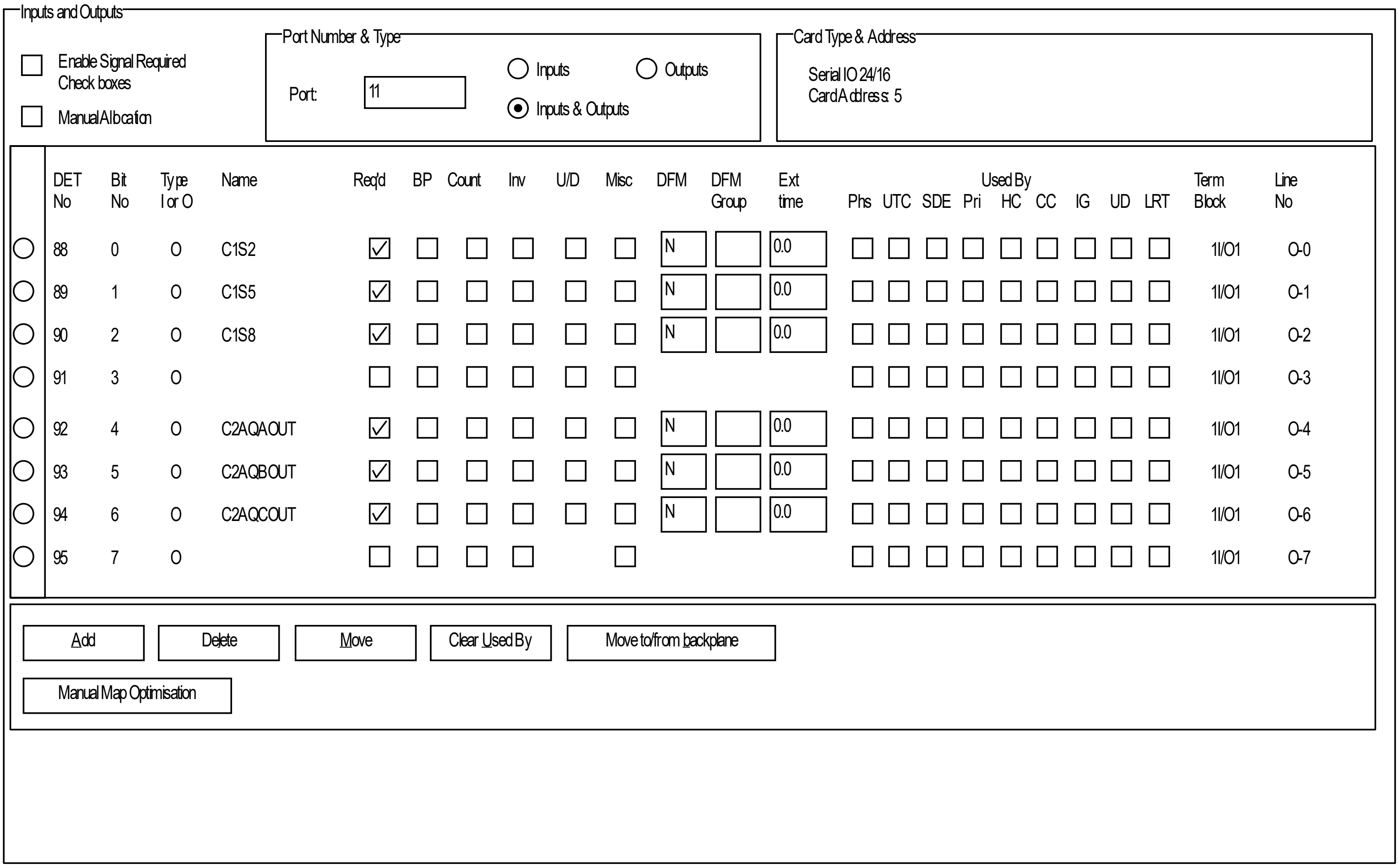
Port Number & Type
Port: 10
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Serial IO 24/16
Card Address: 5

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	80	0	I	GPBU123	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-16
○	81	1	I	GPBU124	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-17
○	82	2	I	GOCD122	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-18
○	83	3	I	GOCD123	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-19
○	84	4	I	LPBU101	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-20
○	85	5	I	LPBU103	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-21
○	86	6	I	LPBU102	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-22
○	87	7	I	LPBU104	☑	☐	☐	☐		☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-23

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 11

○ Inputs ○ Outputs

● Inputs & Outputs

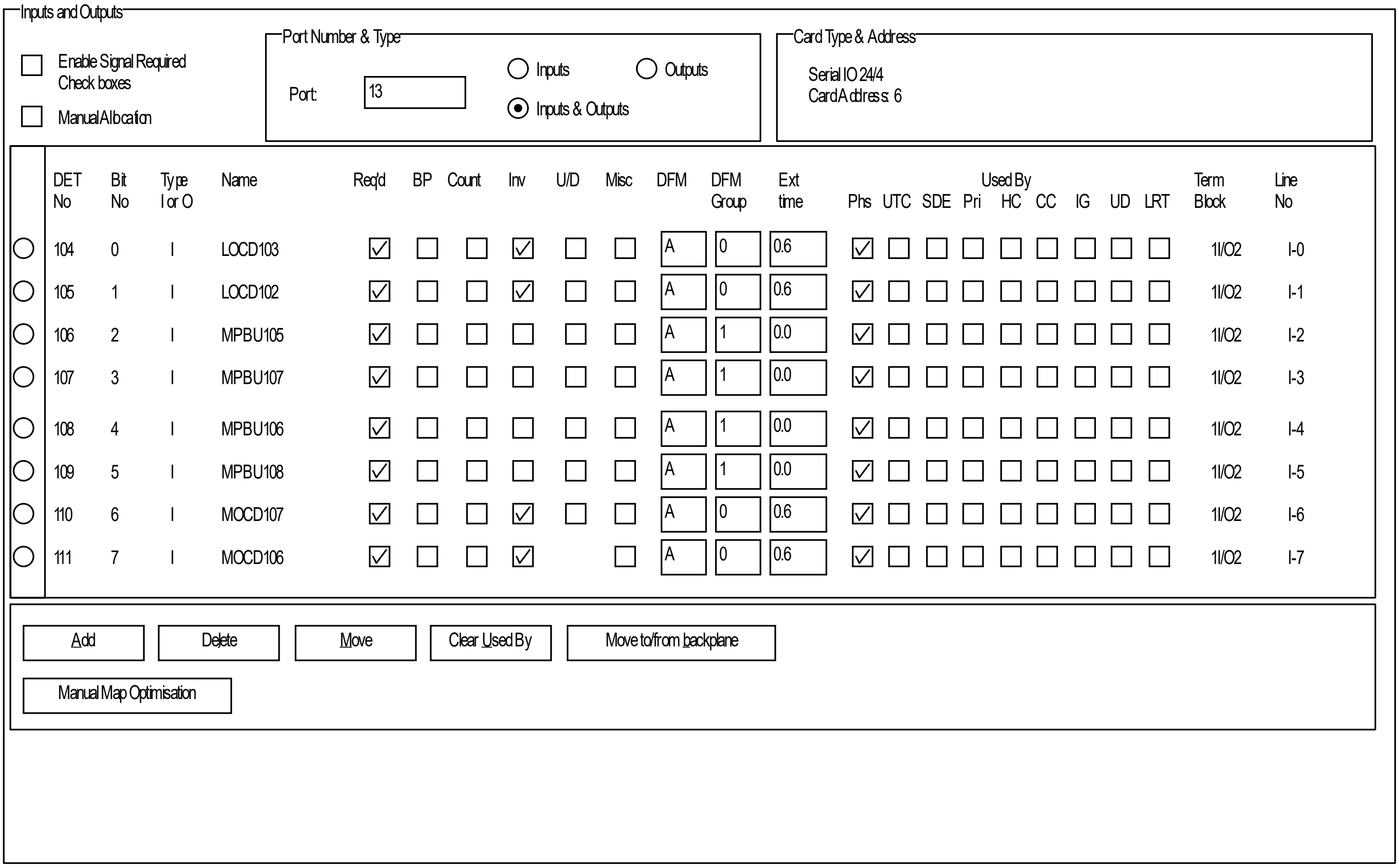
Card Type & Address

Serial IO 24/16
Card Address: 5

	DET	Bit	Type	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM	Ext				Used By						Term	Line
	No	No	I or O									Group	time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Block	No
○	88	0	O	C1S2	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-0
○	89	1	O	C1S5	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-1
○	90	2	O	C1S8	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-2
○	91	3	O		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-3
○	92	4	O	C2AQAOUT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-4
○	93	5	O	C2AQBOUT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-5
○	94	6	O	C2AQCOUT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-6
○	95	7	O		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-7

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

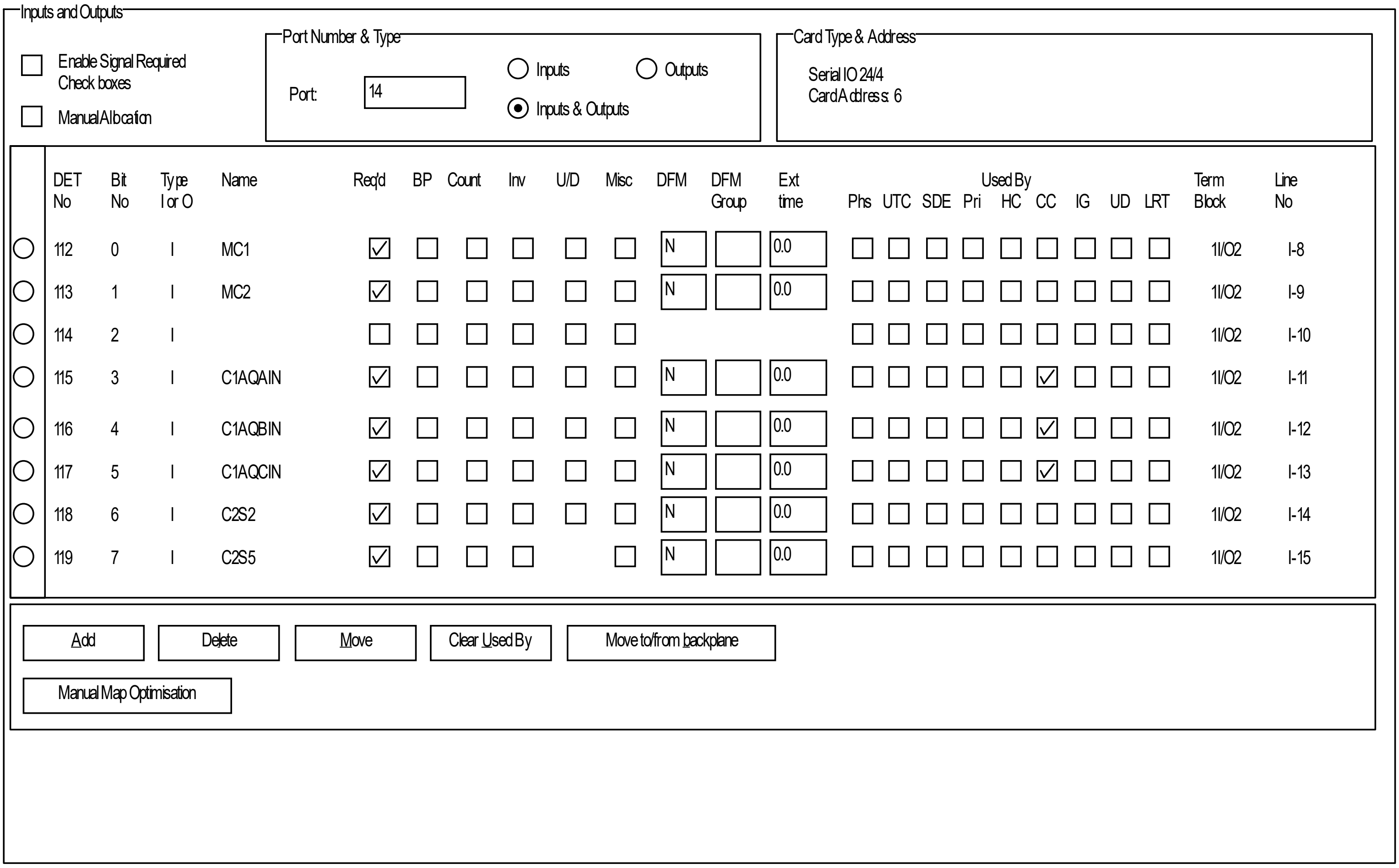
Port Number & Type
Port: 13
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Serial IO 24/4
Card Address: 6

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	104	0	I	LOCD103	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-0
○	105	1	I	LOCD102	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-1
○	106	2	I	MPBU105	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-2
○	107	3	I	MPBU107	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-3
○	108	4	I	MPBU106	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-4
○	109	5	I	MPBU108	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-5
○	110	6	I	MOCD107	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-6
○	111	7	I	MOCD106	☑	☐	☐	☑		☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-7

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

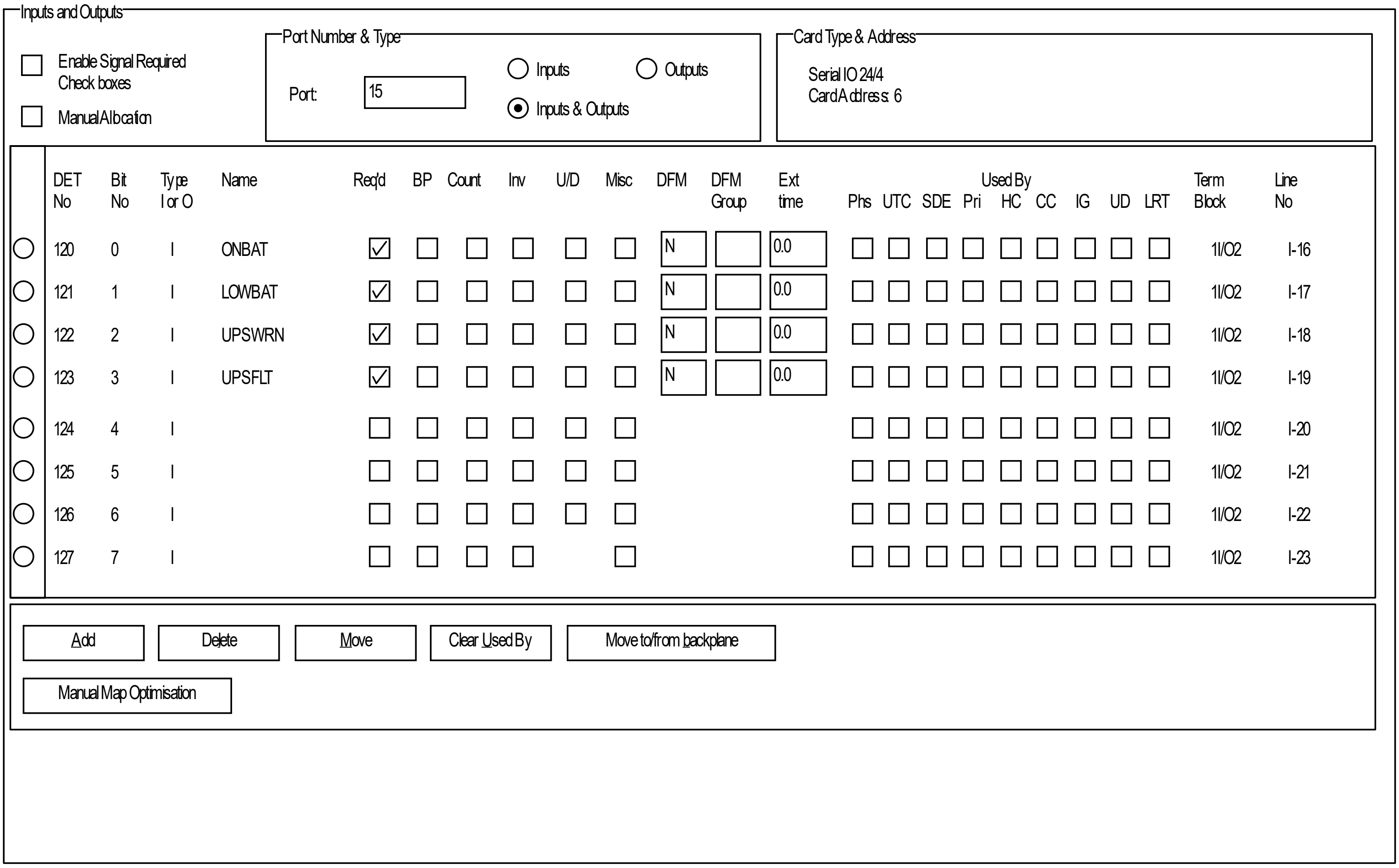
Port Number & Type
Port: 14
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Serial IO 24/4
Card Address: 6

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	112	0	I	MC1	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-8
○	113	1	I	MC2	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-9
○	114	2	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-10
○	115	3	I	C1AQAIN	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	1I/O2	I-11
○	116	4	I	C1AQBIN	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	1I/O2	I-12
○	117	5	I	C1AQCIN	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	1I/O2	I-13
○	118	6	I	C2S2	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-14
○	119	7	I	C2S5	☑	☐	☐	☐		☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-15

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 15

○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 6

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	120	0	I	ONBAT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-16
○	121	1	I	LOWBAT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-17
○	122	2	I	UPSWRN	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-18
○	123	3	I	UPSFLT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-19
○	124	4	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-20
○	125	5	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-21
○	126	6	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-22
○	127	7	I		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-23

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection 1

Aspect Drive Configuration for LSLS 1 of 2 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	A	Red	Phase	16	F	Red	Phase
31	A	Amber	Phase	15	F	Amber	Phase
30	A	Green	Phase	14	F	Green	Phase
29	B	Red	Phase	13	F	Green	Phase
28	B	Amber	Phase	12	G	Red	Phase
27	B	Green	Phase	11	G	Amber	Phase
26	C	Red	Phase	10	G	Green	Phase
25	C	Amber	Phase	9	G	Green	Phase
24	C	Green	Phase	8	H	Red	Phase
23	D	Red	Phase	7	H	Amber	Phase
22	D	Amber	Phase	6	H	Green	Phase
21	D	Green	Phase	5	I	Red	Phase
20	E	Red	Phase	4	I	Amber	Phase
19	E	Amber	Phase	3	I	Green	Phase
18	E	Green	Phase	2	J	Red	Phase
17	E	Green	Phase	1	J	Amber	Phase

Works Order : 857993755
EM Number : NN0014
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 1 (North) Site Ref: 7100

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection 1

Aspect Drive Configuration for LSLS 2 of 2 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	J	Green	Phase	16	O	Amber	Phase
31	K	Red	Phase	15	O	Green	Phase
30	K	Amber	Phase	14	P	Red	Phase
29	K	Green	Phase	13	P	Amber	Phase
28	L	Red	Phase	12	P	Green	Phase
27	L	Amber	Phase	11	N/A	N/A	N/A
26	L	Green	Phase	10	N/A	N/A	N/A
25	L	Green	Phase	9	N/A	N/A	N/A
24	M	Red	Phase	8	N/A	N/A	N/A
23	M	Amber	Phase	7	N/A	N/A	N/A
22	M	Green	Phase	6	N/A	N/A	N/A
21	M	Green	Phase	5	N/A	N/A	N/A
20	N	Red	Phase	4	N/A	N/A	N/A
19	N	Amber	Phase	3	N/A	N/A	N/A
18	N	Green	Phase	2	N/A	N/A	N/A
17	O	Red	Phase	1	N/A	N/A	N/A

I/O - DFM Group Timings

I/O - DFM Group Timings

Input Group	State	SET A	SET B	SET C	SET D
Group 0	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 1	Active (Mins)	10	10	10	10
	InActive (Hrs)				
Group 2	Active (Mins)	10	10	10	10
	InActive (Hrs)				
Group 3	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 4	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 5	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 6	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 7	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18

Note - 255 or blank disables DFM monitoring of that state (active or inactive) during that timeset (A to D)

Handset Limiting Values

State	Min	Max
Active (Mins)	0	255
InActive (Hrs)	0	255

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Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Administration

General Specifications

Customer Name: National Highways - Area 7
Intersection/ General Description: M1 Junction 15, Controller 2 (South)
Site Ref: 7101
Controller: ○ New ● Modification
Area Specifications/ Customer Drawings:
Specification Section:
Contract/Tender Ref:
Quotation No.:
Works Order No.: 857993755

Customer Order No.: 857993755
Controller/ Serial Number: 7101
S.T.S. /EM Number: NN0015 Issue: 5
Equipment Installation by: Yunex Traffic
Slot Cutting by:
Civil Works by:
Customer's Engineer:
Telephone Number:

Signal Company Use Only

Signal Engineer: [redacted] (Yunex Traffic)
(IF PROM Label as >) PROM Number: 16260 PROM Variant: 15
Configuration Check Value: FC DB 40 7

Controller Options

Hardware: ST950 ELV
Firmware Type and Issue: 46059 ISS 26
Other Options

ST950/ST900/ST750 Series Cabinet Options

Cabinet/Rack: Cabinet
Kit Type Options: ● UK-Std ○ Non-UK ○ ○
Cabinet/Rack Variant: Grey
Cuckoo Options: None
Gemini Unit Fitted ☐

Mains Supply: 230 Volts 50 Hz
Peak Lamp Current: 1 Amps
Average Lamp Power: 1 Watts
Total Average Power: 230 Watts
Dimming: 27.5 V
Low Inrush Transformer: ☑
Answer Issue: 0
Edit Issue: 15
Date Created: 10/08/2022

Power feed fuse rating: requires 30 Amp minimum for controller, 15 Amp minimum for pelican/lightly loaded controller

Works Order : 857993755
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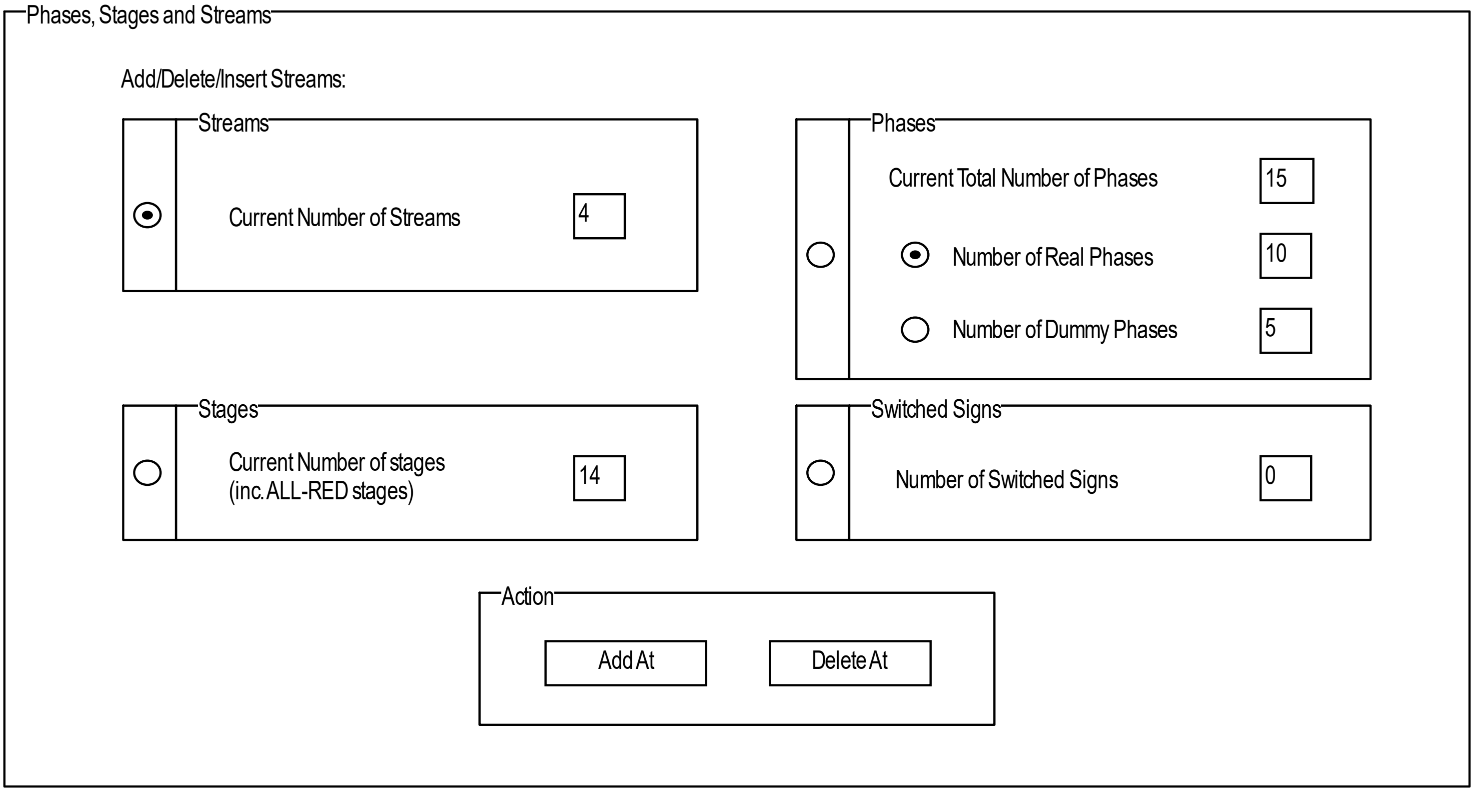
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phases, Stages and Streams



Phases, Stages and Streams

Add/Delete/Insert Streams:

Streams
● Current Number of Streams: 4

Phases
○
Current Total Number of Phases: 15
● Number of Real Phases: 10
○ Number of Dummy Phases: 5

Stages
○ Current Number of stages (inc. ALL-RED stages): 14

Switched Signs
○ Number of Switched Signs: 0

Works Order : 857993755
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Facilities/Modes Enabled and Mode Priority Levels

Facilities

UTC

- ☑ Serial/Internal UTMC OTU
- ☐ Free-standing OTU
- ☐
- ☐

12 Starting Intergreen

- ☑ Master Time Clock
- ☐ Holiday Clock
- ☑ FT To Current MAX
- ☐ Linked Fixed Time

- ☑ Lamp Monitoring
- ☑ RED Lamp Monitoring
- ☑ Pelican/Puffin/Toucan
- ☐ Standalone Manual

- ☐ Extend All Red
- ☐ Speed Measurement
- ☐ Ripple Change
- ☐
- ☐ DVI35

- ☐ Non-UK
- ☐ Fail to Part Time
- ☐
- ☐
- ☐ Download To Level 3

Mode Priority

	1	2	3	4	5	6	7	8	9	10	11	12	13
☐ Part Time	○	○	○	○	○	○	○	○	○	○	○	○	○
☐ Emergency Vehicles	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ Hurry Call	○	○	●	○	○	○	○	○	○	○	○	○	○
☐ LRT	○	○	○	○	○	○	○	○	○	○	○	○	○
☐ Priority Vehicle	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ Manual Control	●	○	○	○	○	○	○	○	○	○	○	○	○
☐ Manual Step On	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ Selected FT or VA or CLF	○	●	○	○	○	○	○	○	○	○	○	○	○
☑ UTC	○	○	○	●	○	○	○	○	○	○	○	○	○
☑ MOVA Mode	○	○	○	○	●	○	○	○	○	○	○	○	○
☐ CLF (Non-Base Time)	○	○	○	○	○	○	○	○	○	○	○	○	○
☑ CLF (Base Time)	○	○	○	○	○	●	○	○	○	○	○	○	○
☑ Vehicle Actuated	○	○	○	○	○	○	●	○	○	○	○	○	○
☑ Fixed Time	○	○	○	○	○	○	○	●	○	○	○	○	○

Configuration Complexity

○ Low ○ Medium ○ High ● Maximum

standard46059.8df

Default PROM data file

Correspondence Monitoring to inc.

- ☑ Reds
- ☐ Switched Signs
- ☑ Ambers
- ☐

Flash Rate (ms)

400 Off 400 On

Last Modified 04/05/2023, Issue 5.0.15 Form Ref: 1.3

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phases in Stages

Phases

In Stages	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
0												■			
1	■														
2		■	■												
3													■		
4				■											
5					■	■									
6					■										
7						■									
8														■	
9							■								
10								■							
11															■
12									■						
13										■	□				

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Stages in Streams

Stages in Streams

	0	1	2	3	4	5	6	7
Phase or Stage to revert to in absence of demands/extensions	1	4	9	12				
Startup Stage	1	4	9	12				
Switch Off Stage	1	4	9	12				
Standalone Pedestrian	☐	☐	☐	☐	☐	☐	☐	☐

Note: For a Stand-Alone Stream, the reversion must be to All Red stage or Traffic stage/phase to meet the relevant standard or specification.

Stages

In Stream	0	1	2	3	4	5	6	7	8	9	10	11	12	13
0	🟥	🟥	🟥											
1				🟥	🟥	🟥	🟥	🟥						
2									🟥	🟥	🟥			
3												🟥	🟥	🟥

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase Type and Conditions

Phase Type and Conditions

● Phases A to P ○ Improved GA Appearance ☐ Manual Output Allocation ☑

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs "R"	"A"	"G"	H/W Fail Flash	Critical Phase
A	GYRATORY X M1 OFF SLIP	0 - UK Traffic	0	0 - Ei		2	2	2		☐
B	M1 OFF SLIP RIGHT TURN	0 - UK Traffic	0	0 - Ei		1	1	1		☐
C	M1 OFF SLIP LEFT TURN	0 - UK Traffic	0	0 - Ei		1	1	1		☐
D	GYRATORY X NORTHAMPTON ROAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
E	NORTHAMPTON ROAD AHEAD	0 - UK Traffic	0	0 - Ei		2	2	2		☐
F	NORTHAMPTON ROAD LEFT TURN	0 - UK Traffic	0	0 - Ei		2	2	2		☐
G	INTERNAL GYRATORY FROM NORTHAMPTON ROAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
H	INTERNAL GYRATORY RIGHT FROM M1 SLIP ROAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
I	M1 ON SLIP ROAD	0 - UK Traffic	0	0 - Ei		1	1	1		☐
J	PED X M1 ON SLIP ROAD	3 - UK Near Side Pedestrian	0	0 - Ei		1	1	2		☐
K	ALL RED DUMMY HOLD STAGE 13	2 - UK Green Arrow	0	0 - Ei						☐
L	ALL RED DUMMY STREAM 0	2 - UK Green Arrow	0	0 - Ei						☐
M	ALL RED DUMMY STREAM 1	2 - UK Green Arrow	0	0 - Ei						☐
N	ALL RED DUMMY STREAM 2	2 - UK Green Arrow	0	0 - Ei						☐
O	ALL RED DUMMY STREAM 3	2 - UK Green Arrow	0	0 - Ei						☐
										☐

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The H/W Fail Flash fields are for information only on all but ST900 ELV and ST950 ELV Controllers. For other controllers, physical switches or links (etc.), select which aspects flash; these need to be set up manually.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Opposing and Conflicting Phases

Select Stream(s) To Configure

○ All ○ 0 ○ 1 ○ 2 ○ 3 ○ ○ ○ ○

Initialise

☑ Amber Conflict Monitoring

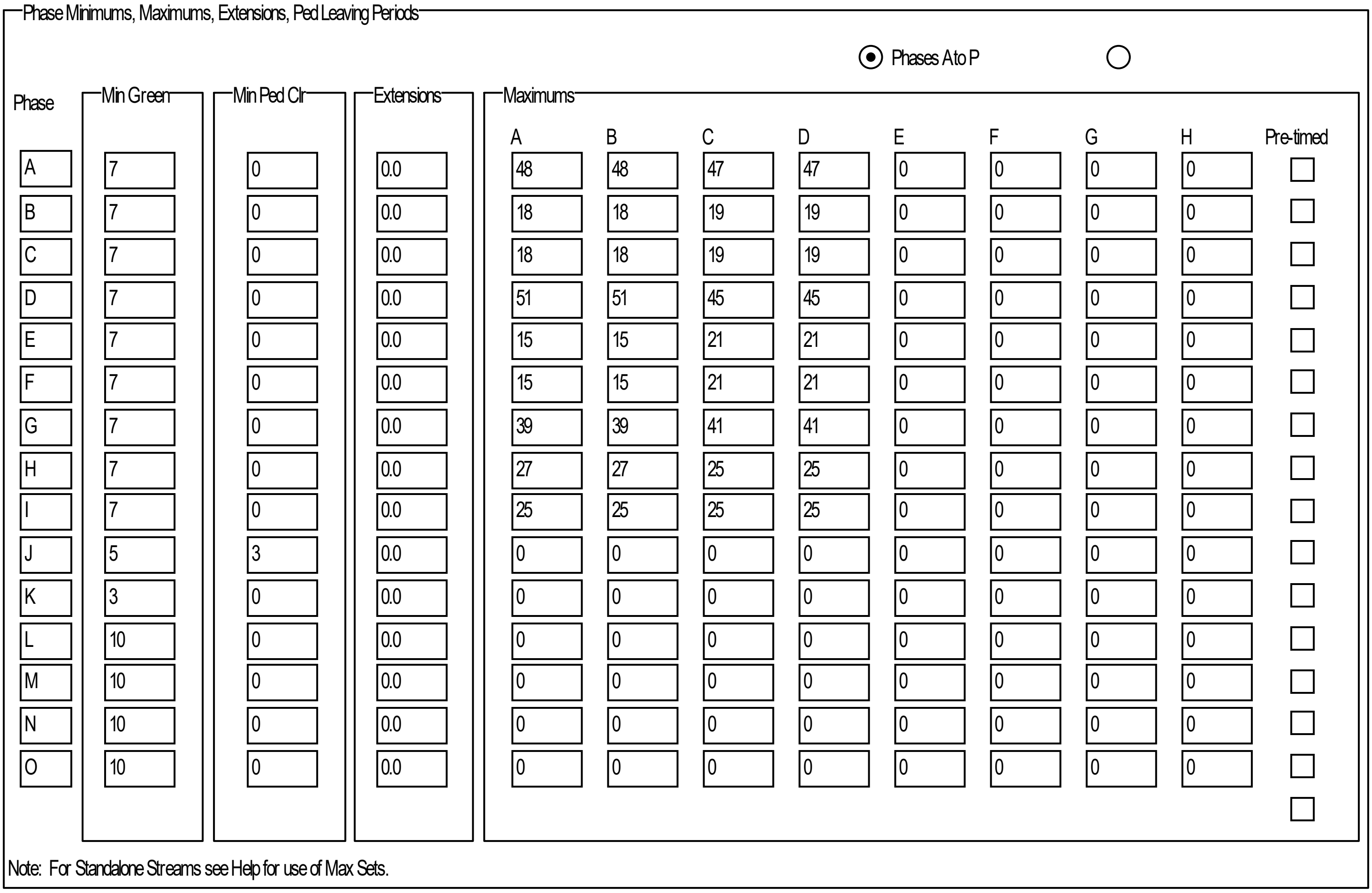
To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A	■	Co	Co									o			
B	Co	■	o									o			
C	Co	o	■									o			
D				■	Co	Co							o		
E				Co	■	o							o		
F				Co	o	■							o		
G							■	Co						o	
H							Co	■						o	
I									■	Co	o				o
J									Co	■	o				o
K									o	o	■				o
L	o	o	o									■			
M				o	o	o							■		
N							o	o						■	
O									o	o	o				■

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase Minimums, Maximums, Extensions, Ped Leaving Periods



Phase Minimums, Maximums, Extensions, Ped Leaving Periods

● Phases A to P ○

Phase	Min Green	Min Ped Clr	Extensions	Maximums A	B	C	D	E	F	G	H	Pre-timed
A	7	0	0.0	48	48	47	47	0	0	0	0	☐
B	7	0	0.0	18	18	19	19	0	0	0	0	☐
C	7	0	0.0	18	18	19	19	0	0	0	0	☐
D	7	0	0.0	51	51	45	45	0	0	0	0	☐
E	7	0	0.0	15	15	21	21	0	0	0	0	☐
F	7	0	0.0	15	15	21	21	0	0	0	0	☐
G	7	0	0.0	39	39	41	41	0	0	0	0	☐
H	7	0	0.0	27	27	25	25	0	0	0	0	☐
I	7	0	0.0	25	25	25	25	0	0	0	0	☐
J	5	3	0.0	0	0	0	0	0	0	0	0	☐
K	3	0	0.0	0	0	0	0	0	0	0	0	☐
L	10	0	0.0	0	0	0	0	0	0	0	0	☐
M	10	0	0.0	0	0	0	0	0	0	0	0	☐
N	10	0	0.0	0	0	0	0	0	0	0	0	☐
O	10	0	0.0	0	0	0	0	0	0	0	0	☐
												☐

Note: For Standalone Streams see Help for use of Max Sets.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase Intergreen Times

Select Stream(s) To Configure

○ All ○ 0 ○ 1 ○ 2 ○ 3 ○ ○ ○ ○

Note: On a Stand Alone Pelican/Toucan/Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below.

To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A	■	8	10									3			
B	8	■										3			
C	7		■									3			
D				■	5	7							3		
E				8	■								3		
F				7		■							3		
G							■	6						3	
H							6	■						3	
I									■	7	3				3
J									5	■					3
K									2		■				3
L	2	2	2									■			
M				2	2	2							■		
N							2	2						■	
O									2	2	2				■

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Intergreen Handset Limits

HIGH 30

Copy Intergreen Values

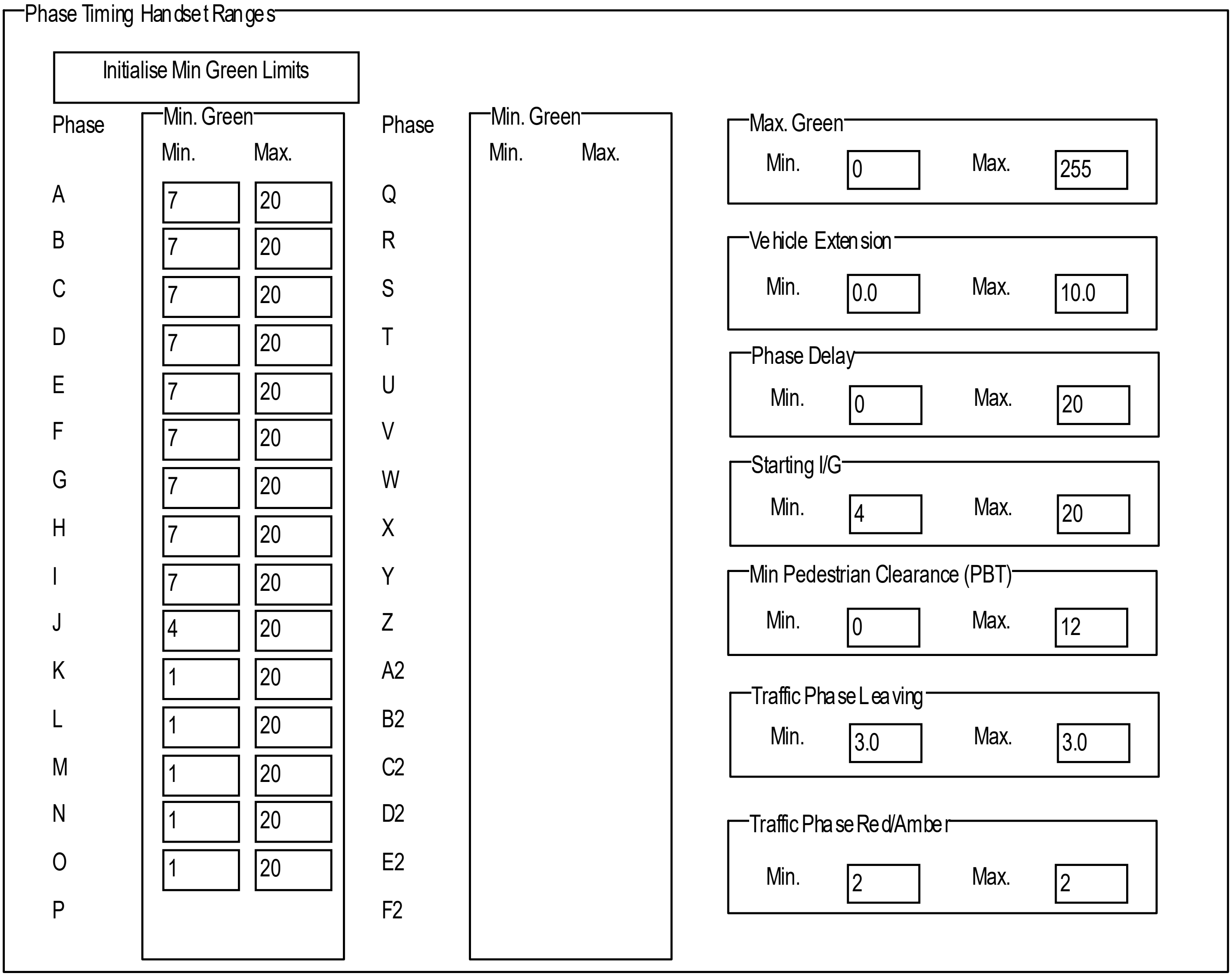
To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A	■	7	9									3			
B	7	■										3			
C	6		■									3			
D				■	5	6							3		
E				7	■								3		
F				6		■							3		
G							■	5						3	
H							5	■						3	
I									■	6	3				3
J										■					3
K									2		■				3
L	2	2	2									■			
M				2	2	2							■		
N							2	2						■	
O									2	2	2				■

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase Timing Handset Ranges



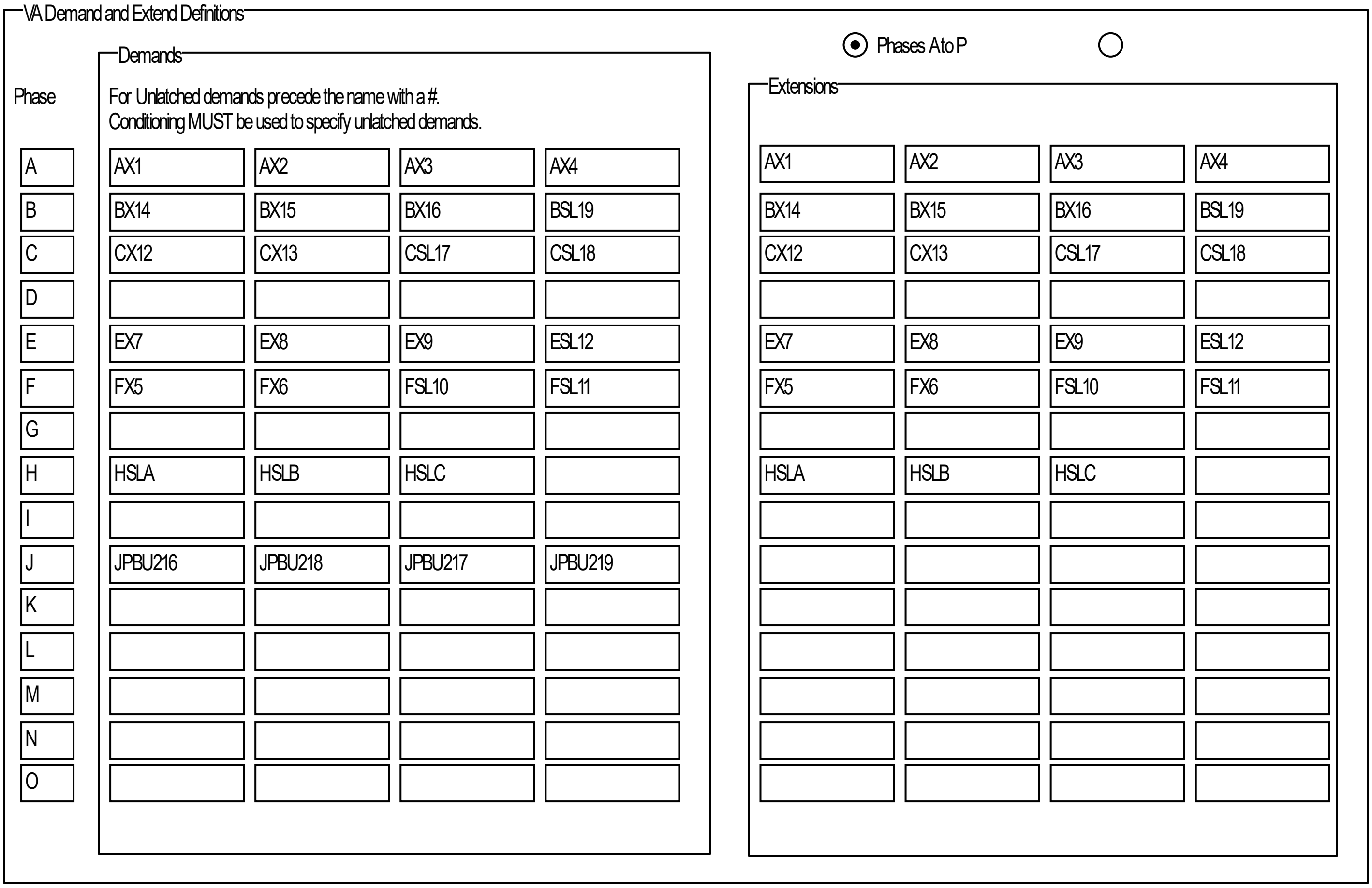
Phase Timing Handset Ranges

Phase	Min. Green Min.	Min. Green Max.	Phase	Min. Green Min.	Min. Green Max.
A	7	20	Q		
B	7	20	R		
C	7	20	S		
D	7	20	T		
E	7	20	U		
F	7	20	V		
G	7	20	W		
H	7	20	X		
I	7	20	Y		
J	4	20	Z		
K	1	20	A2		
L	1	20	B2		
M	1	20	C2		
N	1	20	D2		
O	1	20	E2		
P			F2		

	Min.	Max.
Max. Green	0	255
Vehicle Extension	0.0	10.0
Phase Delay	0	20
Starting I/G	4	20
Min Pedestrian Clearance (PBT)	0	12
Traffic Phase Leaving	3.0	3.0
Traffic Phase Red/Amber	2	2

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

VA Demand and Extend Definitions



VA Demand and Extend Definitions

● Phases A to P ○

For Unlatched demands precede the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase	Demands				Extensions			
A	AX1	AX2	AX3	AX4	AX1	AX2	AX3	AX4
B	BX14	BX15	BX16	BSL19	BX14	BX15	BX16	BSL19
C	CX12	CX13	CSL17	CSL18	CX12	CX13	CSL17	CSL18
D								
E	EX7	EX8	EX9	ESL12	EX7	EX8	EX9	ESL12
F	FX5	FX6	FSL10	FSL11	FX5	FX6	FSL10	FSL11
G								
H	HSLA	HSLB	HSLC		HSLA	HSLB	HSLC	
I								
J	JPBU216	JPBU218	JPBU217	JPBU219				
K								
L								
M								
N								
O								

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehicle Responsive Demands

A ☑	B ☑	C ☑	D ☑	E ☑	F ☑	G ☑	H ☑	I ☑	J ☑	K ☐	L ☐	M ☐	N ☐	O ☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demands Inserted When Leaving Manual and Fixed Time Modes

A ☑	B ☑	C ☑	D ☑	E ☑	F ☑	G ☑	H ☑	I ☑	J ☑	K ☐	L ☐	M ☐	N ☐	O ☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Unlatched Demands that Start Max Tmers

A ☑	B ☑	C ☑	D ☑	E ☑	F ☑	G ☑	H ☑	I ☑	J ☑	K ☑	L ☑	M ☑	N ☑	O ☑	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Revertive Phase Demands

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase - On Crossing and Kerbside Detector Definitions

On Crossing and Kerbside Input Definitions

● Phases A to P ○

Phase	On Crossing				Kerbside			
A								
B								
C								
D								
E								
F								
G								
H								
I								
J	JOCD218	JOCD217			JKSD218	JKSD219		
K								
L								
M								
N								
O								

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Stream - Pelican/Puffin/Toucan Times

Stream - Pelican/Puffin/Toucan Times

Pedestrian Enable VA Mode (PEV)

Streams							
0	1	2	3	4	5	6	7

Pedestrian All Red Times (Vehicle to Pedestrian)

Handset Range Limits

Streams	0	1	2	3	4	5	6	7	Min	Max
(PAR n 0) VA Gap Change										
(PAR n 1) VA Max Change										
(PAR n 2) FVP Change									0	0
(PAR n 3) UTC Change										
(PAR n 4) Local Link Change										

Pelican Intergreen times

	Min	Max
(PIT n 0) Veh Red/Ped Flash Green	0	0
(PIT n 1) Veh Flash Amber/Ped Flash Green	0	0
(PIT n 2) Veh Flash Amber/Ped red	0	0
(PIT n 3) Veh Flash Amber/Ped Red Quiescent	0	0

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase - Pelican, Puffin and Toucan Times

Phase - Pelican, Puffin and Toucan Times

● Phases A to P ○

Phase	PDD Ped Demand Delay	PDX Ped Demand Hold	CMX Clearance Maximum	CDY 0 Clearance Delay Gap Change	CDY 1 Clearance Delay Max Change	CRD Clearance Minimum Red
A	0	0.0	0	0	0	0
B	0	0.0	0	0	0	0
C	0	0.0	0	0	0	0
D	0	0.0	0	0	0	0
E	0	0.0	0	0	0	0
F	0	0.0	0	0	0	0
G	0	0.0	0	0	0	0
H	0	0.0	0	0	0	0
I	0	0.0	0	0	0	0
J	0	0.0	8	0	0	0
K	0	0.0	0	0	0	0
L	0	0.0	0	0	0	0
M	0	0.0	0	0	0	0
N	0	0.0	0	0	0	0
O	0	0.0	0	0	0	0

☐

☐

Pedestrian Handset Range Limits

	MIN	MAX
Demand Delay PDD	0	5
Demand Hold PDX	0.0	5.0
Clearance Maximum CMX	0	30
Clearance Delays CDY 0 and CDY1	0	5
Clearance Minimum Red CRD	0	5

