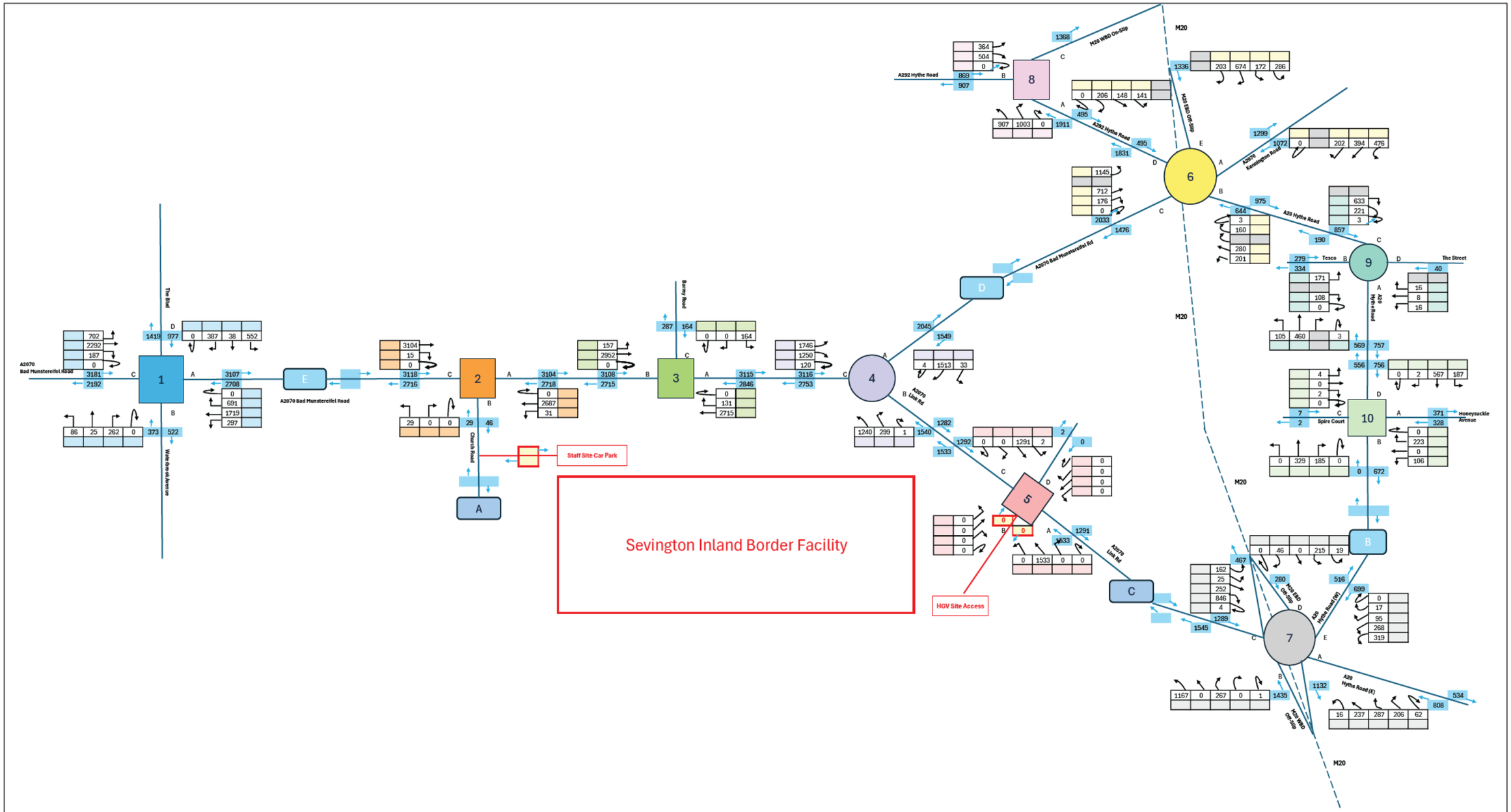
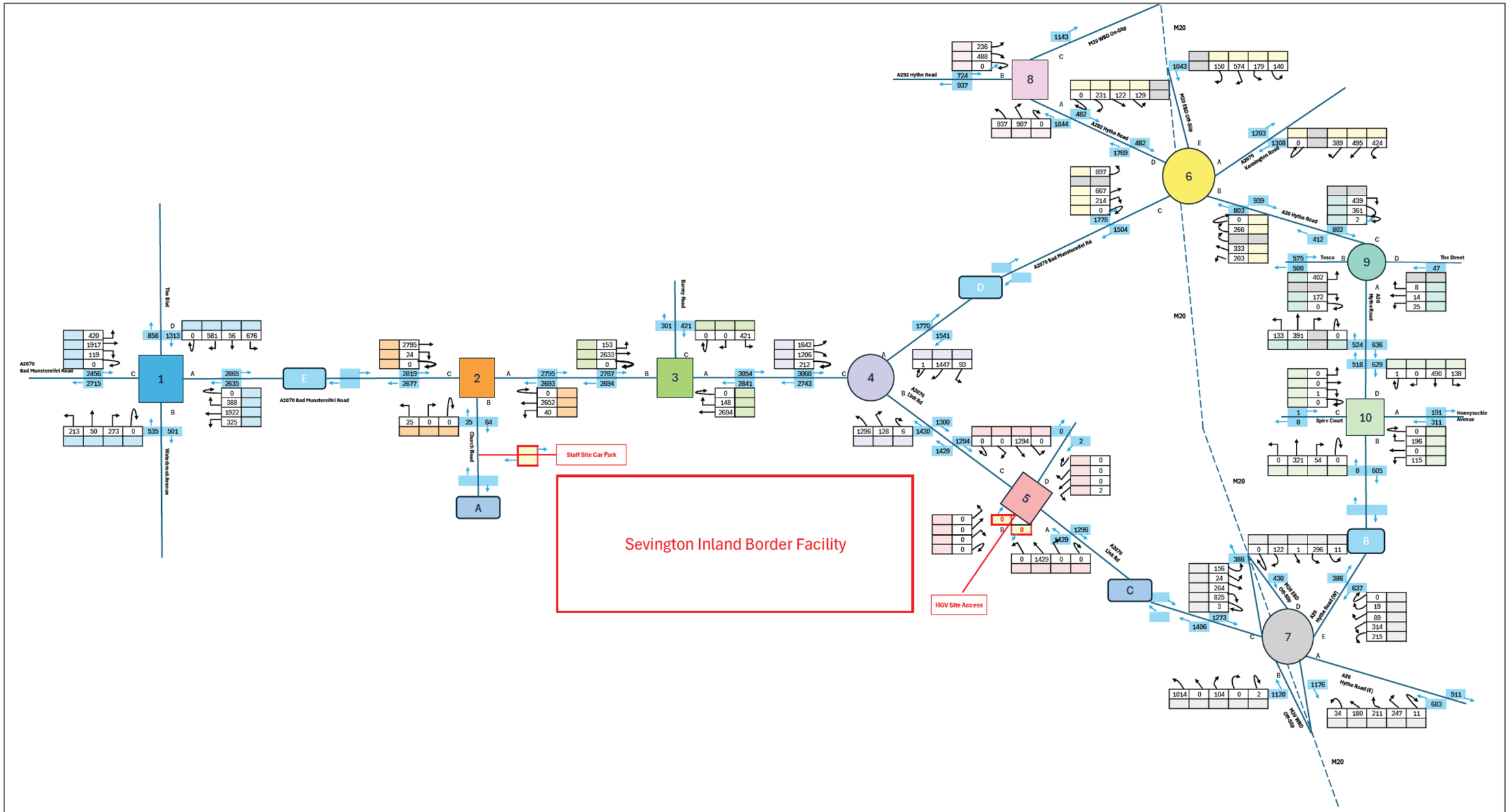
N. Network Flow Diagrams – Horizon Year Baseline with CD & without Sevington IBF

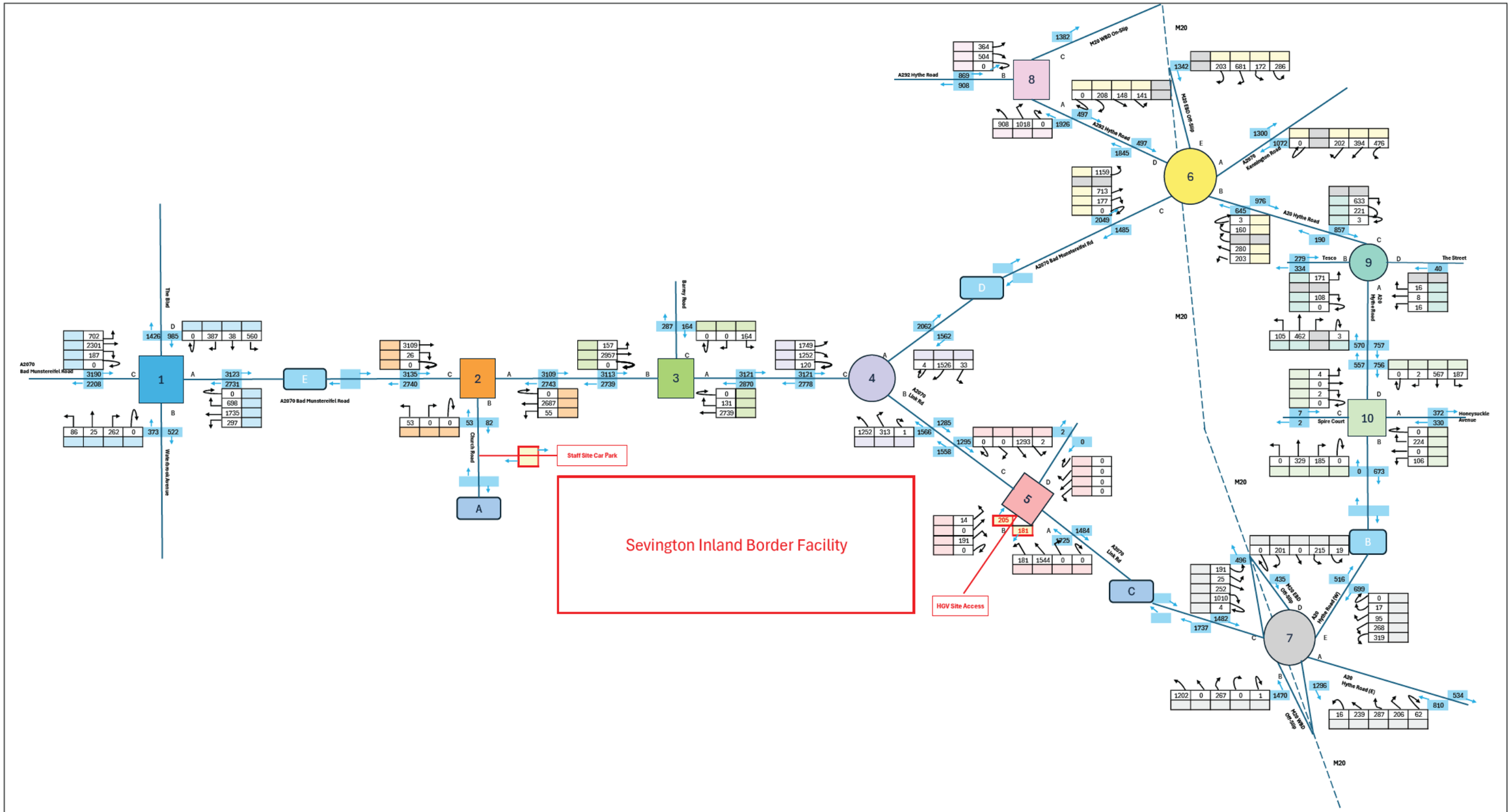


Client	HMRC	Drawn By	SR & MS	Date	Feb-25	waterman	Key: Passenger Car Units (PCUs); % HDVs; Total (Link Flow); Roundabout; Junction
Project	Sevington IBF	Figure	17	Approved	AB		
Title	**2036 Base (No Sevington IBF) + Committed Development AM Peak Traffic Flows**						



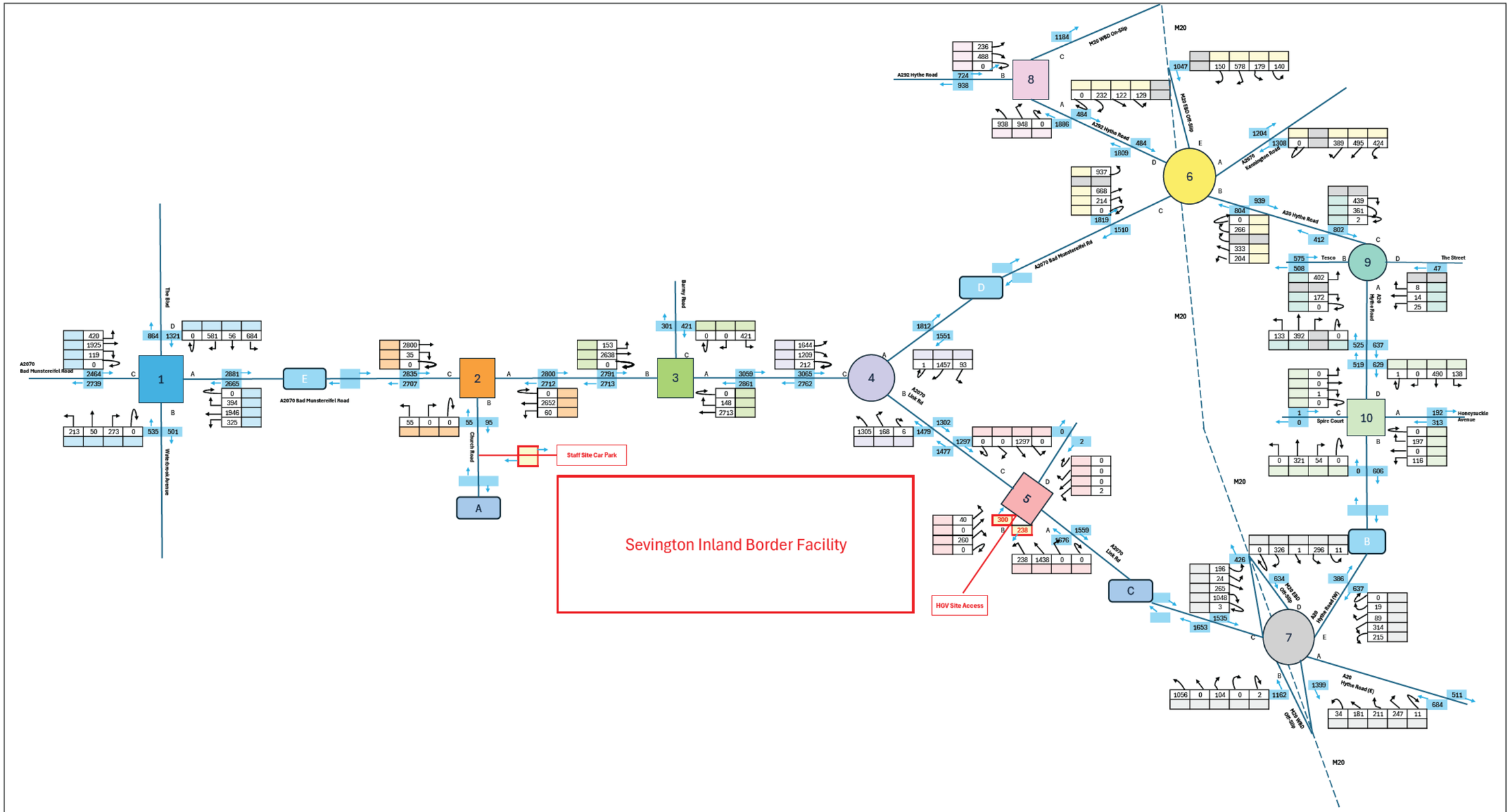
Client	HMRC	Drawn By	SR & MS	Date	Feb-25	waterman	Key: Passenger Car Units (PCUs); % HDVs; Total (Link Flow); Roundabout; Junction
Project	Sevington IBF	Figure	18	Approved	AB		
Title	2036 Base (No Sevington IBF) + Committed Development PM Peak Traffic Flows						

O. Network Flow Diagrams – Horizon Year with CD & Sev 4 Sevington IBF



Client	HMRC	Drawn By	SR & MS	Date	Feb-25	waterman
Project	Sevington IBF	Figure	31	Approved	AB	
Title	**2036 Base + Committed Development + Sevington 4 Use AM Peak Traffic Flows**					

Key:
- Passenger Car Units (PCUs)
- % HDVs
- Total (Link Flow)
- Roundabout
- Junction



Client	HMRC	Drawn By	SR & MS	Date	Feb-25	waterman	Key: Passenger Car Units (PCUs); % HDVs; Total (Link Flow); Roundabout; Junction
Project	Sevington IBF	Figure	32	Approved	AB		
Title	**2036 Base + Committed Development + Sevington 4 Use PM Peak Traffic Flows**						

P. LinSig Output & Signal Controller Data – Junction 1

ITS1827D Traffic Signal Controller General Specification Forms

Notes on Form use

Easy Print Option

NO NEED TO DELETE UNUSED FORMS! Use this button to print out only the forms that have been used in this specification. This facility will print all the forms which have the "***Sheet filled***" check box ticked at the top left-hand corner of each form >

Note: Unused forms can be hidden by right-clicking on the worksheet tab at the bottom of the screen. Selecting 'hide' will remove it from view, but allow it to be re-instated in future if changes are required. [NB: This form is not printed with this facility]

Administration

Form I - Filling the "***Site Reference*** **"** and "***Specification Issue*** **"** fields at the bottom of this form will automatically populate and update these fields in the rest of the forms. Increment the Specification Issue field each time the forms are amended, I.E. First draft = 1, next update = 2 etc.

The following facility has been provided to enable full traceability to the history of a specification as it develops over the years. The "***Form Issue*** **"** field at the bottom of each individual form should be incremented each time an amendment is made to that individual form only, I.E. First draft = 1, next update, no change made to that form, so still = 1, next update change made to that form, so now incremented = 2 etc. The person responsible for originating or amending an individual form should enter their initials in the "***Originators Initials*** **"** field. The "***Date*** **"** field should be entered on the first draft, then only subsequently changed when that form is amended.

The "***Sheet filled***" check box should be ticked on all used forms to allow the **Easy Print** option (above) to work, and to display a blue box on the Index sheets to allow these forms to be audited by the checker.

Form II - When a specification is audited, the checker should enter their initials in the "***Auditor Initials***" field for each form that has been originated or amended in that issue of the specification. The date that the audit was carried out should be entered into the "***Date Audited***" field.

Additional Information

Guidance tips are contained within some of the data entry fields in the forms. These are identified with a small red triangle in the top right-hand corner of the individual fields, and are viewable by hovering the cursor over the triangle. The pop-up text box will disappear by moving the cursor away from the triangle.

Form Navigation

The individual ***"Form Title"*** fields on the Index sheets in Form II are hyperlinked, allowing direct access to the relevant forms by clicking on the title. In addition, each form also contains a hyperlink to it's place in the Index sheets. This is identified as an ***"i"*** in the lower right-hand corner of the individual forms. The forms can also be navigated by using the coloured tabs at the bottom of the spreadsheet window. Because of the number of forms used, it is not possible to see all the tabs in one go. Therefore use the navigation arrows to the left of the tabs, to move along the tabs in either direction.

GENERAL SPECIFICATION FORM

Customer:	Crest Nicholson
Area Specifications & Customer Drawings:	
Intersection / General Description:	A2070 Bad Munstereifel Road, The Boulevard, Finberry, Ashford
Controller - New/Modification (select one):	New — Serial number:
Specification Section:	
Quotation number (Customer):	
Quotation number (Company):	
Company Order Number:	
Intersection Number:	Issue:
Equipment Installation by:	
Slot Cutting by:	
Civils Works by:	
Communication Provider, Type and Number or IP address:	

Customers Engineer:	Telephone number:	E-mail:
[redacted]	[redacted]	[redacted]

Incoming Electrical Supply:		Operating Voltage (select one):	Lamp Dimming (select one):	
230 V	50 Hz	Extra Low Voltage-ELV	Dimming	Dimming voltage: None

Average Power Watts (Dim)	Average Power Watts (Bright)	Average Power kVA (Bright)	Peak Power Watts

Site reference	Specification Issue No.	Form Issue	Originators Initials	Date
	1	1	ajl	16 10 17

INDEX

Form Title	Form No.	Form Issue Number	Originator Initials	Date Originated dd/mm/yy	Sheet filled	Auditor Initials	Date Audited dd/mm/yy
TR2500 General Specification	I	1	ajl	16 10 17			
Index (This page)	II	1	ajl	16 10 2017			
Index (Continued)	IIa	1	ajl	16 10 2017			
Index (Continued)	IIb	1	ajl	16 10 2017			
Configuration Notes	III	1	ajl	16 10 2017			
Site Layout	IV	1	ajl	16 10 2017			
Basic Site Data	V	1	ajl	16 10 2017			
Basic Site Data (Continued)	Va	#REF!	#REF!	#REF!			
Basic Site Data (Continued)	Vb	#REF!	#REF!	#REF!			
Basic Site Data (Continued)	Vc	#REF!	#REF!	#REF!			
Intersection Phase Data	VI	1	ajl	16 10 2017			
Conflicting Phases	VII	1	ajl	16 10 17			
Phase Inter-green timings	VIII	1	ajl	16 10 17			
Phase Inter-green limit values	IX						
Lamp Monitoring & Extend Inter-green facility	X	1	ajl	16 10 17			
Additional phase delays	XI	1	ajl	16 10 2017			
Use of stages	XII	1	ajl	16 10 17			
Prohibited/Alternative Stage	XIII	1	ajl	16 10 17			
Prohibited/AlternativeStage (Continued)	XIIIa						
Prohibited/AlternativeStage (Continued)	XIIIb	#REF!	#REF!	#REF!			
Prohibited/AlternativeStage (Continued)	XIIIc	#REF!	#REF!	#REF!			
Prohibited/AlternativeStage (Continued)	XIIId	#REF!	#REF!	#REF!			
Prohibited/AlternativeStage (Continued)	XIIIe	#REF!	#REF!	#REF!			
Prohibited/AlternativeStage (Continued)	XIIIf	#REF!	#REF!	#REF!			
Prohibited/AlternativeStage (Continued)	XIIIg	#REF!	#REF!	#REF!			
Prohibited/AlternativeStage (Continued)	XIIIh	#REF!	#REF!	#REF!			
Master Time Clock	XIV	1	ajl	16 10 2017			
Master Time Clock (Continued)	XIVa	#REF!	#REF!	#REF!			
Master Time Clock (Continued)	XIVb	#REF!	#REF!	#REF!			
Master Time Clock (Continued)	XIVc	#REF!	#REF!	#REF!			

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017

INDEX

Form Title	Form No.	Form Issue Number	Originator Initials	Date Originated dd/mm/yy	Sheet filled	Auditor Initials	Date Audited dd/mm/yy
Master Time Clock (Continued)	XIVd	#REF!	#REF!	#REF!			
Master Time Clock (Continued)	XIVe	#REF!	#REF!	#REF!			
Master Time Clock (Continued)	XIVf	#REF!	#REF!	#REF!			
Master Time Clock (Continued)	XIVg	#REF!	#REF!	#REF!			
Mode Priority	XV	1	ajl	16 10 17			
Fixed Time Mode	XVI	1	ajl	16 10 17			
Phase Green Timings	XVII	1	ajl	16 10 17			
Detectors and Push-buttons	XVIII	1	ajl	16 10 17			
Detectors and Push-buttons (Continued)	XVIIIa	1	ajl	6 10 17			
Detectors and Push-buttons (Continued)	XVIIIb	1	ajl	16 10 2017			
Detectors and Push-buttons (Continued)	XVIIIc	1	ajl	6 10 2017			
Detectors and Push-buttons (Continued)	XVIIId	1	ajl	6 10 2017			
Detectors and Push-buttons (Continued)	XVIIIe	1	ajl	16 10 2017			
Detectors and Push-buttons (Continued)	XVIIIf	#REF!	#REF!	#REF!			
Detectors and Push-buttons (Continued)	XVIIIg	#REF!	#REF!	#REF!			
Detectors and Push-buttons (Continued)	XVIIIh	#REF!	#REF!	#REF!			
All-Red Extension	XIX						
Speed Discrimination / Assessment	XX						
Cableless Linking Facility	XXI						
Cableless Linking Facility (Continued)	XXIa	#REF!	#REF!	#REF!			
Cableless Linking Facility (Continued)	XXIb	#REF!	#REF!	#REF!			
Cableless Linking Facility (Continued)	XXIc	#REF!	#REF!	#REF!			
Cableless Linking Facility (Continued)	XXId	#REF!	#REF!	#REF!			
Cableless Linking Facility (Continued)	XXIe	#REF!	#REF!	#REF!			
Cableless Linking Facility (Continued)	XXIf	#REF!	#REF!	#REF!			
Cableless Linking Facility (Continued)	XXIg	#REF!	#REF!	#REF!			
Hurry Call(s)	XXII						
Urban Traffic Control	XXIII	1	ajl	16 10 2017			
Urban Traffic Control (Continuation)	XXIIIa						
UTC Reply Bit Functionality	XXIV	1	ajl	16 10 2017			

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017

INDEX

Form Title	Form No.	Form Issue Number	Originator Initials	Date Originated dd/mm/yy	Sheet filled	Auditor Initials	Date Audited dd/mm/yy
Manual Panel	XXV	1	ajl	16 10 17			
Priority / Emergency Mode Basic	XXVI						
Priority / Emergency Mode Time	XXVIa						
Priority / Emergency Mode Time	XXVIb	#REF!	#REF!	#REF!			
Priority / Emergency Mode Time	XXVIc	#REF!	#REF!	#REF!			
Priority / Emergency Mode Time	XXVId	#REF!	#REF!	#REF!			
Pedestrian Link & Facilities	XXVII	1	ajl	16 10 2017			
Mid-block Pedestrian Crossing	XXVIII						
Mid-block Pedestrian Crossing (Continuation)	XXVIIIa	#REF!	#REF!	#REF!			
Mid-block Pedestrian Crossing (Continuation)	XXVIIIb	#REF!	#REF!	#REF!			
Mid-block Pedestrian Crossing (Continuation)	XXVIIIc	#REF!	#REF!	#REF!			
Miscellaneous Inputs and Outputs	XXIX						
Special Conditions	XXX	1	ajl	16 10 2017			
Special Conditions (Continued)	XXXa	1	ajl	16 10 2017			
Special Conditions (Continued)	XXXb	1	ajl	16 10 2017			
Special Conditions (Continued)	XXXc						
Special Conditions (Continued)	XXXd						
Special Conditions (Continued)	XXXe						
Special Conditions (Continued)	XXXf						
Special Conditions (Continued)	XXXg						
Special Conditions (Continued)	XXXh						
Special Conditions (Continued)	XXXi						
Controller Power Calculation	XXXI						
Traffic Signal Data Summary Sheet	XXXII						
LRT Summary Sheet	XXXIII						

Additional items, such as Contract Appendicies or full site layout drawings, may be included in the Index for completeness

Site reference | Specification Issue No. 1 | Form Issue 1 | ajl ajl | Date 16 10 2017

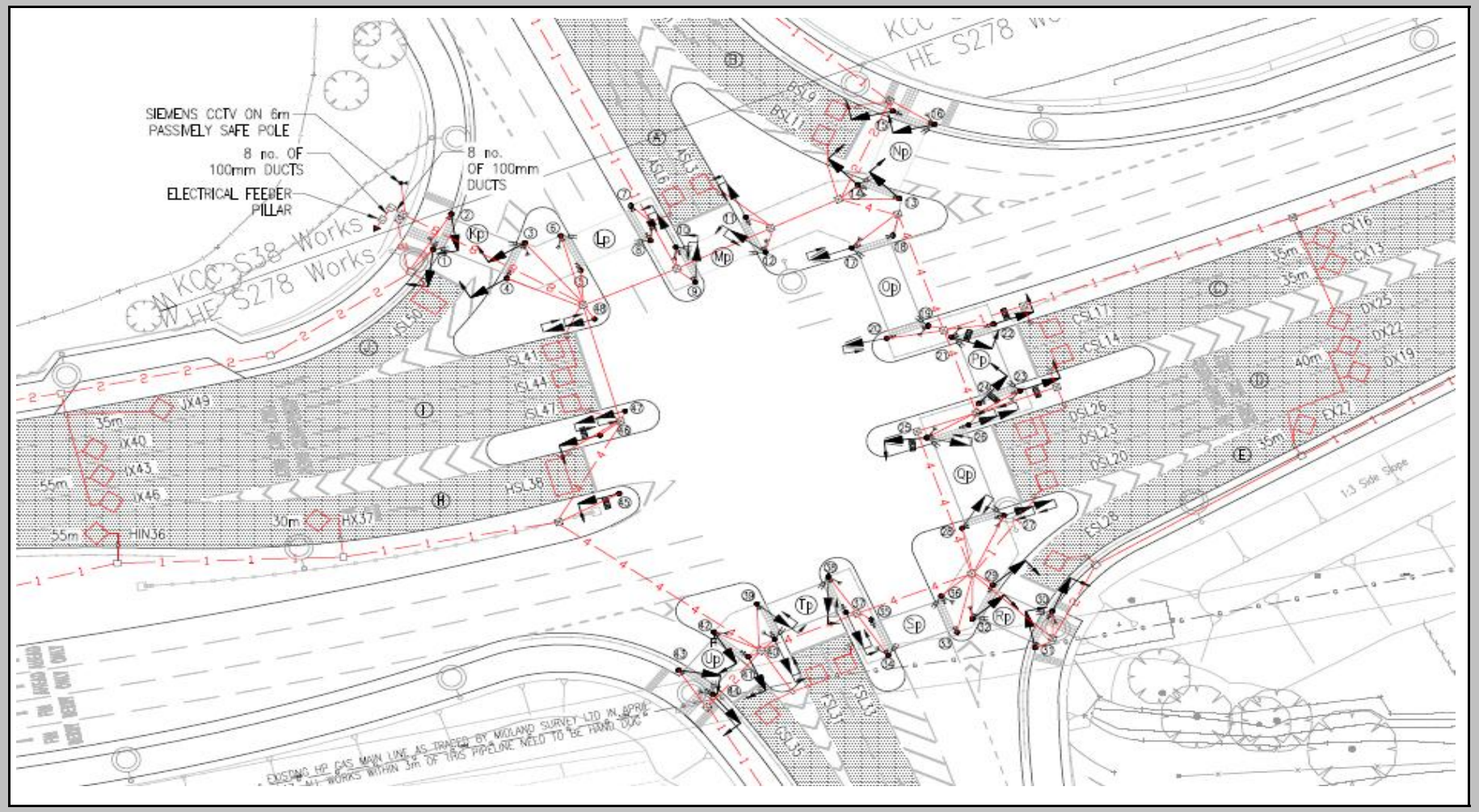
CONFIGURATION NOTES

Linked Mova 'X' road junction east of housing development access (Avocet Way)
Toucan facilites, with on crossings and kerb sides.Processed outputs required for the toucan demands to go to Mova (ie only send demand to Mova when pd and kerbside active).

Note: This form may be used to provide any general information useful to others, such as any new facilities in this issue of the specification.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

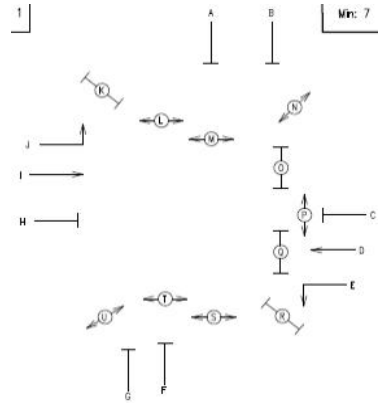
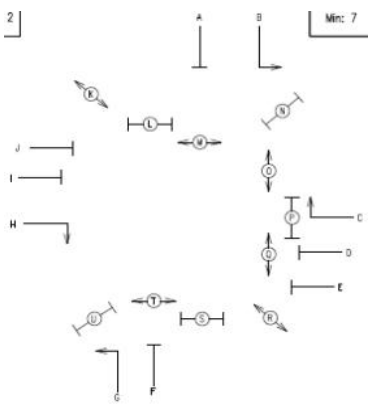
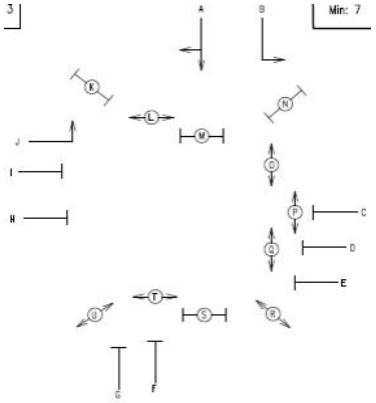
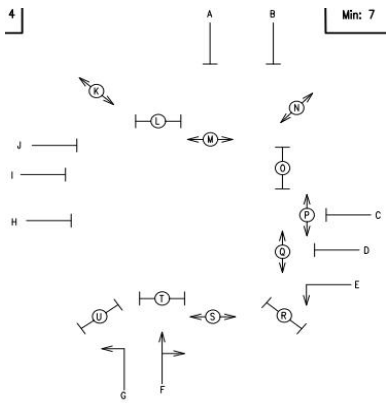
SITE LAYOUT



Note: This form may be used to provide a layout drawing of the junction.

Site reference		Specification Issue No.	1	Form Issue	1	Originators Initials	ajl	Date	16 10 2017	i

BASIC SITE DATA

Stream	0	Stage	1	Stream	0	Stage	2	Stream	0	Stage	3	Stream	0	Stage	4
															
Stream		Stage		Stream		Stage		Stream		Stage		Stream		Stage	
All Red															

Notes:										
1 - Use additional sheet(s) for more than 8 stages	Stream	0								
2 - Add Stream and Stage numbers as appropriate	All Red Stage	0								
3 - All Red stages should be shown as required	Start Up Stage	1								
4 - Reversion stage in absence of demands/extensions	Reversion Stage	1								

Site reference		Specification Issue No.	1	Form Issue	1	Originators Initials	ajl	Date	16 10 2017	i

INTERSECTION PHASE DATA

Use of phases	Location - Road Name etc	Type of phase #1	Condition of Appearance #2	Condition of Termination #3		Pedestrian Blackout	Minimum Green	Minimum Green Limit	Window Timer
				Type	Assoc'ted Phase				
A	Boulevard Ahead Rght	T	0	0			7	7	
B	Boulevard Left	T	1	0			7	7	
C	A2070 West Bound Right	T	0	0			7	7	
D	A2070 West Bound Ahead	T	0	0			7	7	
E	A2070 West Bound Left	T	1	0			7	7	
F	Waterbrook Ave Ahead Right	T	0	0			7	7	
G	Waterbrook Ave Left	T	1	0			7	7	
H	A2070 East Bound Right	T	0	0			7	7	
I	A2070 East Bound Ahead	T	0	0			7	7	
J	A2070 East Bound Left	T	1	0			7	7	
K	Peds A2070 E/B Left	TN	1	3			5	5	
L	Peds Boulevard Entry	TN	1	3			5	5	
M	Peds Boulevard Ahead Right	TN	1	3			5	5	
N	Peds Boulevard Left	TN	1	3			5	5	
O	A2070 East Bound Entry	TN	1	3			5	5	
P	Peds A2070 W/B Right	TN	1	3			5	5	
Q	Peds A2070 W/B Ahead	TN	1	3			5	5	
R	Peds A2070 W/B Left	TN	1	3			5	5	
S	Peds Waterbrook Ave Entry	TN	1	3			5	5	
T	Peds Waterbrook Ave Ahead Right	TN	1	3			5	5	
U	Peds Waterbrook Ave Left	TN	1	3			5	5	

Notes:

This form allows up to 32 phases to be specified.

#1 Type of phase

T - Traffic, **F** - Filter Arrow, **I** - Indicative Arrow, **D** - Dummy (allocate after real phases), **S** - Switched sign, **PD** - Pedestrian, **PU** - PUFFIN, **TN** - TOUCAN (near sided), **TF** - TOUCAN (far-sided).

#2 Conditions of phase appearance

0 - Always, **1** - Only if demand exists at start of stage, **2** - If demanded at any time up until the end of the stage, **3** - If demanded at any time during the stage up until window time expires.

#3 Conditions of phase termination

0 - At end of stage, **1** - When associated phase gains ROW, **2** - When associated phase loses ROW, **3** - At end of minimum green, **4** - At end of maximum green, **5** - Subject to special conditioning.

Additional information

Phase maxima are specified on Form XVII
Additional pedestrian information is specified on Form XXVII

Comments

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 i

CONFLICTING PHASES

#1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
A			C	C	C	C	C	C	C				C						C		
B						C			C					C							
C	C					C			C	C		C				C					
D	C					C	C	C									C				
E	C							C										C			
F	C	C	C	C				C	C	C		C			C					C	
G	C			C																	C
H	C			C	C	C													C		
I	C	C	C			C									C						
J			C			C					C										
K										C											
L			C			C															
M	C																				
N		C																			
O						C			C												
P			C																		
Q				C																	
R					C																
S	C							C													
T						C															
U							C														

Comments

Notes: #1 Phase Combination
C - Conflicting Phases (Enter C to indicate a conflicting phase combination, conflicting phase pairs are highlighted orange automatically)

#2 Active Phases
Phases specified on Form VI are highlighted yellow

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 | i

PHASE INTER-GREEN TIMINGS

To Phase / From Phase

#1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
A			5	7	10	6	11	6	5				5						11		
B						5			5					5							
C	5					5			9	13		13				5					
D	5					6	8	5									5				
E	5							5										5			
F	7	12	5	5				6	8	11		11			13					5	
G	5			5																	5
H	5			7	10	5													12		
I	5	8	5			5									8						
J			5			5					5										
K																					
L																					
M																					
N																					
O																					
P																					
Q																					
R																					
S																					
T																					
U																					

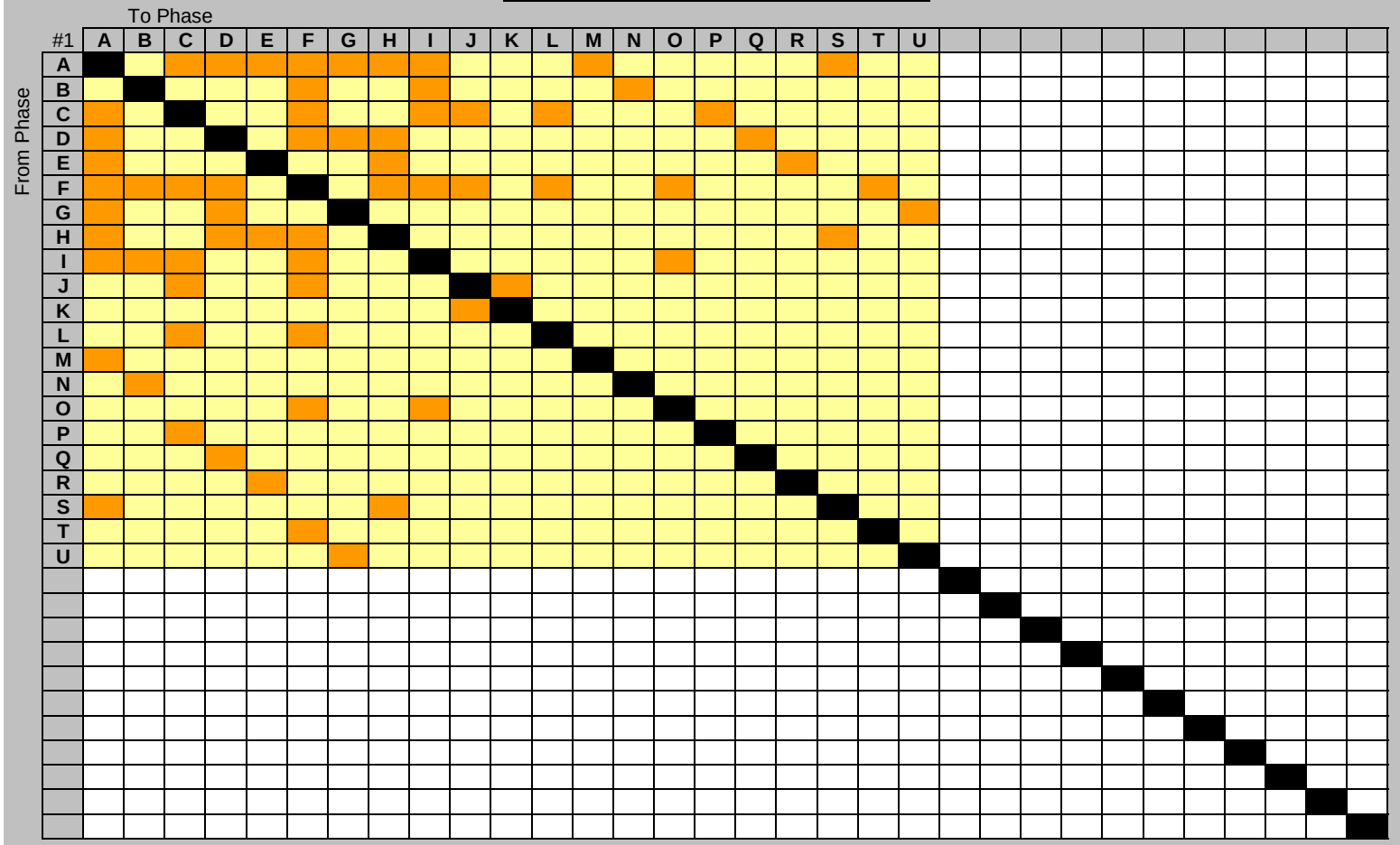
Comments: Toucan IG's extended by on crossing dets, see 'Ped link and facilities' page.

Notes: #1 Phase Inter-green times
Enter Inter-green times in seconds between conflicting phases specified on Form VII (shaded orange).

Minimum Inter-green limit value	Enter required global value. Enter **5** for global 5 sec, **0** for same value, **-1** for one second less, **-2** or **-3**. For specific limit values between individual phases use Form IX	-1
Starting Inter-green	Start up time MUST NOT include the Amber period.	8 Seconds

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 | i

PHASE INTER-GREEN LIMIT VALUES

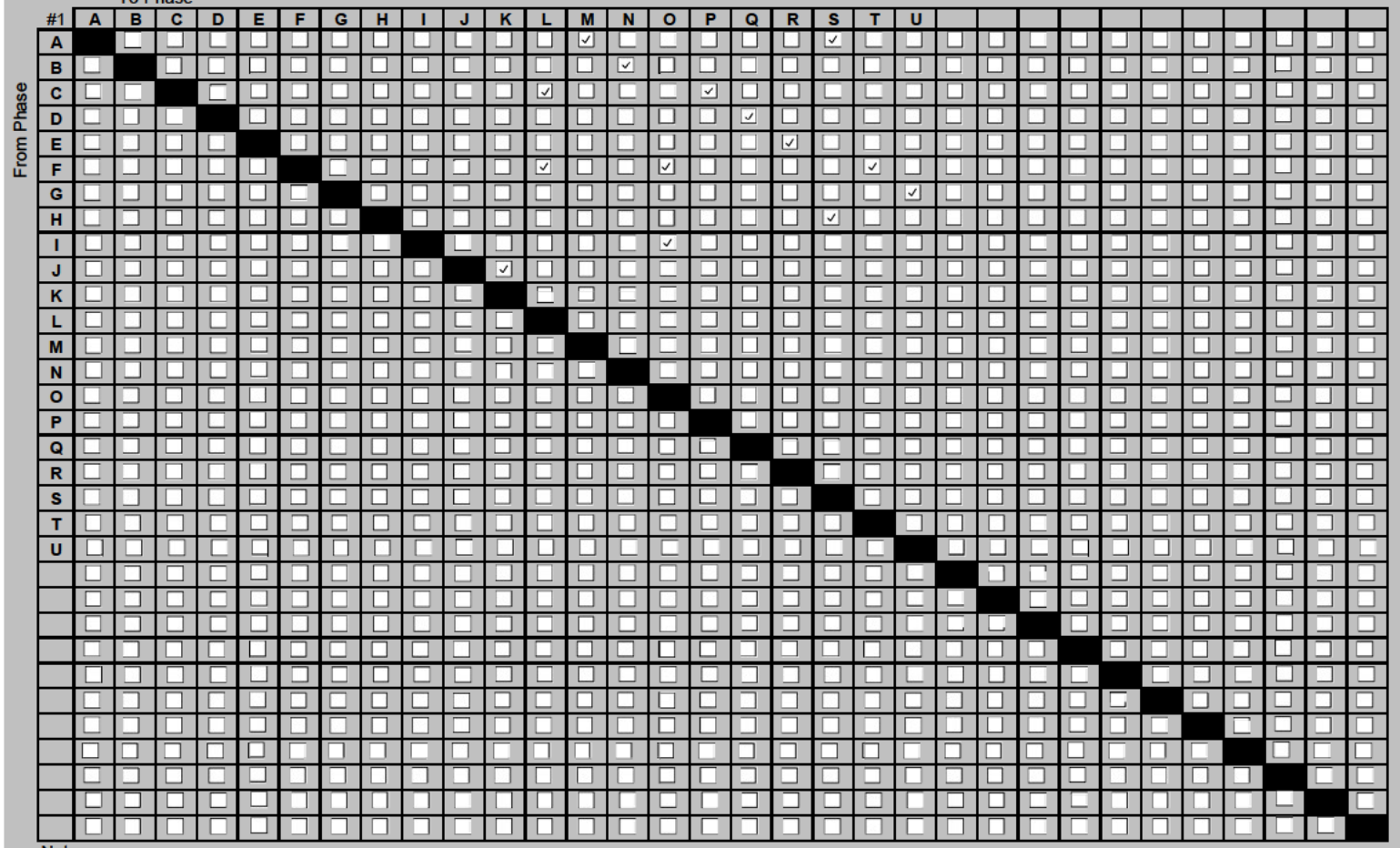


Comments

Notes: #1 Phase Inter-green limit values
Enter Inter-green minimum in seconds between conflicting phases specified on Form VII (shaded orange), if the default value on Form VIII is not adequate.

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

LAMP MONITORING & EXTEND INTER-GREEN FACILITY



Lamp monitoring option			
Phase	None	Regular	Safety Red Lamp
A	☐	☐	☑
B	☐	☐	☑
C	☐	☐	☑
D	☐	☐	☑
E	☐	☐	☑
F	☐	☐	☑
G	☐	☐	☑
H	☐	☐	☑
I	☐	☐	☑
J	☐	☐	☑
K	☑	☐	☐
L	☑	☐	☐
M	☑	☐	☐
N	☑	☐	☐
O	☑	☐	☐
P	☑	☐	☐
Q	☑	☐	☐
R	☑	☐	☐
S	☑	☐	☐
T	☑	☐	☐
U	☑	☐	☐

Notes: #1 Phase Inter-green extension due to red lamp failure.
Phase to phase movement on which lamp monitoring will extend the inter-green due to first red lamp failure, or second red lamp fail pending.

Inter-green timings	Stream No.	0							
	Extension (Sec) *	2							

* This is the time in addition to the normal Inter-green

Comments: 1st red fail (on any phase) increase intergreen by 2 secs, 2nd red fail (on that phase) inhibit peds

Site reference		Specification Issue No.	1	Form Issue	1	Originators Initials	ajl	Date	16 10 17

ADDITIONAL PHASE DELAYS

No.	Delay Phase	From Stage	To Stage	By (Seconds)	No.	Delay Phase	From Stage	To Stage	By (Seconds)

Comments: To be completed at FAT

Notes: This may be used to specify Phase losing and Phase gaining delays.
Phase Gaining Delays: This is the additional delay, which will be added to the basic Inter-Green time, to give the required period.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

USE OF STAGES

Stage	Stream No.	Window Time	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	0		☐	☐	☐	☑	☑	☐	☐	☐	☑	☑	☐	☑	☑	☑	☐	☑	☐	☐	☑	☑	☑
2	0		☐	☑	☑	☐	☐	☐	☑	☑	☐	☐	☑	☐	☑	☐	☑	☐	☑	☑	☐	☑	☐
3	0		☑	☑	☐	☐	☐	☐	☐	☐	☐	☑	☐	☑	☐	☐	☑	☑	☑	☑	☐	☑	☑
4	0		☐	☐	☐	☐	☑	☑	☑	☐	☐	☐	☑	☐	☑	☑	☐	☑	☑	☐	☑	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Maximum Reversion Demands #1																							

Comments

Notes: #1 Maximum Reversion Demand
Demands will be for the same real phase unless otherwise indicated.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 | i

PROHIBITED / ALTERNATIVE STAGE MOVEMENTS

Mode	Tick if no restriction
Urban Traffic Control - UTC	
MOVA - MA	✓
Cableless Linking - CLF	
Vehicle Actuated - VA	✓
Hurry Call - HC	
Manual - MN	✓
Priority - PR	
Emergency - EM	

#1 To Stage (Insert numbers) / From Stage (Insert numbers)

Mode(s): #2 — UTC MA CLF VA HC MN PR EM

#1 To Stage (Insert numbers) / From Stage (Insert numbers)

Mode(s): #2 — UTC MA CLF VA HC MN PR EM

#1 To Stage (Insert numbers) / From Stage (Insert numbers)

Mode(s): #2 — UTC MA CLF VA HC MN PR EM

#1 To Stage (Insert numbers) / From Stage (Insert numbers)

Mode(s): #2 — UTC MA CLF VA HC MN PR EM

#1 To Stage (Insert numbers) / From Stage (Insert numbers)

Mode(s): #2 — UTC MA CLF VA HC MN PR EM

Comments:

Notes:

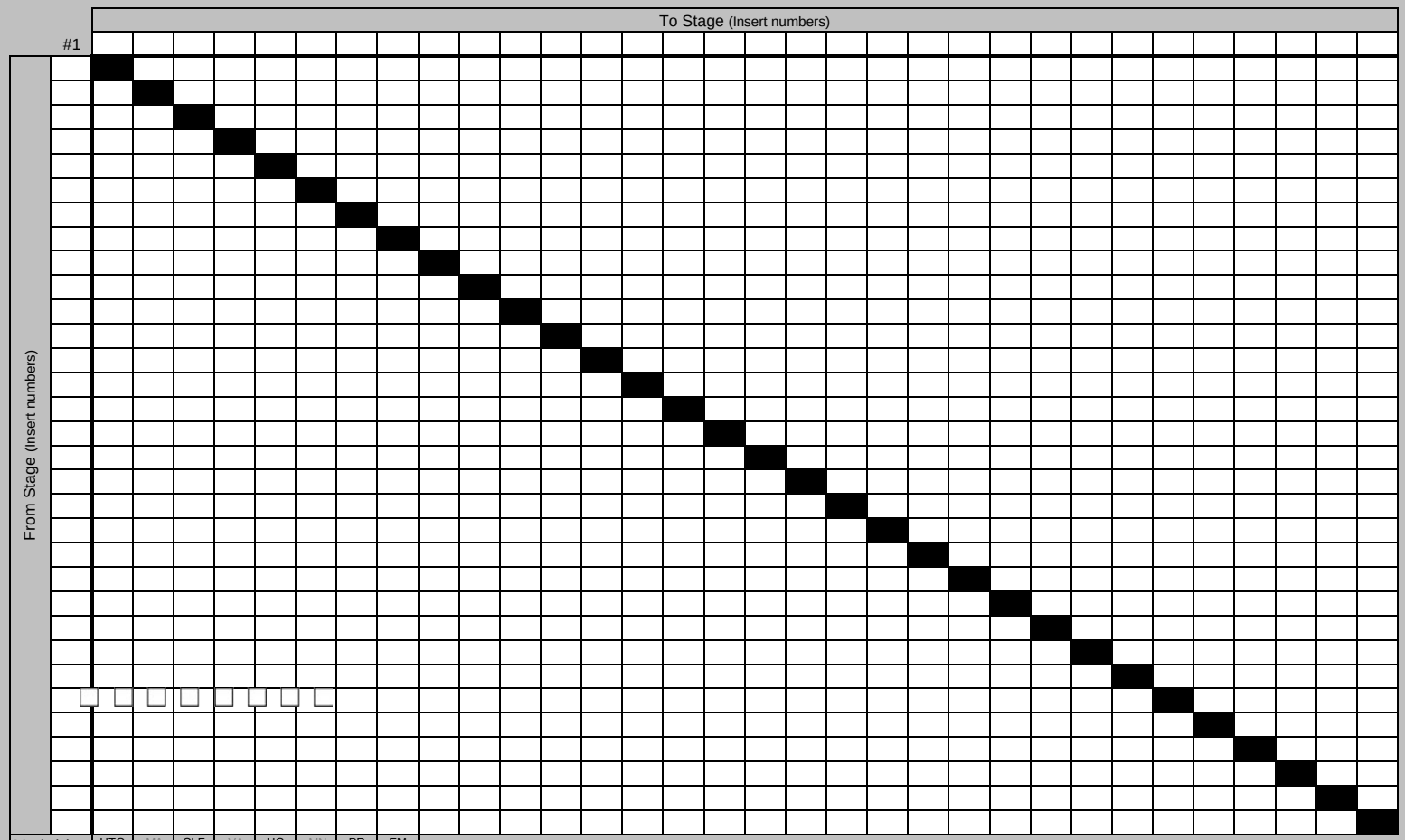
#1 Prohibited / Alternative Stage Movements
Select appropriate mode and enter:
Blank entry - Allowed, **P** - Prohibited, **N** - Alternative move via stage "N" (e.g. 3)

#2 Mode(s)
Greyed out modes indicate that the No Restrictions tick box has been entered for a particular mode of operation

Note: This form may be used to provide stage movement information for upto eight stages. Use alternative forms for more than eight stages.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 | i

PROHIBITED / ALTERNATIVE STAGE MOVEMENTS



Mode(s):	UTC	MA	CLF	VA	HC	MN	PR	EM
#2								

Notes:

#1 Prohibited / Alternative Stage Movements
Select appropriate mode and enter:
Blank entry - Allowed, **P** - Prohibited, **N** - Alternative move via stage "N" (e.g. 3)

#2 Mode(s)
Greyed out modes indicate that the No Restrictions tick box has been entered for a particular mode of operation on Form XIII

Comments:

Note: This form may be used to provide stage movement information as an alternative to Form XIII.

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

MASTER TIME CLOCK

Number	Day Type	Hours	Minutes	Seconds	Introduce Function Required	Function	Plan / Parameter
1	8	07	00	00	Max Set A (AM)	2	B
2	8	10	00	00	Max Set B (Off)	2	B
3	8	15	00	00	Max Set C (PM)	2	B
4	8	19	00	00	Max Set D (Evening)	2	B
5	8	22	00	00	Max Set E (Night)	2	B

Day type

1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday
8	All Week
9	All Week, except Sat & Sun
10	All Week, except Sun

Function

0	Isolate controller
1	Introduce plan
2	Introduce event defined below:
2a	Switch On Input/Output Active / Inactive / Normal
2b	Introduce Standard / Alternative Max Setting
2c	Switch a sign On / Off
2d	Switch a Phase / Stage In / Out of cycle
2e	Switch To / From Part Time mode

Note: This form may be used to provide information for upto 32 entries, use additional Forms for extra requirements.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

MODE PRIORITY

Stream								Method of Control
0								
x								Part Time - PT
x								Emergency - EM
x								Hurry Call - HC
1								Selected Manual Control - MAN
x								Urban Traffic Control - UTC
3								MOVA
2								Selected FXT, VA or CLF
x								Cableless Linking - CLF
x								Priority - PR
4								**Either** - Vehicle Actuated - VA *
x								**OR** - Fixed Time - FXT *

Assign priority number to each Method of Control. **1** = Top Priority, **2** = Second Priority etc. **X** = Not used.

Unless indicated - Priority will be assigned from top downwards.

* Select either VA or FXT for normal operation, not both.

Facility Switch Availability	
Facility switch position	Facility not operative
Manual - Man	☐
Fixed Time - FXT	☐
Vehicle Actuated - VA	☐

This may be achieved by appropriate arrangement of Method of Control Priority.

Under manual Control, Demand Dependent Filter Green Arrow to appear (select one):
Always

Comments: Manual disabled when controller door / manual panel flap closed

Site reference		Specification Issue No.	1	Form Issue	1	Originators Initials	ajl	Date	16 10 17	i

FIXED TIME MODE

#1 Type of Fixed Time operation required (select one):

Option A - Fixed cycle running to current maximum

Option A - Fixed cycle running to current maximum - demand dependant phases

Phases	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U											
Dem' dep	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Phases ticked, shall only appear if demanded in Fixed Time to Current Maximum Mode, I.E. will be demand dependent (dem' dep')

Option B - Fixed cycle running to timed stage sequence

Stage No.																																
Duration (sec)																																

#2

Option C - Linked fixed time

			Duration (sec)																														
Stream		Stage No.																															

#2

Comments

Notes: #1 Fixed Time Options
Select ONE option type for Fixed Time Operation only

#2 Options B & C
Start Up stages in each srteam MUST be specified in the sequence.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 i

PHASE GREEN TIMINGS

	Phase Maxima								Global Extension
	Max A	Max B	Max C	Max D	Max E	Max F	Max G	Max H	
A	25	20	25	20	15				
B	25	15	25	20	15				
C	25	20	25	20	15				
D	50	40	50	30	30				
E	25	20	25	20	15				
F	25	20	25	20	15				
G	25	20	25	20	15				
H	25	20	25	20	15				
I	50	40	50	30	30				
J	25	20	25	20	15				
K									
L									
M									
N									
O									
P	AM	Off Peak	PM	Evening	O/Night				

	Phase Maxima								Global Extension
	Max A	Max B	Max C	Max D	Max E	Max F	Max G	Max H	
Q									
R									
S									
T									
U									

Comments

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 | i

DETECTORS AND PUSHBUTTONS

#1

Type No.	Detector Type - Inductive loop, In carriageway, Above Ground, Optical, Video, Push-button, Pedestrian kerb-side, on-crossing etc	Manufacturer - model etc	Additional Information - ancillary equipment, ELV, IP address range, number of modules, location, is it in an MEC cabinet? If so cabinet No., comments etc
1	Mova loop (inductive)	n/a	As MOVA / traffic signal drawing
2	Toucan push button unit	TBC	As traffic signal drawing
3	Kerb Side Detection	AGD 645	As traffic signal drawing
4	On-crossing detection	AGD 226	As traffic signal drawing
5	Photo Cell	Manufacturer specified	On pole 2, as traffic signal drawing
6	Door Switch	Manufacturer specified	
7			
8			
9			
10			

Notes:

#1 Type No.

Use this form to specify requirements for detection equipment types. Enter Type No. against each channel of detection on the subsequent detection forms.

#2 DFM Fail / Mode Group

On the subsequent detection forms, specify the required **Failure Mode** AND the **DFM Timing Group** for each channel of detection. The failure modes are:
A - Fail Active, **I** - Fail Inactive, **Y** - Use Input on failure, e.g. A1, I3 etc.
Introduction of DFM Group Sets should be specified on the Master Time Clock Form XIV or in Special Conditions Form XXIX (dependant upon requirement).

DFM Fail Group Number **#2**	Active (Minutes)				Inactive (Hours)			
	Set A	Set B	Set C	Set D	Set A	Set B	Set C	Set D
1	45				8			
2	45				12			
3								
4								
5								
6								
7								
8								

Note: This form may be used to specify the type of detection technologies to be used, along with additional information as required.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17

DETECTORS AND PUSHBUTTONS (Continuation)

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non-latching	Uni-directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
1	A IN 1	1	1		A							2 / Y		
2	A X 2	1	2		A	A	5					2 / Y		
3	A SL 3	1	3		A	A	1					2 / Y		
4	A IN 4	1	4		A							2 / Y		
5	A X 5	1	5		A	A	5					2 / Y		
6	A SL 6	1	6		A	A	1					2 / Y		
7	B IN 7	1	7		B							2 / Y		
8	B X 9	1	8		B	B	5					2 / Y		
9	B SL 9	1	9		B	B	1					2 / Y		
10	B X 10	1	10		B	B	5					2 / Y		
11	B SL 11	1	11		B	B	1					2 / Y		
12	C IN 12	1	12		C							2 / Y		
13	C X 13	1	13		C	C	5					2 / Y		
14	C SL14	1	14		C	C	1					2 / Y		
15	C IN 15	1	15		C							2 / Y		
16	C X 16	1	16		C	C	5					2 / Y		
17	C SL 17	1	17		C	C	1					2 / Y		
18	D IN 18	1	18		D							1 / Y		
19	D X 19	1	19		D	D	5					1 / Y		
20	D SL 20	1	20		D	D	1					1 / Y		
21	D IN 21	1	21		D							1 / Y		
22	D X 22	1	22		D	D	5					1 / Y		
23	D SL 23	1	23		D	D	1					1 / Y		
24	D IN 24	1	24		D							1 / Y		
25	D X 25	1	25		D	D	5					1 / Y		
26	D SL 26	1	26		D	D	1					1 / Y		
27	E X 27	1	27		E	E	5					2 / Y		
28	E SL 28	1	28		E	E	1					2 / Y		
29	F IN 29	1	29		F							2 / Y		
30	F X 30	1	30		F	F	5					2 / Y		
31	F SL 31	1	21		F	F	1					2 / Y		
32	F X 32	1	32		F	F	5					2 / Y		

Note: This form may be used to provide detection information for up to thirty two inputs. Use additional forms for more channels of detection.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 6 10 17

DETECTORS AND PUSHBUTTONS (Continuation)

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non-latching	Uni-directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
33	F SL 33	1	33	☐	F	F	1	☐	☐			2 / Y	☐	
34	G X 34	1	34	☐	G	G	5	☐	☐			2 / Y	☐	
35	G SL 35	1	35	☐	G	G	1	☐	☐			2 / Y	☐	
36	H IN 36	1	36	☐	H			☐	☐			2 / Y	☐	
37	H X 37	1	37	☐	H	H	5	☐	☐			2 / Y	☐	
38	H SL 38	1	38	☐	H	H	1	☐	☐			2 / Y	☐	
39	I IN 39	1	39	☐	I			☐	☐			1 / Y	☐	
40	I X 40	1	40	☐	I	I	5	☐	☐			1 / Y	☐	
41	I SL 41	1	41	☐	I	I	1	☐	☐			1 / Y	☐	
42	I IN 42	1	42	☐	I			☐	☐			1 / Y	☐	
43	I X 43	1	43	☐	I	I	5	☐	☐			1 / Y	☐	
44	I SL 44	1	44	☐	I	I	1	☐	☐			1 / Y	☐	
45	I IN 45	1	45	☐	I			☐	☐			1 / Y	☐	
46	I X 46	1	46	☐	I	I	5	☐	☐			1 / Y	☐	
47	I SL 47	1	47	☐	I	I	1	☐	☐			1 / Y	☐	
48	J IN 48	1	48	☐	J			☐	☐			2 / Y	☐	
49	J X 49	1	49	☐	J	J	5	☐	☐			2 / Y	☐	
50	J SL 50	1	50	☐	J	J	1	☐	☐			2 / Y	☐	
51	PB Pole 1 Ph K	2		☑				☐	☐				☐	Processed
52	PB Pole 2 Ph K	2		☑				☐	☐				☐	output on
53	PB Pole 3 Ph K	2		☑				☐	☐				☐	MOVA
54	PB Pole 4 Ph K	2		☑				☐	☐				☐	51
55	PB Pole 5 Ph L	2		☑				☐	☐				☐	Processed
56	PB Pole 6 Ph L	2		☑				☐	☐				☐	output on
57	PB Pole 7 Ph L	2		☑				☐	☐				☐	MOVA
58	PB Pole 8 Ph L	2		☑				☐	☐				☐	52
59	PB Pole 9 Ph M	2		☑				☐	☐				☐	Processed
60	PB Pole 10 Ph M	2		☑				☐	☐				☐	output on
61	PB Pole 11 Ph M	2		☑				☐	☐				☐	MOVA
62	PB Pole 12 Ph M	2		☑				☐	☐				☐	53
63	PB Pole 13 Ph N	2		☑				☐	☐				☐	
				☐				☐	☐				☐	

Note: This form may be used to provide detection information for an additional thirty two inputs.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

DETECTORS AND PUSHBUTTONS (Continuation)

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non-latching	Uni-directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
64	PB Pole 14 Ph N	2		☑				☐	☐				☐	Processed
65	PB Pole 15 Ph N	2		☑				☐	☐				☐	on MOVA
66	PB Pole 16 Ph N	2		☑				☐	☐				☐	54
67	PB Pole 17 Ph O	2		☑				☐	☐				☐	Processed
68	PB Pole 18 Ph O	2		☑				☐	☐				☐	output on
69	PB Pole 19 Ph O	2		☑				☐	☐				☐	MOVA
70	PB Pole 20 Ph O	2		☑				☐	☐				☐	55
71	PB Pole 21 Ph P	2		☑				☐	☐				☐	Processed
72	PB Pole 22 Ph P	2		☑				☐	☐				☐	output on
73	PB Pole 23 Ph P	2		☑				☐	☐				☐	MOVA
74	PB Pole 24 Ph P	2		☑				☐	☐				☐	56
75	PB Pole 25 Ph Q	2		☑				☐	☐				☐	Processed
76	PB Pole 26 Ph Q	2		☑				☐	☐				☐	output on
77	PB Pole 27 Ph Q	2		☑				☐	☐				☐	MOVA
78	PB Pole 28 Ph Q	2		☑				☐	☐				☐	57
79	PB Pole 29 Ph R	2		☑				☐	☐				☐	Processed
80	PB Pole 30 Ph R	2		☑				☐	☐				☐	output on
81	PB Pole 31 Ph R	2		☑				☐	☐				☐	MOVA
82	PB Pole 32 Ph R	2		☑				☐	☐				☐	58
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	
				☐				☐	☐				☐	

Note: This form may be used to provide detection information for an additional thirty two inputs.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 6 10 2017 | i

DETECTORS AND PUSHBUTTONS (Continuation)

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non-latching	Uni-directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
				☐				☐	☐				☐	
83	PB Pole 33 Ph S	2		☑				☐	☐				☐	Processed
84	PB Pole 34 Ph S	2		☑				☐	☐				☐	output on
85	PB Pole 35 Ph S	2		☑				☐	☐				☐	MOVA
86	PB Pole 36 Ph S	2		☑				☐	☐				☐	59
87	PB Pole 37 Ph T	2		☑				☐	☐				☐	Processed
88	PB Pole 38 Ph T	2		☑				☐	☐				☐	output on
89	PB Pole 39 Ph T	2		☑				☐	☐				☐	MOVA
90	PB Pole 40 Ph T	2		☑				☐	☐				☐	60
91	PB Pole 41 Ph U	2		☑				☐	☐				☐	Processed
92	PB Pole 42 Ph U	2		☑				☐	☐				☐	output on
93	PB Pole 43 Ph U	2		☑				☐	☐				☐	MOVA
94	PB Pole 44 Ph U	2		☑				☐	☐				☐	61
95	KS Pole 1 Ph K	3		☑				☐	☐				☐	
96	KS Pole 3 Ph K	3		☑				☐	☐				☐	
97	KS Pole 6 Ph L	3		☑				☐	☐				☐	
98	KS Pole 8 Ph L	3		☑				☐	☐				☐	
99	KS Pole 10 Ph M	3		☑				☐	☐				☐	
100	KS Pole 12 Ph M	3		☑				☐	☐				☐	
101	KS Pole 16 Ph N	3		☑				☐	☐				☐	
102	KS Pole 14 Ph N	3		☑				☐	☐				☐	
103	KS Pole 17 Ph O	3		☑				☐	☐				☐	
104	KS Pole 19 Ph O	3		☑				☐	☐				☐	
105	KS Pole 21 Ph P	3		☑				☐	☐				☐	
106	KS Pole 23 Ph P	3		☑				☐	☐				☐	
107	KS Pole 25 Ph Q	3		☑				☐	☐				☐	
108	KS Pole 27 Ph Q	3		☑				☐	☐				☐	
109	KS Pole 30 Ph R	3		☑				☐	☐				☐	
110	KS Pole 32 Ph R	3		☑				☐	☐				☐	
111	KS Pole 34 Ph S	3		☑				☐	☐				☐	
112	KS Pole 36 Ph S	3		☑				☐	☐				☐	
113	KS Pole 38 Ph T	3		☑				☐	☐				☐	

Note: This form may be used to provide detection information for an additional thirty two inputs.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 6 10 2017 | i

DETECTORS AND PUSHBUTTONS (Continuation)

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non-latching	Uni-directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
114	KS Pole 40 Ph T	3		☑				☐	☐				☐	
115	KS Pole 42 Ph U	3		☑				☐	☐				☐	
116	KS Pole 44 Ph U	3		☑				☐	☐				☐	
117	OC Pole 1 Ph K	4		☑				☐	☐				☐	
118	OC Pole 3 Ph K	4		☑				☐	☐				☐	
119	OC Pole 6 Ph L	4		☑				☐	☐				☐	
120	OC Pole 8 Ph L	4		☑				☐	☐				☐	
121	OC Pole 10 Ph M	4		☑				☐	☐				☐	
122	OC Pole 12 Ph M	4		☑				☐	☐				☐	
123	OC Pole 16 Ph N	4		☑				☐	☐				☐	
124	OC Pole 14 Ph N	4		☑				☐	☐				☐	
125	OC Pole 17 Ph O	4		☑				☐	☐				☐	
126	OC Pole 19 Ph O	4		☑				☐	☐				☐	
127	OC Pole 21 Ph P	4		☑				☐	☐				☐	
128	OC Pole 23 Ph P	4		☑				☐	☐				☐	
129	OC Pole 25 Ph Q	4		☑				☐	☐				☐	
130	OC Pole 27 Ph Q	4		☑				☐	☐				☐	
131	OC Pole 30 Ph R	4		☑				☐	☐				☐	
132	OC Pole 32 Ph R	4		☑				☐	☐				☐	
133	OC Pole 34 Ph S	4		☑				☐	☐				☐	
134	OC Pole 36 Ph S	4		☑				☐	☐				☐	
135	OC Pole 38 Ph T	4		☑				☐	☐				☐	
136	OC Pole 40 Ph T	4		☑				☐	☐				☐	
137	OC Pole 42 Ph U	4		☑				☐	☐				☐	
138	OC Pole 44 Ph U	4		☑				☐	☐				☐	
139	Door Switch	6		☑				☐	☐				☐	
140	PE Cell Pole 4	5		☑				☐	☐				☐	
141	Green conf from Avocet Ph A			☐				☐	☐				☐	
	MOVA LINKING - see spec cond			☐				☐	☐				☐	
	Ph I Pulse		62	☐				☐	☐				☐	
	Ph I Hold		63	☐				☐	☐				☐	
	Ph I Hold Extension		64	☐				☐	☐				☐	

Note: This form may be used to provide detection information for an additional thirty two inputs.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

DETECTORS AND PUSHBUTTONS (Continuation)

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non-latching	Uni-directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
				☐				☐	☐				☐	

ALL RED EXTENSION

Transition for which All Red extension is required:

Unit Number	From Phase / Stage	To Phase / Stage	Phase Affected	Associated Detector

Stream Number	Extension Time (Sec) *	All Red Maximum Time (Sec)
0		

* Measured from point at which first phase in new stage would normally start its Red - Green transition period.

Operation of All Red extensions by Method of Control	
Method of Control	Operation
Part Time - PT	
Manual - Man	
Cableless Linking - CLF	
Urban Traffic Control - UTC	
Hurry Call - HC	
Priority - PR	
Emergency - EM	
Vehicle Actuated - VA	
Fixed Time - FXT	M

Note:
O - Operative,
M - Extend to Max.
If table is blank, all modes will be operative

Comments

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPEED DISCRIMINATION / ASSESSMENT EQUIPMENT (SDE/SA)

Equipment Type (select one):	Assessor Loop Spacing (select one):	Number of Assessors (1-16)
SDE	Standard 12 feet (3.66m)	

Assessor	Associated Phase(s)	Assessor Type
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Phase Terminated	Extra Inter-green (0-50 Sec)	Extension *
A		
B		
C		
D		
E		
F		
G		
H		
I		
J		
K		
L		
M		
N		
O		
P		

Phase Terminated	Extra Inter-green (0-50 Sec)	Extension *
Q		
R		
S		
T		
U		

Assessor types	Threshold speed	Extension time
1 - Double SDE	30 mph	3 seconds
2 - Inner assessor for triple SDE	35 mph	3.5 seconds
3 - Outer assessor for triple SDE	45 mph	3.5 seconds
4 - Speed assessment	28 mph	5 seconds

* If a phase terminating with a normal (Non-high speed) extension REQUIRES extra inter-green, enter **Y**. If it does not require the extra inter-green enter **N**.

Site reference		Specification Issue No.	1	Form Issue		Originators Initials		Date		i

CABLELESS LINKING FACILITY

Name								Name							
Plan No.		Stream No.		Offset		Cycle Time		Plan No.		Stream No.		Offset		Cycle Time	
Group Number	Group Time	Group Influence	Related Stage	Group Number	Group Time	Group Influence	Related Stage	Group Number	Group Time	Group Influence	Related Stage	Group Number	Group Time	Group Influence	Related Stage

Notes:

Group Influence's

A	**Isolate to VA** (Stage number not required) [VA]	B	An **Immediate Move** to stage "N" [IM]	C	A **Demand Dependant** move to stage "N" [DD]	D	**Hold** (No stage change to occur) [HO]	E	**Prevent** moves except to stage "N" [PR]

Comments

Site reference		Specification Issue No.	1	Form Issue		Originators Initials		Date		i

HURRY CALL(S)

Hurry Call Number	Stage	Call Detector Input Number or Name	Cancel Detector Input Number or Name	Ack'd output	Timings (Sec)			Comments
					Call Delay	Hold	Prevent	
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				
				☐				

Comments

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date | i

URBAN TRAFFIC CONTROL

Control Words																
Bit Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Control Bit	F1	F2	F3	F4												TO
Demand Dependent	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bit Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Control Bit	G1	G2	G3	G4	CF	DF	DO	LF	LF1	LF2						CRB
Demand Dependent	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bit Number	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Control Bit																
Demand Dependent	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bit Number	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Control Bit																
Demand Dependent	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Reply Words																
Bit Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reply Bit																
Bit Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Reply Bit																
Bit Number	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Reply Bit																
Bit Number	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Reply Bit																
Bit Number	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Reply Bit																
Bit Number	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
Reply Bit																
Bit Number	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
Reply Bit																
Bit Number	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
Reply Bit																

O.T.U. Manufacturer and Type
Integral STRATOS UTMC OTU / OMU

Operation Standard (select one):
MCE0105/0106

UTC initiated by (select one):
Force Bits present

Number of bits	
Control	
Reply	

RTC Synchronisation Time		
Hour	Minute	Second

CC Synchronisation Reply	
Seconds	

O.T.U. Address Information
Enter additional information, such as SCN, Modem number, IP address (as appropriate)

Comments: To be completed at FAT with information from HE RCC

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017

URBAN TRAFFIC CONTROL (Continuation)

Relationship of demand bits and phases

D number	Insert Phases Demanded	Insert Phases Extended
D 1		
D		
D		
D

UTC REPLY BIT FUNCTIONALITY

Tick as appropriate:	G1 / G2	MC	RR	DF	CF	LF	RF1	RF2	LF1	LF2	DO	LE	
Manual mode selected and operative	☐	☐	☐						☐	☐	☐	☐	☐
Manual mode selected	☐	☐	☐						☐	☐	☐	☐	☐
No lamp power and/or signals off	☐				☐	☑			☐	☐	☐	☐	☐
Controller fault	☐				☑				☐	☐	☐	☐	☐
Detector fault				☑	☐	☐			☐	☐	☐	☐	☐
VA or FT selected	☐		☐						☐	☐	☐	☐	☐
Lamp failure	☐				☐	☐	☐	☐	☑	☐	☐	☐	☐
1st Safety red failure					☐	☐	☐	☐	☐	☑	☐	☐	☐
2nd Safety red failure					☐	☐	☐	☐	☐	☐	☐	☐	☐
Door open	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐	☐
Lights extinguished	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Notes: 1 - Tick appropriate boxes to indicate required reply bit functionality. 2 - Use additional columns and rows to detail non-standard combinations.

Comments: To be completed at FAT with information from HE RCC. LF1 = any lamp fault, LF2 = red lamp fault (also replies LF1).

Note: This form may be used to specify the required functionality of UTC reply bits.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

MANUAL PANEL

Manual Selection		
Button No.	Stage(s) Called	Name
0	All Red Stage(s)	
1	1	A2070 aheads and lefts
2	2	A2070 rights and lefts out Boulevard and Waterbrook
3	3	Boulevard
4	4	Waterbrook

Auxillary Visual Indicators	
Output No.	Function
1	Mova in control

Manual Mode Enable
When MND command Entered

Auxillary Switch Inputs	
Input No.	Function

Comments

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 17 | i

PRIORITY / EMERGENCY MODE (BASIC REQUIREMENTS)

Priority Unit Number	Priority Type (select one):	Phase	Monitor Time (Sec)	Emergency Gap Time (Sec)	Priority Demands				Revertive Priority Demands #1				Revertive Priority Demands to start inhibit timer #2				Priority DFM Self Reset Facility	Priority Unit(s) Inhibited	Allowed VA Demands for phases	Enforce Demand for Phase(s) if allowed
					Plan No.				Plan No.				Plan No.							
					A	B	C	D	A	B	C	D	A	B	C	D				
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐			

Notes: 1 - *Revertive Priority Demands* are enabled only if *Priority Demands* are also enabled.

2 - *Revertive Priority Demands to Start Inhibit Timer* is enabled only if *Revertive Priority Demands* are also enabled.

Comments

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

PRIORITY / EMERGENCY MODE (TIME PERIODS)

Priority Unit Number		1	2	3	4	5	6	7	8	Defaults*
Priority Extension Time (Sec)										10
Priority Maximum Time (Sec)										15
Priority Inhibit Time (Sec)										50
Plan A Phase Compensation Time (Sec)	**A**									0
	B									0
	C									0
	D									0
	E									0
	F									0
	G									0
	H									0
	I									0
	J									0
	K									0
	L									0
	M									0
	N									0
	O									0
	P									0
	Q									0
	R									0
	S									0
	T									0
	U									0
										0
										0
										0
										0
										0
										0
										0
										0
										0
										0
										0
										0

* Default values if not specified

Comments

Site reference		Specification Issue No.	1	Form Issue		Originators Initials		Date		i

PEDESTRIAN LINK & FACILITIES

Link Number	Link to Pedestrian Crossing Controller at location:	Associated with stage (No.) or Phase (Letter)	Start or End	Link delay	Inhibit release period	Over-ride time

Phases	(Enter Phase letters of Pedestrian Phases)	K	L	M	N	O	P	Q	R	S	T	U				
Vehicle to Pedestrian Inter-green	All Red gap change (Sec)															
	All Red forced change (Sec)															
Pedestrian Phase	Kerbside detector extension (Sec)															
	Vehicle Termination Delay Time (Sec)															
	Pedestrian demand hold time (Sec)															
Pedestrian to Vehicle Inter-green: Pelican	Vehicle Red / Flashing Green Man [Period E] (Sec)															
	Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec)															
	Vehicle Flashing Yellow / Red Man [Period G] (Sec)															
Pedestrian and TOUCAN far-sided signals	Minimum clearance - Vehicle Red / Pedestrian Blackout [Period v] (Sec)															
	Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec)															
	Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec)															
	All Red [Period viii] (Sec)															
	On-crossing extension (Sec)															
PUFFIN and TOUCAN near-sided signals	Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec)	1	1	1	1	1	1	1	1	1	1	1				
	Maximum extendible - Vehicle Red / Red Man [Period 6/VI] (Sec)	8	9	9	11	14	9	14	8	10	9	8				
	Forced change - Vehicle Red / Red Man [Period 7/VII] (Sec)	3	3	3	3	3	3	3	3	3	3	3				
	Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec)	0	0	0	0	0	0	0	0	0	0	0				
	On-crossing extension (Sec)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0				
Other Facilities	Pedestrian Audible Signals	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Pedestrian Tactile Signals	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☐	☐

Comments: Toucan facilities, PB and associated phase kerb side needed to inset demand. Demand dropped if kerb side drops detection.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

MID-BLOCK PEDESTRIAN CROSSING DATA

Site Locations Crossing 1: Crossing 2:

		1	2
Vehicle Phase	Fixed Vehicle Period (Sec)		
	VA minimum (Sec)		
	VA maximum (Sec)		
	Pre-timed maximum		
	Vehicle extension (Sec)		
Vehicle to Pedestrian Inter-green	All Red gap change (Sec)		
	All Red forced change (Sec)		
Pedestrian Phase	Pedestrian minimum green (Sec)		
	Kerbside detector extension (Sec)		
	Vehicle Termination Delay Time (Sec)		
	Pedestrian demand hold time (Sec)		
Pedestrian to Vehicle Inter-green – Pelican	Vehicle Red / Flashing Green Man [Period E] (Sec)		
	Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec)		
	Vehicle Flashing Yellow / Red Man [Period G] (Sec)		
Pedestrian to Vehicle Inter-green – Pedestrian and TOUCAN far-sided signals	Minimum clearance - Vehicle Red / Pedestrian Blackout [Period v] (Sec)		
	Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec)		
	Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec)		
	All Red [Period viii] (Sec)		
	On-crossing extension (Sec)		
Pedestrian to Vehicle Inter-green – PUFFIN and TOUCAN near-sided signals	Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec)		
	Maximum extendible - Vehicle Red / Red Man [Period 6/VI] (Sec)		
	Forced change - Vehicle Red / Red Man [Period 7/VII] (Sec)		
	Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec)		
	On-crossing extension (Sec)		
Other facilities	Pedestrian Audible Signals	☐	☐
	Pedestrian Tactile Signals	☐	☐
	UTC ☐ Local-linking ☐	1	2

Notes: 1 - The extendible period 6 starts at the end of period 5.

Comments

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

Miscellaneous Inputs and Outputs

Inputs					Outputs				
No.	Name	Comments	N/O	N/C	No.	Name	Comments	N/O	N/C

SPECIAL CONDITIONS

Stage Change			Conditions for change, or other general requirements
Mode	From	To	
			Processed outputs (wait mimic) from Toucans sent to MOVA on MOVA dets
			K=51,L=52, M=53, N=54, O=55, P=56, Q=57, R=58, S=59, T=60, U=61
			Green confirm from Avocet controller Phase A into this controller on input 141 to produce force / hold links

Notes: If using Boolean expressions, these are examples of symbols which may be used:

<***F"N"***> Computer Force bit for Stage "N"; <***D"N"***> Computer Demand bit for Stage "N"; <***dem "P"***> Demand for Phase "P"

< **-ext"P"** > Lack of extensions for Phase "P", < . > Boolean "AND"; < + > Boolean "OR".

Modes of operation: **FXT**, **VA**, **UTC**, **CLF**, **MAN** (See Form XV for complete list and explanation)

Note: This form may be used to provide additional information for stage change conditions, and/or other parameters not covered elsewhere.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 i

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	
			MOVA CRB toggle routine to be added for when neither UTC or MOVA is active AND mode switch is in normal position.
			MOVA CRB bit to be inactive when mode select switch not in normal position.
			Green confirm for phase A (Avocet Cont, ahead to Boulevard) sent to this controller. From the phase A green confirm produce -
Force			Phase I (this cont) 2 second pulse on MOVA det 62 (to force stage 1) at 'X' seconds after (delay timer 1) start of
			phase A (other controller) green confirm. Delay timer 1 initially set to 8 seconds.
			Active / inactive by switch 1, initially active.
Hold			Phase I (this cont) HOLD on MOVA det 63 (to hold stage 1) for the duration of phase A (other controller)
			based on green confirm, subject to delay (timer 2), and duration limit (timer 3)
			Delay timer 2 initially set to 8 seconds.
			Hold duration limit adjustable - timer 3, initially set to length of phase A green (so holds until A terminates).
			Active / inactive by switch 2, initially active.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 | i

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	
Hold			Phase I (this cont) HOLD EXTEND on MOVA det 64 (to hold stage 1) after termination of phase A (other controller)
Extend			based on green confirm, subject to limit (timer 4)
			Hold extend duration limit adjustable - timer 4, initially set to 22 secs (travel time between junctions).
			Active / inactive by switch 3, initially active.

Site reference | Specification Issue No. 1 | Form Issue 1 | Originators Initials ajl | Date 16 10 2017 i

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date

SPECIAL CONDITIONS (Continuation)

Stage Change			Conditions for change, or other general requirements
Mode	From	To	

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date | i

Controller Power Calculation

Equipment	Quantity	Watts	Total
Controller (base build)		50	
Additional phase drive card		25	
OTU / OMU		30	
Inductive Loop detector pack		3	
Above ground detectors		6	
Number of audible / tactile units		10	
Number of regulatory signs		30	
Number of pedestrian call accept indicators		6	
Number of near-side pedestrian indicators		16	
Number of pedestrian wait lamps (LED)		5	
Add additional equipment			
Add additional equipment			

Dimmable Equipment	Quantity	Dim	Bright	Total (dim)	Total (bright)
Number of signal heads (incl' far-side ped's) HI		33	63		
Number of signal heads (incl' far-side ped's) LED		4	29		
Number of pedestrian wait lamps (40w)		25	42		
Add additional equipment					
Number of starting ambers (on at start-up)		63			

Average Power Watts (Dim) 0.00 **Average Power Watts (Bright)** 0.00 **Power Factor** 0.85 **Average Power kVA (Bright)** 0.00

Peak Power Watts 0.00

Notes: Equipment descriptions and power consumption ratings **should** be modified to reflect site requirements and technology selection.

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date | i

Traffic Signal Data Summary Sheet

Site Reference:

Intersection: A2070 Bad Munstereifel Road, The Boulevard, Finberry, Ashford

Stream	Stage	Stream	Stage	Stream	Stage	Stream	Stage	Stream	Stage	Stream	Stage
0	1	0	2	0	3	0	4				
Stream	Stage	Stream	Stage	Stream	Stage	Stream	Stage	Stream	Stage	Stream	Stage
				###	###	###	###	###	###	###	###

(Stage diagrams to be manually copied and pasted as required)

More than 12 stages may be used, refer to Form XII for full details

	Use of phases: Location - Road Name etc	Type of phase	Pedestrian Blackout	Minimum Green	Phase Maxima: Max A	Max B	Max C	Max D	Max E	Max F	Max G	Max H
A	Boulevard Ahead Rght	T		7	25	20	25	20	15			
B	Boulevard Left	T		7	25	15	25	20	15			
C	A2070 West Bound Right	T		7	25	20	25	20	15			
D	A2070 West Bound Ahead	T		7	50	40	50	30	30			
E	A2070 West Bound Left	T		7	25	20	25	20	15			
F	Waterbrook Ave Ahead Right	T		7	25	20	25	20	15			
G	Waterbrook Ave Left	T		7	25	20	25	20	15			
H	A2070 East Bound Right	T		7	25	20	25	20	15			
I	A2070 East Bound Ahead	T		7	50	40	50	30	30			
J	A2070 East Bound Left	T		7	25	20	25	20	15			
K	Peds A2070 E/B Left	TN		5								
L	Peds Boulevard Entry	TN		5								
M	Peds Boulevard Ahead Right	TN		5								
N	Peds Boulevard Left	TN		5								
O	A2070 East Bound Entry	TN		5								
P	Peds A2070 W/B Right	TN		5	AM	Off Peak	PM	Evening	O/Night			
Q	Peds A2070 W/B Ahead	TN		5								
R	Peds A2070 W/B Left	TN		5								
S	Peds Waterbrook Ave Entry	TN		5								
T	Peds Waterbrook Ave Ahead Right	TN		5								
U	Peds Waterbrook Ave Left	TN		5								

Detection: Number	Location / Title	Phase Demanded	Phase Extended	Extension Time (Sec)
1	A IN 1	A		
2	A X 2	A	A	5
3	A SL 3	A	A	1
4	A IN 4	A		
5	A X 5	A	A	5
6	A SL 6	A	A	1
7	B IN 7	B		
8	B X 9	B	B	5
9	B SL 9	B	B	1
10	B X 10	B	B	5
11	B SL 11	B	B	1
12	C IN 12	C		
13	C X 13	C	C	5
14	C SL14	C	C	1
15	C IN 15	C		
16	C X 16	C	C	5
17	C SL 17	C	C	1
18	D IN 18	D		
19	D X 19	D	D	5
20	D SL 20	D	D	1
21	D IN 21	D		
22	D X 22	D	D	5
23	D SL 23	D	D	1
24	D IN 24	D		
25	D X 25	D	D	5
26	D SL 26	D	D	1
27	E X 27	E	E	5
28	E SL 28	E	E	1
29	F IN 29	F		
30	F X 30	F	F	5
31	F SL 31	F	F	1
32	F X 32	F	F	5

More than 32 detectors may be used, refer to Form XVIII for full details

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
A			5	7	10	6	11	6	5				5						11		
B						5			5					5							
C	5					5			9	13		13				5					
D	5					6	8	5									5				
E	5							5										5			
F	7	12	5	5				6	8	11		11			13					5	
G	5			5																	5
H	5			7	10	5													12		
I	5	8	5			5									8						
J			5			5					5										
K																					
L																					
M																					
N																					
O																					
P																					
Q																					
R																					
S																					
T																					
U																					

UTC Control Bits															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F1	F2	F3	F4												TO
Demand Dependant															
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
G1	G2	G3	G4	CF	DF	DO	LF	LF1	LF2						CRB
Demand Dependant															

UTC Reply Bits															
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

More than 32 Control or Reply bits may be used on the UTC interface, refer to Form XXIII for full details

Manual Selection: Button No.	Stage(s) Called	Name
0	All Red Stage(s)	
1	1	A2070 aheads and lefts
2	2	A2070 rights and lefts out Boulevard and
3	3	Boulevard
4	4	Waterbrook

Streams								Method of Control Priority
0								
x								Part Time - PT
x								Emergency - EM
x								Hurry Call - HC
1								Selected Manual Control - MAN
x								Urban Traffic Control - UTC
3								MOVA
2								Selected FXT, VA or CLF
x								Cableless Linking - CLF
x								Priority - PR
4								**Either** - Vehicle Actuated - VA
x								**OR** - Fixed Time - FXT

Note: This summary sheet may be used as an on-site reference for key data, to be easily access ble on site. The majority of the information on this form will be automatically copied from elsewhere in this specification. This sheet is optimised to be printed on A3 paper.

Comments

Additional information can be entered manually into the 'Comments' box

Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date | i

LIGHT RAPID TRANSIT SUMMARY SHEET

LRT Unit	LRT Phase	LRT Revertive Demands / Extensions	LRT Units to Inhibit	Event Monitoring Up	Down	Threshold	Delay Peridod	Gaining Phases

Prepare **Step 0** **Step 1** **Step 2**

LRT Unit	Detector	Delay	Step 0 Influence	Step 0 Influence Phase	Step 0 Influence Period	Step 1 Influence	Step 1 Influence Phase	Step 1 Influence Period	Step 2 Influence	Step 2 Influence Phase	Step 2 Influence Period

Advance **Step 0** **Step 1** **Step 2**

LRT Unit	Detector	Delay	Step 0 Influence	Step 0 Influence Phase	Step 0 Influence Period	Step 1 Influence	Step 1 Influence Phase	Step 1 Influence Period	Step 2 Influence	Step 2 Influence Phase	Step 2 Influence Period

LRT Influences:

0 = Revoke LRT request
1 = Immediate Move
2 = Demand Dependent Move
3 = Hold
4 = Allow Move
5 = Add Immediate Move
6 = Add Demand Dependent Move
10 = Add Latched Demand
11 = Insert LRT Request
12 = Add Allow Move

Stop Line **Cancel** **Other**

LRT Unit	Stopline Presence	Stopline Clear	Influence Period	Cancel	Cancel Timeout	Delay	Follow Inhibit	Overlap Window	Overlap Inhibit

Note: This Form is used to detail Light Rapid Transit (LRT) facilities

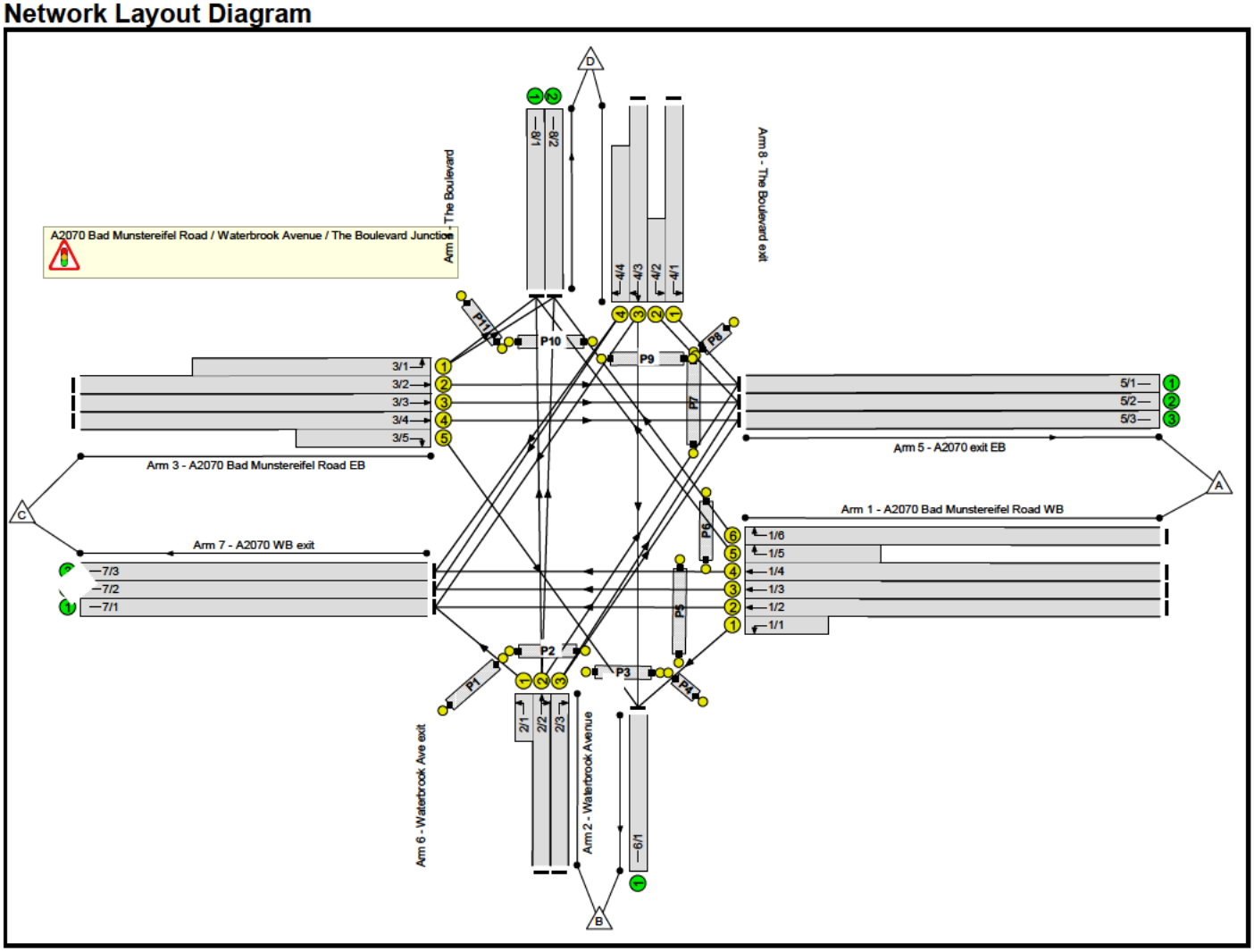
Site reference | Specification Issue No. 1 | Form Issue | Originators Initials | Date | i

Detailed Input Data And Results

User and Project Details

Project:	**WIE20982 Sevington**
Title:	**A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave**
Location:	
Design Layout Ref:	Existing Layout
Date Completed:	March 2025
Additional detail:	
File name:	J1) A2070 Bad Munstereifel Rd_Waterbrook Ave_The Blvd.lsg3x
Author:	CSMS4
Company:	WIE
Address:	
Linsig Version:	3, 3, 0, 6

Network Layout Diagram



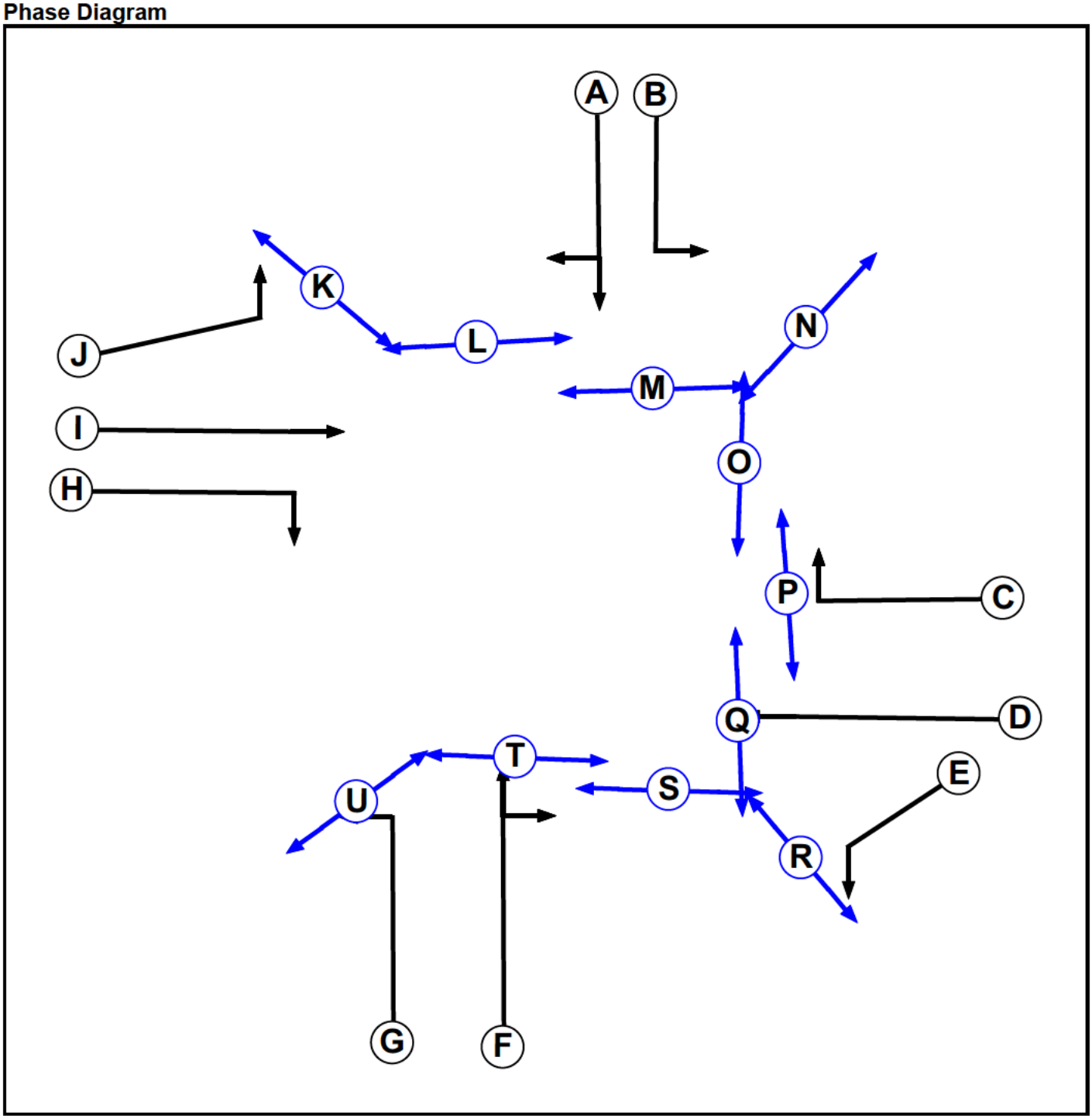
Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2024 Base AM Peak	2024 Base AM Peak	Network Control Plan 1	07:45 - 08:45	136	1.7	70.84
2	2024 Base PM Peak	2024 Base PM Peak	Network Control Plan 1	16:30 - 17:30	136	8.4	63.15
3	2024 Base+Sev (Obs) AM Peak	2024 Base+Sev (Obs) AM Peak	Network Control Plan 1	07:45 - 08:45	136	-1.5	72.54
4	2024 Base+Sev (Obs) PM Peak	2024 Base+Sev (Obs) PM Peak	Network Control Plan 1	16:30 - 17:30	136	7.3	64.13
5	2026 Base AM Peak	2026 Base AM Peak	Network Control Plan 1	07:45 - 08:45	136	-0.2	75.43
6	2026 Base PM Peak	2026 Base PM Peak	Network Control Plan 1	16:30 - 17:30	136	5.8	66.04
7	2026 Base+Sev AM Peak	2026 Base+Sev AM Peak	Network Control Plan 1	07:45 - 08:45	136	-0.7	76.34
8	2026 Base+Sev PM Peak	2026 Base+Sev PM Peak	Network Control Plan 1	16:30 - 17:30	136	4.8	67.08
9	2036 Base AM Peak	2036 Base AM Peak	Network Control Plan 1	07:45 - 08:45	136	-35.4	460.30
10	2036 Base PM Peak	2036 Base PM Peak	Network Control Plan 1	16:30 - 17:30	136	-29.4	312.88
11	2036 Base+Sev AM Peak	2036 Base+Sev AM Peak	Network Control Plan 1	07:45 - 08:45	136	-35.7	469.17
12	2036 Base+Sev PM Peak	2036 Base+Sev PM Peak	Network Control Plan 1	16:30 - 17:30	136	-30.3	323.62
13	2036 Base+Sev 4 AM Peak	2036 Base+Sev 4 AM Peak	Network Control Plan 1	07:45 - 08:45	136	-35.9	478.10
14	2036 Base+Sev 4 PM Peak	2036 Base+Sev 4 PM Peak	Network Control Plan 1	16:30 - 17:30	136	-31.3	336.10

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1	Gen		Stage Stream 1	21	4	A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Traffic		7	7
I	Traffic		7	7
J	Traffic		7	7
K	Pedestrian		5	5
L	Pedestrian		5	5
M	Pedestrian		5	5
N	Pedestrian		5	5
O	Pedestrian		5	5
P	Pedestrian		5	5
Q	Pedestrian		5	5
R	Pedestrian		5	5
S	Pedestrian		5	5
T	Pedestrian		5	5
U	Pedestrian		5	5

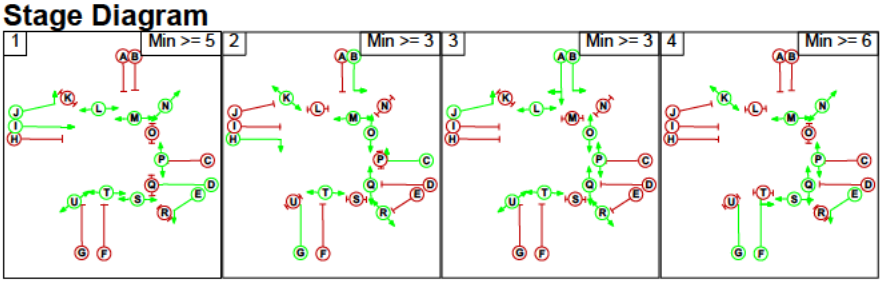
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
A		-	5	7	10	6	11	6	5	-	-	-	5	-	-	-	-	-	11	-	-
B	-		-	-	-	5	-	-	5	-	-	-	-	5	-	-	-	-	-	-	-
C	5	-		-	-	5	-	-	9	13	-	13	-	-	-	5	-	-	-	-	-
D	5	-	-		-	6	8	5	-	-	-	-	-	-	-	-	5	-	-	-	-
E	5	-	-	-		-	-	5	-	-	-	-	-	-	-	-	-	5	-	-	-
F	7	12	5	5	-		-	6	8	11	-	11	-	-	13	-	-	-	-	5	-
G	5	-	-	5	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	5
H	5	-	-	7	10	5	-		-	-	-	-	-	-	-	-	-	-	12	-	-
I	5	8	5	-	-	5	-	-		-	-	-	-	-	8	-	-	-	-	-	-
J	-	-	5	-	-	5	-	-	-		5	-	-	-	-	-	-	-	-	-	-
K	-	-	-	-	-	-	-	-	-	9		-	-	-	-	-	-	-	-	-	-
L	-	-	9	-	-	9	-	-	-	-	-		-	-	-	-	-	-	-	-	-
M	9	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-
N	-	10	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
O	-	-	-	-	-	11	-	-	11	-	-	-	-	-		-	-	-	-	-	-
P	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
Q	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
S	8	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-		-	-
T	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-		-
U	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	D E I J L M N P S T U
2	B C G H K M O Q R T
3	A B J L O P Q R T U
4	E F G K M N P Q S

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4
1		10	10	9
2	13		13	12
3	11	11		11
4	11	13	13	

Lane Input Data

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A2070 Bad Munstereifel Road WB)	U	E	2	3	7.0	Geom	-	4.47	0.00	Y	Arm 6 Left	36.76
1/2 (A2070 Bad Munstereifel Road WB)	U	D	2	3	60.0	Geom	-	3.33	0.00	Y	Arm 7 Ahead	Inf
1/3 (A2070 Bad Munstereifel Road WB)	U	D	2	3	60.0	Geom	-	3.50	0.00	N	Arm 7 Ahead	Inf
1/4 (A2070 Bad Munstereifel Road WB)	U	D	2	3	60.0	Geom	-	3.53	0.00	N	Arm 7 Ahead	Inf
1/5 (A2070 Bad Munstereifel Road WB)	U	C	2	3	11.3	Geom	-	3.40	0.00	Y	Arm 8 Right	20.20
1/6 (A2070 Bad Munstereifel Road WB)	U	C	2	3	21.7	Geom	-	3.40	0.00	Y	Arm 8 Right	15.96
2/1 (Waterbrook Avenue)	U	G	2	3	4.0	Geom	-	5.00	0.00	Y	Arm 7 Left	29.81
2/2 (Waterbrook Avenue)	U	F	2	3	60.0	Geom	-	3.66	0.00	Y	Arm 5 Right Arm 8 Ahead	16.67 Inf
2/3 (Waterbrook Avenue)	U	F	2	3	60.0	Geom	-	3.29	0.00	N	Arm 5 Right	14.14
3/1 (A2070 Bad Munstereifel Road EB)	U	J	2	3	20.0	Geom	-	5.00	0.00	Y	Arm 8 Left	33.72
3/2 (A2070 Bad Munstereifel Road EB)	U	I	2	3	60.0	Geom	-	3.46	0.00	Y	Arm 5 Ahead	Inf
3/3 (A2070 Bad Munstereifel Road EB)	U	I	2	3	60.0	Geom	-	3.46	0.00	N	Arm 5 Ahead	Inf
3/4 (A2070 Bad Munstereifel Road EB)	U	I	2	3	60.0	Geom	-	3.59	0.00	N	Arm 5 Ahead	Inf

3/5 (A2070 Bad Munstereifel Road EB)	U	H	2	3	11.3	Geom	-	5.00	0.00	Y	Arm 6 Right	32.48
4/1 (The Boulevard)	U	B	2	3	60.0	Geom	-	3.52	0.00	Y	Arm 5 Left	50.73
4/2 (The Boulevard)	U	B	2	3	7.0	Geom	-	3.45	0.00	N	Arm 5 Left	66.50
4/3 (The Boulevard)	U	A	2	3	60.0	Geom	-	3.43	0.00	Y	Arm 7 Right	28.01
											Arm 6 Ahead	Inf
4/4 (The Boulevard)	U	A	2	3	19.1	Geom	-	3.39	0.00	N	Arm 7 Right	26.16
5/1 (A2070 exit EB)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A2070 exit EB)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/3 (A2070 exit EB)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Waterbrook Ave exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A2070 WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A2070 WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3 (A2070 WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (The Boulevard exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2 (The Boulevard exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction
There are no Opposed Lanes in this Junction

Lane Connector Input Data

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	6/1	Internal	5	35
1/2	7/1	Internal	5	35
1/3	7/2	Internal	5	35
1/4	7/3	Internal	5	35
1/5	8/1	Internal	5	35
1/6	8/2	Internal	5	35
2/1	7/1	Internal	5	35
2/2	5/1	Internal	5	35
2/2	8/1	Internal	5	35
2/2	8/2	Internal	5	35
2/3	5/2	Internal	5	35
2/3	5/3	Internal	5	35
3/1	8/1	Internal	5	35
3/1	8/2	Internal	5	35
3/2	5/1	Internal	5	35
3/3	5/2	Internal	5	35
3/4	5/3	Internal	5	35
3/5	6/1	Internal	5	35
4/1	5/1	Internal	5	35
4/2	5/2	Internal	5	35
4/3	6/1	Internal	5	35
4/3	7/1	Internal	5	35
4/4	7/2	Internal	5	35
4/4	7/3	Internal	5	35

Scenario 1: '2024 Base AM Peak' (FG1: '2024 Base AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3 (The Boulevard)	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958
				Arm 6 Ahead	Inf	100.0 %		

4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 1

Scenario 2: '2024 Base PM Peak' (FG2: '2024 Base PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction								
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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 2

Scenario 3: '2024 Base+Sev (Obs) AM Peak' (FG3: '2024 Base+Sev (Obs) AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right Arm 8 Ahead	16.67 Inf	0.0 % 100.0 %	1981	1981
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100

4/3 (The Boulevard)	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958
				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 3

Scenario 4: '2024 Base+Sev (Obs) PM Peak' (FG4: '2024 Base+Sev (Obs) PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right Arm 8 Ahead	16.67 Inf	0.0 % 100.0 %	1981	1981
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100

4/3 (The Boulevard)	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958
				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 4

Scenario 5: '2026 Base AM Peak' (FG5: '2026 Base AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 5

Scenario 6: '2026 Base PM Peak' (FG6: '2026 Base PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 6

Scenario 7: '2026 Base+Sev AM Peak' (FG7: '2026 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 7

Scenario 8: '2026 Base+Sev PM Peak' (FG8: '2026 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 8

Scenario 9: '2036 Base AM Peak' (FG9: '2036 Base AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 9

Scenario 10: '2036 Base PM Peak' (FG10: '2036 Base PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 10

Scenario 11: '2036 Base+Sev AM Peak' (FG11: '2036 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 11

Scenario 12: '2036 Base+Sev PM Peak' (FG12: '2036 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction

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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 12

Scenario 13: '2036 Base+Sev 4 AM Peak' (FG13: '2036 Base+Sev 4 AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction								
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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 13