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

IO and Link - Pelican/Puffin/Toucan Times

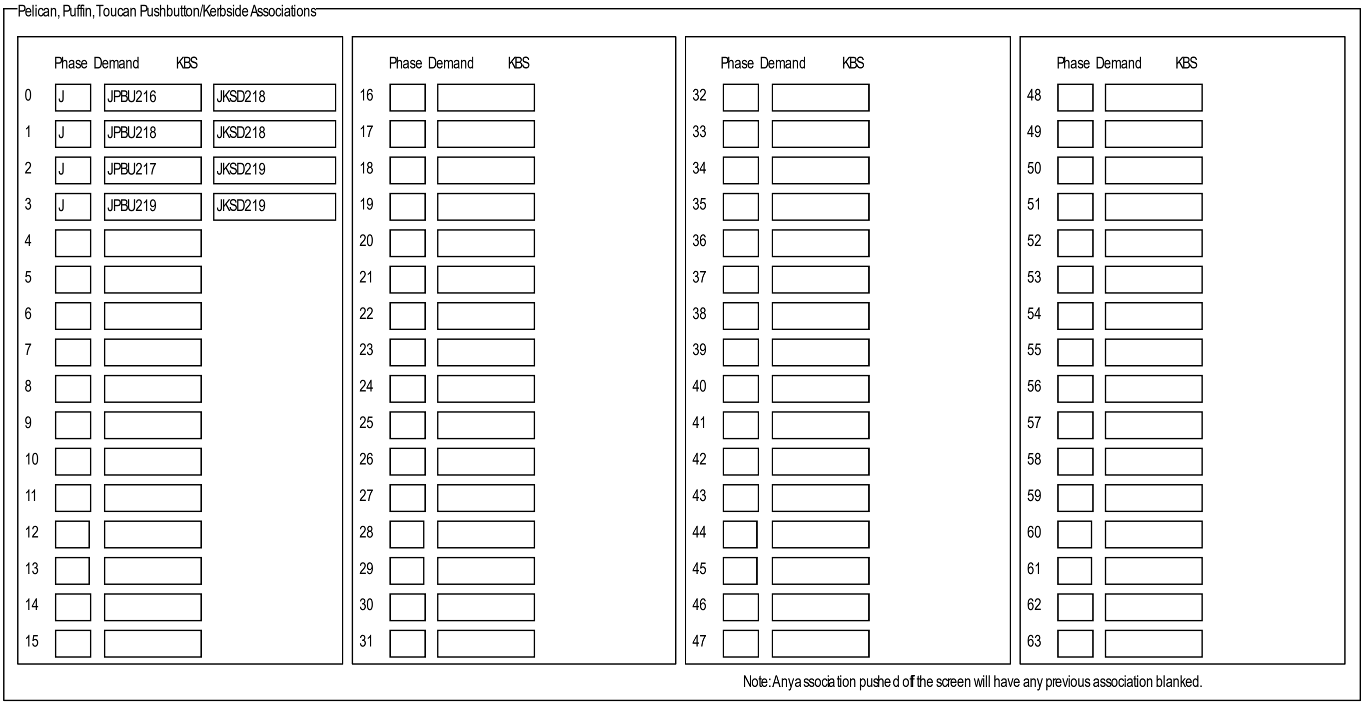
I/O and Link - Pelican/Puffin/Toucan Times

Streams	0	1	2	3	4	5	6	7
Computer Control								
PV								
Window Time UIE								
Local Link								
PV1								
Link Delay Time LKD								
Link Window Time LKW								
Link Override Time LKO								

Kerbside Mat Test Output ☐

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations



Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

	Phase	Demand	KBS
0	J	JPBU216	JKSD218
1	J	JPBU218	JKSD218
2	J	JPBU217	JKSD219
3	J	JPBU219	JKSD219
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

	Phase	Demand
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

	Phase	Demand
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		

	Phase	Demand
48		
49		
50		
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		

Note: Any association pushed off the screen will have any previous association blanked.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Stage Internal Demands/Pedestrian Window Times

Stage Internal Demands/Pedestrian Window Times

Start-up Vehicle Responsive Demands

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Demands Inserted When Leaving Manual and Fixed Time Modes

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Unlatched Demands that Start Maximum Timers

0 ☑ 1 ☑ 2 ☑ 3 ☑ 4 ☑ 5 ☑ 6 ☑ 7 ☑ 8 ☑ 9 ☑ 10 ☑ 11 ☑ 12 ☑ 13 ☑ ☐ ☐
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Window Times

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Exceptional Stages

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ ☐ ☐
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Phase Delays

Phase Delays

● Phase Delays 0-29 ○ Phase Delays 30-59 ○ Phase Delays 60-89 ○ Phase Delays 90-119

No.	Delay Phase	On Change from Stage	To Stage	By (X) Seconds	No.	Delay Phase	On Change from Stage	To Stage	By (X) Seconds
0	F	5	4	8	15				0
1				0	16				0
2				0	17				0
3				0	18				0
4				0	19				0
5				0	20				0
6				0	21				0
7				0	22				0
8				0	23				0
9				0	24				0
10				0	25				0
11				0	26				0
12				0	27				0
13				0	28				0
14				0	29				0

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Fixed Time

Fixed Time

Stage Moves & Times (Not Fixed Time to Current Max)

Current Stage	0	1	2	3	4	5	6	7
Next Stage	1	2	1	4	5	4	7	6
Time	0	0	0	0	0	0	0	0
Current Stage	8	9	10	11	12	13	14	15
Next Stage	9	10	8	12	13	12		
Time	0	0	0	0	0	0		
Current Stage	16	17	18	19	20	21	22	23
Next Stage								
Time								
Current Stage	24	25	26	27	28	29	30	31
Next Stage								
Time								

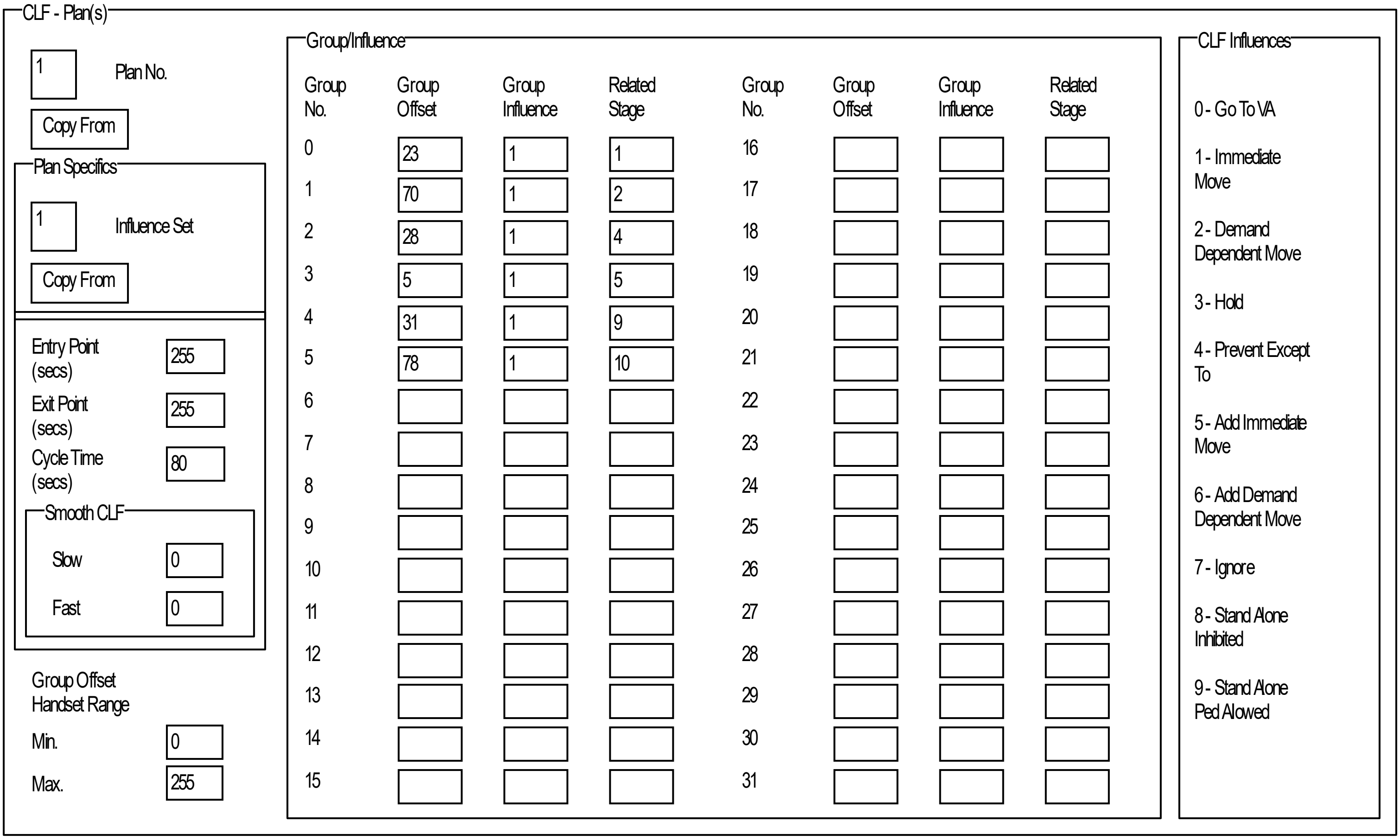
Note:
Fixed Time mode may be used by the Reserve State, therefore, the Stage Moves and Times section should always be configured (unless Linked Fixed Time is selected instead).

Phases Demanded and Extended under Fixed Time to Current Max.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Demand	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐
Extend	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐
	Q	**R**	**S**	**T**	**U**	**V**	**W**	**X**	**Y**	**Z**	**A2**	**B2**	**C2**	**D2**	**E2**	**F2**
Demand	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Plan(s)



CLF - Plan(s)

Plan No.: 1

Copy From

Plan Specifics

Influence Set: 1

Copy From

Entry Point (secs): 255
Exit Point (secs): 255
Cycle Time (secs): 80

Smooth CLF

Slow: 0
Fast: 0

Group Offset Handset Range
Min.: 0
Max.: 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	23	1	1	16			
1	70	1	2	17			
2	28	1	4	18			
3	5	1	5	19			
4	31	1	9	20			
5	78	1	10	21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Plan(s)

CLF - Plan(s)

Plan No.: 2

Copy From

Plan Specifics

Influence Set: 2

Copy From

Entry Point (secs): 255
Exit Point (secs): 255
Cycle Time (secs): 80

Smooth CLF

Slow: 0
Fast: 0

Group Offset Handset Range
Min.: 0
Max.: 255

Group/Influence

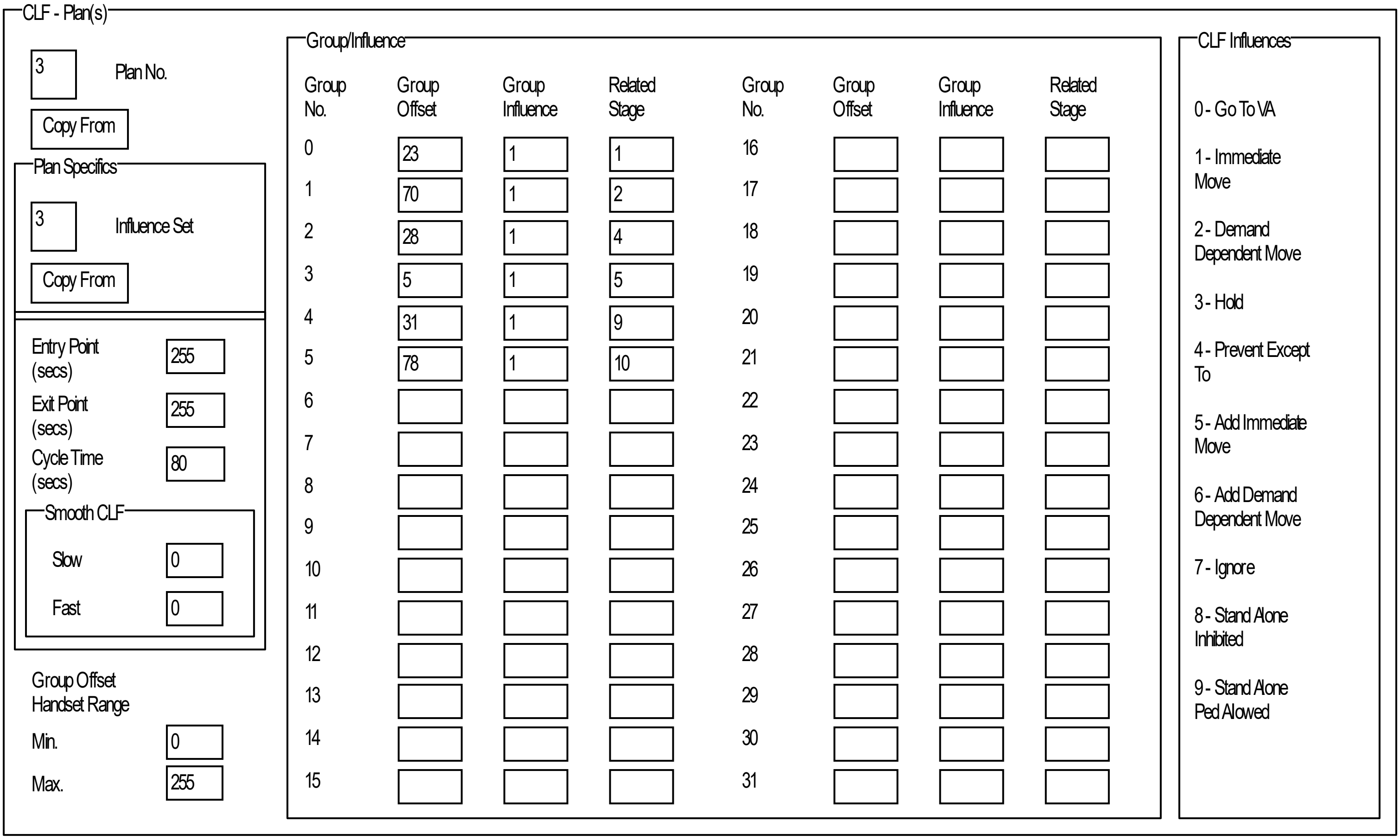
Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	23	1	1	16			
1	70	1	2	17			
2	28	1	4	18			
3	5	1	5	19			
4	31	1	9	20			
5	78	1	10	21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Plan(s)



CLF - Plan(s)

Plan No. 3

Copy From

Plan Specifics

Influence Set 3

Copy From

Entry Point (secs) 255
Exit Point (secs) 255
Cycle Time (secs) 80

Smooth CLF
Slow 0
Fast 0

Group Offset Handset Range
Min. 0
Max. 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	23	1	1	16			
1	70	1	2	17			
2	28	1	4	18			
3	5	1	5	19			
4	31	1	9	20			
5	78	1	10	21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Plan(s)

CLF - Plan(s)

Plan No. 4

Copy From

Plan Specifics

Influence Set 4

Copy From

Entry Point (secs) 255
Exit Point (secs) 255
Cycle Time (secs) 80

Smooth CLF

Slow 0
Fast 0

Group Offset Handset Range
Min. 0
Max. 255

Group/Influence

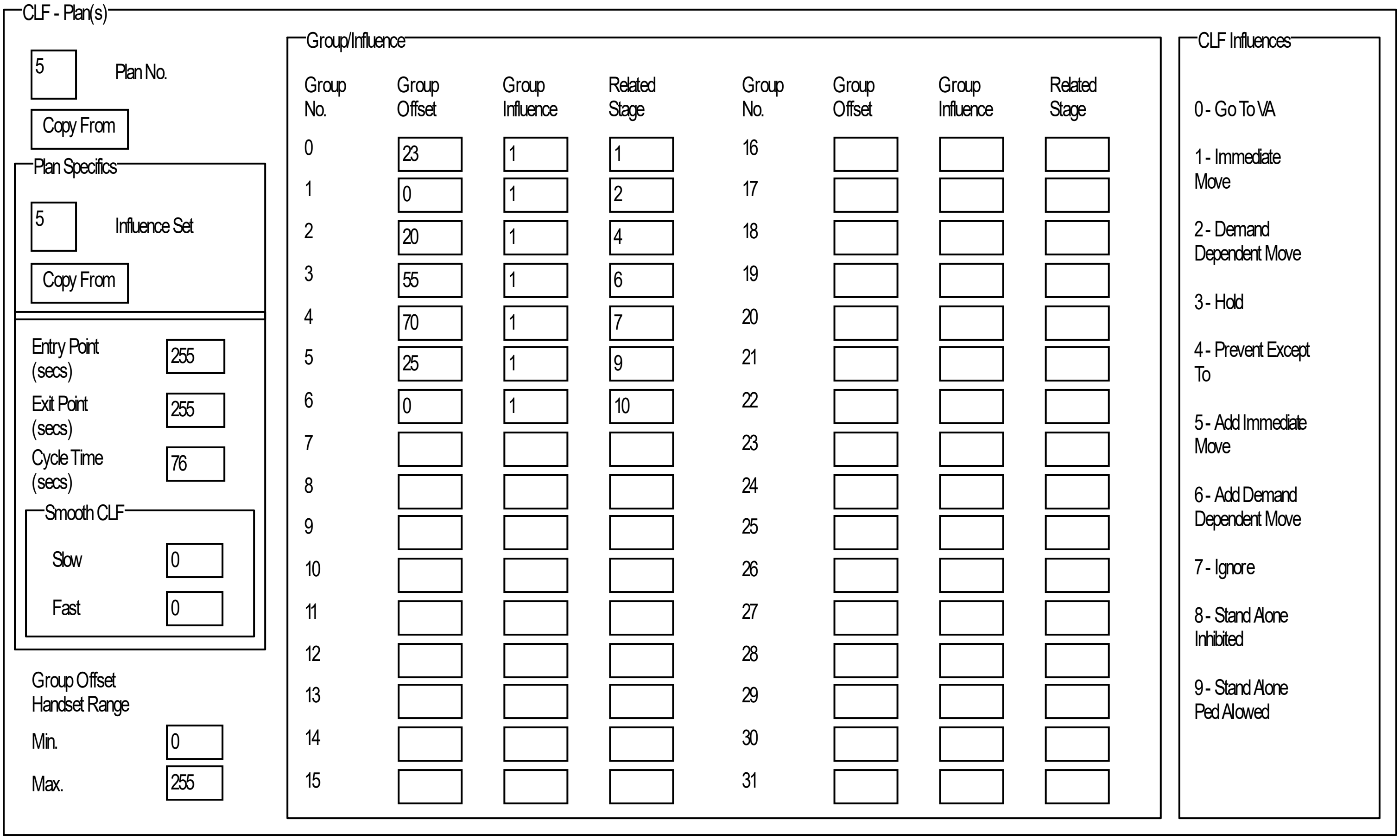
Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	23	1	1	16			
1	70	1	2	17			
2	28	1	4	18			
3	5	1	5	19			
4	31	1	9	20			
5	78	1	10	21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Plan(s)



CLF - Plan(s)

Plan No. 5
Copy From

Plan Specifics
Influence Set 5
Copy From

Entry Point (secs): 255
Exit Point (secs): 255
Cycle Time (secs): 76

Smooth CLF
Slow: 0
Fast: 0

Group Offset Handset Range
Min.: 0
Max.: 255

Group/Influence

Group No.	Group Offset	Group Influence	Related Stage	Group No.	Group Offset	Group Influence	Related Stage
0	23	1	1	16			
1	0	1	2	17			
2	20	1	4	18			
3	55	1	6	19			
4	70	1	7	20			
5	25	1	9	21			
6	0	1	10	22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

CLF Influences

0 - Go To VA
1 - Immediate Move
2 - Demand Dependent Move
3 - Hold
4 - Prevent Except To
5 - Add Immediate Move
6 - Add Demand Dependent Move
7 - Ignore
8 - Stand Alone Inhibited
9 - Stand Alone Ped Alowed

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Base Time

CLF - Base Time

Controller Base Date: XX/XX/XX

Controller Base Time: 02:00:00

Plan Offset

	Minutes	Seconds		Minutes	Seconds
Plan 0	0	0	Plan 8	0	0
Plan 1	0	0	Plan 9	0	0
Plan 2	0	0	Plan 10	0	0
Plan 3	0	0	Plan 11	0	0
Plan 4	0	0	Plan 12	0	0
Plan 5	0	0	Plan 13	0	0
Plan 6	0	0	Plan 14	0	0
Plan 7	0	0	Plan 15	0	0

Handset Range Limits

	Minutes	Seconds
Min	0	0
Max	255	59

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

CLF - Demand Dependent Moves

Clear Grid Data

Notes:
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.

Phases

Stages

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
0															
1															
2		🟥	🟥												
3															
4															
5					🟥	🟥									
6															
7															
8															
9															
10								🟥							
11															
12															
13										🟥					

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC General Data

UTC General Data

Type of UTC

● 106 ○ 316

Integral OTU Address

4 Number of Control Words

4 Number of Reply Words

☐ Controller to respond to TC bit.

☐ Introduction of UTC to be disabled by Priority and LRT M

Non UTC RTC synchronisation input name

RTC Synchronisation Times

Clock Synchronise Time (UTC TS input)

Day	Time
Time Only	12:00:00

Clock Confirm Time (UTC RT output)

Day	Time
Time Only	00:00:00

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC Control and Reply Data Format

UTC Control and Reply Data Format

Control Words

	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
Word 1	1F1	#1F2	1D2	1DX				
Word 2				1MO				SO
Word 3	TS	2F4	#2F5	2F6	2F7	2D5	2DX	2MO
Word 4			3F9	#3F10	3D10	3DX	3MO	

Reply Words

	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
Word 1	1G1	1G2	1DR2	DF	RR	LF1	LF2	LF3
Word 2	CF	LO	MC	1MR	1ML	1MF	1HC	SB
Word 3	CC	2G4	2G5	2G6	2G7	2DR5	2HC	2MR
Word 4	2ML	2MF	3G9	3G10	3DR10	3HC	3MR	3ML
Word 5								
Word 6								
Word 7								
Word 8								
Word 9								
Word 10								
Word 11								
Word 12								
Word 13								
Word 14								

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC Phase Demand and Extend Definitions

UTC Demand and Extend Definitions

● Phases A to P ○

Demands

For Unlatched demands, preceed the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase				
A	1DX			
B	1DX	1D2		
C	1DX	1D2		
D	2DX			
E	2DX	2D5		
F	2DX	2D5		
G	3DX			
H	3DX	3D10		
I				
J				
K				
L				
M				
N				
O				

Extensions

Phase				
A	1DX			
B	1DX	1D2		
C	1DX	1D2		
D	2DX			
E	2DX	2D5		
F	2DX	2D5		
G	3DX			
H	3DX	3D10		
I				
J				
K				
L				
M				
N				
O				

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC Stage and Mode Data Definitions

UTC Stage and Mode Data Definitions

Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit
0				16			
1	1F1	1G1		17			
2	#1F2	1G2	1DR2	18			
3				19			
4	2F4	2G4		20			
5	#2F5	2G5	2DR5	21			
6	2F6	2G6		22			
7	2F7	2G7		23			
8				24			
9	3F9	3G9		25			
10	#3F10	3G10	3DR10	26			
11				27			
12				28			
13				29			
14				30			
15				31			

Mode Data Definitions

Manual Mode Operative:
☐ G1/G2 ☑ RR ☐

Manual Mode Selected:
☐ G1/G2 ☑ RR ☐

No Lamp Power, or Lamps Off due to RLM or Part Time:
☑ G1/G2 ☐ ☐

Detector Fault:
☐ ☐ ☑ DF

Normal NOT selected on the Manual Panel:
☐ G1/G2 ☑ RR ☐

RR Button Selected:
☐ G1/G2 ☑ RR ☐

If UTC Reply Confirms are required for a Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC Demand Dependent Forces

Clear Grid Data

Notes:
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.

Phases

Stages	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
0															
1															
2		🟥	🟥												
3															
4															
5					🟥	🟥									
6															
7															
8															
9															
10								🟥							
11															
12															
13										🟥					

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

MOVA Stages

MOVA Stages

Stage	Force Bit	Green Confirm Bit	Stage	Force Bit	Green Confirm Bit
0			16		
1	MOVA0F1	MOVA0CON1	17		
2	MOVA0F2	MOVA0CON2	18		
3			19		
4	MOVA1F1	MOVA1CON1	20		
5	MOVA1F2	MOVA1CON2	21		
6			22		
7			23		
8			24		
9	MOVA2F1	MOVA2CON1	25		
10	MOVA2F2	MOVA2CON2	26		
11			27		
12			28		
13			29		
14			30		
15			31		

Mode Data Definitions

Manual Mode Operative:
☐ G1/G2 ☑ RR/CRB

Manual Mode Selected:
☐ G1/G2 ☑ RR/CRB

No Lamp Power, or Lamps Off due to RLM or Part Time:
☐ G1/G2 ☑ RR/CRB

Normal NOT selected on the Manual Panel:
☐ G1/G2 ☑ RR/CRB

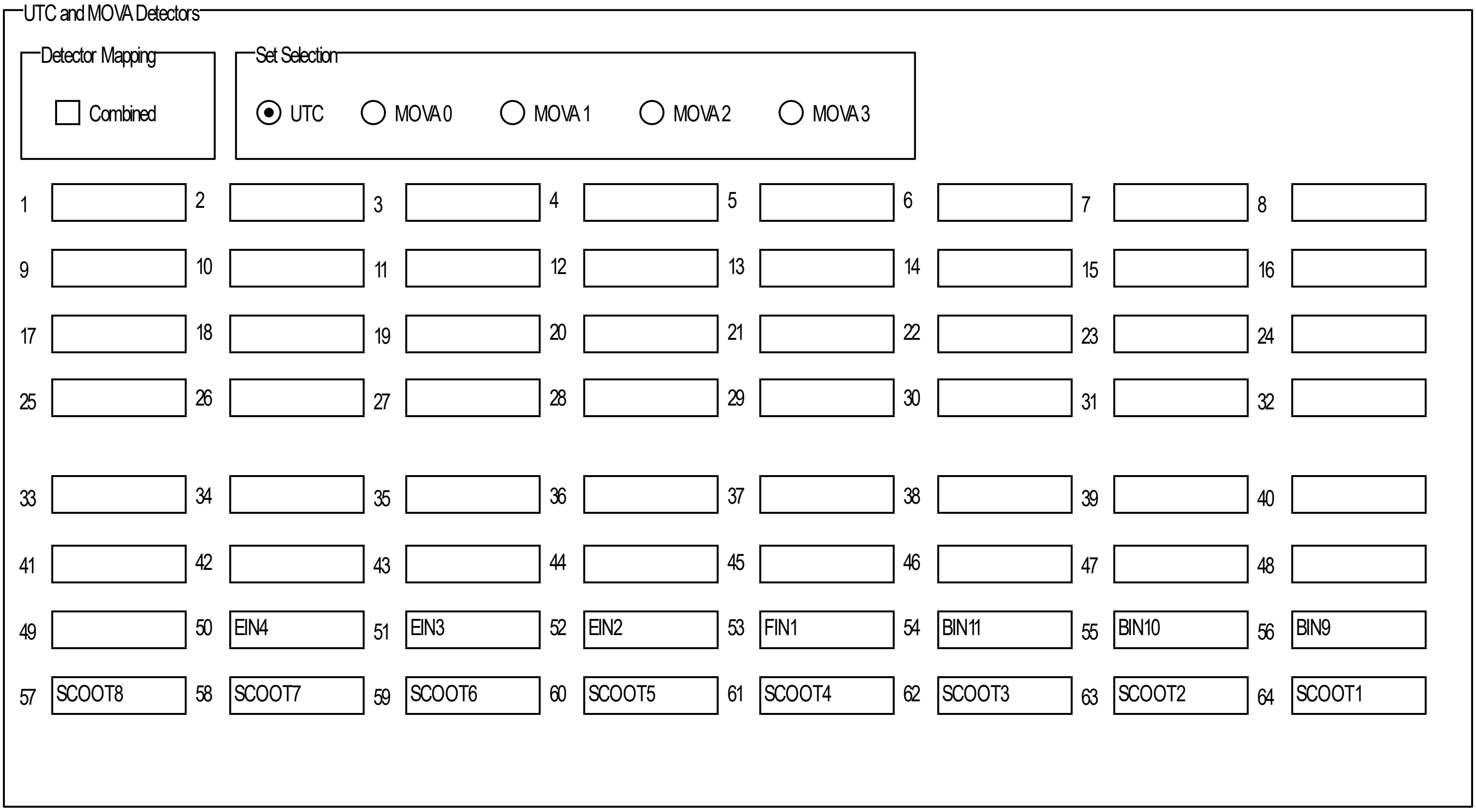
RR Button Selected:
☐ G1/G2 ☑ RR/CRB

Report as UTC Mode ☐
MOVA Control Timer (x10) 12
MOVA Deactivate Timer 2.0
MOVA Release Timer 1

NOTE: If a MOVA Kernel does not map to the same numbered stream (0-3), refer to the help.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC and MOVA Detectors



UTC and MOVA Detectors

Detector Mapping

☐ Combined

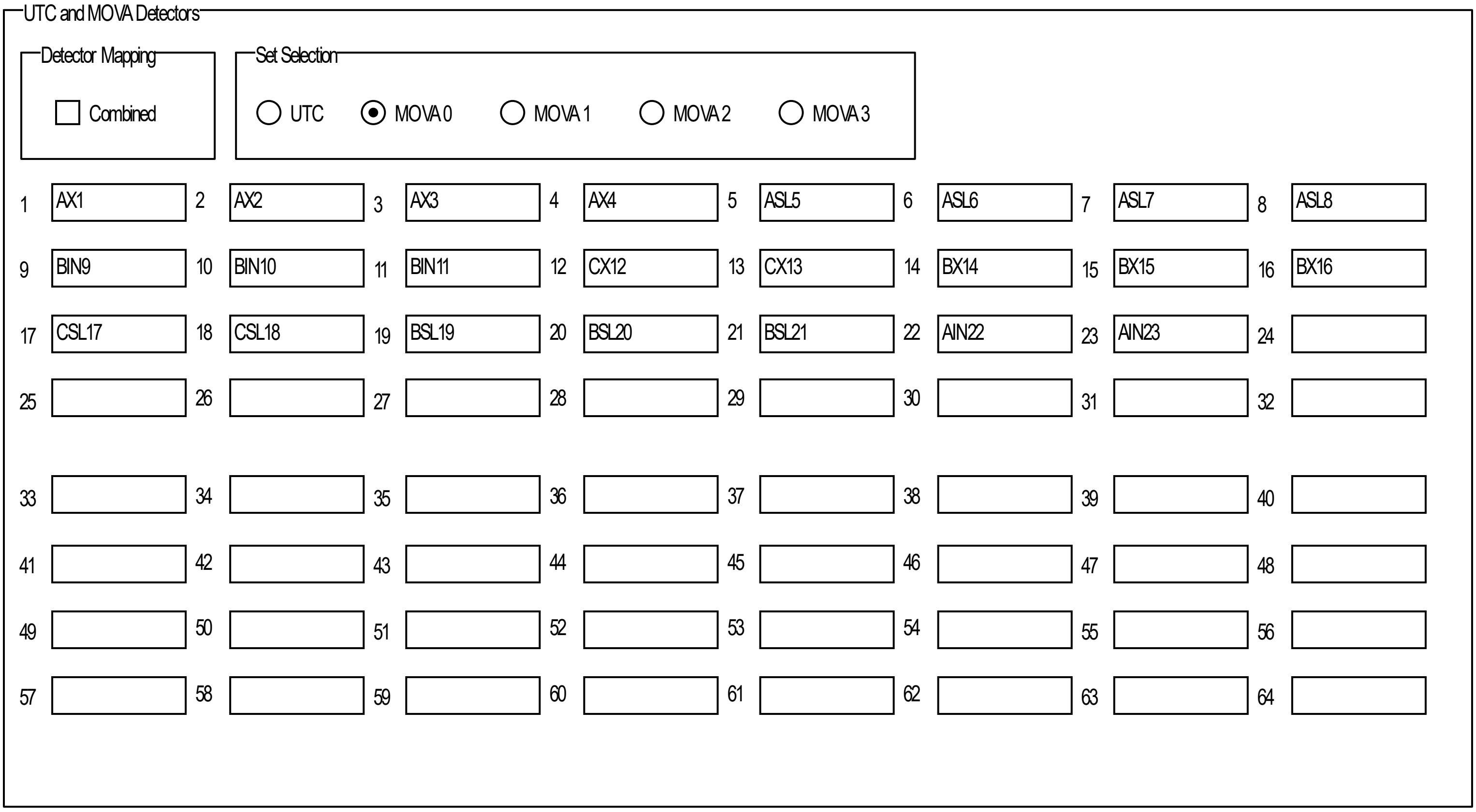
Set Selection

● UTC ○ MOVA 0 ○ MOVA 1 ○ MOVA 2 ○ MOVA 3

1		2		3		4		5		6		7		8	
9		10		11		12		13		14		15		16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50	EIN4	51	EIN3	52	EIN2	53	FIN1	54	BIN11	55	BIN10	56	BIN9
57	SCOOT8	58	SCOOT7	59	SCOOT6	60	SCOOT5	61	SCOOT4	62	SCOOT3	63	SCOOT2	64	SCOOT1

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC and MOVA Detectors



UTC and MOVA Detectors

Detector Mapping

☐ Combined

Set Selection

○ UTC ● MOVA 0 ○ MOVA 1 ○ MOVA 2 ○ MOVA 3

1	AX1	2	AX2	3	AX3	4	AX4	5	ASL5	6	ASL6	7	ASL7	8	ASL8
9	BIN9	10	BIN10	11	BIN11	12	CX12	13	CX13	14	BX14	15	BX15	16	BX16
17	CSL17	18	CSL18	19	BSL19	20	BSL20	21	BSL21	22	AIN22	23	AIN23	24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☐ Combined

Set Selection

○ UTC ○ MOVA 0 ● MOVA 1 ○ MOVA 2 ○ MOVA 3

1	FIN1	2	EIN2	3	EIN3	4	EIN4	5	FX5	6	FX6	7	EX7	8	EX8
9	EX9	10	FSL10	11	FSL11	12	ESL12	13	ESL13	14	ESL14	15		16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

MTC - Time Switch Parameters

MTC - Time Switch Parameters

	Type	Event		Type	Event
0	Alternate Max	MAXSETA	16	No Action	
1	Alternate Max	MAXSETB	17	No Action	
2	Alternate Max	MAXSETC	18	No Action	
3	Alternate Max	MAXSETD	19	No Action	
4	Alternate DFM	ALTDFMA	20	No Action	
5	Alternate DFM	ALTDFMB	21	No Action	
6	Alternate DFM	ALTDFMC	22	No Action	
7	Alternate DFM	ALTDFMD	23	No Action	
8	Conditioning	MTCF0	24	No Action	
9	No Action		25	No Action	
10	No Action		26	No Action	
11	No Action		27	No Action	
12	No Action		28	No Action	
13	No Action		29	No Action	
14	No Action		30	No Action	
15	No Action		31	No Action	

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

MTC - Time Switch Parameters Array

Parameters

Events

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAXSETA	🟥																															
MAXSETB		🟥																														
MAXSETC			🟥																													
MAXSETD				🟥																												
ALTDFMA																																
ALTDFMB																																
ALTDFMC																																
ALTDFMD																																
MTCF0																																
Unused																																
Unused																																
Unused																																
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Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

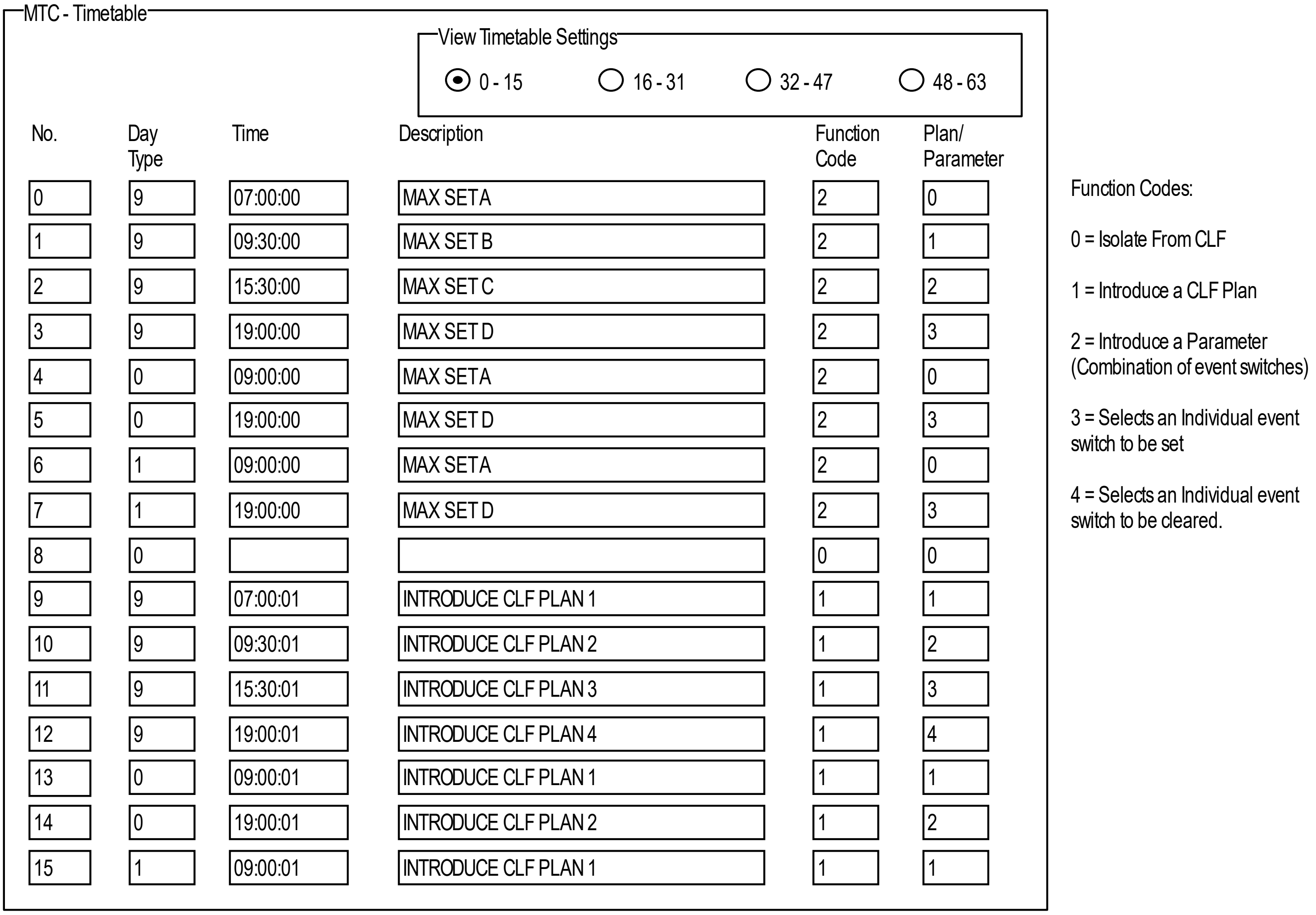
MTC - Day Type

MTC - Day Type

No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0	☐	☐	☐	☐	☐	☑	☐
1	☐	☐	☐	☐	☐	☐	☑
2	☑	☐	☐	☐	☐	☐	☐
3	☐	☑	☐	☐	☐	☐	☐
4	☐	☐	☑	☐	☐	☐	☐
5	☐	☐	☐	☑	☐	☐	☐
6	☐	☐	☐	☐	☑	☐	☐
7	☑	☑	☑	☑	☑	☑	☑
8	☑	☑	☑	☑	☑	☑	☐
9	☑	☑	☑	☑	☑	☐	☐
10	☐	☐	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐	☐	☐
14	☐	☐	☐	☐	☐	☐	☐
15	☐	☐	☐	☐	☐	☐	☐

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

MTC - Timetable



MTC - Timetable

View Timetable Settings

● 0 - 15 ○ 16 - 31 ○ 32 - 47 ○ 48 - 63

No.	Day Type	Time	Description	Function Code	Plan/ Parameter
0	9	07:00:00	MAX SET A	2	0
1	9	09:30:00	MAX SET B	2	1
2	9	15:30:00	MAX SET C	2	2
3	9	19:00:00	MAX SET D	2	3
4	0	09:00:00	MAX SET A	2	0
5	0	19:00:00	MAX SET D	2	3
6	1	09:00:00	MAX SET A	2	0
7	1	19:00:00	MAX SET D	2	3
8	0			0	0
9	9	07:00:01	INTRODUCE CLF PLAN 1	1	1
10	9	09:30:01	INTRODUCE CLF PLAN 2	1	2
11	9	15:30:01	INTRODUCE CLF PLAN 3	1	3
12	9	19:00:01	INTRODUCE CLF PLAN 4	1	4
13	0	09:00:01	INTRODUCE CLF PLAN 1	1	1
14	0	19:00:01	INTRODUCE CLF PLAN 2	1	2
15	1	09:00:01	INTRODUCE CLF PLAN 1	1	1

Function Codes:

0 = Isolate From CLF

1 = Introduce a CLF Plan

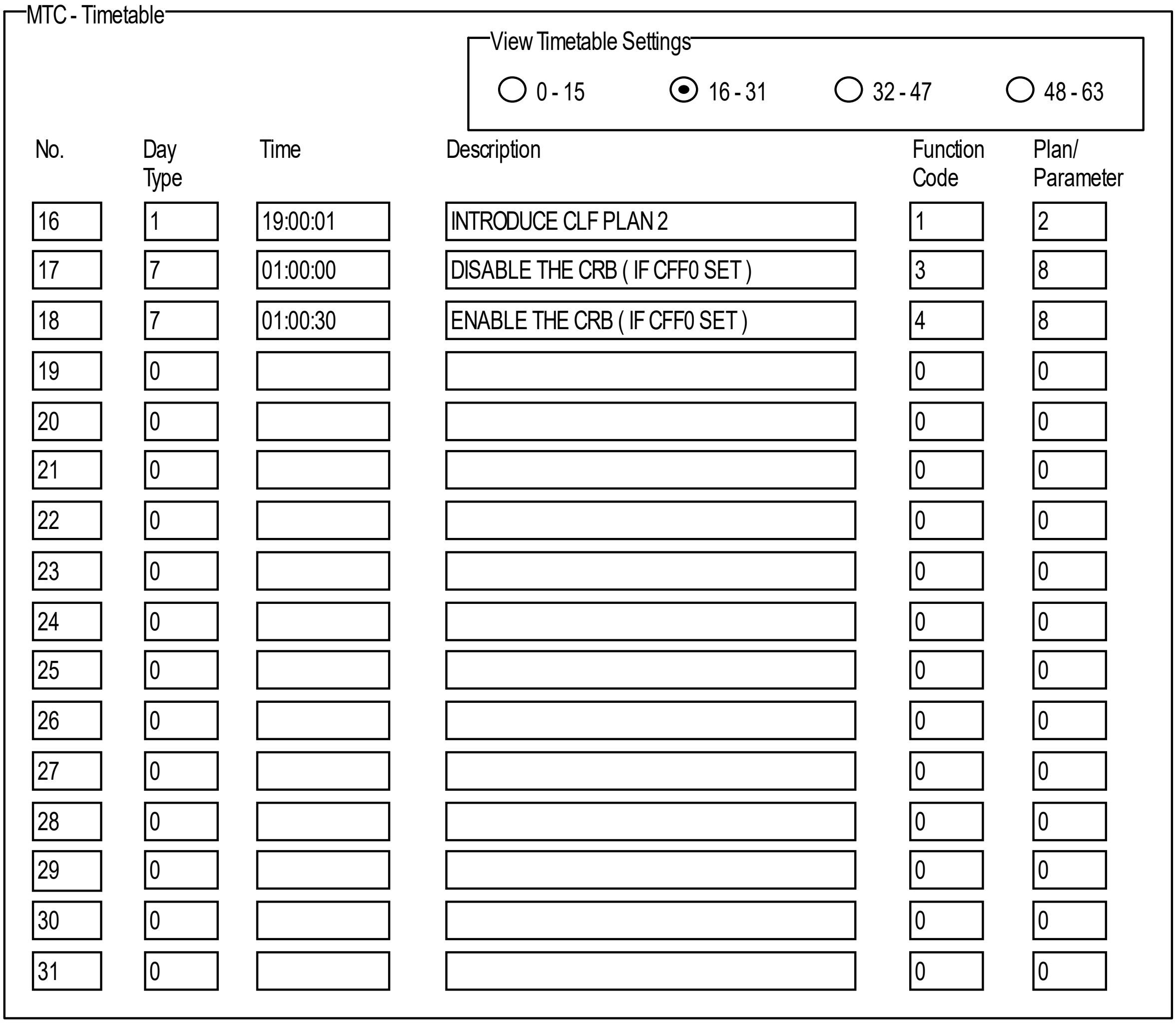
2 = Introduce a Parameter (Combination of event switches)

3 = Selects an Individual event switch to be set

4 = Selects an Individual event switch to be cleared.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

MTC - Timetable


MTC - Timetable

View Timetable Settings
○ 0 - 15 ● 16 - 31 ○ 32 - 47 ○ 48 - 63

No.	Day Type	Time	Description	Function Code	Plan/ Parameter
16	1	19:00:01	INTRODUCE CLF PLAN 2	1	2
17	7	01:00:00	DISABLE THE CRB (IF CFF0 SET)	3	8
18	7	01:00:30	ENABLE THE CRB (IF CFF0 SET)	4	8
19	0			0	0
20	0			0	0
21	0			0	0
22	0			0	0
23	0			0	0
24	0			0	0
25	0			0	0
26	0			0	0
27	0			0	0
28	0			0	0
29	0			0	0
30	0			0	0
31	0			0	0

Function Codes:

0 = Isolate From CLF

1 = Introduce a CLF Plan

2 = Introduce a Parameter (Combination of event switches)

3 = Selects an Individual event switch to be set

4 = Selects an Individual event switch to be cleared.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

LMU - General

LMU - General

Lamp Monitoring - LMU Voltage

○ ● 48
○ ○

Red Lamp Monitoring

Max Red Bulb Wattage

First Red Lamp Fault Speed: 0

☐ RLF2 Cancels RLM additional Intergreens

☑ RLF2 Only Cleared by RFL = 1

☐ RLF1 Only Cleared by RFL = 1

RLM Additional Intergreen Handset Limits

Minimum	Maximum
0	10

Streams with Phase BlackOut on RLF2

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ ☐ ☐ ☐

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

LMU Sensors (Built-in)

LMU Sensors (Built-in)

No. of LSLS cards fitted	HPU Connection
2	1

Sensor Configuration For LSLS 1 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
A	Red	1	As Seq.	E	Red	5	As Seq.
A	Red	1	As Seq.	E	Amber	5	As Seq.
A	Amber	1	As Seq.	E	Amber	5	As Seq.
A	Amber	1	As Seq.	E	Green	5	As Seq.
A	Green	1	As Seq.	E	Green	5	As Seq.
A	Green	1	As Seq.	F	Red	6	As Seq.
B	Red	2	As Seq.	F	Red	6	As Seq.
B	Amber	2	As Seq.	F	Amber	6	As Seq.
B	Green	2	As Seq.	F	Amber	6	As Seq.
C	Red	3	As Seq.	F	Green	6	As Seq.
C	Amber	3	As Seq.	F	Green	6	As Seq.
C	Green	3	As Seq.	G	Red	7	As Seq.
D	Red	4	As Seq.	G	Amber	7	As Seq.
D	Amber	4	As Seq.	G	Green	7	As Seq.
D	Green	4	As Seq.	H	Red	8	As Seq.
E	Red	5	As Seq.	H	Amber	8	As Seq.