Scenario 14: '2036 Base+Sev 4 PM Peak' (FG14: '2036 Base+Sev 4 PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction								
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 (A2070 Bad Munstereifel Road WB)	4.47	0.00	Y	Arm 6 Left	36.76	100.0 %	1981	1981
1/2 (A2070 Bad Munstereifel Road WB)	3.33	0.00	Y	Arm 7 Ahead	Inf	0.0 %	1949	1949
1/3 (A2070 Bad Munstereifel Road WB)	3.50	0.00	N	Arm 7 Ahead	Inf	0.0 %	2106	2106
1/4 (A2070 Bad Munstereifel Road WB)	3.53	0.00	N	Arm 7 Ahead	Inf	0.0 %	2108	2108
1/5 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	20.20	100.0 %	1819	1819
1/6 (A2070 Bad Munstereifel Road WB)	3.40	0.00	Y	Arm 8 Right	15.96	100.0 %	1787	1787
2/1 (Waterbrook Avenue)	5.00	0.00	Y	Arm 7 Left	29.81	0.0 %	2115	2115
2/2 (Waterbrook Avenue)	3.66	0.00	Y	Arm 5 Right	16.67	0.0 %	1981	1981
				Arm 8 Ahead	Inf	100.0 %		
2/3 (Waterbrook Avenue)	3.29	0.00	N	Arm 5 Right	14.14	0.0 %	2085	2085
3/1 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 8 Left	33.72	100.0 %	2025	2025
3/2 (A2070 Bad Munstereifel Road EB)	3.46	0.00	Y	Arm 5 Ahead	Inf	0.0 %	1961	1961
3/3 (A2070 Bad Munstereifel Road EB)	3.46	0.00	N	Arm 5 Ahead	Inf	0.0 %	2101	2101
3/4 (A2070 Bad Munstereifel Road EB)	3.59	0.00	N	Arm 5 Ahead	Inf	0.0 %	2114	2114
3/5 (A2070 Bad Munstereifel Road EB)	5.00	0.00	Y	Arm 6 Right	32.48	100.0 %	2022	2022
4/1 (The Boulevard)	3.52	0.00	Y	Arm 5 Left	50.73	0.0 %	1967	1967
4/2 (The Boulevard)	3.45	0.00	N	Arm 5 Left	66.50	0.0 %	2100	2100
4/3	3.43	0.00	Y	Arm 7 Right	28.01	0.0 %	1958	1958

Detailed Input Data And Results

(The Boulevard)				Arm 6 Ahead	Inf	100.0 %		
4/4 (The Boulevard)	3.39	0.00	N	Arm 7 Right	26.16	0.0 %	2094	2094
5/1 (A2070 exit EB Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 exit EB Lane 2)	Infinite Saturation Flow						Inf	Inf
5/3 (A2070 exit EB Lane 3)	Infinite Saturation Flow						Inf	Inf
6/1 (Waterbrook Ave exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (A2070 WB exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (The Boulevard exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (The Boulevard exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 14

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 Base AM Peak'	07:45	08:45	01:00	
2: '2024 Base PM Peak'	16:30	17:30	01:00	
3: '2024 Base+Sev (Obs) AM Peak'	07:45	08:45	01:00	
4: '2024 Base+Sev (Obs) PM Peak'	16:30	17:30	01:00	
5: '2026 Base AM Peak'	07:45	08:45	01:00	
6: '2026 Base PM Peak'	16:30	17:30	01:00	
7: '2026 Base+Sev AM Peak'	07:45	08:45	01:00	
8: '2026 Base+Sev PM Peak'	16:30	17:30	01:00	
9: '2036 Base AM Peak'	07:45	08:45	01:00	
10: '2036 Base PM Peak'	16:30	17:30	01:00	
11: '2036 Base+Sev AM Peak'	07:45	08:45	01:00	
12: '2036 Base+Sev PM Peak'	16:30	17:30	01:00	
13: '2036 Base+Sev 4 AM Peak'	07:45	08:45	01:00	
14: '2036 Base+Sev 4 PM Peak'	16:30	17:30	01:00	

Traffic Flows, Desired

FG1: '2024 Base AM Peak'

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	95	1161	514	1770
	B	156	0	16	3	175
	C	1696	24	0	549	2269
	D	472	13	325	0	810
	Tot.	2324	132	1502	1066	5024

FG2: '2024 Base PM Peak'

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	179	1373	347	1899
	B	41	0	21	7	69
	C	1347	14	0	354	1715
	D	548	7	451	0	1006
	Tot.	1936	200	1845	708	4689

FG3: '2024 Base+Sev (Obs) AM Peak'

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	95	1172	518	1785
	B	156	0	16	3	175
	C	1702	24	0	549	2275
	D	477	13	325	0	815
	Tot.	2335	132	1513	1070	5050

FG4: '2024 Base+Sev (Obs) PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	179	1389	351	1919
	B	41	0	21	7	69
	C	1353	14	0	354	1721
	D	554	7	451	0	1012
	Tot.	1948	200	1861	712	4721

FG5: '2026 Base AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	97	1190	526	1813
	B	160	0	16	3	179
	C	1737	25	0	562	2324
	D	483	14	332	0	829
	Tot.	2380	136	1538	1091	5145

FG6: '2026 Base PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	183	1406	356	1945
	B	42	0	22	7	71
	C	1380	15	0	363	1758
	D	562	7	462	0	1031
	Tot.	1984	205	1890	726	4805

FG7: '2026 Base+Sev AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	97	1200	531	1828
	B	160	0	16	3	179
	C	1743	25	0	562	2330
	D	488	14	332	0	834
	Tot.	2391	136	1548	1096	5171

FG8: '2026 Base+Sev PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	183	1422	360	1965
	B	42	0	22	7	71
	C	1385	15	0	363	1763
	D	567	7	462	0	1036
	Tot.	1994	205	1906	730	4835

FG9: '2036 Base AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	297	1719	691	2707
	B	262	0	86	25	373
	C	2292	187	0	702	3181
	D	552	38	387	0	977
	Tot.	3106	522	2192	1418	7238

FG10: '2036 Base PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	325	1922	388	2635
	B	273	0	213	50	536
	C	1917	119	0	420	2456
	D	676	56	581	0	1313
	Tot.	2866	500	2716	858	6940

FG11: '2036 Base+Sev AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	297	1730	696	2723
	B	262	0	86	25	373
	C	2298	187	0	702	3187
	D	558	38	387	0	983
	Tot.	3118	522	2203	1423	7266

FG12: '2036 Base+Sev PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	325	1937	392	2654
	B	273	0	213	50	536
	C	1922	119	0	420	2461
	D	681	56	581	0	1318
	Tot.	2876	500	2731	862	6969

FG13: '2036 Base+Sev 4 AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	297	1735	698	2730
	B	262	0	86	25	373
	C	2301	187	0	702	3190
	D	560	38	387	0	985
	Tot.	3123	522	2208	1425	7278

FG14: '2036 Base+Sev 4 PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	325	1946	394	2665
	B	273	0	213	50	536
	C	1925	119	0	420	2464
	D	684	56	581	0	1321
	Tot.	2882	500	2740	864	6986

Scenario 1: '2024 Base AM Peak' (FG1: '2024 Base AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	95	1161	514	1770
	B	156	0	16	3	175
	C	1696	24	0	549	2269
	D	472	13	325	0	810
	Tot.	2324	132	1502	1066	5024

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 2: '2024 Base PM Peak' (FG2: '2024 Base PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	179	1373	347	1899
	B	41	0	21	7	69
	C	1347	14	0	354	1715
	D	548	7	451	0	1006
	Tot.	1936	200	1845	708	4689

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 3: '2024 Base+Sev (Obs) AM Peak' (FG3: '2024 Base+Sev (Obs) AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	95	1172	518	1785
	B	156	0	16	3	175
	C	1702	24	0	549	2275
	D	477	13	325	0	815
	Tot.	2335	132	1513	1070	5050

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 4: '2024 Base+Sev (Obs) PM Peak' (FG4: '2024 Base+Sev (Obs) PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	179	1389	351	1919
	B	41	0	21	7	69
	C	1353	14	0	354	1721
	D	554	7	451	0	1012
	Tot.	1948	200	1861	712	4721

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 5: '2026 Base AM Peak' (FG5: '2026 Base AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	97	1190	526	1813
	B	160	0	16	3	179
	C	1737	25	0	562	2324
	D	483	14	332	0	829
	Tot.	2380	136	1538	1091	5145

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 6: '2026 Base PM Peak' (FG6: '2026 Base PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	183	1406	356	1945
	B	42	0	22	7	71
	C	1380	15	0	363	1758
	D	562	7	462	0	1031
	Tot.	1984	205	1890	726	4805

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 7: '2026 Base+Sev AM Peak' (FG7: '2026 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	97	1200	531	1828
	B	160	0	16	3	179
	C	1743	25	0	562	2330
	D	488	14	332	0	834
	Tot.	2391	136	1548	1096	5171

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 8: '2026 Base+Sev PM Peak' (FG8: '2026 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	183	1422	360	1965
	B	42	0	22	7	71
	C	1385	15	0	363	1763
	D	567	7	462	0	1036
	Tot.	1994	205	1906	730	4835

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 9: '2036 Base AM Peak' (FG9: '2036 Base AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	297	1719	691	2707
	B	262	0	86	25	373
	C	2292	187	0	702	3181
	D	552	38	387	0	977
	Tot.	3106	522	2192	1418	7238

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 10: '2036 Base PM Peak' (FG10: '2036 Base PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	325	1922	388	2635
	B	273	0	213	50	536
	C	1917	119	0	420	2456
	D	676	56	581	0	1313
	Tot.	2866	500	2716	858	6940

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 11: '2036 Base+Sev AM Peak' (FG11: '2036 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	297	1730	696	2723
	B	262	0	86	25	373
	C	2298	187	0	702	3187
	D	558	38	387	0	983
	Tot.	3118	522	2203	1423	7266

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 12: '2036 Base+Sev PM Peak' (FG12: '2036 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	325	1937	392	2654
	B	273	0	213	50	536
	C	1922	119	0	420	2461
	D	681	56	581	0	1318
	Tot.	2876	500	2731	862	6969

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 13: '2036 Base+Sev 4 AM Peak' (FG13: '2036 Base+Sev 4 AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	297	1741	701	2739
	B	262	0	86	25	373
	C	2304	187	0	702	3193
	D	563	38	387	0	988
	Tot.	3129	522	2214	1428	7293

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	6	3	9
	B	0	0	0	0	0
	C	3	0	0	0	3
	D	3	0	0	0	3
	Tot.	6	0	6	3	15

Scenario 14: '2036 Base+Sev 4 PM Peak' (FG14: '2036 Base+Sev 4 PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	325	1954	396	2675
	B	273	0	213	50	536
	C	1928	119	0	420	2467
	D	687	56	581	0	1324
	Tot.	2888	500	2748	866	7002

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	8	2	10
	B	0	0	0	0	0
	C	3	0	0	0	3
	D	3	0	0	0	3
	Tot.	6	0	8	2	16

Traffic Lane Flows

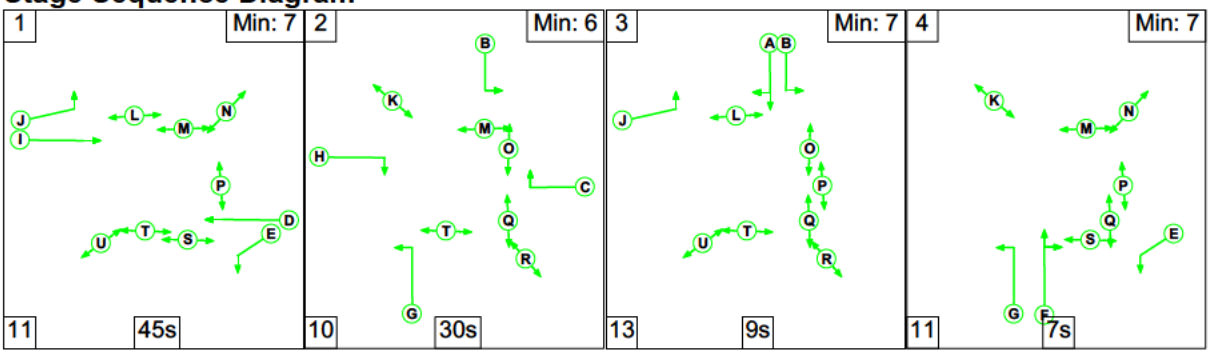
Lane	Scenario 1: 2024 Base AM Peak	Scenario 2: 2024 Base PM Peak	Scenario 3: 2024 Base+Sev (Obs) AM Peak	Scenario 4: 2024 Base+Sev (Obs) PM Peak	Scenario 5: 2026 Base AM Peak	Scenario 6: 2026 Base PM Peak
Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction						
1/1 (short)	95	179	95	179	97	183
1/2 (with short)	455(In) 360(Out)	581(In) 402(Out)	458(In) 363(Out)	586(In) 407(Out)	466(In) 369(Out)	595(In) 412(Out)
1/3	409	487	413	492	420	499
1/4 (with short)	536(In) 392(Out)	522(In) 484(Out)	540(In) 396(Out)	526(In) 490(Out)	546(In) 401(Out)	536(In) 495(Out)
1/5 (short)	144	38	144	36	145	41
1/6	370	309	374	315	381	315
2/1 (short)	16	21	16	21	16	22
2/2 (with short)	95(In) 79(Out)	61(In) 40(Out)	95(In) 79(Out)	61(In) 40(Out)	97(In) 81(Out)	61(In) 39(Out)
2/3	80	8	80	8	82	10
3/1 (short)	549	354	549	354	562	363
3/2 (with short)	1095(In) 546(Out)	813(In) 459(Out)	1114(In) 565(Out)	814(In) 460(Out)	1111(In) 549(Out)	831(In) 468(Out)
3/3	579	444	572	446	586	456
3/4 (with short)	595(In) 571(Out)	458(In) 444(Out)	589(In) 565(Out)	461(In) 447(Out)	627(In) 602(Out)	471(In) 456(Out)
3/5 (short)	24	14	24	14	25	15
4/1 (with short)	472(In) 228(Out)	548(In) 263(Out)	477(In) 231(Out)	554(In) 266(Out)	483(In) 234(Out)	562(In) 269(Out)
4/2 (short)	244	285	246	288	249	293
4/3 (with short)	338(In) 164(Out)	458(In) 222(Out)	338(In) 164(Out)	458(In) 220(Out)	346(In) 168(Out)	469(In) 227(Out)
4/4 (short)	174	236	174	238	178	242
5/1	850	755	872	759	861	769
5/2	863	733	858	738	876	754
5/3	611	448	605	451	643	461
6/1	132	200	132	200	136	205
7/1	527	638	530	641	539	654
7/2	496	605	500	611	509	620
7/3	479	602	483	609	490	616
8/1	419	218	419	216	427	225
8/2	647	490	651	496	664	501

Lane	Scenario 7: 2026 Base+Sev AM Peak	Scenario 8: 2026 Base+Sev PM Peak	Scenario 9: 2036 Base AM Peak	Scenario 10: 2036 Base PM Peak	Scenario 11: 2036 Base+Sev AM Peak	Scenario 12: 2036 Base+Sev PM Peak
Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction						
1/1 (short)	97	183	297	325	297	325
1/2 (with short)	469(In) 372(Out)	600(In) 417(Out)	799(In) 502(Out)	866(In) 541(Out)	802(In) 505(Out)	871(In) 546(Out)
1/3	424	504	628	692	632	697
1/4 (with short)	550(In) 404(Out)	540(In) 501(Out)	778(In) 589(Out)	728(In) 689(Out)	784(In) 593(Out)	734(In) 694(Out)
1/5 (short)	146	39	189	39	191	40
1/6	385	321	502	349	505	352
2/1 (short)	16	22	86	213	86	213
2/2 (with short)	97(In) 81(Out)	61(In) 39(Out)	227(In) 141(Out)	372(In) 159(Out)	227(In) 141(Out)	372(In) 159(Out)
2/3	82	10	146	164	146	164
3/1 (short)	562	363	702	420	702	420
3/2 (with short)	1114(In) 552(Out)	832(In) 469(Out)	1458(In) 756(Out)	1041(In) 621(Out)	1460(In) 758(Out)	1042(In) 622(Out)
3/3	612	458	817	681	819	683
3/4 (with short)	604(In) 579(Out)	473(In) 458(Out)	906(In) 719(Out)	734(In) 615(Out)	908(In) 721(Out)	736(In) 617(Out)
3/5 (short)	25	15	187	119	187	119
4/1 (with short)	488(In) 236(Out)	567(In) 271(Out)	552(In) 265(Out)	676(In) 316(Out)	558(In) 267(Out)	681(In) 318(Out)
4/2 (short)	252	296	287	360	291	363
4/3 (with short)	346(In) 168(Out)	469(In) 227(Out)	425(In) 207(Out)	637(In) 309(Out)	425(In) 207(Out)	637(In) 309(Out)
4/4 (short)	178	242	218	328	218	328
5/1	866	772	1137	1046	1141	1049
5/2	905	759	1177	1123	1183	1128
5/3	620	463	792	697	794	699
6/1	136	205	522	500	522	500
7/1	542	659	757	1007	760	1012
7/2	513	625	737	856	741	861
7/3	493	622	698	853	702	858
8/1	428	223	552	274	554	275
8/2	668	507	866	584	869	587

Lane	Scenario 13: 2036 Base+Sev 4 AM Peak	Scenario 14: 2036 Base+Sev 4 PM Peak
Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction		
1/1 (short)	297	325
1/2 (with short)	806(In) 509(Out)	876(In) 551(Out)
1/3	636	703
1/4 (with short)	789(In) 596(Out)	741(In) 700(Out)
1/5 (short)	193	41
1/6	508	355
2/1 (short)	86	213
2/2 (with short)	227(In) 141(Out)	372(In) 159(Out)
2/3	146	164
3/1 (short)	702	420
3/2 (with short)	1461(In) 759(Out)	1044(In) 624(Out)
3/3	822	685
3/4 (with short)	910(In) 723(Out)	738(In) 619(Out)
3/5 (short)	187	119
4/1 (with short)	563(In) 270(Out)	687(In) 321(Out)
4/2 (short)	293	366
4/3 (with short)	425(In) 207(Out)	637(In) 309(Out)
4/4 (short)	218	328
5/1	1145	1054
5/2	1188	1133
5/3	796	701
6/1	522	500
7/1	764	1017
7/2	745	867
7/3	705	864
8/1	556	276
8/2	872	590

Scenario 1: '2024 Base AM Peak' (FG1: '2024 Base AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



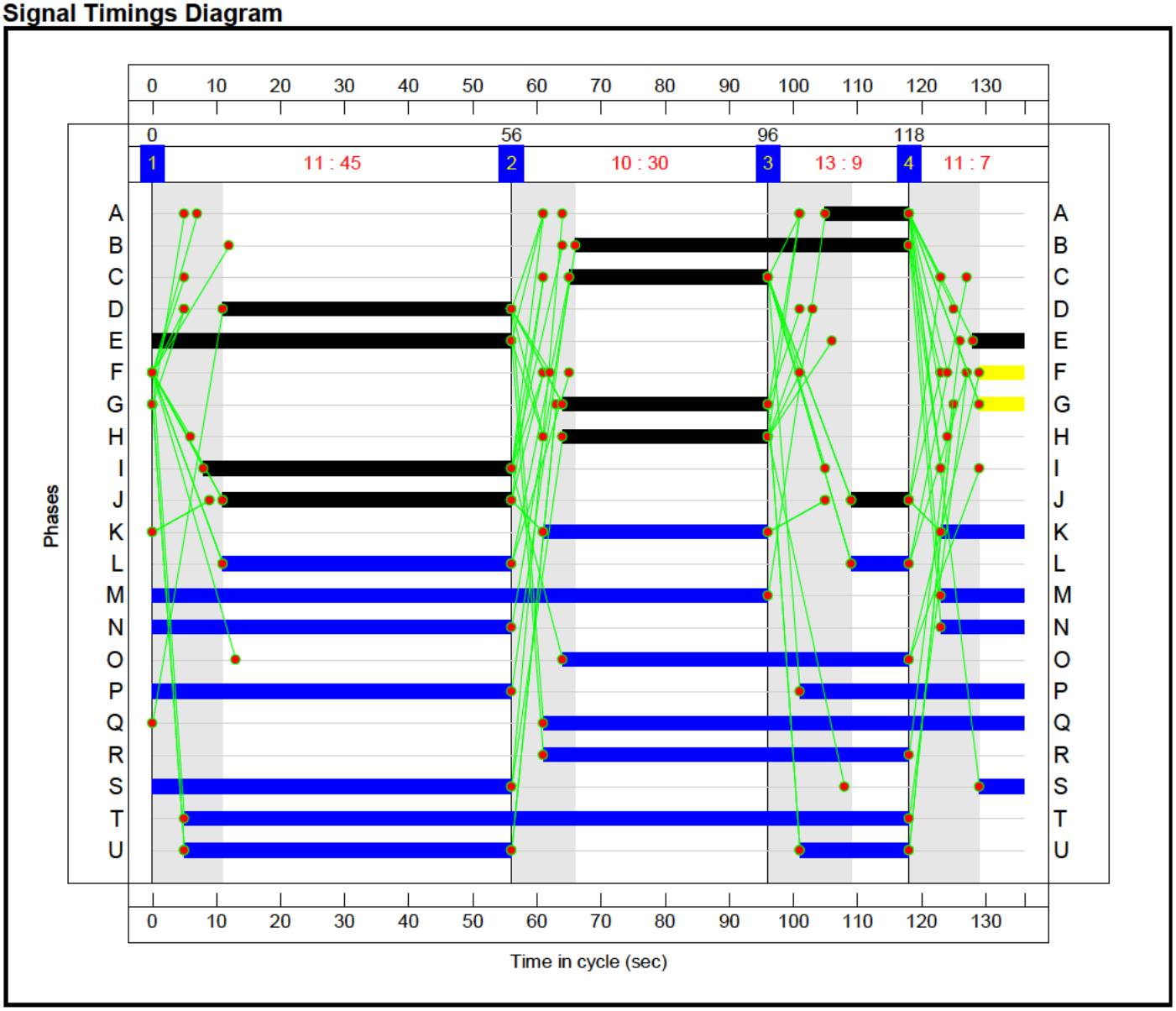
Stage Timings

Stage	1	2	3	4
Duration	45	30	9	7
Change Point	0	56	96	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	13	105	118			
B	The Boulevard Left	Traffic	52	66	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	31	65	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	45	11	56			
E	A2070 Bad Munstereifel Road WB Left	Traffic	64	128	56			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	32	64	96	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	32	64	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	48	8	56			
J	A2070 Bad Munstereifel Road EB Left	Traffic	45	11	56	9	109	118
K	Pedestrians across A2070 EB Left	Pedestrian	35	61	96	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	45	11	56	9	109	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	109	123	96			
N	Pedestrians across Boulevard Left	Pedestrian	69	123	56			
O	Pedestrians across A2070 EB exit	Pedestrian	54	64	118			
P	Pedestrians across A2070 WB Right	Pedestrian	91	101	56			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	75	61	0			
R	Pedestrians across A2070 WB Left	Pedestrian	57	61	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	63	129	56			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	51	5	56	17	101	118

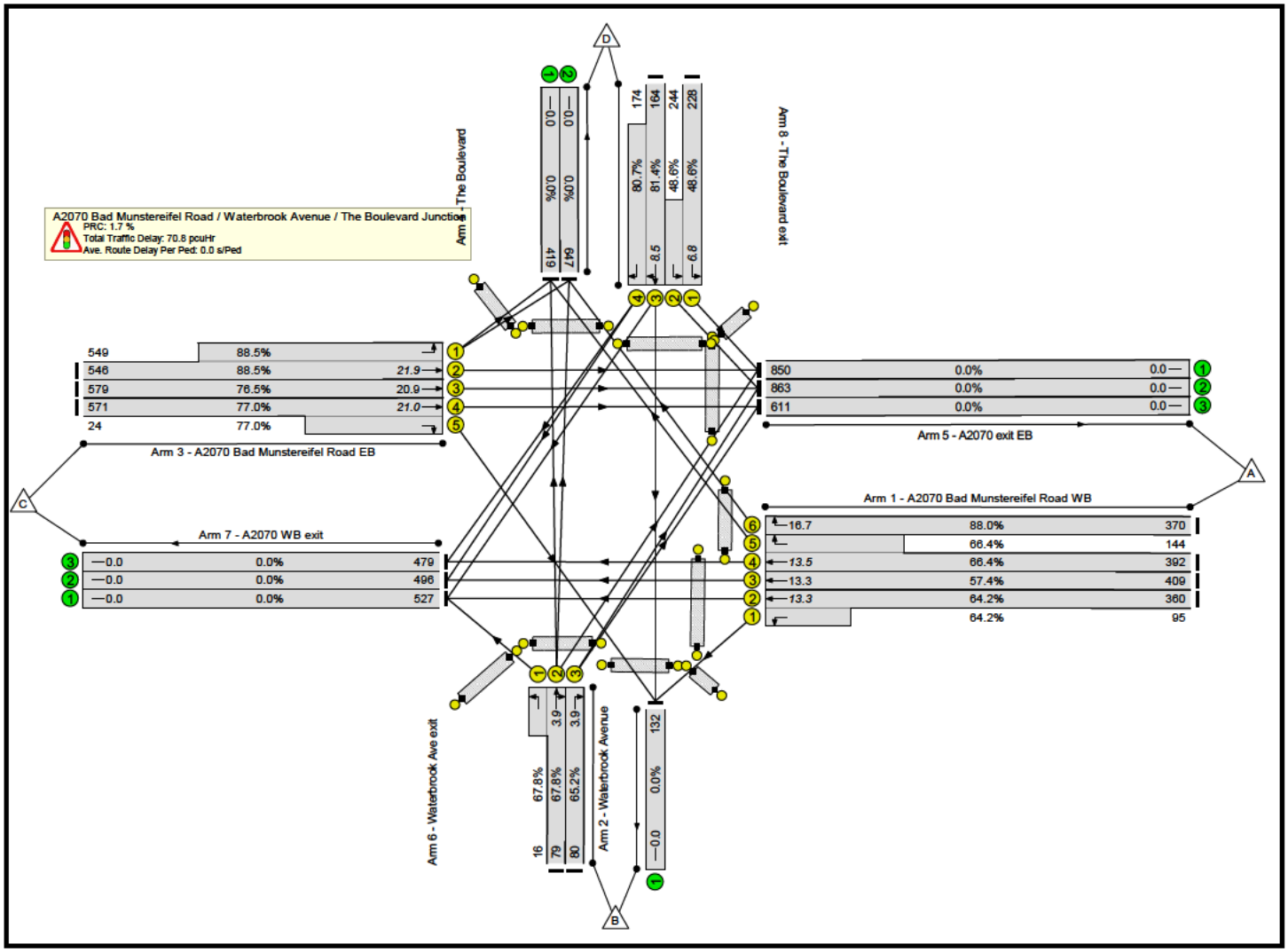
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	56
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/5	A2070 Bad Munstereifel Road WB Right	U	C	65	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	65	96
2/1	Waterbrook Avenue Left	U	G	64 129	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	56 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/5	A2070 Bad Munstereifel Road EB Right	U	H	64	96
4/1	The Boulevard Left	U	B	66	118
4/2	The Boulevard Left	U	B	66	118
4/3	The Boulevard Ahead Right	U	A	105	118
4/4	The Boulevard Right	U	A	105	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**88.5%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**88.5%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	45:64	-	-	455	1949:1981	561+148	64.2 : 64.2%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	45	-	-	409	2106	712	57.4%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	45:31	-	-	536	2108:1819	590+217	66.4 : 66.4%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	31	-	-	370	1787	420	88.0%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:39	-	-	95	1981:2115	117+24	67.8 : 67.8%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	80	2085	123	65.2%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	48:54	-	-	1095	1961:2025	617+620	88.5 : 88.5%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	48	-	-	579	2101	757	76.5%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	48:32	-	-	595	2114:2022	741+31	77.0 : 77.0%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	52	-	-	472	1967:2100	469+502	48.6 : 48.6%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	13	-	-	338	1958:2094	202+216	81.4 : 80.7%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	850	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	863	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	611	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	132	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	527	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	496	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	479	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	419	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	647	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	68	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	63	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	57	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	75	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	91	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	54	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	69	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	109	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	54	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	48	-	-	0	-	0	0.0%

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**53.7**	**17.1**	**0.0**	**70.8**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**53.7**	**17.1**	**0.0**	**70.8**	-	-	-	-	
1/2+1/1	455	455	-	-	-	4.3	0.9	-	5.2	41.3	12.4	0.9	13.3	
1/3	409	409	-	-	-	4.2	0.7	-	4.9	42.9	12.6	0.7	13.3	
1/4+1/5	536	536	-	-	-	5.7	1.0	-	6.7	45.0	12.5	1.0	13.5	
1/6	370	370	-	-	-	5.2	3.2	-	8.4	81.7	13.5	3.2	16.7	
2/2+2/1	95	95	-	-	-	1.5	1.0	-	2.5	93.5	2.9	1.0	3.9	
2/3	80	80	-	-	-	1.4	0.9	-	2.3	103.1	3.0	0.9	3.9	
3/2+3/1	1095	1095	-	-	-	9.6	3.7	-	13.3	43.6	18.2	3.7	21.9	
3/3	579	579	-	-	-	6.2	1.6	-	7.8	48.3	19.3	1.6	20.9	
3/4+3/5	595	595	-	-	-	6.3	1.6	-	8.0	48.2	19.4	1.6	21.0	
4/1+4/2	472	472	-	-	-	3.8	0.5	-	4.2	32.3	6.3	0.5	6.8	
4/3+4/4	338	338	-	-	-	5.6	2.0	-	7.6	81.3	6.4	2.0	8.5	
5/1	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	863	863	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	132	132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

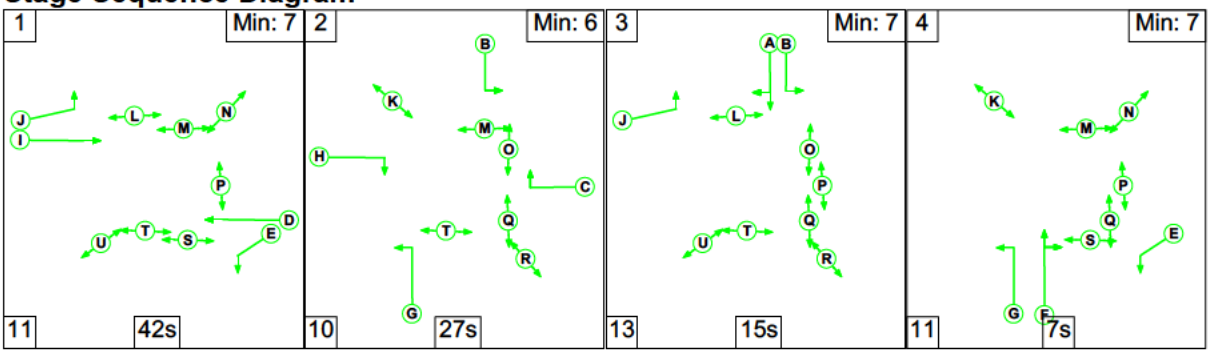
8/2	647	647	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 1.7 Total Delay for Signalled Lanes (pcuHr): 70.84 Cycle Time (s): 136
PRC Over All Lanes (%): 1.7 Total Delay Over All Lanes(pcuHr): 70.84

Detailed Input Data And Results

Scenario 2: '2024 Base PM Peak' (FG2: '2024 Base PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



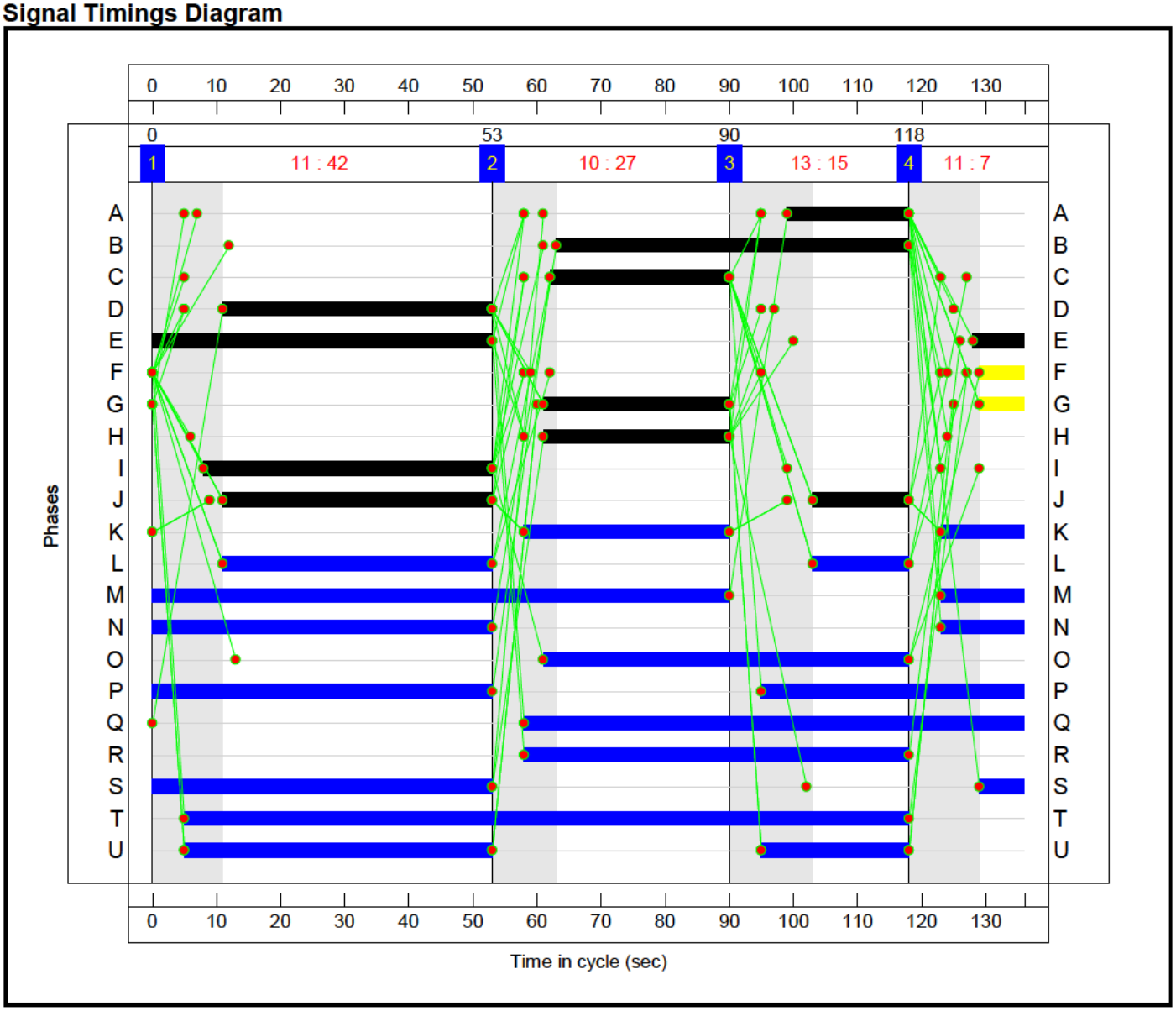
Stage Timings

Stage	1	2	3	4
Duration	42	27	15	7
Change Point	0	53	90	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	99	118			
B	The Boulevard Left	Traffic	55	63	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	28	62	90			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	42	11	53			
E	A2070 Bad Munstereifel Road WB Left	Traffic	61	128	53			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	29	61	90	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	29	61	90			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	45	8	53			
J	A2070 Bad Munstereifel Road EB Left	Traffic	42	11	53	15	103	118
K	Pedestrians across A2070 EB Left	Pedestrian	32	58	90	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	42	11	53	15	103	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	123	90			
N	Pedestrians across Boulevard Left	Pedestrian	66	123	53			
O	Pedestrians across A2070 EB exit	Pedestrian	57	61	118			
P	Pedestrians across A2070 WB Right	Pedestrian	94	95	53			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	78	58	0			
R	Pedestrians across A2070 WB Left	Pedestrian	60	58	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	60	129	53			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	48	5	53	23	95	118

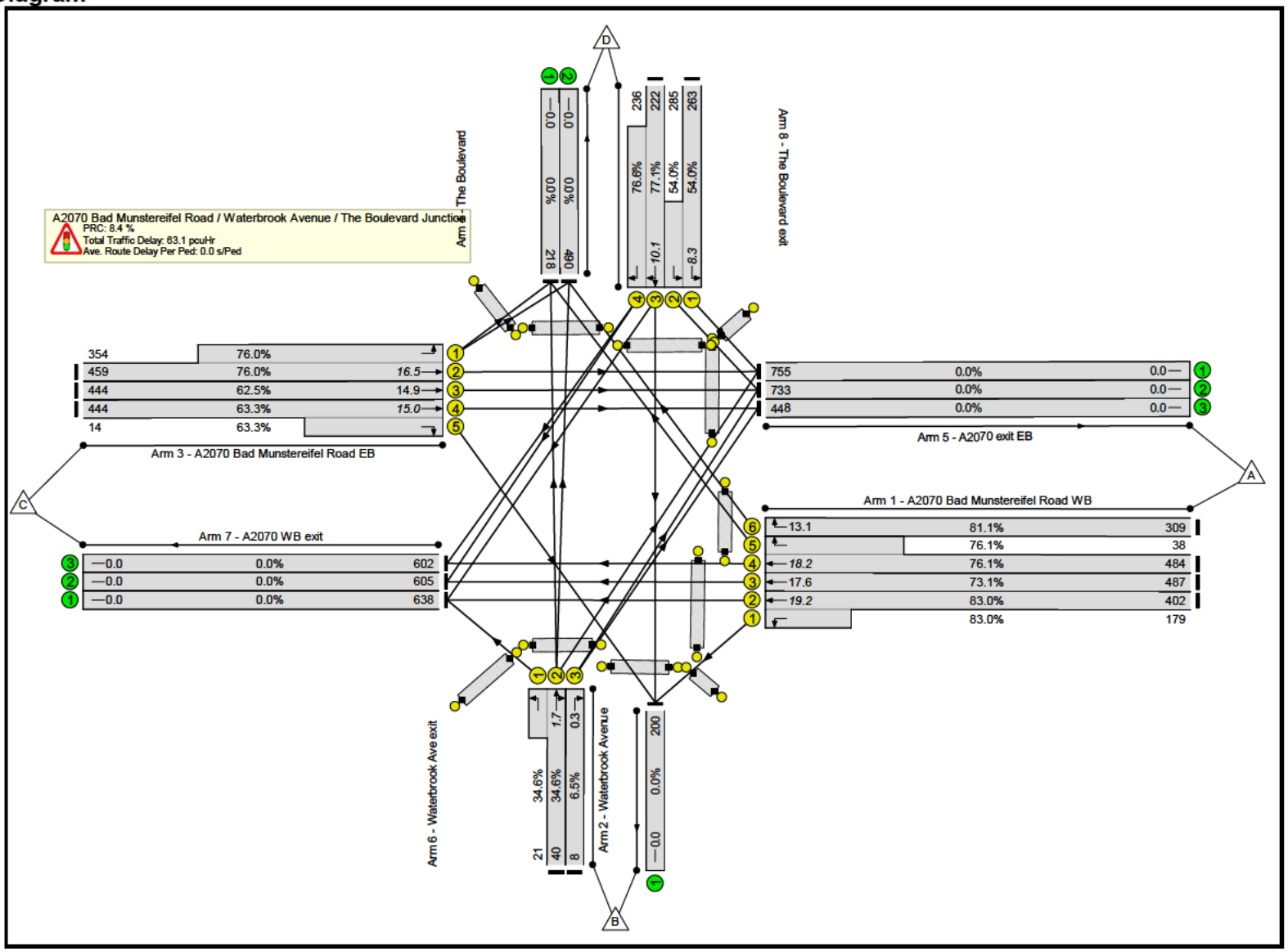
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	53
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/5	A2070 Bad Munstereifel Road WB Right	U	C	62	90
1/6	A2070 Bad Munstereifel Road WB Right	U	C	62	90
2/1	Waterbrook Avenue Left	U	G	61 129	90 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 103	53 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/5	A2070 Bad Munstereifel Road EB Right	U	H	61	90
4/1	The Boulevard Left	U	B	63	118
4/2	The Boulevard Left	U	B	63	118
4/3	The Boulevard Ahead Right	U	A	99	118
4/4	The Boulevard Right	U	A	99	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**83.0%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**83.0%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	42:61	-	-	581	1949:1981	484+216	83.0 : 83.0%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	42	-	-	487	2106	666	73.1%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	42:28	-	-	522	2108:1819	636+50	76.1 : 76.1%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	28	-	-	309	1787	381	81.1%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:36	-	-	61	1981:2115	116+61	34.6 : 34.6%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	8	2085	123	6.5%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	45:57	-	-	813	1961:2025	604+466	76.0 : 76.0%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	45	-	-	444	2101	711	62.5%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	45:29	-	-	458	2114:2022	701+22	63.3 : 63.3%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	55	-	-	548	1967:2100	487+528	54.0 : 54.0%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	458	1958:2094	288+308	77.1 : 76.6%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	755	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	733	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	448	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	200	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	638	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	605	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	602	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	218	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	490	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	71	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	60	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	60	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	78	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	94	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	57	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	66	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	57	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	45	-	-	0	-	0	0.0%

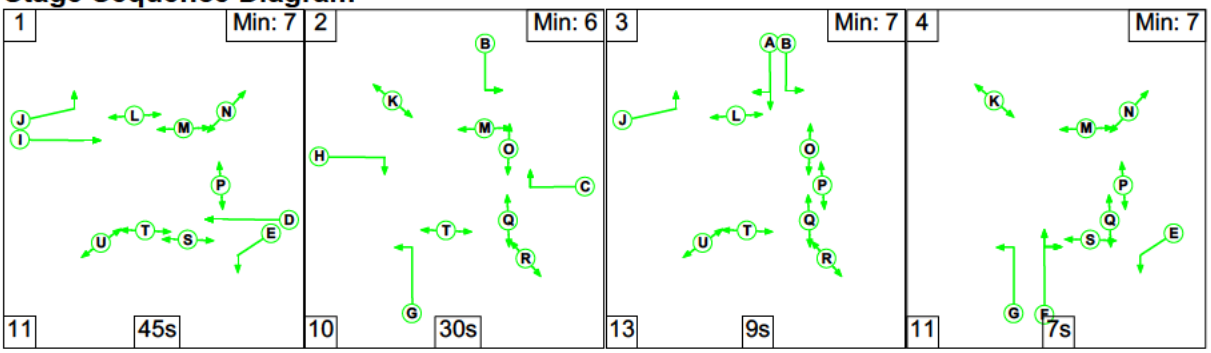
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**50.1**	**13.0**	**0.0**	**63.1**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**50.1**	**13.0**	**0.0**	**63.1**	-	-	-	-	
1/2+1/1	581	581	-	-	-	6.1	2.4	-	8.5	52.6	16.9	2.4	19.2	
1/3	487	487	-	-	-	5.6	1.3	-	6.9	51.3	16.2	1.3	17.6	
1/4+1/5	522	522	-	-	-	6.0	1.6	-	7.6	52.3	16.7	1.6	18.2	
1/6	309	309	-	-	-	4.4	2.0	-	6.4	74.5	11.1	2.0	13.1	
2/2+2/1	61	61	-	-	-	0.8	0.3	-	1.1	62.4	1.4	0.3	1.7	
2/3	8	8	-	-	-	0.1	0.0	-	0.2	76.4	0.3	0.0	0.3	
3/2+3/1	813	813	-	-	-	6.4	1.6	-	7.9	35.1	14.9	1.6	16.5	
3/3	444	444	-	-	-	4.7	0.8	-	5.5	44.5	14.1	0.8	14.9	
3/4+3/5	458	458	-	-	-	4.8	0.9	-	5.7	44.6	14.1	0.9	15.0	
4/1+4/2	548	548	-	-	-	4.1	0.6	-	4.7	31.1	7.8	0.6	8.3	
4/3+4/4	458	458	-	-	-	7.1	1.6	-	8.7	68.5	8.5	1.6	10.1	
5/1	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	733	733	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	200	200	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	638	638	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	602	602	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 8.4 Total Delay for Signalled Lanes (pcuHr): 63.15 Cycle Time (s): 136
PRC Over All Lanes (%): 8.4 Total Delay Over All Lanes(pcuHr): 63.15

Scenario 3: '2024 Base+Sev (Obs) AM Peak' (FG3: '2024 Base+Sev (Obs) AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



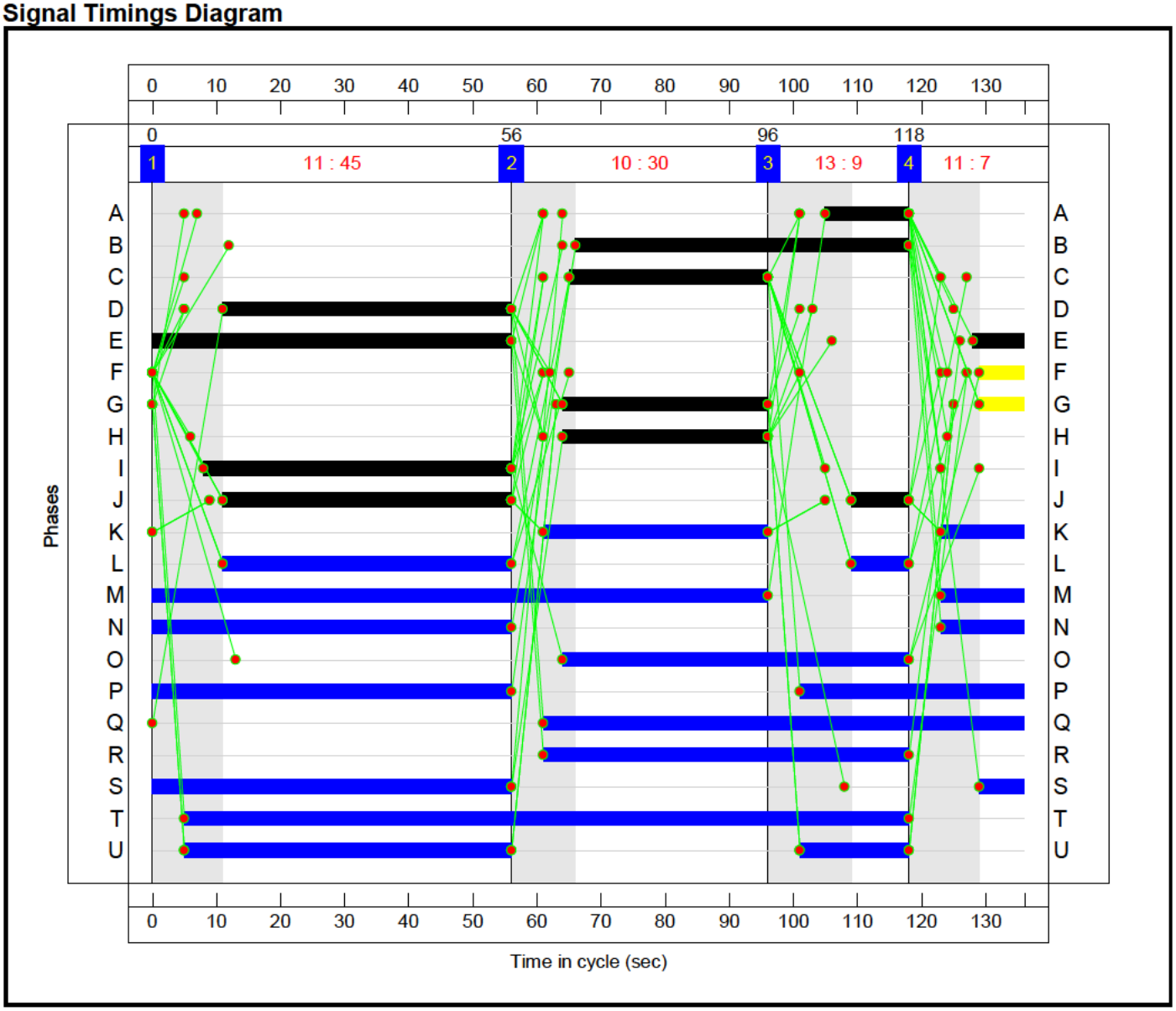
Stage Timings

Stage	1	2	3	4
Duration	45	30	9	7
Change Point	0	56	96	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	13	105	118			
B	The Boulevard Left	Traffic	52	66	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	31	65	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	45	11	56			
E	A2070 Bad Munstereifel Road WB Left	Traffic	64	128	56			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	32	64	96	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	32	64	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	48	8	56			
J	A2070 Bad Munstereifel Road EB Left	Traffic	45	11	56	9	109	118
K	Pedestrians across A2070 EB Left	Pedestrian	35	61	96	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	45	11	56	9	109	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	109	123	96			
N	Pedestrians across Boulevard Left	Pedestrian	69	123	56			
O	Pedestrians across A2070 EB exit	Pedestrian	54	64	118			
P	Pedestrians across A2070 WB Right	Pedestrian	91	101	56			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	75	61	0			
R	Pedestrians across A2070 WB Left	Pedestrian	57	61	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	63	129	56			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	51	5	56	17	101	118

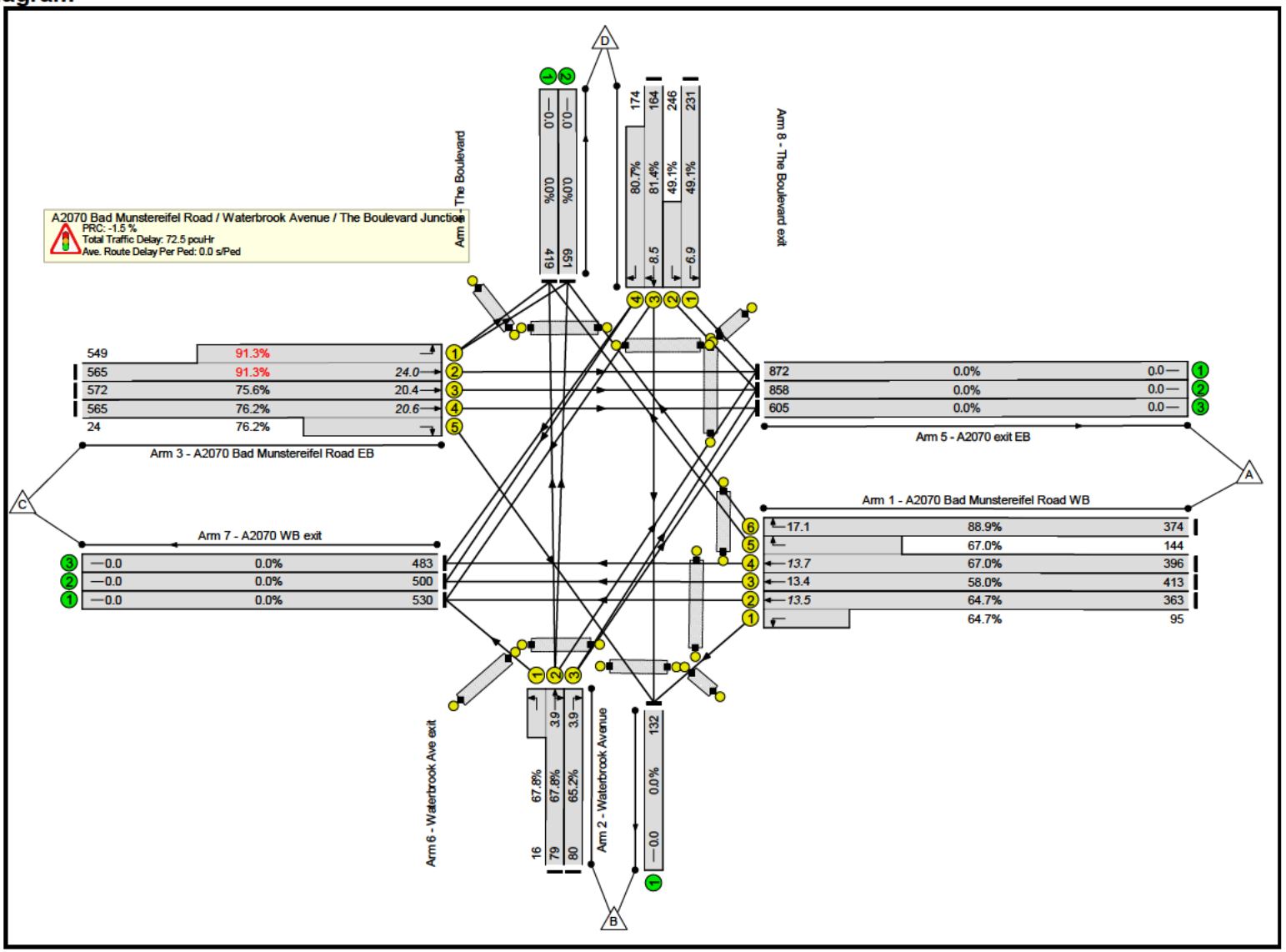
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	56
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/5	A2070 Bad Munstereifel Road WB Right	U	C	65	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	65	96
2/1	Waterbrook Avenue Left	U	G	64 129	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	56 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/5	A2070 Bad Munstereifel Road EB Right	U	H	64	96
4/1	The Boulevard Left	U	B	66	118
4/2	The Boulevard Left	U	B	66	118
4/3	The Boulevard Ahead Right	U	A	105	118
4/4	The Boulevard Right	U	A	105	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**91.3%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**91.3%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	45:64	-	-	458	1949:1981	561+147	64.7 : 64.7%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	45	-	-	413	2106	712	58.0%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	45:31	-	-	540	2108:1819	591+215	67.0 : 67.0%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	31	-	-	374	1787	420	88.9%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:39	-	-	95	1981:2115	117+24	67.8 : 67.8%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	80	2085	123	65.2%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	48:54	-	-	1114	1961:2025	619+601	91.3 : 91.3%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	48	-	-	572	2101	757	75.6%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	48:32	-	-	589	2114:2022	741+31	76.2 : 76.2%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	52	-	-	477	1967:2100	471+501	49.1 : 49.1%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	13	-	-	338	1958:2094	202+216	81.4 : 80.7%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	872	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	858	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	605	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	132	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	530	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	500	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	483	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	419	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	651	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	68	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	63	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	57	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	75	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	91	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	54	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	69	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	109	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	54	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	48	-	-	0	-	0	0.0%

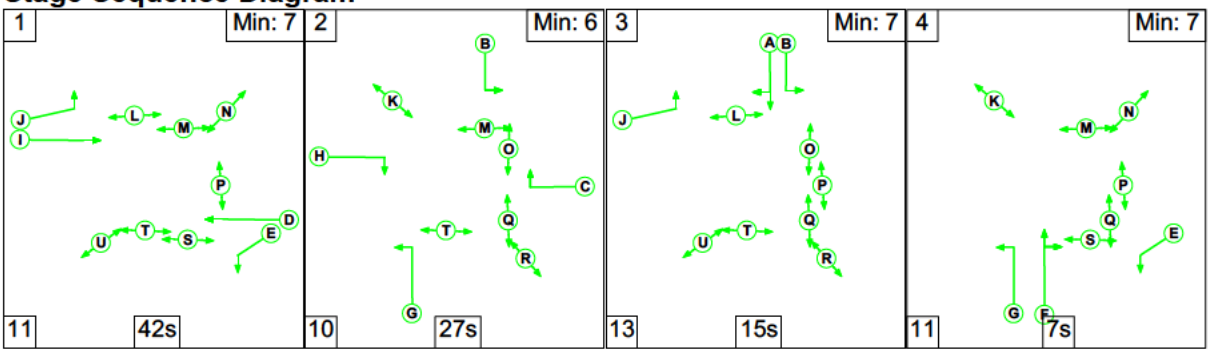
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**54.1**	**18.4**	**0.0**	**72.5**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**54.1**	**18.4**	**0.0**	**72.5**	-	-	-	-	
1/2+1/1	458	458	-	-	-	4.4	0.9	-	5.3	41.6	12.5	0.9	13.5	
1/3	413	413	-	-	-	4.2	0.7	-	4.9	43.0	12.7	0.7	13.4	
1/4+1/5	540	540	-	-	-	5.8	1.0	-	6.8	45.1	12.7	1.0	13.7	
1/6	374	374	-	-	-	5.2	3.5	-	8.7	84.0	13.6	3.5	17.1	
2/2+2/1	95	95	-	-	-	1.5	1.0	-	2.5	93.5	2.9	1.0	3.9	
2/3	80	80	-	-	-	1.4	0.9	-	2.3	103.1	3.0	0.9	3.9	
3/2+3/1	1114	1114	-	-	-	9.9	4.8	-	14.7	47.6	19.1	4.8	24.0	
3/3	572	572	-	-	-	6.1	1.5	-	7.6	47.8	18.9	1.5	20.4	
3/4+3/5	589	589	-	-	-	6.2	1.6	-	7.8	47.8	19.0	1.6	20.6	
4/1+4/2	477	477	-	-	-	3.8	0.5	-	4.3	32.3	6.4	0.5	6.9	
4/3+4/4	338	338	-	-	-	5.6	2.0	-	7.6	81.3	6.4	2.0	8.5	
5/1	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	858	858	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	132	132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 72.54 Cycle Time (s): 136
PRC Over All Lanes (%): -1.5 Total Delay Over All Lanes(pcuHr): 72.54

Scenario 4: '2024 Base+Sev (Obs) PM Peak' (FG4: '2024 Base+Sev (Obs) PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



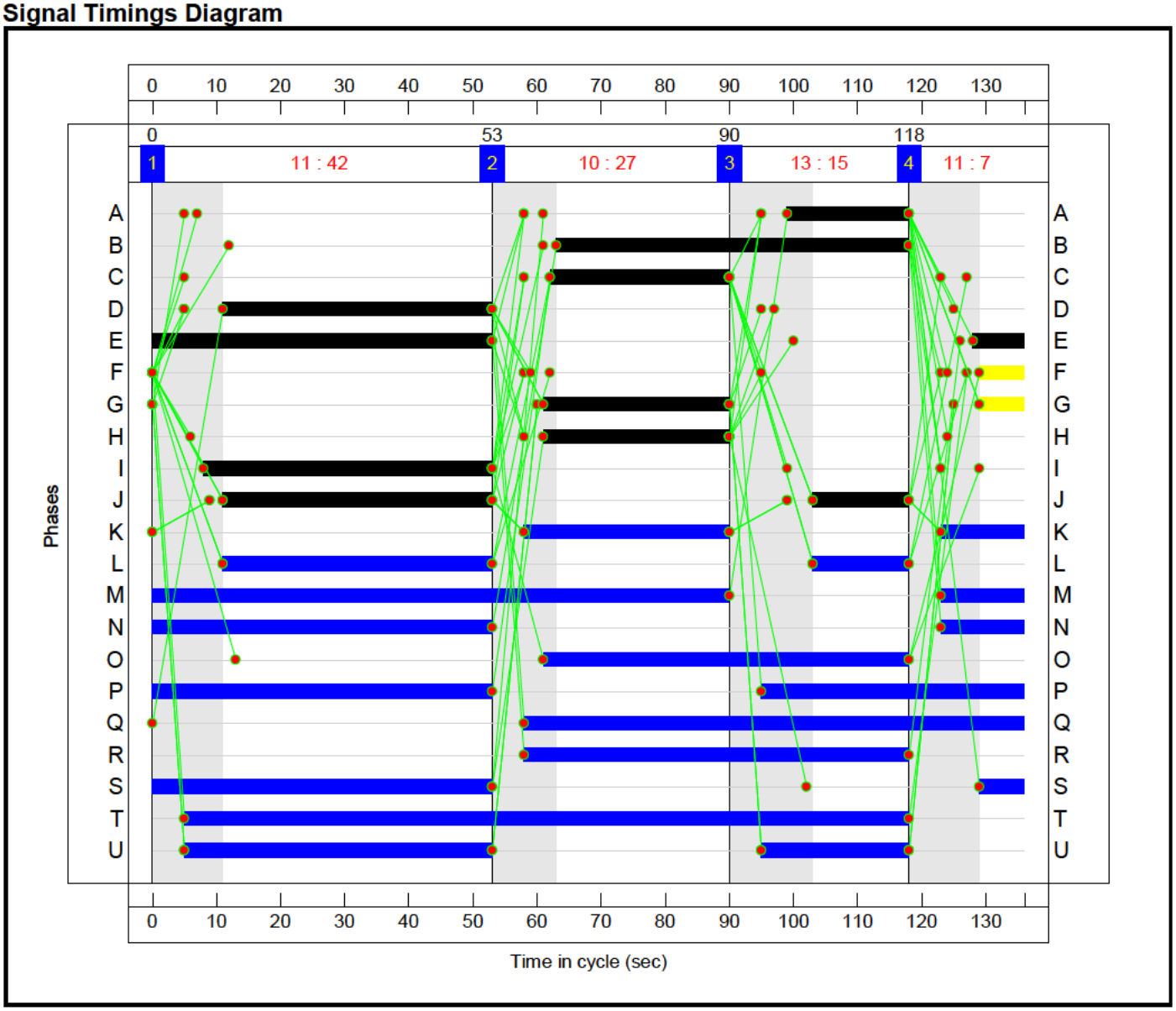
Stage Timings

Stage	1	2	3	4
Duration	42	27	15	7
Change Point	0	53	90	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	99	118			
B	The Boulevard Left	Traffic	55	63	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	28	62	90			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	42	11	53			
E	A2070 Bad Munstereifel Road WB Left	Traffic	61	128	53			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	29	61	90	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	29	61	90			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	45	8	53			
J	A2070 Bad Munstereifel Road EB Left	Traffic	42	11	53	15	103	118
K	Pedestrians across A2070 EB Left	Pedestrian	32	58	90	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	42	11	53	15	103	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	123	90			
N	Pedestrians across Boulevard Left	Pedestrian	66	123	53			
O	Pedestrians across A2070 EB exit	Pedestrian	57	61	118			
P	Pedestrians across A2070 WB Right	Pedestrian	94	95	53			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	78	58	0			
R	Pedestrians across A2070 WB Left	Pedestrian	60	58	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	60	129	53			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	48	5	53	23	95	118

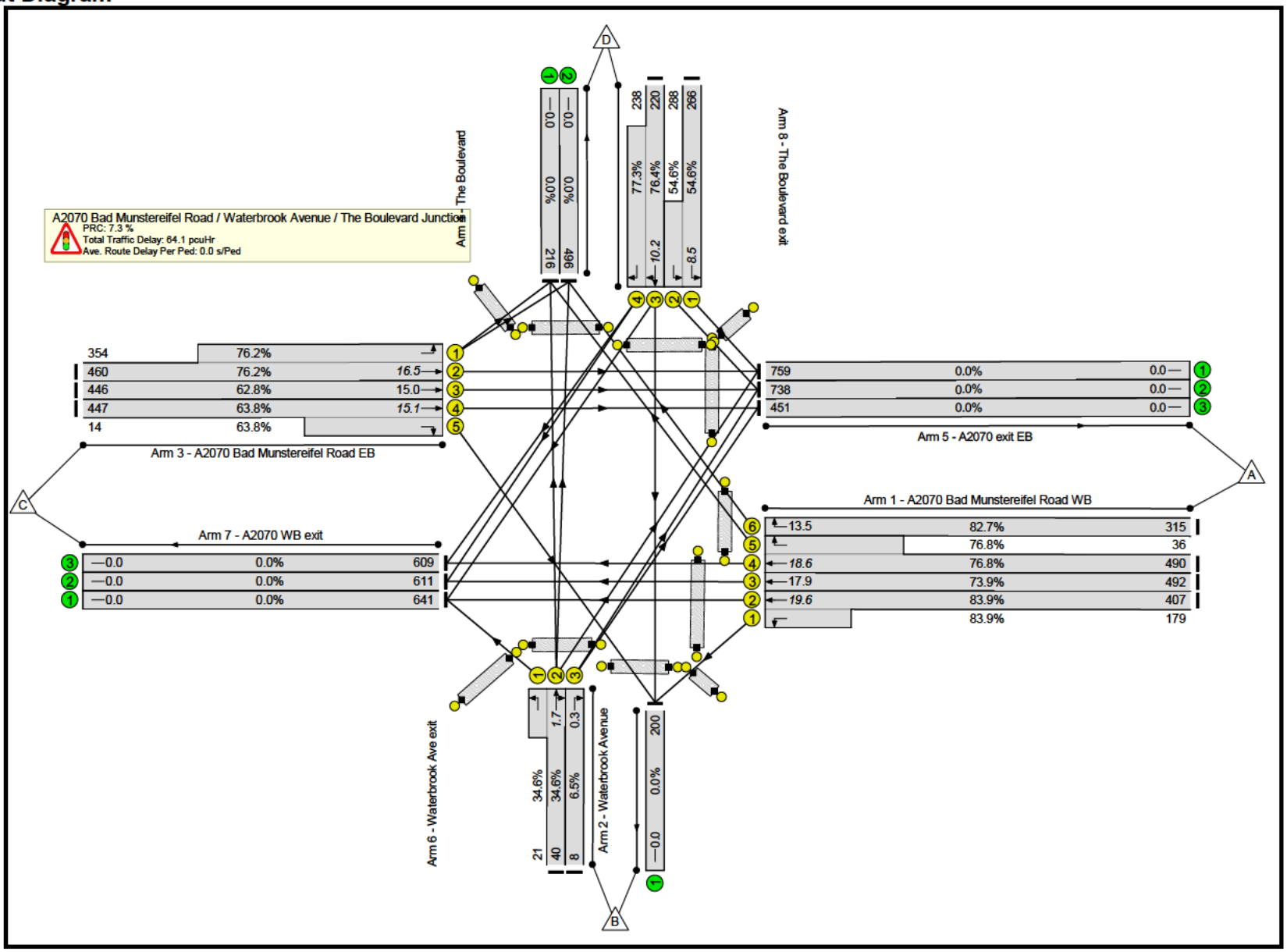
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	53
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/5	A2070 Bad Munstereifel Road WB Right	U	C	62	90
1/6	A2070 Bad Munstereifel Road WB Right	U	C	62	90
2/1	Waterbrook Avenue Left	U	G	61 129	90 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 103	53 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/5	A2070 Bad Munstereifel Road EB Right	U	H	61	90
4/1	The Boulevard Left	U	B	63	118
4/2	The Boulevard Left	U	B	63	118
4/3	The Boulevard Ahead Right	U	A	99	118
4/4	The Boulevard Right	U	A	99	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**83.9%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**83.9%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	42:61	-	-	586	1949:1981	485+213	83.9 : 83.9%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	42	-	-	492	2106	666	73.9%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	42:28	-	-	526	2108:1819	638+47	76.8 : 76.8%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	28	-	-	315	1787	381	82.7%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:36	-	-	61	1981:2115	116+61	34.6 : 34.6%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	8	2085	123	6.5%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	45:57	-	-	814	1961:2025	604+465	76.2 : 76.2%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	45	-	-	446	2101	711	62.8%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	45:29	-	-	461	2114:2022	701+22	63.8 : 63.8%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	55	-	-	554	1967:2100	487+527	54.6 : 54.6%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	458	1958:2094	288+308	76.4 : 77.3%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	759	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	738	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	451	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	200	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	641	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	611	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	609	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	216	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	496	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	71	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	60	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	60	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	78	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	94	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	57	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	66	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	57	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	45	-	-	0	-	0	0.0%

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**50.6**	**13.5**	**0.0**	**64.1**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**50.6**	**13.5**	**0.0**	**64.1**	-	-	-	-	
1/2+1/1	586	586	-	-	-	6.2	2.5	-	8.7	53.5	17.1	2.5	19.6	
1/3	492	492	-	-	-	5.7	1.4	-	7.1	51.7	16.5	1.4	17.9	
1/4+1/5	526	526	-	-	-	6.1	1.6	-	7.7	52.7	17.0	1.6	18.6	
1/6	315	315	-	-	-	4.5	2.2	-	6.7	76.6	11.3	2.2	13.5	
2/2+2/1	61	61	-	-	-	0.8	0.3	-	1.1	62.4	1.4	0.3	1.7	
2/3	8	8	-	-	-	0.1	0.0	-	0.2	76.4	0.3	0.0	0.3	
3/2+3/1	814	814	-	-	-	6.4	1.6	-	7.9	35.1	15.0	1.6	16.5	
3/3	446	446	-	-	-	4.7	0.8	-	5.5	44.6	14.1	0.8	15.0	
3/4+3/5	461	461	-	-	-	4.9	0.9	-	5.7	44.7	14.2	0.9	15.1	
4/1+4/2	554	554	-	-	-	4.2	0.6	-	4.8	31.2	7.9	0.6	8.5	
4/3+4/4	458	458	-	-	-	7.1	1.6	-	8.7	68.5	8.6	1.6	10.2	
5/1	759	759	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	738	738	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	200	200	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	641	641	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	611	611	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

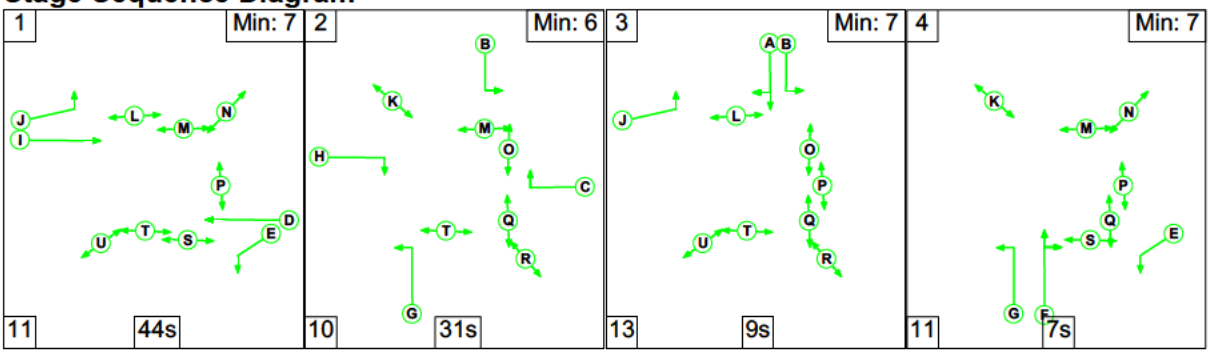
8/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 7.3 Total Delay for Signalled Lanes (pcuHr): 64.13 Cycle Time (s): 136
PRC Over All Lanes (%): 7.3 Total Delay Over All Lanes(pcuHr): 64.13

Detailed Input Data And Results

Scenario 5: '2026 Base AM Peak' (FG5: '2026 Base AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



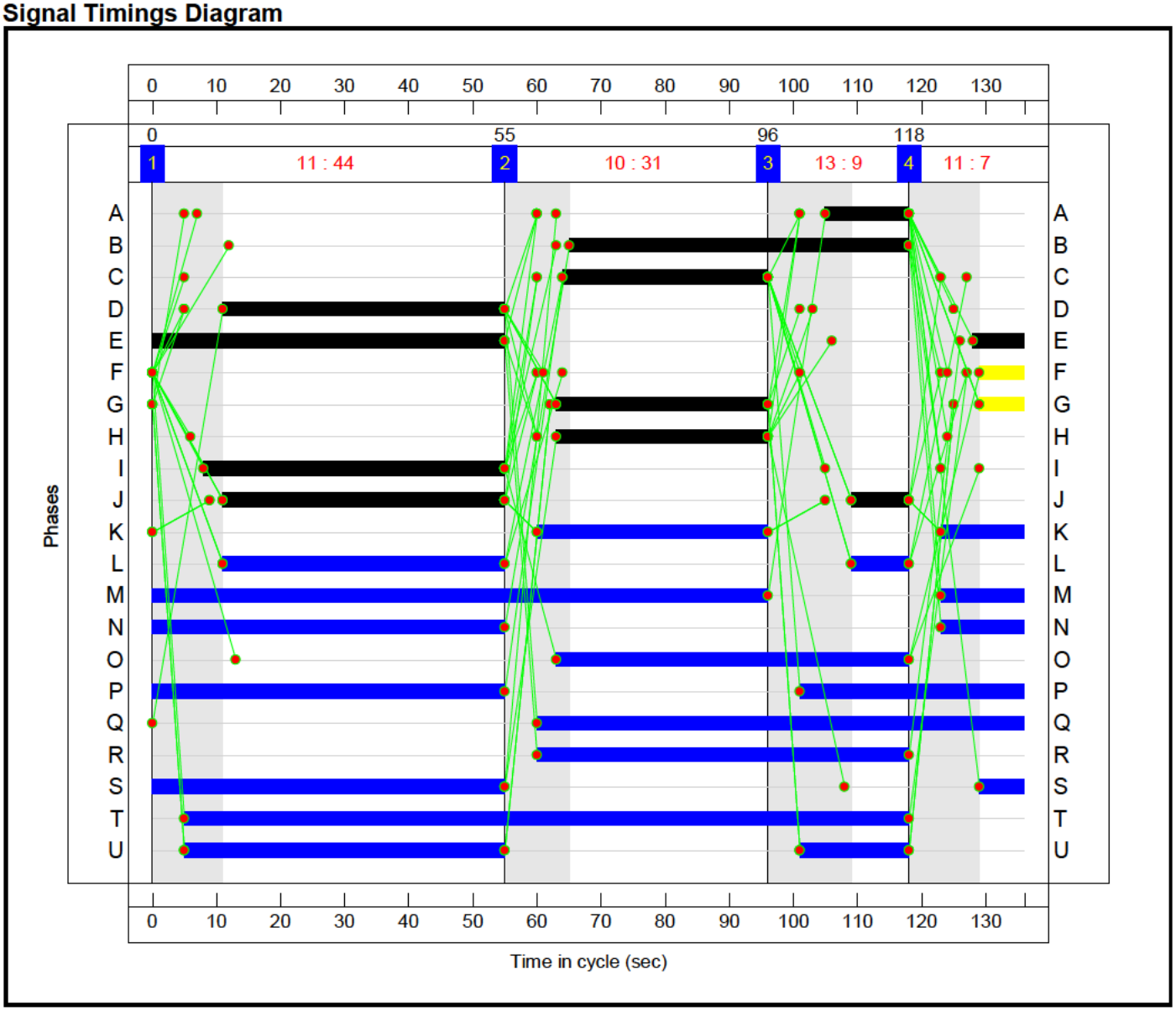
Stage Timings

Stage	1	2	3	4
Duration	44	31	9	7
Change Point	0	55	96	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	13	105	118			
B	The Boulevard Left	Traffic	53	65	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	32	64	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	44	11	55			
E	A2070 Bad Munstereifel Road WB Left	Traffic	63	128	55			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	33	63	96	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	33	63	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	47	8	55			
J	A2070 Bad Munstereifel Road EB Left	Traffic	44	11	55	9	109	118
K	Pedestrians across A2070 EB Left	Pedestrian	36	60	96	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	44	11	55	9	109	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	109	123	96			
N	Pedestrians across Boulevard Left	Pedestrian	68	123	55			
O	Pedestrians across A2070 EB exit	Pedestrian	55	63	118			
P	Pedestrians across A2070 WB Right	Pedestrian	90	101	55			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	76	60	0			
R	Pedestrians across A2070 WB Left	Pedestrian	58	60	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	62	129	55			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	50	5	55	17	101	118

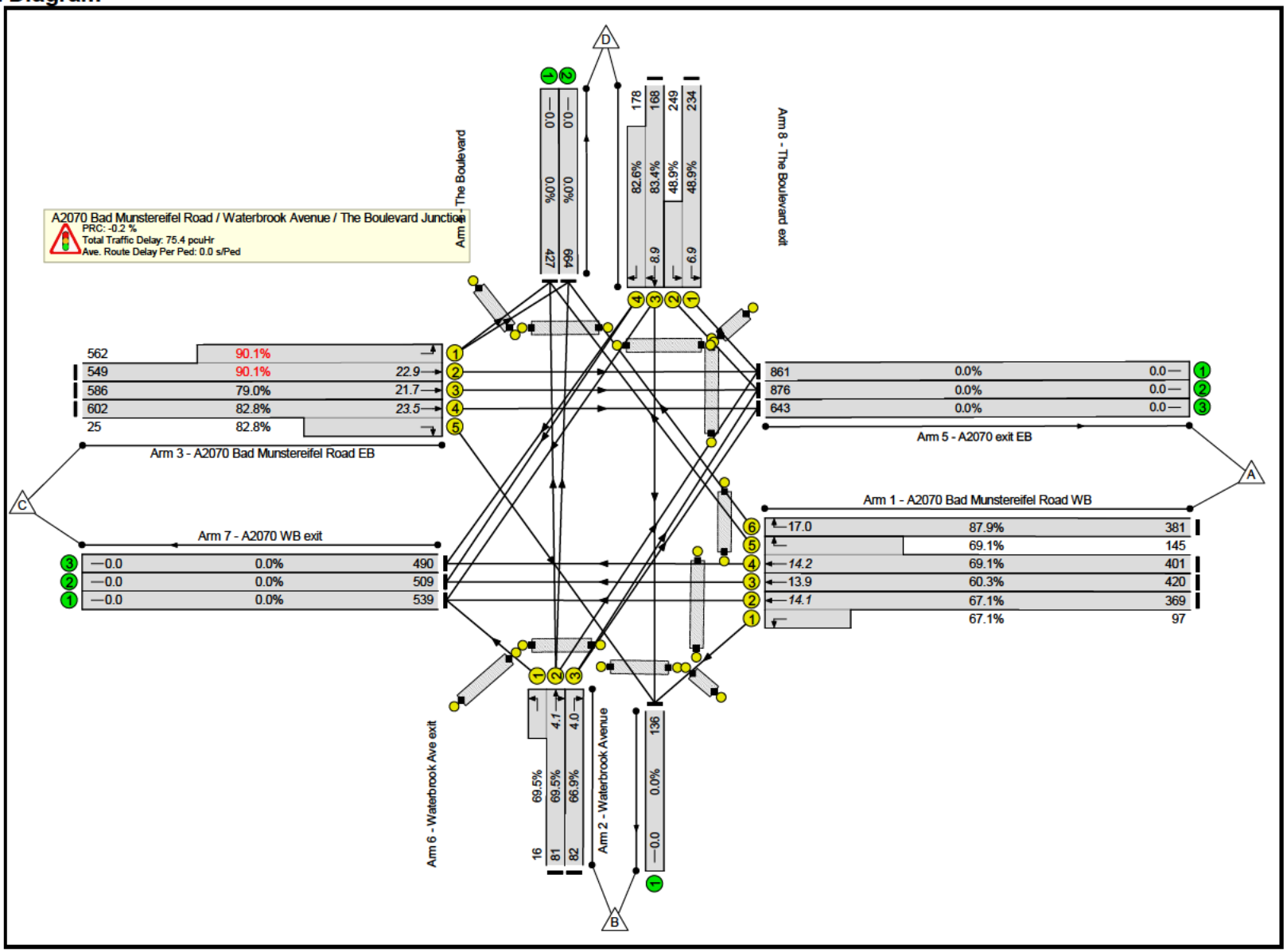
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	55
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	55
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	55
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	55
1/5	A2070 Bad Munstereifel Road WB Right	U	C	64	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	64	96
2/1	Waterbrook Avenue Left	U	G	63 129	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	55 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	55
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	55
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	55
3/5	A2070 Bad Munstereifel Road EB Right	U	H	63	96
4/1	The Boulevard Left	U	B	65	118
4/2	The Boulevard Left	U	B	65	118
4/3	The Boulevard Ahead Right	U	A	105	118
4/4	The Boulevard Right	U	A	105	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**90.1%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**90.1%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	44:63	-	-	466	1949:1981	550+144	67.1 : 67.1%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	44	-	-	420	2106	697	60.3%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	44:32	-	-	546	2108:1819	581+210	69.1 : 69.1%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	32	-	-	381	1787	434	87.9%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:40	-	-	97	1981:2115	117+23	69.5 : 69.5%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	82	2085	123	66.9%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	47:53	-	-	1111	1961:2025	609+623	90.1 : 90.1%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	47	-	-	586	2101	742	79.0%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	47:33	-	-	627	2114:2022	727+30	82.8 : 82.8%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	53	-	-	483	1967:2100	478+509	48.9 : 48.9%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	13	-	-	346	1958:2094	202+216	83.4 : 82.6%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	861	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	876	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	643	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	136	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	539	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	509	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	490	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	427	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	664	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	67	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	62	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	58	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	76	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	90	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	55	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	68	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	109	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	53	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	49	-	-	0	-	0	0.0%

Detailed Input Data And Results

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**56.1**	**19.3**	**0.0**	**75.4**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**56.1**	**19.3**	**0.0**	**75.4**	-	-	-	-	
1/2+1/1	466	466	-	-	-	4.6	1.0	-	5.6	43.3	13.0	1.0	14.1	
1/3	420	420	-	-	-	4.4	0.8	-	5.2	44.5	13.2	0.8	13.9	
1/4+1/5	546	546	-	-	-	5.9	1.1	-	7.0	46.2	13.1	1.1	14.2	
1/6	381	381	-	-	-	5.2	3.2	-	8.5	80.1	13.8	3.2	17.0	
2/2+2/1	97	97	-	-	-	1.5	1.1	-	2.6	95.7	3.0	1.1	4.1	
2/3	82	82	-	-	-	1.4	1.0	-	2.4	105.0	3.0	1.0	4.0	
3/2+3/1	1111	1111	-	-	-	10.1	4.3	-	14.4	46.5	18.6	4.3	22.9	
3/3	586	586	-	-	-	6.4	1.8	-	8.3	50.8	19.9	1.8	21.7	
3/4+3/5	627	627	-	-	-	7.0	2.3	-	9.3	53.3	21.1	2.3	23.5	
4/1+4/2	483	483	-	-	-	3.8	0.5	-	4.2	31.6	6.4	0.5	6.9	
4/3+4/4	346	346	-	-	-	5.8	2.3	-	8.0	83.6	6.6	2.3	8.9	
5/1	861	861	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	643	643	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	136	136	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	539	539	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	509	509	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	427	427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

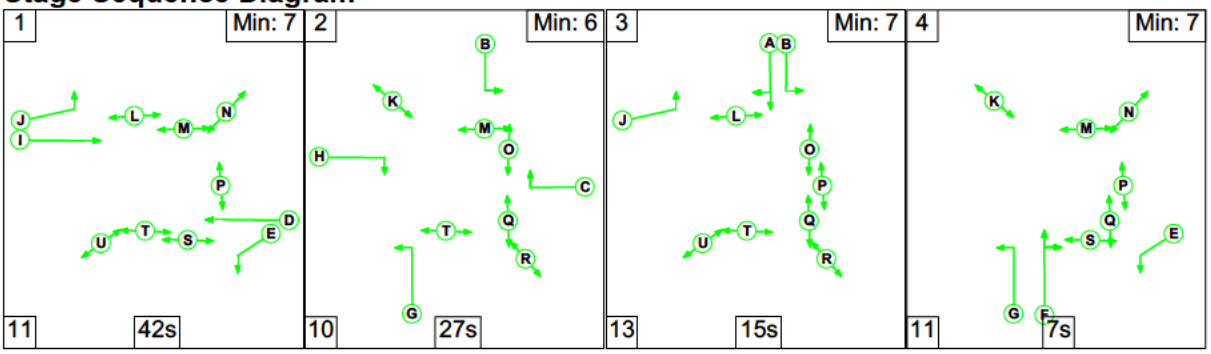
8/2	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -0.2 Total Delay for Signalled Lanes (pcuHr): 75.43 Cycle Time (s): 136
PRC Over All Lanes (%): -0.2 Total Delay Over All Lanes(pcuHr): 75.43

Detailed Input Data And Results

Scenario 6: '2026 Base PM Peak' (FG6: '2026 Base PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



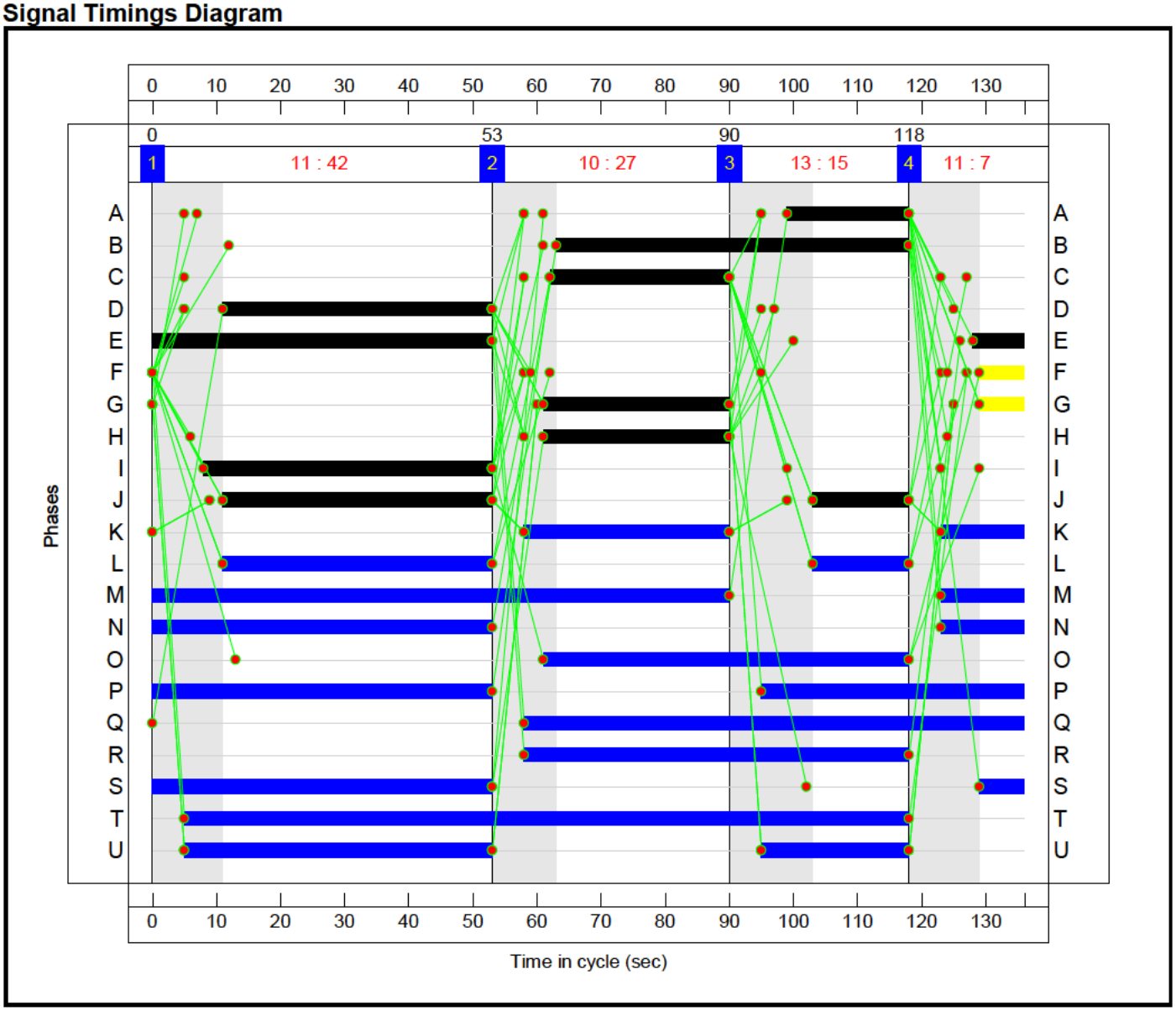
Stage Timings

Stage	1	2	3	4
Duration	42	27	15	7
Change Point	0	53	90	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	99	118			
B	The Boulevard Left	Traffic	55	63	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	28	62	90			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	42	11	53			
E	A2070 Bad Munstereifel Road WB Left	Traffic	61	128	53			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	29	61	90	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	29	61	90			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	45	8	53			
J	A2070 Bad Munstereifel Road EB Left	Traffic	42	11	53	15	103	118
K	Pedestrians across A2070 EB Left	Pedestrian	32	58	90	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	42	11	53	15	103	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	123	90			
N	Pedestrians across Boulevard Left	Pedestrian	66	123	53			
O	Pedestrians across A2070 EB exit	Pedestrian	57	61	118			
P	Pedestrians across A2070 WB Right	Pedestrian	94	95	53			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	78	58	0			
R	Pedestrians across A2070 WB Left	Pedestrian	60	58	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	60	129	53			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	48	5	53	23	95	118

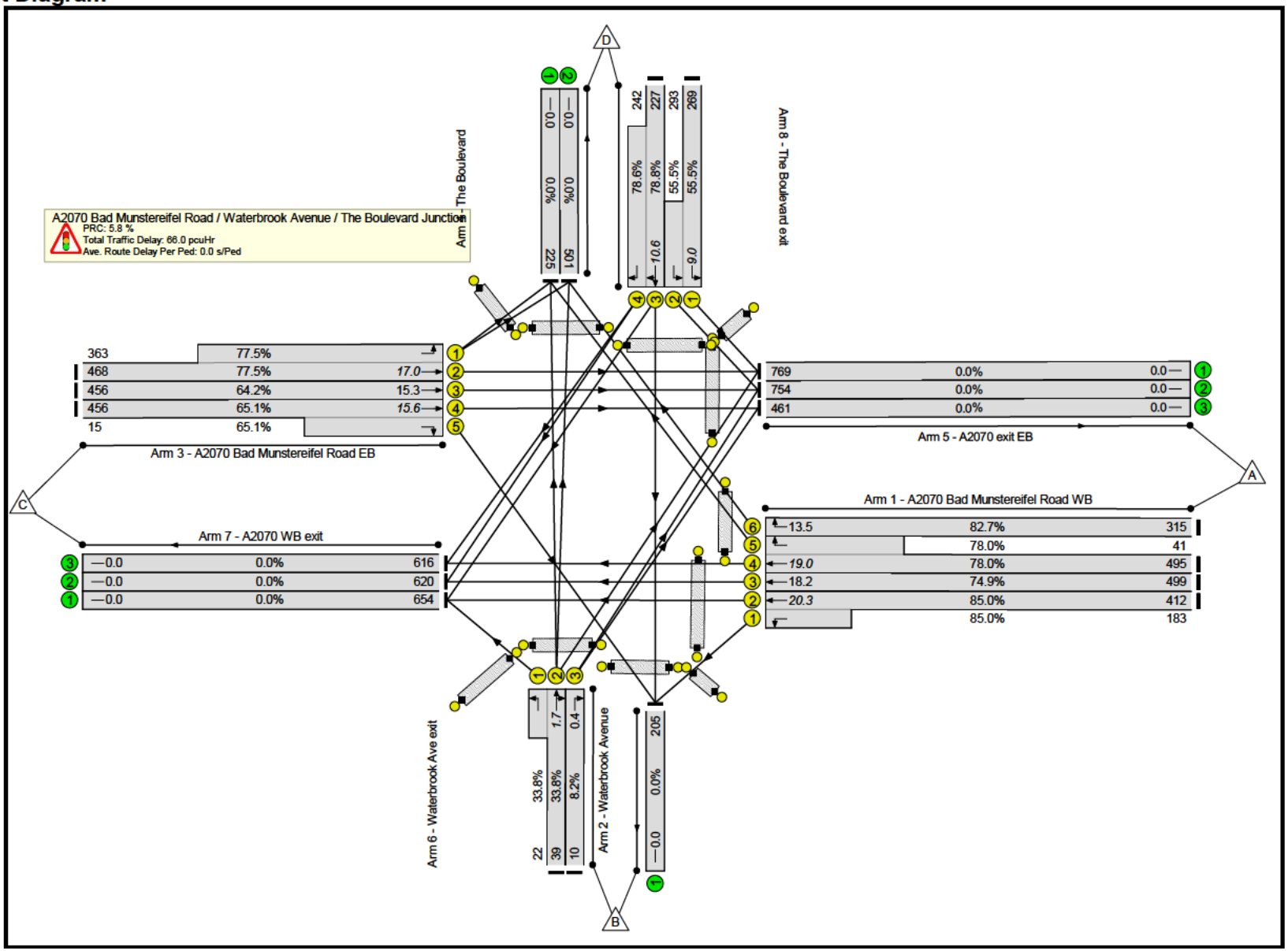
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	53
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/5	A2070 Bad Munstereifel Road WB Right	U	C	62	90
1/6	A2070 Bad Munstereifel Road WB Right	U	C	62	90
2/1	Waterbrook Avenue Left	U	G	61 129	90 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 103	53 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/5	A2070 Bad Munstereifel Road EB Right	U	H	61	90
4/1	The Boulevard Left	U	B	63	118
4/2	The Boulevard Left	U	B	63	118
4/3	The Boulevard Ahead Right	U	A	99	118
4/4	The Boulevard Right	U	A	99	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**85.0%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**85.0%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	42:61	-	-	595	1949:1981	484+215	85.0 : 85.0%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	42	-	-	499	2106	666	74.9%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	42:28	-	-	536	2108:1819	635+53	78.0 : 78.0%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	28	-	-	315	1787	381	82.7%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:36	-	-	61	1981:2115	115+65	33.8 : 33.8%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	10	2085	123	8.2%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	45:57	-	-	831	1961:2025	604+468	77.5 : 77.5%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	45	-	-	456	2101	711	64.2%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	45:29	-	-	471	2114:2022	700+23	65.1 : 65.1%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	55	-	-	562	1967:2100	485+528	55.5 : 55.5%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	469	1958:2094	288+308	78.8 : 78.6%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	769	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	754	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	461	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	205	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	654	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	620	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	616	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	225	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	501	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	71	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	60	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	60	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	78	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	94	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	57	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	66	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	57	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	45	-	-	0	-	0	0.0%

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**51.7**	**14.4**	**0.0**	**66.0**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**51.7**	**14.4**	**0.0**	**66.0**	-	-	-	-	
1/2+1/1	595	595	-	-	-	6.4	2.7	-	9.1	54.8	17.6	2.7	20.3	
1/3	499	499	-	-	-	5.8	1.5	-	7.2	52.3	16.8	1.5	18.2	
1/4+1/5	536	536	-	-	-	6.2	1.7	-	8.0	53.4	17.2	1.7	19.0	
1/6	315	315	-	-	-	4.5	2.2	-	6.7	76.6	11.3	2.2	13.5	
2/2+2/1	61	61	-	-	-	0.8	0.3	-	1.0	61.1	1.4	0.3	1.7	
2/3	10	10	-	-	-	0.2	0.0	-	0.2	76.7	0.4	0.0	0.4	
3/2+3/1	831	831	-	-	-	6.5	1.7	-	8.2	35.6	15.3	1.7	17.0	
3/3	456	456	-	-	-	4.8	0.9	-	5.7	45.1	14.4	0.9	15.3	
3/4+3/5	471	471	-	-	-	5.0	0.9	-	5.9	45.2	14.7	0.9	15.6	
4/1+4/2	562	562	-	-	-	4.3	0.6	-	4.9	31.3	8.4	0.6	9.0	
4/3+4/4	469	469	-	-	-	7.3	1.8	-	9.1	69.7	8.8	1.8	10.6	
5/1	769	769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	461	461	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	654	654	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

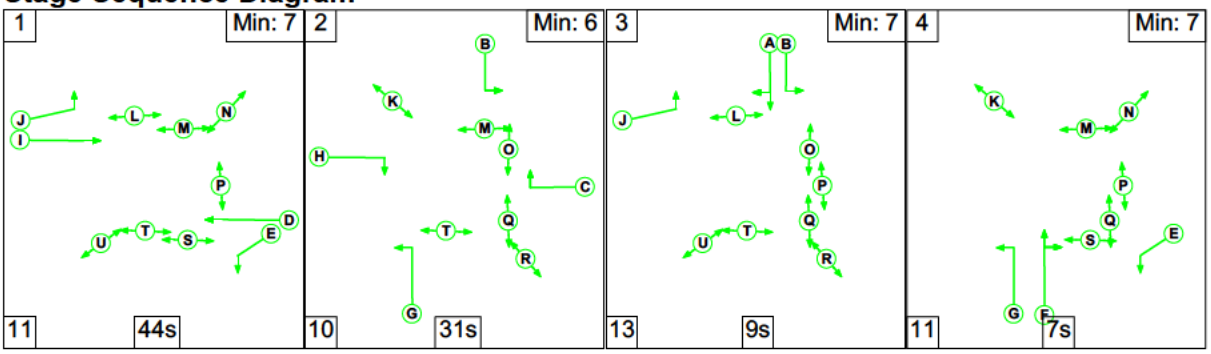
8/2	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 5.8 Total Delay for Signalled Lanes (pcuHr): 66.04 Cycle Time (s): 136
PRC Over All Lanes (%): 5.8 Total Delay Over All Lanes(pcuHr): 66.04

Detailed Input Data And Results

Scenario 7: '2026 Base+Sev AM Peak' (FG7: '2026 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



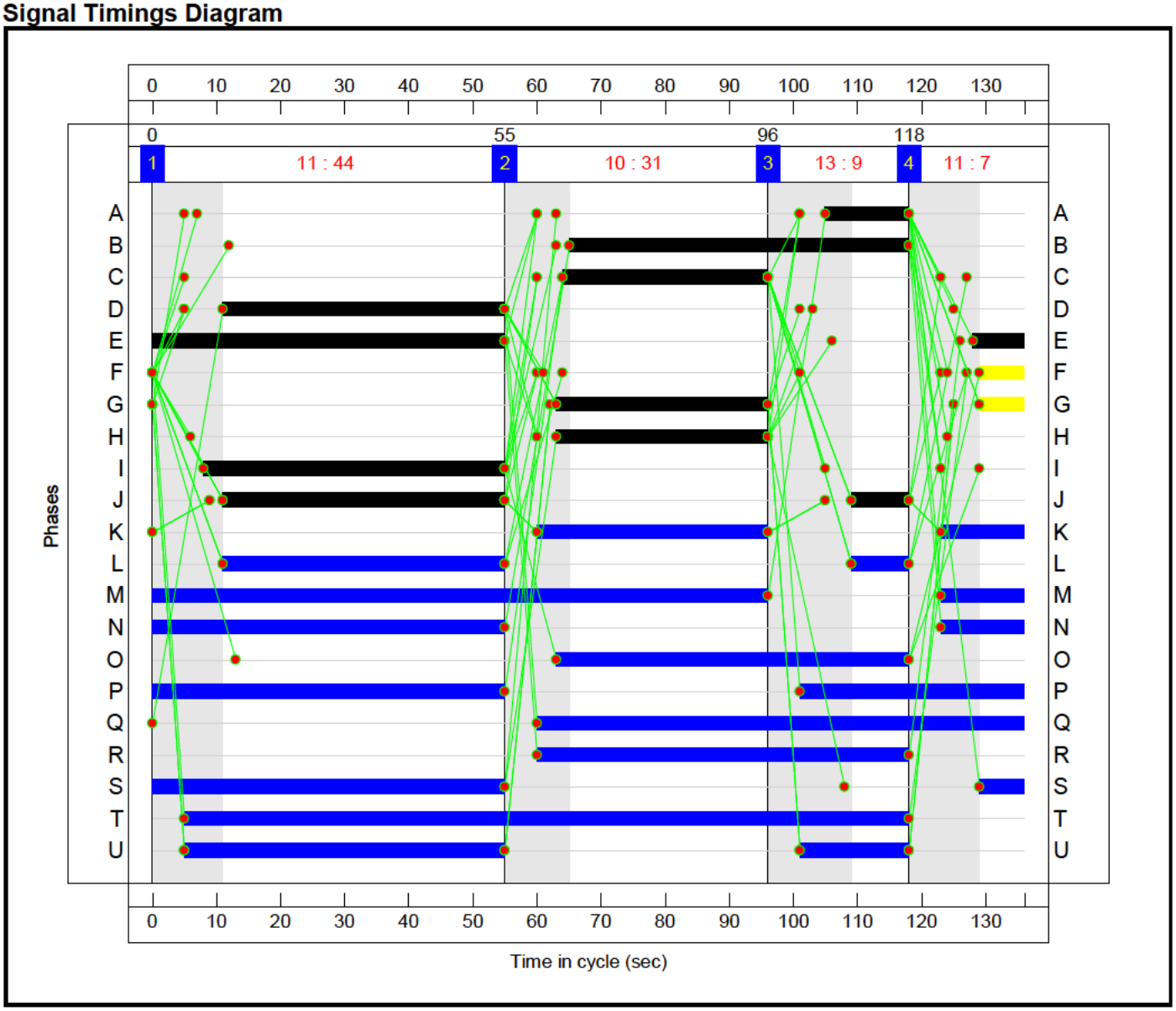
Stage Timings

Stage	1	2	3	4
Duration	44	31	9	7
Change Point	0	55	96	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	13	105	118			
B	The Boulevard Left	Traffic	53	65	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	32	64	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	44	11	55			
E	A2070 Bad Munstereifel Road WB Left	Traffic	63	128	55			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	33	63	96	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	33	63	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	47	8	55			
J	A2070 Bad Munstereifel Road EB Left	Traffic	44	11	55	9	109	118
K	Pedestrians across A2070 EB Left	Pedestrian	36	60	96	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	44	11	55	9	109	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	109	123	96			
N	Pedestrians across Boulevard Left	Pedestrian	68	123	55			
O	Pedestrians across A2070 EB exit	Pedestrian	55	63	118			
P	Pedestrians across A2070 WB Right	Pedestrian	90	101	55			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	76	60	0			
R	Pedestrians across A2070 WB Left	Pedestrian	58	60	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	62	129	55			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	50	5	55	17	101	118

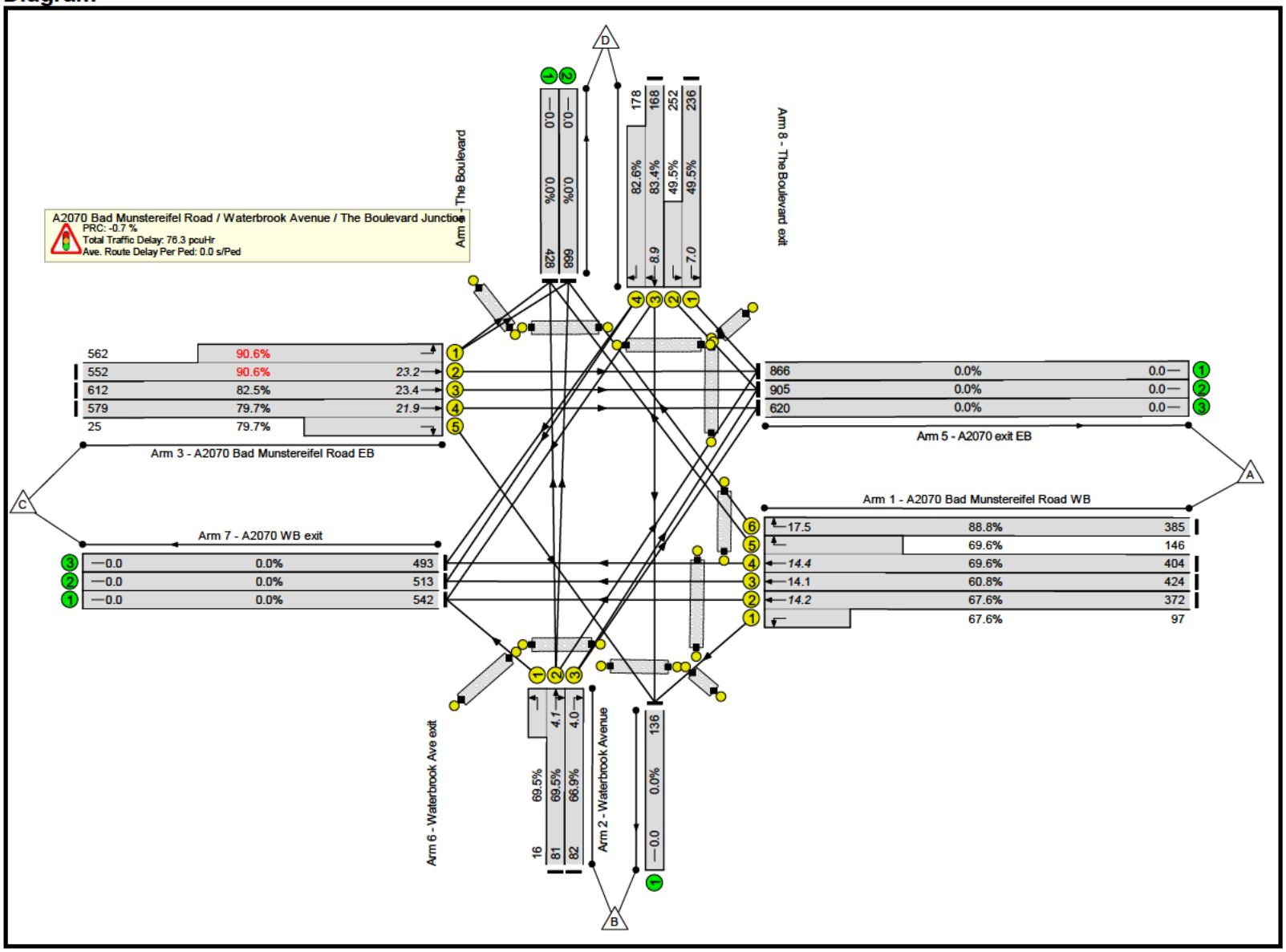
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	55
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	55
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	55
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	55
1/5	A2070 Bad Munstereifel Road WB Right	U	C	64	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	64	96
2/1	Waterbrook Avenue Left	U	G	63 129	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	55 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	55
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	55
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	55
3/5	A2070 Bad Munstereifel Road EB Right	U	H	63	96
4/1	The Boulevard Left	U	B	65	118
4/2	The Boulevard Left	U	B	65	118
4/3	The Boulevard Ahead Right	U	A	105	118
4/4	The Boulevard Right	U	A	105	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**90.6%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**90.6%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	44:63	-	-	469	1949:1981	550+143	67.6 : 67.6%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	44	-	-	424	2106	697	60.8%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	44:32	-	-	550	2108:1819	581+210	69.6 : 69.6%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	32	-	-	385	1787	434	88.8%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:40	-	-	97	1981:2115	117+23	69.5 : 69.5%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	82	2085	123	66.9%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	47:53	-	-	1114	1961:2025	609+620	90.6 : 90.6%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	47	-	-	612	2101	742	82.5%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	47:33	-	-	604	2114:2022	726+31	79.7 : 79.7%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	53	-	-	488	1967:2100	477+510	49.5 : 49.5%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	13	-	-	346	1958:2094	202+216	83.4 : 82.6%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	866	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	905	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	620	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	136	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	542	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	513	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	493	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	428	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	668	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	67	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	62	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	58	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	76	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	90	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	55	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	68	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	109	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	53	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	49	-	-	0	-	0	0.0%

Detailed Input Data And Results

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**56.4**	**19.9**	**0.0**	**76.3**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**56.4**	**19.9**	**0.0**	**76.3**	-	-	-	-	
1/2+1/1	469	469	-	-	-	4.6	1.0	-	5.7	43.5	13.2	1.0	14.2	
1/3	424	424	-	-	-	4.5	0.8	-	5.3	44.7	13.3	0.8	14.1	
1/4+1/5	550	550	-	-	-	6.0	1.1	-	7.1	46.4	13.3	1.1	14.4	
1/6	385	385	-	-	-	5.3	3.5	-	8.8	82.1	14.0	3.5	17.5	
2/2+2/1	97	97	-	-	-	1.5	1.1	-	2.6	95.7	3.0	1.1	4.1	
2/3	82	82	-	-	-	1.4	1.0	-	2.4	105.0	3.0	1.0	4.0	
3/2+3/1	1114	1114	-	-	-	10.1	4.5	-	14.6	47.2	18.7	4.5	23.2	
3/3	612	612	-	-	-	6.8	2.3	-	9.1	53.6	21.1	2.3	23.4	
3/4+3/5	604	604	-	-	-	6.6	1.9	-	8.5	50.8	20.0	1.9	21.9	
4/1+4/2	488	488	-	-	-	3.8	0.5	-	4.3	31.7	6.5	0.5	7.0	
4/3+4/4	346	346	-	-	-	5.8	2.3	-	8.0	83.6	6.6	2.3	8.9	
5/1	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	905	905	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	136	136	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	428	428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

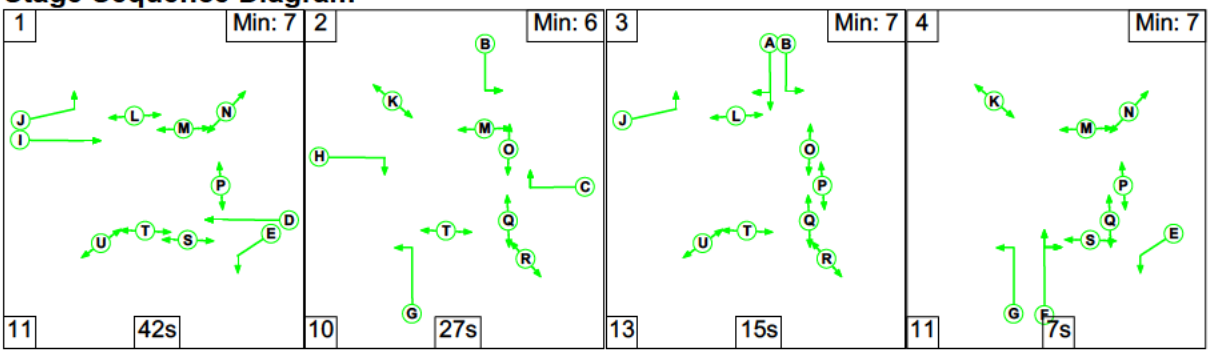
8/2	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -0.7 Total Delay for Signalled Lanes (pcuHr): 76.34 Cycle Time (s): 136
PRC Over All Lanes (%): -0.7 Total Delay Over All Lanes(pcuHr): 76.34

Detailed Input Data And Results

Scenario 8: '2026 Base+Sev PM Peak' (FG8: '2026 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