Note : A (*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

LMU Sensors (Built-in)

LMU Sensors (Built-in)

No. of LSLS cards fitted	HPU Connection
2	1

Sensor Configuration For LSLS 2 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
H	Green	8	As Seq.	N/A	N/A		
I	Red	9	As Seq.	N/A	N/A		
I	Amber	9	As Seq.	N/A	N/A		
I	Green	9	As Seq.	N/A	N/A		
J	Red	10	R,G	N/A	N/A		
J	Amber	11	Wait	N/A	N/A		
J	Green	10	R,G	N/A	N/A		
J	Green	N/A		N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		

Note : A (*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

LMU Sensors (External) for Regulatory Signs

LMU Sensors (External) for Regulatory Signs

External Sensors (1)

Sensor	Sensor Type
96	Regulatory Sign
95	Regulatory Sign
94	Regulatory Sign
93	Regulatory Sign

External Sensors (2)

Sensor	Sensor Type
92	Regulatory Sign
91	Regulatory Sign
90	Regulatory Sign
89	Regulatory Sign

External Sensors (3)

Sensor	Sensor Type

External Sensors (4)

Sensor	Sensor Type

External Sensors (5)

Sensor	Sensor Type

External Sensors (6)

Sensor	Sensor Type

Note: Sensors which have been used as Onboard sensors will not be available here.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

LMU Sensor Load Types

LMU Sensor Load Types

Page

1 of 2

Sensor	Phase	Sensor Type	LED R+W	RLM	Load Type	LLF Profile
1	A	As Seq.	Auto	Auto	1: Siemens Helios ELV	
2	B	As Seq.	Auto	Auto	1: Siemens Helios ELV	
3	C	As Seq.	Auto	Auto	1: Siemens Helios ELV	
4	D	As Seq.	Auto	Auto	1: Siemens Helios ELV	
5	E	As Seq.	Auto	Auto	1: Siemens Helios ELV	
6	F	As Seq.	Auto	Auto	1: Siemens Helios ELV	
7	G	As Seq.	Auto	Auto	1: Siemens Helios ELV	
8	H	As Seq.	Auto	Auto	1: Siemens Helios ELV	
9	I	As Seq.	Auto	Auto	1: Siemens Helios ELV	
10	J	R,G	Auto	Auto	3: Siemens LED Near Side Indicator	
11	J	Wait	Auto	Auto	2: Siemens LED Demand Indicator	
89	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
90	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
91	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
92	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	
93	N/A	Regulatory Sign	Auto	Auto	4: Siemens ELV Regulatory Sign	

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

LMU Sensor Load Types

LMU Sensor Load Types

Page

2 of 2

Sensor	Phase	Sensor Type	LED R+W	RLM	Load Type	LLF Profile
94	N/A	Regulatory Sign	Auto	Auto		
95	N/A	Regulatory Sign	Auto	Auto		
96	N/A	Regulatory Sign	Auto	Auto		

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

RLM Additional Intergreens

Phases Delayed

Phases with RLF1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A	■														
B		■													
C			■												
D				■											
E					■										
F						■									
G							■								
H								■							
I									■	2					
J										■					
K											■				
L												■			
M													■		
N														■	
O															■

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

RLM Phase Inhibits

Phases Inhibited/Blacked-Out

Phases with RLF2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
A															
B															
C															
D															
E															
F															
G															
H															
I										🟥					
J															
K															
L															
M															
N															
O															

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Hurry Call

Hurry Call

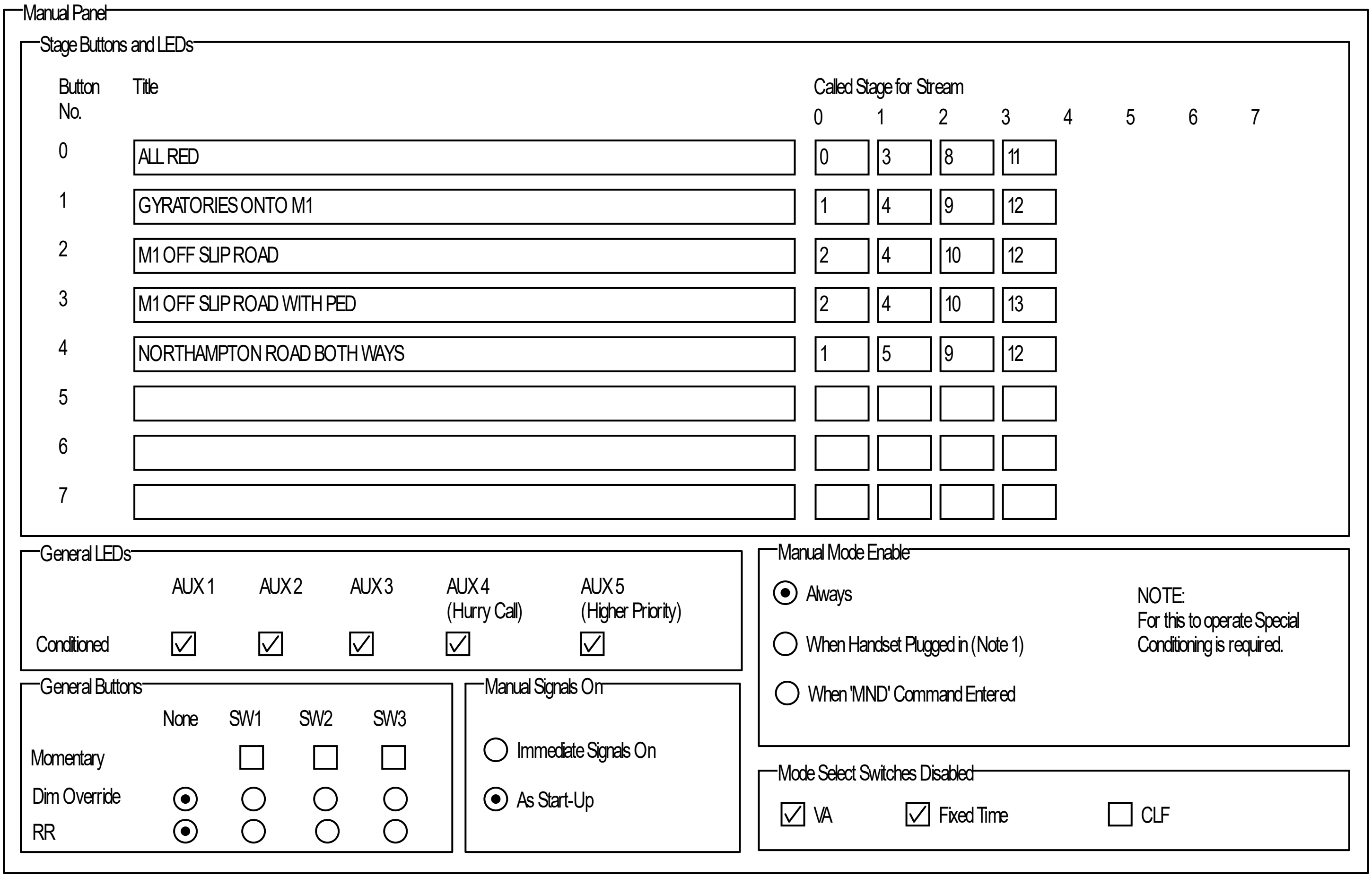
Hurry Call	Stage Called	Call Input Name	Cancel Input Name	Confirm Output Name	Delay Time	Hold Time	Prevent Time
0	0	*SCRT10			0	1	0
1	3	*SCRT1			0	1	0
2	8	*SCRT2			0	1	0
3	11	*SCRT11			0	1	0
4	2	*SCRT3			0	20	180
5	10	*SCRT4			0	20	180
6	1	*SCRT7			0	20	180
7					0	0	0

Hurry Call Limit Values

	Min.	Max.
Call Delay	0	255
Call Hold	0	255
Call Prevent	0	255

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Manual Panel



Manual Panel

Stage Buttons and LEDs

Button No.	Title	Called Stage for Stream 0	1	2	3	4	5	6	7
0	ALL RED	0	3	8	11				
1	GYRATORIES ONTO M1	1	4	9	12				
2	M1 OFF SLIP ROAD	2	4	10	12				
3	M1 OFF SLIP ROAD WITH PED	2	4	10	13				
4	NORTHAMPTON ROAD BOTH WAYS	1	5	9	12				
5									
6									
7									

General LEDs

	AUX 1	AUX 2	AUX 3	AUX 4 (Hurry Call)	AUX 5 (Higher Priority)
Conditioned	☑	☑	☑	☑	☑

Manual Mode Enable

● Always
○ When Handset Plugged in (Note 1)
○ When 'MND' Command Entered

NOTE:
For this to operate Special Conditioning is required.

General Buttons

	None	SW1	SW2	SW3
Momentary		☐	☐	☐
Dim Override	●	○	○	○
RR	●	○	○	○

Manual Signals On

○ Immediate Signals On
● As Start-Up

Mode Select Switches Disabled

☑ VA ☑ Fixed Time ☐ CLF

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Manual Mode - Optional Phases Appearance

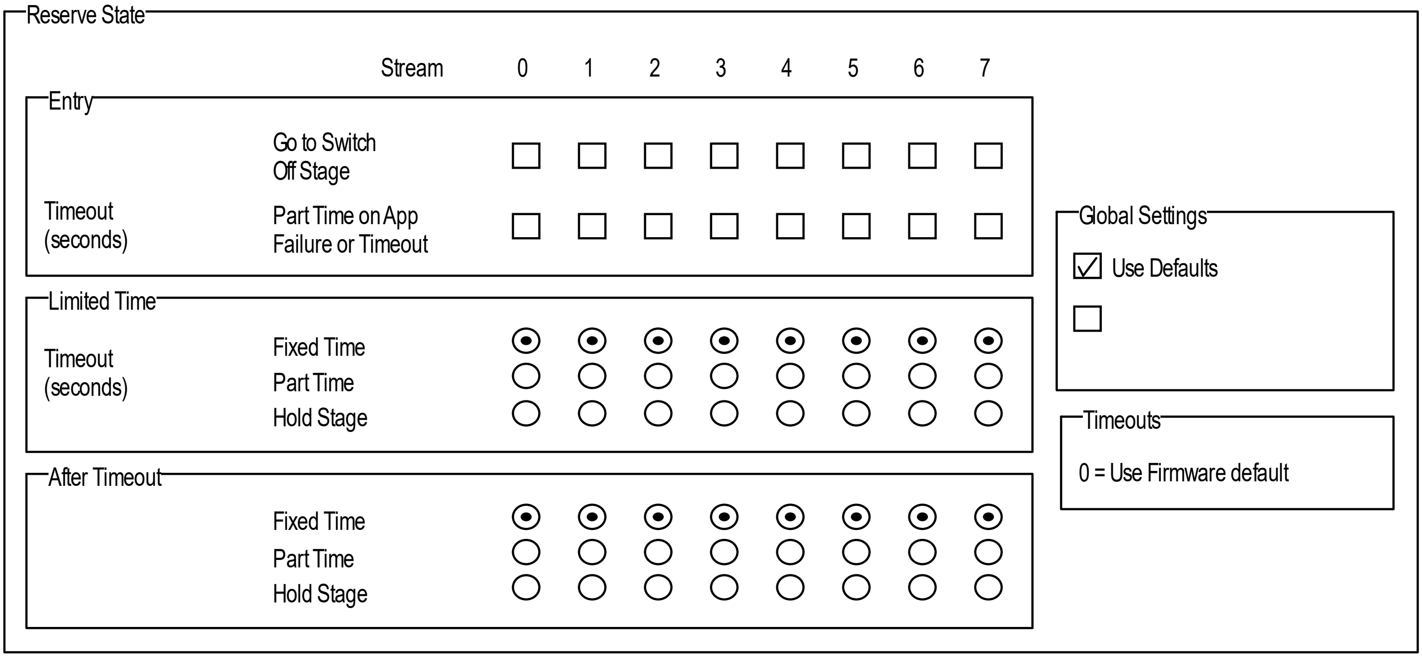
Manual Mode - Optional Phases Appearance

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Never Appears	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Demand Dependant	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Always Appears	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○

	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Never Appears	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Demand Dependant	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Always Appears	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Reserve State



Reserve State

		Stream	0	1	2	3	4	5	6	7
Entry		Go to Switch Off Stage	☐	☐	☐	☐	☐	☐	☐	☐
	Timeout (seconds)	Part Time on App Failure or Timeout	☐	☐	☐	☐	☐	☐	☐	☐
Limited Time	Timeout (seconds)	Fixed Time	●	●	●	●	●	●	●	●
		Part Time	○	○	○	○	○	○	○	○
		Hold Stage	○	○	○	○	○	○	○	○
After Timeout		Fixed Time	●	●	●	●	●	●	●	●
		Part Time	○	○	○	○	○	○	○	○
		Hold Stage	○	○	○	○	○	○	○	○

Global Settings

☑ Use Defaults

☐

Timeouts

0 = Use Firmware default

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Conditioning

```
; MANUAL PANEL
; ============

    IFT (MODE0 EQL<6>+MODE1 EQL<6>+MODE2 EQL<6>) THN
        TRUE = MIL17
    ELS
        IFT (MODE0 EQL<16>.MODE1 EQL<16>.MODE2 EQL<16>) THN
            CNDTMA93 = MIL17
        ELS
            (MODE0 EQL<16>+MODE1 EQL<16>+MODE2 EQL<16>).CNDTMA83 = MIL17
        END
    END

    IFT (/CNDTMA93./CNDPRV93) THN                        ; SLOW PULSE UNIT
        RUN<93>
    END

    IFT (/CNDTMA83./CNDPRV83) THN                        ; FAST FLASH UNIT
        RUN<83>
    END



; PERMANENT DEMANDS AND EXTENSIONS
; ================================

   TRUE::=+UCPHD                                         ; PERMANENT DEMAND FOR PHASE D
        *=+EXOD                                          ; PERMANENT EXTENSIONS FOR PHASE D
        *=+EXCD                                          ;     "          "      "    "   D

   TRUE::=+UCPHG                                         ; PERMANENT DEMAND FOR PHASE G
        *=+EXOG                                          ; PERMANENT EXTENSIONS FOR PHASE G
        *=+EXCG                                          ;     "          "      "    "   G



; EXTRA DETECTOR INPUTS
; =====================

    (ASL5_EXT+ASL6_EXT+ASL7_EXT+ASL8_EXT)::=+EXOA        ; ASL5,6,7 OR 8 DETECTORS TO DEMAND AND EXTEND PHASE A
                                         *=+EXCA
                                          *=+LCPHA

    (BSL20_EXT+BSL21_EXT)::=+EXOD                        ; BSL20 OR 20 DETECTORS TO DEMAND AND EXTEND PHASE B
                         *=+EXCD
                         *=+LCPHD

    (ESL13_EXT+ESL14_EXT)::=+EXOE                        ; ESL13 OR 14 DETECTORS TO DEMAND AND EXTEND PHASE E
                         *=+EXCE
                         *=+LCPHE



; PHASE REVERTIVE DEMANDS ACTIVE UNLESS IN MOVA MODE
; =================================================

    NOT(MODE0 EQL<16>).FZTMEXA=+LCPHA
    NOT(MODE0 EQL<16>).FZTMEXB=+LCPHB
    NOT(MODE0 EQL<16>).FZTMEXC=+LCPHC

    NOT(MODE1 EQL<16>).FZTMEXD=+LCPHD
```

Special Conditioning

```
    NOT(MODE1 EQL<16>).FZTMEXE=+LCPHE
    NOT(MODE1 EQL<16>).FZTMEXF=+LCPHF

    NOT(MODE2 EQL<16>).FZTMEXG=+LCPHG
    NOT(MODE2 EQL<16>).FZTMEXH=+LCPHH



; MOVA PHASE CONFIRMS
; ===================

    NOT(PHASEE)=MOVA1CON3
    NOT(PHASEF)=MOVA1CON4



; U.T.C. CONTROL AND REPLY BITS
; =============================

; Inhibit MOVA on stream 0 when U.T.C. comms active and 1MO bit is 0
; NB: Requires mapping of TC to port csi.cond.out.1 bit 1 (conditioning bit ESPRX0) on the I/O Mapping Web Page

; CFF1000=1 -   Simulate U.T.C. Comms (ESPRX0, ENABLE FOR EMULATOR TESTING)
; CFF20=1   -   REMOVES THE REQUIREMENT FOR 1MO,2MO OR 3MO ON STREAMS 0
; CFF21=1   -   REMOVES THE REQUIREMENT FOR 1MO,2MO OR 3MO ON STREAMS 1
; CFF22=1   -   REMOVES THE REQUIREMENT FOR 1MO,2MO OR 3MO ON STREAMS 2
; ========================================================================

    IFT (MANDOORSW+ESPRX0) THN
        FALSE = CFF1000                 ; TC
        FALSE = CFF1001                 ; 4PV
        FALSE = CFF1002                 ; 4PX
        FALSE = CFF1006                 ; SF1
        FALSE = CFF1007                 ; SF2
        FALSE = CFF1008                 ; SF3
        FALSE = CFF1009                 ; SF4
    END

    IFT /(ESPRX0+CFF1000) THN           ; U.T.M.C. NOT ONLINE, RESTART DELAY (3)
        RUN<31>                         ; TIMER 31 SET TO 3 SECONDS - U.T.C. COMMS DELAY
    END

    (ESPRX0+CFF1000)./(1MO+CNDTMA31+CFF20)=2SCRT200
    (ESPRX0+CFF1000)./(2MO+CNDTMA31+CFF21)=2SCRT201
    (ESPRX0+CFF1000)./(3MO+CNDTMA31+CFF22)=2SCRT202

    NOT(1MO)=1MR                        ; REPLY FOR 1MR CONFIRM
    NOT(2MO)=2MR                        ; REPLY FOR 2MR CONFIRM
    NOT(3MO)=3MR                        ; REPLY FOR 3MR CONFIRM

    NOT(MODE0 EQL<16>)=1ML              ; MOVA ON CONTROL REPLY 1ML
    NOT(MODE1 EQL<16>)=2ML              ; MOVA ON CONTROL REPLY 2ML
    NOT(MODE2 EQL<16>)=3ML              ; MOVA ON CONTROL REPLY 3ML

    NOT(MOVA0MF)=1MF                    ; MOVA IN FAULT STATE REPLY 1MF
    NOT(MOVA1MF)=2MF                    ; MOVA IN FAULT STATE REPLY 2MF
    MOVA2MF = ESPTX0                    ; MOVA IN FAULT STATE REPLY 3MF

    NOT(FLFCOM) = CF
    NOT(MODE0 EQL<4>) = MC
    NOT(FLF55) = LF1
```

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Special Conditioning

```
    NOT(LMP1RED0+LMP1RED1+LMP1RED2+LMP1RED3) = LF2
    NOT(LMP2RED0+LMP2RED1+LMP2RED2+LMP2RED3) = LF3
    LMPON./FLF17 = LO
    LMPDIM = SB

    NOT((HRYSTA0 EQL<1>+HRYSTA0 EQL<2>+HRYSTA0 EQL<3>)+(MINL+MINM+MINN+MINO))=1HC
    NOT((HRYSTA1 EQL<1>+HRYSTA1 EQL<2>+HRYSTA1 EQL<3>)+(MINL+MINM+MINN+MINO))=2HC
    NOT((HRYSTA2 EQL<1>+HRYSTA2 EQL<2>+HRYSTA2 EQL<3>)+(MINL+MINM+MINN+MINO))=3HC
    (HRYSTA3 EQL<1>+HRYSTA3 EQL<2>+HRYSTA3 EQL<3>)+(MINL+MINM+MINN+MINO) = ESPTX5   ; 4HC

    (ESPRX1+CFF1001).CFF12./CCTO5 = 2SCRT210    ; 4PV - IF ENABLED BY CFF12=1 UNLESS MC IS TRUE
    (ESPRX2+CFF1002)./CCTO5 = +LCPHJ            ; 4PX - CONTROL OF THESE 2 EXTERNAL C/BITs IS NOT
                                                ; ACTIVE IF MC IS TRUE.

    STAGE12 = ESPTX1                            ; 4GX
    VRDMNDJ = ESPTX2                            ; 4WC
    PHASEJ = ESPTX3                             ; 4PC
    /(LMPON.RLMMSKH)+FLF17 = ESPTX4             ; 4LO

    IFT (ESPRX1+CFF1001).CFF12 THN
        RUN<0>
    END

    (ESPRX6+CFF1006)::: = ESPTX6                   ; SF1/SC1
                      * = MOVA0DET41
                      * = MOVA1DET41
                      * = MOVA2DET41

    (ESPRX7+CFF1007)::: = ESPTX7
                      * = MOVA0DET42
                      * = MOVA1DET42
                      * = MOVA2DET42

    (ESPRX8+CFF1008)::: = ESPTX8
                      * = MOVA0DET43
                      * = MOVA1DET43
                      * = MOVA2DET43

    (ESPRX9+CFF1009)::: = ESPTX9
                      * = MOVA0DET44
                      * = MOVA1DET44
                      * = MOVA2DET44

    CCTO5 = ESPTX10                             ; CLOSEO

    /ONBAT  = ESPTX11                           ; UPS
    /LOWBAT = ESPTX12
    /UPSWRN = ESPTX13
    /UPSFLT = ESPTX14



; BQA AND BQB HURRY CALLS FOR STAGES 2 AND 9
; ============================================

IFT CCTO0.NOT(2SCRT6).NOT(CNDTMA1) THN
    RUN<6>
    RUN<1>
END

CCTO0=2SCRT6
```

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Special Conditioning

```
IFT CCTO1.NOT(2SCRT7).NOT(CNDTMA1) THN
    RUN<7>
    RUN<1>
END

(CNDTMA6+CNDTMA7):=SCRT3
                 *=SCRT4

CCTO1=2SCRT7

; INPUTS FROM CONTROLLER 1 AQA,B,C AQ HURRY CALL STAGE 1
; =======================================================

IFT CCTO2.NOT(2SCRT3) THN
    RUN<3>
END

;CNDTMA3=SCRT7

CCTO2=2SCRT3

IFT CCTO3.NOT(2SCRT4) THN
    RUN<4>
END

;CNDTMA4=SCRT7

CCTO3=2SCRT4

IFT CCTO4.NOT(2SCRT5) THN
    RUN<5>
END

(CNDTMA3+CNDTMA4+CNDTMA5)=SCRT7

CCTO4=2SCRT5

; MC1 OR MC2 MOTORWAY CLOSED INPUTS ACTIVE HURRY CALL ALL RED STAGES ON ALL STREAMS
; ================================================================================

    (MC1+MC2)=SCRT0
    NOT(MC1+MC2)=ROUGH0

    IFT CCTO5.NOT(1SCRT0) THN
        RUN<9>
        RUN<10>
        RUN<11>
        RUN<12>
    END

    CNDTMA9  = SCRT11                        ; Hurry Call Stage 11 - AR Stream 3
    CNDTMA10 = SCRT10                        ; Hurry Call Stage 0  - AR Stream 0
    CNDTMA11 = SCRT1                         ; Hurry Call Stage 3  - AR Stream 1
    CNDTMA12 = SCRT2                         ; Hurry Call Stage 8  - AR Stream 2

    CCTO5=1SCRT0

    (MINL+MINM+MINN+MINO):::::::::=1SCRT1  ; PREVENT MOVES FROM ALL RED STAGES TILL ALL STREAMS HAVE RUN 10
                                 *=PRVST1  ; SECONDS ( MIN GREENS OF DUMMY PHASES TIMED OFF )
                                 *=PRVST2
```

Special Conditioning

```
                                   *=PRVST4
                                   *=PRVST5
                                   *=PRVST6
                                   *=PRVST7
                                   *=PRVST9
                                   *=PRVST10
                                   *+CCTO5=PRVST12
                                   *+2SCRT210=PRVST13

    CCTO5.NOT(CFF13)=+LCPHO                  ; IF MC ACTIVE INSERT DEMAND FOR PHASE O ( DISABLED BY CFF13=1 )
;                                            ; TO ALLOW PED TO RUN



; MOTORWAY CLOSED INPUT ACTIVE PREVENT MOVA ON ALL STREAMS AND CALL CLF PLAN 5 TILL INPUT CLEARS
; ==============================================================================================

    IFT CCTO5 THN                                ; IF MC1 OR MC2 (CCTO5) BIT ACTIVE REQUEST CLF PLAN 5
        LOD <5>1REQPLN
    END

    IFT NOT(CCTO5).NOT(1SCRT40) THN              ; IF MC1 OR MC2 (CCTO5) BIT CLEARS REVERT TO CURRENT TIMETABLED
        RUN<13>                                  ; CLF PLAN
    END

    IFT CNDTMA13 THN
        LOD <1>1CALCKP
    END

    NOT(CCTO5)=1SCRT40

    (MTCF0.CFF0)+(CCTO5):::::+2SCRT200  = DISMOVA0
                            *+2SCRT201  = DISMOVA1
                            *+2SCRT202  = DISMOVA2
                            *           = DISUTC0
                            *           = DISUTC1
                            *           = DISUTC2
```

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Special Conditioning

```
; MOVA STREAM 0 MOVA LINKS
; ========================

; LINK 10 (ST) FROM HSLA,B,C MOVA0DET22
; =====================================

(HSLA+HSLB+HSLC)=MOVA0DET24                     ; HSLA,B OR HSLC ACTIVE SET MOVA0DET24

; MOVA 8 LINKING STAGE CONFIRMS BETWEEN STREAMS
; =============================================

(NXTSTG0 EQL<1>)=MOVA0DET32
(NXTSTG0 EQL<2>)=MOVA0DET33
(NXTSTG1 EQL<4>)=MOVA0DET34
(NXTSTG1 EQL<5>)=MOVA0DET35

; EXTERNAL STAGE CONFIRMS FROM CONTROLLER 1
; =========================================

C1S2=MOVA0DET36
C1S5=MOVA0DET37
C1S8=MOVA0DET38

; MOVA Stream 0
; =============

MOVA1OUT0=MOVA0DET63
MOVA2OUT1=MOVA0DET64

; MOVA Stream 1
; =============

MOVA0OUT0=MOVA1DET63
MOVA2OUT1=MOVA1DET64

; MOVA Stream 2
; =============

MOVA0OUT0=MOVA2DET63
MOVA1OUT1=MOVA2DET64
```

Works Order : 857993755
EM Number : NN0015
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Special Conditioning

```
; MOVA STREAM 1
; =============

; LINK 6 (ST) FROM HSLA,B,C MOVADET15
; =====================================

(HSLA+HSLB+HSLC)=MOVA1DET15                     ; HSLA,B OR HSLC ACTIVE SET MOVA1DET15

; LINK 7 = (ST) FROM PEDESTRIAN J
; ===============================

VRDMNDJ=MOVA1DET16                              ; DEMAND FOR PEDESTRIAN PHASE J REPLY AS MOVA1DET16

; MOVA 8 LINKING STAGE CONFIRMS BETWEEN STREAMS
; =============================================

(NXTSTG0 EQL<1>)=MOVA1DET32
(NXTSTG0 EQL<2>)=MOVA1DET33
(NXTSTG1 EQL<4>)=MOVA1DET34
(NXTSTG1 EQL<5>)=MOVA1DET35

; EXTERNAL STAGE CONFIRMS FROM CONTROLLER 1
; =========================================

C1S2=MOVA1DET36
C1S5=MOVA1DET37
C1S8=MOVA1DET38
```

Special Conditioning

```
; MOVA STREAM 2
; =============

; HSLA,B,C ACTIVE SETS MOVA2DET1,2,3
; ==================================

(HSLA)=MOVA2DET1                                       ; HSLA ACTIVE SET MOVA2DET1
(HSLB)=MOVA2DET2                                       ; HSLB ACTIVE SET MOVA2DET2
(HSLC)=MOVA2DET3                                       ; HSLC ACTIVE SET MOVA2DET3

; MOVA 8 LINKING STAGE CONFIRMS BETWEEN STREAMS
; =============================================

(NXTSTG0 EQL<1>)=MOVA2DET32
(NXTSTG0 EQL<2>)=MOVA2DET33
(NXTSTG1 EQL<4>)=MOVA2DET34
(NXTSTG1 EQL<5>)=MOVA2DET35

; EXTERNAL STAGE CONFIRMS FROM CONTROLLER 1
; =========================================

C1S2=MOVA2DET36
C1S5=MOVA2DET37
C1S8=MOVA2DET38
```

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Conditioning

```
; STREAM 3 PED LINKING
; =====================

VRDMNDJ:=+LCPHE                              ; PED J DEMANDS PHASE E AND F TO ALLOW PED LINK OPERATION
       *=+LCPHF

IFT (TERMD) THN
    RUN<20>
END

IFT CNDTER20 THN                              ; IF TIMER TERMINATED RUN THE INHIBIT RELEASE TIMER.
    RUN<21>
END

LMPON.NOT(CNDTMA21+2SCRT1).NOT(CFF5).NOT(CNDTMA0)=+PRVST13
;                                             ; DEFAULT PED LINK UNLESS CFF5=1 IS SET
;                                             ; IF RELEASE TIMER ACTIVE OR OVERRIDE TIMER EXPIRED OR
;                                             ; LAMPS OFF THEN LIFT LINK.

IFT NOT(PRVST13)+(DTOROW) THN                 ; RUN THE OVERRIDE TIMER FROM LAST TIME LINK LIFTED.
    RUN<22>
END

CNDTER22=+2SCRT1                              ; SET 2SCRATCH BIT 1 IF OVERRIDE TIMER EXPIRES THIS

NOT(DTOROW)=.2SCRT1                           ; RESET 2SCRATCH BIT 1 IF PHASE "D" GO'S TO R.O.W.


IFT (TERME) THN
    RUN<23>
END

IFT CNDTER23 THN                              ; IF TIMER TERMINATED RUN THE INHIBIT RELEASE TIMER.
    RUN<24>
END

LMPON.NOT(CNDTMA24+2SCRT2).(CFF5).NOT(CNDTMA0)=+PRVST13
;                                             ; ALTERNATE PED LINK IF CFF5=1 IS SET
;                                             ; IF RELEASE TIMER ACTIVE OR OVERRIDE TIMER EXPIRED OR
;                                             ; LAMPS OFF THEN LIFT LINK.

IFT NOT(PRVST13)+(ETOROW) THN                 ; RUN THE OVERRIDE TIMER FROM LAST TIME LINK LIFTED.
    RUN<25>
END

CNDTER25=+2SCRT2                              ; SET 2SCRATCH BIT 2 IF OVERRIDE TIMER EXPIRES THIS

NOT(ETOROW)=.2SCRT2                           ; RESET 2SCRATCH BIT 2 IF PHASE "E" GO'S TO R.O.W.
```

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
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Special Conditioning

```
; LINKING TO AND FROM CONTROLLER 1 NORTH
; ======================================

C1AQA=C1AQAOUT
C1AQB=C1AQBOUT
C1AQC=C1AQCOUT

 (NXTSTG0 EQL<2>)=C2S2
 (NXTSTG1 EQL<5>)=C2S5
```

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Conditioning Timers

Special Conditioning Timers

Timers

0-31

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0	1	0	255	☐	4PV ACTIVE LIF PED LINK	16		0	255	☐	
1	180	0	255	☐	BQA / BQB HURRY CALL O/RIDE	17		0	255	☐	
2		0	255	☐		18		0	255	☐	
3	2	0	255	☐	C1AQA HURRY CALL STAGE 1	19		0	255	☐	
4	2	0	255	☐	C1AQB HURRY CALL STAGE 1	20	5	0	255	☐	STAGE 4 PED LINK DELAY
5	2	0	255	☐	C1AQC HURRY CALL STAGE 1	21	2	0	255	☐	STAGE 4 PED LINK WINDOW
6	2	0	255	☐	BQA HURRY CALLS STAGE 2	22	90	0	255	☐	STAGE4 OVERIDE TIMER
7	2	0	255	☐	BQB HURRY CALLS STAGE 9	23	5	0	255	☐	STAGE 5 PED LINK DELAY
8		0	255	☐		24	2	0	255	☐	STAGE 5 PED LINK WINDOW
9	2	0	255	☐	MC HURRY CALL STREAM 0	25	90	0	255	☐	STAGE5 OVERIDE TIMER
10	2	0	255	☐	MC HURRY CALL STREAM 1	26		0	255	☐	
11	2	0	255	☐	MC HURRY CALL STREAM 2	27		0	255	☐	
12	2	0	255	☐	MC HURRY CALL STREAM 3	28		0	255	☐	
13	1	0	255	☐	CLEAR CLF PLAN 5 REQUEST	29		0	255	☐	
14	1	0	255	☐	CLEAR DISABLE CLF REQUEST	30		0	255	☐	
15		0	255	☐		31	3	0	255	☐	U.T.C. COMMS DELAY

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Special Conditioning Timers

Special Conditioning Timers

Timers

32-63

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
32		0	255	☐		48		0	255	☐	
33		0	255	☐		49		0	255	☐	
34	0.6	0.6	31.8	☑	FLASH ON TIMER	50		0	255	☐	
35	0.6	0.6	31.8	☑	FLASH OFF TIMER	51		0	255	☐	
36		0	255	☐		52		0	255	☐	
37		0	255	☐		53		0	255	☐	
38		0	255	☐		54		0	255	☐	
39		0	255	☐		55		0	255	☐	
40		0	255	☐		56		0	255	☐	
41		0	255	☐		57		0	255	☐	
42		0	255	☐		58		0	255	☐	
43		0	255	☐		59		0	255	☐	
44		0	255	☐		60		0	255	☐	
45		0	255	☐		61		0	255	☐	
46		0	255	☐		62		0	255	☐	
47		0	255	☐		63		0	255	☐	

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Special Conditioning Timers

Special Conditioning Timers

Timers

64-95

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
64		0	255	☐		80		0	255	☐	
65		0	255	☐		81		0	255	☐	
66		0	255	☐		82		0	255	☐	
67		0	255	☐		83	0.4	0.4	1	☑	LED - Fast Flash
68		0	255	☐		84		0	255	☐	
69		0	255	☐		85		0	255	☐	
70		0	255	☐		86		0	255	☐	
71		0	255	☐		87		0	255	☐	
72		0	255	☐		88		0	255	☐	
73		0	255	☐		89		0	255	☐	
74		0	255	☐		90		0	255	☐	
75		0	255	☐		91		0	255	☐	
76		0	255	☐		92		0	255	☐	
77		0	255	☐		93	3	2	5	☑	LED - Slow Pulse
78		0	255	☐		94		0	255	☐	
79		0	255	☐		95		0	255	☐	

Works Order : 857993755
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Fault Log Flags

Fault Log Flags

Fault No	Cond Flag	Act Flag	Fault No	Cond Flag	Act Flag	Fault No	Cond Flag	Act Flag	Fault No	Cond Flag	Act Flag
0	☑	☐	16	☑	☐	32	☑	☐	48	☑	☐
1	☑	☐	17	☐	☐	33	☑	☐	49	☑	☐
2	☑	☐	18	☑	☐	34	☑	☐	50	☑	☐
3	☑	☐	19	☑	☐	35	☑	☐	51	☑	☐
4	☑	☐	20	☑	☐	36	☑	☐	52	☑	☐
5	☑	☐	21	☑	☐	37	☑	☐	53	☑	☐
6	☑	☐	22	☐	☐	38	☑	☐	54	☑	☐
7	☑	☐	23	☑	☐	39	☑	☐	55	☐	☐
8	☑	☐	24	☑	☐	40	☑	☐	56	☑	☐
9	☑	☐	25	☑	☐	41	☑	☐	57	☑	☐
10	☑	☐	26	☑	☐	42	☑	☐	58	☑	☐
11	☑	☐	27	☑	☐	43	☑	☐	59	☑	☐
12	☐	☐	28	☑	☐	44	☑	☐	60	☑	☐
13	☑	☐	29	☑	☐	45	☑	☐	61	☑	☐
14	☑	☐	30	☑	☐	46	☑	☐	62	☑	☐
15	☑	☐	31	☑	☐	47	☑	☐	63	☑	☐

Note:

Cond Flag -
If a fault occurs which sets a fault log flag that has been checked for this Cond flag option then a flag will be set that can be read in Conditioning.

Act Flag -
If a fault occurs which sets a fault log flag that has been checked for this Act flag option then firstly the lamps

will be switched OFF and secondly a flag will be set that can be read in conditioning, to allow any further actions required to be performed by conditioning.

Clearance of Special Conditionir ☐

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Instructions

```
NN0015
Card Type                       Rack Posn   Addr.   Port    Type    Line        Term Posn
Intelligent Backplane 16/0      Rack        01      0       I       000 - 007   2 LT1
Intelligent Backplane 16/0      Rack        01      1       I       008 - 015   2 LT1
Intelligent Backplane 16/0      Rack        02      2       I       016 - 023   2 LT2
Intelligent Backplane 16/0      Rack        02      3       I       024 - 031   2 LT2
Intelligent Backplane 16/0      Rack        03      4       I       032 - 039   2 LT3
Intelligent Backplane 16/0      Rack        03      5       I       040 - 047   2 LT3
Intelligent Backplane 16/0      Rack        04      6       I       048 - 055   2 LT4
Intelligent Backplane 16/0      Rack        04      7       I       056 - 063   2 LT4
Serial IO 24/16                 1 I/O1      05      8       I       064 - 071   1 I/O1
Serial IO 24/16                 1 I/O1      05      9       I       072 - 079   1 I/O1
Serial IO 24/16                 1 I/O1      05      10      I       080 - 087   1 I/O1
Serial IO 24/16                 1 I/O1      05      11      O       088 - 095   1 I/O1
Serial IO 24/16                 1 I/O1      05      12      O       096 - 103   1 I/O1
Serial IO 24/4                  1 I/O2      06      13      I       104 - 111   1 I/O2
Serial IO 24/4                  1 I/O2      06      14      I       112 - 119   1 I/O2
Serial IO 24/4                  1 I/O2      06      15      I       120 - 127   1 I/O2
Serial IO 24/4                  1 I/O2      06      16      O       128 - 131   1 I/O2
CPU                             A
```

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Instructions

ST950 ELV CONTROLLER ITEMS LIST SHEET 1 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
1					
2	667/1/45950/020	ST950ELV CAB UK 20A 1LSLS GRY	1		
3	667/1/45950/040	ST950ELV CAB UK 40A 1LSLS GRY			
4	667/1/45950/021	ST950ELV CAB UK 20A 1LSLS BLK			
5	667/1/45950/041	ST950ELV CAB UK 40A 1LSLS BLK			
6	667/1/45950/520	ST950ELV CAB UK 20A 1LSLS LOW INRUSH GRY			
7	667/1/45950/521	ST950ELV CAB UK 20A 1LSLS LOW INRUSH BLK			
8					
9	667/1/32943/001	ELV Lamp switch (LSLS) kit	1		
10	667/1/32960/001	ELV Lamp switch (LSLS) backplane kit	1		
11	667/1/46085/002	I/O card kit (4 outputs)	1		
12	667/1/46085/001	I/O card kit (16 outputs)	1		
13	667/1/46015/001	ST950 CPU I/O kit (4 outputs)			
14	667/1/45952/001	ST950 CPU I/O kit (4 outputs) cableform			
15					
16					
17					
18	667/1/32910/950	Intelligent detector backplane kit	4		
19	667/1/33002/000	ELV detector 6U rack expansion kit	1		
20	667/1/33074/000	ST900 ELV 24 V detector supply Kit (6A)			
21	667/1/20690/001	19" Detector Rack			
22					
23	667/1/32980/040	ELV 20A to 40A upgrade kit			
24					
25					
26	667/1/33070/000	ELV Regulatory Sign expansion kit			
27	667/1/32955/000	ELV Audible supply kit			
28	667/1/27117/000	ST900 300mA RCD kit			
29					
30	667/1/32900/001	Expansion cabinet kit - Black			
31	667/1/32900/000	Expansion cabinet kit - Grey			
32	667/1/33072/000	Cabinet mounted cut-out connection kit			
33	667/1/33007/000	LSLS Expansion cabinet kit			
34					
35					
36	667/1/27056/001	Manual Panel Full kit			
37	667/1/27110/000	Manual Panel RS232 kit			
38					
39					
40					

Note 1:
Please refer to special instruction pages for additional information on items marked with an '*'.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Instructions

ST950 ELV CONTROLLER ITEMS LIST SHEET 2 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
41					
42	667/1/45990/000	ST950ELV CUCKOO KIT - T400L			
43	667/1/45991/000	ST950ELV CUCKOO KIT - ST800			
44	667/1/45992/000	ST950ELV CUCKOO KIT - MICROSENSE MTC			
45	667/1/45993/000	ST950ELV CUCKOO KIT - MICROSENSE SENTNL			
46	667/1/45994/000	ST950ELV CUCKOO KIT - PEEK TSC3			
47	667/1/45995/000	ST950ELV CUCKOO KIT - PEEK TRX			
48					
49					
50					
51					
52	667/1/33073/000	ST900 Isolator locking kit			
53	667/2/20234/000	Screw Lock Key			
54					
55					
56	667/1/27104/000	ST800 / ST900 DFM Lens Kit			
57	667/7/46690/000	NAL CONTROLLER CABINET BASE GREY			
58	667/7/46690/001	NAL CONTROLLER CABINET BASE BLACK			
59	667/2/27096/000	ST800 / ST900 Mounting Stool			
60					
61					
62	667/1/26271/000	Telephone Kit (Lightning protection)			
63	667/1/27118/000	Surge Arrester (Lightning protection)			
64					
65	667/1/45950/120	ST950 ELV Cabinet Export 20A 1 LSLS - Grey			
66	667/1/45950/140	ST950 ELV Cabinet Export 40A 1 LSLS - Grey			
67	667/1/45950/951	ST950 ELV RACK 19" 1LSLS			
68	667/1/32945/000	ST900 ELV additional LSLS rack wiring kit			
69					
70	667/1/45980/000	ST900 ELV to ST950 ELV conversion kit			
71	667/1/27056/300	Manual Panel Signals off only			
72	667/1/45966/001	Temporary USB Wi-Fi Dongle			
73	667/1/45970/000	ST950 RTC backup battery			
74	667/1/33080/100	Mains kit (ST950ELV) - No maint sockets			
75	667/1/31625/019	2U 19" UTMC communications tray			
76	667/6/46680/000	Anti graffiti coating			
77	667/1/33080/000	Mains kit (ST950ELV)			
78	667/1/33075/000	ELV 24V detector supply kit (2A)			
79	667/1/27018/950	GPS Clock Kit			
80					

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Instructions

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Special Instructions

******PLEASE NOTE ********

ALL OF THE CAMERA INPUT'S HAVE BEEN INVERTED

THIS INCLUDES THE VECHICLE MVD'S, KERBSIDES AND ONCROSSINGS, YOU WILL NEED TO MAKE SURE THE INSTALLER IS AWARE OF THIS SO THE CORRECT OUTPUT WIRING FROM THE MVD'S IS CONNECTED.

THIS IS TO MAKE SURE THE INPUT GOES ACTIVE OR P.D. IF ANY OF THE MVD'S ARE DISCONNECTED.

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

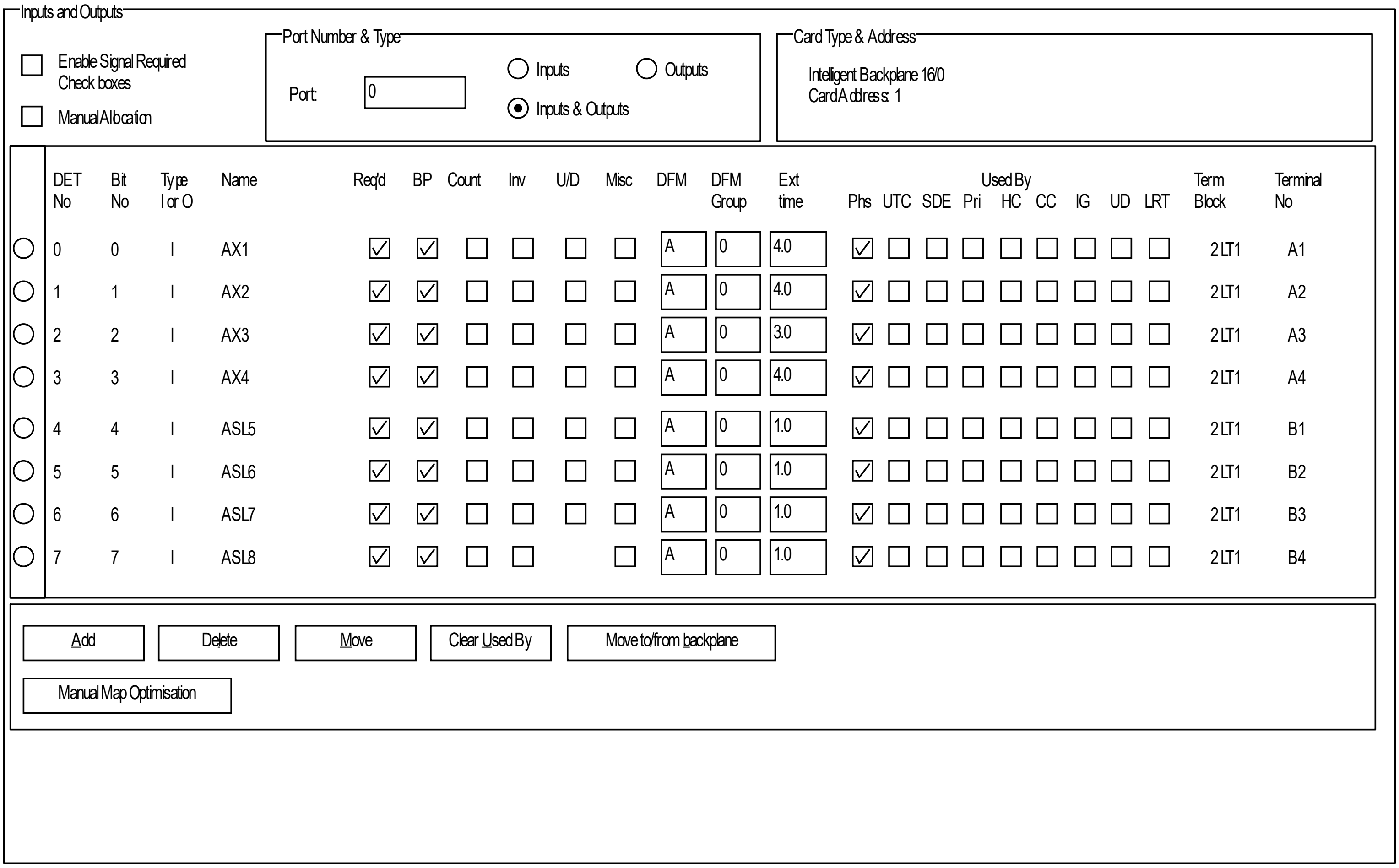
Call Cancel

Call Cancel

Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
0	BQA	25	2	
1	BQB	25	2	
2	C2AQAIN	20	2	
3	C2AQBIN	20	2	
4	C2AQBIN	20	2	
5	*SCRT0	0	255	
6		0	0	
7		0	0	

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

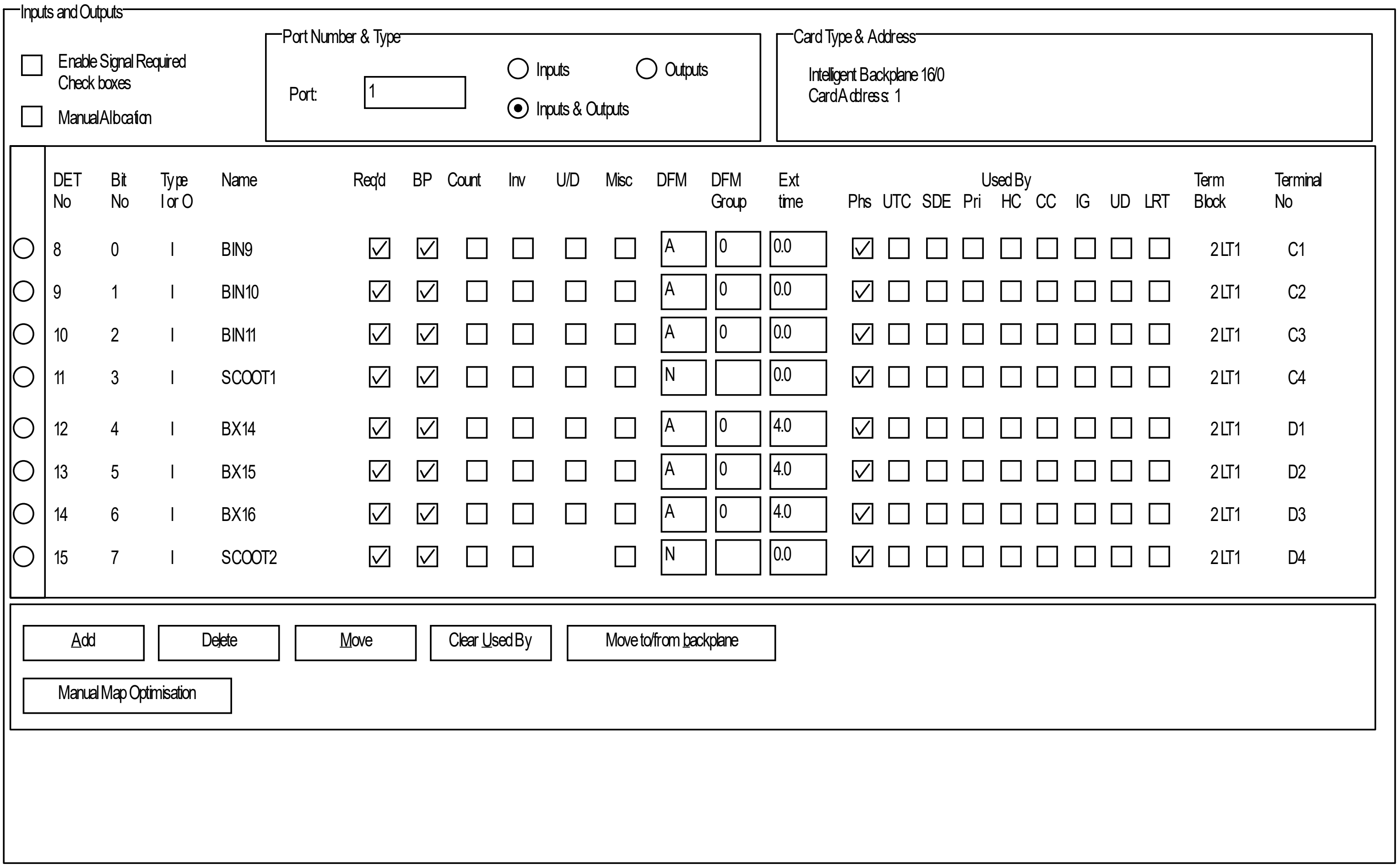
Port Number & Type
Port: 0
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	0	0	I	AX1	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A1
○	1	1	I	AX2	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A2
○	2	2	I	AX3	☑	☑	☐	☐	☐	☐	A	0	3.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A3
○	3	3	I	AX4	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A4
○	4	4	I	ASL5	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B1
○	5	5	I	ASL6	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B2
○	6	6	I	ASL7	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B3
○	7	7	I	ASL8	☑	☑	☐	☐		☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs


Inputs and Outputs

☐ Enable Signal Required Check boxes
☐ Manual Allocation

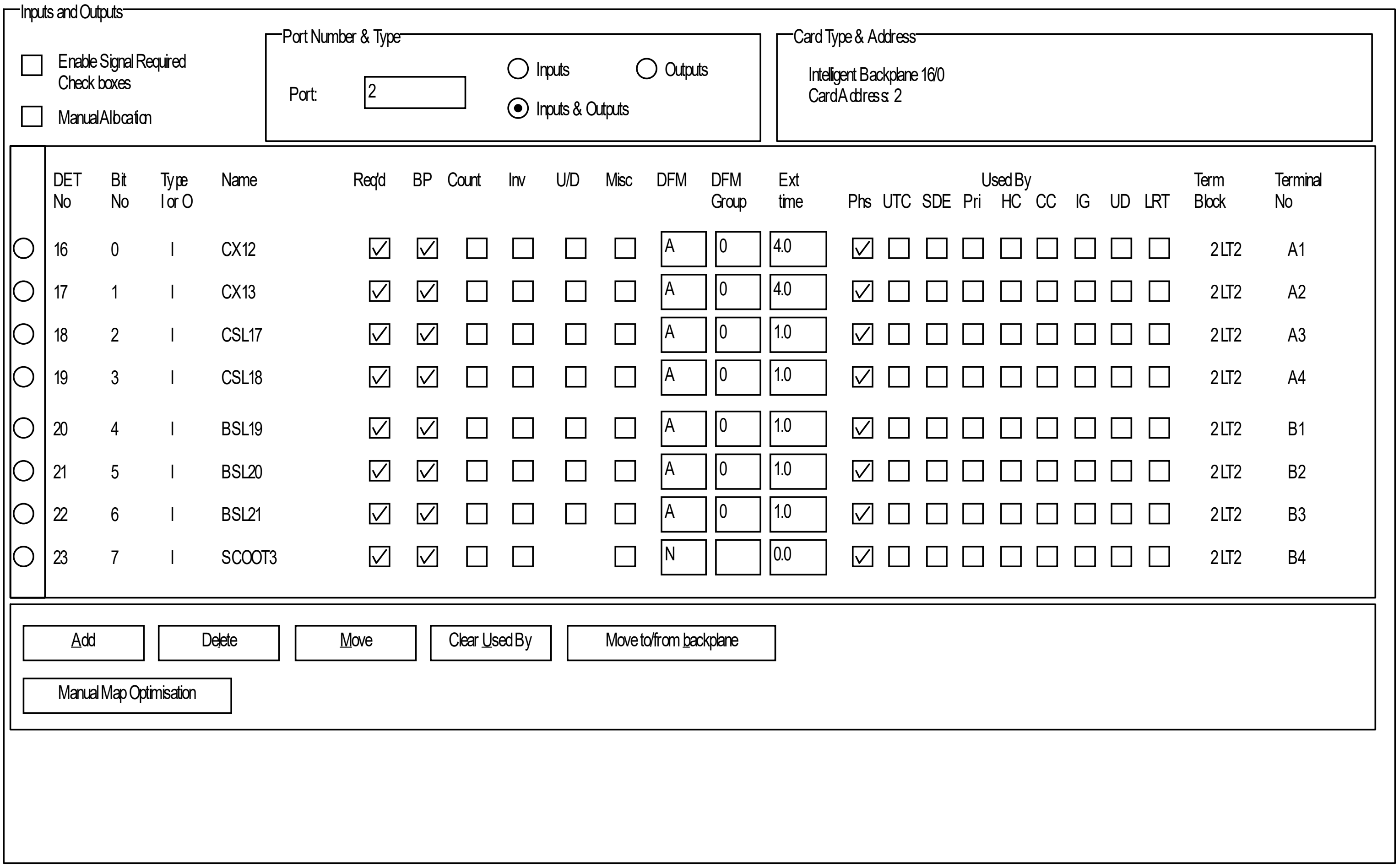
Port Number & Type
Port: 1
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	8	0	I	BIN9	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C1
○	9	1	I	BIN10	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C2
○	10	2	I	BIN11	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C3
○	11	3	I	SCOOT1	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C4
○	12	4	I	BX14	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D1
○	13	5	I	BX15	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D2
○	14	6	I	BX16	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D3
○	15	7	I	SCOOT2	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 2

○ Inputs ○ Outputs

● Inputs & Outputs

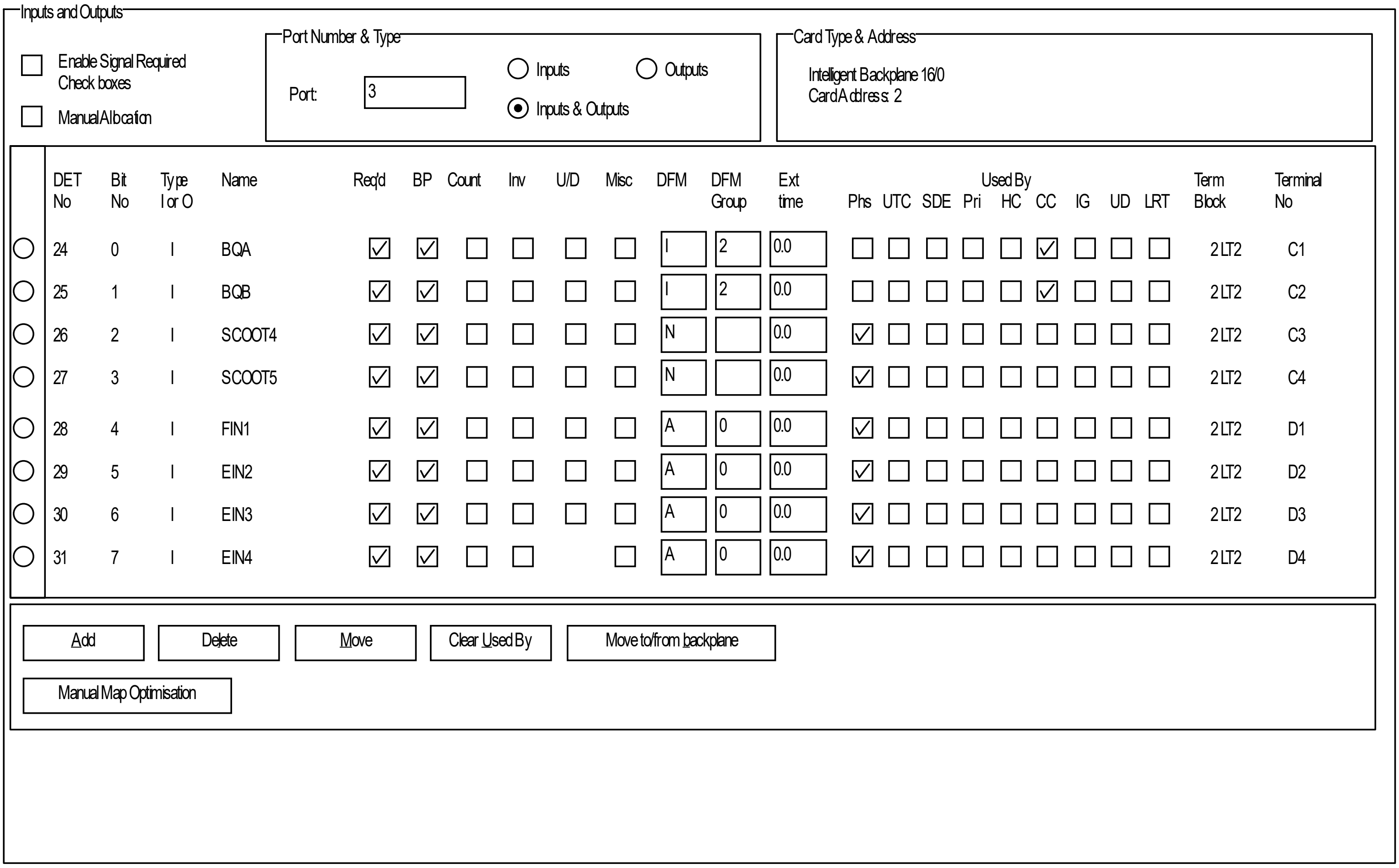
Card Type & Address

Intelligent Backplane 16/0
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	16	0	I	CX12	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A1
○	17	1	I	CX13	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A2
○	18	2	I	CSL17	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A3
○	19	3	I	CSL18	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A4
○	20	4	I	BSL19	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B1
○	21	5	I	BSL20	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B2
○	22	6	I	BSL21	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B3
○	23	7	I	SCOOT3	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 3

○ Inputs ○ Outputs
● Inputs & Outputs

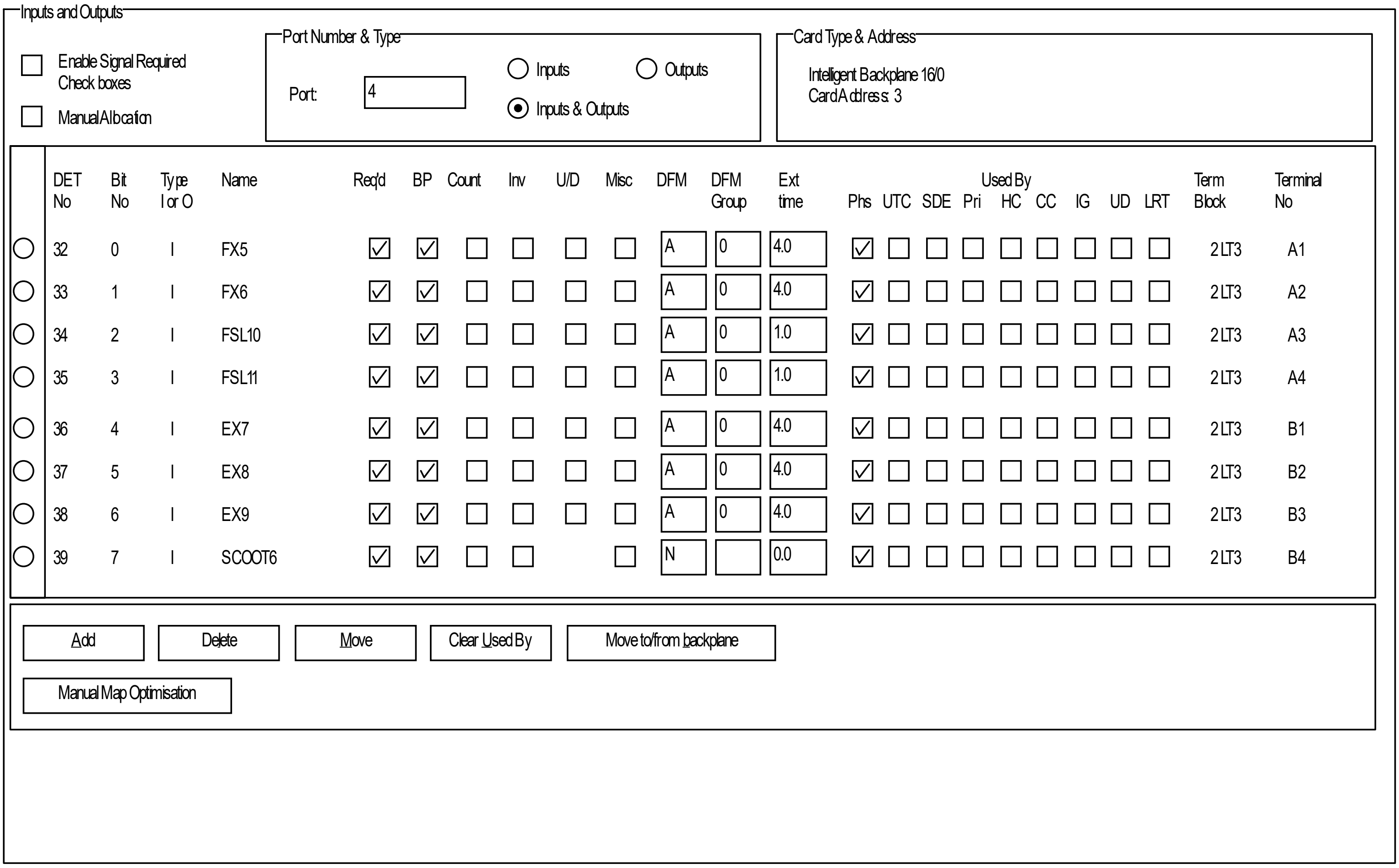
Card Type & Address

Intelligent Backplane 16/0
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	24	0	I	BQA	☑	☑	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	2 LT2	C1
○	25	1	I	BQB	☑	☑	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	2 LT2	C2
○	26	2	I	SCOOT4	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C3
○	27	3	I	SCOOT5	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C4
○	28	4	I	EIN1	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D1
○	29	5	I	EIN2	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D2
○	30	6	I	EIN3	☑	☑	☐	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D3
○	31	7	I	EIN4	☑	☑	☐	☐		☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 4

○ Inputs ○ Outputs

● Inputs & Outputs

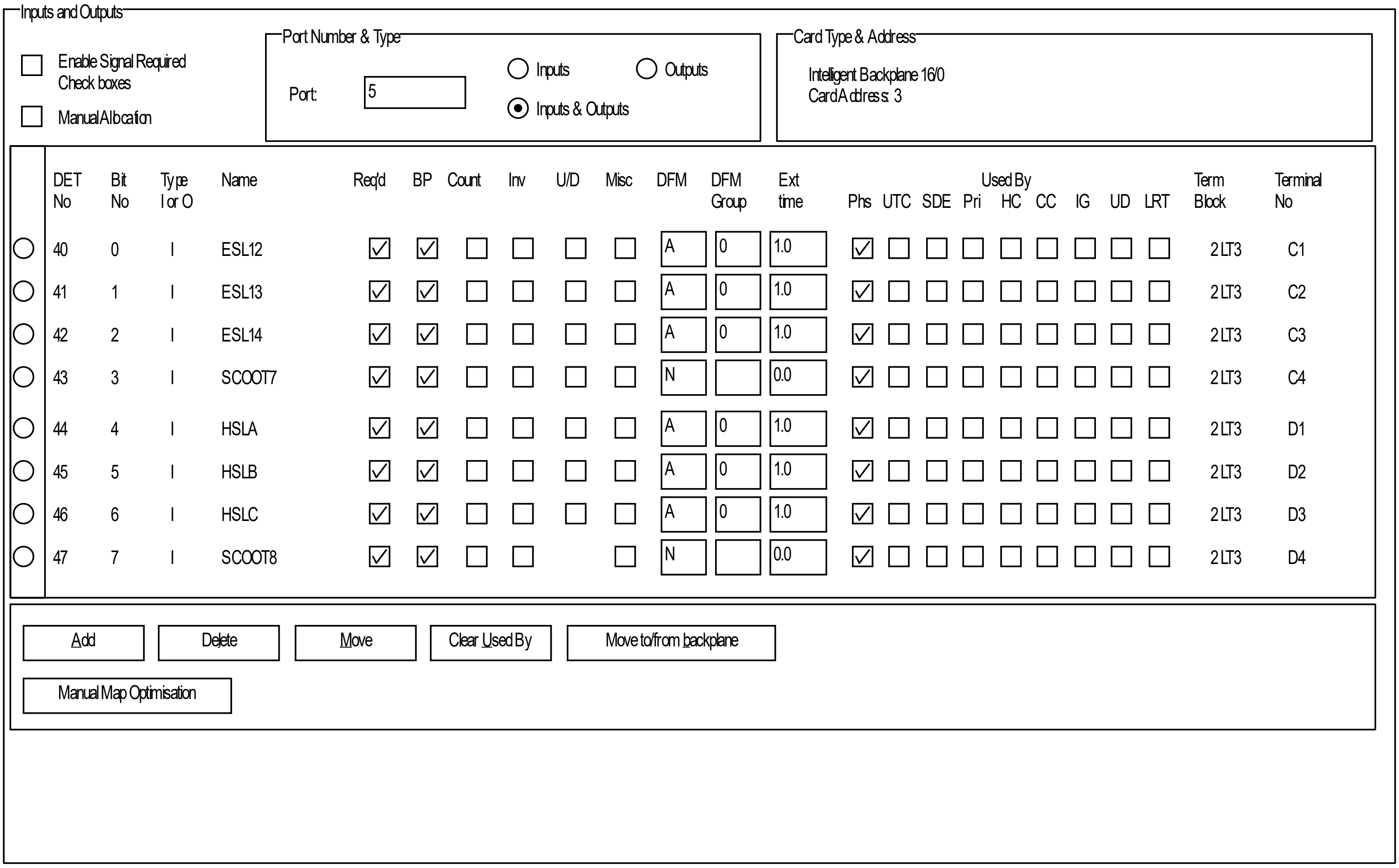
Card Type & Address

Intelligent Backplane 16/0
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	32	0	I	FX5	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A1
○	33	1	I	FX6	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A2
○	34	2	I	FSL10	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A3
○	35	3	I	FSL11	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	A4
○	36	4	I	EX7	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B1
○	37	5	I	EX8	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B2
○	38	6	I	EX9	☑	☑	☐	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B3
○	39	7	I	SCOOT6	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	B4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 5

○ Inputs ○ Outputs

● Inputs & Outputs

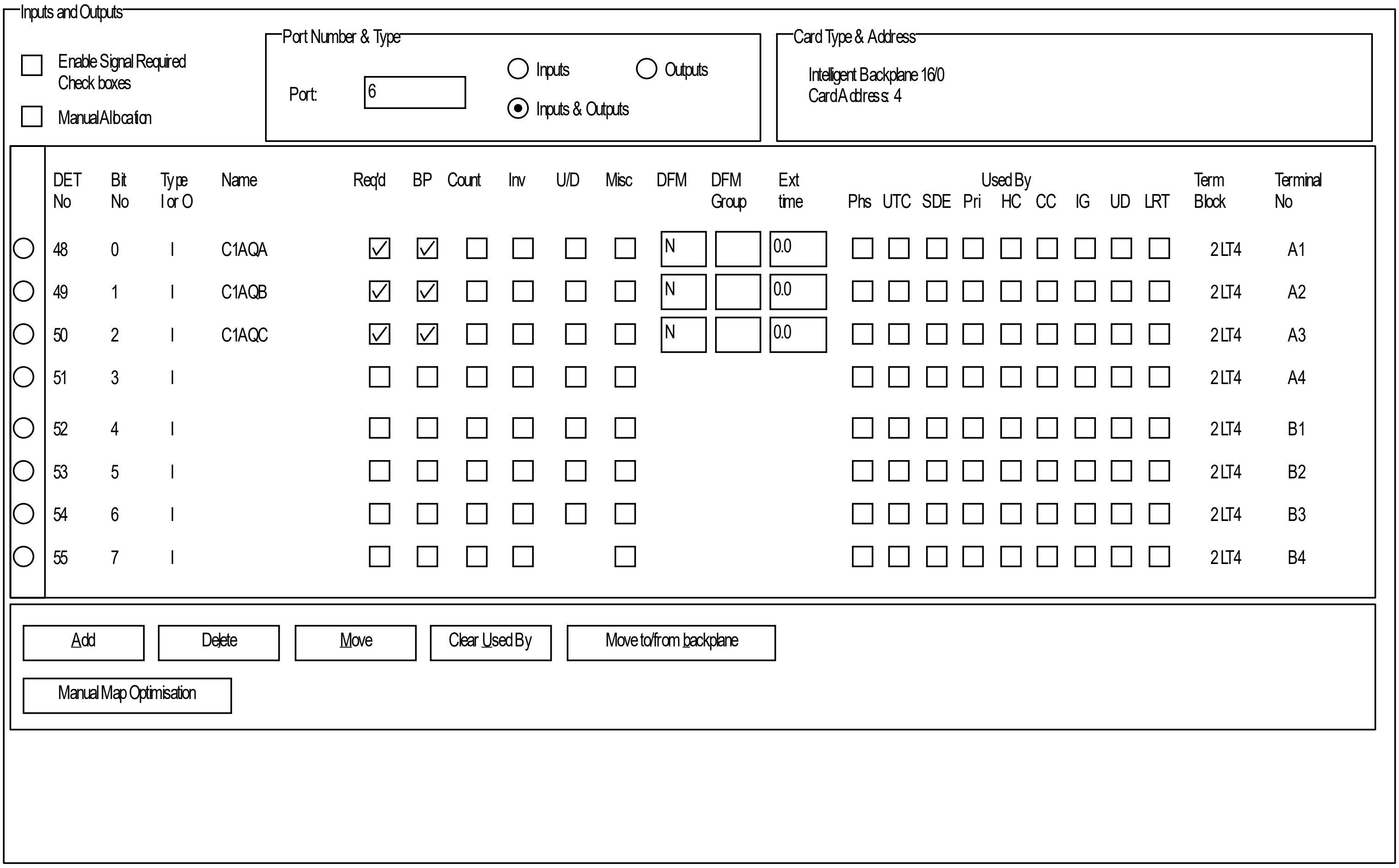
Card Type & Address

Intelligent Backplane 16/0
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Terminal No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	40	0	I	ESL12	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C1
○	41	1	I	ESL13	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C2
○	42	2	I	ESL14	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C3
○	43	3	I	SCOOT7	☑	☑	☐	☐	☐	☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	C4
○	44	4	I	HSLA	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D1
○	45	5	I	HSLB	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D2
○	46	6	I	HSLC	☑	☑	☐	☐	☐	☐	A	0	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D3
○	47	7	I	SCOOT8	☑	☑	☐	☐		☐	N		0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT3	D4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



☐ Enable Signal Required Check boxes
☐ Manual Allocation

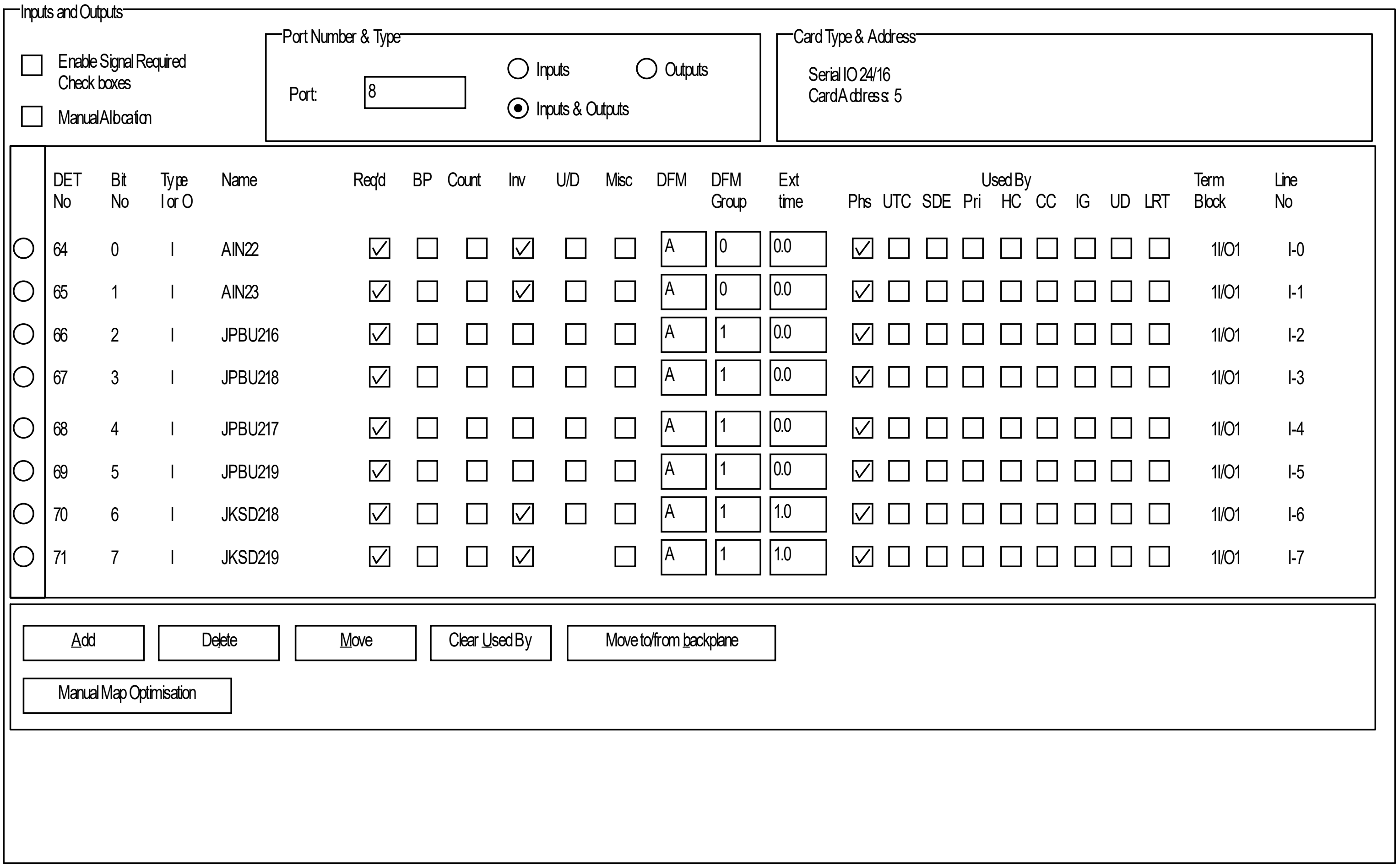
Port: 6
○ Inputs ○ Outputs
● Inputs & Outputs

Intelligent Backplane 16/0
Card Address: 4

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	48	0	I	C1AQA	☑	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A1
○	49	1	I	C1AQB	☑	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A2
○	50	2	I	C1AQC	☑	☑	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A3
○	51	3	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	A4
○	52	4	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B1
○	53	5	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B2
○	54	6	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B3
○	55	7	I		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT4	B4

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 8

○ Inputs ○ Outputs

● Inputs & Outputs

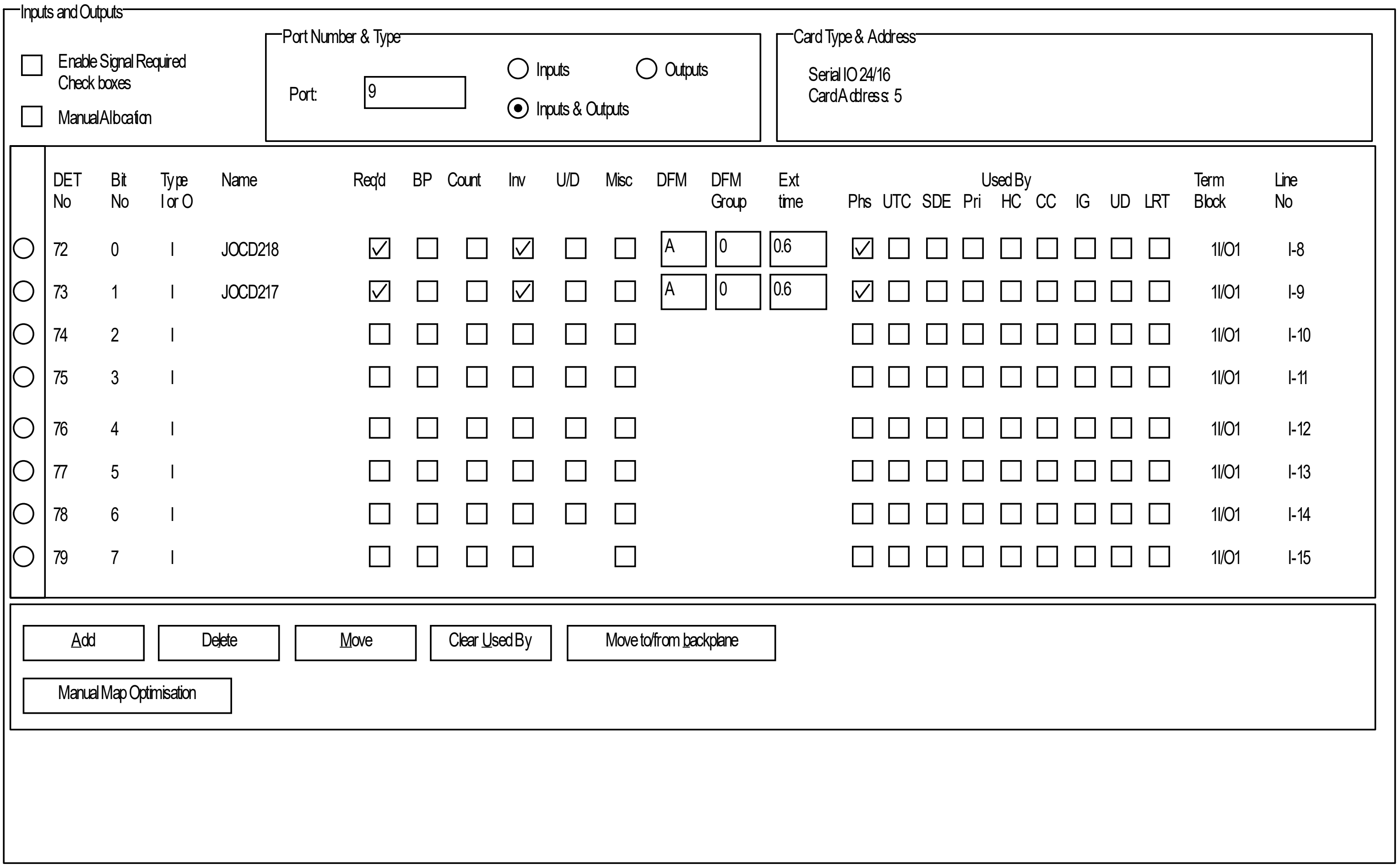
Card Type & Address

Serial IO 24/16
Card Address: 5

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Line No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	64	0	I	AIN22	☑	☐	☐	☑	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-0
○	65	1	I	AIN23	☑	☐	☐	☑	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-1
○	66	2	I	JPBU216	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-2
○	67	3	I	JPBU218	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-3
○	68	4	I	JPBU217	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-4
○	69	5	I	JPBU219	☑	☐	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-5
○	70	6	I	JKSD218	☑	☐	☐	☑	☐	☐	A	1	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-6
○	71	7	I	JKSD219	☑	☐	☐	☑		☐	A	1	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-7

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 9

○ Inputs ○ Outputs

● Inputs & Outputs

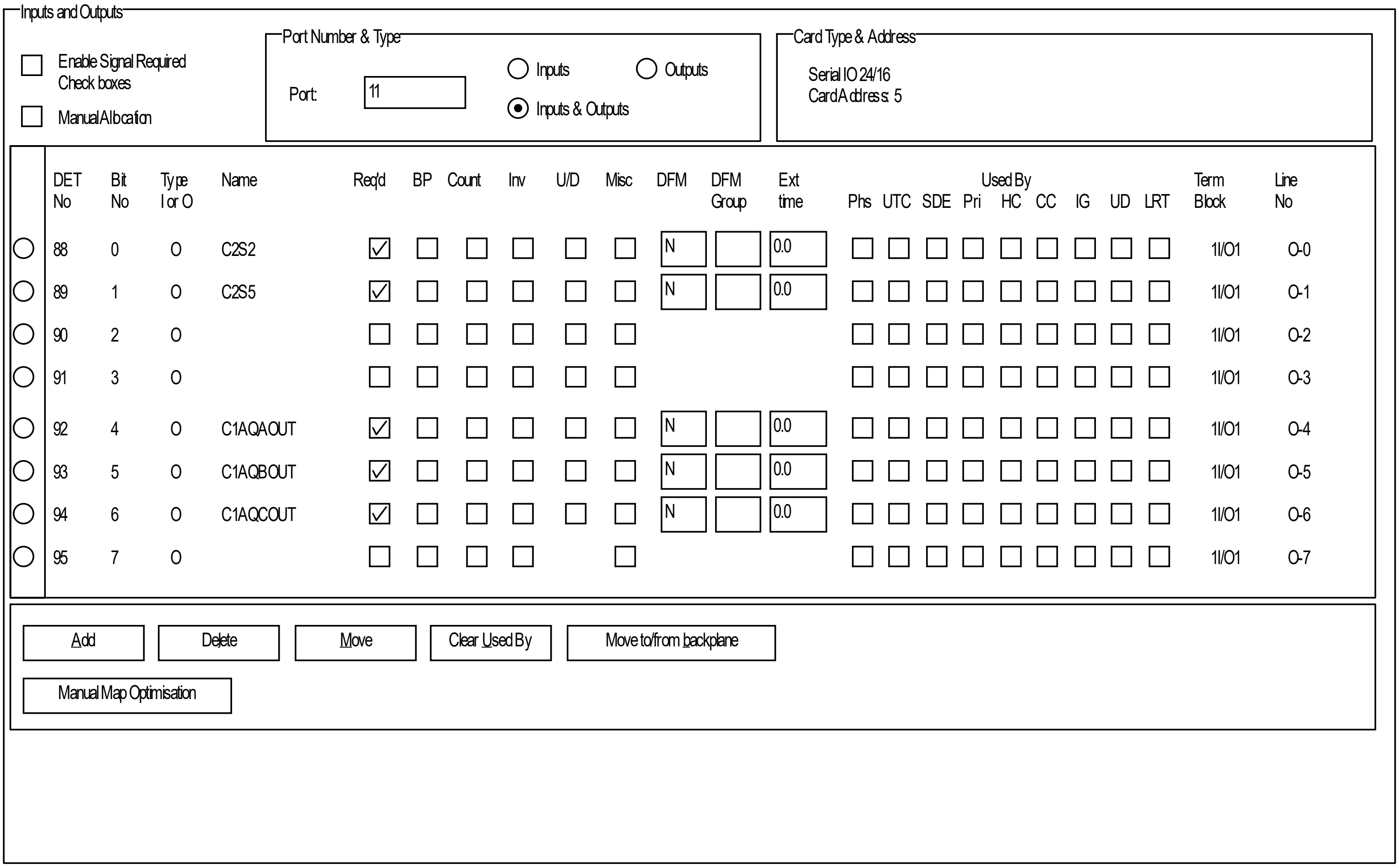
Card Type & Address

Serial IO 24/16
Card Address: 5

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Line No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	72	0	I	JOCD218	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-8
○	73	1	I	JOCD217	☑	☐	☐	☑	☐	☐	A	0	0.6	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-9
○	74	2	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-10
○	75	3	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-11
○	76	4	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-12
○	77	5	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-13
○	78	6	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-14
○	79	7	I		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-15

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



☐ Enable Signal Required Check boxes
☐ Manual Allocation

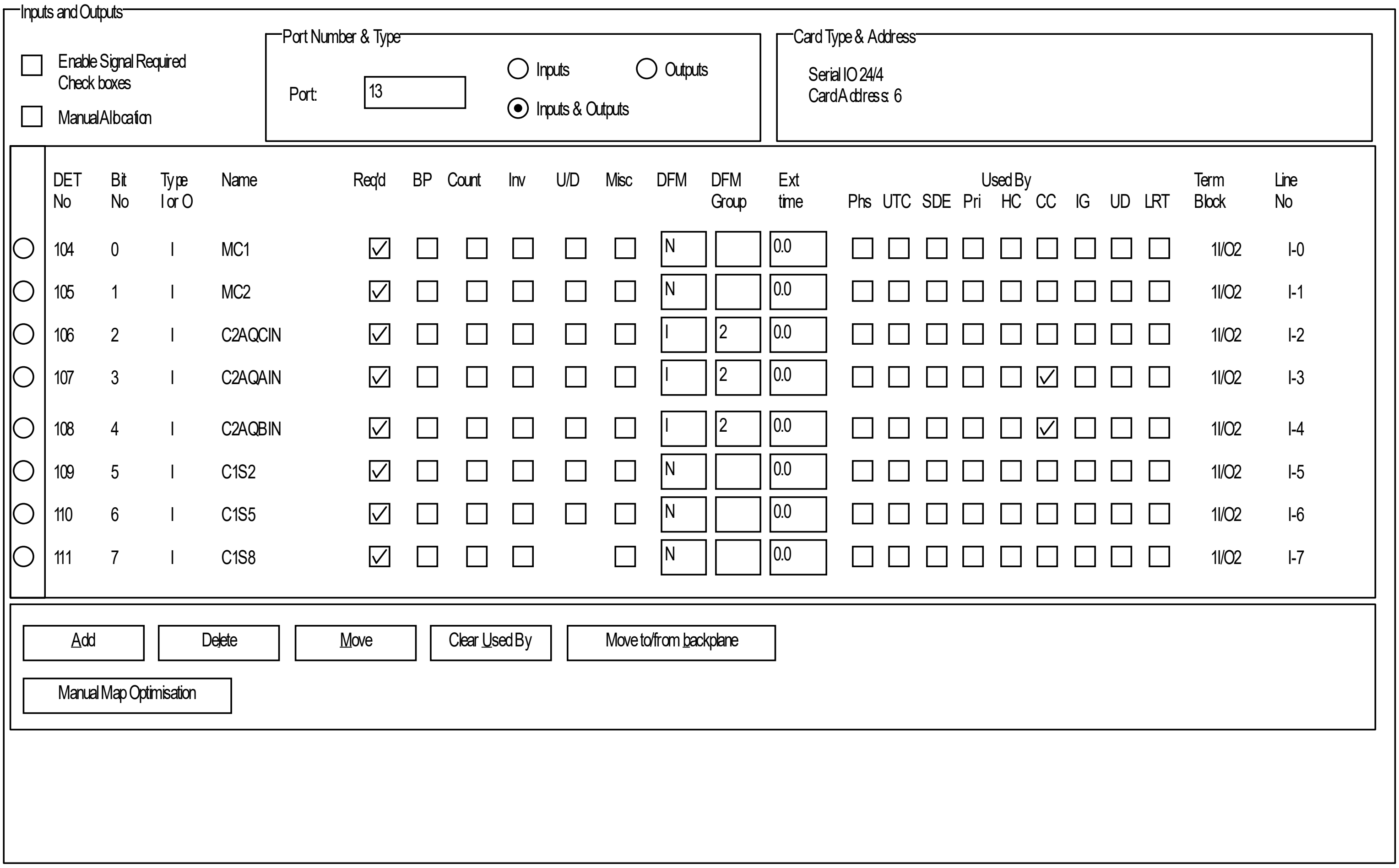
Port Number & Type
Port: 11
○ Inputs ○ Outputs
● Inputs & Outputs

Card Type & Address
Serial IO 24/16
Card Address: 5

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	88	0	O	C2S2	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-0
○	89	1	O	C2S5	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-1
○	90	2	O		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-2
○	91	3	O		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-3
○	92	4	O	C1AQAOUT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-4
○	93	5	O	C1AQBOUT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-5
○	94	6	O	C1AQCOUT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-6
○	95	7	O		☐	☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	O-7

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 13

○ Inputs ○ Outputs

● Inputs & Outputs

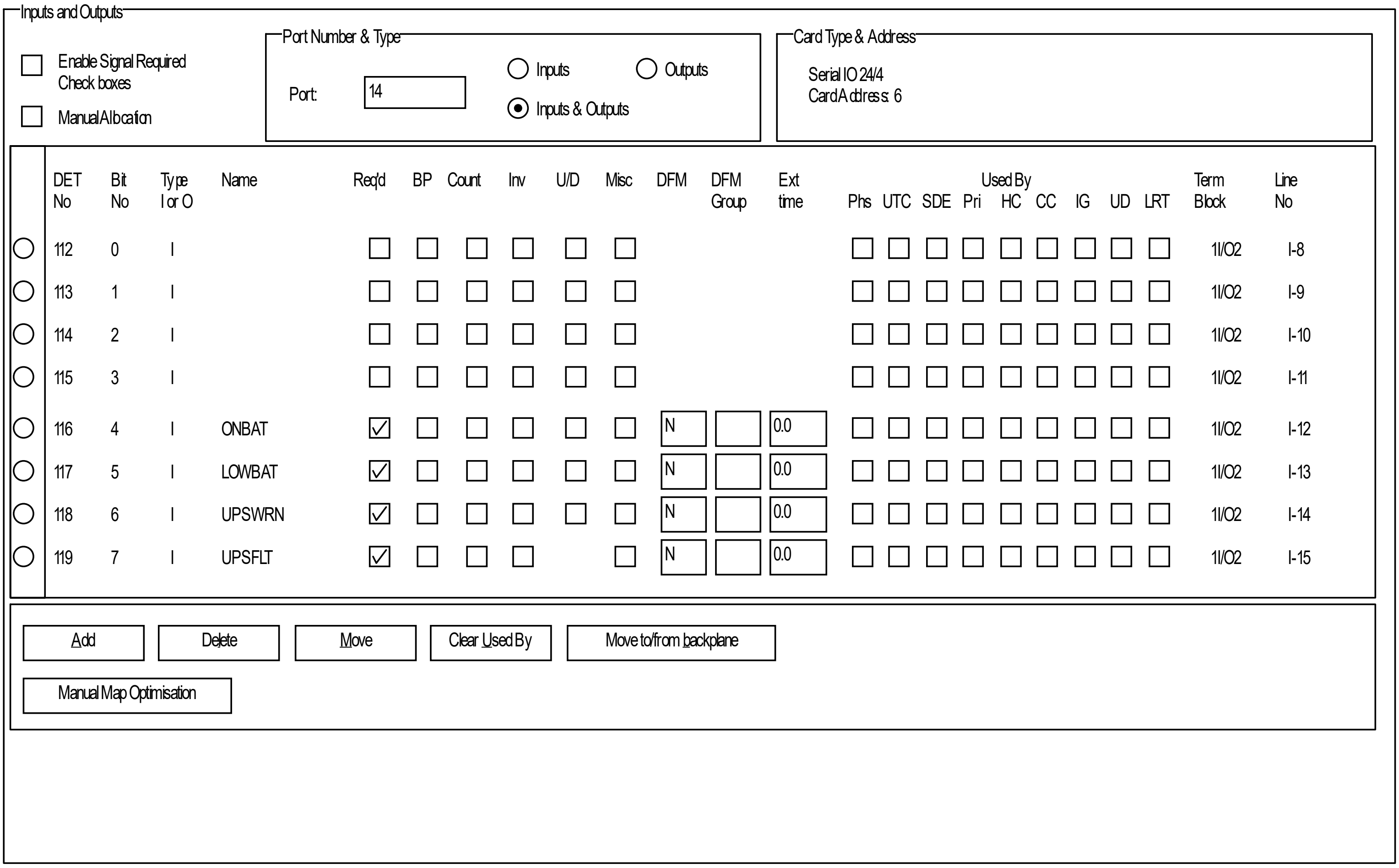
Card Type & Address

Serial IO 24/4
Card Address: 6

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By									Term Block	Line No
														Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT		
○	104	0	I	MC1	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-0
○	105	1	I	MC2	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-1
○	106	2	I	C2AQCIN	☑	☐	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-2
○	107	3	I	C2AQAIN	☑	☐	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	1I/O2	I-3
○	108	4	I	C2AQBIN	☑	☐	☐	☐	☐	☐	I	2	0.0	☐	☐	☐	☐	☐	☑	☐	☐	☐	1I/O2	I-4
○	109	5	I	C1S2	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-5
○	110	6	I	C1S5	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-6
○	111	7	I	C1S8	☑	☐	☐	☐		☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-7

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Inputs and Outputs



Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port: 14

○ Inputs ○ Outputs

● Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 6

	DET No	Bit No	Type I or O	Name	Req'd	BP	Count	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	112	0	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-8
○	113	1	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-9
○	114	2	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-10
○	115	3	I		☐	☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-11
○	116	4	I	ONBAT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-12
○	117	5	I	LOWBAT	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-13
○	118	6	I	UPSWRN	☑	☐	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-14
○	119	7	I	UPSFLT	☑	☐	☐	☐		☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O2	I-15

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection 1

Aspect Drive Configuration for LSLS 1 of 2 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	A	Red	Phase	16	E	Red	Phase
31	A	Red	Phase	15	E	Amber	Phase
30	A	Amber	Phase	14	E	Amber	Phase
29	A	Amber	Phase	13	E	Green	Phase
28	A	Green	Phase	12	E	Green	Phase
27	A	Green	Phase	11	F	Red	Phase
26	B	Red	Phase	10	F	Red	Phase
25	B	Amber	Phase	9	F	Amber	Phase
24	B	Green	Phase	8	F	Amber	Phase
23	C	Red	Phase	7	F	Green	Phase
22	C	Amber	Phase	6	F	Green	Phase
21	C	Green	Phase	5	G	Red	Phase
20	D	Red	Phase	4	G	Amber	Phase
19	D	Amber	Phase	3	G	Green	Phase
18	D	Green	Phase	2	H	Red	Phase
17	E	Red	Phase	1	H	Amber	Phase

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection 1

Aspect Drive Configuration for LSLS 2 of 2 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	H	Green	Phase	16	N/A	N/A	N/A
31	I	Red	Phase	15	N/A	N/A	N/A
30	I	Amber	Phase	14	N/A	N/A	N/A
29	I	Green	Phase	13	N/A	N/A	N/A
28	J	Red	Phase	12	N/A	N/A	N/A
27	J	Amber	Phase	11	N/A	N/A	N/A
26	J	Green	Phase	10	N/A	N/A	N/A
25	J	Green	Phase	9	N/A	N/A	N/A
24	N/A	N/A	N/A	8	N/A	N/A	N/A
23	N/A	N/A	N/A	7	N/A	N/A	N/A
22	N/A	N/A	N/A	6	N/A	N/A	N/A
21	N/A	N/A	N/A	5	N/A	N/A	N/A
20	N/A	N/A	N/A	4	N/A	N/A	N/A
19	N/A	N/A	N/A	3	N/A	N/A	N/A
18	N/A	N/A	N/A	2	N/A	N/A	N/A
17	N/A	N/A	N/A	1	N/A	N/A	N/A

Works Order : 857993755
EM Number : NN0015
Engineer : [redacted] (Yunex Traffic)
Intersection : M1 Junction 15, Controller 2 (South) Site Ref: 7101

I/O - DFM Group Timings

I/O - DFM Group Timings

Input Group	State	SET A	SET B	SET C	SET D
Group 0	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 1	Active (Mins)	10	10	10	10
	InActive (Hrs)				
Group 2	Active (Mins)	10	10	10	10
	InActive (Hrs)				
Group 3	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 4	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 5	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 6	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 7	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18

Note - 255 or blank disables DFM monitoring of that state (active or inactive) during that timeset (A to D)

Handset Limiting Values

State	Min	Max
Active (Mins)	0	254
InActive (Hrs)	0	254

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7.4 I/O - DFM Group Timings
7.5 Switched Signs (No configuration data to print)