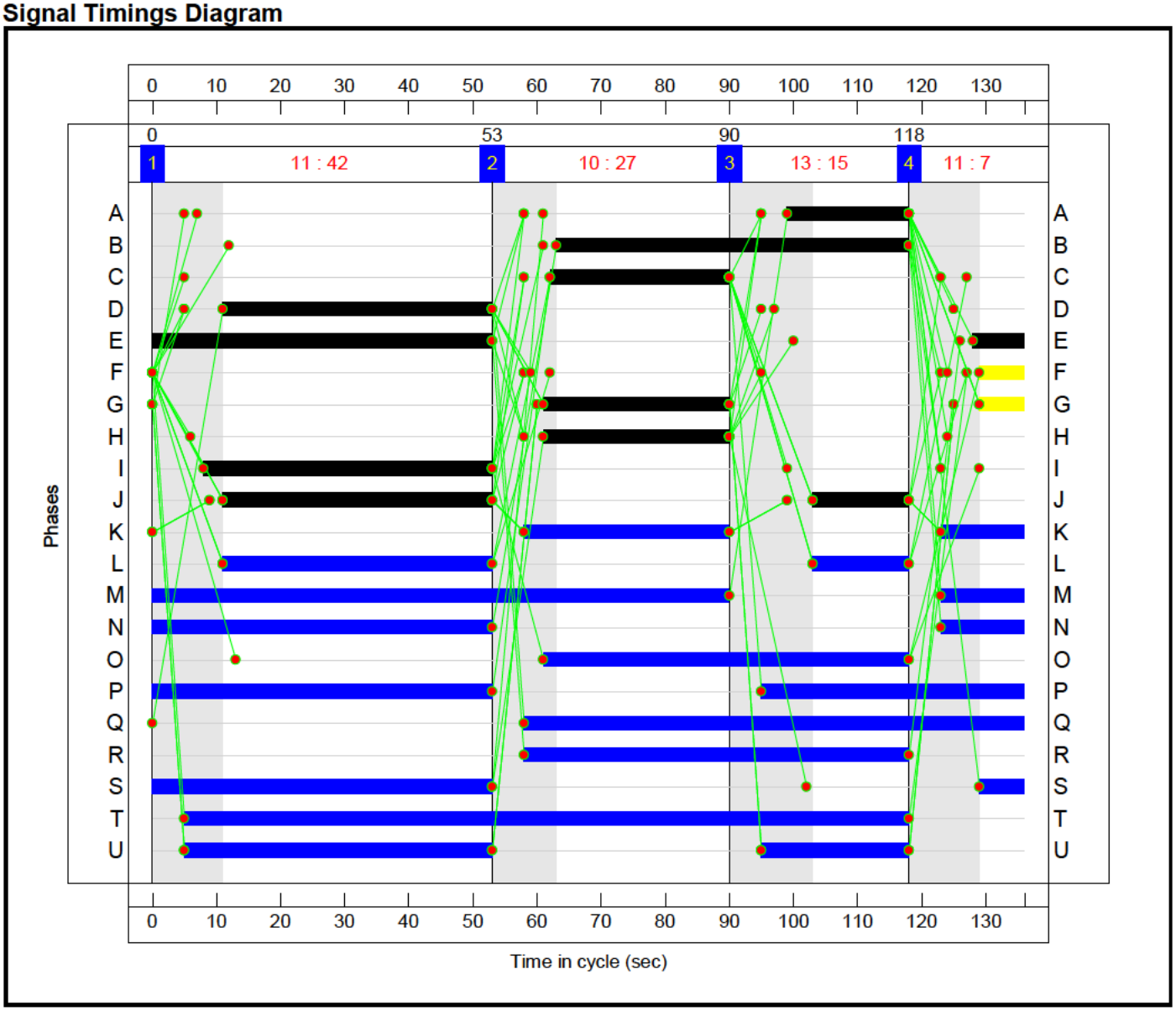
Stage Timings

Stage	1	2	3	4
Duration	42	27	15	7
Change Point	0	53	90	118

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	99	118			
B	The Boulevard Left	Traffic	55	63	118			
C	A2070 Bad Munstereifel Road WB Right	Traffic	28	62	90			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	42	11	53			
E	A2070 Bad Munstereifel Road WB Left	Traffic	61	128	53			
F	Waterbrook Avenue Right Ahead	Traffic	7	129	0			
G	Waterbrook Avenue Left	Traffic	29	61	90	7	129	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	29	61	90			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	45	8	53			
J	A2070 Bad Munstereifel Road EB Left	Traffic	42	11	53	15	103	118
K	Pedestrians across A2070 EB Left	Pedestrian	32	58	90	13	123	0
L	Pedestrians across Boulevard exit	Pedestrian	42	11	53	15	103	118
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	123	90			
N	Pedestrians across Boulevard Left	Pedestrian	66	123	53			
O	Pedestrians across A2070 EB exit	Pedestrian	57	61	118			
P	Pedestrians across A2070 WB Right	Pedestrian	94	95	53			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	78	58	0			
R	Pedestrians across A2070 WB Left	Pedestrian	60	58	118			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	60	129	53			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	113	5	118			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	48	5	53	23	95	118

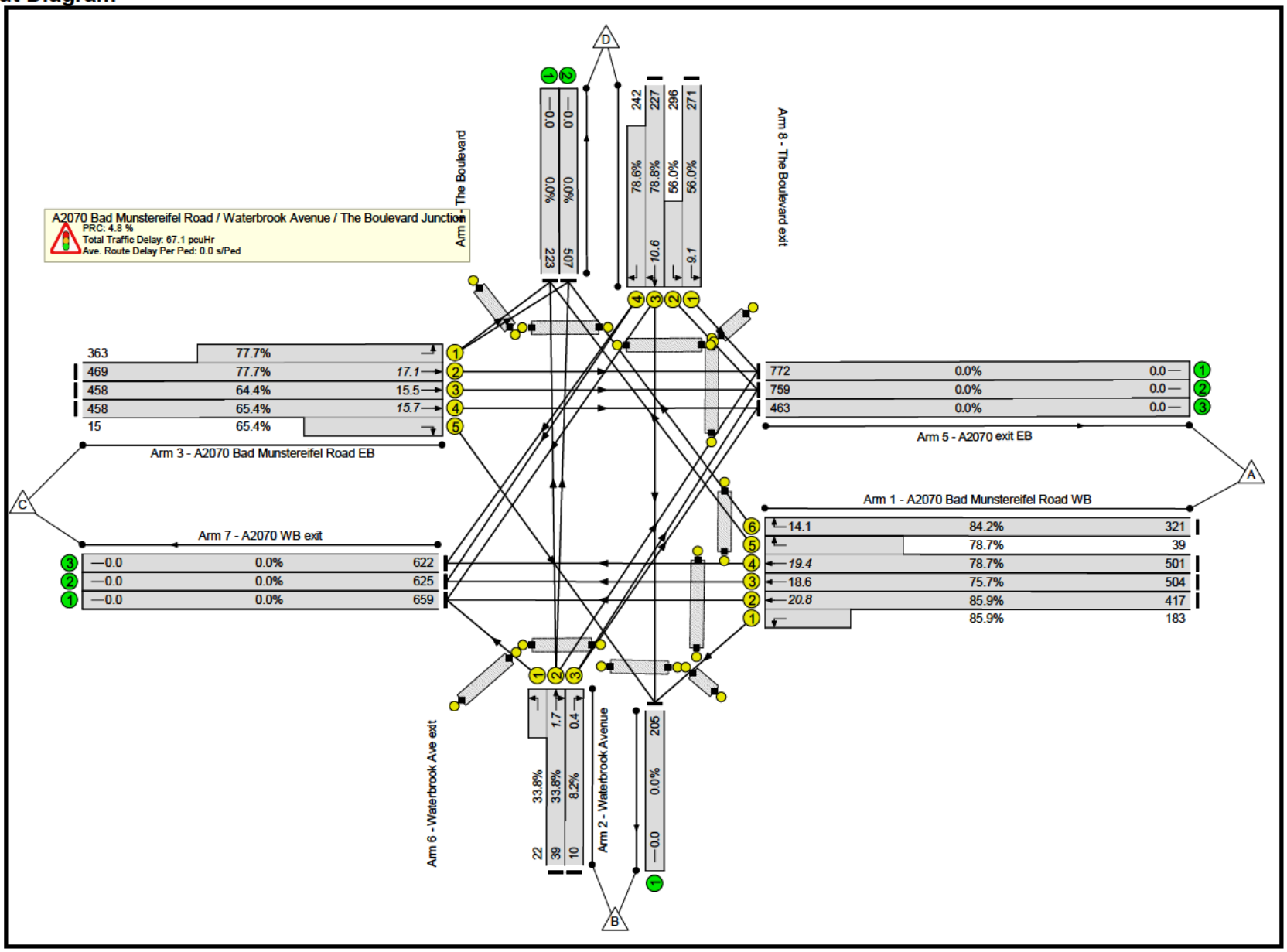
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	128	53
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	53
1/5	A2070 Bad Munstereifel Road WB Right	U	C	62	90
1/6	A2070 Bad Munstereifel Road WB Right	U	C	62	90
2/1	Waterbrook Avenue Left	U	G	61 129	90 0
2/2	Waterbrook Avenue Right Ahead	U	F	129	0
2/3	Waterbrook Avenue Right	U	F	129	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 103	53 118
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	53
3/5	A2070 Bad Munstereifel Road EB Right	U	H	61	90
4/1	The Boulevard Left	U	B	63	118
4/2	The Boulevard Left	U	B	63	118
4/3	The Boulevard Ahead Right	U	A	99	118
4/4	The Boulevard Right	U	A	99	118

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**85.9%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**85.9%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	42:61	-	-	600	1949:1981	486+213	85.9 : 85.9%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	42	-	-	504	2106	666	75.7%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	42:28	-	-	540	2108:1819	636+50	78.7 : 78.7%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	28	-	-	321	1787	381	84.2%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	7:36	-	-	61	1981:2115	115+65	33.8 : 33.8%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	7	-	-	10	2085	123	8.2%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	45:57	-	-	832	1961:2025	604+467	77.7 : 77.7%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	45	-	-	458	2101	711	64.4%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	45:29	-	-	473	2114:2022	701+23	65.4 : 65.4%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	55	-	-	567	1967:2100	484+529	56.0 : 56.0%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	469	1958:2094	288+308	78.8 : 78.6%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	772	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	759	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	463	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	205	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	659	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	625	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	622	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	223	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	507	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	71	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	113	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	60	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	60	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	78	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	94	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	57	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	66	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	57	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	45	-	-	0	-	0	0.0%

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**52.1**	**15.0**	**0.0**	**67.1**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**52.1**	**15.0**	**0.0**	**67.1**	-	-	-	-	
1/2+1/1	600	600	-	-	-	6.5	2.9	-	9.3	55.9	17.9	2.9	20.8	
1/3	504	504	-	-	-	5.9	1.5	-	7.4	52.7	17.1	1.5	18.6	
1/4+1/5	540	540	-	-	-	6.3	1.8	-	8.1	54.0	17.6	1.8	19.4	
1/6	321	321	-	-	-	4.6	2.5	-	7.0	79.0	11.6	2.5	14.1	
2/2+2/1	61	61	-	-	-	0.8	0.3	-	1.0	61.1	1.4	0.3	1.7	
2/3	10	10	-	-	-	0.2	0.0	-	0.2	76.7	0.4	0.0	0.4	
3/2+3/1	832	832	-	-	-	6.5	1.7	-	8.3	35.7	15.4	1.7	17.1	
3/3	458	458	-	-	-	4.8	0.9	-	5.7	45.2	14.6	0.9	15.5	
3/4+3/5	473	473	-	-	-	5.0	0.9	-	6.0	45.3	14.7	0.9	15.7	
4/1+4/2	567	567	-	-	-	4.3	0.6	-	5.0	31.4	8.4	0.6	9.1	
4/3+4/4	469	469	-	-	-	7.3	1.8	-	9.1	69.7	8.8	1.8	10.6	
5/1	772	772	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	759	759	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	463	463	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	625	625	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	622	622	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

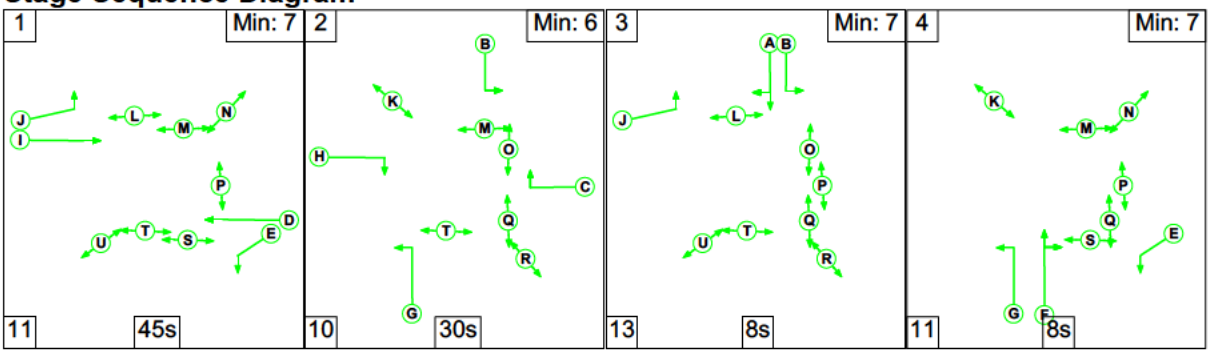
8/2	507	507	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 4.8 Total Delay for Signalled Lanes (pcuHr): 67.08 Cycle Time (s): 136
PRC Over All Lanes (%): 4.8 Total Delay Over All Lanes(pcuHr): 67.08

Detailed Input Data And Results

Scenario 9: '2036 Base AM Peak' (FG9: '2036 Base AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



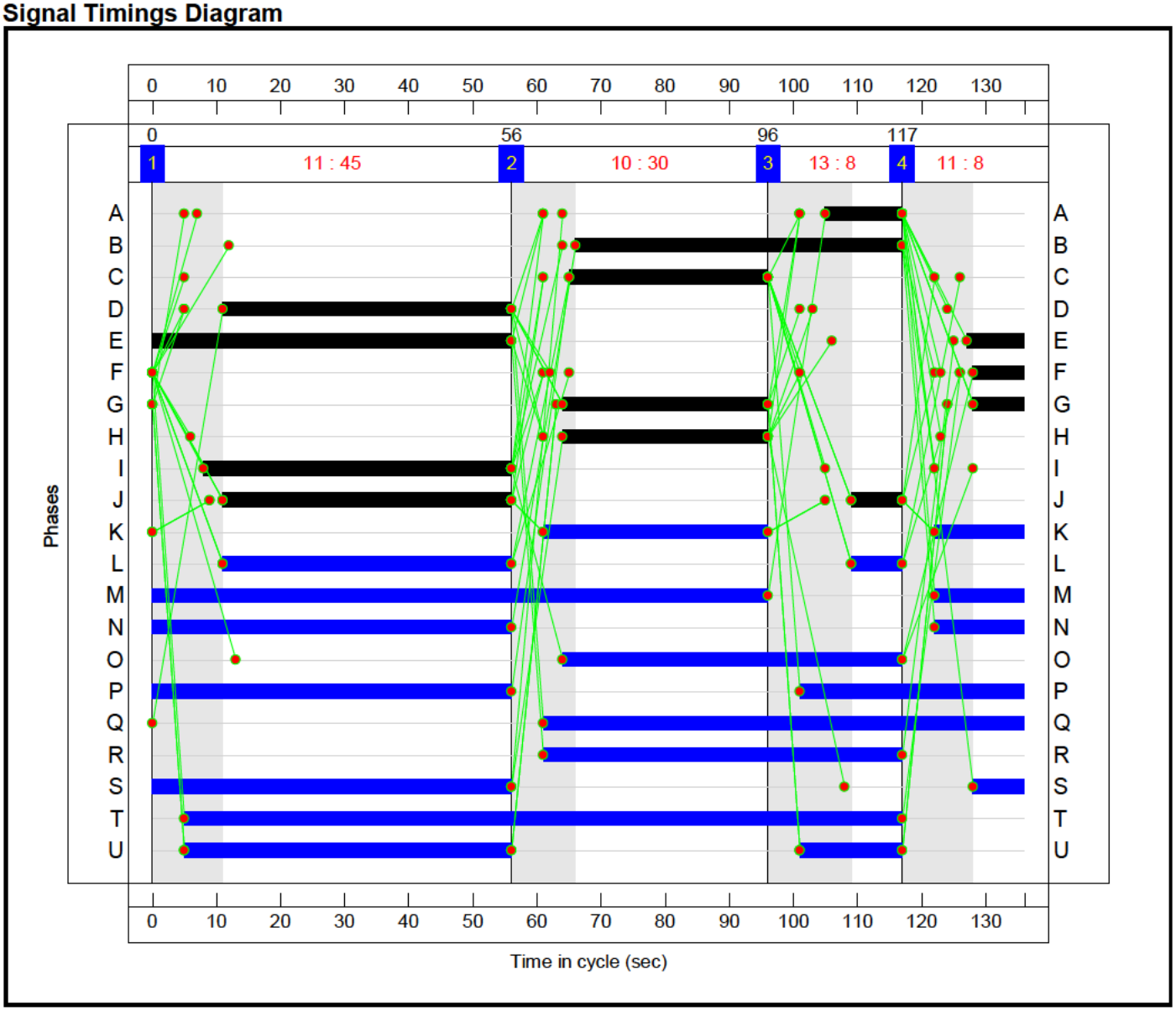
Stage Timings

Stage	1	2	3	4
Duration	45	30	8	8
Change Point	0	56	96	117

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	12	105	117			
B	The Boulevard Left	Traffic	51	66	117			
C	A2070 Bad Munstereifel Road WB Right	Traffic	31	65	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	45	11	56			
E	A2070 Bad Munstereifel Road WB Left	Traffic	65	127	56			
F	Waterbrook Avenue Right Ahead	Traffic	8	128	0			
G	Waterbrook Avenue Left	Traffic	32	64	96	8	128	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	32	64	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	48	8	56			
J	A2070 Bad Munstereifel Road EB Left	Traffic	45	11	56	8	109	117
K	Pedestrians across A2070 EB Left	Pedestrian	35	61	96	14	122	0
L	Pedestrians across Boulevard exit	Pedestrian	45	11	56	8	109	117
M	Pedestrians across Boulevard Ahead Right	Pedestrian	110	122	96			
N	Pedestrians across Boulevard Left	Pedestrian	70	122	56			
O	Pedestrians across A2070 EB exit	Pedestrian	53	64	117			
P	Pedestrians across A2070 WB Right	Pedestrian	91	101	56			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	75	61	0			
R	Pedestrians across A2070 WB Left	Pedestrian	56	61	117			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	64	128	56			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	112	5	117			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	51	5	56	16	101	117

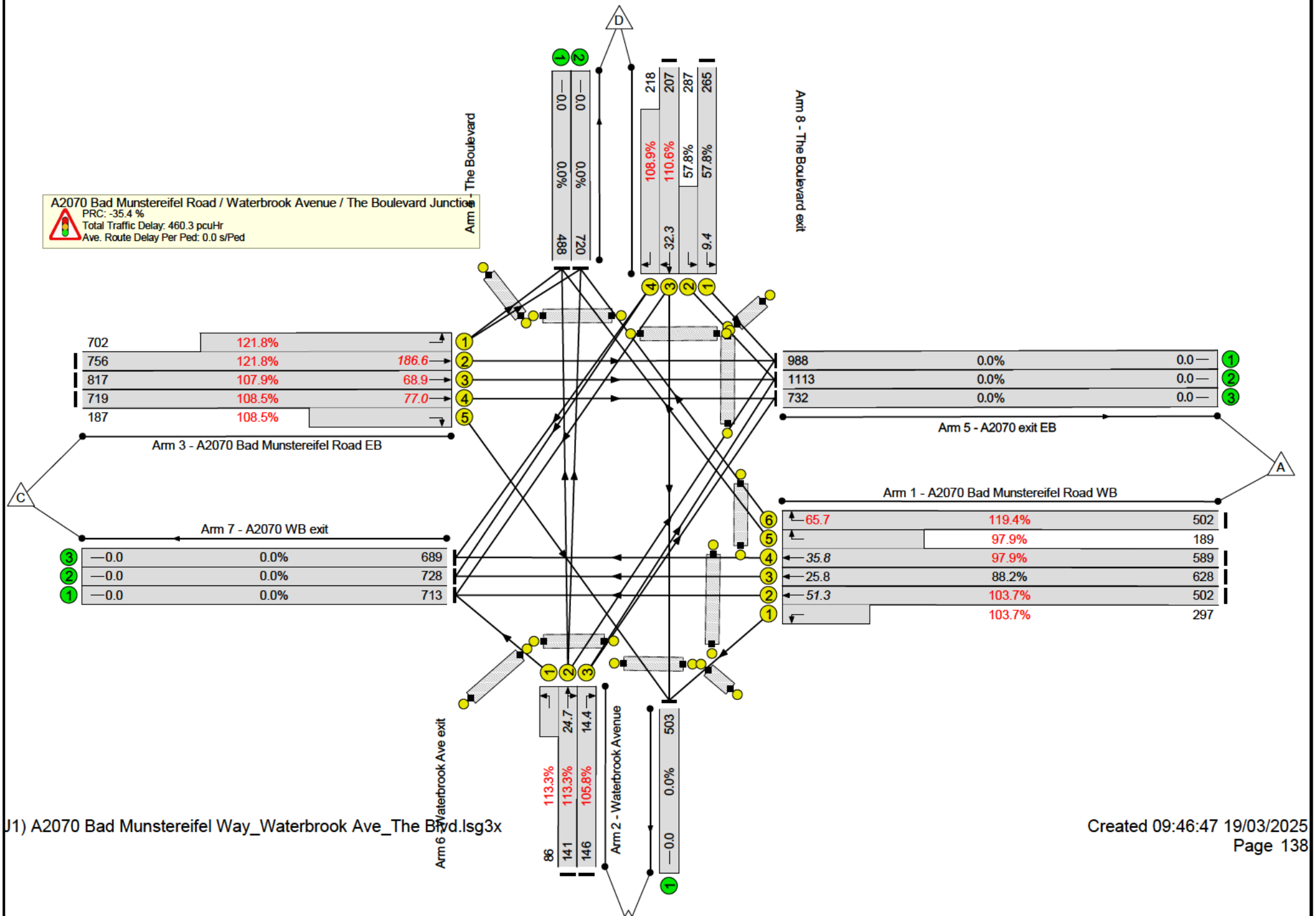
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	127	56
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/5	A2070 Bad Munstereifel Road WB Right	U	C	65	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	65	96
2/1	Waterbrook Avenue Left	U	G	64 128	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	128	0
2/3	Waterbrook Avenue Right	U	F	128	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	56 117
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/5	A2070 Bad Munstereifel Road EB Right	U	H	64	96
4/1	The Boulevard Left	U	B	66	117
4/2	The Boulevard Left	U	B	66	117
4/3	The Boulevard Ahead Right	U	A	105	117
4/4	The Boulevard Right	U	A	105	117

Network Layout Diagram


A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction
PRC: -35.4 %
Total Traffic Delay: 460.3 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped
Arm 8 - The Boulevard
Arm 8 - The Boulevard exit
Arm 3 - A2070 Bad Munstereifel Road EB
Arm 5 - A2070 exit EB
Arm 7 - A2070 WB exit
Arm 1 - A2070 Bad Munstereifel Road WB
Arm 6 - Waterbrook Ave exit
Arm 2 - Waterbrook Avenue
A
C
D

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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**121.8%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**121.8%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	45:65	-	-	799	1949:1981	484+286	103.7 : 103.7%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	45	-	-	628	2106	712	88.2%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	45:31	-	-	778	2108:1819	601+193	97.9 : 97.9%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	31	-	-	502	1787	420	119.4%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	8:40	-	-	227	1981:2115	124+76	113.3 : 113.3%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	8	-	-	146	2085	138	105.8%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	48:53	-	-	1458	1961:2025	621+576	121.8 : 121.8%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	48	-	-	817	2101	757	107.9%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	48:32	-	-	906	2114:2022	663+172	108.5 : 108.5%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	51	-	-	552	1967:2100	458+496	57.8 : 57.8%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	12	-	-	425	1958:2094	187+200	110.6 : 108.9%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1137	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1177	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	792	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	522	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	757	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	737	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	698	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	552	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	866	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	67	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	112	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	64	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	56	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	75	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	91	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	53	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	70	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	110	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	53	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	49	-	-	0	-	0	0.0%

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**120.6**	**339.7**	**0.0**	**460.3**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**120.6**	**339.7**	**0.0**	**460.3**	-	-	-	-	
1/2+1/1	799	771	-	-	-	10.7	22.9	-	33.5	151.1	28.4	22.9	51.3	
1/3	628	628	-	-	-	7.4	3.4	-	10.8	62.2	22.3	3.4	25.8	
1/4+1/5	778	778	-	-	-	9.3	10.4	-	19.7	91.3	25.3	10.4	35.8	
1/6	502	420	-	-	-	11.5	43.6	-	55.2	395.7	22.0	43.6	65.7	
2/2+2/1	227	200	-	-	-	4.8	16.7	-	21.6	342.3	8.0	16.7	24.7	
2/3	146	138	-	-	-	3.2	8.4	-	11.6	285.0	6.0	8.4	14.4	
3/2+3/1	1458	1197	-	-	-	31.8	133.4	-	165.2	408.0	53.3	133.4	186.6	
3/3	817	757	-	-	-	13.8	35.7	-	49.6	218.4	33.1	35.7	68.9	
3/4+3/5	906	845	-	-	-	14.4	41.0	-	55.5	220.3	36.0	41.0	77.0	
4/1+4/2	552	552	-	-	-	4.6	0.7	-	5.3	34.6	8.7	0.7	9.4	
4/3+4/4	425	387	-	-	-	8.9	23.4	-	32.3	273.7	8.9	23.4	32.3	
5/1	988	988	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1113	1113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	732	732	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	503	503	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	713	713	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	689	689	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	488	488	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

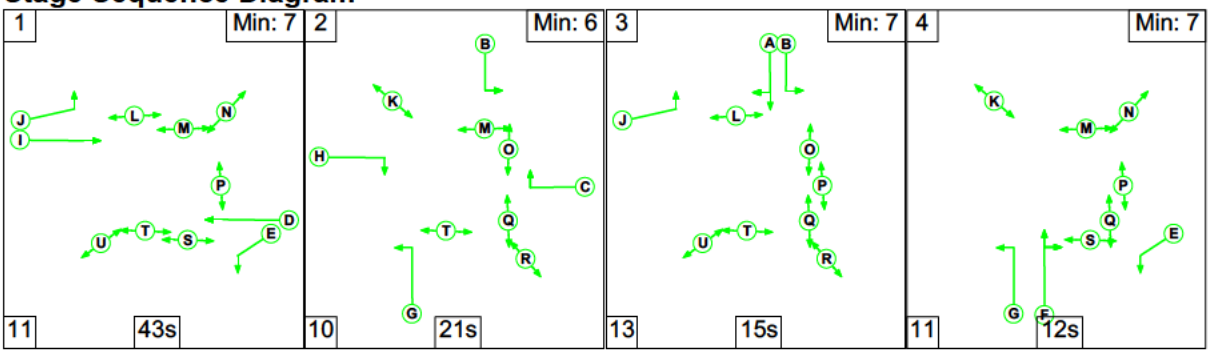
8/2	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.4 Total Delay for Signalled Lanes (pcuHr): 460.30 Cycle Time (s): 136
PRC Over All Lanes (%): -35.4 Total Delay Over All Lanes(pcuHr): 460.30

Detailed Input Data And Results

Scenario 10: '2036 Base PM Peak' (FG10: '2036 Base PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



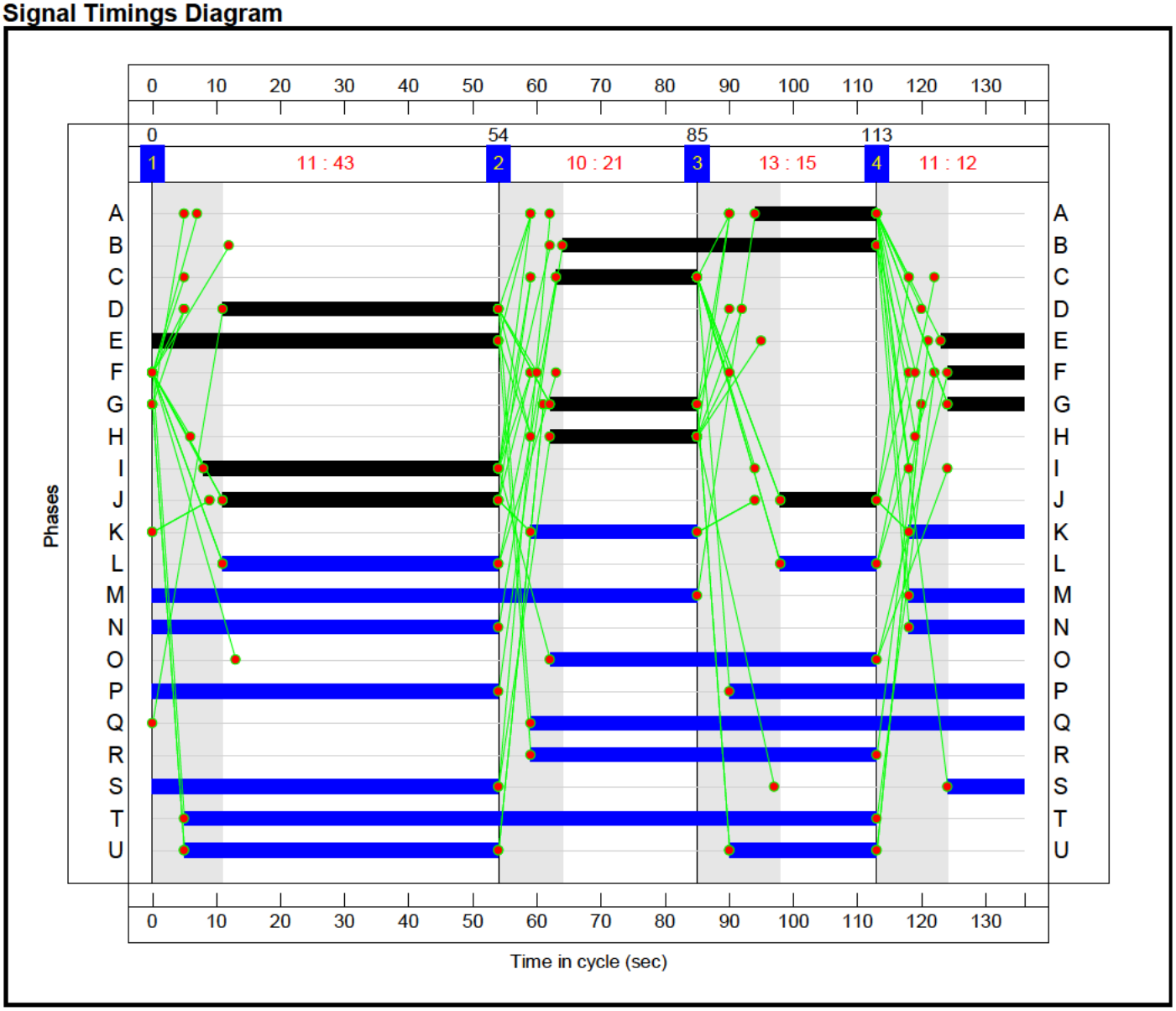
Stage Timings

Stage	1	2	3	4
Duration	43	21	15	12
Change Point	0	54	85	113

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	94	113			
B	The Boulevard Left	Traffic	49	64	113			
C	A2070 Bad Munstereifel Road WB Right	Traffic	22	63	85			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	43	11	54			
E	A2070 Bad Munstereifel Road WB Left	Traffic	67	123	54			
F	Waterbrook Avenue Right Ahead	Traffic	12	124	0			
G	Waterbrook Avenue Left	Traffic	23	62	85	12	124	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	23	62	85			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	46	8	54			
J	A2070 Bad Munstereifel Road EB Left	Traffic	43	11	54	15	98	113
K	Pedestrians across A2070 EB Left	Pedestrian	26	59	85	18	118	0
L	Pedestrians across Boulevard exit	Pedestrian	43	11	54	15	98	113
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	118	85			
N	Pedestrians across Boulevard Left	Pedestrian	72	118	54			
O	Pedestrians across A2070 EB exit	Pedestrian	51	62	113			
P	Pedestrians across A2070 WB Right	Pedestrian	100	90	54			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	77	59	0			
R	Pedestrians across A2070 WB Left	Pedestrian	54	59	113			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	66	124	54			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	108	5	113			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	49	5	54	23	90	113

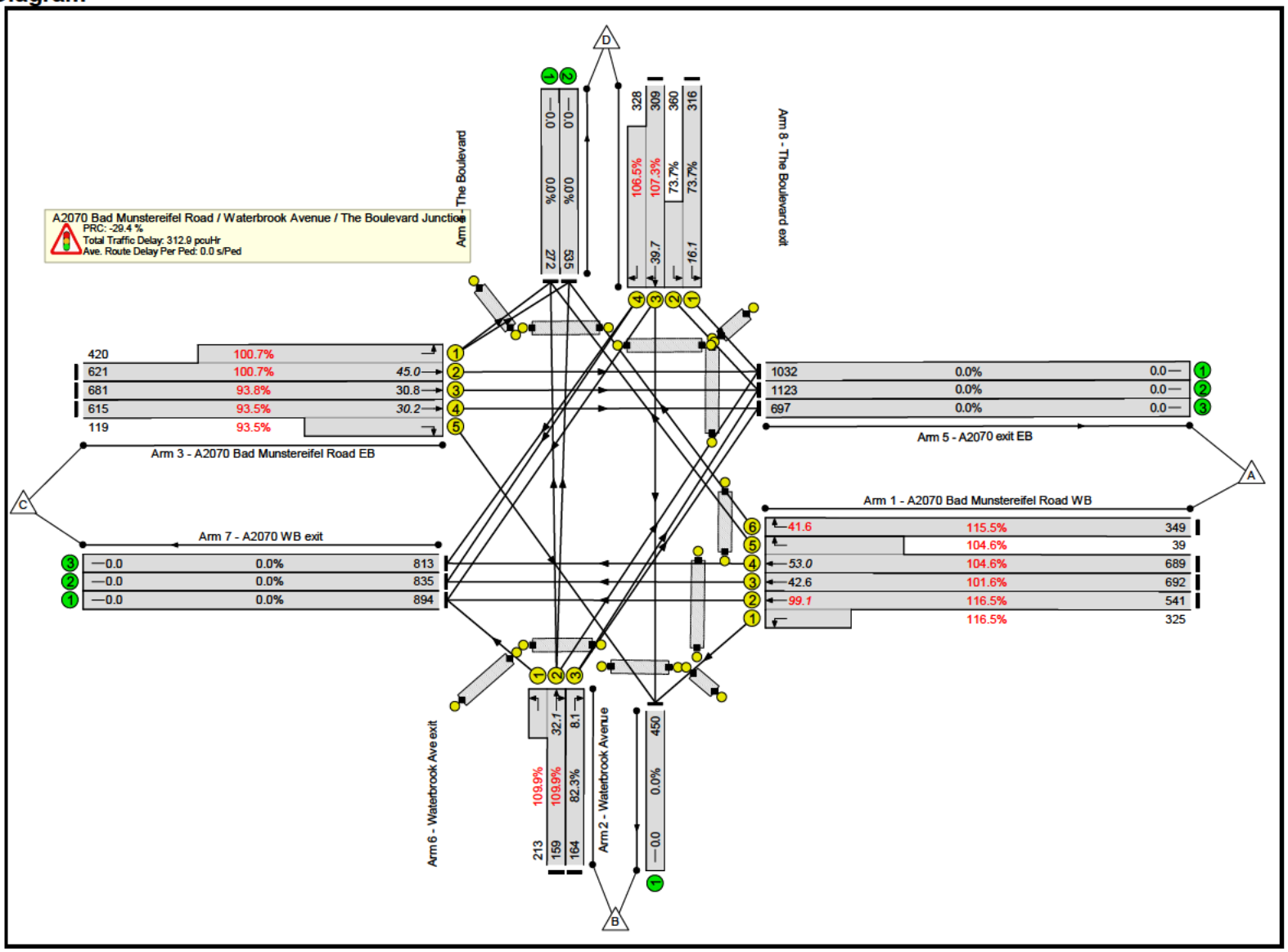
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	123	54
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/5	A2070 Bad Munstereifel Road WB Right	U	C	63	85
1/6	A2070 Bad Munstereifel Road WB Right	U	C	63	85
2/1	Waterbrook Avenue Left	U	G	62 124	85 0
2/2	Waterbrook Avenue Right Ahead	U	F	124	0
2/3	Waterbrook Avenue Right	U	F	124	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 98	54 113
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/5	A2070 Bad Munstereifel Road EB Right	U	H	62	85
4/1	The Boulevard Left	U	B	64	113
4/2	The Boulevard Left	U	B	64	113
4/3	The Boulevard Ahead Right	U	A	94	113
4/4	The Boulevard Right	U	A	94	113

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**116.5%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**116.5%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	43:67	-	-	866	1949:1981	465+279	116.5 : 116.5%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	43	-	-	692	2106	681	101.6%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	43:22	-	-	728	2108:1819	659+37	104.6 : 104.6%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	22	-	-	349	1787	302	115.5%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	12:35	-	-	372	1981:2115	145+194	109.9 : 109.9%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	12	-	-	164	2085	199	82.3%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	46:58	-	-	1041	1961:2025	617+417	100.7 : 100.7%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	46	-	-	681	2101	726	93.8%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	46:23	-	-	734	2114:2022	658+127	93.5 : 93.5%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	49	-	-	676	1967:2100	429+488	73.7 : 73.7%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	637	1958:2094	288+308	107.3 : 106.5%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1046	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1123	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	697	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	500	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	1007	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	856	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	853	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	274	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	584	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	72	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	108	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	66	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	54	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	77	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	100	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	51	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	72	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	58	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	44	-	-	0	-	0	0.0%

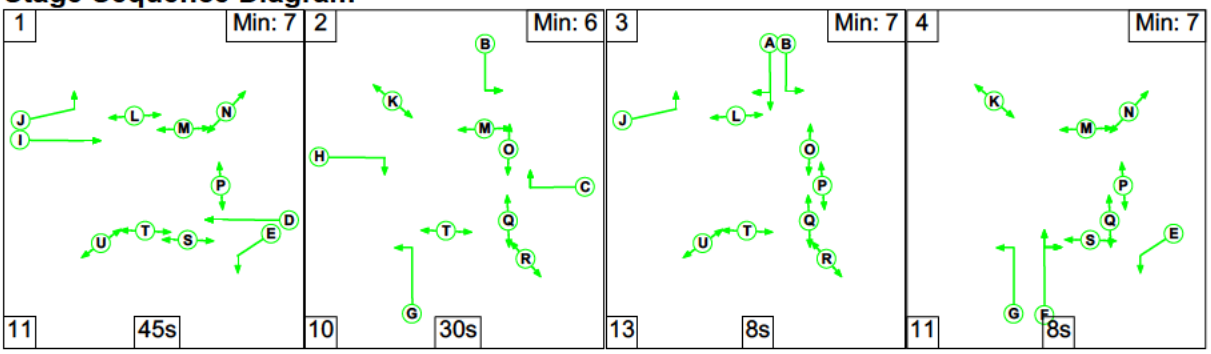
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**100.7**	**212.2**	**0.0**	**312.9**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**100.7**	**212.2**	**0.0**	**312.9**	-	-	-	-	
1/2+1/1	866	744	-	-	-	17.8	64.6	-	82.4	342.6	34.6	64.6	99.1	
1/3	692	681	-	-	-	9.5	16.1	-	25.6	133.3	26.5	16.1	42.6	
1/4+1/5	728	698	-	-	-	11.3	23.7	-	35.0	173.1	29.3	23.7	53.0	
1/6	349	302	-	-	-	8.0	26.7	-	34.7	357.8	15.0	26.7	41.6	
2/2+2/1	372	338	-	-	-	6.4	21.2	-	27.6	267.2	10.9	21.2	32.1	
2/3	164	164	-	-	-	2.8	2.1	-	4.8	106.0	6.1	2.1	8.1	
3/2+3/1	1041	1037	-	-	-	9.4	18.1	-	27.5	95.2	26.9	18.1	45.0	
3/3	681	681	-	-	-	8.2	6.0	-	14.1	74.7	24.8	6.0	30.8	
3/4+3/5	734	734	-	-	-	8.8	5.9	-	14.6	71.8	24.3	5.9	30.2	
4/1+4/2	676	676	-	-	-	6.3	1.4	-	7.7	41.1	14.7	1.4	16.1	
4/3+4/4	637	596	-	-	-	12.2	26.6	-	38.7	218.8	13.1	26.6	39.7	
5/1	1032	1032	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1123	1123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	697	697	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	450	450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	894	894	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	813	813	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	272	272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	535	535	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -29.4 Total Delay for Signalled Lanes (pcuHr): 312.88 Cycle Time (s): 136
PRC Over All Lanes (%): -29.4 Total Delay Over All Lanes(pcuHr): 312.88

Scenario 11: '2036 Base+Sev AM Peak' (FG11: '2036 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



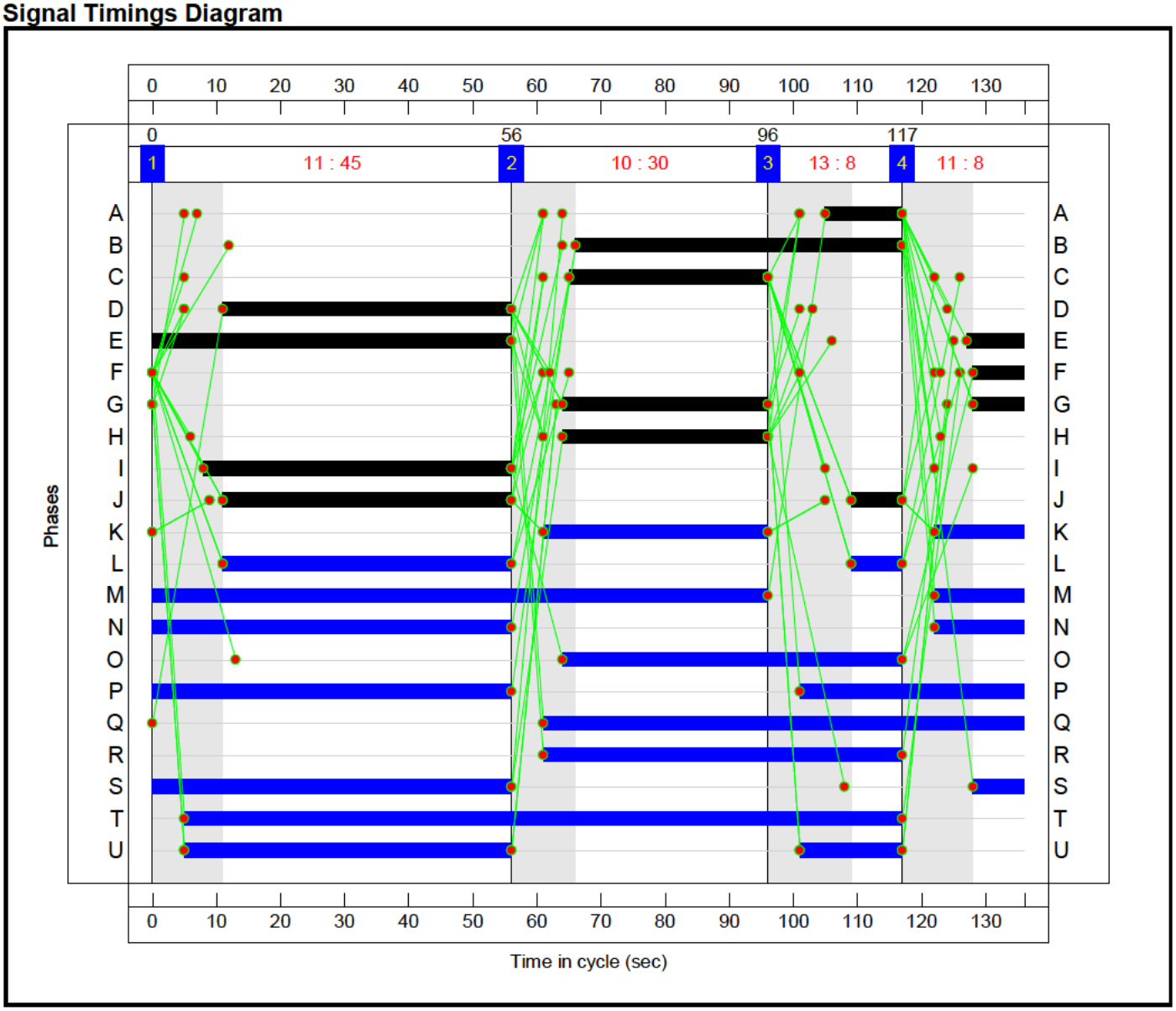
Stage Timings

Stage	1	2	3	4
Duration	45	30	8	8
Change Point	0	56	96	117

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	12	105	117			
B	The Boulevard Left	Traffic	51	66	117			
C	A2070 Bad Munstereifel Road WB Right	Traffic	31	65	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	45	11	56			
E	A2070 Bad Munstereifel Road WB Left	Traffic	65	127	56			
F	Waterbrook Avenue Right Ahead	Traffic	8	128	0			
G	Waterbrook Avenue Left	Traffic	32	64	96	8	128	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	32	64	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	48	8	56			
J	A2070 Bad Munstereifel Road EB Left	Traffic	45	11	56	8	109	117
K	Pedestrians across A2070 EB Left	Pedestrian	35	61	96	14	122	0
L	Pedestrians across Boulevard exit	Pedestrian	45	11	56	8	109	117
M	Pedestrians across Boulevard Ahead Right	Pedestrian	110	122	96			
N	Pedestrians across Boulevard Left	Pedestrian	70	122	56			
O	Pedestrians across A2070 EB exit	Pedestrian	53	64	117			
P	Pedestrians across A2070 WB Right	Pedestrian	91	101	56			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	75	61	0			
R	Pedestrians across A2070 WB Left	Pedestrian	56	61	117			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	64	128	56			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	112	5	117			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	51	5	56	16	101	117

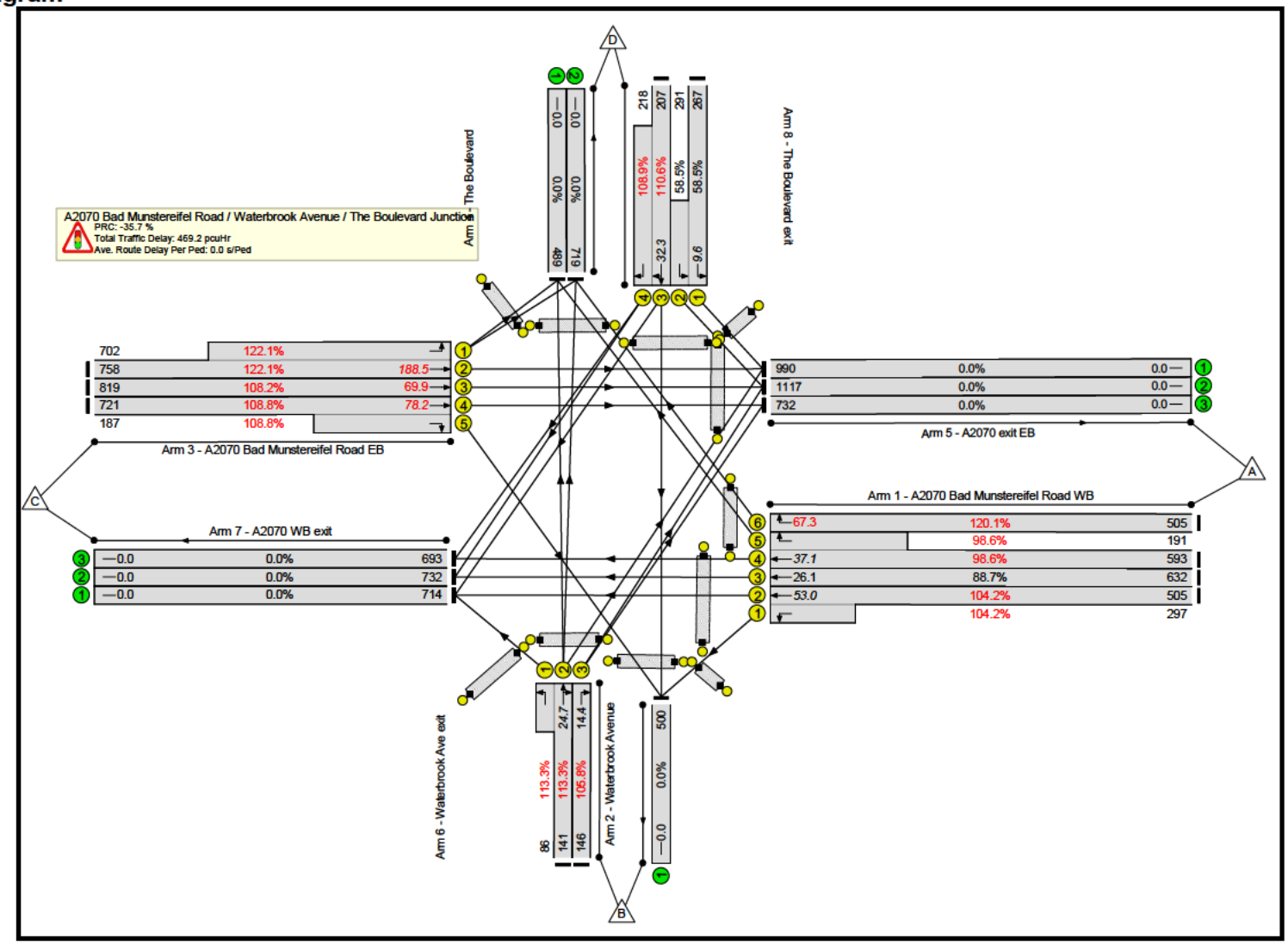
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	127	56
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/5	A2070 Bad Munstereifel Road WB Right	U	C	65	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	65	96
2/1	Waterbrook Avenue Left	U	G	64 128	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	128	0
2/3	Waterbrook Avenue Right	U	F	128	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	56 117
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/5	A2070 Bad Munstereifel Road EB Right	U	H	64	96
4/1	The Boulevard Left	U	B	66	117
4/2	The Boulevard Left	U	B	66	117
4/3	The Boulevard Ahead Right	U	A	105	117
4/4	The Boulevard Right	U	A	105	117

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**122.1%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**122.1%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	45:65	-	-	802	1949:1981	485+285	104.2 : 104.2%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	45	-	-	632	2106	712	88.7%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	45:31	-	-	784	2108:1819	601+194	98.6 : 98.6%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	31	-	-	505	1787	420	120.1%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	8:40	-	-	227	1981:2115	124+76	113.3 : 113.3%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	8	-	-	146	2085	138	105.8%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	48:53	-	-	1460	1961:2025	621+575	122.1 : 122.1%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	48	-	-	819	2101	757	108.2%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	48:32	-	-	908	2114:2022	663+172	108.8 : 108.8%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	51	-	-	558	1967:2100	456+497	58.5 : 58.5%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	12	-	-	425	1958:2094	187+200	110.6 : 108.9%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1141	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1183	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	794	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	522	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	760	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	741	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	702	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	554	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	869	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	67	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	112	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	64	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	56	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	75	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	91	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	53	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	70	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	110	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	53	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	49	-	-	0	-	0	0.0%

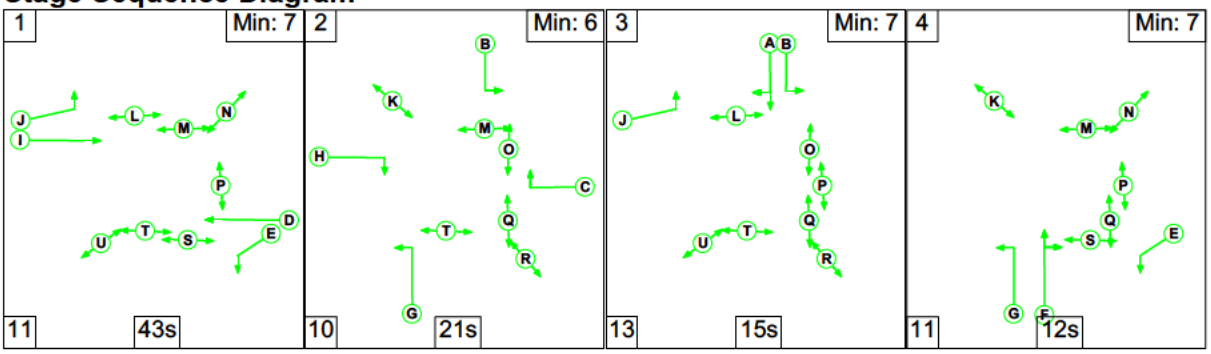
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**121.9**	**347.3**	**0.0**	**469.2**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**121.9**	**347.3**	**0.0**	**469.2**	-	-	-	-	
1/2+1/1	802	770	-	-	-	10.9	24.3	-	35.2	158.0	28.7	24.3	53.0	
1/3	632	632	-	-	-	7.5	3.6	-	11.1	63.1	22.5	3.6	26.1	
1/4+1/5	784	784	-	-	-	9.4	11.6	-	21.0	96.3	25.5	11.6	37.1	
1/6	505	420	-	-	-	11.7	45.1	-	56.8	405.0	22.3	45.1	67.3	
2/2+2/1	227	200	-	-	-	4.8	16.7	-	21.6	342.3	8.0	16.7	24.7	
2/3	146	138	-	-	-	3.2	8.4	-	11.6	285.0	6.0	8.4	14.4	
3/2+3/1	1460	1195	-	-	-	32.1	135.0	-	167.1	412.0	53.5	135.0	188.5	
3/3	819	757	-	-	-	14.0	36.6	-	50.6	222.4	33.3	36.6	69.9	
3/4+3/5	908	844	-	-	-	14.6	42.0	-	56.6	224.4	36.2	42.0	78.2	
4/1+4/2	558	558	-	-	-	4.7	0.7	-	5.4	34.7	8.9	0.7	9.6	
4/3+4/4	425	387	-	-	-	8.9	23.4	-	32.3	273.7	8.9	23.4	32.3	
5/1	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1117	1117	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	732	732	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	732	732	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.7 Total Delay for Signalled Lanes (pcuHr): 469.17 Cycle Time (s): 136
PRC Over All Lanes (%): -35.7 Total Delay Over All Lanes(pcuHr): 469.17

Scenario 12: '2036 Base+Sev PM Peak' (FG12: '2036 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



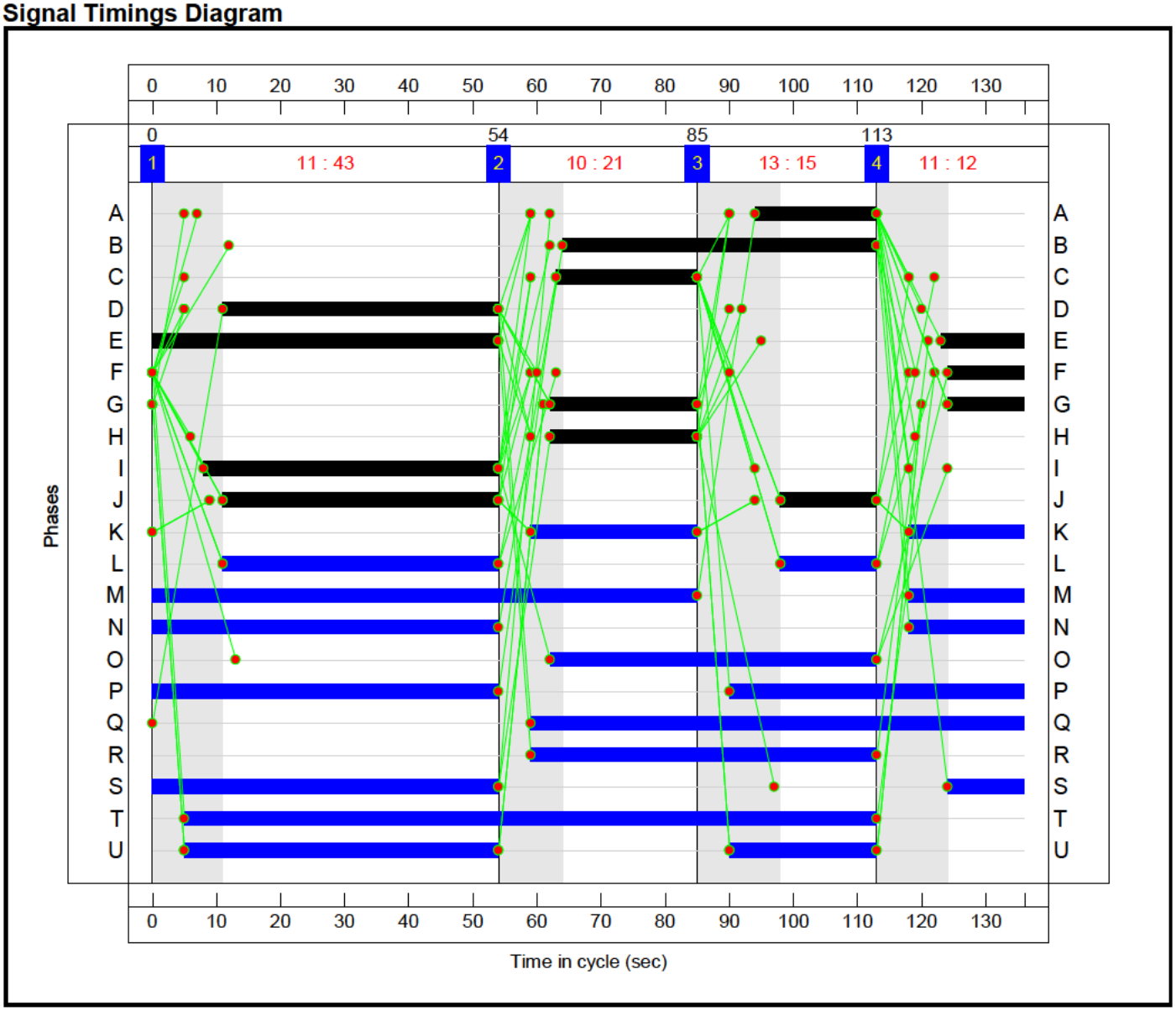
Stage Timings

Stage	1	2	3	4
Duration	43	21	15	12
Change Point	0	54	85	113

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	94	113			
B	The Boulevard Left	Traffic	49	64	113			
C	A2070 Bad Munstereifel Road WB Right	Traffic	22	63	85			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	43	11	54			
E	A2070 Bad Munstereifel Road WB Left	Traffic	67	123	54			
F	Waterbrook Avenue Right Ahead	Traffic	12	124	0			
G	Waterbrook Avenue Left	Traffic	23	62	85	12	124	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	23	62	85			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	46	8	54			
J	A2070 Bad Munstereifel Road EB Left	Traffic	43	11	54	15	98	113
K	Pedestrians across A2070 EB Left	Pedestrian	26	59	85	18	118	0
L	Pedestrians across Boulevard exit	Pedestrian	43	11	54	15	98	113
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	118	85			
N	Pedestrians across Boulevard Left	Pedestrian	72	118	54			
O	Pedestrians across A2070 EB exit	Pedestrian	51	62	113			
P	Pedestrians across A2070 WB Right	Pedestrian	100	90	54			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	77	59	0			
R	Pedestrians across A2070 WB Left	Pedestrian	54	59	113			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	66	124	54			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	108	5	113			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	49	5	54	23	90	113

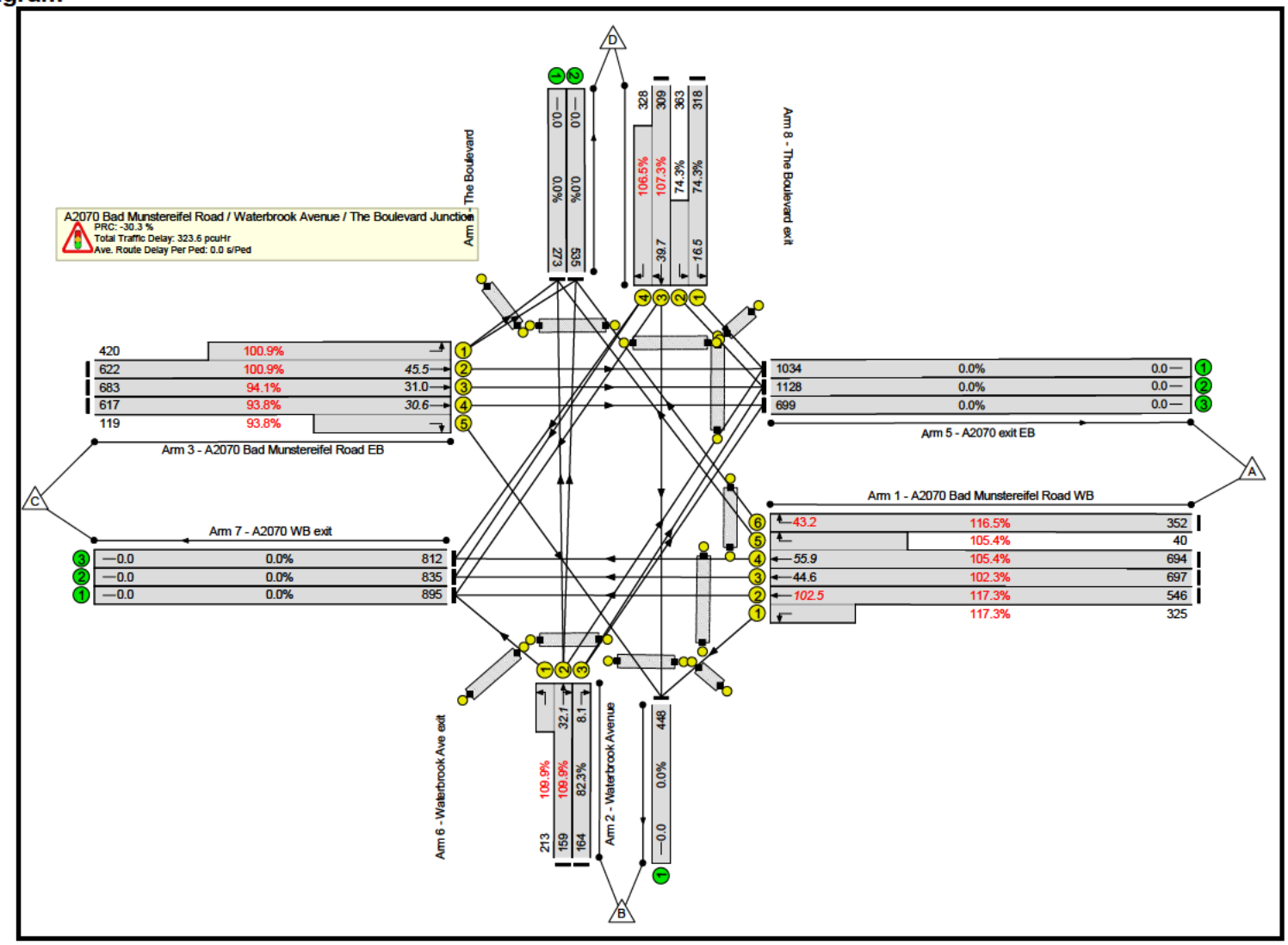
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	123	54
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/5	A2070 Bad Munstereifel Road WB Right	U	C	63	85
1/6	A2070 Bad Munstereifel Road WB Right	U	C	63	85
2/1	Waterbrook Avenue Left	U	G	62 124	85 0
2/2	Waterbrook Avenue Right Ahead	U	F	124	0
2/3	Waterbrook Avenue Right	U	F	124	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 98	54 113
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/5	A2070 Bad Munstereifel Road EB Right	U	H	62	85
4/1	The Boulevard Left	U	B	64	113
4/2	The Boulevard Left	U	B	64	113
4/3	The Boulevard Ahead Right	U	A	94	113
4/4	The Boulevard Right	U	A	94	113

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**117.3%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**117.3%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	43:67	-	-	871	1949:1981	465+277	117.3 : 117.3%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	43	-	-	697	2106	681	102.3%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	43:22	-	-	734	2108:1819	658+38	105.4 : 105.4%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	22	-	-	352	1787	302	116.5%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	12:35	-	-	372	1981:2115	145+194	109.9 : 109.9%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	12	-	-	164	2085	199	82.3%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	46:58	-	-	1042	1961:2025	617+416	100.9 : 100.9%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	46	-	-	683	2101	726	94.1%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	46:23	-	-	736	2114:2022	658+127	93.8 : 93.8%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	49	-	-	681	1967:2100	428+488	74.3 : 74.3%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	637	1958:2094	288+308	107.3 : 106.5%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1049	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1128	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	699	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	500	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	1012	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	861	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	858	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	275	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	587	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	72	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	108	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	66	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	54	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	77	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	100	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	51	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	72	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	58	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	44	-	-	0	-	0	0.0%

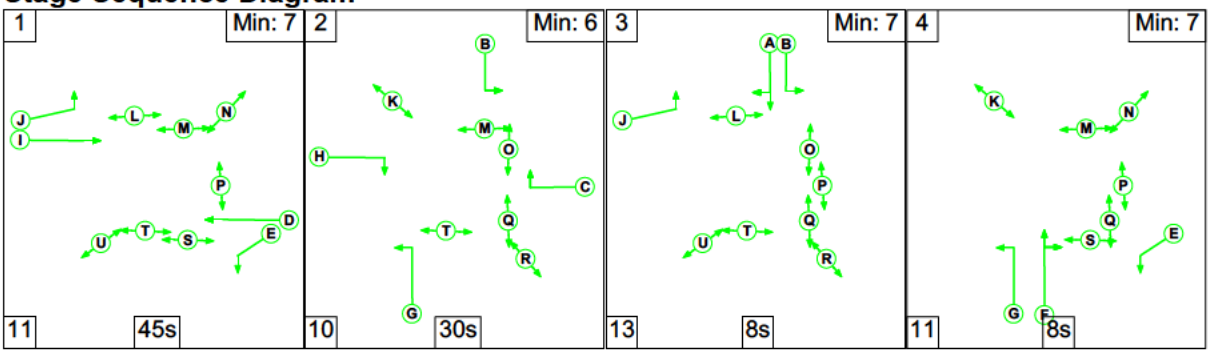
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**102.4**	**221.2**	**0.0**	**323.6**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**102.4**	**221.2**	**0.0**	**323.6**	-	-	-	-	
1/2+1/1	871	743	-	-	-	18.3	67.5	-	85.8	354.5	35.0	67.5	102.5	
1/3	697	681	-	-	-	9.9	17.7	-	27.6	142.6	26.9	17.7	44.6	
1/4+1/5	734	698	-	-	-	11.7	26.0	-	37.7	184.9	29.9	26.0	55.9	
1/6	352	302	-	-	-	8.2	28.0	-	36.3	370.9	15.2	28.0	43.2	
2/2+2/1	372	338	-	-	-	6.4	21.2	-	27.6	267.2	10.9	21.2	32.1	
2/3	164	164	-	-	-	2.8	2.1	-	4.8	106.0	6.1	2.1	8.1	
3/2+3/1	1042	1037	-	-	-	9.5	18.6	-	28.1	97.0	26.9	18.6	45.5	
3/3	683	683	-	-	-	8.2	6.2	-	14.3	75.6	24.9	6.2	31.0	
3/4+3/5	736	736	-	-	-	8.8	6.0	-	14.9	72.7	24.6	6.0	30.6	
4/1+4/2	681	681	-	-	-	6.4	1.4	-	7.8	41.3	15.1	1.4	16.5	
4/3+4/4	637	596	-	-	-	12.2	26.6	-	38.7	218.8	13.1	26.6	39.7	
5/1	1034	1034	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1128	1128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	895	895	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	812	812	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	535	535	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -30.3 Total Delay for Signalled Lanes (pcuHr): 323.62 Cycle Time (s): 136
PRC Over All Lanes (%): -30.3 Total Delay Over All Lanes(pcuHr): 323.62

Scenario 13: '2036 Base+Sev 4 AM Peak' (FG13: '2036 Base+Sev 4 AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



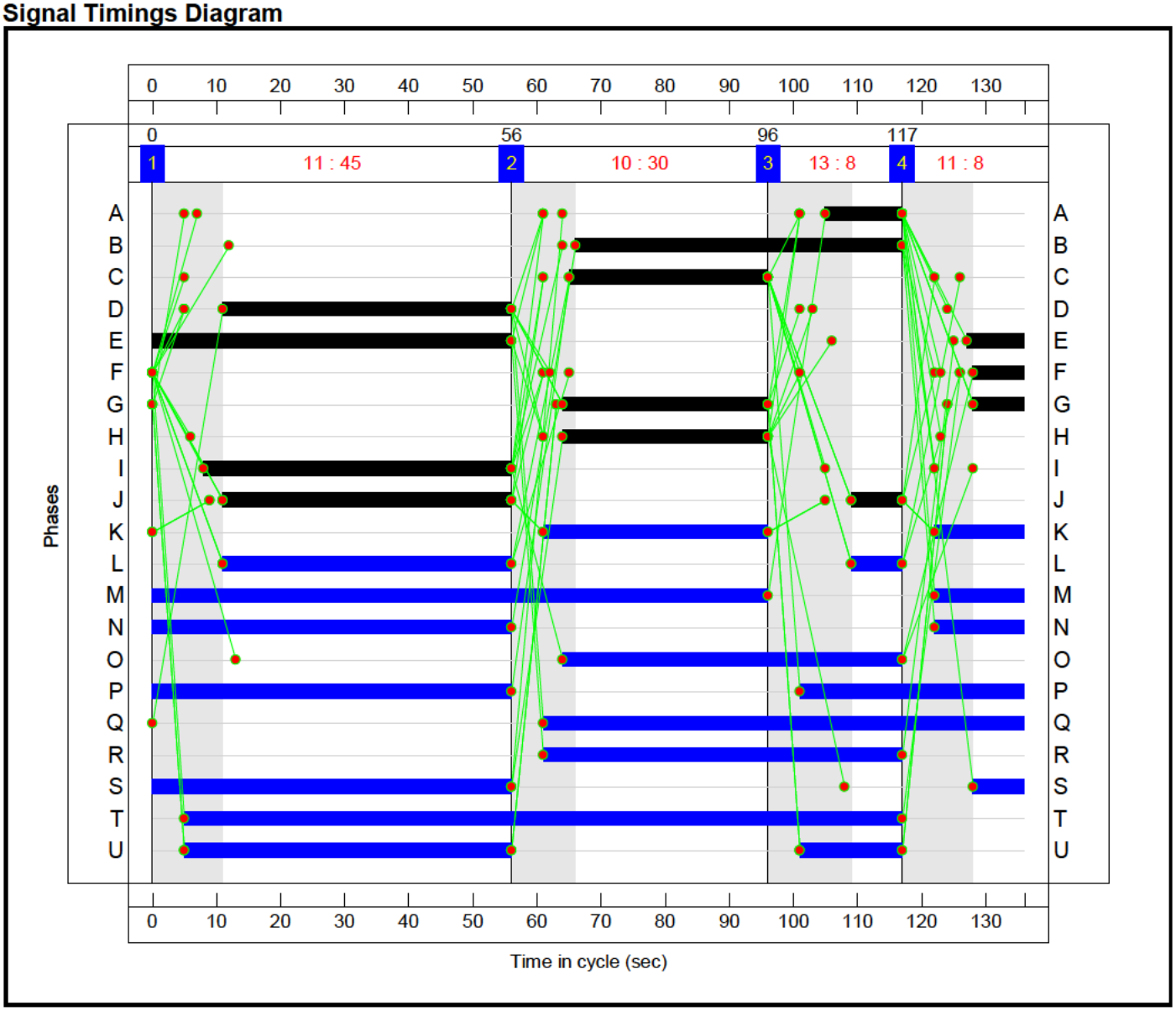
Stage Timings

Stage	1	2	3	4
Duration	45	30	8	8
Change Point	0	56	96	117

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	12	105	117			
B	The Boulevard Left	Traffic	51	66	117			
C	A2070 Bad Munstereifel Road WB Right	Traffic	31	65	96			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	45	11	56			
E	A2070 Bad Munstereifel Road WB Left	Traffic	65	127	56			
F	Waterbrook Avenue Right Ahead	Traffic	8	128	0			
G	Waterbrook Avenue Left	Traffic	32	64	96	8	128	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	32	64	96			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	48	8	56			
J	A2070 Bad Munstereifel Road EB Left	Traffic	45	11	56	8	109	117
K	Pedestrians across A2070 EB Left	Pedestrian	35	61	96	14	122	0
L	Pedestrians across Boulevard exit	Pedestrian	45	11	56	8	109	117
M	Pedestrians across Boulevard Ahead Right	Pedestrian	110	122	96			
N	Pedestrians across Boulevard Left	Pedestrian	70	122	56			
O	Pedestrians across A2070 EB exit	Pedestrian	53	64	117			
P	Pedestrians across A2070 WB Right	Pedestrian	91	101	56			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	75	61	0			
R	Pedestrians across A2070 WB Left	Pedestrian	56	61	117			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	64	128	56			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	112	5	117			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	51	5	56	16	101	117

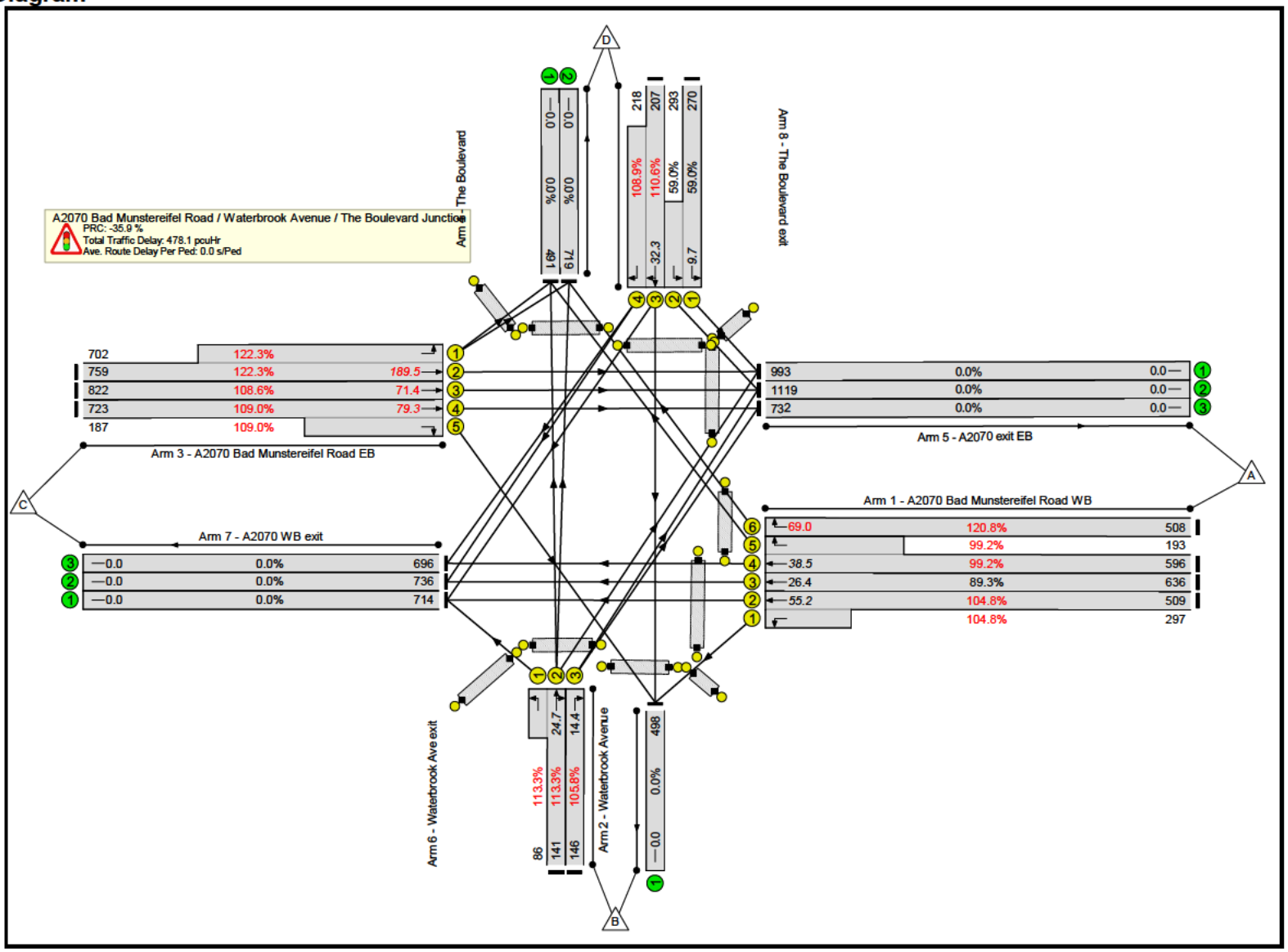
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	127	56
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	56
1/5	A2070 Bad Munstereifel Road WB Right	U	C	65	96
1/6	A2070 Bad Munstereifel Road WB Right	U	C	65	96
2/1	Waterbrook Avenue Left	U	G	64 128	96 0
2/2	Waterbrook Avenue Right Ahead	U	F	128	0
2/3	Waterbrook Avenue Right	U	F	128	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 109	56 117
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	56
3/5	A2070 Bad Munstereifel Road EB Right	U	H	64	96
4/1	The Boulevard Left	U	B	66	117
4/2	The Boulevard Left	U	B	66	117
4/3	The Boulevard Ahead Right	U	A	105	117
4/4	The Boulevard Right	U	A	105	117

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**122.3%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**122.3%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	45:65	-	-	806	1949:1981	486+283	104.8 : 104.8%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	45	-	-	636	2106	712	89.3%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	45:31	-	-	789	2108:1819	601+195	99.2 : 99.2%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	31	-	-	508	1787	420	120.8%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	8:40	-	-	227	1981:2115	124+76	113.3 : 113.3%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	8	-	-	146	2085	138	105.8%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	48:53	-	-	1461	1961:2025	621+574	122.3 : 122.3%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	48	-	-	822	2101	757	108.6%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	48:32	-	-	910	2114:2022	663+172	109.0 : 109.0%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	51	-	-	563	1967:2100	458+497	59.0 : 59.0%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	12	-	-	425	1958:2094	187+200	110.6 : 108.9%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1145	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1188	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	796	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	522	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	764	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	745	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	705	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	556	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	872	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	67	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	112	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	64	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	56	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	75	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	91	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	53	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	70	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	110	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	53	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	49	-	-	0	-	0	0.0%

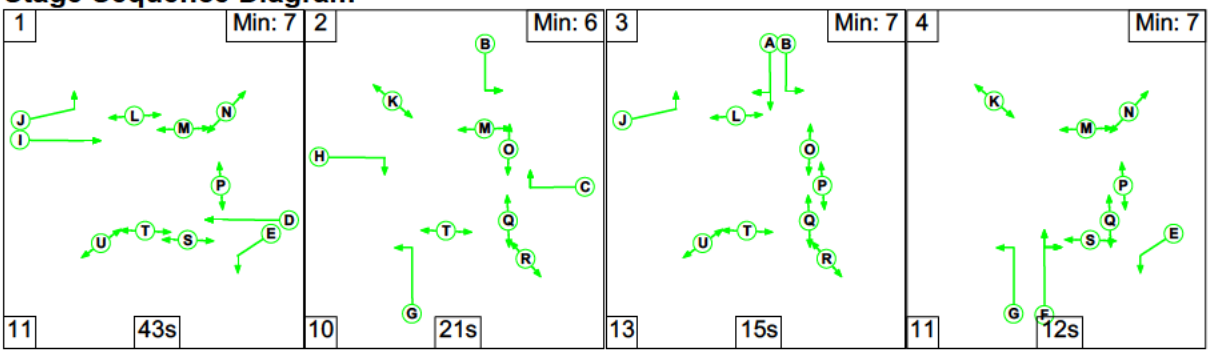
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**123.2**	**354.9**	**0.0**	**478.1**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**123.2**	**354.9**	**0.0**	**478.1**	-	-	-	-	
1/2+1/1	806	769	-	-	-	11.3	26.1	-	37.5	167.3	29.1	26.1	55.2	
1/3	636	636	-	-	-	7.5	3.8	-	11.3	64.1	22.6	3.8	26.4	
1/4+1/5	789	789	-	-	-	9.5	12.6	-	22.1	100.7	25.9	12.6	38.5	
1/6	508	420	-	-	-	11.9	46.5	-	58.4	414.2	22.5	46.5	69.0	
2/2+2/1	227	200	-	-	-	4.8	16.7	-	21.6	342.3	8.0	16.7	24.7	
2/3	146	138	-	-	-	3.2	8.4	-	11.6	285.0	6.0	8.4	14.4	
3/2+3/1	1461	1195	-	-	-	32.2	135.8	-	168.0	414.0	53.7	135.8	189.5	
3/3	822	757	-	-	-	14.2	37.9	-	52.2	228.4	33.5	37.9	71.4	
3/4+3/5	910	843	-	-	-	14.7	43.0	-	57.7	228.4	36.3	43.0	79.3	
4/1+4/2	563	563	-	-	-	4.7	0.7	-	5.4	34.8	9.0	0.7	9.7	
4/3+4/4	425	387	-	-	-	8.9	23.4	-	32.3	273.7	8.9	23.4	32.3	
5/1	993	993	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1119	1119	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	732	732	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	736	736	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	696	696	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	491	491	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -35.9 Total Delay for Signalled Lanes (pcuHr): 478.10 Cycle Time (s): 136
PRC Over All Lanes (%): -35.9 Total Delay Over All Lanes(pcuHr): 478.10

Scenario 14: '2036 Base+Sev 4 PM Peak' (FG14: '2036 Base+Sev 4 PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



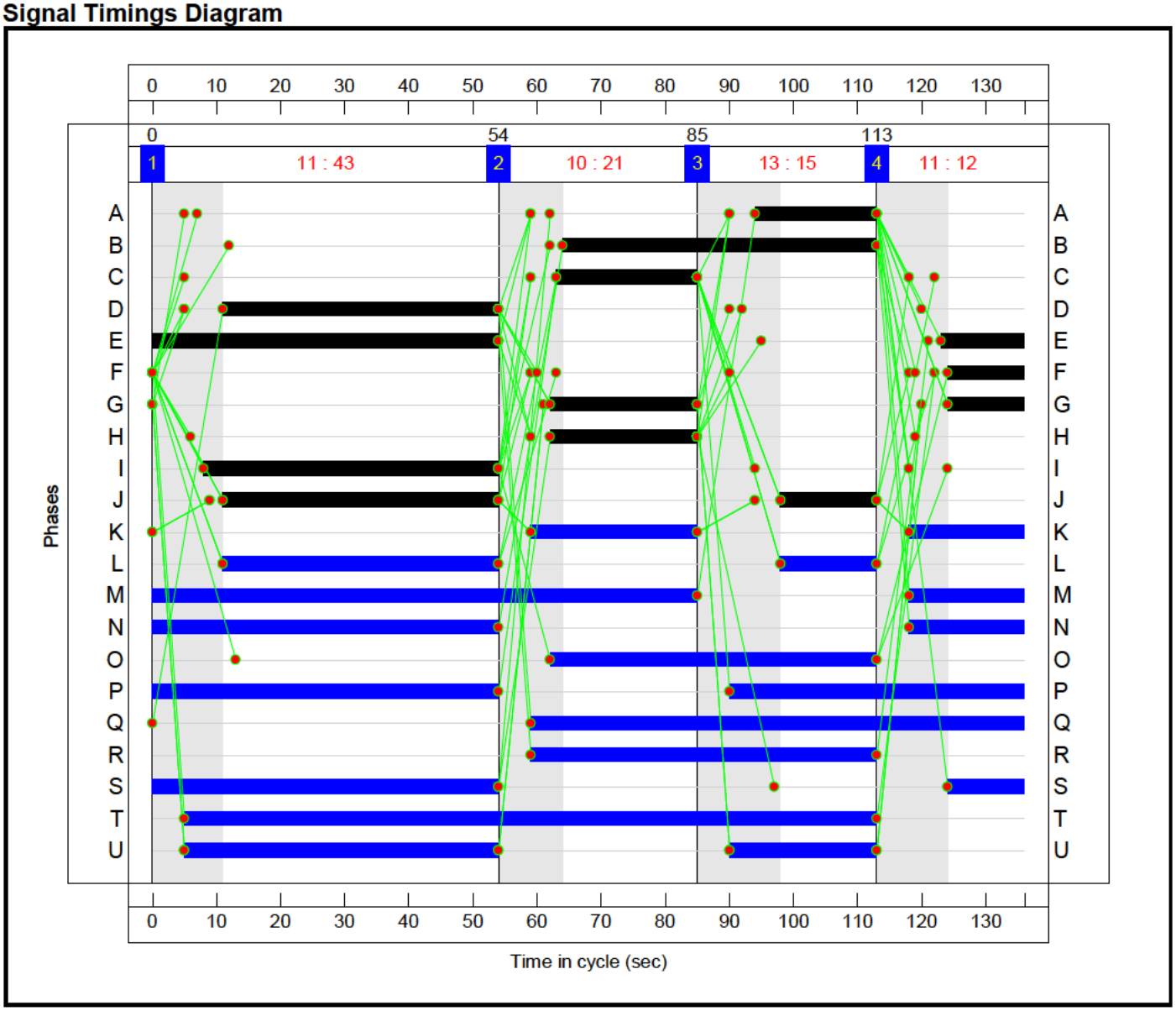
Stage Timings

Stage	1	2	3	4
Duration	43	21	15	12
Change Point	0	54	85	113

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	The Boulevard Ahead Right	Traffic	19	94	113			
B	The Boulevard Left	Traffic	49	64	113			
C	A2070 Bad Munstereifel Road WB Right	Traffic	22	63	85			
D	A2070 Bad Munstereifel Road WB Ahead	Traffic	43	11	54			
E	A2070 Bad Munstereifel Road WB Left	Traffic	67	123	54			
F	Waterbrook Avenue Right Ahead	Traffic	12	124	0			
G	Waterbrook Avenue Left	Traffic	23	62	85	12	124	0
H	A2070 Bad Munstereifel Road EB Right	Traffic	23	62	85			
I	A2070 Bad Munstereifel Road EB Ahead	Traffic	46	8	54			
J	A2070 Bad Munstereifel Road EB Left	Traffic	43	11	54	15	98	113
K	Pedestrians across A2070 EB Left	Pedestrian	26	59	85	18	118	0
L	Pedestrians across Boulevard exit	Pedestrian	43	11	54	15	98	113
M	Pedestrians across Boulevard Ahead Right	Pedestrian	103	118	85			
N	Pedestrians across Boulevard Left	Pedestrian	72	118	54			
O	Pedestrians across A2070 EB exit	Pedestrian	51	62	113			
P	Pedestrians across A2070 WB Right	Pedestrian	100	90	54			
Q	Pedestrians across A2070 WB Ahead	Pedestrian	77	59	0			
R	Pedestrians across A2070 WB Left	Pedestrian	54	59	113			
S	Pedestrians across Waterbrook Ave Exit	Pedestrian	66	124	54			
T	Pedestrians across Waterbrook Ave Ahead Right	Pedestrian	108	5	113			
U	Pedestrians across Waterbrook Ave Left	Pedestrian	49	5	54	23	90	113

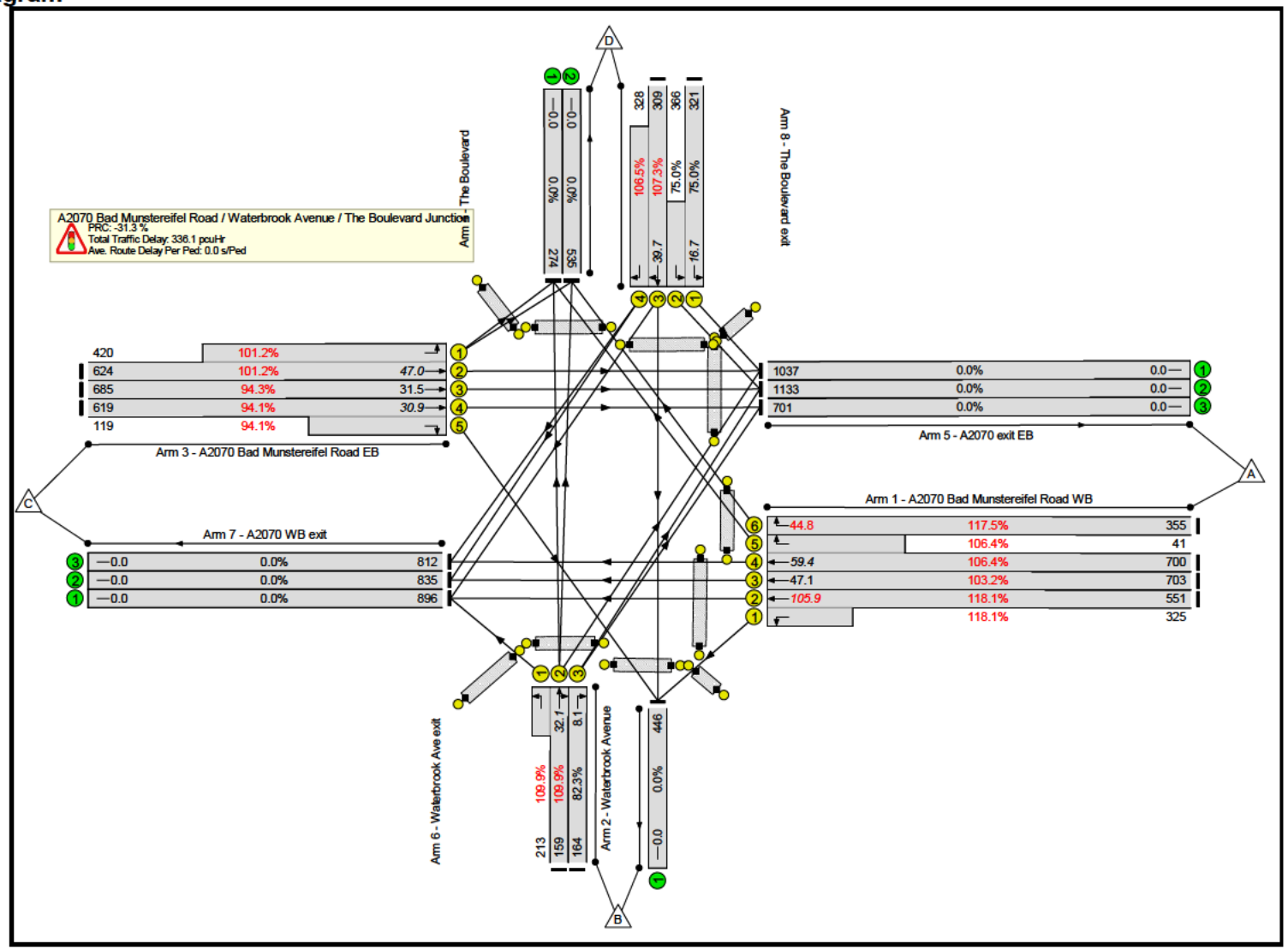
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 Bad Munstereifel Road WB Left	U	E	123	54
1/2	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/3	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/4	A2070 Bad Munstereifel Road WB Ahead	U	D	11	54
1/5	A2070 Bad Munstereifel Road WB Right	U	C	63	85
1/6	A2070 Bad Munstereifel Road WB Right	U	C	63	85
2/1	Waterbrook Avenue Left	U	G	62 124	85 0
2/2	Waterbrook Avenue Right Ahead	U	F	124	0
2/3	Waterbrook Avenue Right	U	F	124	0
3/1	A2070 Bad Munstereifel Road EB Left	U	J	11 98	54 113
3/2	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/3	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/4	A2070 Bad Munstereifel Road EB Ahead	U	I	8	54
3/5	A2070 Bad Munstereifel Road EB Right	U	H	62	85
4/1	The Boulevard Left	U	B	64	113
4/2	The Boulevard Left	U	B	64	113
4/3	The Boulevard Ahead Right	U	A	94	113
4/4	The Boulevard Right	U	A	94	113

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**118.1%**
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**118.1%**
1/2+1/1	A2070 Bad Munstereifel Road WB Left Ahead	U	N/A	N/A	D E		1	43:67	-	-	876	1949:1981	466+275	118.1 : 118.1%
1/3	A2070 Bad Munstereifel Road WB Ahead	U	N/A	N/A	D		1	43	-	-	703	2106	681	103.2%
1/4+1/5	A2070 Bad Munstereifel Road WB Ahead Right	U	N/A	N/A	D C		1	43:22	-	-	741	2108:1819	658+39	106.4 : 106.4%
1/6	A2070 Bad Munstereifel Road WB Right	U	N/A	N/A	C		1	22	-	-	355	1787	302	117.5%
2/2+2/1	Waterbrook Avenue Right Left Ahead	U	N/A	N/A	F G		1:2	12:35	-	-	372	1981:2115	145+194	109.9 : 109.9%
2/3	Waterbrook Avenue Right	U	N/A	N/A	F		1	12	-	-	164	2085	199	82.3%
3/2+3/1	A2070 Bad Munstereifel Road EB Ahead Left	U	N/A	N/A	I J		1:2	46:58	-	-	1044	1961:2025	617+415	101.2 : 101.2%
3/3	A2070 Bad Munstereifel Road EB Ahead	U	N/A	N/A	I		1	46	-	-	685	2101	726	94.3%

3/4+3/5	A2070 Bad Munstereifel Road EB Ahead Right	U	N/A	N/A	I H		1	46:23	-	-	738	2114:2022	658+127	94.1 : 94.1%
4/1+4/2	The Boulevard Left	U	N/A	N/A	B		1	49	-	-	687	1967:2100	428+488	75.0 : 75.0%
4/3+4/4	The Boulevard Ahead Right	U	N/A	N/A	A		1	19	-	-	637	1958:2094	288+308	107.3 : 106.5%
5/1	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1054	Inf	Inf	0.0%
5/2	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	1133	Inf	Inf	0.0%
5/3	A2070 exit EB	U	N/A	N/A	-		-	-	-	-	701	Inf	Inf	0.0%
6/1	Waterbrook Ave exit	U	N/A	N/A	-		-	-	-	-	500	Inf	Inf	0.0%
7/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	1017	Inf	Inf	0.0%
7/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	867	Inf	Inf	0.0%
7/3	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	864	Inf	Inf	0.0%
8/1	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	276	Inf	Inf	0.0%
8/2	The Boulevard exit	U	N/A	N/A	-		-	-	-	-	590	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	U		2	72	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	T		1	108	-	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	S		1	66	-	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	R		1	54	-	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	Q		1	77	-	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	P		1	100	-	-	0	-	0	0.0%
Ped Link: P7	Unnamed Ped Link	-	N/A	-	O		1	51	-	-	0	-	0	0.0%
Ped Link: P8	Unnamed Ped Link	-	N/A	-	N		1	72	-	-	0	-	0	0.0%

Ped Link: P9	Unnamed Ped Link	-	N/A	-	M		1	103	-	-	0	-	0	0.0%
Ped Link: P10	Unnamed Ped Link	-	N/A	-	L		2	58	-	-	0	-	0	0.0%
Ped Link: P11	Unnamed Ped Link	-	N/A	-	K		2	44	-	-	0	-	0	0.0%

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: A2070 Bad Munstereifel Road / The Boulevard / Waterbrook Ave	-	-	**0**	**0**	**0**	**104.5**	**231.6**	**0.0**	**336.1**	-	-	-	-	
A2070 Bad Munstereifel Road / Waterbrook Avenue / The Boulevard Junction	-	-	**0**	**0**	**0**	**104.5**	**231.6**	**0.0**	**336.1**	-	-	-	-	
1/2+1/1	876	742	-	-	-	18.8	70.4	-	89.1	366.3	35.5	70.4	105.9	
1/3	703	681	-	-	-	10.4	19.7	-	30.1	154.4	27.4	19.7	47.1	
1/4+1/5	741	699	-	-	-	12.2	28.8	-	41.0	199.0	30.7	28.8	59.4	
1/6	355	302	-	-	-	8.4	29.4	-	37.9	383.9	15.4	29.4	44.8	
2/2+2/1	372	338	-	-	-	6.4	21.2	-	27.6	267.2	10.9	21.2	32.1	
2/3	164	164	-	-	-	2.8	2.1	-	4.8	106.0	6.1	2.1	8.1	
3/2+3/1	1044	1037	-	-	-	9.7	19.5	-	29.2	100.7	27.5	19.5	47.0	
3/3	685	685	-	-	-	8.2	6.4	-	14.6	76.7	25.1	6.4	31.5	
3/4+3/5	738	738	-	-	-	8.8	6.2	-	15.1	73.6	24.7	6.2	30.9	
4/1+4/2	687	687	-	-	-	6.5	1.5	-	7.9	41.6	15.2	1.5	16.7	
4/3+4/4	637	596	-	-	-	12.2	26.6	-	38.7	218.8	13.1	26.6	39.7	
5/1	1037	1037	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	1133	1133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/3	701	701	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	446	446	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	896	896	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/3	812	812	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

8/2	535	535	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P7	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P8	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P9	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P10	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P11	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -31.3 Total Delay for Signalled Lanes (pcuHr): 336.10 Cycle Time (s): 136
PRC Over All Lanes (%): -31.3 Total Delay Over All Lanes(pcuHr): 336.10

Q. Junctions 11 Output – Junction 2

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.0.0.2177
© Copyright TRL Software Limited, 2024

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: J2) A2070_Church Rd.j11
Path: H:\Projects\WIE20982\110\01_Deliverables\01_WIP\CA\4) Models\J2
Report generation date: 25/03/2025 17:07:53

»2024 | Base | AM
»2024 | Base | PM
»2024 | Base+Sev | AM
»2024 | Base+Sev | PM
»2026 | Base | AM
»2026 | Base | PM
»2026 | Base+Sev | AM
»2026 | Base+Sev | PM
»2036 | Base | AM
»2036 | Base | PM
»2036 | Base+Sev | AM
»2036 | Base+Sev | PM
»2036 | Base+Sev 4 | AM
»2036 | Base+Sev 4 | PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2024 - Base					
Stream B-AC	0.1	9.03	0.07	0.1	9.76	0.06
Stream C-AB	0.0	8.72	0.03	0.1	9.80	0.06
	2024 - Base+Sev					
Stream B-AC	0.1	9.43	0.10	0.1	10.39	0.12
Stream C-AB	0.1	8.98	0.05	0.1	10.08	0.08
	2026 - Base					
Stream B-AC	0.1	9.23	0.07	0.1	10.05	0.07
Stream C-AB	0.0	8.93	0.04	0.1	10.09	0.07
	2026 - Base+Sev					
Stream B-AC	0.1	9.68	0.11	0.1	10.71	0.12
Stream C-AB	0.1	9.19	0.06	0.1	10.39	0.09
	2036 - Base					
Stream B-AC	0.2	17.55	0.13	0.1	16.69	0.11
Stream C-AB	0.1	16.56	0.07	0.1	16.92	0.11
	2036 - Base+Sev					
Stream B-AC	0.3	19.25	0.20	0.3	18.58	0.20
Stream C-AB	0.1	17.45	0.11	0.2	17.78	0.14
	2036 - Base+Sev 4					
Stream B-AC	0.3	20.22	0.24	0.4	21.10	0.29
Stream C-AB	0.1	17.97	0.13	0.2	18.85	0.18

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

File summary

File Description

Title	A2070 Bad Munstereifel Road / Church Road Junction
Location	
Site number	
Date	08/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	WIE20982 Sevington IBF
Enumerator	WATERLOO\CSMS4
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024	Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2024	Base	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓
D4	2024	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓
D5	2026	Base	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026	Base	PM	ONE HOUR	16:15	17:45	15	✓
D7	2026	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓
D11	2036	Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2036	Base	PM	ONE HOUR	16:15	17:45	15	✓
D13	2036	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓
D14	2036	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓
D15	2036	Base+Sev 4	AM	ONE HOUR	07:30	09:00	15	✓
D16	2036	Base+Sev 4	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.09	A

Arms

Arms

Arm	Name	Description	Arm type
A	A2070 Bad Munstereifel Road (NE)		Major
B	Church Road (leading to Sevington Staff Access)		Minor
C	A2070 Bad Munstereifel Road (SW)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	15.00	✓	9.00	✓	3.50	210.0	✓	13.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	35	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	776	0.072	0.181	0.114	0.258
B-C	824	0.077	0.194	-	-
C-B	794	0.187	0.187	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024	Base	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1780	100.000
B		ONE HOUR	✓	27	100.000
C		ONE HOUR	✓	2335	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	29	1751
	B	0	0	27
	C	2322	13	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	9.03	0.1	A	25	37
C-AB	0.03	8.72	0.0	A	12	18
C-A					2131	3196
A-B					27	40
A-C					1607	2410

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	567	0.036	20	0.0	0.0	6.900	A
C-AB	10	2	0.00	543	0.018	10	0.0	0.0	6.748	A
C-A	1748	437	0.00			1748				
A-B	22	5	0.00			22				
A-C	1318	330	0.00			1318				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	516	0.047	24	0.0	0.1	7.661	A
C-AB	12	3	0.00	494	0.024	12	0.0	0.0	7.455	A
C-A	2087	522	0.00			2087				
A-B	26	7	0.00			26				
A-C	1574	394	0.00			1574				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	447	0.066	30	0.1	0.1	9.028	A
C-AB	14	4	0.00	427	0.034	14	0.0	0.0	8.718	A
C-A	2557	639	0.00			2557				
A-B	32	8	0.00			32				
A-C	1928	482	0.00			1928				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	447	0.066	30	0.1	0.1	9.031	A
C-AB	14	4	0.00	427	0.034	14	0.0	0.0	8.719	A
C-A	2557	639	0.00			2557				
A-B	32	8	0.00			32				
A-C	1928	482	0.00			1928				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	516	0.047	24	0.1	0.1	7.663	A
C-AB	12	3	0.00	494	0.024	12	0.0	0.0	7.459	A
C-A	2087	522	0.00			2087				
A-B	26	7	0.00			26				
A-C	1574	394	0.00			1574				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	567	0.036	20	0.1	0.0	6.907	A
C-AB	10	2	0.00	543	0.018	10	0.0	0.0	6.749	A
C-A	1748	437	0.00			1748				
A-B	22	5	0.00			22				
A-C	1318	330	0.00			1318				

2024 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.11	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024	Base	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1952	100.000
B		ONE HOUR	✓	23	100.000
C		ONE HOUR	✓	1894	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	1915
	B	0	0	23
	C	1872	22	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	9.76	0.1	A	21	32
C-AB	0.06	9.80	0.1	A	20	30
C-A					1718	2577
A-B					34	51
A-C					1757	2636

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	542	0.032	17	0.0	0.0	7.183	A
C-AB	17	4	0.00	519	0.032	16	0.0	0.0	7.162	A
C-A	1409	352	0.00			1409				
A-B	28	7	0.00			28				
A-C	1442	360	0.00			1442				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	5	0.00	487	0.042	21	0.0	0.0	8.080	A
C-AB	20	5	0.00	466	0.042	20	0.0	0.0	8.074	A
C-A	1683	421	0.00			1683				
A-B	33	8	0.00			33				
A-C	1722	430	0.00			1722				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	0.00	412	0.062	25	0.0	0.1	9.761	A
C-AB	24	6	0.00	392	0.062	24	0.0	0.1	9.792	A
C-A	2061	515	0.00			2061				
A-B	41	10	0.00			41				
A-C	2108	527	0.00			2108				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	0.00	412	0.062	25	0.1	0.1	9.765	A
C-AB	24	6	0.00	392	0.062	24	0.1	0.1	9.795	A
C-A	2061	515	0.00			2061				
A-B	41	10	0.00			41				
A-C	2108	527	0.00			2108				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	5	0.00	487	0.042	21	0.1	0.0	8.085	A
C-AB	20	5	0.00	466	0.042	20	0.1	0.0	8.080	A
C-A	1683	421	0.00			1683				
A-B	33	8	0.00			33				
A-C	1722	430	0.00			1722				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	542	0.032	17	0.0	0.0	7.189	A
C-AB	17	4	0.00	519	0.032	17	0.0	0.0	7.166	A
C-A	1409	352	0.00			1409				
A-B	28	7	0.00			28				
A-C	1442	360	0.00			1442				

2024 | Base+Sev | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.14	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.14	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1795	100.000
B		ONE HOUR	✓	42	100.000
C		ONE HOUR	✓	2346	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	44	1751
	B	0	0	42
	C	2325	21	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	9.43	0.1	A	39	58
C-AB	0.05	8.98	0.1	A	19	29
C-A					2133	3200
A-B					40	61
A-C					1607	2410

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	566	0.056	31	0.0	0.1	7.055	A
C-AB	16	4	0.00	541	0.029	16	0.0	0.0	6.850	A
C-A	1750	438	0.00			1750				
A-B	33	8	0.00			33				
A-C	1318	330	0.00			1318				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	0.00	515	0.073	38	0.1	0.1	7.893	A
C-AB	19	5	0.00	492	0.038	19	0.0	0.0	7.608	A
C-A	2090	523	0.00			2090				
A-B	40	10	0.00			40				
A-C	1574	394	0.00			1574				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	12	0.00	446	0.104	46	0.1	0.1	9.430	A
C-AB	23	6	0.00	424	0.055	23	0.0	0.1	8.976	A
C-A	2560	640	0.00			2560				
A-B	48	12	0.00			48				
A-C	1928	482	0.00			1928				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	12	0.00	446	0.104	46	0.1	0.1	9.433	A
C-AB	23	6	0.00	424	0.055	23	0.1	0.1	8.978	A
C-A	2560	640	0.00			2560				
A-B	48	12	0.00			48				
A-C	1928	482	0.00			1928				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	0.00	515	0.073	38	0.1	0.1	7.901	A
C-AB	19	5	0.00	492	0.038	19	0.1	0.0	7.614	A
C-A	2090	523	0.00			2090				
A-B	40	10	0.00			40				
A-C	1574	394	0.00			1574				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	566	0.056	32	0.1	0.1	7.065	A
C-AB	16	4	0.00	541	0.029	16	0.0	0.0	6.854	A
C-A	1750	438	0.00			1750				
A-B	33	8	0.00			33				
A-C	1318	330	0.00			1318				

2024 | Base+Sev | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.19	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1965	100.000
B		ONE HOUR	✓	43	100.000
C		ONE HOUR	✓	1904	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	50	1915
	B	0	0	43
	C	1875	29	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.12	10.39	0.1	B	39	59
C-AB	0.08	10.08	0.1	B	27	40
C-A					1721	2581
A-B					46	69
A-C					1757	2636

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	541	0.060	32	0.0	0.1	7.403	A
C-AB	22	5	0.00	517	0.042	22	0.0	0.0	7.265	A
C-A	1412	353	0.00			1412				
A-B	38	9	0.00			38				
A-C	1442	360	0.00			1442				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	0.00	486	0.079	39	0.1	0.1	8.419	A
C-AB	26	7	0.00	463	0.056	26	0.0	0.1	8.231	A
C-A	1686	421	0.00			1686				
A-B	45	11	0.00			45				
A-C	1722	430	0.00			1722				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	0.00	410	0.115	47	0.1	0.1	10.376	B
C-AB	32	8	0.00	389	0.082	32	0.1	0.1	10.074	B
C-A	2064	516	0.00			2064				
A-B	55	14	0.00			55				
A-C	2108	527	0.00			2108				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	0.00	410	0.115	47	0.1	0.1	10.387	B
C-AB	32	8	0.00	389	0.082	32	0.1	0.1	10.080	B
C-A	2064	516	0.00			2064				
A-B	55	14	0.00			55				
A-C	2108	527	0.00			2108				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	0.00	486	0.079	39	0.1	0.1	8.431	A
C-AB	26	7	0.00	463	0.056	26	0.1	0.1	8.238	A
C-A	1686	421	0.00			1686				
A-B	45	11	0.00			45				
A-C	1722	430	0.00			1722				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	541	0.060	32	0.1	0.1	7.414	A
C-AB	22	5	0.00	517	0.042	22	0.1	0.0	7.272	A
C-A	1412	353	0.00			1412				
A-B	38	9	0.00			38				
A-C	1442	360	0.00			1442				

2026 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.09	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026	Base	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1823	100.000
B		ONE HOUR	✓	27	100.000
C		ONE HOUR	✓	2392	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	29	1794
	B	0	0	27
	C	2378	14	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	9.23	0.1	A	25	37
C-AB	0.04	8.93	0.0	A	13	19
C-A					2182	3273
A-B					27	40
A-C					1646	2469

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	560	0.036	20	0.0	0.0	6.981	A
C-AB	11	3	0.00	537	0.020	10	0.0	0.0	6.836	A
C-A	1790	448	0.00			1790				
A-B	22	5	0.00			22				
A-C	1351	338	0.00			1351				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	509	0.048	24	0.0	0.1	7.779	A
C-AB	13	3	0.00	487	0.026	13	0.0	0.0	7.583	A
C-A	2138	534	0.00			2138				
A-B	26	7	0.00			26				
A-C	1613	403	0.00			1613				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	438	0.068	30	0.1	0.1	9.231	A
C-AB	15	4	0.00	418	0.037	15	0.0	0.0	8.933	A
C-A	2618	655	0.00			2618				
A-B	32	8	0.00			32				
A-C	1975	494	0.00			1975				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	438	0.068	30	0.1	0.1	9.235	A
C-AB	15	4	0.00	418	0.037	15	0.0	0.0	8.935	A
C-A	2618	655	0.00			2618				
A-B	32	8	0.00			32				
A-C	1975	494	0.00			1975				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	509	0.048	24	0.1	0.1	7.784	A
C-AB	13	3	0.00	487	0.026	13	0.0	0.0	7.585	A
C-A	2138	534	0.00			2138				
A-B	26	7	0.00			26				
A-C	1613	403	0.00			1613				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	560	0.036	20	0.1	0.0	6.988	A
C-AB	11	3	0.00	537	0.020	11	0.0	0.0	6.839	A
C-A	1790	448	0.00			1790				
A-B	22	5	0.00			22				
A-C	1351	338	0.00			1351				

2026 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.12	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026	Base	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1999	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	1940	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	38	1961
	B	0	0	24
	C	1917	23	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	10.05	0.1	B	22	33
C-AB	0.07	10.09	0.1	B	21	32
C-A					1759	2639
A-B					35	52
A-C					1799	2699

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	0.00	535	0.034	18	0.0	0.0	7.287	A
C-AB	17	4	0.00	512	0.034	17	0.0	0.0	7.269	A
C-A	1443	361	0.00			1443				
A-B	29	7	0.00			29				
A-C	1476	369	0.00			1476				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	479	0.045	22	0.0	0.0	8.239	A
C-AB	21	5	0.00	458	0.045	21	0.0	0.0	8.237	A
C-A	1723	431	0.00			1723				
A-B	34	9	0.00			34				
A-C	1763	441	0.00			1763				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	402	0.066	26	0.0	0.1	10.048	B
C-AB	25	6	0.00	382	0.066	25	0.0	0.1	10.088	B
C-A	2111	528	0.00			2111				
A-B	42	10	0.00			42				
A-C	2159	540	0.00			2159				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	402	0.066	26	0.1	0.1	10.052	B
C-AB	25	6	0.00	382	0.066	25	0.1	0.1	10.092	B
C-A	2111	528	0.00			2111				
A-B	42	10	0.00			42				
A-C	2159	540	0.00			2159				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	479	0.045	22	0.1	0.0	8.246	A
C-AB	21	5	0.00	458	0.045	21	0.1	0.0	8.243	A
C-A	1723	431	0.00			1723				
A-B	34	9	0.00			34				
A-C	1763	441	0.00			1763				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	0.00	535	0.034	18	0.0	0.0	7.292	A
C-AB	17	4	0.00	512	0.034	17	0.0	0.0	7.273	A
C-A	1443	361	0.00			1443				
A-B	29	7	0.00			29				
A-C	1476	369	0.00			1476				