APPENDIX E

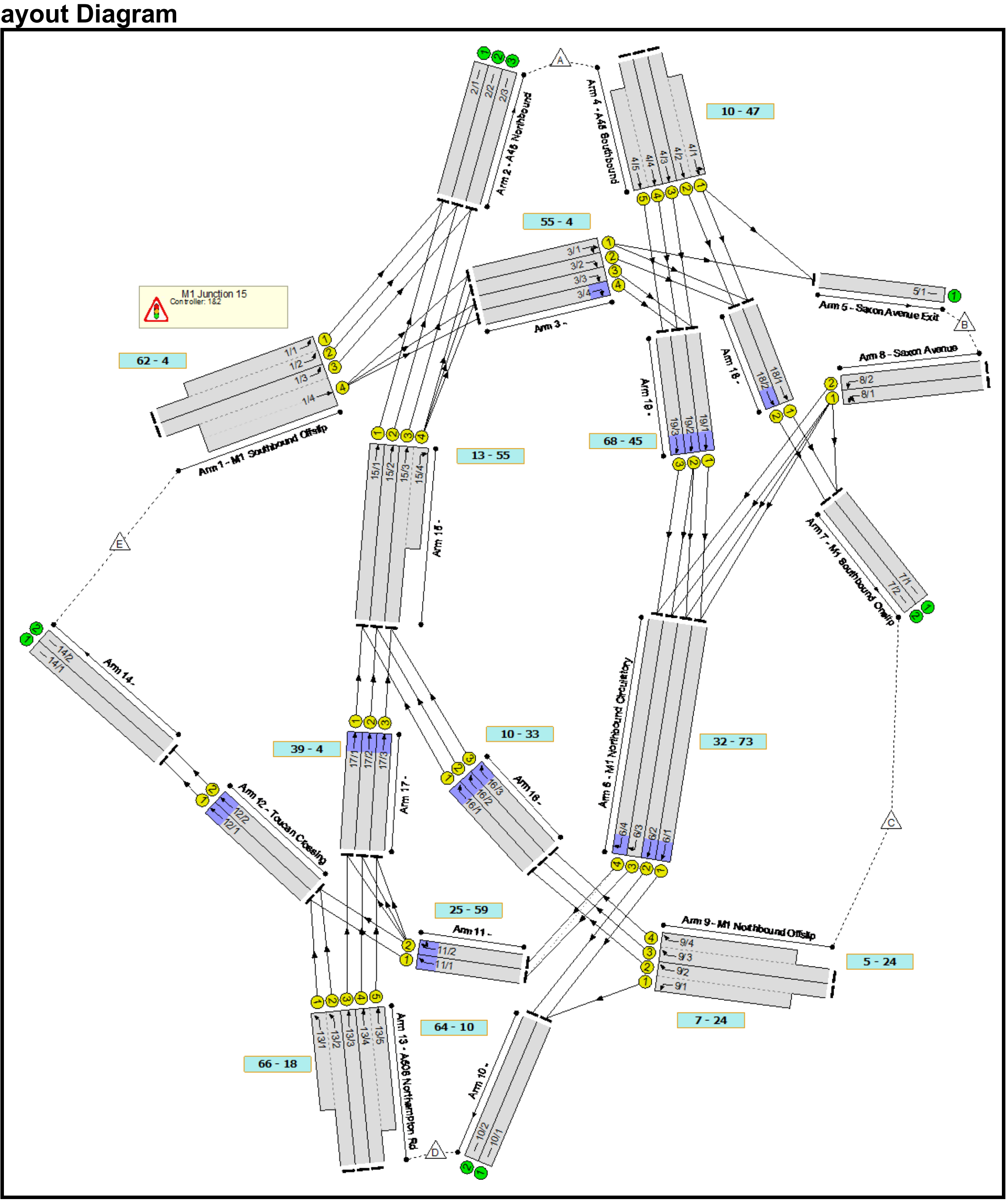
M1 Junction 15 LINSIG outputs

Full Input Data And Results

User and Project Details

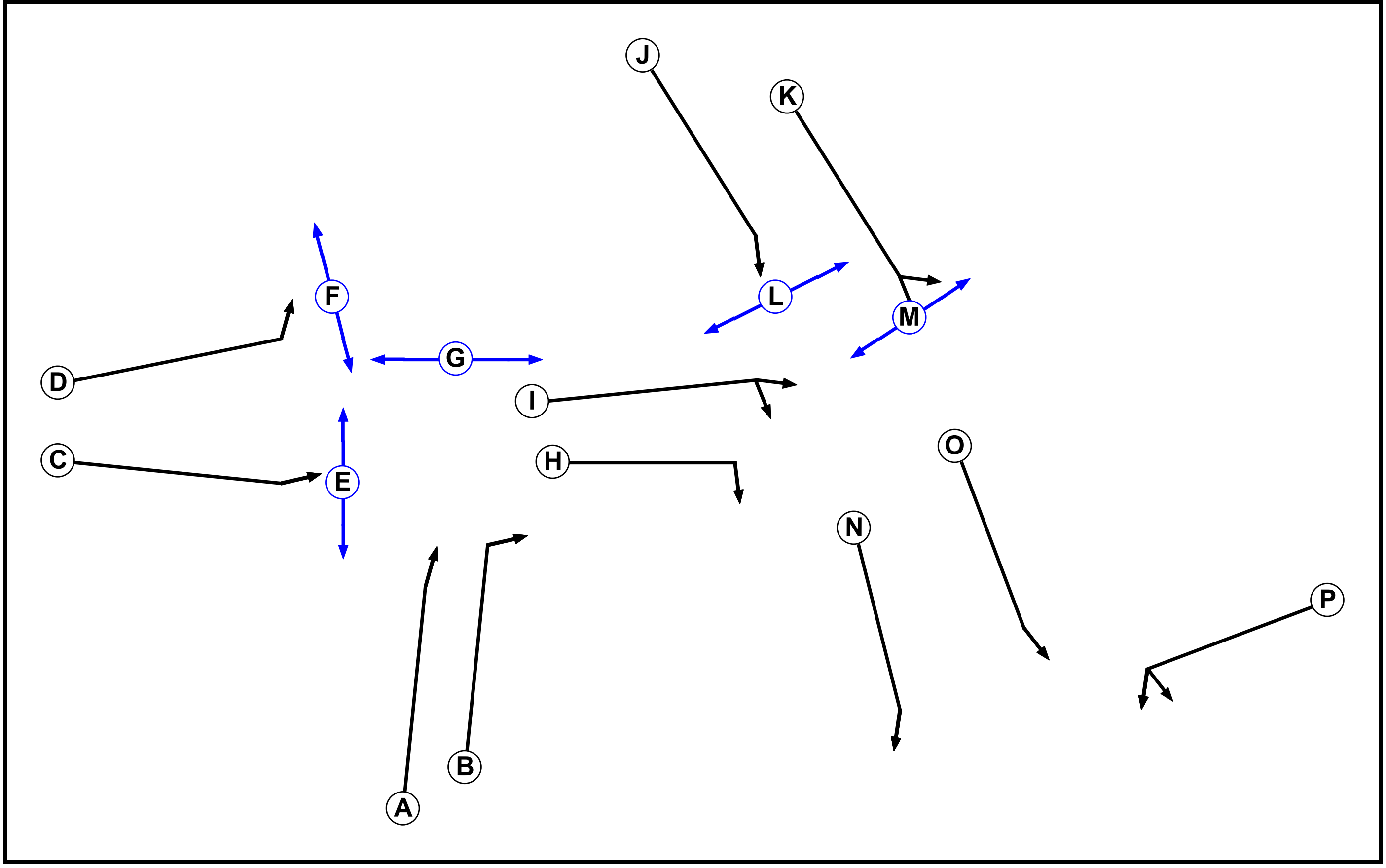
Project:	**Northampton Gateway**
Title:	**M1 Junction 15 impact with additional mezzanine**
Location:	northampton
Client:	Segro
Additional detail:	Flow sets have been updated using the latest version of NSTM for the 2031 assessment year (June 2025).
File name:	250604 M1 Junction 15 - additional mez test with new NSTM flows.lsg3x
Author:	[redacted]
Company:	ADC Infrastructure
Address:	Nottingham

Network Layout Diagram



C1 - Eastside Controller

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Pedestrian	1		5	5
F	Pedestrian	1		5	5
G	Pedestrian	1		7	7
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Traffic	2		7	7
K	Traffic	2		7	7
L	Pedestrian	2		5	5
M	Pedestrian	2		5	5
N	Traffic	3		7	7
O	Traffic	3		7	7
P	Traffic	3		7	7

Phase Intergreens Matrix

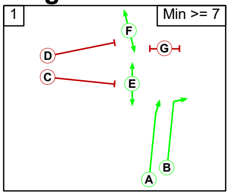
		Starting Phase															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Terminating Phase	A		-	5	7	-	-	8	-	-	-	-	-	-	-	-	-
	B	-		5	-	-	-	-	-	-	-	-	-	-	-	-	-
	C	9	9		-	7	-	-	-	-	-	-	-	-	-	-	-
	D	9	-	-		-	7	-	-	-	-	-	-	-	-	-	-
	E	-	-	5	-		-	-	-	-	-	-	-	-	-	-	-
	F	-	-	-	5	-		-	-	-	-	-	-	-	-	-	-
	G	5	-	-	-	-	-		-	-	-	-	-	-	-	-	-
	H	-	-	-	-	-	-	-		-	5	-	-	-	-	-	-
	I	-	-	-	-	-	-	-	-		5	6	-	-	-	-	-
	J	-	-	-	-	-	-	-	9	8		-	7	-	-	-	-
	K	-	-	-	-	-	-	-	-	7	-		-	7	-	-	-
	L	-	-	-	-	-	-	-	-	-	5	-		-	-	-	-
	M	-	-	-	-	-	-	-	-	-	-	5	-		-	-	-
	N	-	-	-	-	-	-	-	-	-	-	-	-	-		-	5
	O	-	-	-	-	-	-	-	-	-	-	-	-	-	-		6
	P	-	-	-	-	-	-	-	-	-	-	-	-	-	10	7	

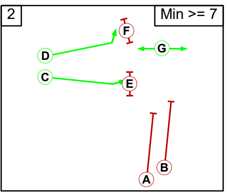
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A B E F
1	2	C D G
2	1	H I L M
2	2	J K
3	1	N O
3	2	P

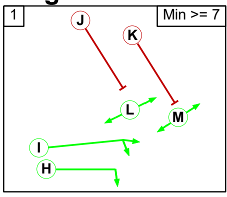
Stage Diagram

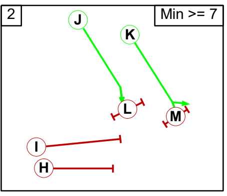
Stage Stream: 1



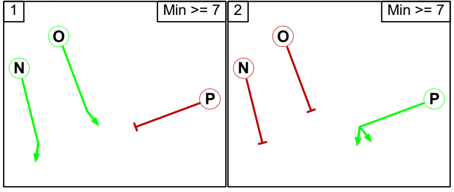


Stage Stream: 2





Stage Stream: 3



Prohibited Stage Change

Stage Stream: 1

		To Stage	
From Stage		1	2
	1	■	8
	2	9	■

Stage Stream: 2

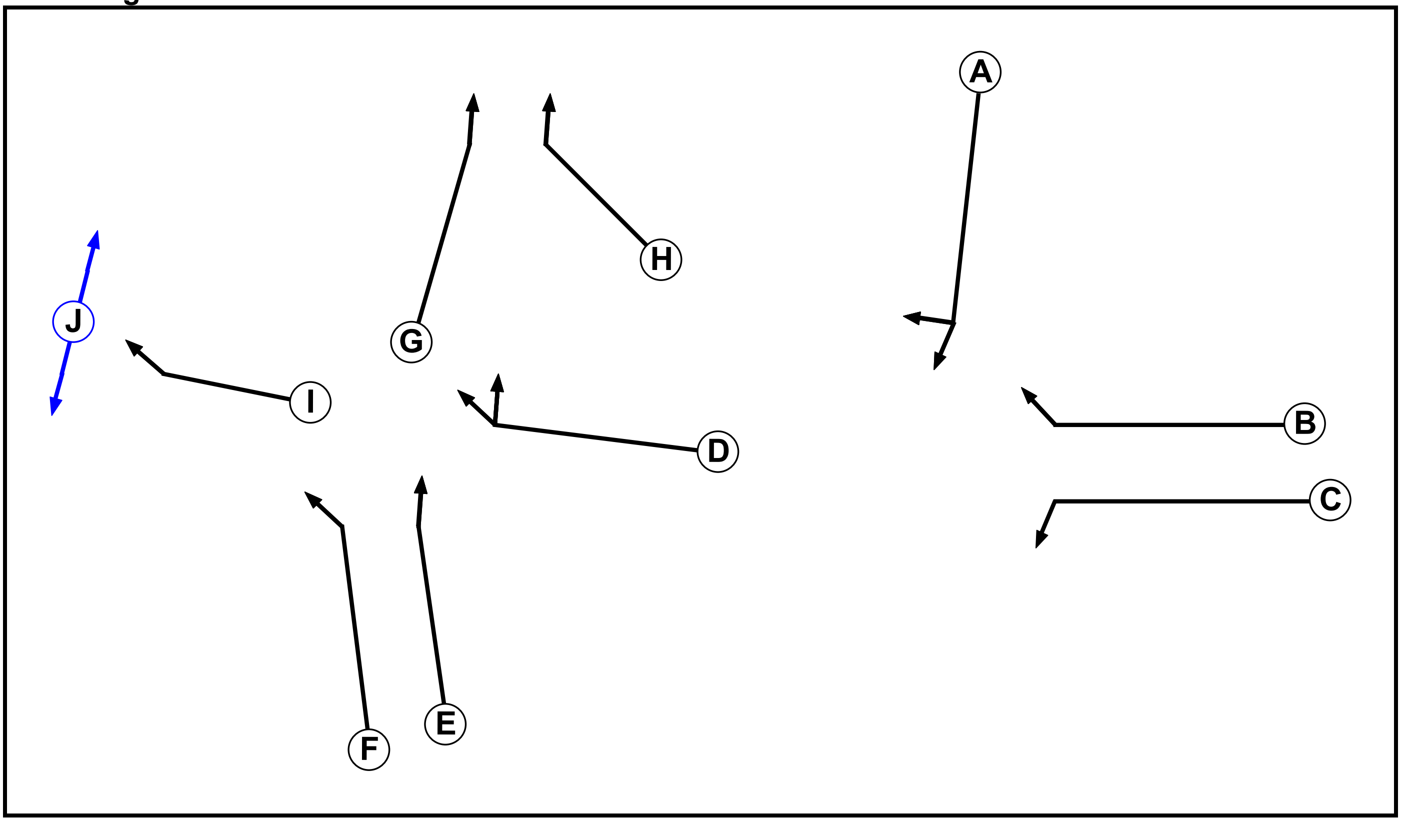
		To Stage	
From Stage		1	2
	1	■	6
	2	9	■

Stage Stream: 3

		To Stage	
From Stage		1	2
	1	■	6
	2	10	■

C2 - Westside Controller

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	2		7	7
E	Traffic	2		7	7
F	Traffic	2		7	0
G	Traffic	3		7	7
H	Traffic	3		7	7
I	Traffic	4		7	7
J	Pedestrian	4		5	5

Phase Intergreens Matrix

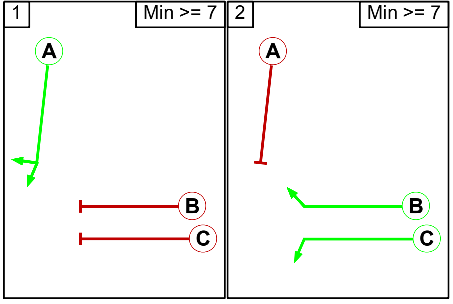
		Starting Phase									
Terminating Phase	■	A	B	C	D	E	F	G	H	I	J
	A	■	8	10	-	-	-	-	-	-	-
	B	8	■	-	-	-	-	-	-	-	-
	C	7	-	■	-	-	-	-	-	-	-
	D	-	-	-	■	5	7	-	-	-	-
	E	-	-	-	8	■	-	-	-	-	-
	F	-	-	-	7	-	■	-	-	-	-
	G	-	-	-	-	-	-	■	6	-	-
	H	-	-	-	-	-	-	6	■	-	-
	I	-	-	-	-	-	-	-	-	■	7
	J	-	-	-	-	-	-	-	-	5	■

Phases in Stage

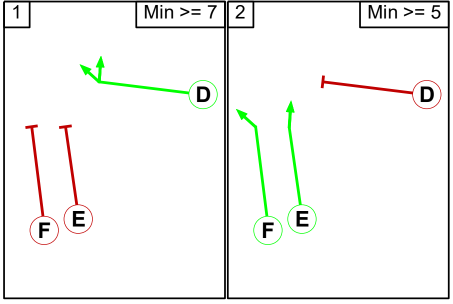
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B C
2	1	D
2	2	E F
3	1	G
3	2	H
4	1	I
4	2	J

Stage Diagram

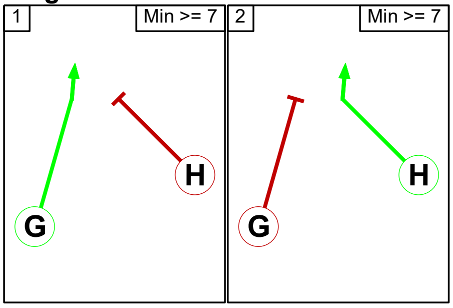
Stage Stream: 1



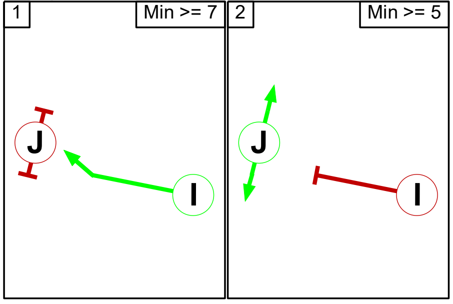
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
2	1	F	Losing	8	8

Prohibited Stage Change

Stage Stream: 1

	To Stage		
From Stage		1	2
	1	■	10
	2	8	■

Stage Stream: 2

		To Stage	
From Stage		1	2
	1		7
	2	15	

Stage Stream: 3

		To Stage	
From Stage		1	2
	1		6
	2	6	

Stage Stream: 4

		To Stage	
From Stage		1	2
	1		7
	2	5	

Lane Input Data

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	U	D	2	3	18.0	Geom	-	3.65	0.00	Y	Arm 2 Left	Inf
1/2 (M1 Southbound Offslip)	U	D	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
1/3 (M1 Southbound Offslip)	U	D	2	3	60.0	Geom	-	3.65	0.00	N	Arm 2 Left	Inf
1/4 (M1 Southbound Offslip)	U	C	2	3	18.0	User	4000	-	-	-	-	-
2/1 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/2 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
2/3 (A45 Northbound)	U		2	3	4.3	Inf	-	-	-	-	-	-
3/1	U	I	2	3	11.3	User	1900	-	-	-	-	-
3/2	U	I	2	3	11.3	User	1900	-	-	-	-	-
3/3	U	H	2	3	11.3	User	1900	-	-	-	-	-
3/4	U	H	2	3	11.3	User	1900	-	-	-	-	-
4/1 (A45 Southbound)	U	K	2	3	33.0	Geom	-	3.65	0.00	Y	Arm 5 Left Arm 18 Ahead	Inf Inf
4/2 (A45 Southbound)	U	K	2	3	67.8	Geom	-	3.65	0.00	N	Arm 18 Ahead	Inf
4/3 (A45 Southbound)	U	J	2	3	67.8	Geom	-	3.65	0.00	N	Arm 19 Ahead	Inf
4/4 (A45 Southbound)	U	J	2	3	67.8	Geom	-	3.65	0.00	N	Arm 19 Ahead	Inf
4/5 (A45 Southbound)	U	J	2	3	33.0	Geom	-	3.65	0.00	N	Arm 19 Ahead	Inf
5/1 (Saxon Avenue Exit)	U		2	3	4.3	Inf	-	-	-	-	-	-
6/1 (M1 Northbound Circulatory)	U	A	2	3	33.9	User	2120	-	-	-	-	-
6/2 (M1 Northbound Circulatory)	U	A	2	3	33.9	User	2120	-	-	-	-	-

6/3 (M1 Northbound Circulatory)	U	A	2	3	60.0	User	2120	-	-	-	-	-
6/4 (M1 Northbound Circulatory)	U	A	2	3	33.9	User	2120	-	-	-	-	-
7/1 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
7/2 (M1 Southbound Onslip)	U		2	3	4.3	Inf	-	-	-	-	-	-
8/1 (Saxon Avenue)	U	P	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left Arm 7 Left	Inf 30.00
8/2 (Saxon Avenue)	U	P	2	3	60.0	Geom	-	3.50	0.00	N	Arm 6 Left	Inf
9/1 (M1 Northbound Offslip)	U	C	2	3	15.7	Geom	-	3.65	0.00	Y	Arm 10 Left	Inf
9/2 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 16 Ahead	Inf
9/3 (M1 Northbound Offslip)	U	B	2	3	60.0	Geom	-	3.65	0.00	N	Arm 16 Ahead	Inf
9/4 (M1 Northbound Offslip)	U	B	2	3	31.3	Geom	-	3.65	0.00	N	Arm 16 Ahead	Inf
10/1	U		2	3	4.3	Inf	-	-	-	-	-	-
10/2	U		2	3	4.3	Inf	-	-	-	-	-	-
11/1	U	D	2	3	20.0	User	1900	-	-	-	-	-
11/2	U	D	2	3	20.0	User	1900	-	-	-	-	-
12/1 (Toucan Crossing)	U	I	2	3	7.0	Geom	-	3.80	0.00	Y	Arm 14 Ahead	Inf
12/2 (Toucan Crossing)	U	I	2	3	7.0	Geom	-	3.80	0.00	Y	Arm 14 Ahead	Inf
13/1 (A508 Northampton Rd)	U	F	2	3	10.0	Geom	-	3.65	0.00	Y	Arm 12 Ahead	Inf
13/2 (A508 Northampton Rd)	U	F	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 12 Ahead	Inf
13/3 (A508 Northampton Rd)	U	E	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
13/4 (A508 Northampton Rd)	U	E	2	3	60.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
13/5 (A508 Northampton Rd)	U	E	2	3	20.0	Geom	-	3.65	0.00	N	Arm 17 Ahead	Inf
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2	U		2	3	60.0	Inf	-	-	-	-	-	-

15/1	U	A	2	3	34.8	User	2000	-	-	-	-	-
15/2	U	A	2	3	34.8	User	2000	-	-	-	-	-
15/3	U	A	2	3	34.8	User	2000	-	-	-	-	-
15/4	U	B	2	3	10.4	User	2000	-	-	-	-	-
16/1	U	H	2	3	10.4	User	2000	-	-	-	-	-
16/2	U	H	2	3	10.4	User	2000	-	-	-	-	-
16/3	U	H	2	3	10.4	User	2000	-	-	-	-	-
17/1	U	G	2	3	14.8	User	2000	-	-	-	-	-
17/2	U	G	2	3	14.8	User	2000	-	-	-	-	-
17/3	U	G	2	3	14.8	User	2000	-	-	-	-	-
18/1	U	O	2	3	11.3	User	2000	-	-	-	-	-
18/2	U	O	2	3	11.3	User	2000	-	-	-	-	-
19/1	U	N	2	3	13.0	User	2000	-	-	-	-	-
19/2	U	N	2	3	13.0	User	2120	-	-	-	-	-
19/3	U	N	2	3	13.0	User	2120	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2031 Updated NSTM background - AM'	08:00	09:00	01:00	
2: '2031 Updated NSTM background - PM'	17:00	18:00	01:00	
3: '2031 Updated NSTM +mez@50% - AM'	08:00	09:00	01:00	
4: '2031 Updated NSTM +mez@50% - PM'	17:00	18:00	01:00	
5: '2031 Updated NSTM sensitivity test - AM'	08:00	09:00	01:00	
6: '2031 Updated NSTM sensitivity test - PM'	17:00	18:00	01:00	
7: '2031 Updated NSTM +mez ITP - AM'	08:00	09:00	01:00	
8: '2031 Updated NSTM +mez ITP - PM'	17:00	18:00	01:00	

Scenario 1: '2031 Updated NSTM Background - AM' (FG1: '2031 Updated NSTM background - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	44	28	644	1735	1274	3725
	B	26	0	39	24	104	193
	C	1093	37	0	40	0	1170
	D	758	24	64	17	295	1158
	E	1874	173	0	379	0	2426
	Tot.	3795	262	747	2195	1673	8672

Traffic Lane Flows

Lane	Scenario 1: 2031 Updated NSTM Background - AM
Junction: M1 Junction 15	
1/1 (short)	598
1/2 (with short)	1237(In) 639(Out)
1/3 (with short)	1189(In) 637(Out)
1/4 (short)	552
2/1	1236
2/2	1353
2/3	1206
3/1	269
3/2	29
3/3	123
3/4	273
4/1 (short)	335
4/2 (with short)	672(In) 337(Out)
4/3	1004
4/4 (with short)	2049(In) 1000(Out)
4/5 (short)	1049
5/1	262
6/1	1151
6/2	1004
6/3	291
6/4	1157
7/1	381
7/2	366
8/1	85
8/2	108
9/1 (short)	40
9/2 (with short)	406(In) 366(Out)
9/3 (with short)	764(In) 389(Out)
9/4 (short)	375
10/1	1191
10/2	1004
11/1	598
11/2	850

12/1	745
12/2	928
13/1 (short)	147
13/2 (with short)	295(In) 148(Out)
13/3	221
13/4 (with short)	642(In) 321(Out)
13/5 (short)	321
14/1	745
14/2	928
15/1	638
15/2	714
15/3 (with short)	711(In) 569(Out)
15/4 (short)	142
16/1	366
16/2	389
16/3	375
17/1	272
17/2	325
17/3	336
18/1	342
18/2	366
19/1	1127
19/2	1273
19/3	1049

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	8.4 %	1980	1980
				Arm 18 Ahead	Inf	91.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	54.1 %	1921	1921
				Arm 7 Left	30.00	45.9 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 2: '2031 Updated NSTM +mez@50% - AM' (FG3: '2031 Updated NSTM +mez@50% - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	44	28	644	1773	1274	3763
	B	26	0	39	24	104	193
	C	1093	37	0	67	0	1197
	D	773	24	74	17	304	1192
	E	1874	173	0	402	0	2449
	Tot.	3810	262	757	2283	1682	8794

Traffic Lane Flows

Lane	Scenario 2: 2031 Updated NSTM +mez@50% - AM
Junction: M1 Junction 15	
1/1 (short)	597
1/2 (with short)	1236(In) 639(Out)
1/3 (with short)	1213(In) 638(Out)
1/4 (short)	575
2/1	1219
2/2	1369
2/3	1222
3/1	273
3/2	35
3/3	122
3/4	297
4/1 (short)	335
4/2 (with short)	672(In) 337(Out)
4/3	1027
4/4 (with short)	2064(In) 992(Out)
4/5 (short)	1072
5/1	262
6/1	1165
6/2	1051
6/3	267
6/4	1181
7/1	385
7/2	372
8/1	84
8/2	109
9/1 (short)	67
9/2 (with short)	413(In) 346(Out)
9/3 (with short)	784(In) 392(Out)
9/4 (short)	392
10/1	1232
10/2	1051
11/1	655
11/2	793

12/1	807
12/2	875
13/1 (short)	152
13/2 (with short)	304(In) 152(Out)
13/3	230
13/4 (with short)	658(In) 328(Out)
13/5 (short)	330
14/1	807
14/2	875
15/1	622
15/2	730
15/3 (with short)	736(In) 584(Out)
15/4 (short)	152
16/1	346
16/2	392
16/3	392
17/1	276
17/2	338
17/3	344
18/1	346
18/2	372
19/1	1149
19/2	1289
19/3	1072

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	8.4 %	1980	1980
				Arm 18 Ahead	Inf	91.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	53.6 %	1920	1920
				Arm 7 Left	30.00	46.4 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 3: '2031 Updated NSTM +mez ITP - AM' (FG7: '2031 Updated NSTM +mez ITP - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	44	28	644	1784	1274	3774
	B	26	0	39	24	104	193
	C	1093	37	0	75	0	1205
	D	778	24	77	17	307	1203
	E	1874	173	0	408	0	2455
	Tot.	3815	262	760	2308	1685	8830

Traffic Lane Flows

Lane	Scenario 3: 2031 Updated NSTM +mez ITP - AM
Junction: M1 Junction 15	
1/1 (short)	597
1/2 (with short)	1236(In) 639(Out)
1/3 (with short)	1219(In) 638(Out)
1/4 (short)	581
2/1	1234
2/2	1364
2/3	1217
3/1	274
3/2	37
3/3	127
3/4	298
4/1 (short)	335
4/2 (with short)	672(In) 337(Out)
4/3	1036
4/4 (with short)	2066(In) 1064(Out)
4/5 (short)	1002
5/1	262
6/1	1163
6/2	1070
6/3	412
6/4	1036
7/1	386
7/2	374
8/1	159
8/2	34
9/1 (short)	75
9/2 (with short)	434(In) 359(Out)
9/3 (with short)	771(In) 385(Out)
9/4 (short)	386
10/1	1238
10/2	1070
11/1	695
11/2	753

12/1	848
12/2	837
13/1 (short)	153
13/2 (with short)	307(In) 154(Out)
13/3	233
13/4 (with short)	663(In) 331(Out)
13/5 (short)	332
14/1	848
14/2	837
15/1	637
15/2	725
15/3 (with short)	734(In) 579(Out)
15/4 (short)	155
16/1	359
16/2	385
16/3	386
17/1	278
17/2	340
17/3	348
18/1	347
18/2	374
19/1	1163
19/2	1362
19/3	1002

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	8.4 %	1980	1980
				Arm 18 Ahead	Inf	91.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	75.5 %	1941	1941
				Arm 7 Left	30.00	24.5 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 4: '2031 Updated NSTM sensitivity test - AM' (FG5: '2031 Updated NSTM sensitivity test - AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	44	28	644	1811	1274	3801
	B	26	0	39	24	104	193
	C	1093	37	0	95	0	1225
	D	788	24	84	17	314	1227
	E	1874	173	0	425	0	2472
	Tot.	3825	262	767	2372	1692	8918

Traffic Lane Flows

Lane	Scenario 4: 2031 Updated NSTM sensitivity test - AM
Junction: M1 Junction 15	
1/1 (short)	597
1/2 (with short)	1235(In) 638(Out)
1/3 (with short)	1237(In) 639(Out)
1/4 (short)	598
2/1	1243
2/2	1370
2/3	1212
3/1	279
3/2	39
3/3	111
3/4	331
4/1 (short)	335
4/2 (with short)	672(In) 337(Out)
4/3	1061
4/4 (with short)	2068(In) 1089(Out)
4/5 (short)	979
5/1	262
6/1	1173
6/2	1104
6/3	435
6/4	1013
7/1	391
7/2	376
8/1	159
8/2	34
9/1 (short)	95
9/2 (with short)	456(In) 361(Out)
9/3 (with short)	769(In) 385(Out)
9/4 (short)	384
10/1	1268
10/2	1104
11/1	693
11/2	755

12/1	850
12/2	842
13/1 (short)	157
13/2 (with short)	314(In) 157(Out)
13/3	239
13/4 (with short)	674(In) 336(Out)
13/5 (short)	338
14/1	850
14/2	842
15/1	646
15/2	732
15/3 (with short)	735(In) 573(Out)
15/4 (short)	162
16/1	361
16/2	385
16/3	384
17/1	285
17/2	347
17/3	351
18/1	352
18/2	376
19/1	1172
19/2	1420
19/3	979

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	8.4 %	1980	1980
				Arm 18 Ahead	Inf	91.6 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	75.5 %	1941	1941
				Arm 7 Left	30.00	24.5 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 5: '2031 Updated NSTM Background - PM ' (FG2: '2031 Updated NSTM background - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	24	302	843	1097	1129	3395
	B	0	0	94	53	143	290
	C	1196	27	0	74	0	1297
	D	1473	5	23	1	721	2223
	E	1258	83	0	406	0	1747
	Tot.	3951	417	960	1631	1993	8952

Traffic Lane Flows

Lane	Scenario 5: 2031 Updated NSTM Background - PM
Junction: M1 Junction 15	
1/1 (short)	400
1/2 (with short)	824(In) 424(Out)
1/3 (with short)	923(In) 434(Out)
1/4 (short)	489
2/1	1242
2/2	1345
2/3	1364
3/1	128
3/2	10
3/3	186
3/4	221
4/1 (short)	572
4/2 (with short)	1145(In) 573(Out)
4/3	618
4/4 (with short)	1632(In) 952(Out)
4/5 (short)	680
5/1	417
6/1	809
6/2	748
6/3	473
6/4	823
7/1	377
7/2	583
8/1	147
8/2	143
9/1 (short)	74
9/2 (with short)	430(In) 356(Out)
9/3 (with short)	867(In) 403(Out)
9/4 (short)	464
10/1	883
10/2	748
11/1	641
11/2	655

12/1	1001
12/2	992
13/1 (short)	360
13/2 (with short)	721(In) 361(Out)
13/3	462
13/4 (with short)	1040(In) 518(Out)
13/5 (short)	522
14/1	1001
14/2	992
15/1	842
15/2	921
15/3 (with short)	986(In) 930(Out)
15/4 (short)	56
16/1	356
16/2	403
16/3	464
17/1	486
17/2	518
17/3	522
18/1	283
18/2	583
19/1	804
19/2	1173
19/3	680

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	52.8 %	1980	1980
				Arm 18 Ahead	Inf	47.2 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	36.1 %	1904	1904
				Arm 7 Left	30.00	63.9 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 6: '2031 Updated NSTM +mez@50% - PM ' (FG4: '2031 Updated NSTM +mez@50% - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
Origin		A	B	C	D	E	Tot.
	A	24	302	843	1117	1129	3415
	B	0	0	94	53	143	290
	C	1196	27	0	84	0	1307
	D	1524	5	46	1	741	2317
	E	1258	83	0	420	0	1761
	Tot.	4002	417	983	1675	2013	9090

Traffic Lane Flows

Lane	Scenario 6: 2031 Updated NSTM +mez@50% - PM
Junction: M1 Junction 15	
1/1 (short)	395
1/2 (with short)	824(In) 429(Out)
1/3 (with short)	937(In) 434(Out)
1/4 (short)	503
2/1	1272
2/2	1364
2/3	1366
3/1	137
3/2	24
3/3	195
3/4	226
4/1 (short)	572
4/2 (with short)	1145(In) 573(Out)
4/3	633
4/4 (with short)	1637(In) 957(Out)
4/5 (short)	680
5/1	417
6/1	833
6/2	758
6/3	473
6/4	823
7/1	386
7/2	597
8/1	147
8/2	143
9/1 (short)	84
9/2 (with short)	445(In) 361(Out)
9/3 (with short)	862(In) 395(Out)
9/4 (short)	467
10/1	917
10/2	758
11/1	632
11/2	664

12/1	1002
12/2	1011
13/1 (short)	370
13/2 (with short)	741(In) 371(Out)
13/3	492
13/4 (with short)	1084(In) 540(Out)
13/5 (short)	544
14/1	1002
14/2	1011
15/1	877
15/2	935
15/3 (with short)	1011(In) 932(Out)
15/4 (short)	79
16/1	361
16/2	395
16/3	467
17/1	516
17/2	540
17/3	544
18/1	292
18/2	597
19/1	828
19/2	1183
19/3	680

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	52.8 %	1980	1980
				Arm 18 Ahead	Inf	47.2 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	36.1 %	1904	1904
				Arm 7 Left	30.00	63.9 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 7: '2031 Updated NSTM +mez ITP - PM ' (FG8: '2031 Updated NSTM +mez ITP - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
Origin		A	B	C	D	E	Tot.
	A	24	302	843	1119	1129	3417
	B	0	0	94	53	143	290
	C	1196	27	0	88	0	1311
	D	1518	5	46	1	741	2311
	E	1258	83	0	421	0	1762
	Tot.	3996	417	983	1682	2013	9091

Traffic Lane Flows

Lane	Scenario 7: 2031 Updated NSTM +mez ITP - PM
Junction: M1 Junction 15	
1/1 (short)	394
1/2 (with short)	823(In) 429(Out)
1/3 (with short)	939(In) 435(Out)
1/4 (short)	504
2/1	1268
2/2	1355
2/3	1373
3/1	141
3/2	20
3/3	197
3/4	225
4/1 (short)	572
4/2 (with short)	1145(In) 573(Out)
4/3	629
4/4 (with short)	1643(In) 961(Out)
4/5 (short)	682
5/1	417
6/1	831
6/2	763
6/3	471
6/4	825
7/1	390
7/2	593
8/1	147
8/2	143
9/1 (short)	88
9/2 (with short)	449(In) 361(Out)
9/3 (with short)	862(In) 387(Out)
9/4 (short)	475
10/1	919
10/2	763
11/1	635
11/2	661

12/1	1005
12/2	1008
13/1 (short)	370
13/2 (with short)	741(In) 371(Out)
13/3	489
13/4 (with short)	1081(In) 539(Out)
13/5 (short)	542
14/1	1005
14/2	1008
15/1	874
15/2	926
15/3 (with short)	1017(In) 938(Out)
15/4 (short)	79
16/1	361
16/2	387
16/3	475
17/1	513
17/2	539
17/3	542
18/1	296
18/2	593
19/1	826
19/2	1186
19/3	682

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	52.8 %	1980	1980
				Arm 18 Ahead	Inf	47.2 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	36.1 %	1904	1904
				Arm 7 Left	30.00	63.9 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 8: '2031 Updated NSTM sensitivity test - PM ' (FG6: '2031 Updated NSTM sensitivity test - PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	24	302	843	1137	1129	3435
	B	0	0	94	53	143	290
	C	1196	27	0	95	0	1318
	D	1576	5	70	1	761	2413
	E	1258	83	0	433	0	1774
	Tot.	4054	417	1007	1719	2033	9230

Traffic Lane Flows

Lane	Scenario 8: 2031 Updated NSTM sensitivity test - PM
Junction: M1 Junction 15	
1/1 (short)	393
1/2 (with short)	823(In) 430(Out)
1/3 (with short)	951(In) 435(Out)
1/4 (short)	516
2/1	1308
2/2	1360
2/3	1386
3/1	156
3/2	29
3/3	200
3/4	234
4/1 (short)	572
4/2 (with short)	1145(In) 573(Out)
4/3	646
4/4 (with short)	1644(In) 963(Out)
4/5 (short)	681
5/1	417
6/1	849
6/2	775
6/3	472
6/4	824
7/1	405
7/2	602
8/1	147
8/2	143
9/1 (short)	95
9/2 (with short)	461(In) 366(Out)
9/3 (with short)	857(In) 369(Out)
9/4 (short)	488
10/1	944
10/2	775
11/1	628
11/2	668

12/1	1009
12/2	1024
13/1 (short)	381
13/2 (with short)	761(In) 380(Out)
13/3	525
13/4 (with short)	1127(In) 561(Out)
13/5 (short)	566
14/1	1009
14/2	1024
15/1	915
15/2	930
15/3 (with short)	1054(In) 951(Out)
15/4 (short)	103
16/1	366
16/2	369
16/3	488
17/1	549
17/2	561
17/3	566
18/1	311
18/2	602
19/1	846
19/2	1197
19/3	681

Lane Saturation Flows

Junction: M1 Junction 15

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 (M1 Southbound Offslip)	3.65	0.00	Y	Arm 2 Left	Inf	100.0 %	1980	1980
1/2 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/3 (M1 Southbound Offslip)	3.65	0.00	N	Arm 2 Left	Inf	100.0 %	2120	2120
1/4 (M1 Southbound Offslip Lane 4)	This lane uses a directly entered Saturation Flow						4000	4000
2/1 (A45 Northbound Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (A45 Northbound Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (A45 Northbound Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1	This lane uses a directly entered Saturation Flow						1900	1900
3/2	This lane uses a directly entered Saturation Flow						1900	1900
3/3	This lane uses a directly entered Saturation Flow						1900	1900
3/4	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A45 Southbound)	3.65	0.00	Y	Arm 5 Left	Inf	52.8 %	1980	1980
				Arm 18 Ahead	Inf	47.2 %		
4/2 (A45 Southbound)	3.65	0.00	N	Arm 18 Ahead	Inf	100.0 %	2120	2120
4/3 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/4 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
4/5 (A45 Southbound)	3.65	0.00	N	Arm 19 Ahead	Inf	100.0 %	2120	2120
5/1 (Saxon Avenue Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (M1 Northbound Circulatory Lane 1)	This lane uses a directly entered Saturation Flow						2120	2120
6/2 (M1 Northbound Circulatory Lane 2)	This lane uses a directly entered Saturation Flow						2120	2120
6/3 (M1 Northbound Circulatory Lane 3)	This lane uses a directly entered Saturation Flow						2120	2120
6/4 (M1 Northbound Circulatory Lane 4)	This lane uses a directly entered Saturation Flow						2120	2120
7/1 (M1 Southbound Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (M1 Southbound Onslip Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Saxon Avenue)	3.50	0.00	Y	Arm 6 Left	Inf	36.1 %	1904	1904
				Arm 7 Left	30.00	63.9 %		
8/2 (Saxon Avenue)	3.50	0.00	N	Arm 6 Left	Inf	100.0 %	2105	2105

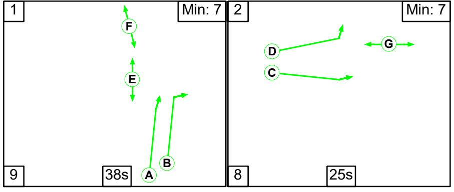
9/1 (M1 Northbound Offslip)	3.65	0.00	Y	Arm 10 Left	Inf	100.0 %	1980	1980
9/2 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/3 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
9/4 (M1 Northbound Offslip)	3.65	0.00	N	Arm 16 Ahead	Inf	100.0 %	2120	2120
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
11/1	This lane uses a directly entered Saturation Flow						1900	1900
11/2	This lane uses a directly entered Saturation Flow						1900	1900
12/1 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
12/2 (Toucan Crossing)	3.80	0.00	Y	Arm 14 Ahead	Inf	100.0 %	1995	1995
13/1 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/2 (A508 Northampton Rd)	3.65	0.00	Y	Arm 12 Ahead	Inf	100.0 %	1980	1980
13/3 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/4 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
13/5 (A508 Northampton Rd)	3.65	0.00	N	Arm 17 Ahead	Inf	100.0 %	2120	2120
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
15/1	This lane uses a directly entered Saturation Flow						2000	2000
15/2	This lane uses a directly entered Saturation Flow						2000	2000
15/3	This lane uses a directly entered Saturation Flow						2000	2000
15/4	This lane uses a directly entered Saturation Flow						2000	2000
16/1	This lane uses a directly entered Saturation Flow						2000	2000
16/2	This lane uses a directly entered Saturation Flow						2000	2000
16/3	This lane uses a directly entered Saturation Flow						2000	2000
17/1	This lane uses a directly entered Saturation Flow						2000	2000
17/2	This lane uses a directly entered Saturation Flow						2000	2000
17/3	This lane uses a directly entered Saturation Flow						2000	2000
18/1	This lane uses a directly entered Saturation Flow						2000	2000
18/2	This lane uses a directly entered Saturation Flow						2000	2000
19/1	This lane uses a directly entered Saturation Flow						2000	2000
19/2	This lane uses a directly entered Saturation Flow						2120	2120
19/3	This lane uses a directly entered Saturation Flow						2120	2120

Scenario 1: '2031 Updated NSTM Background - AM' (FG1: '2031 Updated NSTM background - AM', Plan 1: 'Network Control Plan 1')

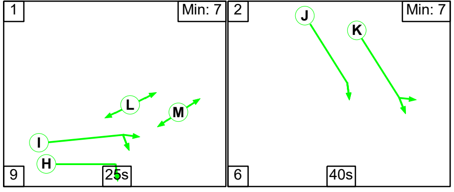
C1 - Eastside Controller

Stage Sequence Diagram

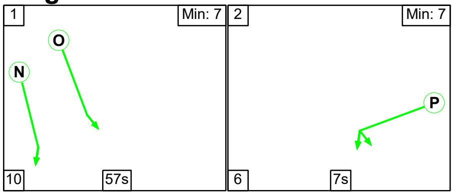
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	38	25
Change Point	67	34

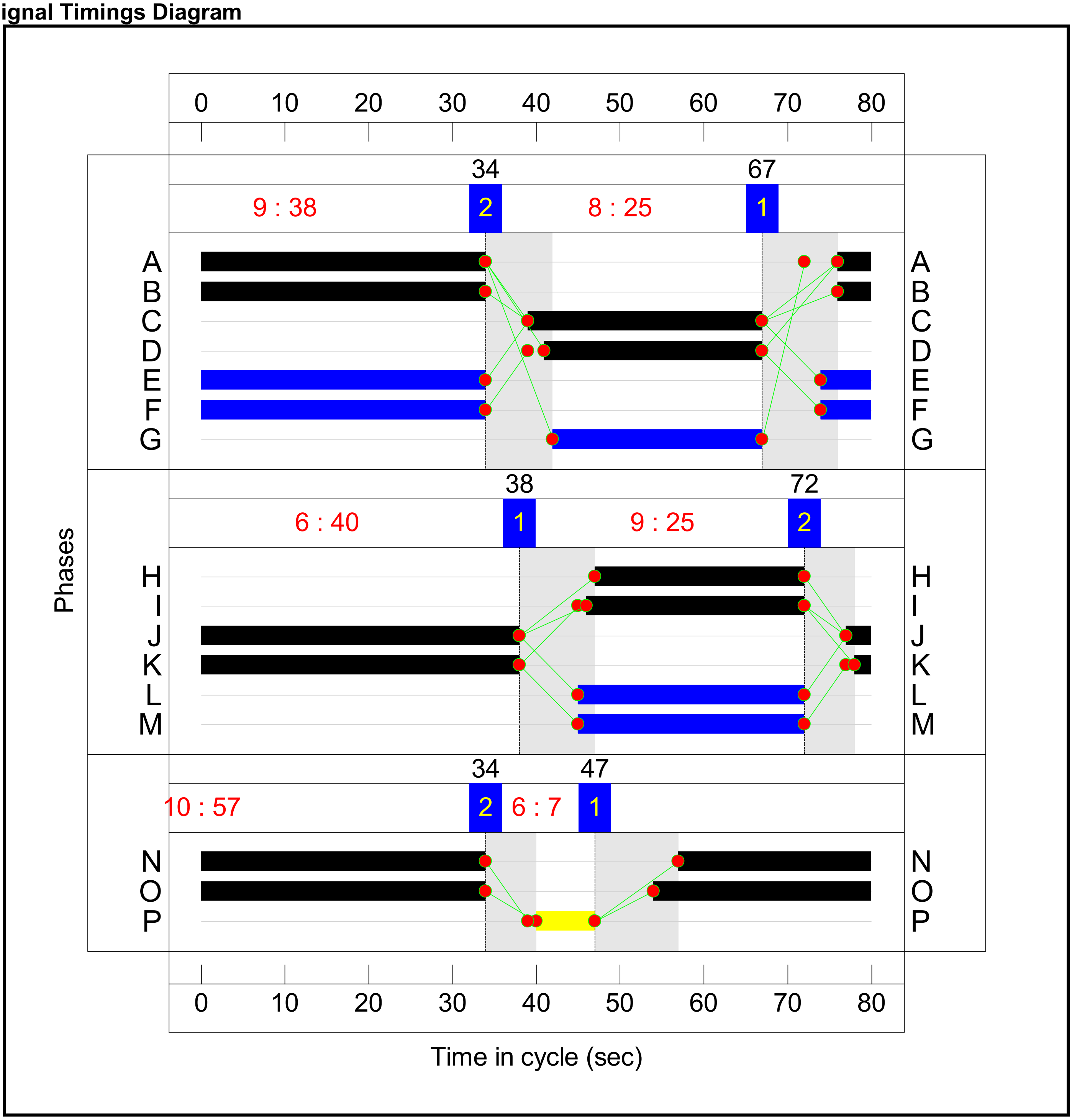
Stage Stream: 2

Stage	1	2
Duration	25	40
Change Point	38	72

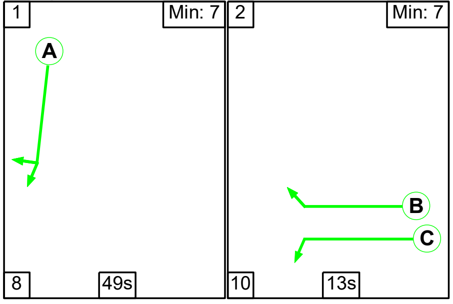
Stage Stream: 3

Stage	1	2
Duration	57	7
Change Point	47	34

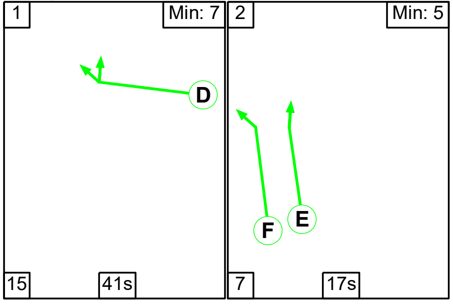
Signal Timings Diagram



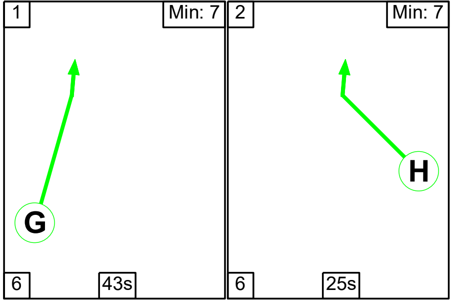
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



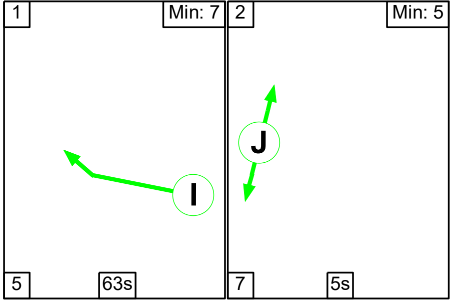
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	49	13
Change Point	20	77

Stage Stream: 2

Stage	1	2
Duration	41	17
Change Point	6	62

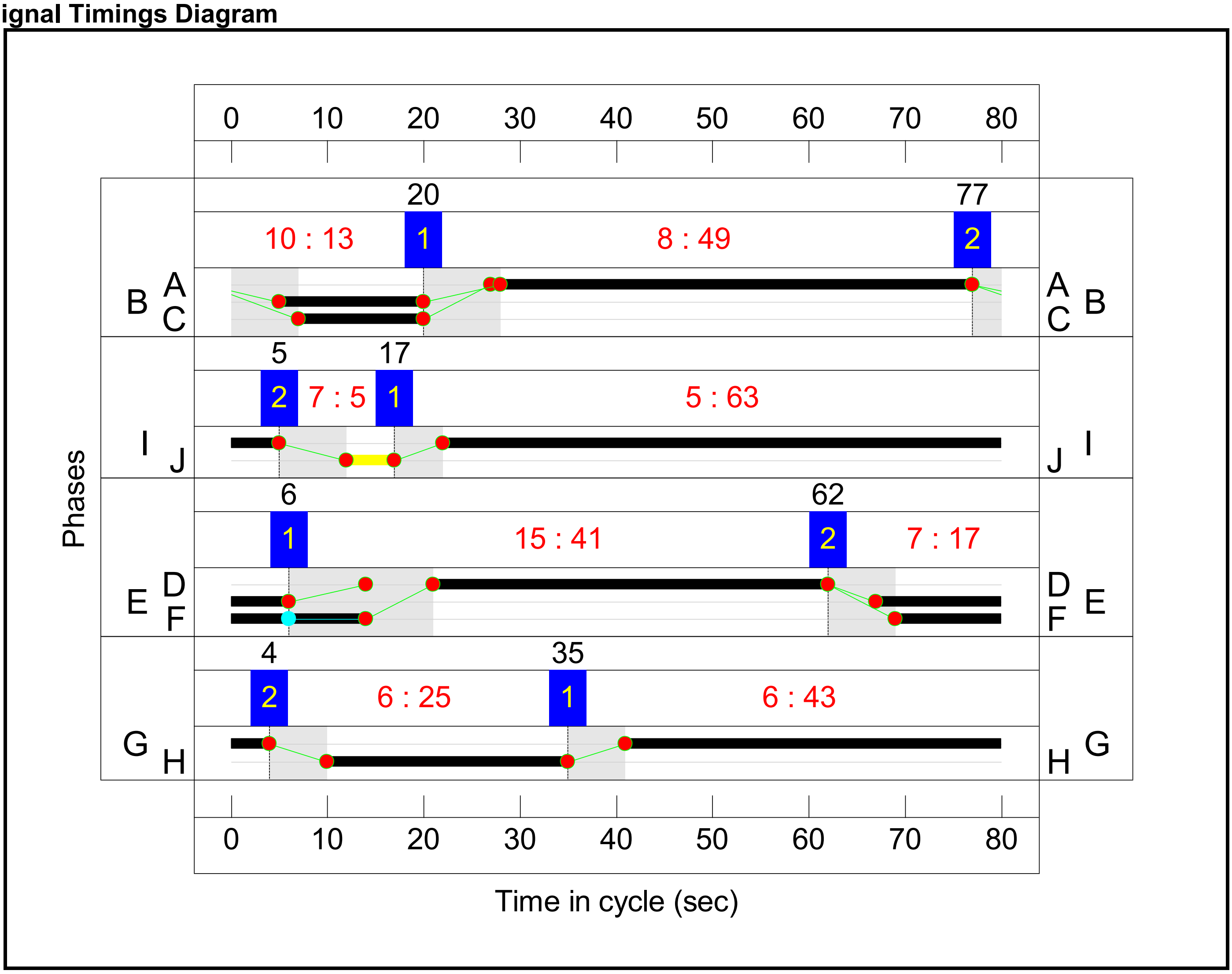
Stage Stream: 3

Stage	1	2
Duration	43	25
Change Point	35	4

Stage Stream: 4

Stage	1	2
Duration	63	5
Change Point	17	5

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**96.7%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**96.7%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	26	-	1237	2120:1980	716+668	89.3 : 89.5%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	26:28	-	1189	2120:4000	716+620	89.0 : 89.0%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	26	-	269	1900	641	41.9%
3/2	Right	U	1:2	N/A	C1:I		1	26	-	29	1900	641	4.5%
3/3	Right	U	1:2	N/A	C1:H		1	25	-	123	1900	618	19.9%
3/4	Right	U	1:2	N/A	C1:H		1	25	-	273	1900	618	44.2%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	40	-	672	2120:1980	1027+1015	32.8 : 33.0%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	1004	2120	1113	90.2%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	2049	2120:2120	1035+1085	96.7 : 96.7%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1151	2120	1325	86.9%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1004	2120	1325	75.8%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	291	2120	1325	22.0%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1157	2120	1325	87.3%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	85	1921	192	44.2%