2026 | Base+Sev | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.14	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.14	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1839	100.000
B		ONE HOUR	✓	43	100.000
C		ONE HOUR	✓	2402	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	45	1794
	B	0	0	43
	C	2381	21	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	9.68	0.1	A	39	59
C-AB	0.06	9.19	0.1	A	19	29
C-A					2185	3277
A-B					41	62
A-C					1646	2469

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	559	0.058	32	0.0	0.1	7.150	A
C-AB	16	4	0.00	535	0.030	16	0.0	0.0	6.932	A
C-A	1793	448	0.00			1793				
A-B	34	8	0.00			34				
A-C	1351	338	0.00			1351				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	0.00	508	0.076	39	0.1	0.1	8.036	A
C-AB	19	5	0.00	485	0.039	19	0.0	0.0	7.730	A
C-A	2140	535	0.00			2140				
A-B	40	10	0.00			40				
A-C	1613	403	0.00			1613				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	0.00	437	0.108	47	0.1	0.1	9.677	A
C-AB	23	6	0.00	415	0.056	23	0.0	0.1	9.185	A
C-A	2622	655	0.00			2622				
A-B	50	12	0.00			50				
A-C	1975	494	0.00			1975				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	0.00	437	0.108	47	0.1	0.1	9.685	A
C-AB	23	6	0.00	415	0.056	23	0.1	0.1	9.186	A
C-A	2622	655	0.00			2622				
A-B	50	12	0.00			50				
A-C	1975	494	0.00			1975				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	0.00	508	0.076	39	0.1	0.1	8.042	A
C-AB	19	5	0.00	485	0.039	19	0.1	0.0	7.734	A
C-A	2140	535	0.00			2140				
A-B	40	10	0.00			40				
A-C	1613	403	0.00			1613				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	559	0.058	32	0.1	0.1	7.158	A
C-AB	16	4	0.00	535	0.030	16	0.0	0.0	6.938	A
C-A	1793	448	0.00			1793				
A-B	34	8	0.00			34				
A-C	1351	338	0.00			1351				

2026 | Base+Sev | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.20	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2012	100.000
B		ONE HOUR	✓	44	100.000
C		ONE HOUR	✓	1950	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	51	1961
	B	0	0	44
	C	1920	30	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.12	10.71	0.1	B	40	61
C-AB	0.09	10.39	0.1	B	28	41
C-A					1762	2643
A-B					47	70
A-C					1799	2699

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	0.00	535	0.062	33	0.0	0.1	7.514	A
C-AB	23	6	0.00	510	0.044	22	0.0	0.0	7.375	A
C-A	1445	361	0.00			1445				
A-B	38	10	0.00			38				
A-C	1476	369	0.00			1476				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	478	0.083	39	0.1	0.1	8.592	A
C-AB	27	7	0.00	455	0.059	27	0.0	0.1	8.400	A
C-A	1726	432	0.00			1726				
A-B	46	11	0.00			46				
A-C	1763	441	0.00			1763				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	0.00	400	0.121	48	0.1	0.1	10.702	B
C-AB	33	8	0.00	379	0.087	33	0.1	0.1	10.388	B
C-A	2114	528	0.00			2114				
A-B	56	14	0.00			56				
A-C	2159	540	0.00			2159				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	0.00	400	0.121	48	0.1	0.1	10.712	B
C-AB	33	8	0.00	379	0.087	33	0.1	0.1	10.394	B
C-A	2114	528	0.00			2114				
A-B	56	14	0.00			56				
A-C	2159	540	0.00			2159				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	478	0.083	40	0.1	0.1	8.605	A
C-AB	27	7	0.00	455	0.059	27	0.1	0.1	8.406	A
C-A	1726	432	0.00			1726				
A-B	46	11	0.00			46				
A-C	1763	441	0.00			1763				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	0.00	535	0.062	33	0.1	0.1	7.523	A
C-AB	23	6	0.00	510	0.044	23	0.1	0.0	7.380	A
C-A	1445	361	0.00			1445				
A-B	38	10	0.00			38				
A-C	1476	369	0.00			1476				

2036 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.13	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2036	Base	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2718	100.000
B		ONE HOUR	✓	29	100.000
C		ONE HOUR	✓	3119	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	31	2687
	B	0	0	29
	C	3104	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	17.55	0.2	C	27	40
C-AB	0.07	16.56	0.1	C	14	21
C-A					2848	4272
A-B					28	43
A-C					2466	3698

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	429	0.051	22	0.0	0.1	9.242	A
C-AB	11	3	0.00	411	0.027	11	0.0	0.0	9.003	A
C-A	2337	584	0.00			2337				
A-B	23	6	0.00			23				
A-C	2023	506	0.00			2023				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	353	0.074	26	0.1	0.1	11.535	B
C-AB	13	3	0.00	337	0.040	13	0.0	0.0	11.137	B
C-A	2790	698	0.00			2790				
A-B	28	7	0.00			28				
A-C	2416	604	0.00			2416				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	247	0.129	32	0.1	0.2	17.505	C
C-AB	17	4	0.00	234	0.071	16	0.0	0.1	16.545	C
C-A	3418	854	0.00			3418				
A-B	34	9	0.00			34				
A-C	2958	740	0.00			2958				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	247	0.129	32	0.2	0.2	17.548	C
C-AB	17	4	0.00	234	0.071	17	0.1	0.1	16.564	C
C-A	3418	854	0.00			3418				
A-B	34	9	0.00			34				
A-C	2958	740	0.00			2958				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	353	0.074	26	0.2	0.1	11.563	B
C-AB	13	3	0.00	337	0.040	14	0.1	0.0	11.148	B
C-A	2790	698	0.00			2790				
A-B	28	7	0.00			28				
A-C	2416	604	0.00			2416				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	429	0.051	22	0.1	0.1	9.258	A
C-AB	11	3	0.00	411	0.027	11	0.0	0.0	9.011	A
C-A	2337	584	0.00			2337				
A-B	23	6	0.00			23				
A-C	2023	506	0.00			2023				

2036 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.15	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2036	Base	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2692	100.000
B		ONE HOUR	✓	25	100.000
C		ONE HOUR	✓	2819	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	40	2652
	B	0	0	25
	C	2795	24	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	16.69	0.1	C	23	34
C-AB	0.11	16.92	0.1	C	22	33
C-A					2565	3847
A-B					37	55
A-C					2434	3650

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	5	0.00	434	0.043	19	0.0	0.0	9.074	A
C-AB	18	5	0.00	415	0.044	18	0.0	0.0	9.070	A
C-A	2104	526	0.00			2104				
A-B	30	8	0.00			30				
A-C	1997	499	0.00			1997				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	358	0.063	22	0.0	0.1	11.225	B
C-AB	22	5	0.00	341	0.063	21	0.0	0.1	11.265	B
C-A	2513	628	0.00			2513				
A-B	36	9	0.00			36				
A-C	2384	596	0.00			2384				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	254	0.109	27	0.1	0.1	16.653	C
C-AB	26	7	0.00	239	0.110	26	0.1	0.1	16.884	C
C-A	3077	769	0.00			3077				
A-B	44	11	0.00			44				
A-C	2920	730	0.00			2920				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	254	0.109	28	0.1	0.1	16.685	C
C-AB	26	7	0.00	239	0.110	26	0.1	0.1	16.918	C
C-A	3077	769	0.00			3077				
A-B	44	11	0.00			44				
A-C	2920	730	0.00			2920				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	358	0.063	23	0.1	0.1	11.244	B
C-AB	22	5	0.00	341	0.063	22	0.1	0.1	11.286	B
C-A	2513	628	0.00			2513				
A-B	36	9	0.00			36				
A-C	2384	596	0.00			2384				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	5	0.00	434	0.043	19	0.1	0.0	9.087	A
C-AB	18	5	0.00	415	0.044	18	0.1	0.0	9.081	A
C-A	2104	526	0.00			2104				
A-B	30	8	0.00			30				
A-C	1997	499	0.00			1997				

2036 | Base+Sev | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.21	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2036	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2734	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	3129	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	47	2687
	B	0	0	45
	C	3107	22	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.20	19.25	0.3	C	41	62
C-AB	0.11	17.45	0.1	C	20	30
C-A					2851	4277
A-B					43	65
A-C					2466	3698

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	0.00	429	0.079	34	0.0	0.1	9.538	A
C-AB	17	4	0.00	409	0.041	16	0.0	0.0	9.172	A
C-A	2339	585	0.00			2339				
A-B	35	9	0.00			35				
A-C	2023	506	0.00			2023				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	352	0.115	40	0.1	0.1	12.100	B
C-AB	20	5	0.00	334	0.059	20	0.0	0.1	11.453	B
C-A	2793	698	0.00			2793				
A-B	42	11	0.00			42				
A-C	2416	604	0.00			2416				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	0.00	245	0.202	49	0.1	0.3	19.153	C
C-AB	24	6	0.00	231	0.105	24	0.1	0.1	17.413	C
C-A	3421	855	0.00			3421				
A-B	52	13	0.00			52				
A-C	2958	740	0.00			2958				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	0.00	245	0.202	50	0.3	0.3	19.245	C
C-AB	24	6	0.00	231	0.105	24	0.1	0.1	17.448	C
C-A	3421	855	0.00			3421				
A-B	52	13	0.00			52				
A-C	2958	740	0.00			2958				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	352	0.115	41	0.3	0.1	12.154	B
C-AB	20	5	0.00	334	0.059	20	0.1	0.1	11.475	B
C-A	2793	698	0.00			2793				
A-B	42	11	0.00			42				
A-C	2416	604	0.00			2416				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	0.00	429	0.079	34	0.1	0.1	9.566	A
C-AB	17	4	0.00	409	0.041	17	0.1	0.0	9.183	A
C-A	2339	585	0.00			2339				
A-B	35	9	0.00			35				
A-C	2023	506	0.00			2023				

2036 | Base+Sev | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.25	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.25	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2036	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2705	100.000
B		ONE HOUR	✓	45	100.000
C		ONE HOUR	✓	2829	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	53	2652
	B	0	0	45
	C	2798	31	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.20	18.58	0.3	C	41	62
C-AB	0.14	17.78	0.2	C	28	43
C-A					2567	3851
A-B					49	73
A-C					2434	3650

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	0.00	433	0.078	34	0.0	0.1	9.426	A
C-AB	23	6	0.00	413	0.057	23	0.0	0.1	9.232	A
C-A	2106	527	0.00			2106				
A-B	40	10	0.00			40				
A-C	1997	499	0.00			1997				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	357	0.113	40	0.1	0.1	11.886	B
C-AB	28	7	0.00	339	0.082	28	0.1	0.1	11.569	B
C-A	2515	629	0.00			2515				
A-B	48	12	0.00			48				
A-C	2384	596	0.00			2384				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	0.00	252	0.196	49	0.1	0.2	18.501	C
C-AB	34	9	0.00	237	0.144	34	0.1	0.2	17.734	C
C-A	3081	770	0.00			3081				
A-B	58	15	0.00			58				
A-C	2920	730	0.00			2920				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	0.00	252	0.196	50	0.2	0.3	18.583	C
C-AB	34	9	0.00	237	0.144	34	0.2	0.2	17.785	C
C-A	3081	770	0.00			3081				
A-B	58	15	0.00			58				
A-C	2920	730	0.00			2920				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	357	0.113	41	0.3	0.1	11.932	B
C-AB	28	7	0.00	339	0.082	28	0.2	0.1	11.599	B
C-A	2515	629	0.00			2515				
A-B	48	12	0.00			48				
A-C	2384	596	0.00			2384				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	0.00	433	0.078	34	0.1	0.1	9.449	A
C-AB	23	6	0.00	413	0.057	23	0.1	0.1	9.250	A
C-A	2106	527	0.00			2106				
A-B	40	10	0.00			40				
A-C	1997	499	0.00			1997				

2036 | Base+Sev 4 | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.26	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2036	Base+Sev 4	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2742	100.000
B		ONE HOUR	✓	53	100.000
C		ONE HOUR	✓	3135	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	55	2687
	B	0	0	53
	C	3109	26	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.24	20.22	0.3	C	49	73
C-AB	0.13	17.97	0.1	C	24	36
C-A					2853	4279
A-B					50	76
A-C					2466	3698

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	428	0.093	39	0.0	0.1	9.694	A
C-AB	20	5	0.00	408	0.048	19	0.0	0.0	9.268	A
C-A	2341	585	0.00			2341				
A-B	41	10	0.00			41				
A-C	2023	506	0.00			2023				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	0.00	351	0.136	47	0.1	0.2	12.408	B
C-AB	23	6	0.00	333	0.070	23	0.0	0.1	11.634	B
C-A	2795	699	0.00			2795				
A-B	49	12	0.00			49				
A-C	2416	604	0.00			2416				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	15	0.00	245	0.238	58	0.2	0.3	20.094	C
C-AB	29	7	0.00	229	0.125	28	0.1	0.1	17.929	C
C-A	3423	856	0.00			3423				
A-B	61	15	0.00			61				
A-C	2958	740	0.00			2958				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	15	0.00	245	0.238	58	0.3	0.3	20.222	C
C-AB	29	7	0.00	229	0.125	29	0.1	0.1	17.973	C
C-A	3423	856	0.00			3423				
A-B	61	15	0.00			61				
A-C	2958	740	0.00			2958				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	0.00	351	0.136	48	0.3	0.2	12.478	B
C-AB	23	6	0.00	333	0.070	24	0.1	0.1	11.660	B
C-A	2795	699	0.00			2795				
A-B	49	12	0.00			49				
A-C	2416	604	0.00			2416				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	428	0.093	40	0.2	0.1	9.728	A
C-AB	20	5	0.00	408	0.048	20	0.1	0.1	9.284	A
C-A	2341	585	0.00			2341				
A-B	41	10	0.00			41				
A-C	2023	506	0.00			2023				

2036 | Base+Sev 4 | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.38	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2036	Base+Sev 4	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	2718	100.000
B		ONE HOUR	✓	66	100.000
C		ONE HOUR	✓	2840	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	66	2652
	B	0	0	66
	C	2801	39	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	7
	B	0	0	5
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.29	21.10	0.4	C	61	91
C-AB	0.18	18.85	0.2	C	36	54
C-A					2570	3855
A-B					61	91
A-C					2434	3650

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	0.00	433	0.115	49	0.0	0.1	9.822	A
C-AB	29	7	0.00	411	0.071	29	0.0	0.1	9.412	A
C-A	2109	527	0.00			2109				
A-B	50	12	0.00			50				
A-C	1997	499	0.00			1997				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	0.00	357	0.166	59	0.1	0.2	12.668	B
C-AB	35	9	0.00	337	0.104	35	0.1	0.1	11.925	B
C-A	2518	630	0.00			2518				
A-B	59	15	0.00			59				
A-C	2384	596	0.00			2384				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	18	0.00	251	0.289	72	0.2	0.4	20.916	C
C-AB	43	11	0.00	234	0.184	43	0.1	0.2	18.776	C
C-A	3084	771	0.00			3084				
A-B	73	18	0.00			73				
A-C	2920	730	0.00			2920				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	18	0.00	251	0.289	73	0.4	0.4	21.096	C
C-AB	43	11	0.00	234	0.184	43	0.2	0.2	18.853	C
C-A	3084	771	0.00			3084				
A-B	73	18	0.00			73				
A-C	2920	730	0.00			2920				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	0.00	357	0.166	60	0.4	0.2	12.762	B
C-AB	35	9	0.00	337	0.104	35	0.2	0.1	11.971	B
C-A	2518	630	0.00			2518				
A-B	59	15	0.00			59				
A-C	2384	596	0.00			2384				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	0.00	433	0.115	50	0.2	0.1	9.864	A
C-AB	29	7	0.00	411	0.071	30	0.1	0.1	9.441	A
C-A	2109	527	0.00			2109				
A-B	50	12	0.00			50				
A-C	1997	499	0.00			1997				

R. LinSig Output & Signal Controller Data – Junction 3

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Administration

General Specifications

Customer Name	Vinci JV / Highways England	Customer Order No.	
Intersection/ General Description	A2070 / Barrey Road	Controller/ Serial Number	
		S.T.S. /EM Number	TCT336 Issue 1
Controller	(•) New ( ) Modification	Equipment Installation by	Telent
Area Specifications/ Customer Drawings	HE514442-JAC-HGN-A2070-DR-EC	Slot Cutting by	Telent
Specification Section		Civil Works by	
Contract/Tender Ref:		Customer's Engineer	Kevin Bennett (Jacobs)
Quotation No.		Telephone Number	020-7939-6141
Works Order No.			

Signal Company Use Only

Signal Engineer: D.A.Lawrence (TCT)

(IF PROM Label as >) PROM Number: 0 PROM Variant: 0

Configuration Check Value: 88 E9 0 BE

Controller Options

Hardware: ST950 ELV | Firmware Type and Issue: 46059 ISS 11 | 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	7 Amps	Dimming Voltage	27.5	Answer Issue	0	Date Created	04/07/2019
Average Lamp Power	249 Watts						
Total Average Power	349 Watts	Low Inrush Transformer	☐	Edit Issue	1		

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Phases, Stages and Streams

Phases, Stages and Streams

Add/Delete/Insert Streams:

Streams

(•) Current Number of Streams: 1

Phases

( ) Current Total Number of Phases: 5

(•) Number of Real Phases: 5

( ) Number of Dummy Phases: 0

Stages

( ) Current Number of stages (inc. ALL-RED stages): 4

Switched Signs

( ) Number of Switched Signs: 0

Action

[Add At] [Delete At]

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Facilities/Modes Enabled and Mode Priority Levels

Facilities

UTC
- [x] Serial/Internal UTMC OTU
- [ ] Free-standing OTU
- [ ]
- [ ]

- [x] Master Time Clock
- [ ] Holiday Clock
- [x] FT To Current MAX
- [ ] Linked Fixed Time

- [x] Lamp Monitoring
- [x] RED Lamp Monitoring
- [x] Pelican/Puffin/Toucan
- [ ] Standalone Manual

- [ ] Extend All Red
- [ ] Speed Measurement
- [ ] Ripple Change
- [ ]

- [ ] Non-UK
- [ ] Fail to Part Time
- [ ] Fail To Hardware Flashing
- [ ]
- [ ] Download To Level 3

12 Starting Intergreen

Mode Priority

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

Configuration Complexity

○ Low ○ Medium ○ High ◉ Maximum

standard46059.8df
Default PROM data file

Correspondence Monitoring to inc.

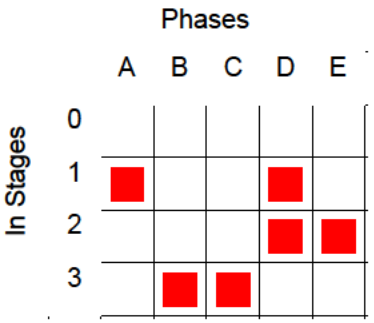
- [x] Reds
- [ ] Switched Signs
- [x] Ambers
- [ ] Ignore Reds and Ambers during

Flash Rate (ms)

400 Off 400 On

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Phases in Stages



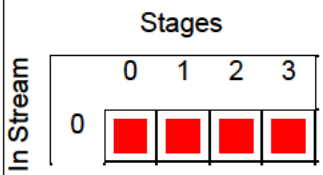
Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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							
Startup Stage	1							
Switch Off Stage	1							
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.



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Phase Type and Conditions

Phase Type and Conditions

(●) Phases A to P ( ) Manual Output Allocation [✓] Improved GA Appearance [ ]

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs "R"	"A"	"G"
A	A2070 Eastbound Ahead + Left Turn	0 - UK Traffic	0	0 - I		1	1	1
B	A2070 Westbound Right Turn	0 - UK Traffic	0	0 - I		1	1	1
C	Barrey Road Left Turn	0 - UK Traffic	0	0 - I		1	1	1
D	Toucan Xing Barrey Road Exit	3 - UK Near Side Pedestrian	0	0 - I		1	1	2
E	Toucan Xing Barrey Road Entry	3 - UK Near Side Pedestrian	0	0 - I		1	1	2

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 ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Opposing and Conflicting Phases

Select Stream(s) To Configure

○ All ○ 0 ○ ○ ○ ○ ○ ○ ○ ○

Initialise

☑ Amber Conflict Monitoring

To Phase

From Phase

	A	B	C	D	E
A		Co	Co	o	Co
B	Co		o	o	Co
C	Co	o		Co	o
D	o	o	Co		o
E	Co	Co	o	o	

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	55	50	60	60	65	60	65	65	☐
B	7	0	0.0	14	14	16	16	18	16	20	20	☐
C	7	0	0.0	20	20	20	20	20	20	20	20	☐
D	5	3	0.0	0	0	0	0	0	0	0	0	☐
E	5	3	0.0	0	0	0	0	0	0	0	0	☐

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Phase Intergreen Times

Select Stream(s) To Configure

○ All ○ 0 ○ ○ ○ ○ ○ ○ ○ ○

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
A		5	8		9
B	5				10
C	5			5	
D			5		
E	5	5			

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Intergreen Handset Limits

HIGH 20

Copy Intergreen Values

To Phase

From Phase	A	B	C	D	E
A		5	8		9
B	5				10
C	5			5	
D			5		
E	5	5			

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	12	Q		
B	7	12	R		
C	7	12	S		
D	5	7	T		
E	5	7	U		
F			V		
G			W		
H			X		
I			Y		
J			Z		
K			A2		
L			B2		
M			C2		
N			D2		
O			E2		
P			F2		

Max. Green Min. 0 Max. 255

Vehicle Extension Min. 0.0 Max. 10.0

Phase Delay Min. 0 Max. 10

Starting I/G Min. 4 Max. 12

Min Pedestrian Clearance (PBT) Min. 1 Max. 5

Traffic Phase Leaving Min. 3.0 Max. 3.0

Traffic Phase Red/Amber Min. 2 Max. 2

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

VA Demand and Extend Definitions

VA Demand and Extend Definitions

(●) Phases A to P ( )

Demands

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

Phase				
A	AX3	AX4		
B	BX6	BSL7		
C	CX9	CSL10		
D	PEDD1	PEDD2	PEDD3	
E	PEDE12	PEDE13	PEDE14	

Extensions

AX3	AX4		
BX6	BSL7		
CX9	CSL10		

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehicle Responsive Demands

A	B	C	D	E												
☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demands Inserted When Leaving Manual and Fixed Time Modes

A	B	C	D	E												
☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Unlatched Demands that Start Max Timers

A	B	C	D	E												
☑	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Revertive Phase Demands

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

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	DOCD1	DOCD2						
E	EOCD12	EOCD13			EKSD12	EKSD13		

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	Handset Range Limits Min	Handset Range Limits 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

	Handset Range Limits Min	Handset Range Limits 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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	5	0	0	0
E	0	1.0	7	0	0	0

Pedestrian Handset Range Limits

	MIN	MAX
Demand Delay PDD	0	0
Demand Hold PDX	1.0	5.0
Clearance Maximum CMX	0	30
Clearance Delays CDY 0 and CDY1	0	3
Clearance Minimum Red CRD	0	0

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

	Phase	Demand	KBS
0	E	PEDE12	EKSD12
1	E	PEDE13	EKSD13
2	E	PEDE14	EKSD13
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

	Phase	Demand	KBS
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

	Phase	Demand	KBS
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			

	Phase	Demand	KBS
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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Stage Internal Demands/Pedestrian Window Times

Stage Internal Demands/Pedestrian Window Times

Start-up Vehicle Responsive Demands

0	1	2	3													
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Demands Inserted When Leaving Manual and Fixed Time Modes

0	1	2	3													
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Unlatched Demands that Start Maximum Timers

0	1	2	3													
☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Window Times

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	3	3	1				
Time	0	55	0	20				

Current Stage	8	9	10	11	12	13	14	15
Next Stage								
Time								

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	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

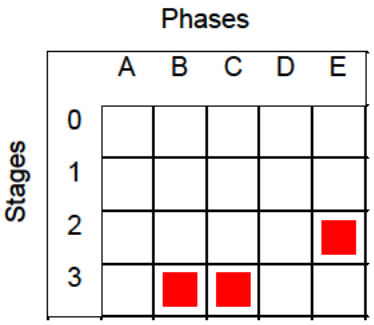
	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Demand	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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.



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

UTC General Data

UTC General Data

Type of UTC

(•) 106 ( ) 316

Integral OTU Address

2 Number of Control Words

2 Number of Reply Words

☐ Controller to respond to TC bit.

☐ Introduction of UTC to be disabled by Priority and LR

Non UTC RTC synchronisation input name

RTC Synchronisation Times

Clock Synchronise Time (UTC TS input)

Day	Time
Time Only	05:00:00

Clock Confirm Time (UTC RT output)

Day	Time
Saturday	00:00:00

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	F1	#F2	#F3	DX	D2	D3		
Word 2		TS		MO				
Word 3								
Word 4								

Reply Words

	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
Word 1	G1	G2	G3	DF	SD2	SD3	LF1	LF2
Word 2	CF	CC	HC1	MR	ML	MF	DO	RR
Word 3								
Word 4								
Word 5								
Word 6								
Word 7								
Word 8								
Word 9								
Word 10								
Word 11								
Word 12								
Word 13								
Word 14								

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	DX			
B	DX	D3		
C	DX	D3		
D	DX			
E	DX	D2		

Extensions

DX			
DX	D3		
DX	D3		

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	F1	G1		17			
2	#F2	G2	SD2	18			
3	#F3	G3	SD3	19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				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 ☐

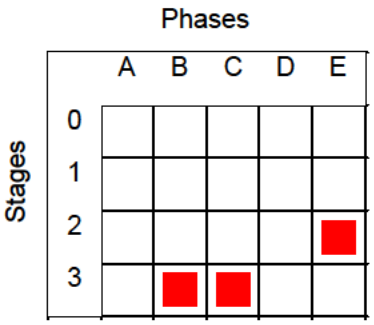
If UTC Reply Confirms are required for a Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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.



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	MOVA0F3	MOVA0CON3	19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		

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

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☐ Combined

Set Selection

○ UTC ◉ MOVA 0 ○ MOVA 1 ○ MOVA 2 ○ MOVA 3

1	AIN1	2	AIN2	3	AX3	4	AX4	5	BIN5	6	BX6	7	BSL7	8	CIN8
9	CX9	10	CSL10	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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

MTC - Time Switch Parameters

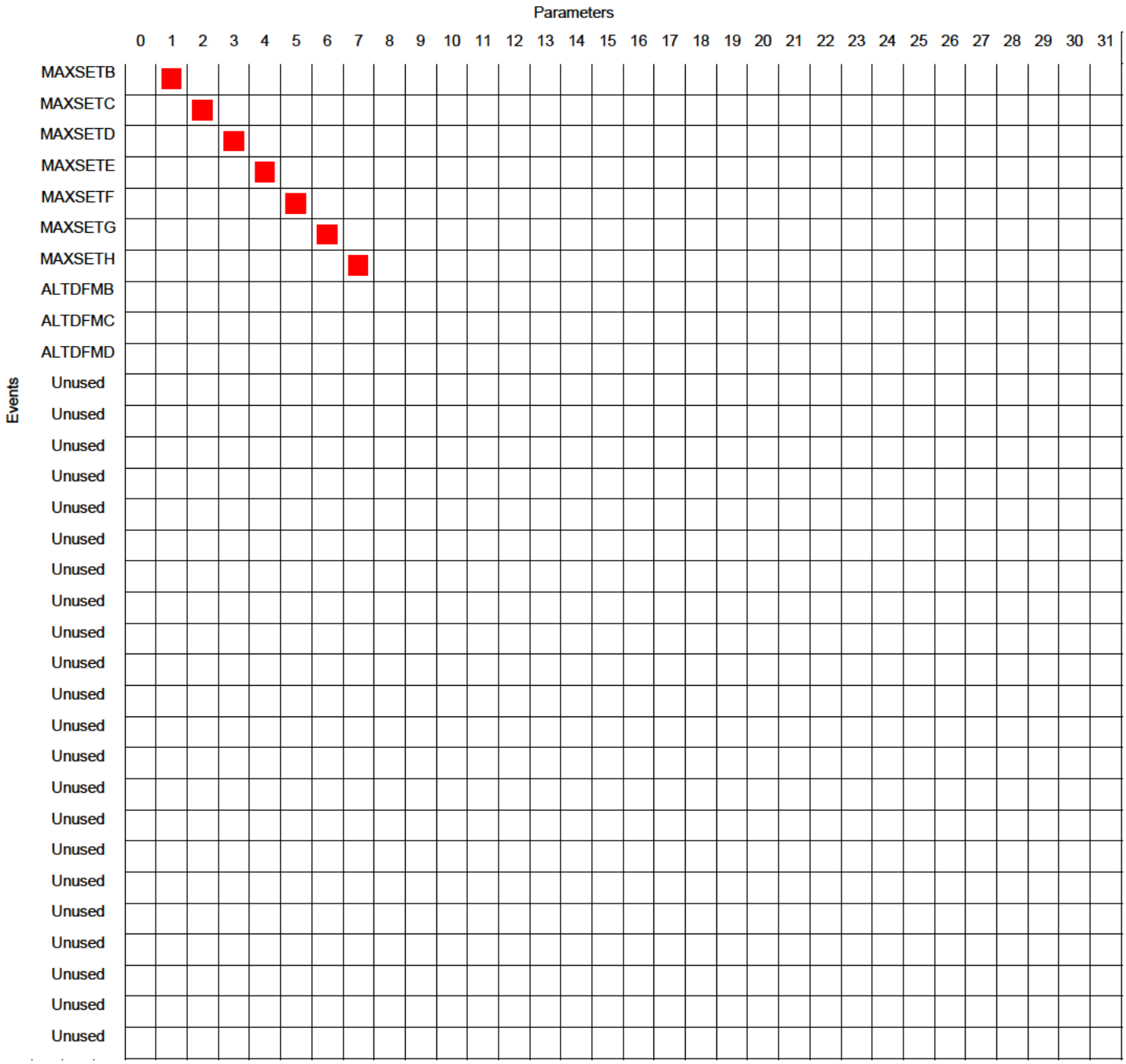
MTC - Time Switch Parameters

	Type	Event
0	Alternate Max	MAXSETB
1	Alternate Max	MAXSETC
2	Alternate Max	MAXSETD
3	Alternate Max	MAXSETE
4	Alternate Max	MAXSETF
5	Alternate Max	MAXSETG
6	Alternate Max	MAXSETH
7	Alternate DFM	ALTDFMB
8	Alternate DFM	ALTDFMC
9	Alternate DFM	ALTDFMD
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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

MTC - Time Switch Parameters Array



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	08:00:00	Introduce Maxset B	2	1
1	9	09:00:00	Introduce Maxset A	2	0
2	10	16:00:00	Introduce Maxset C	2	2
3	9	18:00:00	Introduce Maxset A	2	0
4	6	16:00:00	Introduce Maxset D	2	3
5	0	08:00:00	Introduce Maxset E	2	4
6	0	16:00:00	Introduce Maxset F	2	5
7	1	08:00:00	Introduce Maxset G	2	6
8	1	16:00:00	Introduce Maxset H	2	7
9	0			0	0
10	0			0	0
11	0			0	0
12	0			0	0
13	0			0	0
14	0			0	0
15	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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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 ☐ ☐ ☐ ☐ ☐ ☐ ☐

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Integral LMU Onboard Sensors

Integral LMU Onboard Sensors

No. of LSLS cards fitted	HPU Connection
1	1

Sensor Configuration For LSLS 1 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
A	Red	1	As Seq.	E	Green	N/A	
A	Amber	1	As Seq.	N/A	N/A		
A	Green	1	As Seq.	N/A	N/A		
B	Red	2	As Seq.	N/A	N/A		
B	Amber	2	As Seq.	N/A	N/A		
B	Green	2	As Seq.	N/A	N/A		
C	Red	3	As Seq.	N/A	N/A		
C	Amber	3	As Seq.	N/A	N/A		
C	Green	3	As Seq.	N/A	N/A		
D	Red	4	R,G	N/A	N/A		
D	Amber	5	Wait	N/A	N/A		
D	Green	4	R,G	N/A	N/A		
D	Green	N/A		N/A	N/A		
E	Red	6	R,G	N/A	N/A		
E	Amber	7	Wait	N/A	N/A		
E	Green	6	R,G	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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Integral LMU External Sensors for Regulatory Signs

Integral LMU External Sensors 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

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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

LMU Sensor Load Types

LMU Sensor Load Types

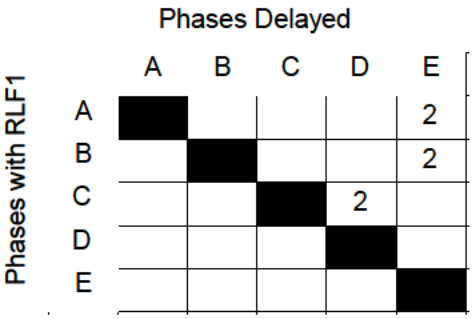
Screen Select

1 of 1

Sensor	Phase	Sensor Type	LED R+W	Load Type	LLF Profile
1	A	As Seq.	Auto	1: Siemens Helios ELV	
2	B	As Seq.	Auto	1: Siemens Helios ELV	
3	C	As Seq.	Auto	1: Siemens Helios ELV	
4	D	R,G	Auto	8: Siemens Low Power Near Side (33655)	
5	D	Wait	Auto	2: Siemens LED Demand Indicator	
6	E	R,G	Auto	8: Siemens Low Power Near Side (33655)	
7	E	Wait	Auto	2: Siemens LED Demand Indicator	
93	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
94	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
95	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
96	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

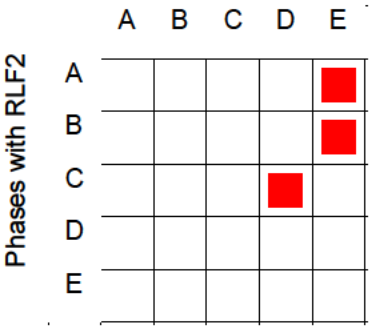
RLM Additional Intergreens



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

RLM Phase Inhibits

Phases Inhibited/Blacked-Out



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Hurry Call

Hurry Call

Hurry Call	Stage Called	Call Input Name	Cancel Input Name	Confirm Output Name	Delay Time	Hold Time	Prevent Time
0	3	*SCRT0	*SCRT1		0	25	120
1					0	0	0
2					0	0	0
3					0	0	0
4					0	0	0
5					0	0	0
6					0	0	0
7					0	0	0

Hurry Call Limit Values

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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							
1	A2070 Eastbound and Toucan Xing Barrey Road Exit	1							
2	Both Toucan Xings	2							
3	A2070 Westbound Right Turn and Barrey Road Left Turn	3							
4									
5									
6									
7									

General LEDs

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

General Buttons

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

Manual Signals On

- ○ Immediate Signals On
- ◉ As Start-Up

Manual Mode Enable

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

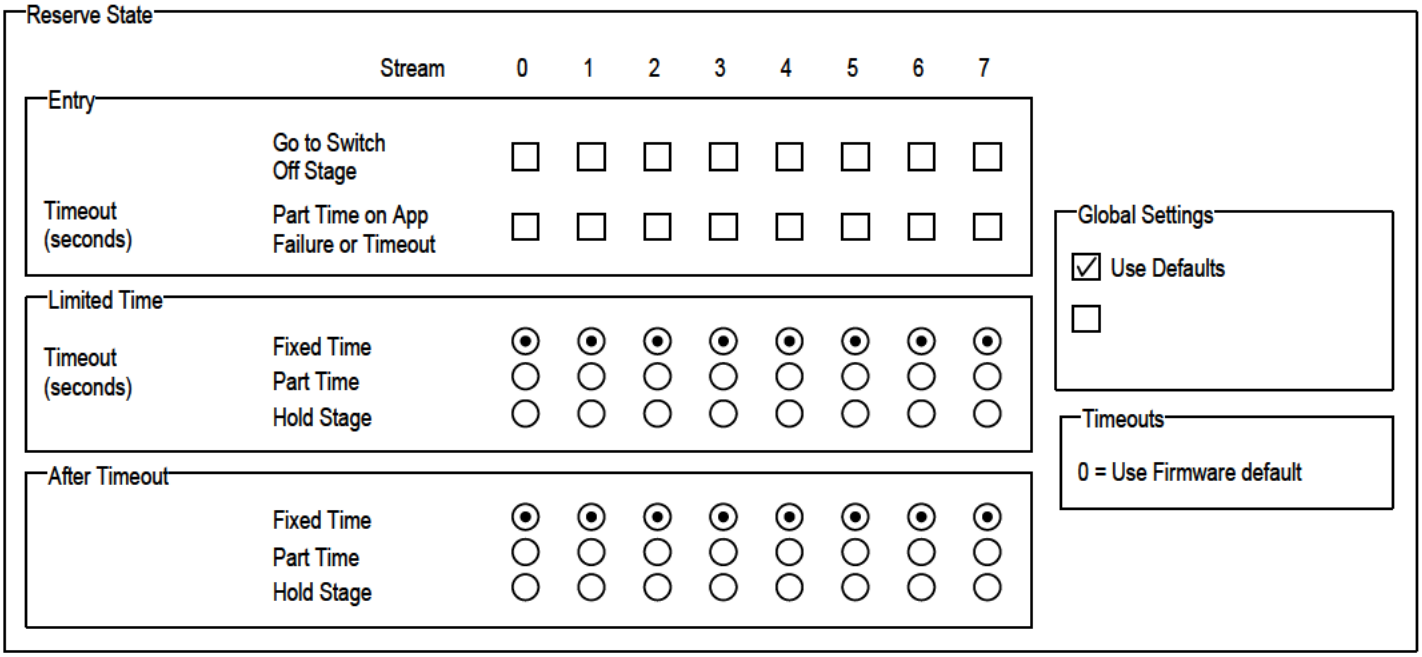
NOTE:
For this to operate Special Conditioning is required.

Mode Select Switches Disabled

☐ VA ☐ Fixed Time ☐ CLF

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Reserve State



Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Special Conditioning

```
; SCRATCHPAD USAGE
; ================

; SCRT0 = Hurry call 0 request
; SCRT1 = Hurry call 0 cancel

; SCRT2/ROUGH2 = drives call/cancel unit 0


; UTC CONTROL/REPLY BITS
; ======================

NOT(FLF55)=LF1          ; Any lamp failure (incl. regs) replies LF1.
NOT(LMP2RED0)=LF2       ; 2nd red lamp failure replies LF2.
NOT(FLFCOM)=CF          ; Any fault log entry except 12, 18, 22, 55 replies CF.
NOT(MODE0 EQL<5>)=HC1   ; Hurry call mode running replies HC1.
DOORSW=DO               ; Door open replies DO.

; ************************************************************
; ** To ensure the MO bit conditioning works correctly the   **
; ** UTC transmit confirm bit (TC) must be mapped to ESPRX0. **
; ** In the following CFE63=1 can be used to mimic TC bit    **
; ** and CFF63=1 can be used to mimic the MO bit.            **
; ************************************************************

IFT NOT(ESPRX0+CFE63) THN   ; If ESPRX0 and CFE63 are inactive
   RUN<0>                   ; hold delay timer reset.
END                         ; This is to delay actioning the MO bit when comms is first active.

((ESPRX0+CFE63).NOT(CNDTMA0)).NOT(MO+CFF63)=DISMOVA0   ; MO control bit enables stream 0 MOVA when UTC online.

NOT(MO)=MR                  ; MO control bit active sets MR reply.
NOT(MODE0 EQL<16>)=ML       ; MOVA mode running sets ML reply.
NOT(MOVA0MF)=MF             ; MOVA error count higher than 20 sets MF reply.


; QUICK START MINIMUMS
; ====================

IFT (MODE0 EQL<8>) THN   ; Start-up mode
   RUN<1>                ; holds timer reset.
END

CNDTMA1=CLCONT                          ; Timer active disables CLF mode.

(MODE0 EQL<2>).CNDTMA1:=+UCST1          ; Timer active demands stages 1 and 3.
                       *=+UCST3

NOT((MODE0 EQL<2>).CNDTMA1):::::=.EXOA  ; Timer active disables extensions for phases A to C.
                                *=.EXCA
                                *=.EXOB
                                *=.EXCB
                                *=.EXOC
                                *=.EXCC


; PED MOVA DETECTORS
; ==================

VRDMNDD=MOVA0DET11   ; A demand for ped phase D sets MOVA detector 11.
VRDMNDE=MOVA0DET12   ; A demand for ped phase E sets MOVA detector 12.
```

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Special Conditioning

```
; BIN5 QUEUE
; ==========

BIN5.NOT(BIN5_dfm)=SCRT2           ; BIN5 active and not in DFM drives c/c unit 0.
NOT(BIN5.NOT(BIN5_dfm))=ROUGH2

CCTO0=MOVA0DET13                   ; BIN5 active after c/c delays sets MOVA detector 13.

CCTO0.(MODE0 EQL<2>).SSNRM=SCRT0   ; BIN5 active after c/c delays in normal VA requests HC0.

; Not in normal or running CLF/UTC/STU/MOVA mode cancels HC0.

(NTNORM+(MODE0 EQL<3>)+(MODE0 EQL<6>)+(MODE0 EQL<8>)+(MODE0 EQL<16>))=SCRT1


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

IFT (MODE0 EQL<16>) THN     ; If running MOVA mode
   TRUE=MIL17               ; light the HP led.
ELS
   IFT (MODE0 EQL<6>) THN   ; Else if running UTC mode
      INC 1SCRTCH31         ; flash the HP led.
      1SCRT249=MIL17
   ELS
      FALSE=MIL17
   END
END
```

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Special Conditioning Timers

Special Conditioning Timers

Timers

0-31

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0	5	0	255	☐	ESPRX0 delay	16		0	255	☐	
1	60	0	255	☐	Quick start minimums duration	17		0	255	☐	
2		0	255	☐		18		0	255	☐	
3		0	255	☐		19		0	255	☐	
4		0	255	☐		20		0	255	☐	
5		0	255	☐		21		0	255	☐	
6		0	255	☐		22		0	255	☐	
7		0	255	☐		23		0	255	☐	
8		0	255	☐		24		0	255	☐	
9		0	255	☐		25		0	255	☐	
10		0	255	☐		26		0	255	☐	
11		0	255	☐		27		0	255	☐	
12		0	255	☐		28		0	255	☐	
13		0	255	☐		29		0	255	☐	
14		0	255	☐		30		0	255	☐	
15		0	255	☐		31		0	255	☐	

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Fault Log Flags

Fault Log Flags

Fault No	Cond Flag	Act Flag
0	☑	☐
1	☑	☐
2	☑	☐
3	☑	☐
4	☑	☐
5	☑	☐
6	☑	☐
7	☑	☐
8	☑	☐
9	☑	☐
10	☑	☐
11	☑	☐
12	☐	☐
13	☑	☐
14	☑	☐
15	☑	☐

Fault No	Cond Flag	Act Flag
16	☑	☐
17	☑	☐
18	☐	☐
19	☑	☐
20	☑	☐
21	☑	☐
22	☐	☐
23	☑	☐
24	☑	☐
25	☑	☐
26	☑	☐
27	☑	☐
28	☑	☐
29	☑	☐
30	☑	☐
31	☑	☐

Fault No	Cond Flag	Act Flag
32	☑	☐
33	☑	☐
34	☑	☐
35	☑	☐
36	☑	☐
37	☑	☐
38	☑	☐
39	☑	☐
40	☑	☐
41	☑	☐
42	☑	☐
43	☑	☐
44	☑	☐
45	☑	☐
46	☑	☐
47	☑	☐

Fault No	Cond Flag	Act Flag
48	☑	☐
49	☑	☐
50	☑	☐
51	☑	☐
52	☑	☐
53	☑	☐
54	☑	☐
55	☐	☐
56	☑	☐
57	☑	☐
58	☑	☐
59	☑	☐
60	☑	☐
61	☑	☐
62	☑	☐
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 Con ☐

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Special Instructions

TCT336

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
Serial IO 24/16	1 I/O1	02	2	I	016 - 023	1 I/O1
Serial IO 24/16	1 I/O1	02	3	I	024 - 031	1 I/O1
Serial IO 24/16	1 I/O1	02	4	I	032 - 039	1 I/O1
Serial IO 24/16	1 I/O1	02	5	O	040 - 047	1 I/O1
Serial IO 24/16	1 I/O1	02	6	O	048 - 055	1 I/O1
CPU	A					

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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			
10	667/1/32960/001	ELV Lamp switch (LSLS) backplane kit			
11	667/1/46085/002	I/O card kit (4 outputs)			
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	1		
19	667/1/33002/000	ELV detector 6U rack expansion kit			
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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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 :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Special Instructions

INTEGRAL OTU SET-UP
==========
For the UTC MO control bit to function correctly the UTC transmit confirm bit (TC) must be mapped to conditioning flag ESPRX0.

CFE63=1 can be set to mimic the presence of the TC bit for testing purposes.
CFF63=1 can be set to mimic the presence of the MO control bit for testing purposes.

TACTILE DRIVES
==========
Note that all ped phases have an unmonitored green output on the LSLS card and this output should be used for driving the tactiles.

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Call Cancel

Call Cancel

Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
0	*SCRT2	3	3	
1		0	0	
2		0	0	
3		0	0	
4		0	0	
5		0	0	
6		0	0	
7		0	0	

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	0	0	I	AIN1	☑	☑	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A1
○	1	1	I	AIN2	☑	☑	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A2
○	2	2	I	AX3	☑	☑	☐	☐	☐	A	0	6.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A3
○	3	3	I	AX4	☑	☑	☐	☐	☐	A	0	6.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A4
○	4	4	I	BIN5	☑	☑	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B1
○	5	5	I	BX6	☑	☑	☐	☐	☐	A	0	6.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B2
○	6	6	I	BSL7	☑	☑	☐	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B3
○	7	7	I	SPARE7	☐	☑	☐		☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B4

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
○	8	0	I	CIN8	☑	☑	☐	☐	☐	A	0	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C1
○	9	1	I	CX9	☑	☑	☐	☐	☐	A	0	4.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C2
○	10	2	I	CSL10	☑	☑	☐	☐	☐	A	0	2.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C3
○	11	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C4
○	12	4	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D1
○	13	5	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D2
○	14	6	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D3
○	15	7	I		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D4

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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

Serial IO 24/16
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	16	0	I	PEDD1	☑	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-0
○	17	1	I	PEDD2	☑	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-1
○	18	2	I	PEDD3	☑	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-2
○	19	3	I	DOCD1	☑	☐	☐	☐	☐	A	1	2.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-3
○	20	4	I	DOCD2	☑	☐	☐	☐	☐	A	1	2.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-4
○	21	5	I	PEDE12	☑	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-5
○	22	6	I	PEDE13	☑	☐	☐	☐	☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-6
○	23	7	I	PEDE14	☑	☐	☐		☐	A	1	0.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-7

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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

Serial IO 24/16
Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Used By Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
○	24	0	I	EKSD12	☑	☐	☐	☐	☐	A	2	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-8
○	25	1	I	EKSD13	☑	☐	☐	☐	☐	A	2	1.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-9
○	26	2	I	EOCD12	☑	☐	☐	☐	☐	A	1	2.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-10
○	27	3	I	EOCD13	☑	☐	☐	☐	☐	A	1	2.0	☑	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-11
○	28	4	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-12
○	29	5	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-13
○	30	6	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-14
○	31	7	I		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-15

Add | Delete | Move | Clear Used By | Move to/from backplane

Manual Map Optimisation

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection 1

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

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

Works Order :
EM Number : TCT336
Engineer : D.A.Lawrence (TCT)
Intersection : A2070 / Barrey Road

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)	30	30	30	30
	InActive (Hrs)	72	72	72	72
Group 2	Active (Mins)	30	30	30	30
	InActive (Hrs)	96	96	96	96
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

Index

1 General Junction Data
- 1.1 Administration
- 1.2 Phases, Stages and Streams
- 1.3 Facilities/Modes Enabled and Mode Priority Levels
- 1.4 Phases in Stages
- 1.5 Stages in Streams

2 Phases
- 2.1 Phase Type and Conditions
- 2.2 Opposing and Conflicting Phases
- 2.3 Timings
  - 2.3.1 Phase Minimums, Maximums, Extensions, Ped Leaving Periods
  - 2.3.2 Phase Intergreen Times
  - 2.3.3 Intergreen Handset Limits
  - 2.3.4 Phase Timing Handset Ranges
- 2.4 VA Demand and Extend Definitions
- 2.5 Phase Internal/Revertive Demands
- 2.6 Pelicans, Puffins and Toucans
  - 2.6.1 Phase - On Crossing and Kerbside Detector Definitions
  - 2.6.2 Stream - Pelican/Puffin/Toucan Times
  - 2.6.3 Phase - Pelican, Puffin and Toucan Times
  - 2.6.4 IO and Link - Pelican/Puffin/Toucan Times
  - 2.6.5 Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

3 Stage Movements
- 3.1 Stages - Prohibited, Alternative, Ignored Moves (No configuration data to print)
- 3.2 Stage Internal Demands/Pedestrian Window Times
- 3.3 Phase Delays (No configuration data to print)
- 3.4 Intergreen Delays (No configuration data to print)

4 Modes and Facilities - Detailed
- 4.1 Fixed Time
- 4.2 Cableless Linking
  - 4.2.1 CLF - Plan(s) (No configuration data to print)
  - 4.2.2 CLF - Demand Dependent Moves
- 4.3 UTC and MOVA
  - 4.3.1 UTC General Data
  - 4.3.2 UTC Control and Reply Data Format
  - 4.3.3 UTC Data Definitions
    - 4.3.3.1 UTC Phase Demand and Extend Definitions
    - 4.3.3.2 UTC Stage and Mode Data Definitions
    - 4.3.3.3 UTC Demand Dependent Forces
  - 4.3.4 MOVA Stages
  - 4.3.5 UTC and MOVA Detectors
- 4.4 Master Time Clock
  - 4.4.1 MTC - Time Switch Parameters
  - 4.4.2 MTC - Time Switch Parameters Array
  - 4.4.3 MTC - Day Type
  - 4.4.4 MTC - Timetable
- 4.5 Integral Lamp Monitoring
  - 4.5.1 LMU - General
  - 4.5.2 Integral LMU Onboard Sensors
  - 4.5.3 Integral LMU External Sensors for Regulatory Signs
  - 4.5.4 LMU Sensor Load Types
  - 4.5.5 RLM Additional Intergreens
  - 4.5.6 RLM Phase Inhibits
- 4.6 Hurry Call
- 4.7 Manual
  - 4.7.1 Manual Panel
  - 4.7.2 Manual Mode - Optional Phases Appearance (No configuration data to print)
- 4.8 Reserve State

5 Conditioning Data
- 5.1 Special Conditioning
- 5.2 Special Conditioning Timers
- 5.3 Fault Log Flags

6 Special Instructions

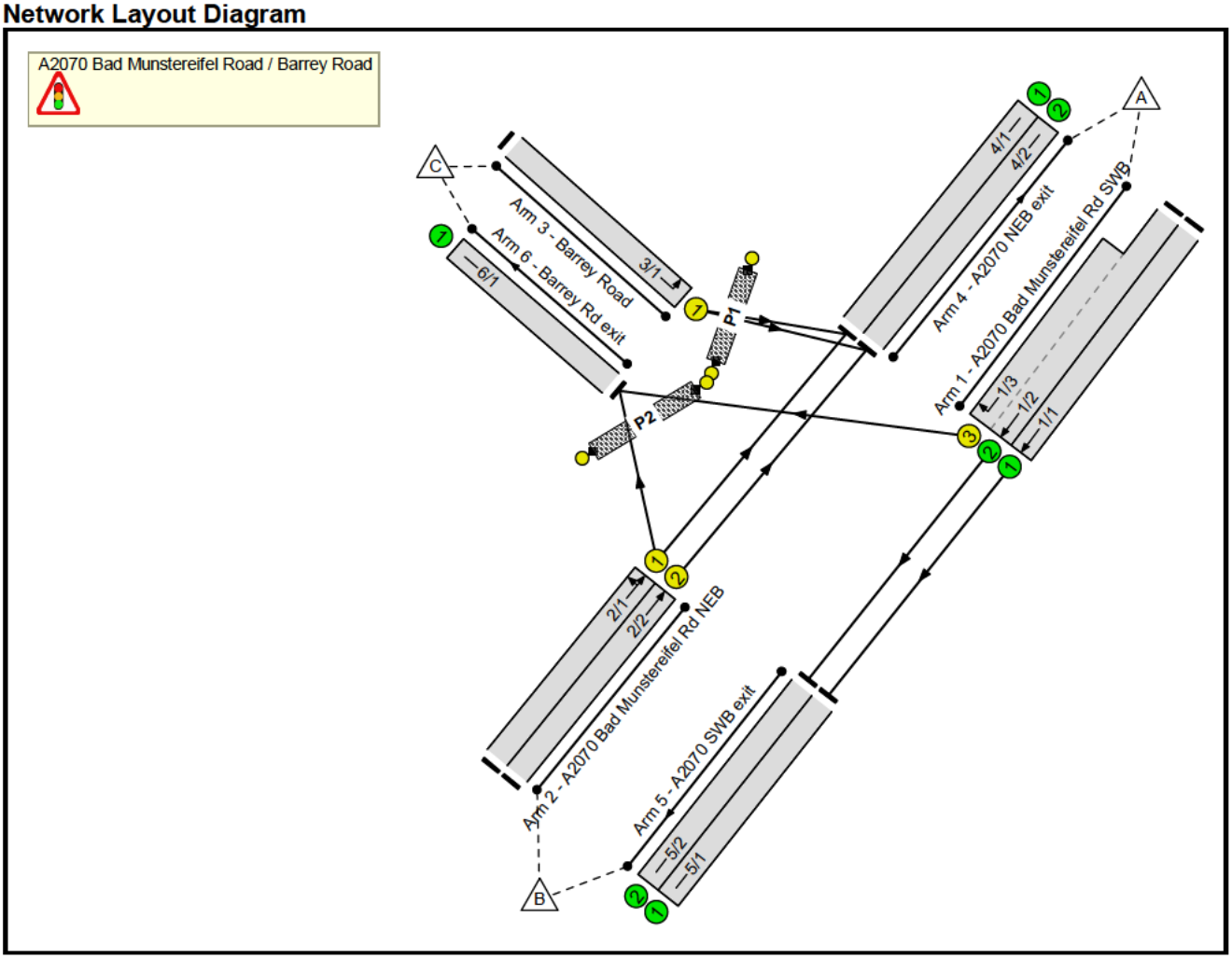
7 I/O
- 7.1 Call Cancel
- 7.2 Inputs and Outputs
- 7.3 Aspect Drives (ELV Controllers)

Detailed Input Data And Results

User and Project Details

Project:	**WIE20982 Sevington IBF**
Title:	**J3) A2070 Bad Munstereifel Rd / Barrey Road**
Location:	
Design Layout Ref:	Existing Layout - Junction Measurement P01
Date Completed:	March 2025
Model Purpose:	For TA
Model Assumptions:	Pedestrian stage runs once every five cycles on average. Frequency assumed as there were no ped stage in the observation for establishing Cycle time and stage lengths.
Additional detail:	
File name:	J3) A2070 Bad Munstereifel Rd_Barrey Road.lsg3x
Author:	CSMS4
Company:	WIE
Address:	
Linsig Version:	3, 3, 0, 6