8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	108	2105	210	51.3%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	15:13	-	406	2120:1980	424+46	86.3 : 86.3%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	764	2120:2120	424+424	91.7 : 88.4%
11/1	Ahead	U	2:2	N/A	C2:D		1	41	-	598	1900	997	59.9%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	41	-	850	1900	997	85.2%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	745	1995	1596	46.7%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	928	1995	1596	58.1%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	25	-	295	1980:1980	549+546	26.9 : 26.9%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	221	2120	530	41.7%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	642	2120:2120	530+530	60.6 : 60.6%
15/1	Ahead	U	1:1	N/A	C1:A		1	38	-	638	2000	975	65.4%
15/2	Ahead	U	1:1	N/A	C1:A		1	38	-	714	2000	975	73.2%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	38	-	711	2000:2000	881+220	64.6 : 64.6%
16/1	Right	U	2:3	N/A	C2:H		1	25	-	366	2000	650	56.3%
16/2	Right	U	2:3	N/A	C2:H		1	25	-	389	2000	650	59.8%
16/3	Right	U	2:3	N/A	C2:H		1	25	-	375	2000	650	57.7%
17/1	Ahead	U	2:3	N/A	C2:G		1	43	-	272	2000	1100	24.7%
17/2	Ahead	U	2:3	N/A	C2:G		1	43	-	325	2000	1100	29.5%
17/3	Ahead	U	2:3	N/A	C2:G		1	43	-	336	2000	1100	30.5%
18/1	Ahead	U	1:3	N/A	C1:O		1	60	-	342	2000	1525	22.4%
18/2	Ahead	U	1:3	N/A	C1:O		1	60	-	366	2000	1525	24.0%
19/1	Ahead	U	1:3	N/A	C1:N		1	57	-	1127	2000	1450	77.7%
19/2	Ahead	U	1:3	N/A	C1:N		1	57	-	1273	2120	1537	82.8%
19/3	Ahead	U	1:3	N/A	C1:N		1	57	-	1049	2120	1537	68.2%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**76.9**	**32.8**	**0.0**	**109.7**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**76.9**	**32.8**	**0.0**	**109.7**	**-**	**-**	**-**	**-**
1/2+1/1	1237	1237	-	-	-	8.6	4.0	-	12.6 (6.5+6.1)	36.8 (36.8:36.8)	13.3	4.0	17.3
1/3+1/4	1189	1189	-	-	-	7.3	3.9	-	11.2 (6.5+4.7)	33.9 (36.8:30.5)	13.3	3.9	17.1
3/1	269	269	-	-	-	0.9	0.0	-	0.9	12.7	5.1	0.0	5.1
3/2	29	29	-	-	-	0.3	0.0	-	0.3	35.7	0.6	0.0	0.6
3/3	123	123	-	-	-	0.2	0.0	-	0.2	5.9	1.7	0.0	1.7
3/4	273	273	-	-	-	0.2	0.0	-	0.2	2.4	4.7	0.0	4.7
4/2+4/1	672	672	-	-	-	2.1	0.2	-	2.4 (1.2+1.2)	12.7 (12.6:12.8)	4.3	0.2	4.6
4/3	1004	1004	-	-	-	4.8	4.3	-	9.1	32.5	20.1	4.3	24.4
4/4+4/5	2049	2049	-	-	-	10.0	11.0	-	21.0 (10.1+10.8)	36.8 (36.4:37.2)	21.9	11.0	32.9
6/1	1151	1151	-	-	-	4.1	0.0	-	4.1	13.0	20.0	0.0	20.0
6/2	1004	1004	-	-	-	3.9	0.0	-	3.9	13.8	17.2	0.0	17.2
6/3	291	291	-	-	-	0.3	0.1	-	0.4	5.5	3.2	0.1	3.3
6/4	1157	1157	-	-	-	3.9	0.0	-	3.9	12.3	21.8	0.0	21.8
8/1	85	85	-	-	-	0.8	0.4	-	1.2	50.6	1.8	0.4	2.2
8/2	108	108	-	-	-	1.0	0.5	-	1.5	51.5	2.3	0.5	2.8
9/2+9/1	406	406	-	-	-	3.5	2.9	-	6.4 (5.8+0.6)	56.3 (56.6:53.5)	7.8	2.9	10.7
9/3+9/4	764	764	-	-	-	6.6	4.1	-	10.8 (5.5+5.3)	50.7 (50.9:50.6)	8.4	4.1	12.6
11/1	598	598	-	-	-	1.4	0.0	-	1.4	8.5	3.4	0.0	3.4
11/2	850	850	-	-	-	2.6	0.0	-	2.6	11.1	6.0	0.0	6.0
12/1	745	745	-	-	-	0.1	0.0	-	0.1	0.3	0.4	0.0	0.4
12/2	928	928	-	-	-	0.1	0.0	-	0.1	0.2	0.5	0.0	0.5

13/2+13/1	295	295	-	-	-	1.6	0.2	-	1.8 (0.9+0.9)	22.0 (22.0:22.0)	2.4	0.2	2.6
13/3	221	221	-	-	-	1.5	0.4	-	1.9	30.9	4.1	0.4	4.4
13/4+13/5	642	642	-	-	-	4.7	0.8	-	5.5 (2.7+2.7)	30.8 (30.8:30.8)	6.2	0.8	7.0
15/1	638	638	-	-	-	0.4	0.0	-	0.4	2.3	1.6	0.0	1.6
15/2	714	714	-	-	-	0.2	0.0	-	0.2	1.2	0.7	0.0	0.7
15/3+15/4	711	711	-	-	-	0.3	0.0	-	0.3 (0.2+0.1)	1.6 (1.5:1.7)	0.8	0.0	0.8
16/1	366	366	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
16/2	389	389	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
16/3	375	375	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
17/1	272	272	-	-	-	0.2	0.0	-	0.2	3.3	0.9	0.0	0.9
17/2	325	325	-	-	-	0.3	0.0	-	0.3	3.3	0.7	0.0	0.7
17/3	336	336	-	-	-	0.3	0.0	-	0.3	3.6	1.0	0.0	1.0
18/1	342	342	-	-	-	0.2	0.0	-	0.2	1.8	1.5	0.0	1.5
18/2	366	366	-	-	-	0.2	0.0	-	0.2	2.0	1.5	0.0	1.5
19/1	1127	1127	-	-	-	1.7	0.0	-	1.7	5.3	6.4	0.0	6.4
19/2	1273	1273	-	-	-	1.2	0.0	-	1.2	3.5	8.2	0.0	8.2
19/3	1049	1049	-	-	-	1.0	0.0	-	1.0	3.6	3.9	0.0	3.9

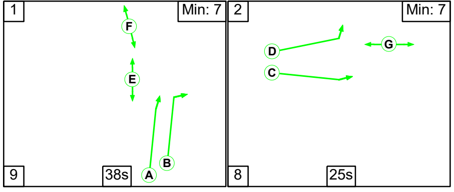
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): 0.6 Total Delay for Signalled Lanes (pcuHr): 24.78 Cycle Time (s): 80
C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -7.4 Total Delay for Signalled Lanes (pcuHr): 34.01 Cycle Time (s): 80
C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): 8.7 Total Delay for Signalled Lanes (pcuHr): 7.06 Cycle Time (s): 80
C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -1.9 Total Delay for Signalled Lanes (pcuHr): 29.51 Cycle Time (s): 80
C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 5.6 Total Delay for Signalled Lanes (pcuHr): 13.24 Cycle Time (s): 80
C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 50.4 Total Delay for Signalled Lanes (pcuHr): 1.01 Cycle Time (s): 80
C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 54.8 Total Delay for Signalled Lanes (pcuHr): 0.12 Cycle Time (s): 80
PRC Over All Lanes (%): -7.4 Total Delay Over All Lanes(pcuHr): 109.72

Scenario 2: '2031 Updated NSTM +mez@50% - AM' (FG3: '2031 Updated NSTM +mez@50% - AM', Plan 1: 'Network Control Plan 1')

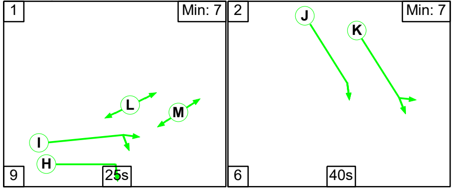
C1 - Eastside Controller

Stage Sequence Diagram

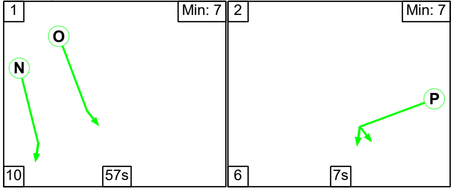
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	38	25
Change Point	67	34

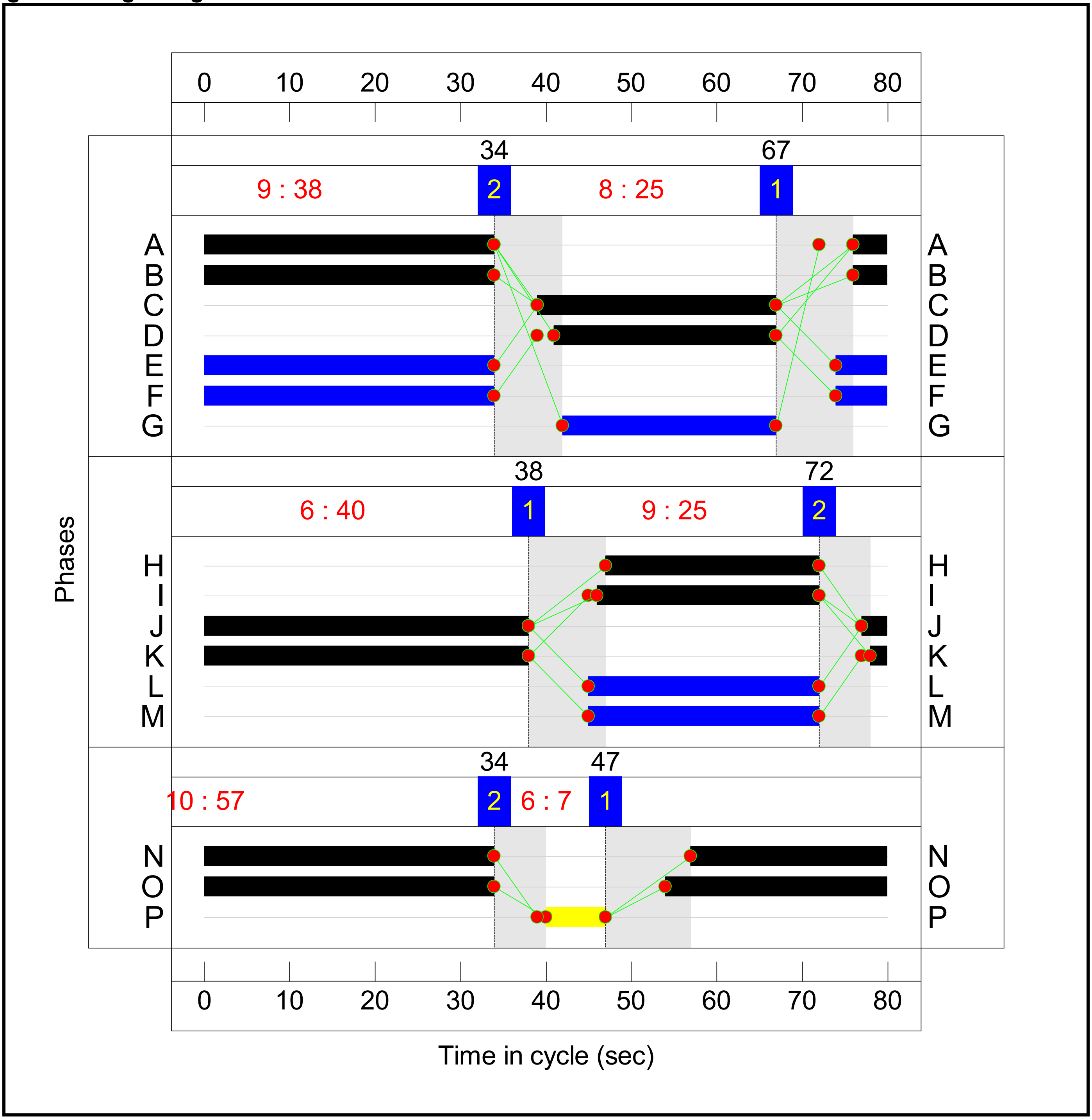
Stage Stream: 2

Stage	1	2
Duration	25	40
Change Point	38	72

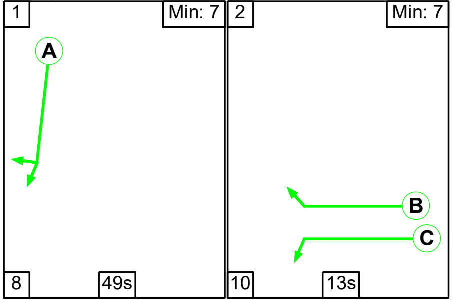
Stage Stream: 3

Stage	1	2
Duration	57	7
Change Point	47	34

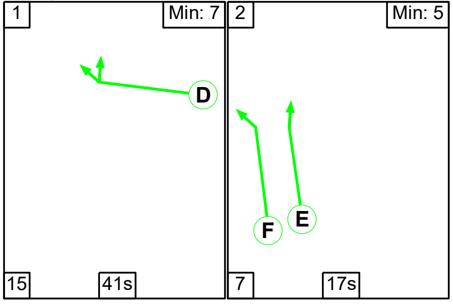
Signal Timings Diagram



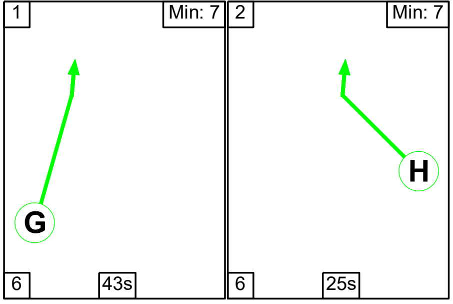
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



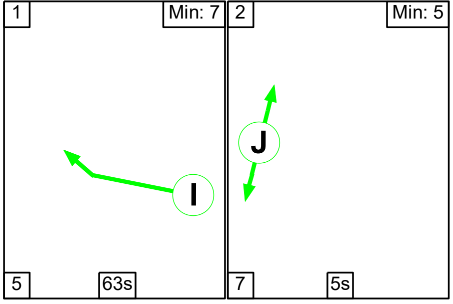
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	**1**	**2**
Duration	49	13
Change Point	20	77

Stage Stream: 2

Stage	**1**	**2**
Duration	41	17
Change Point	6	62

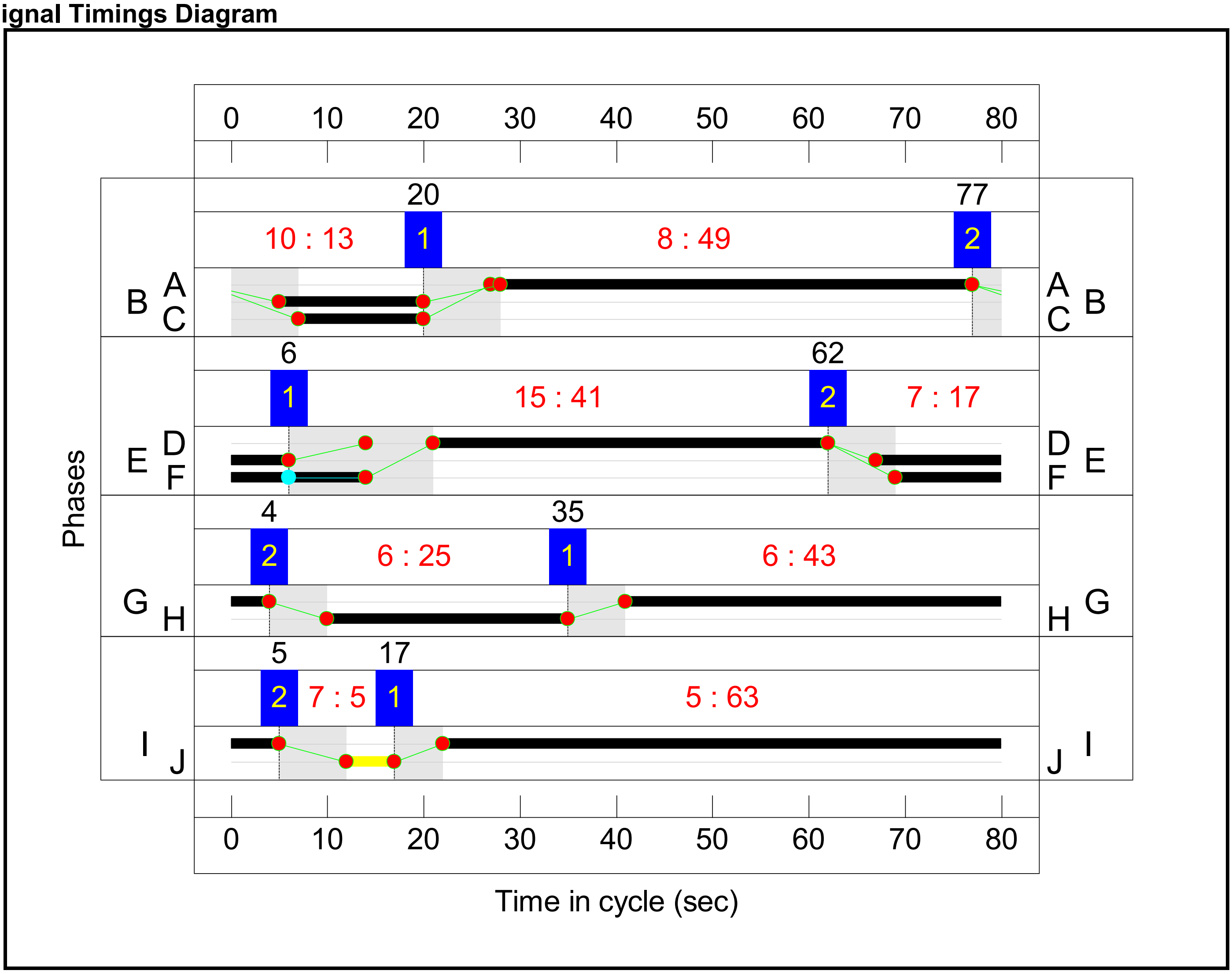
Stage Stream: 3

Stage	**1**	**2**
Duration	43	25
Change Point	35	4

Stage Stream: 4

Stage	**1**	**2**
Duration	63	5
Change Point	17	5

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.4%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.4%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	26	-	1236	2120:1980	716+668	89.3 : 89.3%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	26:28	-	1213	2120:4000	716+645	89.2 : 89.2%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	26	-	273	1900	641	42.6%
3/2	Right	U	1:2	N/A	C1:I		1	26	-	35	1900	641	5.5%
3/3	Right	U	1:2	N/A	C1:H		1	25	-	122	1900	618	19.8%
3/4	Right	U	1:2	N/A	C1:H		1	25	-	297	1900	618	48.1%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	40	-	672	2120:1980	1027+1015	32.8 : 33.0%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	1027	2120	1113	92.3%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	2064	2120:2120	1019+1101	97.4 : 97.4%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1165	2120	1325	87.9%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1051	2120	1325	79.3%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	267	2120	1325	20.2%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1181	2120	1325	89.1%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	84	1920	192	43.8%

8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	109	2105	210	51.8%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	15:13	-	413	2120:1980	424+82	81.6 : 81.6%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	784	2120:2120	424+424	92.5 : 92.5%
11/1	Ahead	U	2:2	N/A	C2:D		1	41	-	655	1900	997	65.7%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	41	-	793	1900	997	79.5%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	807	1995	1596	50.6%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	875	1995	1596	54.8%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	25	-	304	1980:1980	549+549	27.7 : 27.7%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	230	2120	530	43.4%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	658	2120:2120	530+530	61.9 : 62.3%
15/1	Ahead	U	1:1	N/A	C1:A		1	38	-	622	2000	975	63.8%
15/2	Ahead	U	1:1	N/A	C1:A		1	38	-	730	2000	975	74.9%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	38	-	736	2000:2000	878+228	66.5 : 66.5%
16/1	Right	U	2:3	N/A	C2:H		1	25	-	346	2000	650	53.2%
16/2	Right	U	2:3	N/A	C2:H		1	25	-	392	2000	650	60.3%
16/3	Right	U	2:3	N/A	C2:H		1	25	-	392	2000	650	60.3%
17/1	Ahead	U	2:3	N/A	C2:G		1	43	-	276	2000	1100	25.1%
17/2	Ahead	U	2:3	N/A	C2:G		1	43	-	338	2000	1100	30.7%
17/3	Ahead	U	2:3	N/A	C2:G		1	43	-	344	2000	1100	31.3%
18/1	Ahead	U	1:3	N/A	C1:O		1	60	-	346	2000	1525	22.7%
18/2	Ahead	U	1:3	N/A	C1:O		1	60	-	372	2000	1525	24.4%
19/1	Ahead	U	1:3	N/A	C1:N		1	57	-	1149	2000	1450	79.2%
19/2	Ahead	U	1:3	N/A	C1:N		1	57	-	1289	2120	1537	83.9%
19/3	Ahead	U	1:3	N/A	C1:N		1	57	-	1072	2120	1537	69.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**79.3**	**35.9**	**0.0**	**115.3**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**79.3**	**35.9**	**0.0**	**115.3**	**-**	**-**	**-**	**-**
1/2+1/1	1236	1236	-	-	-	8.6	4.0	-	12.6 (6.5+6.1)	36.7 (36.7:36.7)	13.3	4.0	17.3
1/3+1/4	1213	1213	-	-	-	7.5	3.9	-	11.4 (6.5+4.9)	33.8 (36.7:30.6)	13.3	3.9	17.2
3/1	273	273	-	-	-	1.0	0.0	-	1.0	13.0	5.2	0.0	5.2
3/2	35	35	-	-	-	0.3	0.0	-	0.3	35.7	0.8	0.0	0.8
3/3	122	122	-	-	-	0.2	0.0	-	0.2	5.9	1.6	0.0	1.6
3/4	297	297	-	-	-	0.2	0.0	-	0.2	2.6	5.2	0.0	5.2
4/2+4/1	672	672	-	-	-	2.1	0.2	-	2.4 (1.2+1.2)	12.7 (12.6:12.8)	4.3	0.2	4.6
4/3	1027	1027	-	-	-	5.0	5.3	-	10.3	36.1	20.8	5.3	26.1
4/4+4/5	2064	2064	-	-	-	10.1	12.7	-	22.8 (10.8+12.0)	39.8 (39.1:40.4)	22.6	12.7	35.3
6/1	1165	1165	-	-	-	4.5	0.0	-	4.5	13.9	20.3	0.0	20.3
6/2	1051	1051	-	-	-	4.3	0.0	-	4.3	14.6	18.1	0.0	18.1
6/3	267	267	-	-	-	0.3	0.1	-	0.4	5.4	2.8	0.1	2.9
6/4	1181	1181	-	-	-	3.9	0.0	-	3.9	12.0	21.9	0.0	21.9
8/1	84	84	-	-	-	0.8	0.4	-	1.2	50.5	1.7	0.4	2.1
8/2	109	109	-	-	-	1.0	0.5	-	1.6	51.7	2.3	0.5	2.8
9/2+9/1	413	413	-	-	-	3.5	2.1	-	5.6 (4.7+0.9)	48.7 (49.1:46.7)	7.3	2.1	9.4
9/3+9/4	784	784	-	-	-	6.8	5.3	-	12.1 (6.1+6.1)	55.6 (55.6:55.6)	8.5	5.3	13.8
11/1	655	655	-	-	-	1.7	0.0	-	1.7	9.1	3.9	0.0	3.9
11/2	793	793	-	-	-	2.5	0.0	-	2.5	11.5	5.9	0.0	5.9
12/1	807	807	-	-	-	0.1	0.0	-	0.1	0.3	0.5	0.0	0.5
12/2	875	875	-	-	-	0.1	0.0	-	0.1	0.3	0.5	0.0	0.5

13/2+13/1	304	304	-	-	-	1.7	0.2	-	1.9 (0.9+0.9)	22.0 (22.0:22.0)	2.4	0.2	2.6
13/3	230	230	-	-	-	1.6	0.4	-	2.0	31.2	4.3	0.4	4.7
13/4+13/5	658	658	-	-	-	4.9	0.8	-	5.7 (2.8+2.9)	31.1 (31.1:31.1)	6.5	0.8	7.3
15/1	622	622	-	-	-	0.4	0.0	-	0.4	2.2	1.5	0.0	1.5
15/2	730	730	-	-	-	0.3	0.0	-	0.3	1.4	0.9	0.0	0.9
15/3+15/4	736	736	-	-	-	0.3	0.0	-	0.3 (0.2+0.1)	1.5 (1.4:1.7)	0.7	0.0	0.7
16/1	346	346	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
16/2	392	392	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
16/3	392	392	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
17/1	276	276	-	-	-	0.2	0.0	-	0.2	3.1	0.8	0.0	0.8
17/2	338	338	-	-	-	0.3	0.0	-	0.3	3.5	0.9	0.0	0.9
17/3	344	344	-	-	-	0.3	0.0	-	0.3	3.6	1.0	0.0	1.0
18/1	346	346	-	-	-	0.2	0.0	-	0.2	1.8	1.6	0.0	1.6
18/2	372	372	-	-	-	0.2	0.0	-	0.2	2.0	1.6	0.0	1.6
19/1	1149	1149	-	-	-	1.9	0.0	-	1.9	5.8	6.9	0.0	6.9
19/2	1289	1289	-	-	-	1.2	0.0	-	1.2	3.4	8.6	0.0	8.6
19/3	1072	1072	-	-	-	1.2	0.0	-	1.2	4.0	4.4	0.0	4.4

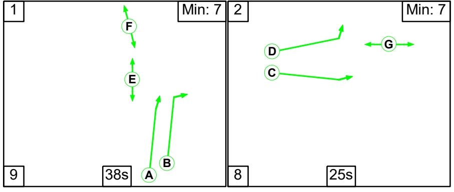
C1 - Eastside Controller	Stream: 1	PRC for Signalled Lanes (%):	0.7	Total Delay for Signalled Lanes (pcuHr):	24.96	Cycle Time (s):	80
C1 - Eastside Controller	Stream: 2	PRC for Signalled Lanes (%):	-8.2	Total Delay for Signalled Lanes (pcuHr):	37.22	Cycle Time (s):	80
C1 - Eastside Controller	Stream: 3	PRC for Signalled Lanes (%):	7.3	Total Delay for Signalled Lanes (pcuHr):	7.39	Cycle Time (s):	80
C2 - Westside Controller	Stream: 1	PRC for Signalled Lanes (%):	-2.7	Total Delay for Signalled Lanes (pcuHr):	30.79	Cycle Time (s):	80
C2 - Westside Controller	Stream: 2	PRC for Signalled Lanes (%):	13.2	Total Delay for Signalled Lanes (pcuHr):	13.73	Cycle Time (s):	80
C2 - Westside Controller	Stream: 3	PRC for Signalled Lanes (%):	49.2	Total Delay for Signalled Lanes (pcuHr):	1.03	Cycle Time (s):	80
C2 - Westside Controller	Stream: 4	PRC for Signalled Lanes (%):	64.2	Total Delay for Signalled Lanes (pcuHr):	0.13	Cycle Time (s):	80
		PRC Over All Lanes (%):	-8.2	Total Delay Over All Lanes(pcuHr):	115.26		

Scenario 3: '2031 Updated NSTM +mez ITP - AM' (FG7: '2031 Updated NSTM +mez ITP - AM', Plan 1: 'Network Control Plan 1')

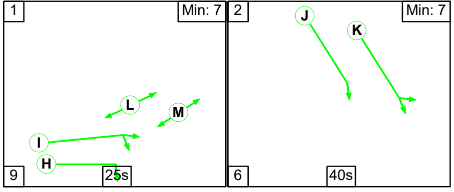
C1 - Eastside Controller

Stage Sequence Diagram

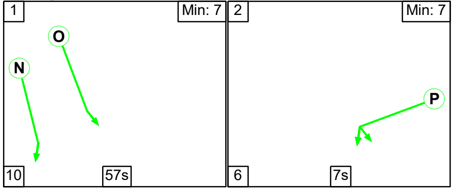
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	38	25
Change Point	67	34

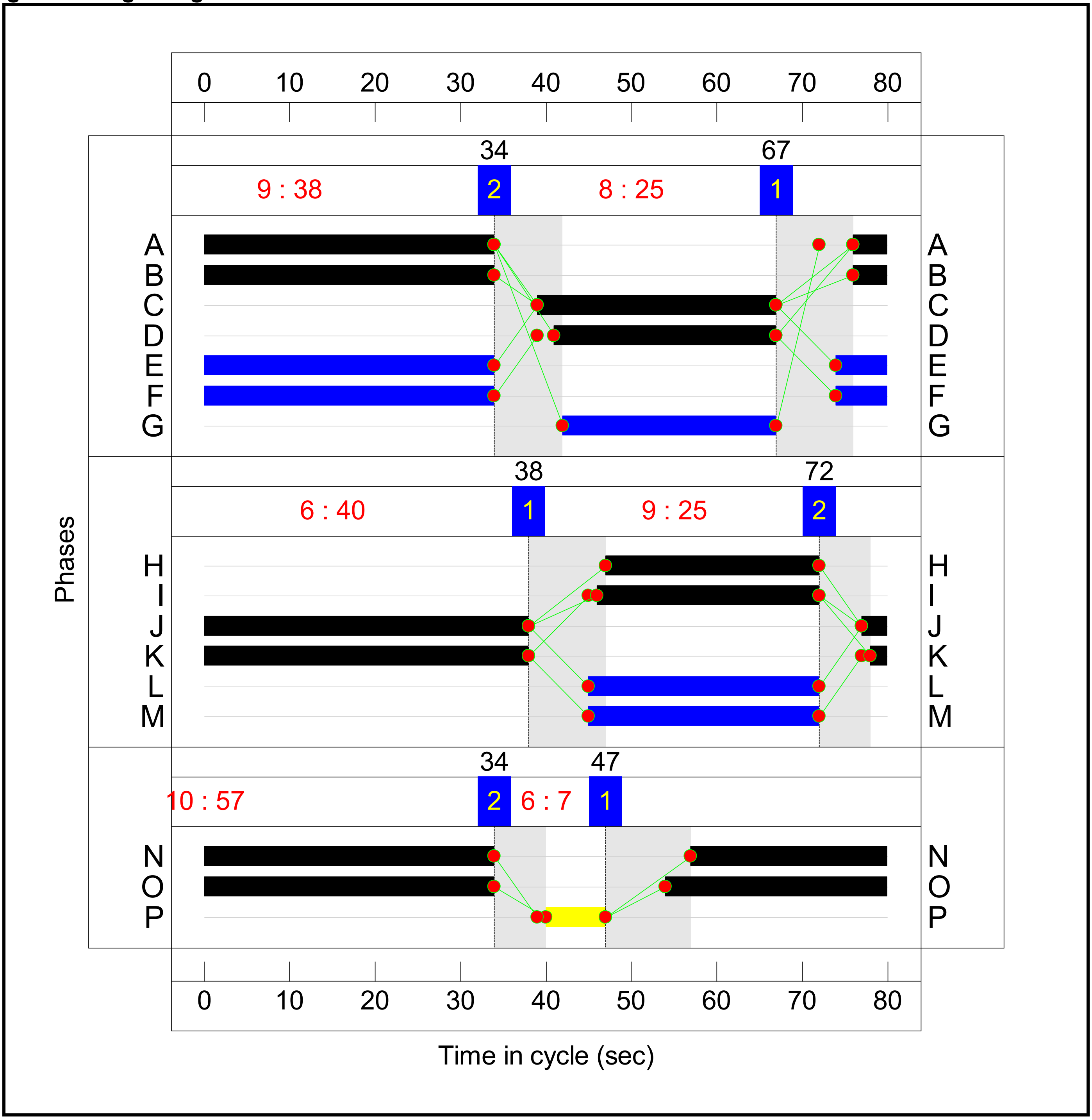
Stage Stream: 2

Stage	1	2
Duration	25	40
Change Point	38	72

Stage Stream: 3

Stage	1	2
Duration	57	7
Change Point	47	34

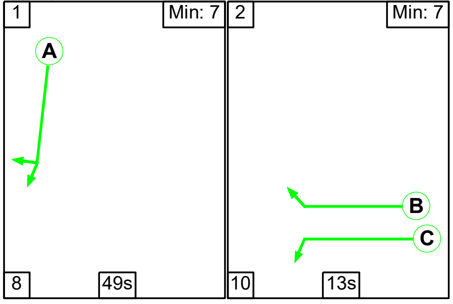
Signal Timings Diagram



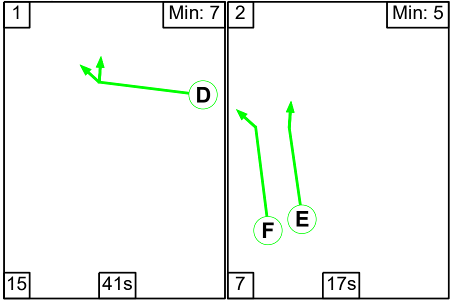
C2 - Westside Controller

Stage Sequence Diagram

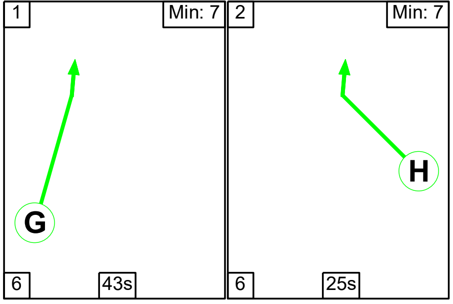
Stage Stream: 1



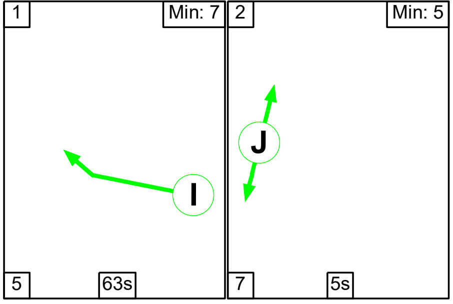
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	49	13
Change Point	20	77

Stage Stream: 2

Stage	1	2
Duration	41	17
Change Point	6	62

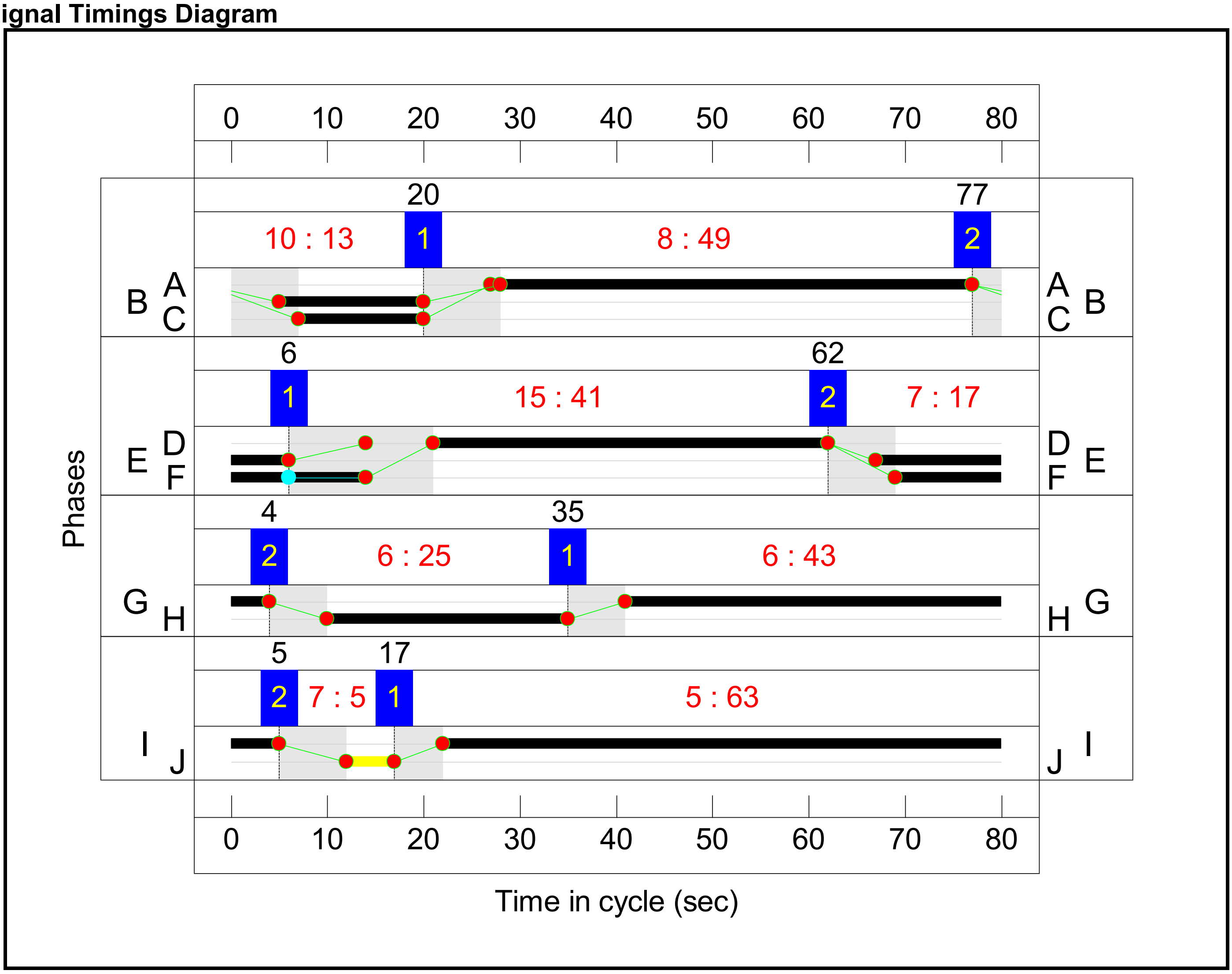
Stage Stream: 3

Stage	1	2
Duration	43	25
Change Point	35	4

Stage Stream: 4

Stage	1	2
Duration	63	5
Change Point	17	5

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.5%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.5%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	26	-	1236	2120:1980	716+668	89.3 : 89.3%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	26:28	-	1219	2120:4000	716+652	89.2 : 89.2%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	26	-	274	1900	641	42.7%
3/2	Right	U	1:2	N/A	C1:I		1	26	-	37	1900	641	5.8%
3/3	Right	U	1:2	N/A	C1:H		1	25	-	127	1900	618	20.6%
3/4	Right	U	1:2	N/A	C1:H		1	25	-	298	1900	618	48.3%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	40	-	672	2120:1980	1027+1015	32.8 : 33.0%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	1036	2120	1113	93.1%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	2066	2120:2120	1092+1028	97.5 : 97.5%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1163	2120	1325	87.8%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1070	2120	1325	80.8%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	412	2120	1325	31.1%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1036	2120	1325	78.2%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	159	1941	194	81.9%

8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	34	2105	210	16.2%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	15:13	-	434	2120:1980	424+89	84.7 : 84.7%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	771	2120:2120	424+424	90.8 : 91.0%
11/1	Ahead	U	2:2	N/A	C2:D		1	41	-	695	1900	997	69.7%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	41	-	753	1900	997	75.5%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	848	1995	1596	53.1%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	837	1995	1596	52.4%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	25	-	307	1980:1980	549+546	28.0 : 28.0%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	233	2120	530	44.0%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	663	2120:2120	530+530	62.5 : 62.6%
15/1	Ahead	U	1:1	N/A	C1:A		1	38	-	637	2000	975	65.3%
15/2	Ahead	U	1:1	N/A	C1:A		1	38	-	725	2000	975	74.4%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	38	-	734	2000:2000	875+234	66.1 : 66.1%
16/1	Right	U	2:3	N/A	C2:H		1	25	-	359	2000	650	55.2%
16/2	Right	U	2:3	N/A	C2:H		1	25	-	385	2000	650	59.2%
16/3	Right	U	2:3	N/A	C2:H		1	25	-	386	2000	650	59.4%
17/1	Ahead	U	2:3	N/A	C2:G		1	43	-	278	2000	1100	25.3%
17/2	Ahead	U	2:3	N/A	C2:G		1	43	-	340	2000	1100	30.9%
17/3	Ahead	U	2:3	N/A	C2:G		1	43	-	348	2000	1100	31.6%
18/1	Ahead	U	1:3	N/A	C1:O		1	60	-	347	2000	1525	22.8%
18/2	Ahead	U	1:3	N/A	C1:O		1	60	-	374	2000	1525	24.5%
19/1	Ahead	U	1:3	N/A	C1:N		1	57	-	1163	2000	1450	80.2%
19/2	Ahead	U	1:3	N/A	C1:N		1	57	-	1362	2120	1537	88.6%
19/3	Ahead	U	1:3	N/A	C1:N		1	57	-	1002	2120	1537	65.2%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**79.8**	**37.7**	**0.0**	**117.6**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**79.8**	**37.7**	**0.0**	**117.6**	**-**	**-**	**-**	**-**
1/2+1/1	1236	1236	-	-	-	8.6	4.0	-	12.6 (6.5+6.1)	36.7 (36.7:36.7)	13.3	4.0	17.3
1/3+1/4	1219	1219	-	-	-	7.5	3.9	-	11.4 (6.5+4.9)	33.8 (36.7:30.6)	13.3	3.9	17.2
3/1	274	274	-	-	-	1.0	0.0	-	1.0	13.1	5.2	0.0	5.2
3/2	37	37	-	-	-	0.4	0.0	-	0.4	35.7	0.8	0.0	0.8
3/3	127	127	-	-	-	0.2	0.0	-	0.2	5.7	1.6	0.0	1.6
3/4	298	298	-	-	-	0.2	0.0	-	0.2	2.6	5.2	0.0	5.2
4/2+4/1	672	672	-	-	-	2.1	0.2	-	2.4 (1.2+1.2)	12.7 (12.6:12.8)	4.3	0.2	4.6
4/3	1036	1036	-	-	-	5.1	5.8	-	10.9	37.9	21.3	5.8	27.1
4/4+4/5	2066	2066	-	-	-	10.1	12.9	-	23.1 (12.0+11.0)	40.2 (40.7:39.7)	22.5	12.9	35.4
6/1	1163	1163	-	-	-	4.7	0.0	-	4.7	14.6	20.3	0.0	20.3
6/2	1070	1070	-	-	-	5.0	0.0	-	5.0	17.0	19.1	0.0	19.1
6/3	412	412	-	-	-	0.4	0.2	-	0.6	5.0	3.7	0.2	3.9
6/4	1036	1036	-	-	-	3.7	0.0	-	3.7	13.0	20.2	0.0	20.2
8/1	159	159	-	-	-	1.6	2.0	-	3.6	81.3	3.4	2.0	5.5
8/2	34	34	-	-	-	0.3	0.1	-	0.4	43.2	0.7	0.1	0.8
9/2+9/1	434	434	-	-	-	3.7	2.6	-	6.3 (5.2+1.0)	51.9 (52.3:49.8)	7.7	2.6	10.3
9/3+9/4	771	771	-	-	-	6.7	4.5	-	11.2 (5.6+5.6)	52.2 (52.2:52.2)	8.4	4.5	12.8
11/1	695	695	-	-	-	1.3	0.0	-	1.3	6.6	3.9	0.0	3.9
11/2	753	753	-	-	-	1.9	0.0	-	1.9	9.0	4.4	0.0	4.4
12/1	848	848	-	-	-	0.1	0.0	-	0.1	0.3	0.5	0.0	0.5
12/2	837	837	-	-	-	0.1	0.0	-	0.1	0.3	0.5	0.0	0.5

13/2+13/1	307	307	-	-	-	1.7	0.2	-	1.9 (0.9+0.9)	22.1 (22.1:22.1)	2.5	0.2	2.7
13/3	233	233	-	-	-	1.6	0.4	-	2.0	31.3	4.3	0.4	4.7
13/4+13/5	663	663	-	-	-	4.9	0.8	-	5.7 (2.9+2.9)	31.2 (31.2:31.2)	6.5	0.8	7.4
15/1	637	637	-	-	-	0.4	0.0	-	0.4	2.1	1.5	0.0	1.5
15/2	725	725	-	-	-	0.3	0.0	-	0.3	1.4	0.8	0.0	0.8
15/3+15/4	734	734	-	-	-	0.3	0.0	-	0.3 (0.2+0.1)	1.6 (1.5:1.7)	0.8	0.0	0.8
16/1	359	359	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
16/2	385	385	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
16/3	386	386	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
17/1	278	278	-	-	-	0.2	0.0	-	0.2	3.1	0.8	0.0	0.8
17/2	340	340	-	-	-	0.3	0.0	-	0.3	3.4	0.8	0.0	0.8
17/3	348	348	-	-	-	0.4	0.0	-	0.4	3.6	1.0	0.0	1.0
18/1	347	347	-	-	-	0.2	0.0	-	0.2	1.8	1.7	0.0	1.7
18/2	374	374	-	-	-	0.2	0.0	-	0.2	2.0	1.7	0.0	1.7
19/1	1163	1163	-	-	-	2.0	0.0	-	2.0	6.0	7.2	0.0	7.2
19/2	1362	1362	-	-	-	1.9	0.0	-	1.9	5.1	10.4	0.0	10.4
19/3	1002	1002	-	-	-	0.7	0.0	-	0.7	2.6	2.8	0.0	2.8

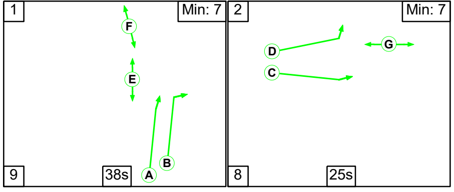
C1 - Eastside Controller	Stream: 1	PRC for Signalled Lanes (%):	0.7	Total Delay for Signalled Lanes (pcuHr):	25.00	Cycle Time (s):	80
C1 - Eastside Controller	Stream: 2	PRC for Signalled Lanes (%):	-8.3	Total Delay for Signalled Lanes (pcuHr):	38.12	Cycle Time (s):	80
C1 - Eastside Controller	Stream: 3	PRC for Signalled Lanes (%):	1.6	Total Delay for Signalled Lanes (pcuHr):	8.97	Cycle Time (s):	80
C2 - Westside Controller	Stream: 1	PRC for Signalled Lanes (%):	-1.2	Total Delay for Signalled Lanes (pcuHr):	31.50	Cycle Time (s):	80
C2 - Westside Controller	Stream: 2	PRC for Signalled Lanes (%):	19.2	Total Delay for Signalled Lanes (pcuHr):	12.80	Cycle Time (s):	80
C2 - Westside Controller	Stream: 3	PRC for Signalled Lanes (%):	51.6	Total Delay for Signalled Lanes (pcuHr):	1.04	Cycle Time (s):	80
C2 - Westside Controller	Stream: 4	PRC for Signalled Lanes (%):	69.4	Total Delay for Signalled Lanes (pcuHr):	0.13	Cycle Time (s):	80
		PRC Over All Lanes (%):	-8.3	Total Delay Over All Lanes(pcuHr):	117.56		

Scenario 4: '2031 Updated NSTM sensitivity test - AM' (FG5: '2031 Updated NSTM sensitivity test - AM', Plan 1: 'Network Control Plan 1')

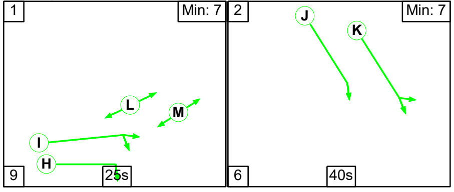
C1 - Eastside Controller

Stage Sequence Diagram

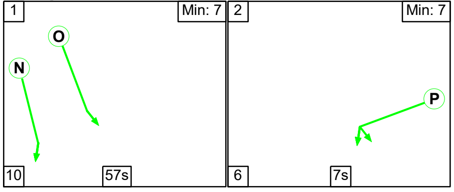
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	38	25
Change Point	67	34

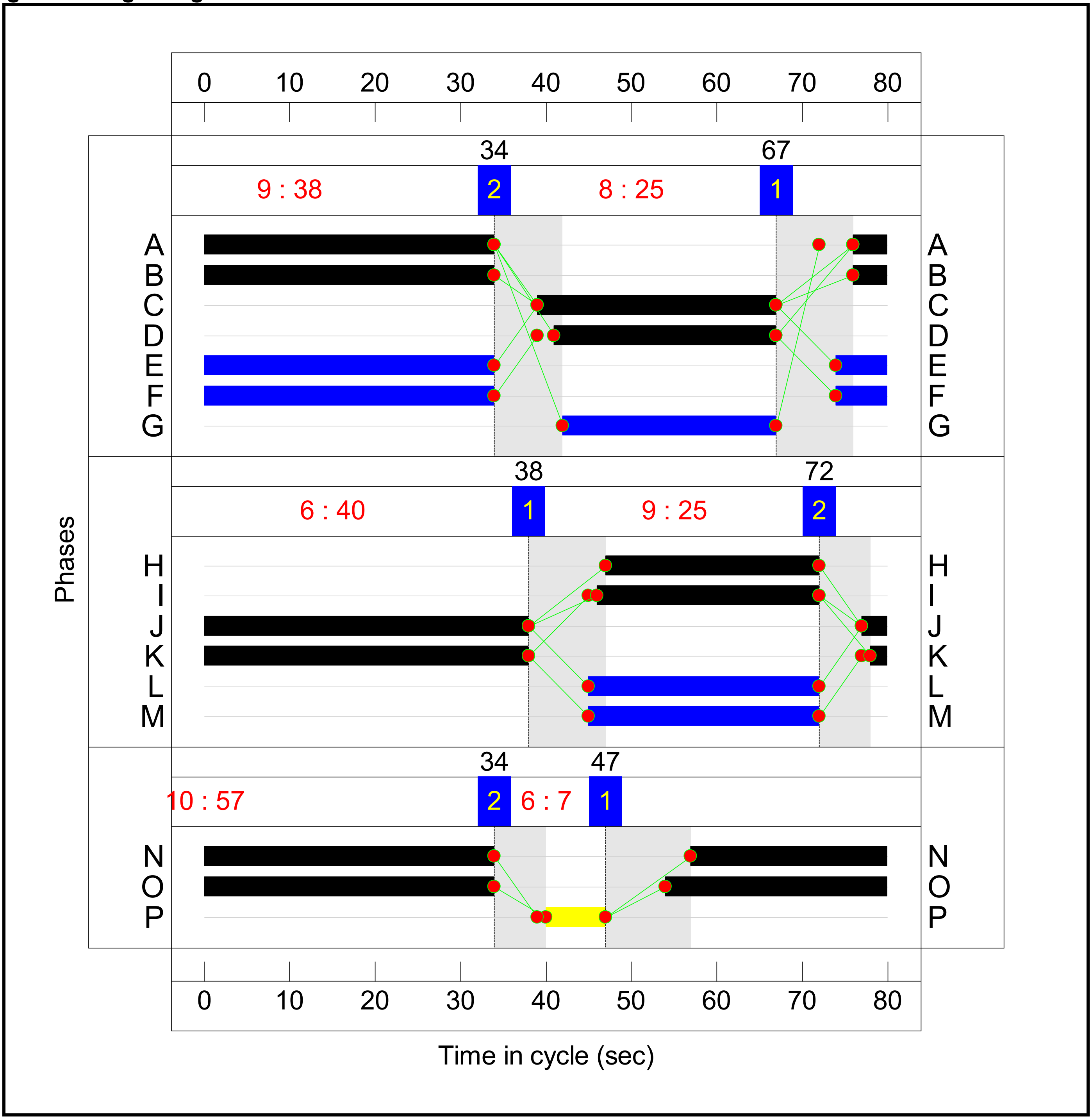
Stage Stream: 2

Stage	1	2
Duration	25	40
Change Point	38	72

Stage Stream: 3

Stage	1	2
Duration	57	7
Change Point	47	34

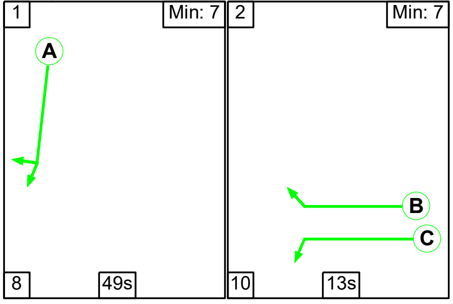
Signal Timings Diagram



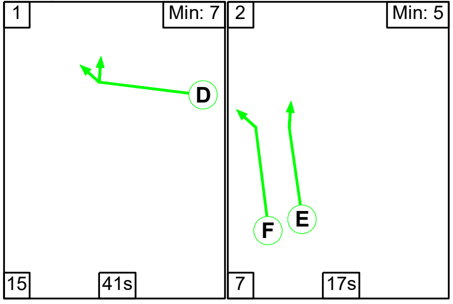
C2 - Westside Controller

Stage Sequence Diagram

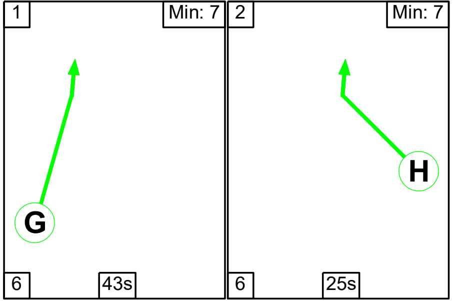
Stage Stream: 1



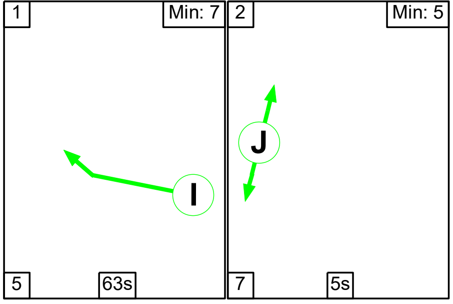
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	49	13
Change Point	20	77

Stage Stream: 2

Stage	1	2
Duration	41	17
Change Point	6	62

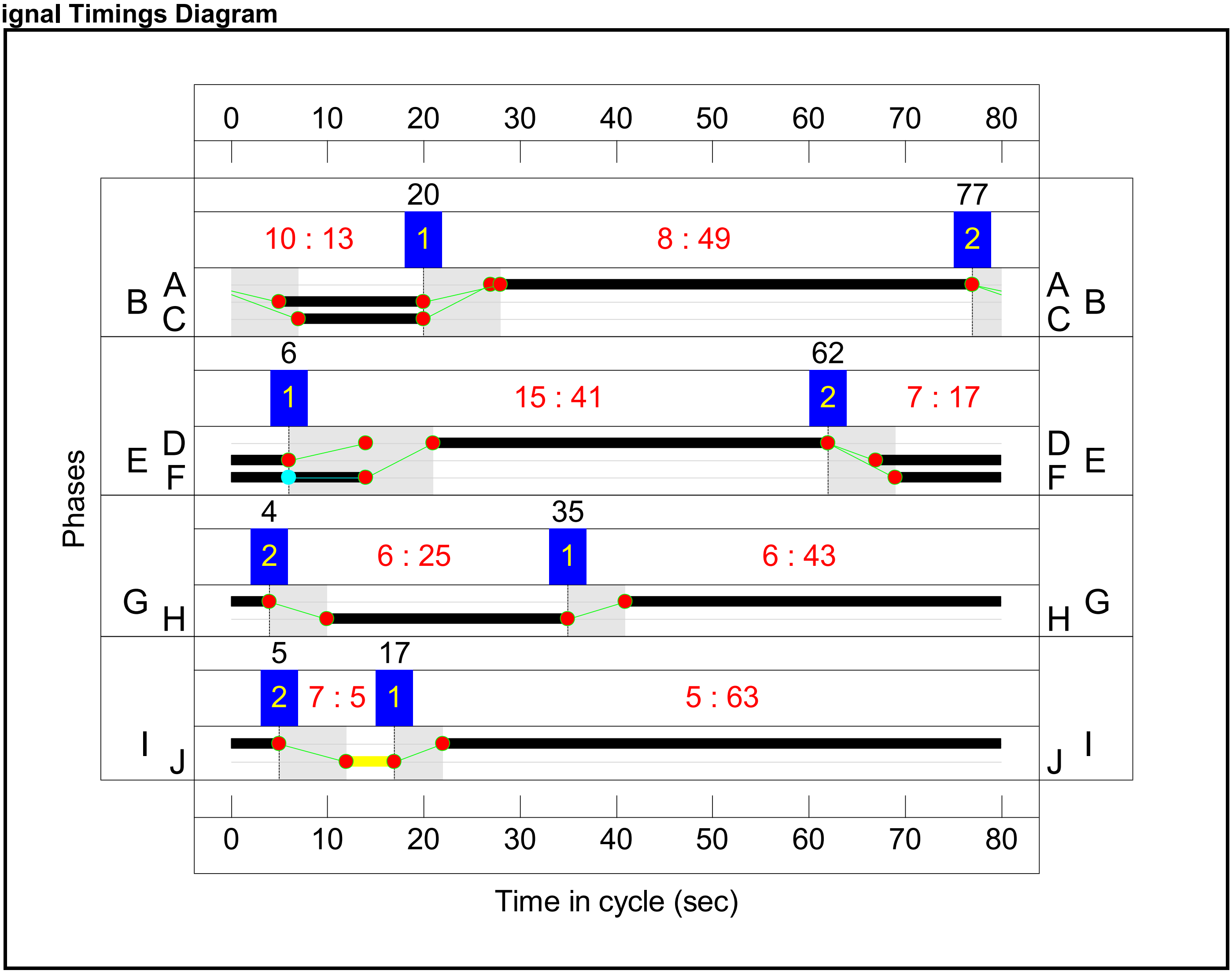
Stage Stream: 3

Stage	1	2
Duration	43	25
Change Point	35	4

Stage Stream: 4

Stage	1	2
Duration	63	5
Change Point	17	5

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.8%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.8%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	26	-	1235	2120:1980	716+668	89.2 : 89.3%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	26:28	-	1237	2120:4000	716+670	89.3 : 89.3%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	26	-	279	1900	641	43.5%
3/2	Right	U	1:2	N/A	C1:I		1	26	-	39	1900	641	6.1%
3/3	Right	U	1:2	N/A	C1:H		1	25	-	111	1900	618	18.0%
3/4	Right	U	1:2	N/A	C1:H		1	25	-	331	1900	618	53.6%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	40	-	672	2120:1980	1027+1015	32.8 : 33.0%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	1061	2120	1113	95.3%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	41	-	2068	2120:2120	1113+1004	97.8 : 97.5%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1173	2120	1325	88.5%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	49	-	1104	2120	1325	83.3%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	435	2120	1325	32.8%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	49	-	1013	2120	1325	76.5%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	159	1941	194	81.9%

8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	34	2105	210	16.2%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	15:13	-	456	2120:1980	424+112	85.1 : 85.1%
9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	15	-	769	2120:2120	424+424	90.8 : 90.6%
11/1	Ahead	U	2:2	N/A	C2:D		1	41	-	693	1900	997	69.5%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	41	-	755	1900	997	75.7%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	850	1995	1596	53.3%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	63	-	842	1995	1596	52.8%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	25	-	314	1980:1980	549+549	28.6 : 28.6%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	239	2120	530	45.1%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	19	-	674	2120:2120	530+530	63.4 : 63.8%
15/1	Ahead	U	1:1	N/A	C1:A		1	38	-	646	2000	975	66.3%
15/2	Ahead	U	1:1	N/A	C1:A		1	38	-	732	2000	975	75.1%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	38	-	735	2000:2000	871+246	65.8 : 65.8%
16/1	Right	U	2:3	N/A	C2:H		1	25	-	361	2000	650	55.5%
16/2	Right	U	2:3	N/A	C2:H		1	25	-	385	2000	650	59.2%
16/3	Right	U	2:3	N/A	C2:H		1	25	-	384	2000	650	59.1%
17/1	Ahead	U	2:3	N/A	C2:G		1	43	-	285	2000	1100	25.9%
17/2	Ahead	U	2:3	N/A	C2:G		1	43	-	347	2000	1100	31.5%
17/3	Ahead	U	2:3	N/A	C2:G		1	43	-	351	2000	1100	31.9%
18/1	Ahead	U	1:3	N/A	C1:O		1	60	-	352	2000	1525	23.1%
18/2	Ahead	U	1:3	N/A	C1:O		1	60	-	376	2000	1525	24.7%
19/1	Ahead	U	1:3	N/A	C1:N		1	57	-	1172	2000	1450	80.8%
19/2	Ahead	U	1:3	N/A	C1:N		1	57	-	1420	2120	1537	92.4%
19/3	Ahead	U	1:3	N/A	C1:N		1	57	-	979	2120	1537	63.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**81.9**	**40.5**	**0.0**	**122.4**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**81.9**	**40.5**	**0.0**	**122.4**	**-**	**-**	**-**	**-**
1/2+1/1	1235	1235	-	-	-	8.6	3.9	-	12.6 (6.5+6.1)	36.6 (36.6:36.6)	13.3	3.9	17.2
1/3+1/4	1237	1237	-	-	-	7.6	4.0	-	11.6 (6.5+5.1)	33.8 (36.7:30.7)	13.3	4.0	17.3
3/1	279	279	-	-	-	1.1	0.0	-	1.1	13.6	5.4	0.0	5.4
3/2	39	39	-	-	-	0.4	0.0	-	0.4	35.6	0.9	0.0	0.9
3/3	111	111	-	-	-	0.2	0.0	-	0.2	6.3	1.3	0.0	1.3
3/4	331	331	-	-	-	0.3	0.0	-	0.3	3.0	6.0	0.0	6.0
4/2+4/1	672	672	-	-	-	2.1	0.2	-	2.4 (1.2+1.2)	12.7 (12.6:12.8)	4.3	0.2	4.6
4/3	1061	1061	-	-	-	5.3	7.8	-	13.2	44.7	22.4	7.8	30.2
4/4+4/5	2068	2068	-	-	-	10.2	13.6	-	23.8 (12.8+11.0)	41.4 (42.3:40.5)	23.6	13.6	37.2
6/1	1173	1173	-	-	-	4.9	0.0	-	4.9	14.9	20.5	0.0	20.5
6/2	1104	1104	-	-	-	5.8	0.0	-	5.8	18.9	20.1	0.0	20.1
6/3	435	435	-	-	-	0.4	0.2	-	0.6	5.1	3.8	0.2	4.1
6/4	1013	1013	-	-	-	3.7	0.0	-	3.7	13.2	20.1	0.0	20.1
8/1	159	159	-	-	-	1.6	2.0	-	3.6	81.3	3.4	2.0	5.5
8/2	34	34	-	-	-	0.3	0.1	-	0.4	43.2	0.7	0.1	0.8
9/2+9/1	456	456	-	-	-	3.8	2.7	-	6.5 (5.2+1.3)	51.6 (52.0:49.8)	7.7	2.7	10.4
9/3+9/4	769	769	-	-	-	6.7	4.4	-	11.1 (5.5+5.5)	51.8 (51.8:51.8)	8.3	4.4	12.7
11/1	693	693	-	-	-	1.3	0.0	-	1.3	6.6	4.3	0.0	4.3
11/2	755	755	-	-	-	1.8	0.0	-	1.8	8.4	4.1	0.0	4.1
12/1	850	850	-	-	-	0.1	0.0	-	0.1	0.3	0.5	0.0	0.5
12/2	842	842	-	-	-	0.1	0.0	-	0.1	0.3	0.5	0.0	0.5

13/2+13/1	314	314	-	-	-	1.7	0.2	-	1.9 (1.0+1.0)	22.1 (22.1:22.1)	2.5	0.2	2.7
13/3	239	239	-	-	-	1.7	0.4	-	2.1	31.5	4.4	0.4	4.9
13/4+13/5	674	674	-	-	-	5.0	0.9	-	5.9 (2.9+2.9)	31.4 (31.4:31.4)	6.7	0.9	7.5
15/1	646	646	-	-	-	0.4	0.0	-	0.4	2.1	1.5	0.0	1.5
15/2	732	732	-	-	-	0.3	0.0	-	0.3	1.4	0.9	0.0	0.9
15/3+15/4	735	735	-	-	-	0.3	0.0	-	0.3 (0.2+0.1)	1.5 (1.4:1.7)	0.7	0.0	0.7
16/1	361	361	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
16/2	385	385	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
16/3	384	384	-	-	-	0.0	0.0	-	0.0	0.4	0.5	0.0	0.5
17/1	285	285	-	-	-	0.2	0.0	-	0.2	3.1	0.8	0.0	0.8
17/2	347	347	-	-	-	0.3	0.0	-	0.3	3.5	0.9	0.0	0.9
17/3	351	351	-	-	-	0.3	0.0	-	0.3	3.6	0.9	0.0	0.9
18/1	352	352	-	-	-	0.2	0.0	-	0.2	1.9	1.8	0.0	1.8
18/2	376	376	-	-	-	0.2	0.0	-	0.2	2.0	1.7	0.0	1.7
19/1	1172	1172	-	-	-	2.1	0.0	-	2.1	6.5	7.5	0.0	7.5
19/2	1420	1420	-	-	-	2.3	0.0	-	2.3	5.7	11.9	0.0	11.9
19/3	979	979	-	-	-	0.6	0.0	-	0.6	2.2	2.4	0.0	2.4

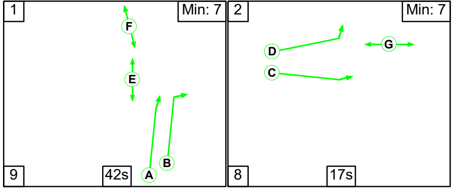
C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): 0.7 Total Delay for Signalled Lanes (pcuHr): 25.14 Cycle Time (s): 80
C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): -8.7 Total Delay for Signalled Lanes (pcuHr): 41.24 Cycle Time (s): 80
C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): -2.7 Total Delay for Signalled Lanes (pcuHr): 9.36 Cycle Time (s): 80
C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): -0.9 Total Delay for Signalled Lanes (pcuHr): 32.59 Cycle Time (s): 80
C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 18.9 Total Delay for Signalled Lanes (pcuHr): 12.93 Cycle Time (s): 80
C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 51.9 Total Delay for Signalled Lanes (pcuHr): 1.06 Cycle Time (s): 80
C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 69.0 Total Delay for Signalled Lanes (pcuHr): 0.13 Cycle Time (s): 80
PRC Over All Lanes (%): -8.7 Total Delay Over All Lanes(pcuHr): 122.45

Scenario 5: '2031 Updated NSTM Background - PM ' (FG2: '2031 Updated NSTM background - PM', Plan 1: 'Network Control Plan 1')

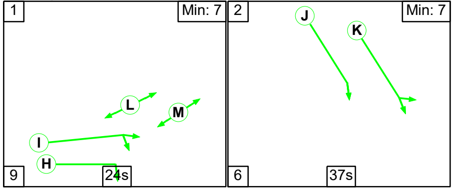
C1 - Eastside Controller

Stage Sequence Diagram

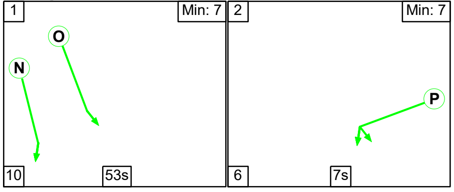
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	42	17
Change Point	4	55

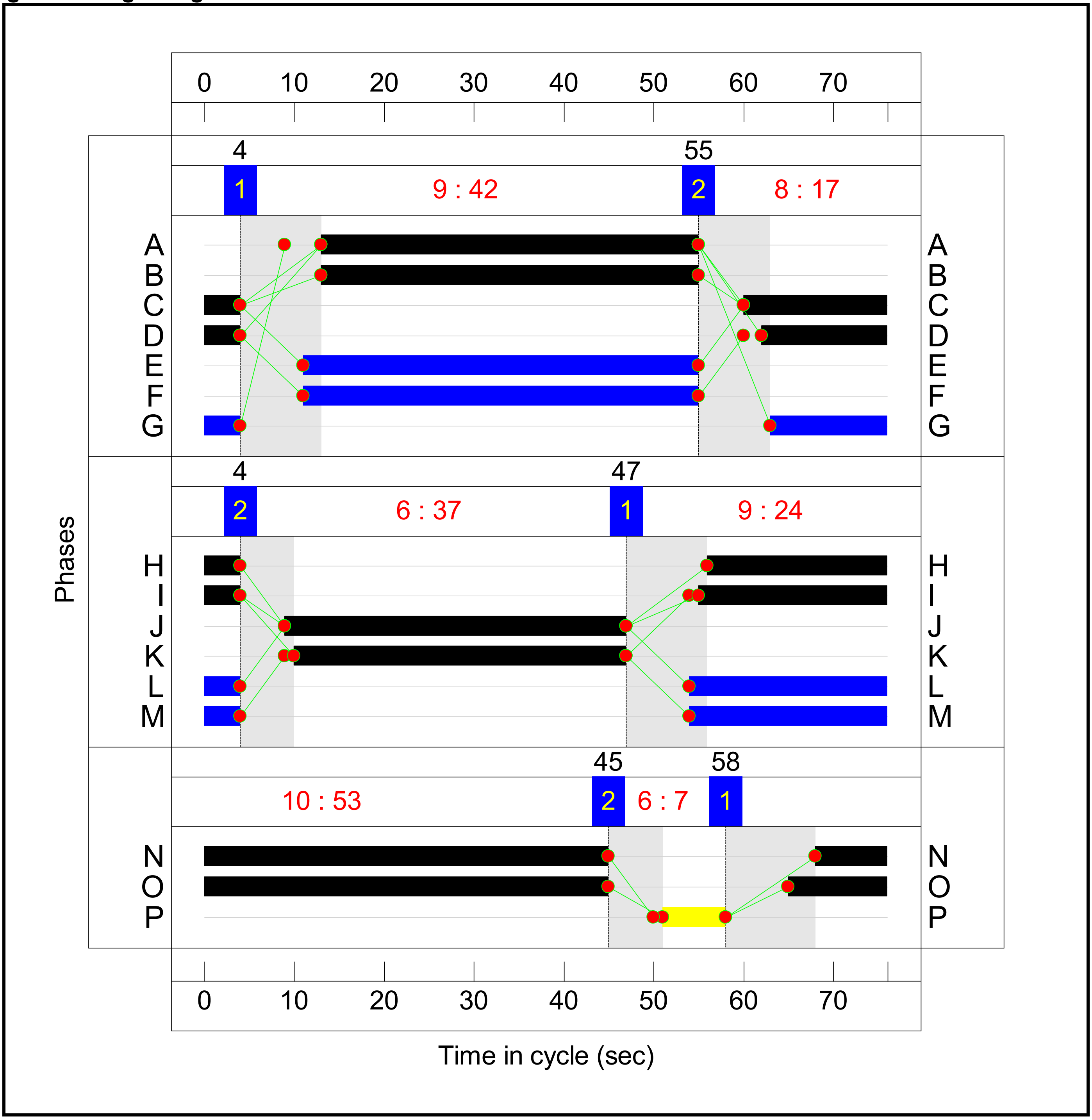
Stage Stream: 2

Stage	1	2
Duration	24	37
Change Point	47	4

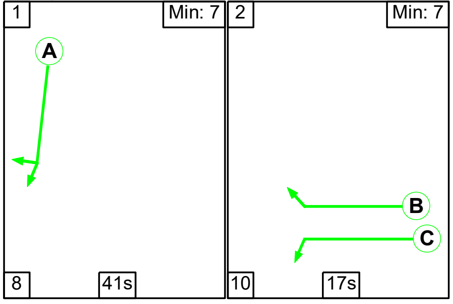
Stage Stream: 3

Stage	1	2
Duration	53	7
Change Point	58	45

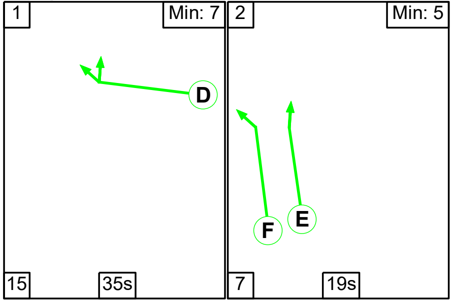
Signal Timings Diagram



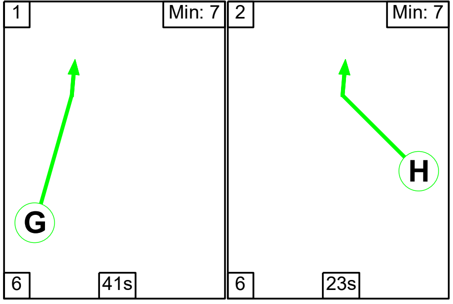
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



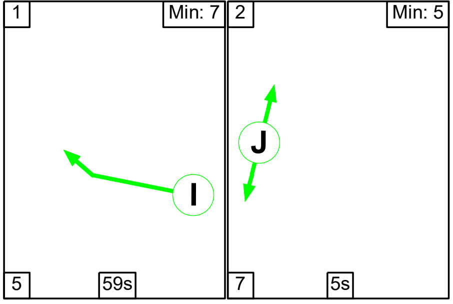
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	41	17
Change Point	24	73

Stage Stream: 2

Stage	1	2
Duration	35	19
Change Point	9	59

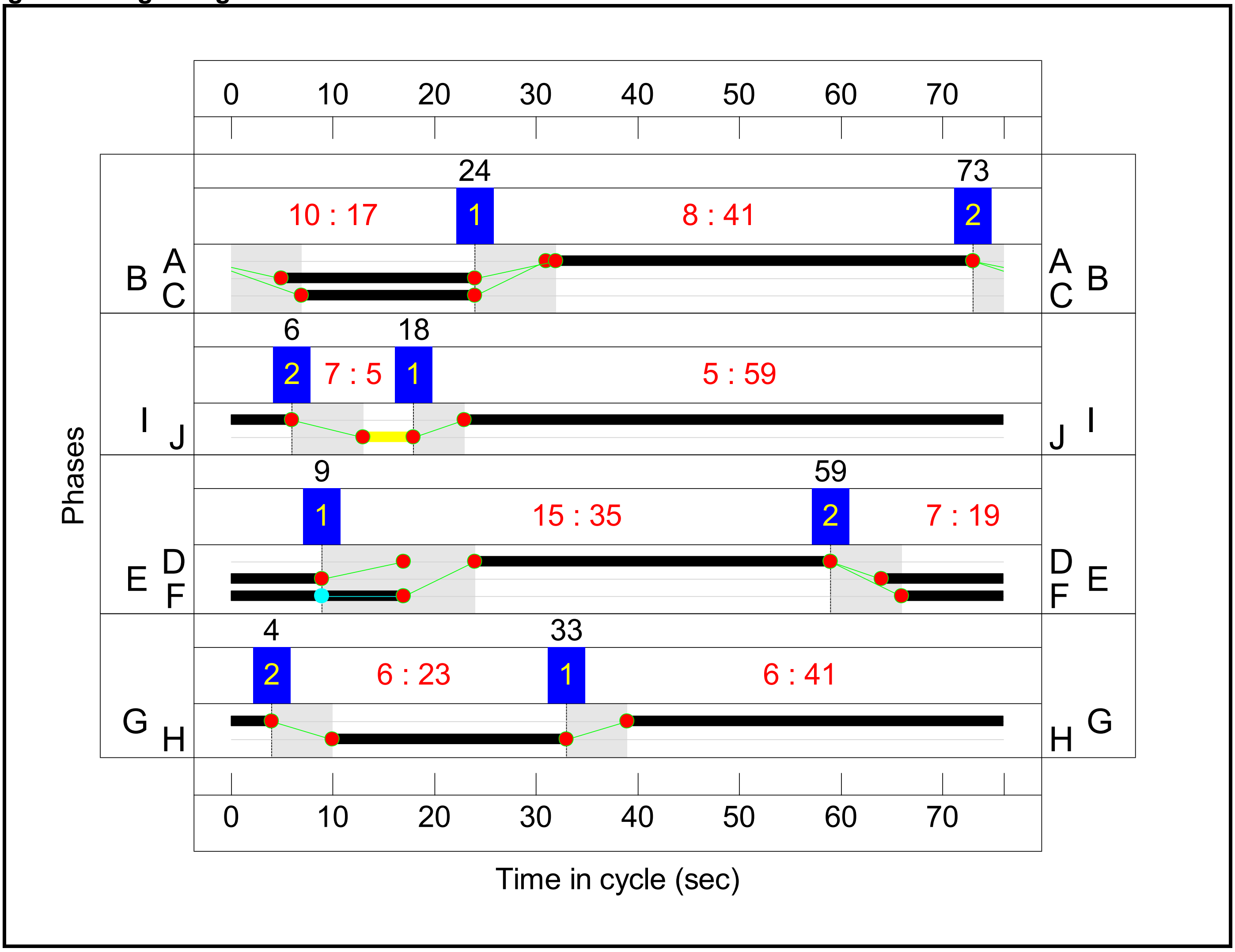
Stage Stream: 3

Stage	1	2
Duration	41	23
Change Point	33	4

Stage Stream: 4

Stage	1	2
Duration	59	5
Change Point	18	6

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**87.5%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**87.5%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	18	-	824	2120:1980	530+495	80.0 : 80.8%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	18:20	-	923	2120:4000	530+597	81.9 : 81.9%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	25	-	128	1900	650	19.7%
3/2	Right	U	1:2	N/A	C1:I		1	25	-	10	1900	650	1.5%
3/3	Right	U	1:2	N/A	C1:H		1	24	-	186	1900	625	29.8%
3/4	Right	U	1:2	N/A	C1:H		1	24	-	221	1900	625	35.4%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	37	-	1145	2120:1980	1025+990	55.9 : 57.8%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	618	2120	1088	56.8%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	1632	2120:2120	1088+883	87.5 : 77.0%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	809	2120	1172	69.1%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	748	2120	1172	63.8%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	473	2120	1172	40.4%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	823	2120	1172	70.2%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	147	1904	200	73.3%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	143	2105	222	64.5%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	19:17	-	430	2120:1980	558+116	63.8 : 63.8%

9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	867	2120:2120	558+558	72.2 : 83.2%
11/1	Ahead	U	2:2	N/A	C2:D		1	35	-	641	1900	900	71.2%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	35	-	655	1900	900	72.8%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1001	1995	1575	63.6%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	992	1995	1575	63.0%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	27	-	721	1980:1980	604+602	59.8 : 59.8%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	21	-	462	2120	614	75.3%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	21	-	1040	2120:2120	614+614	84.4 : 85.1%
15/1	Ahead	U	1:1	N/A	C1:A		1	42	-	842	2000	1132	74.4%
15/2	Ahead	U	1:1	N/A	C1:A		1	42	-	921	2000	1132	81.4%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	42	-	986	2000:2000	1104+66	84.3 : 84.3%
16/1	Right	U	2:3	N/A	C2:H		1	23	-	356	2000	632	56.4%
16/2	Right	U	2:3	N/A	C2:H		1	23	-	403	2000	632	63.8%
16/3	Right	U	2:3	N/A	C2:H		1	23	-	464	2000	632	73.5%
17/1	Ahead	U	2:3	N/A	C2:G		1	41	-	486	2000	1105	44.0%
17/2	Ahead	U	2:3	N/A	C2:G		1	41	-	518	2000	1105	46.9%
17/3	Ahead	U	2:3	N/A	C2:G		1	41	-	522	2000	1105	47.2%
18/1	Ahead	U	1:3	N/A	C1:O		1	56	-	283	2000	1500	18.9%
18/2	Ahead	U	1:3	N/A	C1:O		1	56	-	583	2000	1500	38.9%
19/1	Ahead	U	1:3	N/A	C1:N		1	53	-	804	2000	1421	56.6%
19/2	Ahead	U	1:3	N/A	C1:N		1	53	-	1173	2120	1506	77.9%
19/3	Ahead	U	1:3	N/A	C1:N		1	53	-	680	2120	1506	45.1%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**77.1**	**18.0**	**0.0**	**95.1**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**77.1**	**18.0**	**0.0**	**95.1**	**-**	**-**	**-**	**-**
1/2+1/1	824	824	-	-	-	6.1	2.0	-	8.1 (4.2+4.0)	35.5 (35.5:35.6)	8.4	2.0	10.4
1/3+1/4	923	923	-	-	-	6.3	2.2	-	8.5 (4.3+4.3)	33.3 (35.5:31.3)	8.6	2.2	10.8
3/1	128	128	-	-	-	0.3	0.0	-	0.3	9.6	1.0	0.0	1.0
3/2	10	10	-	-	-	0.1	0.0	-	0.1	22.5	0.1	0.0	0.1
3/3	186	186	-	-	-	0.2	0.0	-	0.2	3.3	0.3	0.0	0.3
3/4	221	221	-	-	-	0.2	0.0	-	0.2	3.2	0.3	0.0	0.3
4/2+4/1	1145	1145	-	-	-	4.2	0.7	-	4.9 (2.4+2.5)	15.3 (15.1:15.4)	8.4	0.7	9.1
4/3	618	618	-	-	-	2.2	0.7	-	2.8	16.5	8.9	0.7	9.6
4/4+4/5	1632	1632	-	-	-	6.8	2.4	-	9.2 (5.7+3.5)	20.3 (21.6:18.5)	17.7	2.4	20.1
6/1	809	809	-	-	-	4.0	0.0	-	4.0	17.9	17.0	0.0	17.0
6/2	748	748	-	-	-	3.1	0.0	-	3.1	14.7	14.8	0.0	14.8
6/3	473	473	-	-	-	0.6	0.3	-	1.0	7.3	5.9	0.3	6.2
6/4	823	823	-	-	-	1.9	0.0	-	1.9	8.4	14.2	0.0	14.2
8/1	147	147	-	-	-	1.3	1.3	-	2.7	65.1	3.0	1.3	4.3
8/2	143	143	-	-	-	1.3	0.9	-	2.2	55.0	2.9	0.9	3.7
9/2+9/1	430	430	-	-	-	2.9	0.9	-	3.8 (3.2+0.6)	31.8 (32.1:30.4)	6.6	0.9	7.5
9/3+9/4	867	867	-	-	-	6.3	1.7	-	8.0 (3.7+4.3)	33.1 (32.6:33.6)	9.2	1.7	10.9
11/1	641	641	-	-	-	1.2	0.0	-	1.2	6.9	5.5	0.0	5.5
11/2	655	655	-	-	-	1.3	0.0	-	1.3	7.1	2.7	0.0	2.7
12/1	1001	1001	-	-	-	0.2	0.0	-	0.2	0.7	1.3	0.0	1.3
12/2	992	992	-	-	-	0.2	0.0	-	0.2	0.7	1.3	0.0	1.3

13/2+13/1	721	721	-	-	-	3.7	0.7	-	4.5 (2.2+2.2)	22.2 (22.2:22.2)	5.8	0.7	6.6
13/3	462	462	-	-	-	3.1	1.5	-	4.6	36.2	8.9	1.5	10.3
13/4+13/5	1040	1040	-	-	-	7.3	2.7	-	10.0 (5.0+5.0)	34.8 (34.7:34.8)	10.3	2.7	13.0
15/1	842	842	-	-	-	1.8	0.0	-	1.8	7.6	14.6	0.0	14.6
15/2	921	921	-	-	-	1.6	0.0	-	1.6	6.3	15.2	0.0	15.2
15/3+15/4	986	986	-	-	-	1.5	0.0	-	1.5 (1.5+0.0)	5.5 (5.7:2.9)	16.3	0.0	16.3
16/1	356	356	-	-	-	0.0	0.0	-	0.0	0.3	0.4	0.0	0.4
16/2	403	403	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
16/3	464	464	-	-	-	0.1	0.0	-	0.1	0.4	0.5	0.0	0.5
17/1	486	486	-	-	-	1.4	0.0	-	1.4	10.5	3.2	0.0	3.2
17/2	518	518	-	-	-	2.0	0.0	-	2.0	13.7	4.3	0.0	4.3
17/3	522	522	-	-	-	2.0	0.0	-	2.0	13.9	4.4	0.0	4.4
18/1	283	283	-	-	-	0.1	0.0	-	0.1	1.6	0.8	0.0	0.8
18/2	583	583	-	-	-	0.3	0.0	-	0.3	1.9	1.3	0.0	1.3
19/1	804	804	-	-	-	0.4	0.0	-	0.4	1.8	1.5	0.0	1.5
19/2	1173	1173	-	-	-	0.5	0.0	-	0.5	1.6	2.2	0.0	2.2
19/3	680	680	-	-	-	0.3	0.0	-	0.3	1.8	1.3	0.0	1.3

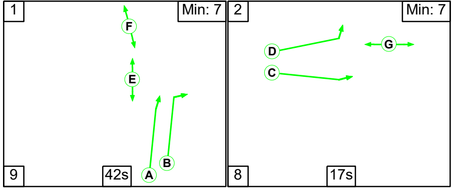
C1 - Eastside Controller	Stream: 1	PRC for Signalled Lanes (%):	6.8	Total Delay for Signalled Lanes (pcuHr):	21.57	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 2	PRC for Signalled Lanes (%):	2.8	Total Delay for Signalled Lanes (pcuHr):	17.67	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 3	PRC for Signalled Lanes (%):	15.6	Total Delay for Signalled Lanes (pcuHr):	6.55	Cycle Time (s):	76
C2 - Westside Controller	Stream: 1	PRC for Signalled Lanes (%):	8.2	Total Delay for Signalled Lanes (pcuHr):	21.73	Cycle Time (s):	76
C2 - Westside Controller	Stream: 2	PRC for Signalled Lanes (%):	5.8	Total Delay for Signalled Lanes (pcuHr):	21.66	Cycle Time (s):	76
C2 - Westside Controller	Stream: 3	PRC for Signalled Lanes (%):	22.5	Total Delay for Signalled Lanes (pcuHr):	5.54	Cycle Time (s):	76
C2 - Westside Controller	Stream: 4	PRC for Signalled Lanes (%):	41.6	Total Delay for Signalled Lanes (pcuHr):	0.37	Cycle Time (s):	76
		PRC Over All Lanes (%):	2.8	Total Delay Over All Lanes(pcuHr):	95.07		

Scenario 6: '2031 Updated NSTM +mez@50% - PM ' (FG4: '2031 Updated NSTM +mez@50% - PM', Plan 1: 'Network Control Plan 1')

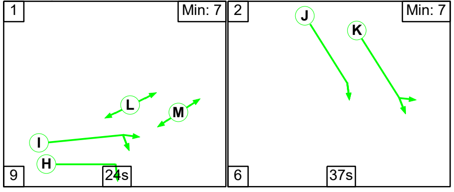
C1 - Eastside Controller

Stage Sequence Diagram

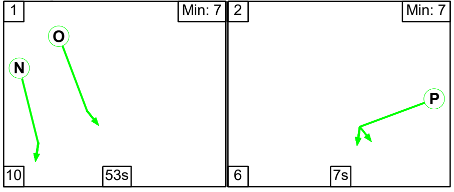
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	42	17
Change Point	4	55

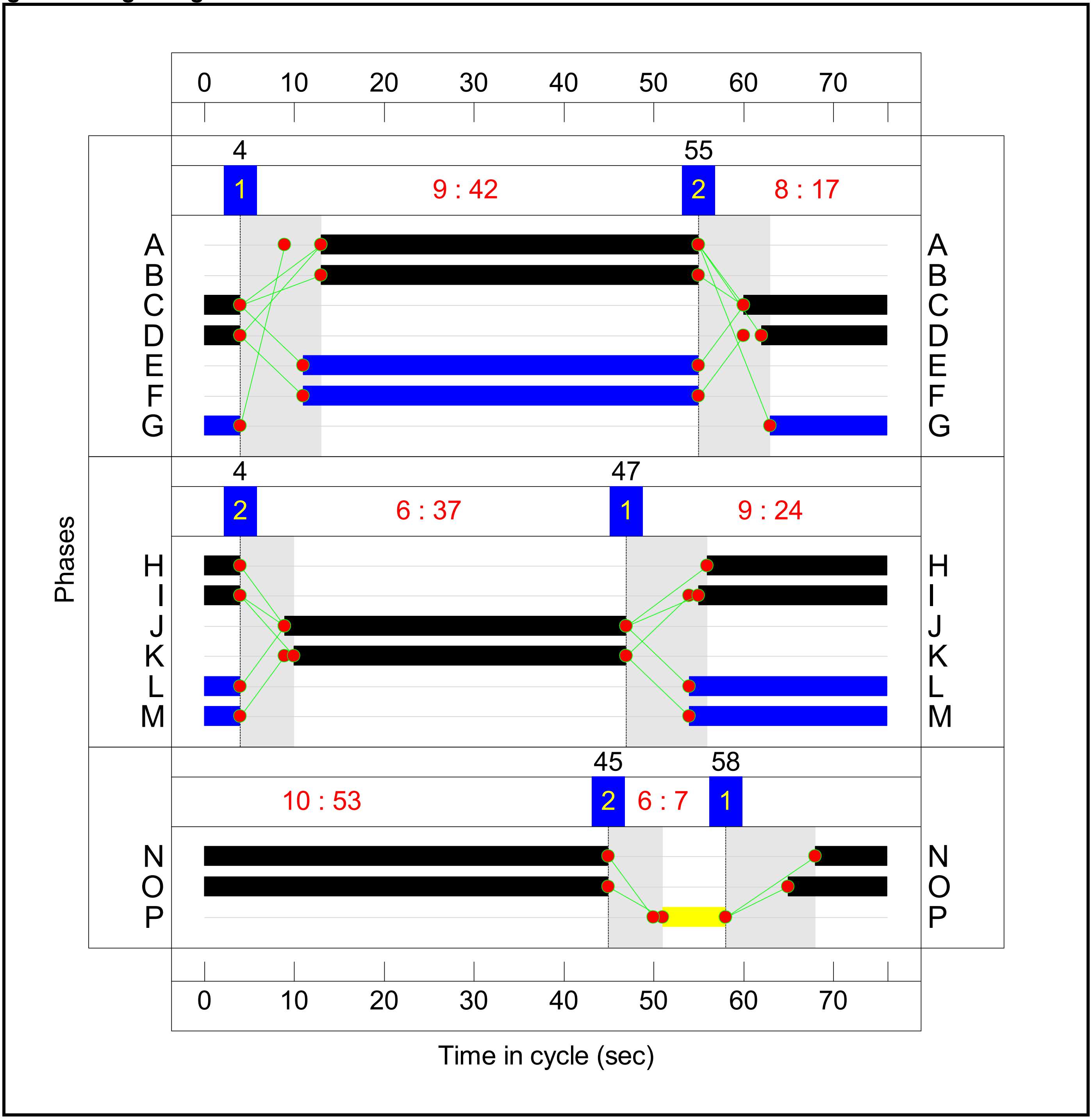
Stage Stream: 2

Stage	1	2
Duration	24	37
Change Point	47	4

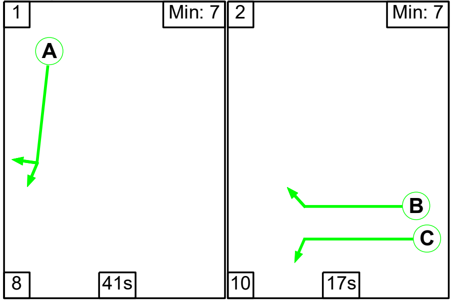
Stage Stream: 3

Stage	1	2
Duration	53	7
Change Point	58	45

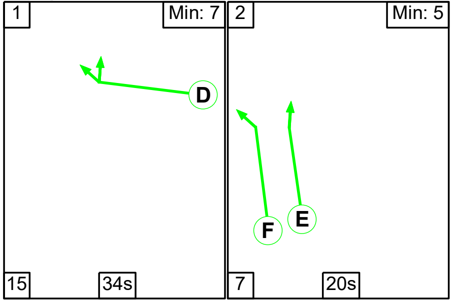
Signal Timings Diagram



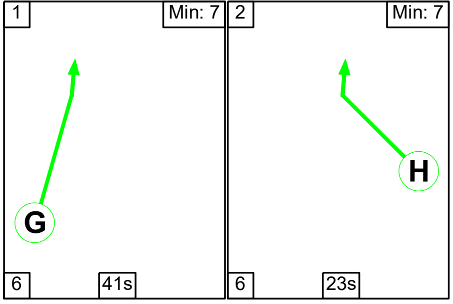
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



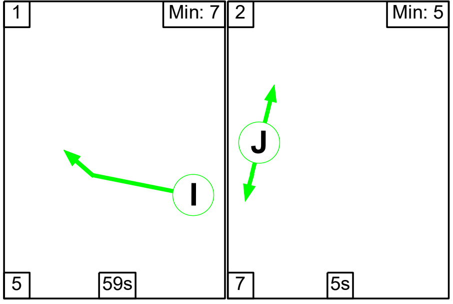
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	41	17
Change Point	24	73

Stage Stream: 2

Stage	1	2
Duration	34	20
Change Point	10	59

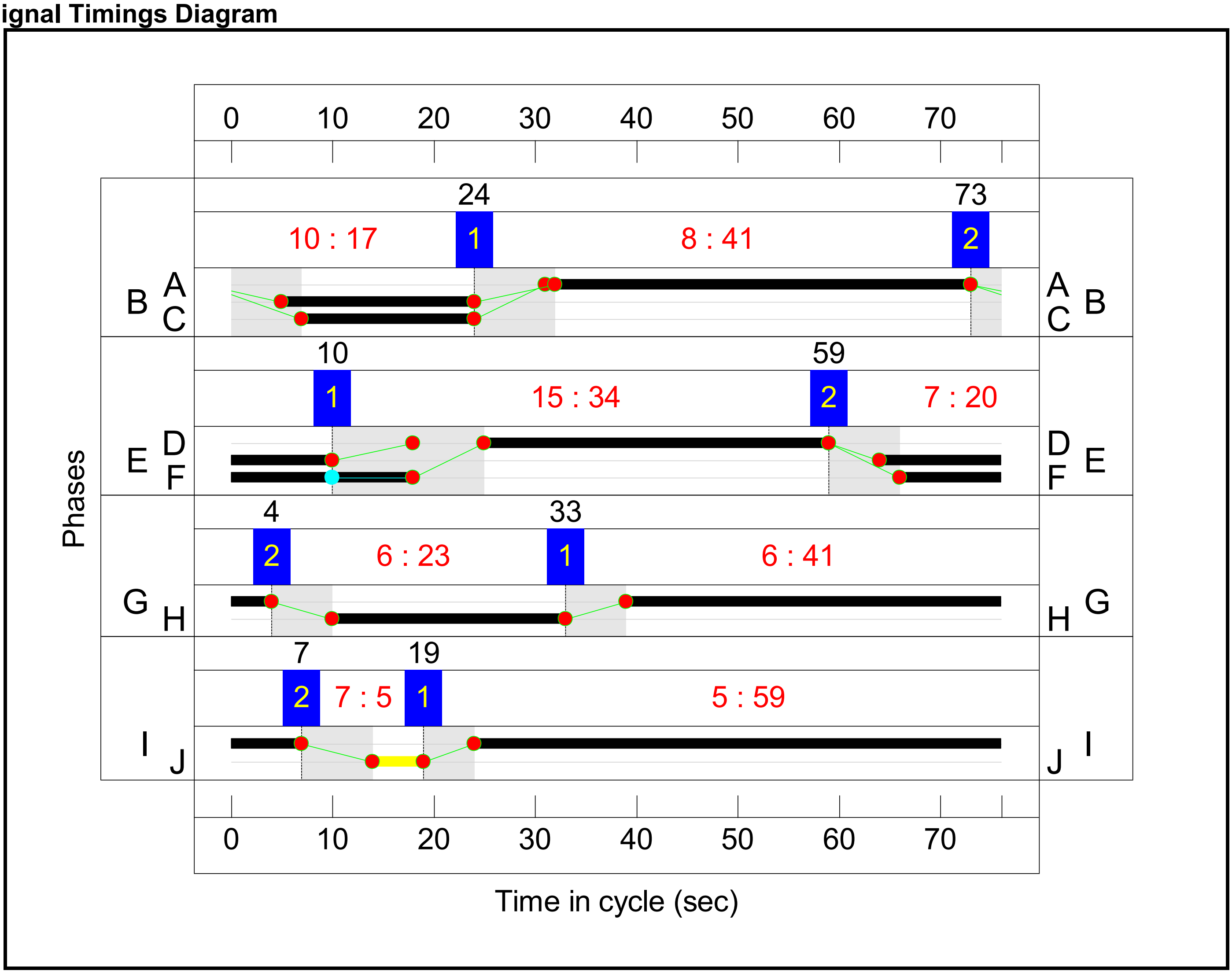
Stage Stream: 3

Stage	1	2
Duration	41	23
Change Point	33	4

Stage Stream: 4

Stage	1	2
Duration	59	5
Change Point	19	7

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	18	-	824	2120:1980	530+495	80.9 : 79.8%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	18:20	-	937	2120:4000	530+614	81.9 : 81.9%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	25	-	137	1900	650	21.1%
3/2	Right	U	1:2	N/A	C1:I		1	25	-	24	1900	650	3.7%
3/3	Right	U	1:2	N/A	C1:H		1	24	-	195	1900	625	31.2%
3/4	Right	U	1:2	N/A	C1:H		1	24	-	226	1900	625	36.2%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	37	-	1145	2120:1980	1025+990	55.9 : 57.8%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	633	2120	1088	58.2%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	1637	2120:2120	1088+881	88.0 : 77.2%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	833	2120	1172	71.1%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	758	2120	1172	64.7%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	473	2120	1172	40.4%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	823	2120	1172	70.2%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	147	1904	200	73.3%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	143	2105	222	64.5%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	19:17	-	445	2120:1980	558+130	64.7 : 64.7%

9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	862	2120:2120	558+558	70.8 : 83.7%
11/1	Ahead	U	2:2	N/A	C2:D		1	34	-	632	1900	875	72.2%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	34	-	664	1900	875	75.9%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1002	1995	1575	63.6%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1011	1995	1575	64.2%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	28	-	741	1980:1980	617+616	60.1 : 60.1%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	22	-	492	2120	642	76.7%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	22	-	1084	2120:2120	642+642	84.2 : 84.8%
15/1	Ahead	U	1:1	N/A	C1:A		1	42	-	877	2000	1132	77.5%
15/2	Ahead	U	1:1	N/A	C1:A		1	42	-	935	2000	1132	82.6%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	42	-	1011	2000:2000	1090+92	85.5 : 85.5%
16/1	Right	U	2:3	N/A	C2:H		1	23	-	361	2000	632	57.2%
16/2	Right	U	2:3	N/A	C2:H		1	23	-	395	2000	632	62.5%
16/3	Right	U	2:3	N/A	C2:H		1	23	-	467	2000	632	73.9%
17/1	Ahead	U	2:3	N/A	C2:G		1	41	-	516	2000	1105	46.7%
17/2	Ahead	U	2:3	N/A	C2:G		1	41	-	540	2000	1105	48.9%
17/3	Ahead	U	2:3	N/A	C2:G		1	41	-	544	2000	1105	49.2%
18/1	Ahead	U	1:3	N/A	C1:O		1	56	-	292	2000	1500	19.5%
18/2	Ahead	U	1:3	N/A	C1:O		1	56	-	597	2000	1500	39.8%
19/1	Ahead	U	1:3	N/A	C1:N		1	53	-	828	2000	1421	58.3%
19/2	Ahead	U	1:3	N/A	C1:N		1	53	-	1183	2120	1506	78.5%
19/3	Ahead	U	1:3	N/A	C1:N		1	53	-	680	2120	1506	45.1%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**79.3**	**18.1**	**0.0**	**97.5**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**79.3**	**18.1**	**0.0**	**97.5**	**-**	**-**	**-**	**-**
1/2+1/1	824	824	-	-	-	6.1	2.0	-	8.1 (4.2+3.9)	35.5 (35.6:35.5)	8.5	2.0	10.5
1/3+1/4	937	937	-	-	-	6.4	2.2	-	8.6 (4.3+4.4)	33.2 (35.4:31.3)	8.6	2.2	10.8
3/1	137	137	-	-	-	0.4	0.0	-	0.4	10.6	1.1	0.0	1.1
3/2	24	24	-	-	-	0.2	0.0	-	0.2	22.7	0.4	0.0	0.4
3/3	195	195	-	-	-	0.2	0.0	-	0.2	3.3	0.3	0.0	0.3
3/4	226	226	-	-	-	0.2	0.0	-	0.2	3.2	0.3	0.0	0.3
4/2+4/1	1145	1145	-	-	-	4.2	0.7	-	4.9 (2.4+2.5)	15.3 (15.1:15.4)	8.4	0.7	9.1
4/3	633	633	-	-	-	2.3	0.7	-	3.0	16.8	9.1	0.7	9.8
4/4+4/5	1637	1637	-	-	-	6.9	2.4	-	9.3 (5.8+3.5)	20.5 (21.8:18.6)	17.8	2.4	20.2
6/1	833	833	-	-	-	4.2	0.0	-	4.2	18.3	17.5	0.0	17.5
6/2	758	758	-	-	-	3.1	0.0	-	3.1	14.9	15.0	0.0	15.0
6/3	473	473	-	-	-	0.6	0.3	-	1.0	7.3	5.6	0.3	5.9
6/4	823	823	-	-	-	1.9	0.0	-	1.9	8.4	14.2	0.0	14.2
8/1	147	147	-	-	-	1.3	1.3	-	2.7	65.1	3.0	1.3	4.3
8/2	143	143	-	-	-	1.3	0.9	-	2.2	55.0	2.9	0.9	3.7
9/2+9/1	445	445	-	-	-	3.0	0.9	-	3.9 (3.2+0.7)	31.9 (32.2:30.5)	6.7	0.9	7.6
9/3+9/4	862	862	-	-	-	6.2	1.7	-	7.9 (3.6+4.3)	33.0 (32.4:33.5)	9.2	1.7	10.9
11/1	632	632	-	-	-	1.2	0.0	-	1.2	7.0	4.5	0.0	4.5
11/2	664	664	-	-	-	1.4	0.0	-	1.4	7.4	2.8	0.0	2.8
12/1	1002	1002	-	-	-	0.2	0.0	-	0.2	0.7	1.3	0.0	1.3
12/2	1011	1011	-	-	-	0.2	0.0	-	0.2	0.7	1.3	0.0	1.3

13/2+13/1	741	741	-	-	-	3.7	0.8	-	4.4 (2.2+2.2)	21.5 (21.5:21.5)	5.9	0.8	6.6
13/3	492	492	-	-	-	3.3	1.6	-	4.9	35.8	9.4	1.6	11.0
13/4+13/5	1084	1084	-	-	-	7.5	2.7	-	10.1 (5.0+5.1)	33.6 (33.6:33.7)	10.7	2.7	13.4
15/1	877	877	-	-	-	1.8	0.0	-	1.8	7.3	14.7	0.0	14.7
15/2	935	935	-	-	-	1.8	0.0	-	1.8	7.0	15.3	0.0	15.3
15/3+15/4	1011	1011	-	-	-	1.7	0.0	-	1.7 (1.6+0.1)	6.1 (6.3:3.8)	16.4	0.0	16.4
16/1	361	361	-	-	-	0.0	0.0	-	0.0	0.3	0.4	0.0	0.4
16/2	395	395	-	-	-	0.0	0.0	-	0.0	0.4	0.4	0.0	0.4
16/3	467	467	-	-	-	0.1	0.0	-	0.1	0.5	0.5	0.0	0.5
17/1	516	516	-	-	-	1.7	0.0	-	1.7	12.0	3.8	0.0	3.8
17/2	540	540	-	-	-	2.2	0.0	-	2.2	14.6	4.7	0.0	4.7
17/3	544	544	-	-	-	2.2	0.0	-	2.2	14.7	4.8	0.0	4.8
18/1	292	292	-	-	-	0.1	0.0	-	0.1	1.7	1.0	0.0	1.0
18/2	597	597	-	-	-	0.3	0.0	-	0.3	2.0	1.6	0.0	1.6
19/1	828	828	-	-	-	0.4	0.0	-	0.4	1.8	1.5	0.0	1.5
19/2	1183	1183	-	-	-	0.5	0.0	-	0.5	1.6	2.2	0.0	2.2
19/3	680	680	-	-	-	0.3	0.0	-	0.3	1.8	1.3	0.0	1.3

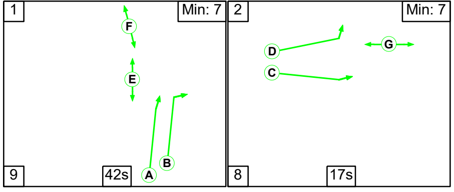
C1 - Eastside Controller	Stream: 1	PRC for Signalled Lanes (%):	5.2	Total Delay for Signalled Lanes (pcuHr):	22.09	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 2	PRC for Signalled Lanes (%):	2.3	Total Delay for Signalled Lanes (pcuHr):	18.04	Cycle Time (s):	76
C1 - Eastside Controller	Stream: 3	PRC for Signalled Lanes (%):	14.6	Total Delay for Signalled Lanes (pcuHr):	6.59	Cycle Time (s):	76
C2 - Westside Controller	Stream: 1	PRC for Signalled Lanes (%):	7.5	Total Delay for Signalled Lanes (pcuHr):	22.07	Cycle Time (s):	76
C2 - Westside Controller	Stream: 2	PRC for Signalled Lanes (%):	6.1	Total Delay for Signalled Lanes (pcuHr):	22.06	Cycle Time (s):	76
C2 - Westside Controller	Stream: 3	PRC for Signalled Lanes (%):	21.7	Total Delay for Signalled Lanes (pcuHr):	6.26	Cycle Time (s):	76
C2 - Westside Controller	Stream: 4	PRC for Signalled Lanes (%):	40.2	Total Delay for Signalled Lanes (pcuHr):	0.38	Cycle Time (s):	76
		PRC Over All Lanes (%):	2.3	Total Delay Over All Lanes(pcuHr):	97.49		

Scenario 7: '2031 Updated NSTM +mez ITP - PM ' (FG8: '2031 Updated NSTM +mez ITP - PM', Plan 1: 'Network Control Plan 1')

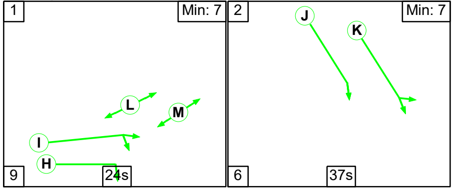
C1 - Eastside Controller

Stage Sequence Diagram

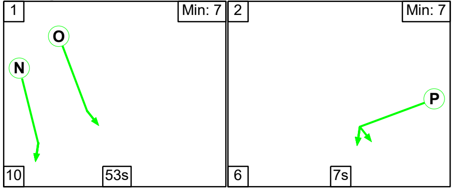
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	42	17
Change Point	4	55

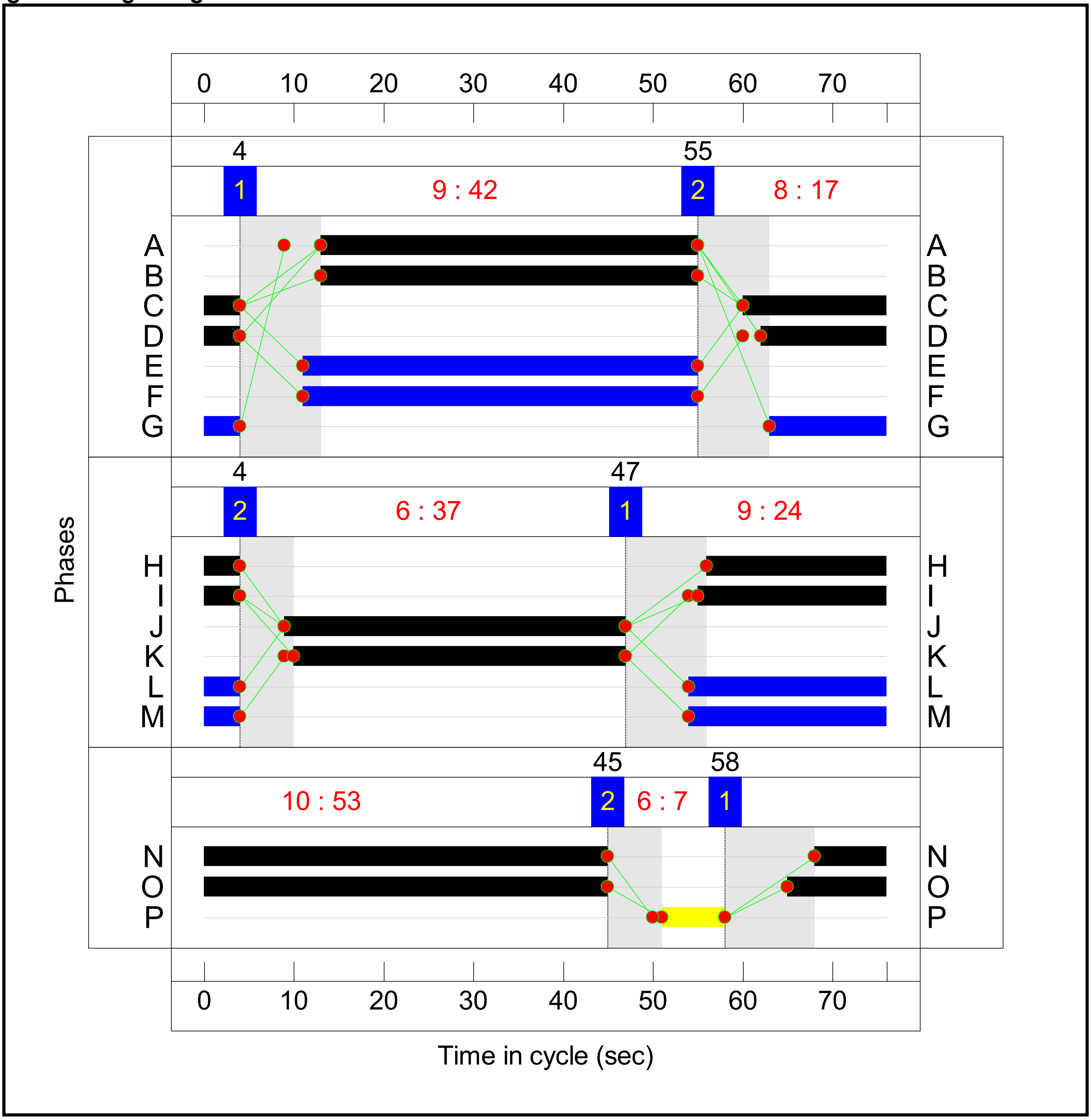
Stage Stream: 2

Stage	1	2
Duration	24	37
Change Point	47	4

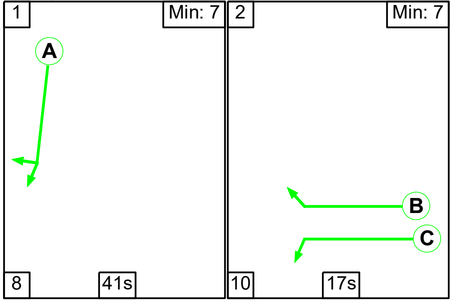
Stage Stream: 3

Stage	1	2
Duration	53	7
Change Point	58	45

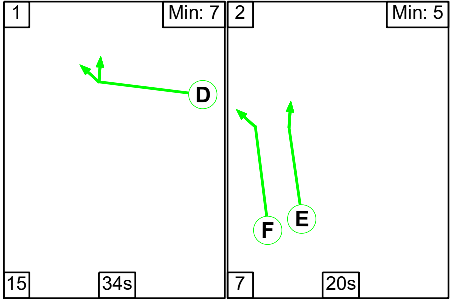
Signal Timings Diagram



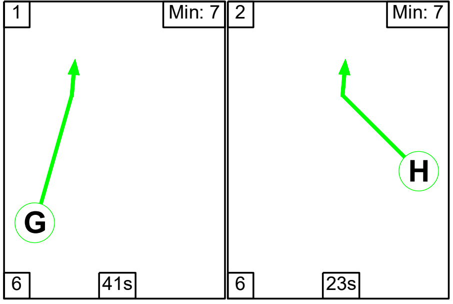
C2 - Westside Controller
Stage Sequence Diagram
Stage Stream: 1



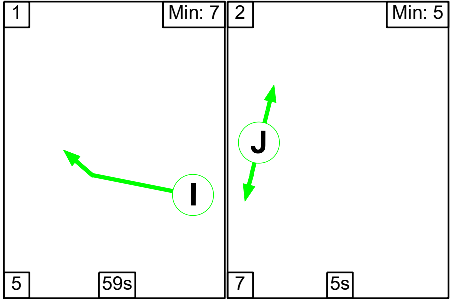
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	41	17
Change Point	24	73

Stage Stream: 2

Stage	1	2
Duration	34	20
Change Point	10	59

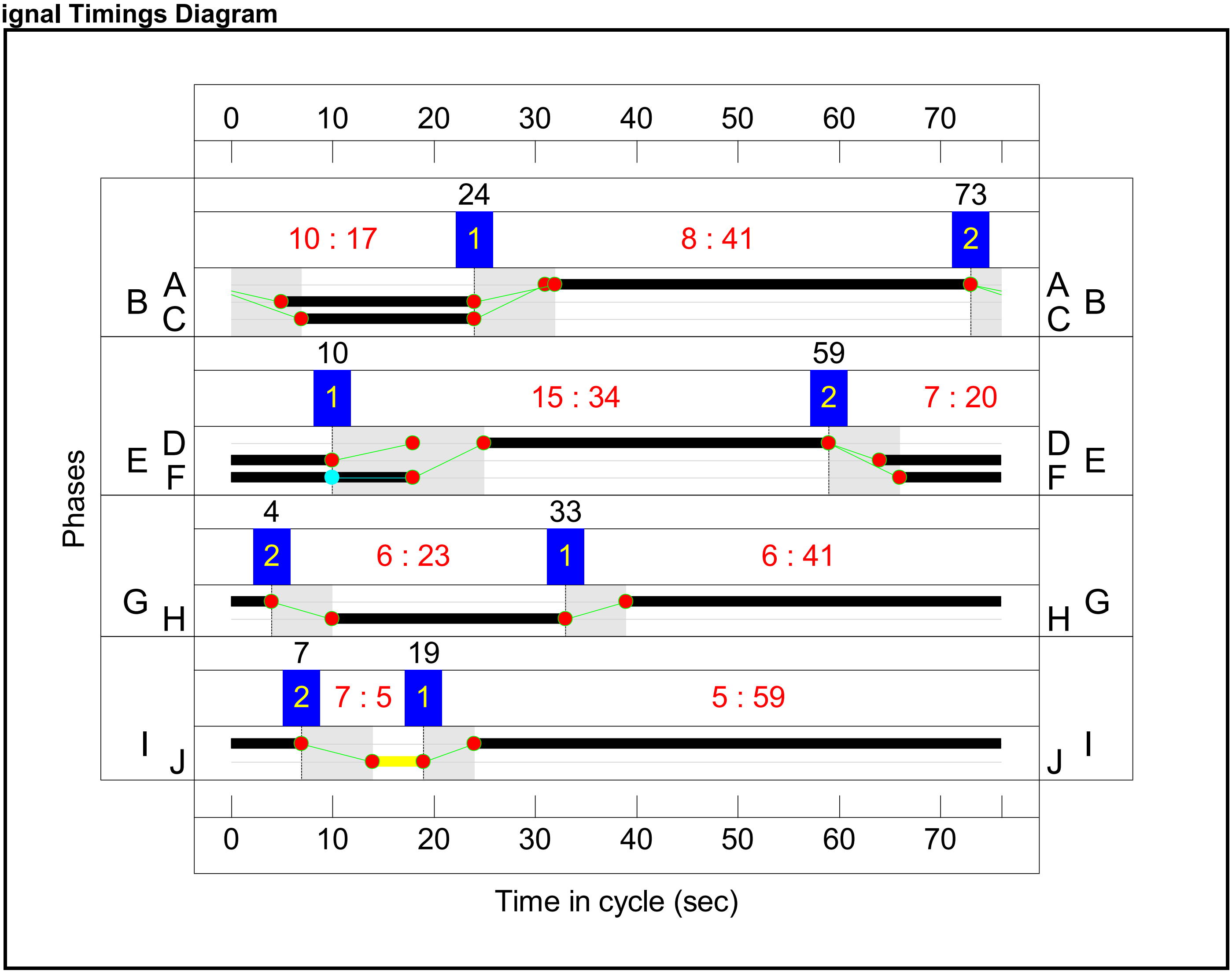
Stage Stream: 3

Stage	1	2
Duration	41	23
Change Point	33	4

Stage Stream: 4

Stage	1	2
Duration	59	5
Change Point	19	7

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.3%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.3%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	18	-	823	2120:1980	530+495	80.9 : 79.6%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	18:20	-	939	2120:4000	530+614	82.1 : 82.1%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	25	-	141	1900	650	21.7%
3/2	Right	U	1:2	N/A	C1:I		1	25	-	20	1900	650	3.1%
3/3	Right	U	1:2	N/A	C1:H		1	24	-	197	1900	625	31.5%
3/4	Right	U	1:2	N/A	C1:H		1	24	-	225	1900	625	36.0%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	37	-	1145	2120:1980	1025+990	55.9 : 57.8%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	629	2120	1088	57.8%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	1643	2120:2120	1088+880	88.3 : 77.5%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	831	2120	1172	70.9%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	763	2120	1172	65.1%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	471	2120	1172	40.2%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	825	2120	1172	70.4%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	147	1904	200	73.3%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	143	2105	222	64.5%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	19:17	-	449	2120:1980	558+136	64.7 : 64.7%

9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	862	2120:2120	558+558	69.4 : 85.1%
11/1	Ahead	U	2:2	N/A	C2:D		1	34	-	635	1900	875	72.6%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	34	-	661	1900	875	75.5%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1005	1995	1575	63.8%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1008	1995	1575	64.0%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	28	-	741	1980:1980	617+616	60.1 : 60.1%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	22	-	489	2120	642	76.2%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	22	-	1081	2120:2120	642+642	84.0 : 84.5%
15/1	Ahead	U	1:1	N/A	C1:A		1	42	-	874	2000	1132	77.2%
15/2	Ahead	U	1:1	N/A	C1:A		1	42	-	926	2000	1132	81.8%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	42	-	1017	2000:2000	1090+92	86.0 : 86.0%
16/1	Right	U	2:3	N/A	C2:H		1	23	-	361	2000	632	57.2%
16/2	Right	U	2:3	N/A	C2:H		1	23	-	387	2000	632	61.3%
16/3	Right	U	2:3	N/A	C2:H		1	23	-	475	2000	632	75.2%
17/1	Ahead	U	2:3	N/A	C2:G		1	41	-	513	2000	1105	46.4%
17/2	Ahead	U	2:3	N/A	C2:G		1	41	-	539	2000	1105	48.8%
17/3	Ahead	U	2:3	N/A	C2:G		1	41	-	542	2000	1105	49.0%
18/1	Ahead	U	1:3	N/A	C1:O		1	56	-	296	2000	1500	19.7%
18/2	Ahead	U	1:3	N/A	C1:O		1	56	-	593	2000	1500	39.5%
19/1	Ahead	U	1:3	N/A	C1:N		1	53	-	826	2000	1421	58.1%
19/2	Ahead	U	1:3	N/A	C1:N		1	53	-	1186	2120	1506	78.7%
19/3	Ahead	U	1:3	N/A	C1:N		1	53	-	682	2120	1506	45.3%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**79.3**	**18.1**	**0.0**	**97.4**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**79.3**	**18.1**	**0.0**	**97.4**	**-**	**-**	**-**	**-**
1/2+1/1	823	823	-	-	-	6.1	2.0	-	8.1 (4.2+3.9)	35.5 (35.5:35.4)	8.5	2.0	10.5
1/3+1/4	939	939	-	-	-	6.4	2.2	-	8.7 (4.3+4.4)	33.3 (35.5:31.4)	8.6	2.2	10.8
3/1	141	141	-	-	-	0.4	0.0	-	0.4	10.9	1.2	0.0	1.2
3/2	20	20	-	-	-	0.1	0.0	-	0.1	22.7	0.3	0.0	0.3
3/3	197	197	-	-	-	0.2	0.0	-	0.2	3.3	0.3	0.0	0.3
3/4	225	225	-	-	-	0.2	0.0	-	0.2	3.2	0.3	0.0	0.3
4/2+4/1	1145	1145	-	-	-	4.2	0.7	-	4.9 (2.4+2.5)	15.3 (15.1:15.4)	8.4	0.7	9.1
4/3	629	629	-	-	-	2.2	0.7	-	2.9	16.7	9.1	0.7	9.8
4/4+4/5	1643	1643	-	-	-	6.9	2.5	-	9.4 (5.9+3.5)	20.6 (21.9:18.7)	17.9	2.5	20.4
6/1	831	831	-	-	-	4.2	0.0	-	4.2	18.3	17.4	0.0	17.4
6/2	763	763	-	-	-	3.1	0.0	-	3.1	14.9	15.1	0.0	15.1
6/3	471	471	-	-	-	0.6	0.3	-	0.9	7.2	5.5	0.3	5.9
6/4	825	825	-	-	-	1.9	0.0	-	1.9	8.4	14.2	0.0	14.2
8/1	147	147	-	-	-	1.3	1.3	-	2.7	65.1	3.0	1.3	4.3
8/2	143	143	-	-	-	1.3	0.9	-	2.2	55.0	2.9	0.9	3.7
9/2+9/1	449	449	-	-	-	3.1	0.9	-	4.0 (3.2+0.7)	31.8 (32.2:30.5)	6.7	0.9	7.6
9/3+9/4	862	862	-	-	-	6.2	1.7	-	7.9 (3.5+4.4)	33.0 (32.2:33.6)	9.5	1.7	11.2
11/1	635	635	-	-	-	1.3	0.0	-	1.3	7.2	4.4	0.0	4.4
11/2	661	661	-	-	-	1.4	0.0	-	1.4	7.4	2.8	0.0	2.8
12/1	1005	1005	-	-	-	0.2	0.0	-	0.2	0.7	1.3	0.0	1.3
12/2	1008	1008	-	-	-	0.2	0.0	-	0.2	0.7	1.3	0.0	1.3

13/2+13/1	741	741	-	-	-	3.7	0.8	-	4.4 (2.2+2.2)	21.5 (21.5:21.5)	5.9	0.8	6.6
13/3	489	489	-	-	-	3.3	1.6	-	4.8	35.6	9.2	1.6	10.8
13/4+13/5	1081	1081	-	-	-	7.4	2.6	-	10.1 (5.0+5.0)	33.5 (33.5:33.5)	10.7	2.6	13.3
15/1	874	874	-	-	-	1.8	0.0	-	1.8	7.3	14.7	0.0	14.7
15/2	926	926	-	-	-	1.8	0.0	-	1.8	7.0	15.1	0.0	15.1
15/3+15/4	1017	1017	-	-	-	1.7	0.0	-	1.7 (1.6+0.1)	6.0 (6.2:3.7)	16.5	0.0	16.5
16/1	361	361	-	-	-	0.0	0.0	-	0.0	0.3	0.4	0.0	0.4
16/2	387	387	-	-	-	0.0	0.0	-	0.0	0.3	0.4	0.0	0.4
16/3	475	475	-	-	-	0.1	0.0	-	0.1	0.5	0.5	0.0	0.5
17/1	513	513	-	-	-	1.7	0.0	-	1.7	11.8	3.7	0.0	3.7
17/2	539	539	-	-	-	2.2	0.0	-	2.2	14.5	4.7	0.0	4.7
17/3	542	542	-	-	-	2.2	0.0	-	2.2	14.7	4.8	0.0	4.8
18/1	296	296	-	-	-	0.1	0.0	-	0.1	1.7	1.0	0.0	1.0
18/2	593	593	-	-	-	0.3	0.0	-	0.3	1.9	1.5	0.0	1.5
19/1	826	826	-	-	-	0.4	0.0	-	0.4	1.8	1.5	0.0	1.5
19/2	1186	1186	-	-	-	0.5	0.0	-	0.5	1.6	2.7	0.0	2.7
19/3	682	682	-	-	-	0.3	0.0	-	0.3	1.8	1.3	0.0	1.3

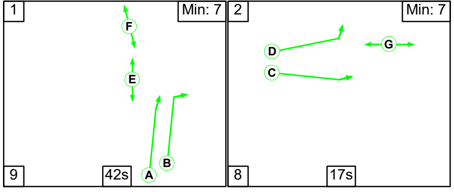
```
C1 - Eastside Controller   Stream: 1  PRC for Signalled Lanes (%):   4.6     Total Delay for Signalled Lanes (pcuHr):   22.05     Cycle Time (s):   76
C1 - Eastside Controller   Stream: 2  PRC for Signalled Lanes (%):   1.9     Total Delay for Signalled Lanes (pcuHr):   18.12     Cycle Time (s):   76
C1 - Eastside Controller   Stream: 3  PRC for Signalled Lanes (%):  14.3     Total Delay for Signalled Lanes (pcuHr):    6.59     Cycle Time (s):   76
C2 - Westside Controller   Stream: 1  PRC for Signalled Lanes (%):   5.7     Total Delay for Signalled Lanes (pcuHr):   22.12     Cycle Time (s):   76
C2 - Westside Controller   Stream: 2  PRC for Signalled Lanes (%):   6.5     Total Delay for Signalled Lanes (pcuHr):   21.96     Cycle Time (s):   76
C2 - Westside Controller   Stream: 3  PRC for Signalled Lanes (%):  19.7     Total Delay for Signalled Lanes (pcuHr):    6.20     Cycle Time (s):   76
C2 - Westside Controller   Stream: 4  PRC for Signalled Lanes (%):  40.6     Total Delay for Signalled Lanes (pcuHr):    0.38     Cycle Time (s):   76
                                      PRC Over All Lanes (%):        1.9           Total Delay Over All Lanes(pcuHr):   97.42
```

Scenario 8: '2031 Updated NSTM sensitivity test - PM ' (FG6: '2031 Updated NSTM sensitivity test - PM', Plan 1: 'Network Control Plan 1')

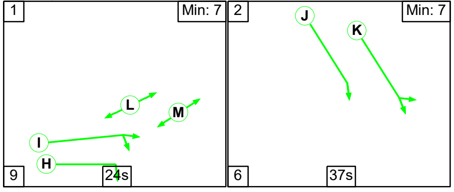
C1 - Eastside Controller

Stage Sequence Diagram

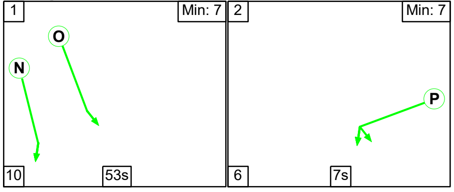
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	42	17
Change Point	4	55

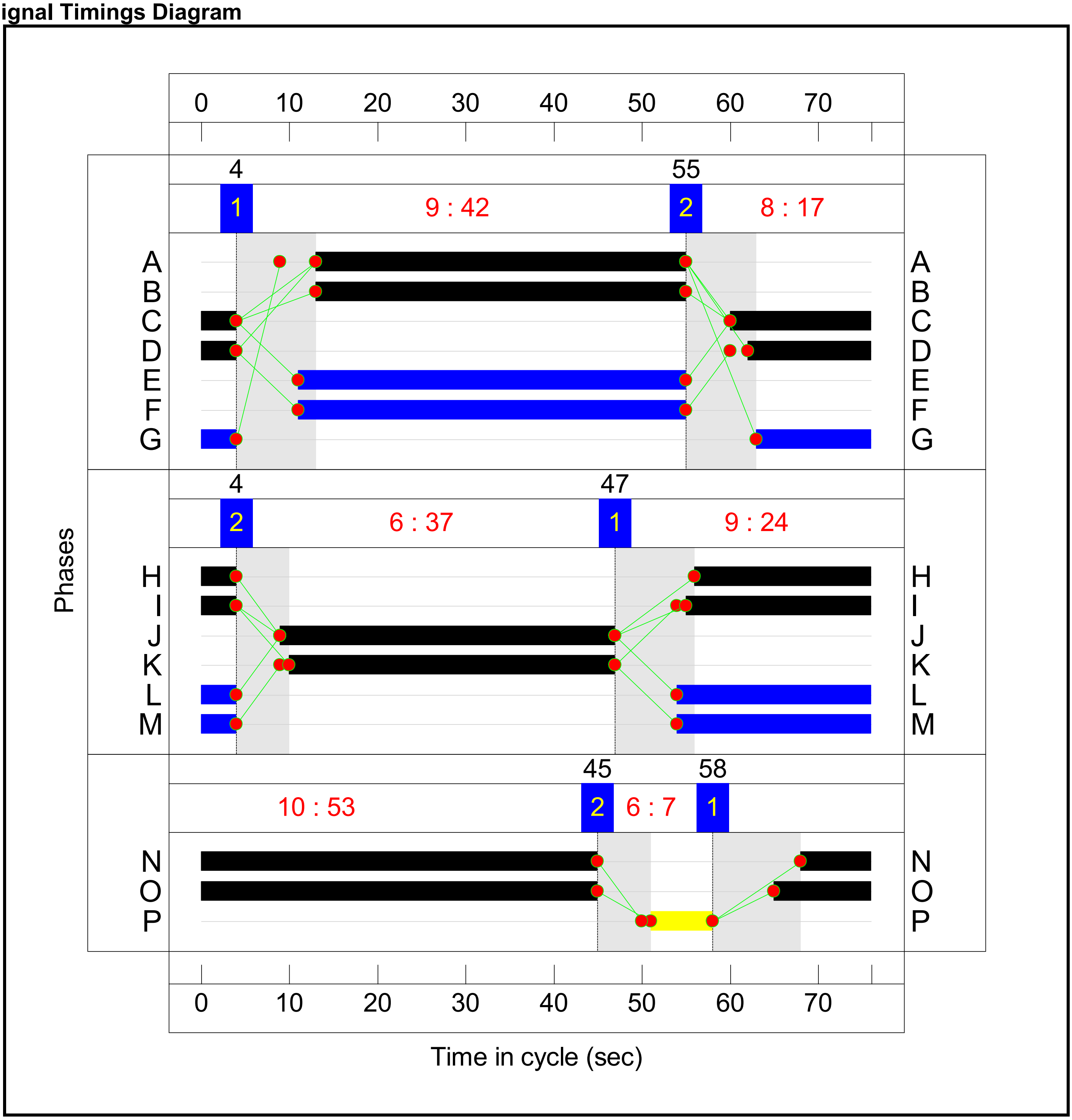
Stage Stream: 2

Stage	1	2
Duration	24	37
Change Point	47	4

Stage Stream: 3

Stage	1	2
Duration	53	7
Change Point	58	45

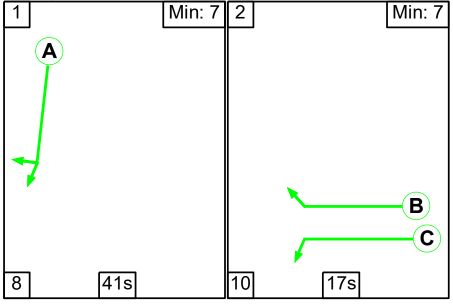
Signal Timings Diagram



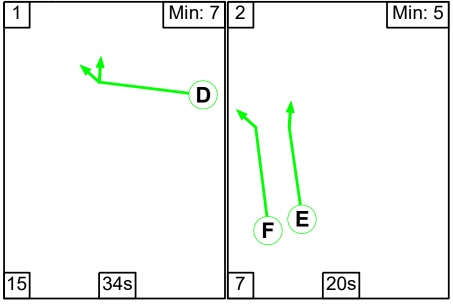
C2 - Westside Controller

Stage Sequence Diagram

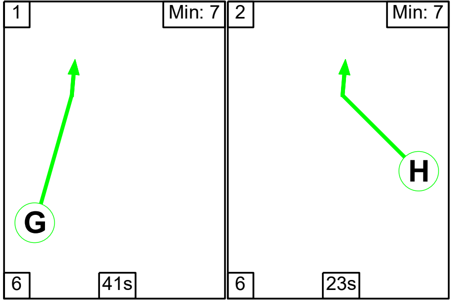
Stage Stream: 1



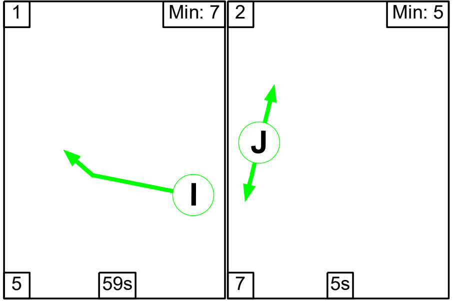
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	41	17
Change Point	24	73

Stage Stream: 2

Stage	1	2
Duration	34	20
Change Point	10	59

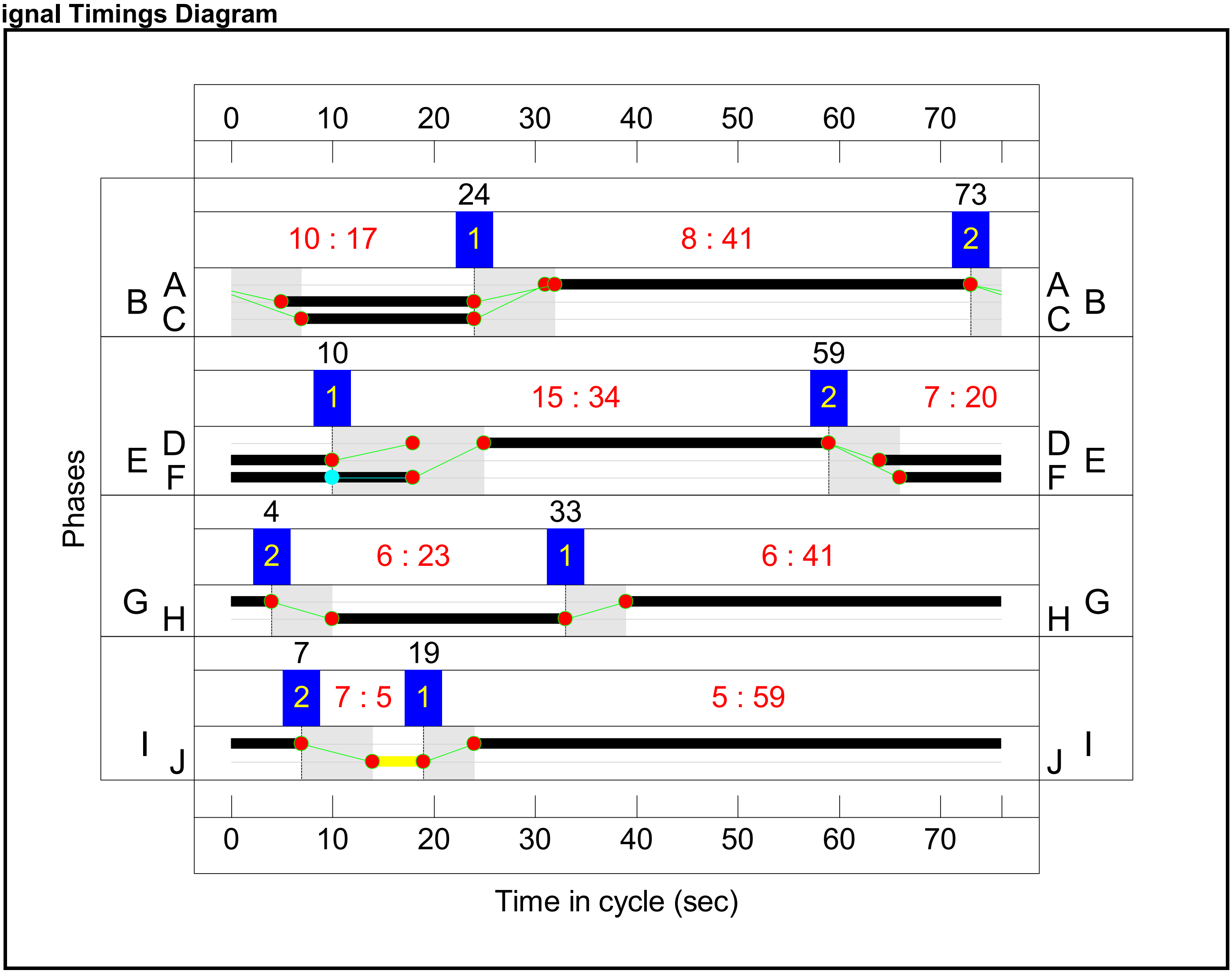
Stage Stream: 3

Stage	1	2
Duration	41	23
Change Point	33	4

Stage Stream: 4

Stage	1	2
Duration	59	5
Change Point	19	7

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M1 Junction 15 impact with additional mezzanine	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.5%**
M1 Junction 15	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.5%**
1/2+1/1	M1 Southbound Offslip Left	U	1:1	N/A	C1:D		1	18	-	823	2120:1980	530+495	81.1 : 79.4%
1/3+1/4	M1 Southbound Offslip Left Ahead	U	1:1	N/A	C1:D C1:C		1	18:20	-	951	2120:4000	530+629	82.1 : 82.1%
3/1	Ahead Right	U	1:2	N/A	C1:I		1	25	-	156	1900	650	24.0%
3/2	Right	U	1:2	N/A	C1:I		1	25	-	29	1900	650	4.5%
3/3	Right	U	1:2	N/A	C1:H		1	24	-	200	1900	625	32.0%
3/4	Right	U	1:2	N/A	C1:H		1	24	-	234	1900	625	37.4%
4/2+4/1	A45 Southbound Left Ahead	U	1:2	N/A	C1:K		1	37	-	1145	2120:1980	1025+990	55.9 : 57.8%
4/3	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	646	2120	1088	59.4%
4/4+4/5	A45 Southbound Ahead	U	1:2	N/A	C1:J		1	38	-	1644	2120:2120	1088+878	88.5 : 77.5%
6/1	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	849	2120	1172	72.5%
6/2	M1 Northbound Circulatory Ahead	U	2:1	N/A	C2:A		1	41	-	775	2120	1172	66.2%
6/3	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	472	2120	1172	40.3%
6/4	M1 Northbound Circulatory Right	U	2:1	N/A	C2:A		1	41	-	824	2120	1172	70.3%
8/1	Saxon Avenue Left Left2	U	1:3	N/A	C1:P		1	7	-	147	1904	200	73.3%
8/2	Saxon Avenue Left	U	1:3	N/A	C1:P		1	7	-	143	2105	222	64.5%
9/2+9/1	M1 Northbound Offslip Left Ahead	U	2:1	N/A	C2:B C2:C		1	19:17	-	461	2120:1980	558+145	65.6 : 65.6%

9/3+9/4	M1 Northbound Offslip Ahead	U	2:1	N/A	C2:B		1	19	-	857	2120:2120	558+558	66.1 : 87.5%
11/1	Ahead	U	2:2	N/A	C2:D		1	34	-	628	1900	875	71.8%
11/2	Ahead Right	U	2:2	N/A	C2:D		1	34	-	668	1900	875	76.3%
12/1	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1009	1995	1575	64.1%
12/2	Toucan Crossing Ahead	U	2:4	N/A	C2:I		1	59	-	1024	1995	1575	65.0%
13/2+13/1	A508 Northampton Rd Ahead	U	2:2	N/A	C2:F		1	28	-	761	1980:1980	616+617	61.7 : 61.7%
13/3	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	22	-	525	2120	642	81.8%
13/4+13/5	A508 Northampton Rd Ahead	U	2:2	N/A	C2:E		1	22	-	1127	2120:2120	642+642	87.4 : 88.2%
15/1	Ahead	U	1:1	N/A	C1:A		1	42	-	915	2000	1132	80.9%
15/2	Ahead	U	1:1	N/A	C1:A		1	42	-	930	2000	1132	82.2%
15/3+15/4	Ahead Right	U	1:1	N/A	C1:A C1:B		1	42	-	1054	2000:2000	1077+117	88.3 : 88.3%
16/1	Right	U	2:3	N/A	C2:H		1	23	-	366	2000	632	58.0%
16/2	Right	U	2:3	N/A	C2:H		1	23	-	369	2000	632	58.4%
16/3	Right	U	2:3	N/A	C2:H		1	23	-	488	2000	632	77.3%
17/1	Ahead	U	2:3	N/A	C2:G		1	41	-	549	2000	1105	49.7%
17/2	Ahead	U	2:3	N/A	C2:G		1	41	-	561	2000	1105	50.8%
17/3	Ahead	U	2:3	N/A	C2:G		1	41	-	566	2000	1105	51.2%
18/1	Ahead	U	1:3	N/A	C1:O		1	56	-	311	2000	1500	20.7%
18/2	Ahead	U	1:3	N/A	C1:O		1	56	-	602	2000	1500	40.1%
19/1	Ahead	U	1:3	N/A	C1:N		1	53	-	846	2000	1421	59.5%
19/2	Ahead	U	1:3	N/A	C1:N		1	53	-	1197	2120	1506	79.5%
19/3	Ahead	U	1:3	N/A	C1:N		1	53	-	681	2120	1506	45.2%

Item	**Arriving (pcu)**	**Leaving (pcu)**	**Turners In Gaps (pcu)**	**Turners When Unopposed (pcu)**	**Turners In Intergreen (pcu)**	**Uniform Delay (pcuHr)**	**Rand + Oversat Delay (pcuHr)**	**Storage Area Uniform Delay (pcuHr)**	**Total Delay (pcuHr)**	**Av. Delay Per PCU (s/pcu)**	**Max. Back of Uniform Queue (pcu)**	**Rand + Oversat Queue (pcu)**	**Mean Max Queue (pcu)**
Network: M1 Junction 15 impact with additional mezzanine	**-**	**-**	**0**	**0**	**0**	**82.5**	**19.7**	**0.0**	**102.1**	**-**	**-**	**-**	**-**
M1 Junction 15	**-**	**-**	**0**	**0**	**0**	**82.5**	**19.7**	**0.0**	**102.1**	**-**	**-**	**-**	**-**
1/2+1/1	823	823	-	-	-	6.1	2.0	-	8.1 (4.2+3.9)	35.5 (35.6:35.4)	8.5	2.0	10.5
1/3+1/4	951	951	-	-	-	6.5	2.2	-	8.8 (4.3+4.5)	33.2 (35.4:31.3)	8.6	2.2	10.8
3/1	156	156	-	-	-	0.5	0.0	-	0.5	12.2	1.5	0.0	1.5
3/2	29	29	-	-	-	0.2	0.0	-	0.2	23.1	0.4	0.0	0.4
3/3	200	200	-	-	-	0.2	0.0	-	0.2	3.3	0.3	0.0	0.3
3/4	234	234	-	-	-	0.2	0.0	-	0.2	3.2	0.3	0.0	0.3
4/2+4/1	1145	1145	-	-	-	4.2	0.7	-	4.9 (2.4+2.5)	15.3 (15.1:15.4)	8.4	0.7	9.1
4/3	646	646	-	-	-	2.3	0.7	-	3.1	17.0	9.5	0.7	10.2
4/4+4/5	1644	1644	-	-	-	6.9	2.5	-	9.4 (5.9+3.6)	20.7 (22.0:18.8)	17.9	2.5	20.4
6/1	849	849	-	-	-	4.4	0.0	-	4.4	18.5	17.9	0.0	17.9
6/2	775	775	-	-	-	3.3	0.0	-	3.3	15.1	15.3	0.0	15.3
6/3	472	472	-	-	-	0.6	0.3	-	1.0	7.2	5.5	0.3	5.9
6/4	824	824	-	-	-	1.9	0.0	-	1.9	8.4	14.2	0.0	14.2
8/1	147	147	-	-	-	1.3	1.3	-	2.7	65.1	3.0	1.3	4.3
8/2	143	143	-	-	-	1.3	0.9	-	2.2	55.0	2.9	0.9	3.7
9/2+9/1	461	461	-	-	-	3.1	0.9	-	4.1 (3.3+0.8)	32.0 (32.3:30.6)	6.8	0.9	7.8
9/3+9/4	857	857	-	-	-	6.2	1.6	-	7.8 (3.3+4.6)	32.9 (31.9:33.7)	9.8	1.6	11.4
11/1	628	628	-	-	-	1.2	0.0	-	1.2	7.0	4.4	0.0	4.4
11/2	668	668	-	-	-	1.4	0.0	-	1.4	7.6	2.9	0.0	2.9
12/1	1009	1009	-	-	-	0.2	0.0	-	0.2	0.7	1.4	0.0	1.4
12/2	1024	1024	-	-	-	0.2	0.0	-	0.2	0.7	1.4	0.0	1.4

13/2+13/1	761	761	-	-	-	3.8	0.8	-	4.6 (2.3+2.3)	21.8 (21.8:21.8)	6.1	0.8	6.9
13/3	525	525	-	-	-	3.6	2.2	-	5.8	39.5	10.2	2.2	12.4
13/4+13/5	1127	1127	-	-	-	7.9	3.5	-	11.3 (5.6+5.7)	36.2 (36.2:36.3)	11.3	3.5	14.8
15/1	915	915	-	-	-	1.9	0.0	-	1.9	7.4	14.9	0.0	14.9
15/2	930	930	-	-	-	2.1	0.0	-	2.1	8.2	15.2	0.0	15.2
15/3+15/4	1054	1054	-	-	-	2.0	0.0	-	2.0 (1.9+0.1)	6.8 (7.0:4.9)	16.8	0.0	16.8
16/1	366	366	-	-	-	0.0	0.0	-	0.0	0.3	0.4	0.0	0.4
16/2	369	369	-	-	-	0.0	0.0	-	0.0	0.3	0.4	0.0	0.4
16/3	488	488	-	-	-	0.1	0.0	-	0.1	0.5	0.5	0.0	0.5
17/1	549	549	-	-	-	2.0	0.0	-	2.0	13.4	4.5	0.0	4.5
17/2	561	561	-	-	-	2.4	0.0	-	2.4	15.4	5.2	0.0	5.2
17/3	566	566	-	-	-	2.4	0.0	-	2.4	15.6	5.3	0.0	5.3
18/1	311	311	-	-	-	0.2	0.0	-	0.2	1.8	1.4	0.0	1.4
18/2	602	602	-	-	-	0.3	0.0	-	0.3	2.0	1.7	0.0	1.7
19/1	846	846	-	-	-	0.4	0.0	-	0.4	1.8	1.6	0.0	1.6
19/2	1197	1197	-	-	-	0.5	0.0	-	0.5	1.6	2.7	0.0	2.7
19/3	681	681	-	-	-	0.3	0.0	-	0.3	1.8	1.3	0.0	1.3

C1 - Eastside Controller Stream: 1 PRC for Signalled Lanes (%): 2.0 Total Delay for Signalled Lanes (pcuHr): 22.87 Cycle Time (s): 76
C1 - Eastside Controller Stream: 2 PRC for Signalled Lanes (%): 1.7 Total Delay for Signalled Lanes (pcuHr): 18.46 Cycle Time (s): 76
C1 - Eastside Controller Stream: 3 PRC for Signalled Lanes (%): 13.3 Total Delay for Signalled Lanes (pcuHr): 6.64 Cycle Time (s): 76
C2 - Westside Controller Stream: 1 PRC for Signalled Lanes (%): 2.9 Total Delay for Signalled Lanes (pcuHr): 22.43 Cycle Time (s): 76
C2 - Westside Controller Stream: 2 PRC for Signalled Lanes (%): 2.0 Total Delay for Signalled Lanes (pcuHr): 24.33 Cycle Time (s): 76
C2 - Westside Controller Stream: 3 PRC for Signalled Lanes (%): 16.5 Total Delay for Signalled Lanes (pcuHr): 7.03 Cycle Time (s): 76
C2 - Westside Controller Stream: 4 PRC for Signalled Lanes (%): 38.4 Total Delay for Signalled Lanes (pcuHr): 0.39 Cycle Time (s): 76
PRC Over All Lanes (%): 1.7 Total Delay Over All Lanes(pcuHr): 102.14