Network Layout Diagram



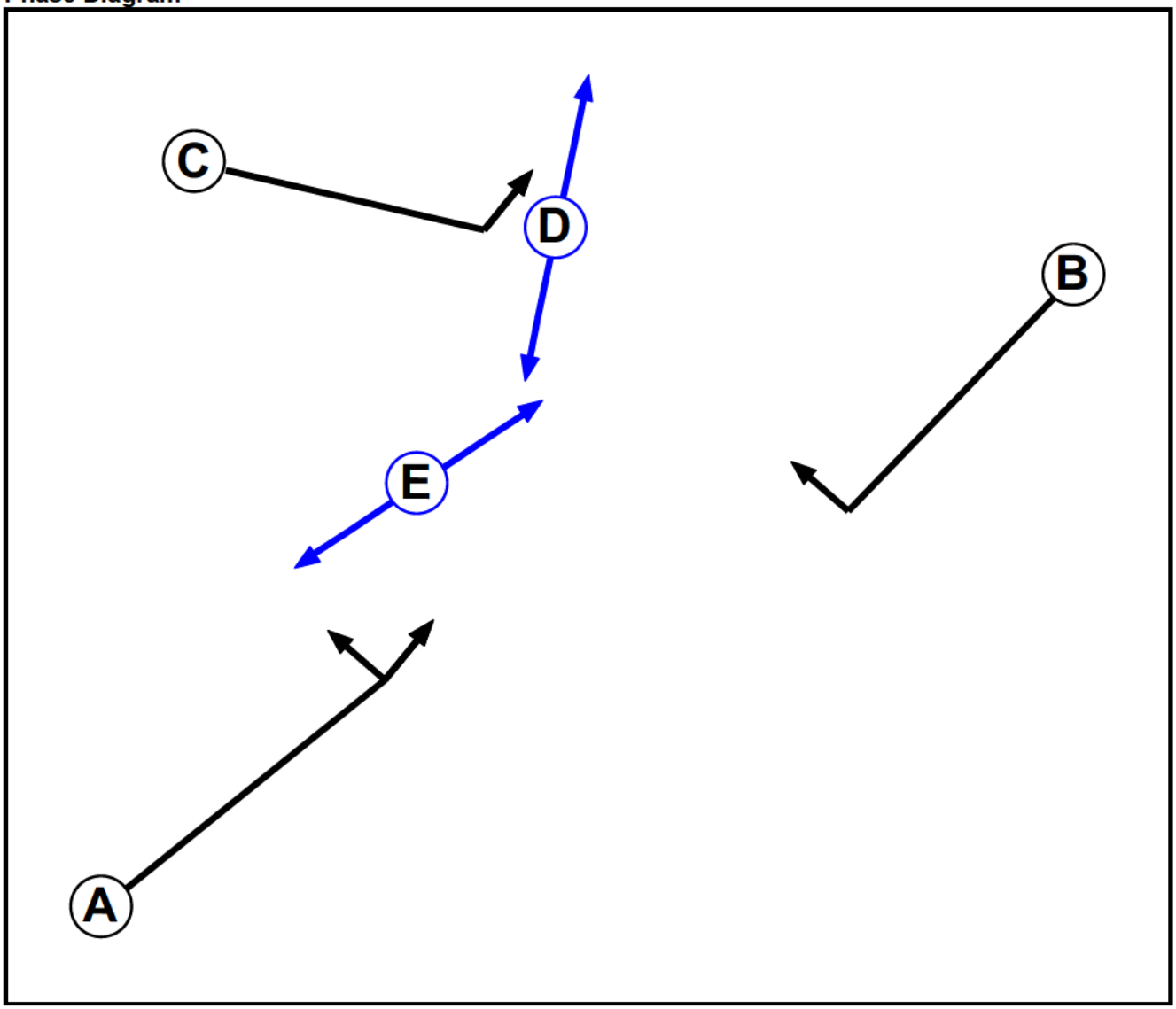
Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2024 Base AM Peak	2024 Base AM Peak	Network Control Plan 1	07:45 - 08:45	400	15.6	11.99
2	2024 Base PM Peak	2024 Base PM Peak	Network Control Plan 1	16:30 - 17:30	400	11.8	14.86
3	2024 Base+Sev (Obs) AM Peak	2024 Base+Dev (Obs) AM Peak	Network Control Plan 1	07:45 - 08:45	400	15.5	12.03
4	2024 Base+Sev (Obs) PM Peak	2024 Base+Dev (Obs) PM Peak	Network Control Plan 1	16:30 - 17:30	400	11.8	14.90
5	2026 Base AM Peak	2026 Base AM Peak	Network Control Plan 1	07:45 - 08:45	400	13.0	12.82
6	2026 Base PM Peak	2026 Base PM Peak	Network Control Plan 1	16:30 - 17:30	400	10.3	15.80
7	2026 Base+Sev AM Peak	2026 Base+Sev AM Peak	Network Control Plan 1	07:45 - 08:45	400	12.8	12.86
8	2026 Base+Sev PM Peak	2026 Base+Sev PM Peak	Network Control Plan 1	16:30 - 17:30	400	10.3	15.82
9	2036 Base AM Peak	2036 Base AM Peak	Network Control Plan 1	07:45 - 08:45	400	-15.0	110.76
10	2036 Base PM Peak	2036 Base PM Peak	Network Control Plan 1	16:30 - 17:30	400	-52.6	140.67
11	2036 Base+Sev AM Peak	2036 Base+Sev AM Peak	Network Control Plan 1	07:45 - 08:45	400	-15.1	112.61
12	2036 Base+Sev PM Peak	2036 Base+Sev PM Peak	Network Control Plan 1	16:30 - 17:30	400	-52.6	141.88
13	2036 Base+Sev 4 AM Peak	2036 Base+Sev 4 AM Peak	Network Control Plan 1	07:45 - 08:45	400	-15.3	115.13
14	2036 Base+Sev 4 PM Peak	2036 Base+Sev 4 PM Peak	Network Control Plan 1	16:30 - 17:30	400	-52.6	143.13

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1	Gen		Stage Stream 1	5	3	A2070 Bad Munstereifel Road / Barrey Road	

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		5	5
E	Pedestrian		5	5

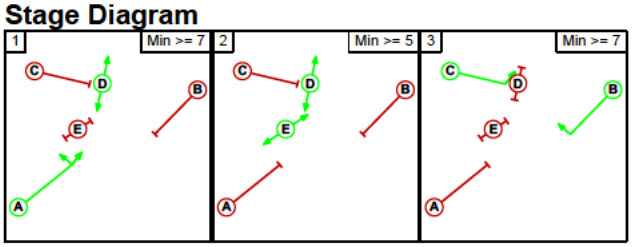
Phase Intergreens Matrix

Terminating Phase	Starting Phase A	B	C	D	E
A		5	8	-	9
B	5		-	-	10
C	5	-		5	-
D	-	-	5		-
E	5	5	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A D
2	D E
3	B C

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage 1	2	3
1		9	8
2	5		5
3	5	10	

Lane Input Data

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A2070 Bad Munstereifel Rd SWB)	U		2	3	60.0	Inf	-	-	-	-	-	-
1/2 (A2070 Bad Munstereifel Rd SWB)	U		2	3	60.0	User	1800	-	-	-	-	-
1/3 (A2070 Bad Munstereifel Rd SWB)	U	B	2	3	22.6	Geom	-	3.63	0.00	Y	Arm 6 Right	15.40
2/1 (A2070 Bad Munstereifel Rd NEB)	U	A	2	3	60.0	Geom	-	3.93	0.00	Y	Arm 4 Ahead Arm 6 Left	Inf 30.80
2/2 (A2070 Bad Munstereifel Rd NEB)	U	A	2	3	60.0	Geom	-	3.34	0.00	N	Arm 4 Ahead	Inf
3/1 (Barrey Road)	U	C	2	3	60.0	Geom	-	5.00	0.00	Y	Arm 4 Left	28.60
4/1 (A2070 NEB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (A2070 NEB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A2070 SWB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A2070 SWB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Barrey Rd exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: A2070 Bad Munstereifel Road / Barrey Road
There are no Opposed Lanes in this Junction

Lane Connector Input Data

Junction: A2070 Bad Munstereifel Road / Barrey Road				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	5/1	Internal	5	35
1/2	5/2	Internal	5	35
1/3	6/1	Internal	5	35
2/1	4/1	Internal	5	35
2/1	6/1	Internal	5	35
2/2	4/2	Internal	5	35
3/1	4/1	Internal	5	35
3/1	4/2	Internal	5	35

Scenario 1: '2024 Base AM Peak' (FG1: '2024 Base AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	87.4 %	1995	1995
				Arm 6 Left	30.80	12.6 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 1

Scenario 2: '2024 Base PM Peak' (FG2: '2024 Base PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	84.3 %	1992	1992
				Arm 6 Left	30.80	15.7 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 2

Scenario 3: '2024 Base+Sev (Obs) AM Peak' (FG3: '2024 Base+Dev (Obs) AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	87.4 %	1995	1995
				Arm 6 Left	30.80	12.6 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 3

Scenario 4: '2024 Base+Sev (Obs) PM Peak' (FG4: '2024 Base+Dev (Obs) PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	84.3 %	1992	1992
				Arm 6 Left	30.80	15.7 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 4

Scenario 5: '2026 Base AM Peak' (FG5: '2026 Base AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	87.3 %	1995	1995
				Arm 6 Left	30.80	12.7 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 5

Scenario 6: '2026 Base PM Peak' (FG6: '2026 Base PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	84.4 %	1992	1992
				Arm 6 Left	30.80	15.6 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 6

Scenario 7: '2026 Base+Sev AM Peak' (FG7: '2026 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	87.3 %	1995	1995
				Arm 6 Left	30.80	12.7 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 7

Scenario 8: '2026 Base+Sev PM Peak' (FG8: '2026 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	84.4 %	1992	1992
				Arm 6 Left	30.80	15.6 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 8

Scenario 9: '2036 Base AM Peak' (FG9: '2036 Base AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	89.7 %	1998	1998
				Arm 6 Left	30.80	10.3 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 9

Scenario 10: '2036 Base PM Peak' (FG10: '2036 Base PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	88.8 %	1997	1997
				Arm 6 Left	30.80	11.2 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 10

Scenario 11: '2036 Base+Sev AM Peak' (FG11: '2036 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	89.7 %	1998	1998
				Arm 6 Left	30.80	10.3 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 11

Scenario 12: '2036 Base+Sev PM Peak' (FG12: '2036 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	88.8 %	1997	1997
				Arm 6 Left	30.80	11.2 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 12

Scenario 13: '2036 Base+Sev 4 AM Peak' (FG13: '2036 Base+Sev 4 AM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	89.7 %	1998	1998
				Arm 6 Left	30.80	10.3 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 13

Scenario 14: '2036 Base+Sev 4 PM Peak' (FG14: '2036 Base+Sev 4 PM Peak', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 Bad Munstereifel Road / Barrey Road

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A2070 Bad Munstereifel Rd SWB Lane 1)	Infinite Saturation Flow						Inf	Inf
1/2 (A2070 Bad Munstereifel Rd SWB Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
1/3 (A2070 Bad Munstereifel Rd SWB)	3.63	0.00	Y	Arm 6 Right	15.40	100.0 %	1802	1802
2/1 (A2070 Bad Munstereifel Rd NEB)	3.93	0.00	Y	Arm 4 Ahead	Inf	88.8 %	1997	1997
				Arm 6 Left	30.80	11.2 %		
2/2 (A2070 Bad Munstereifel Rd NEB)	3.34	0.00	N	Arm 4 Ahead	Inf	100.0 %	2089	2089
3/1 (Barrey Road)	5.00	0.00	Y	Arm 4 Left	28.60	100.0 %	2010	2010
4/1 (A2070 NEB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 NEB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A2070 SWB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A2070 SWB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Barrey Rd exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 14

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 Base AM Peak'	07:45	08:45	01:00	
2: '2024 Base PM Peak'	16:30	17:30	01:00	
3: '2024 Base+Dev (Obs) AM Peak'	07:45	08:45	01:00	
4: '2024 Base+Dev (Obs) PM Peak'	16:30	17:30	01:00	
5: '2026 Base AM Peak'	07:45	08:45	01:00	
6: '2026 Base PM Peak'	16:30	17:30	01:00	
7: '2026 Base+Sev AM Peak'	07:45	08:45	01:00	
8: '2026 Base+Sev PM Peak'	16:30	17:30	01:00	
9: '2036 Base AM Peak'	07:45	08:45	01:00	
10: '2036 Base PM Peak'	16:30	17:30	01:00	
11: '2036 Base+Sev AM Peak'	07:45	08:45	01:00	
12: '2036 Base+Sev PM Peak'	16:30	17:30	01:00	
13: '2036 Base+Sev 4 AM Peak'	07:45	08:45	01:00	
14: '2036 Base+Sev 4 PM Peak'	16:30	17:30	01:00	

Traffic Flows, Desired

FG1: '2024 Base AM Peak'

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1777	112	1889
	B	2183	0	143	2326
	C	147	0	0	147
	Tot.	2330	1777	255	4362

FG2: '2024 Base PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1954	136	2090
	B	1723	0	142	1865
	C	364	0	0	364
	Tot.	2087	1954	278	4319

FG3: '2024 Base+Dev (Obs) AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1793	112	1905
	B	2186	0	143	2329
	C	147	0	0	147
	Tot.	2333	1793	255	4381

FG4: '2024 Base+Dev (Obs) PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1966	136	2102
	B	1726	0	142	1868
	C	364	0	0	364
	Tot.	2090	1966	278	4334

FG5: '2026 Base AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1820	115	1935
	B	2235	0	147	2382
	C	150	0	0	150
	Tot.	2385	1820	262	4467

FG6: '2026 Base PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2000	140	2140
	B	1764	0	145	1909
	C	373	0	0	373
	Tot.	2137	2000	285	4422

FG7: '2026 Base+Sev AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1836	115	1951
	B	2239	0	147	2386
	C	150	0	0	150
	Tot.	2389	1836	262	4487

FG8: '2026 Base+Sev PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2013	140	2153
	B	1767	0	145	1912
	C	373	0	0	373
	Tot.	2140	2013	285	4438

FG9: '2036 Base AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2715	131	2846
	B	2952	0	157	3109
	C	164	0	0	164
	Tot.	3116	2715	288	6119

FG10: '2036 Base PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2694	148	2842
	B	2633	0	153	2786
	C	421	0	0	421
	Tot.	3054	2694	301	6049

FG11: '2036 Base+Sev AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2731	131	2862
	B	2955	0	157	3112
	C	164	0	0	164
	Tot.	3119	2731	288	6138

FG12: '2036 Base+Sev PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2707	148	2855
	B	2636	0	153	2789
	C	421	0	0	421
	Tot.	3057	2707	301	6065

FG13: '2036 Base+Sev 4 AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2748	131	2879
	B	2959	0	157	3116
	C	164	0	0	164
	Tot.	3123	2748	288	6159

FG14: '2036 Base+Sev 4 PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2720	148	2868
	B	2639	0	153	2792
	C	421	0	0	421
	Tot.	3060	2720	301	6081

Scenario 1: '2024 Base AM Peak' (FG1: '2024 Base AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1777	112	1889
	B	2183	0	143	2326
	C	147	0	0	147
	Tot.	2330	1777	255	4362

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 2: '2024 Base PM Peak' (FG2: '2024 Base PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1954	136	2090
	B	1723	0	142	1865
	C	364	0	0	364
	Tot.	2087	1954	278	4319

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 3: '2024 Base+Sev (Obs) AM Peak' (FG3: '2024 Base+Dev (Obs) AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1793	112	1905
	B	2186	0	143	2329
	C	147	0	0	147
	Tot.	2333	1793	255	4381

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 4: '2024 Base+Sev (Obs) PM Peak' (FG4: '2024 Base+Dev (Obs) PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1966	136	2102
	B	1726	0	142	1868
	C	364	0	0	364
	Tot.	2090	1966	278	4334

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 5: '2026 Base AM Peak' (FG5: '2026 Base AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1820	115	1935
	B	2235	0	147	2382
	C	150	0	0	150
	Tot.	2385	1820	262	4467

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 6: '2026 Base PM Peak' (FG6: '2026 Base PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2000	140	2140
	B	1764	0	145	1909
	C	373	0	0	373
	Tot.	2137	2000	285	4422

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 7: '2026 Base+Sev AM Peak' (FG7: '2026 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1836	115	1951
	B	2239	0	147	2386
	C	150	0	0	150
	Tot.	2389	1836	262	4487

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 8: '2026 Base+Sev PM Peak' (FG8: '2026 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2013	140	2153
	B	1767	0	145	1912
	C	373	0	0	373
	Tot.	2140	2013	285	4438

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 9: '2036 Base AM Peak' (FG9: '2036 Base AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2715	131	2846
	B	2952	0	157	3109
	C	164	0	0	164
	Tot.	3116	2715	288	6119

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 10: '2036 Base PM Peak' (FG10: '2036 Base PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2694	148	2842
	B	2633	0	153	2786
	C	421	0	0	421
	Tot.	3054	2694	301	6049

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 11: '2036 Base+Sev AM Peak' (FG11: '2036 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2731	131	2862
	B	2955	0	157	3112
	C	164	0	0	164
	Tot.	3119	2731	288	6138

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 12: '2036 Base+Sev PM Peak' (FG12: '2036 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2707	148	2855
	B	2636	0	153	2789
	C	421	0	0	421
	Tot.	3057	2707	301	6065

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 13: '2036 Base+Sev 4 AM Peak' (FG13: '2036 Base+Sev 4 AM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2748	131	2879
	B	2959	0	157	3116
	C	164	0	0	164
	Tot.	3123	2748	288	6159

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Scenario 14: '2036 Base+Sev 4 PM Peak' (FG14: '2036 Base+Sev 4 PM Peak', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	2720	148	2868
	B	2639	0	153	2792
	C	421	0	0	421
	Tot.	3060	2720	301	6081

Traffic Flows, Difference
Difference :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	Tot.	0	0	0	0

Traffic Lane Flows

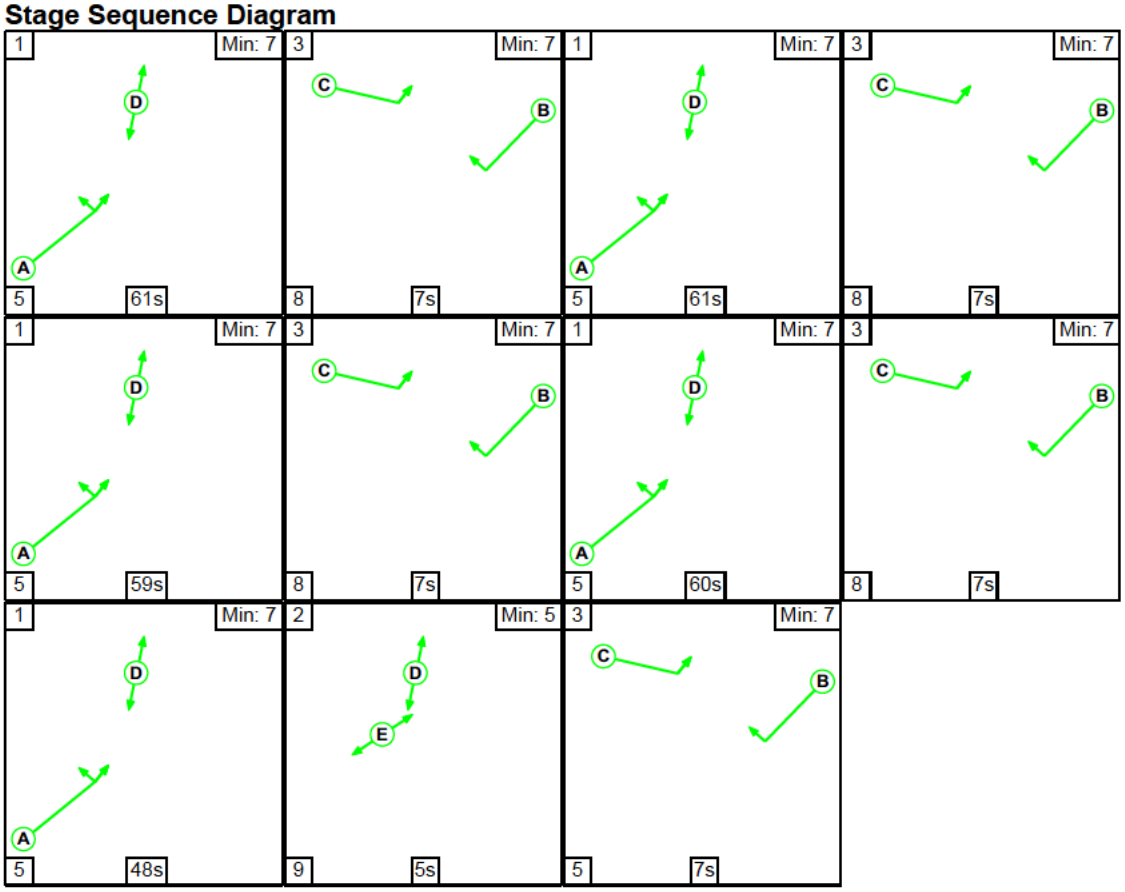
Lane	Scenario 1: 2024 Base AM Peak	Scenario 2: 2024 Base PM Peak	Scenario 3: 2024 Base+Sev (Obs) AM Peak	Scenario 4: 2024 Base+Sev (Obs) PM Peak	Scenario 5: 2026 Base AM Peak	Scenario 6: 2026 Base PM Peak
Junction: A2070 Bad Munstereifel Road / Barrey Road						
1/1	1777	1954	1793	1966	1820	2000
1/2 (with short)	112(In) 0(Out)	136(In) 0(Out)	112(In) 0(Out)	136(In) 0(Out)	115(In) 0(Out)	140(In) 0(Out)
1/3 (short)	112	136	112	136	115	140
2/1	1131	906	1133	907	1159	927
2/2	1195	959	1196	961	1223	982
3/1	147	364	147	364	150	373
4/1	1061	946	1063	947	1087	968
4/2	1269	1141	1270	1143	1298	1169
5/1	1777	1954	1793	1966	1820	2000
5/2	0	0	0	0	0	0
6/1	255	278	255	278	262	285

Lane	Scenario 7: 2026 Base+Sev AM Peak	Scenario 8: 2026 Base+Sev PM Peak	Scenario 9: 2036 Base AM Peak	Scenario 10: 2036 Base PM Peak	Scenario 11: 2036 Base+Sev AM Peak	Scenario 12: 2036 Base+Sev PM Peak
Junction: A2070 Bad Munstereifel Road / Barrey Road						
1/1	1836	2013	2715	2694	2731	2707
1/2 (with short)	115(In) 0(Out)	140(In) 0(Out)	131(In) 0(Out)	148(In) 0(Out)	131(In) 0(Out)	148(In) 0(Out)
1/3 (short)	115	140	131	148	131	148
2/1	1161	929	1520	1361	1521	1362
2/2	1225	983	1589	1425	1591	1427
3/1	150	373	164	421	164	421
4/1	1089	970	1445	1418	1446	1419
4/2	1300	1170	1671	1636	1673	1638
5/1	1836	2013	2715	2694	2731	2707
5/2	0	0	0	0	0	0
6/1	262	285	288	301	288	301

Detailed Input Data And Results

Lane	Scenario 13: 2036 Base+Sev 4 AM Peak	Scenario 14: 2036 Base+Sev 4 PM Peak
Junction: A2070 Bad Munstereifel Road / Barrey Road		
1/1	2748	2720
1/2 (with short)	131(In) 0(Out)	148(In) 0(Out)
1/3 (short)	131	148
2/1	1523	1364
2/2	1593	1428
3/1	164	421
4/1	1448	1421
4/2	1675	1639
5/1	2748	2720
5/2	0	0
6/1	288	301

Scenario 1: '2024 Base AM Peak' (FG1: '2024 Base AM Peak', Plan 1: 'Network Control Plan 1')
Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	61	7	61	7	59	7	60	7	48	5
Change Point	0	66	81	147	162	226	241	306	321	374

Stage	3									
Duration	7									
Change Point	388									

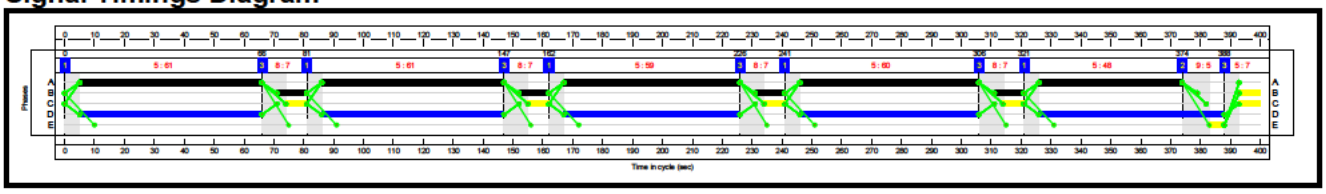
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	61	5	66	61	86	147
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	71	81	10	152	162
C	Barrey Road Left	Traffic	7	74	81	7	155	162
D	Pedestrians across Barrey Road approach	Pedestrian	61	5	66	61	86	147
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	59	167	226	60	246	306
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	231	241	10	311	321
C	Barrey Road Left	Traffic	7	234	241	7	314	321
D	Pedestrians across Barrey Road approach	Pedestrian	59	167	226	60	246	306
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	48	326	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	62	326	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

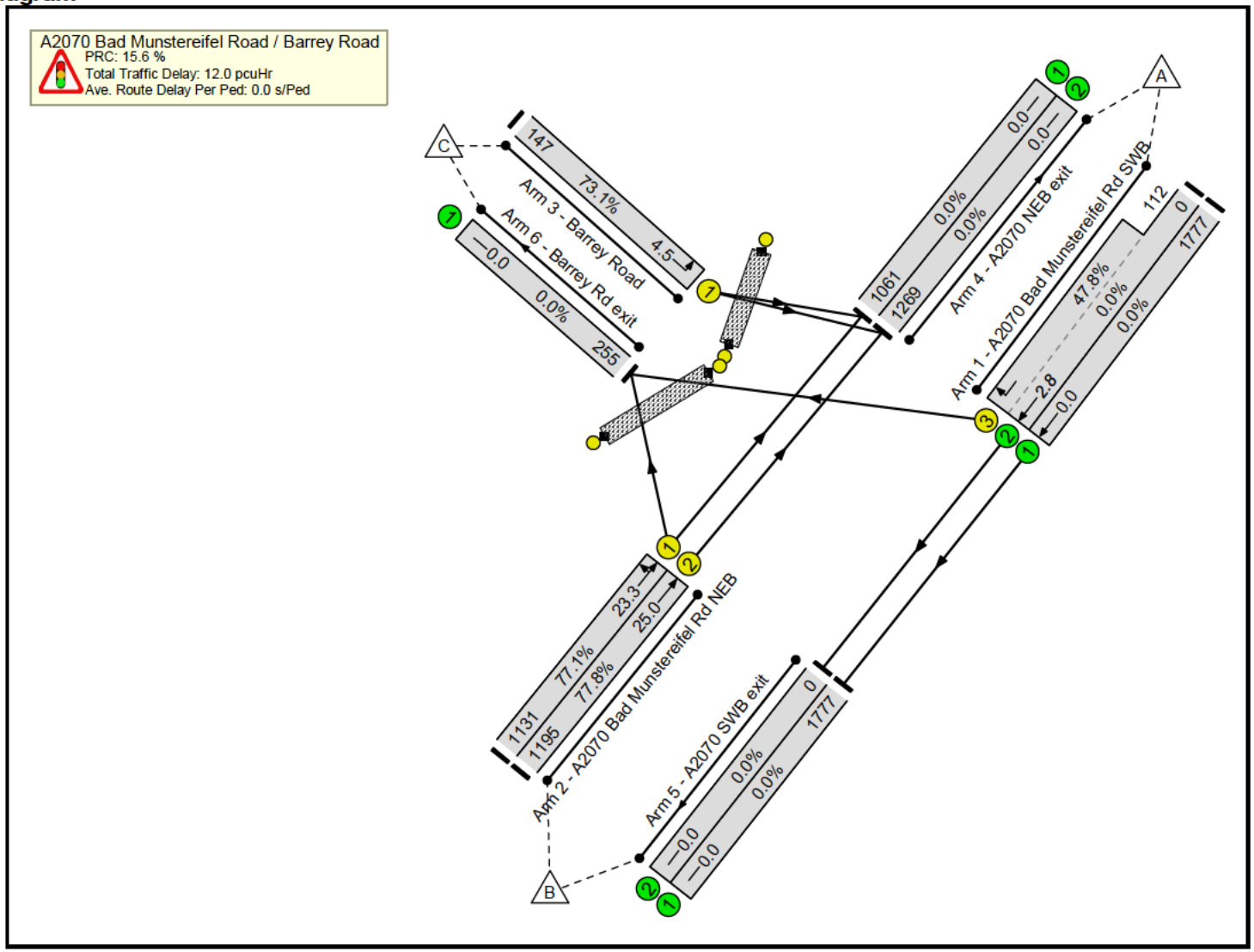
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	71	81
				152	162
				231	241
				311	321
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	66
				86	147
				167	226
				246	306
				326	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	66
				86	147
				167	226
				246	306
				326	374
3/1	Barrey Road Left	U	C	74	81
				155	162
				234	241
				314	321
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**77.8%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**77.8%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	1777	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	112	1800:1802	0+234	0.0 : 47.8%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1131	1995	1466	77.1%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1195	2089	1535	77.8%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	147	2010	201	73.1%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1061	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1269	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	1777	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	255	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

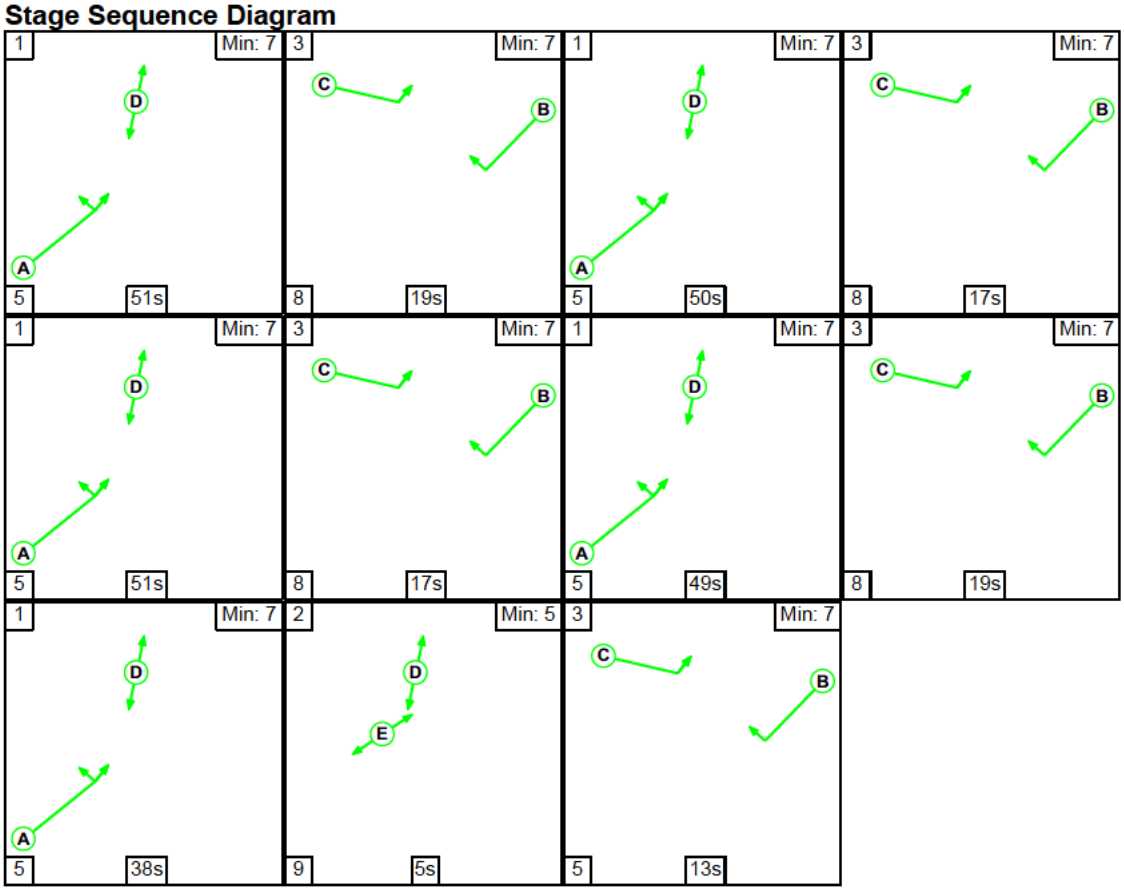
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**6.8**	**5.2**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**6.8**	**5.2**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
1/1	1777	1777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	112	112	-	-	-	1.0	0.5	-	1.5	46.9	2.3	0.5	2.8	
2/1	1131	1131	-	-	-	2.1	1.7	-	3.8	12.1	21.7	1.7	23.3	
2/2	1195	1195	-	-	-	2.3	1.7	-	4.0	12.1	23.2	1.7	25.0	
3/1	147	147	-	-	-	1.4	1.3	-	2.7	66.8	3.2	1.3	4.5	
4/1	1061	1061	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1269	1269	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1777	1777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 15.6 Total Delay for Signalled Lanes (pcuHr): 10.53 Cycle Time (s): 400
PRC Over All Lanes (%): 15.6 Total Delay Over All Lanes(pcuHr): 11.99

Scenario 2: '2024 Base PM Peak' (FG2: '2024 Base PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	51	19	50	17	51	17	49	19	38	5
Change Point	0	56	83	138	163	219	244	298	325	368

Stage	3									
Duration	13									
Change Point	382									

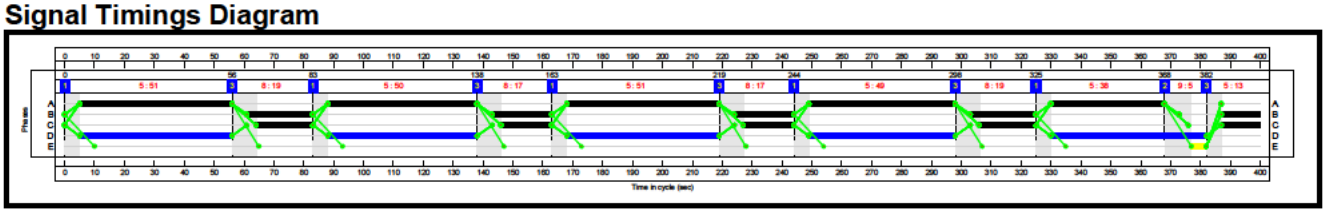
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	5	56	50	88	138
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	22	61	83	20	143	163
C	Barrey Road Left	Traffic	19	64	83	17	146	163
D	Pedestrians across Barrey Road approach	Pedestrian	51	5	56	50	88	138
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	377	382			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	168	219	49	249	298
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	20	224	244	22	303	325
C	Barrey Road Left	Traffic	17	227	244	19	306	325
D	Pedestrians across Barrey Road approach	Pedestrian	51	168	219	49	249	298
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	38	330	368
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	13	387	0
C	Barrey Road Left	Traffic	13	387	0
D	Pedestrians across Barrey Road approach	Pedestrian	52	330	382
E	Pedestrians across Exit to Barrey Road	Pedestrian			

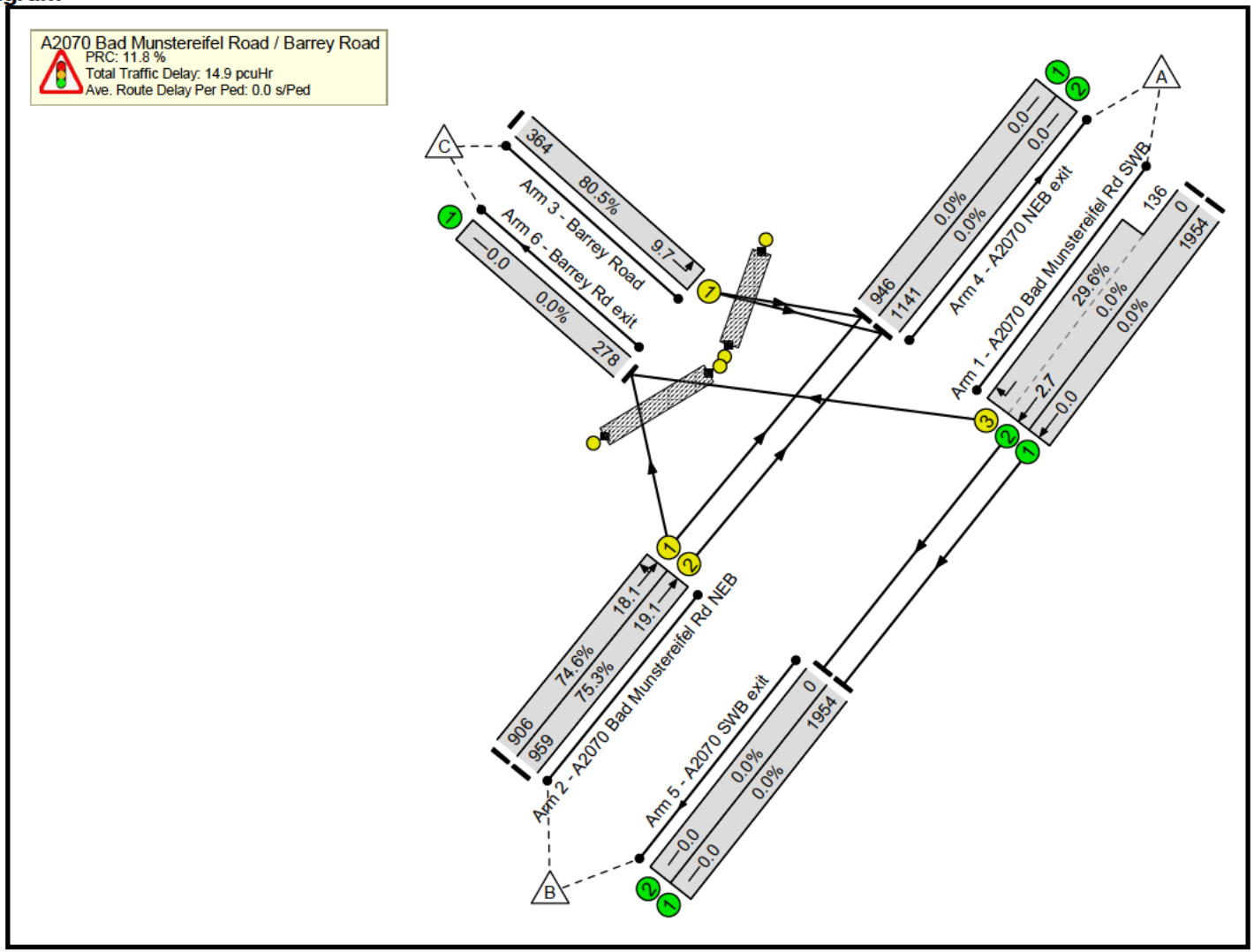
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	61	83
				143	163
				224	244
				303	325
				387	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	56
				88	138
				168	219
				249	298
				330	368
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	56
				88	138
				168	219
				249	298
				330	368
3/1	Barrey Road Left	U	C	64	83
				146	163
				227	244
				306	325
				387	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**80.5%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**80.5%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	1954	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	136	1800:1802	0+460	0.0 : 29.6%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	239	-	-	906	1992	1215	74.6%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	239	-	-	959	2089	1274	75.3%
3/1	Barrey Road Left	U	N/A	N/A	C		5	85	-	-	364	2010	452	80.5%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	946	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1141	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	1954	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	278	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	253	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

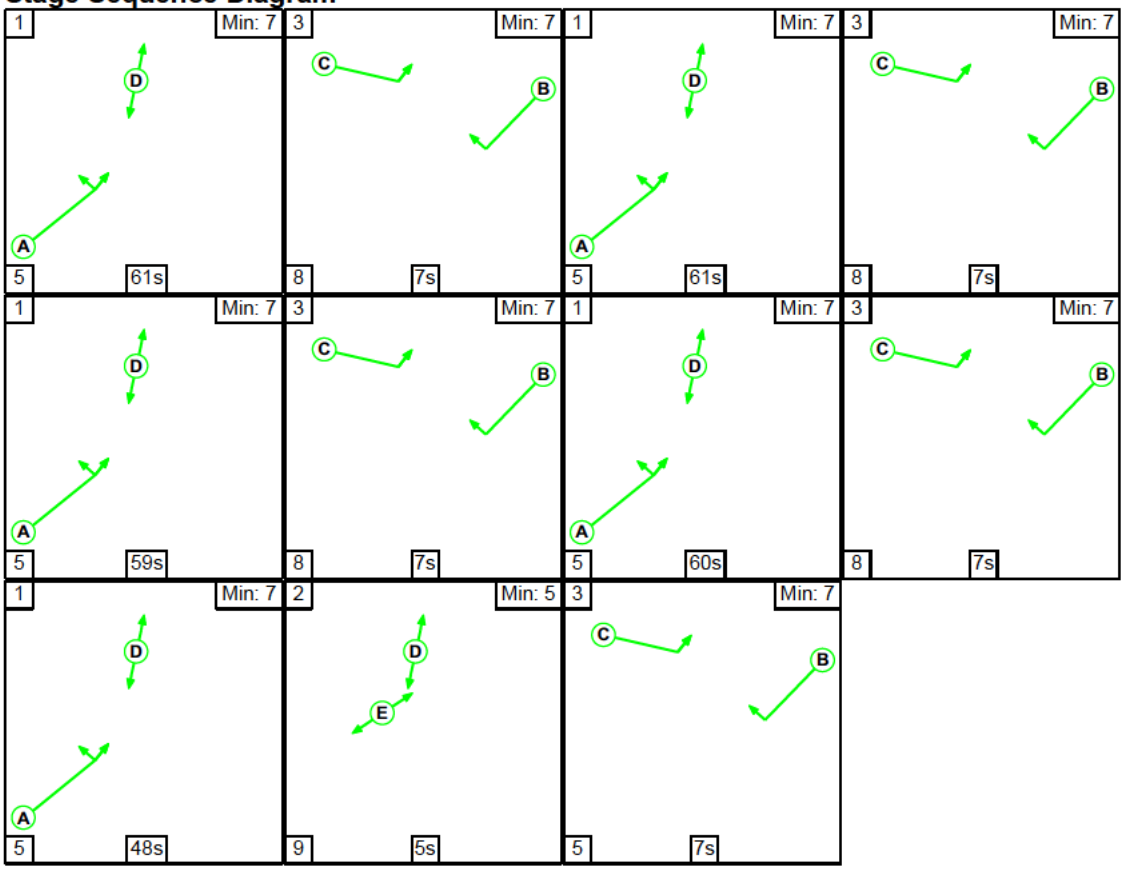
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**9.7**	**5.1**	**0.0**	**14.9**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**9.7**	**5.1**	**0.0**	**14.9**	**-**	**-**	**-**	**-**	
1/1	1954	1954	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	136	136	-	-	-	0.9	0.2	-	1.1	29.6	2.5	0.2	2.7	
2/1	906	906	-	-	-	2.8	1.5	-	4.3	17.0	16.6	1.5	18.1	
2/2	959	959	-	-	-	3.0	1.5	-	4.5	17.0	17.6	1.5	19.1	
3/1	364	364	-	-	-	3.0	2.0	-	4.9	48.9	7.7	2.0	9.7	
4/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1141	1141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1954	1954	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	278	278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 11.8 Total Delay for Signalled Lanes (pcuHr): 13.74 Cycle Time (s): 400
PRC Over All Lanes (%): 11.8 Total Delay Over All Lanes(pcuHr): 14.86

Scenario 3: '2024 Base+Sev (Obs) AM Peak' (FG3: '2024 Base+Dev (Obs) AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	61	7	61	7	59	7	60	7	48	5
Change Point	0	66	81	147	162	226	241	306	321	374

Stage	3									
Duration	7									
Change Point	388									

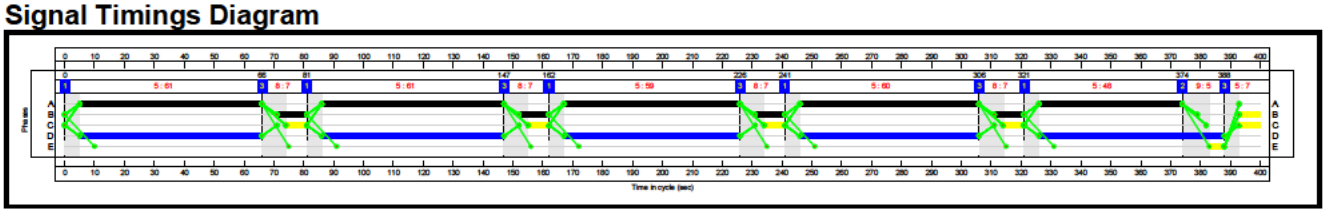
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	61	5	66	61	86	147
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	71	81	10	152	162
C	Barrey Road Left	Traffic	7	74	81	7	155	162
D	Pedestrians across Barrey Road approach	Pedestrian	61	5	66	61	86	147
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	59	167	226	60	246	306
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	231	241	10	311	321
C	Barrey Road Left	Traffic	7	234	241	7	314	321
D	Pedestrians across Barrey Road approach	Pedestrian	59	167	226	60	246	306
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	48	326	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	62	326	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

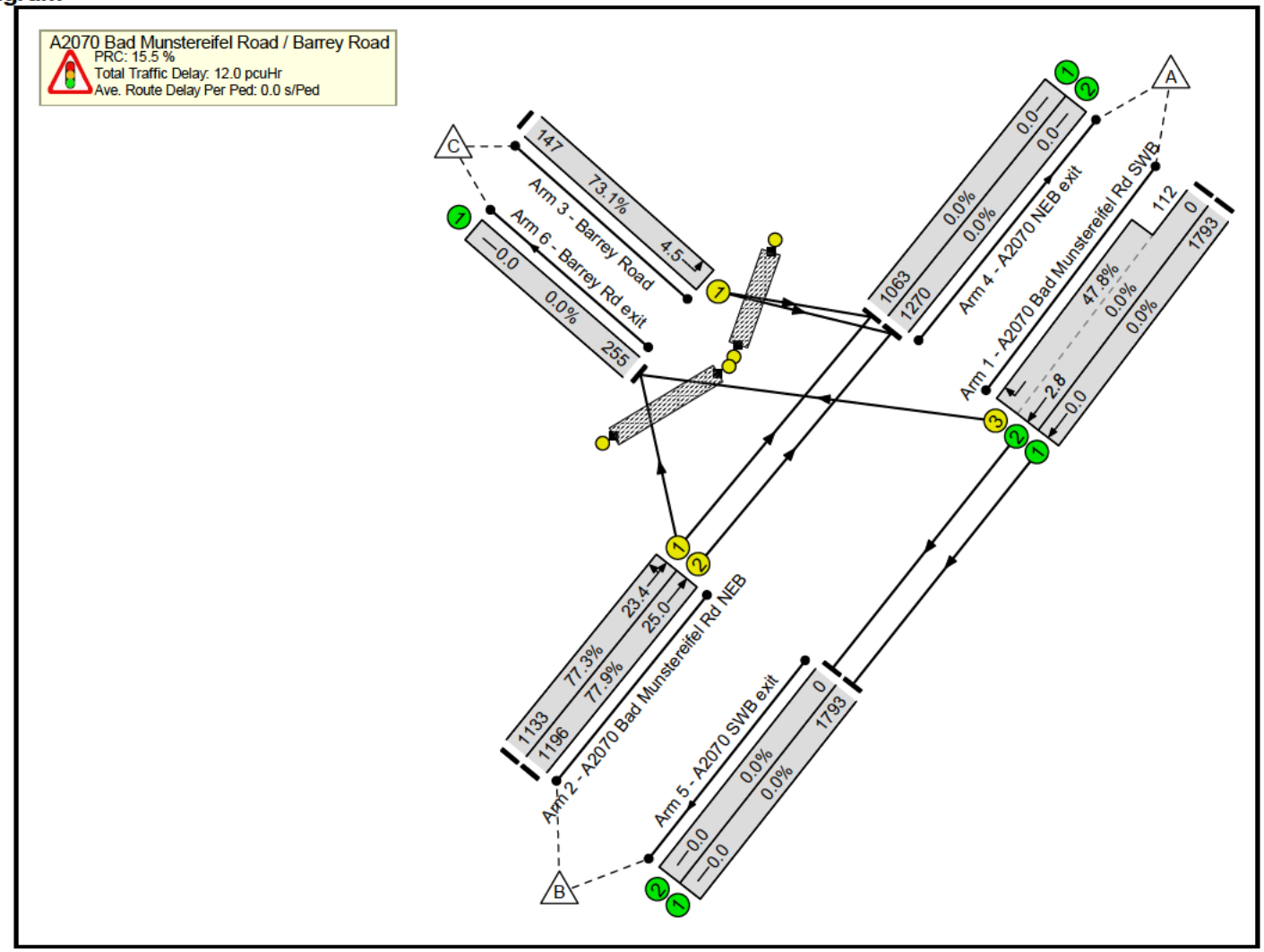
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	71	81
				152	162
				231	241
				311	321
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	66
				86	147
				167	226
				246	306
				326	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	66
				86	147
				167	226
				246	306
				326	374
3/1	Barrey Road Left	U	C	74	81
				155	162
				234	241
				314	321
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**77.9%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**77.9%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	1793	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	112	1800:1802	0+234	0.0 : 47.8%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1133	1995	1466	77.3%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1196	2089	1535	77.9%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	147	2010	201	73.1%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1063	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1270	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	1793	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	255	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

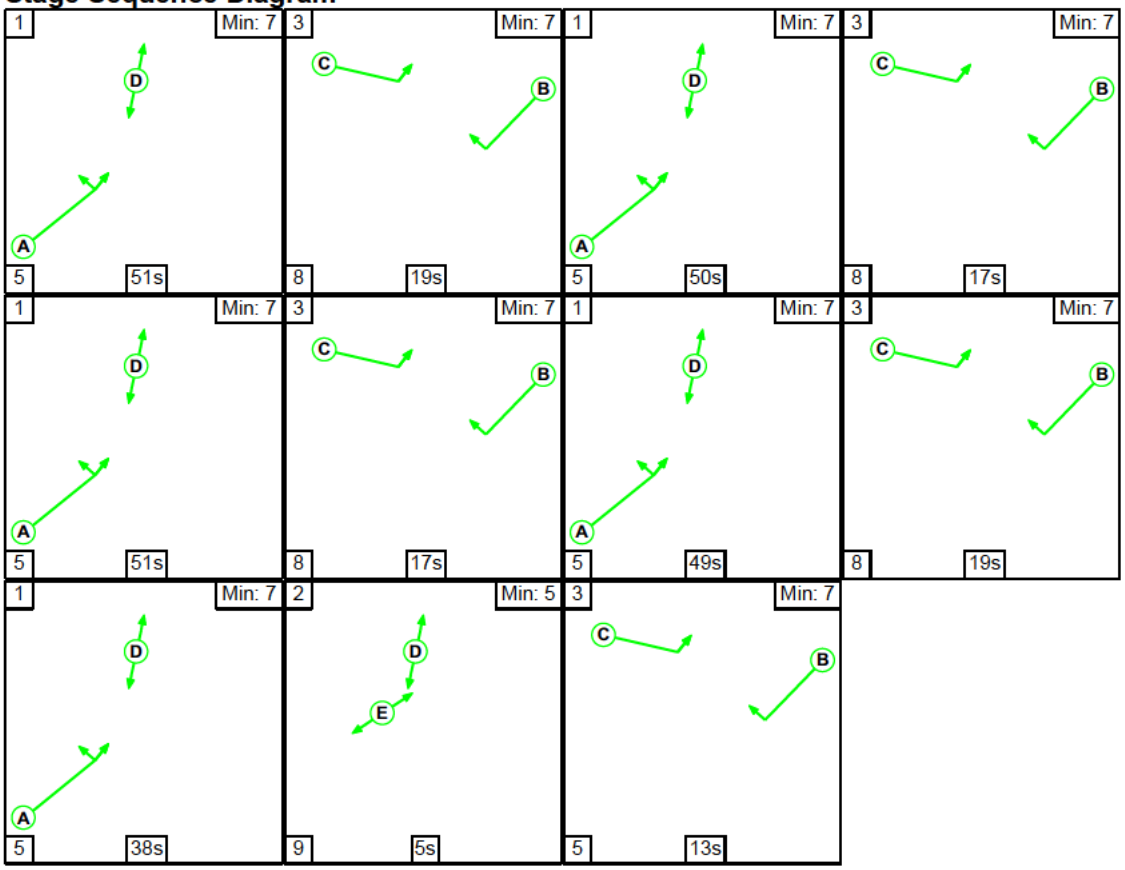
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**6.8**	**5.2**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**6.8**	**5.2**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
1/1	1793	1793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	112	112	-	-	-	1.0	0.5	-	1.5	46.9	2.3	0.5	2.8	
2/1	1133	1133	-	-	-	2.1	1.7	-	3.8	12.1	21.7	1.7	23.4	
2/2	1196	1196	-	-	-	2.3	1.7	-	4.0	12.1	23.3	1.7	25.0	
3/1	147	147	-	-	-	1.4	1.3	-	2.7	66.8	3.2	1.3	4.5	
4/1	1063	1063	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1270	1270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1793	1793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 15.5 Total Delay for Signalled Lanes (pcuHr): 10.57 Cycle Time (s): 400
PRC Over All Lanes (%): 15.5 Total Delay Over All Lanes(pcuHr): 12.03

Scenario 4: '2024 Base+Sev (Obs) PM Peak' (FG4: '2024 Base+Dev (Obs) PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	51	19	50	17	51	17	49	19	38	5
Change Point	0	56	83	138	163	219	244	298	325	368

Stage	3									
Duration	13									
Change Point	382									

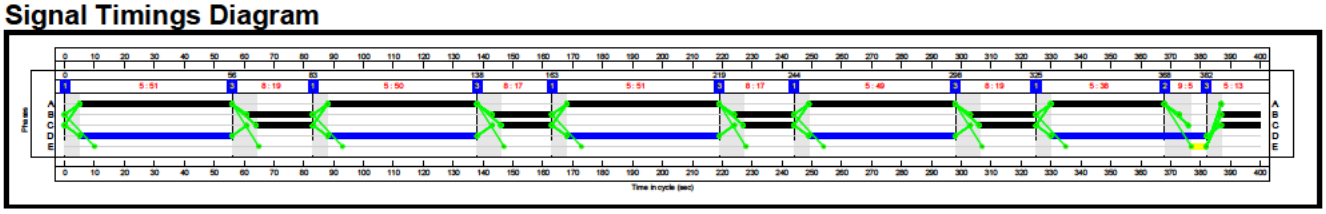
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	5	56	50	88	138
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	22	61	83	20	143	163
C	Barrey Road Left	Traffic	19	64	83	17	146	163
D	Pedestrians across Barrey Road approach	Pedestrian	51	5	56	50	88	138
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	377	382			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	168	219	49	249	298
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	20	224	244	22	303	325
C	Barrey Road Left	Traffic	17	227	244	19	306	325
D	Pedestrians across Barrey Road approach	Pedestrian	51	168	219	49	249	298
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	38	330	368
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	13	387	0
C	Barrey Road Left	Traffic	13	387	0
D	Pedestrians across Barrey Road approach	Pedestrian	52	330	382
E	Pedestrians across Exit to Barrey Road	Pedestrian			

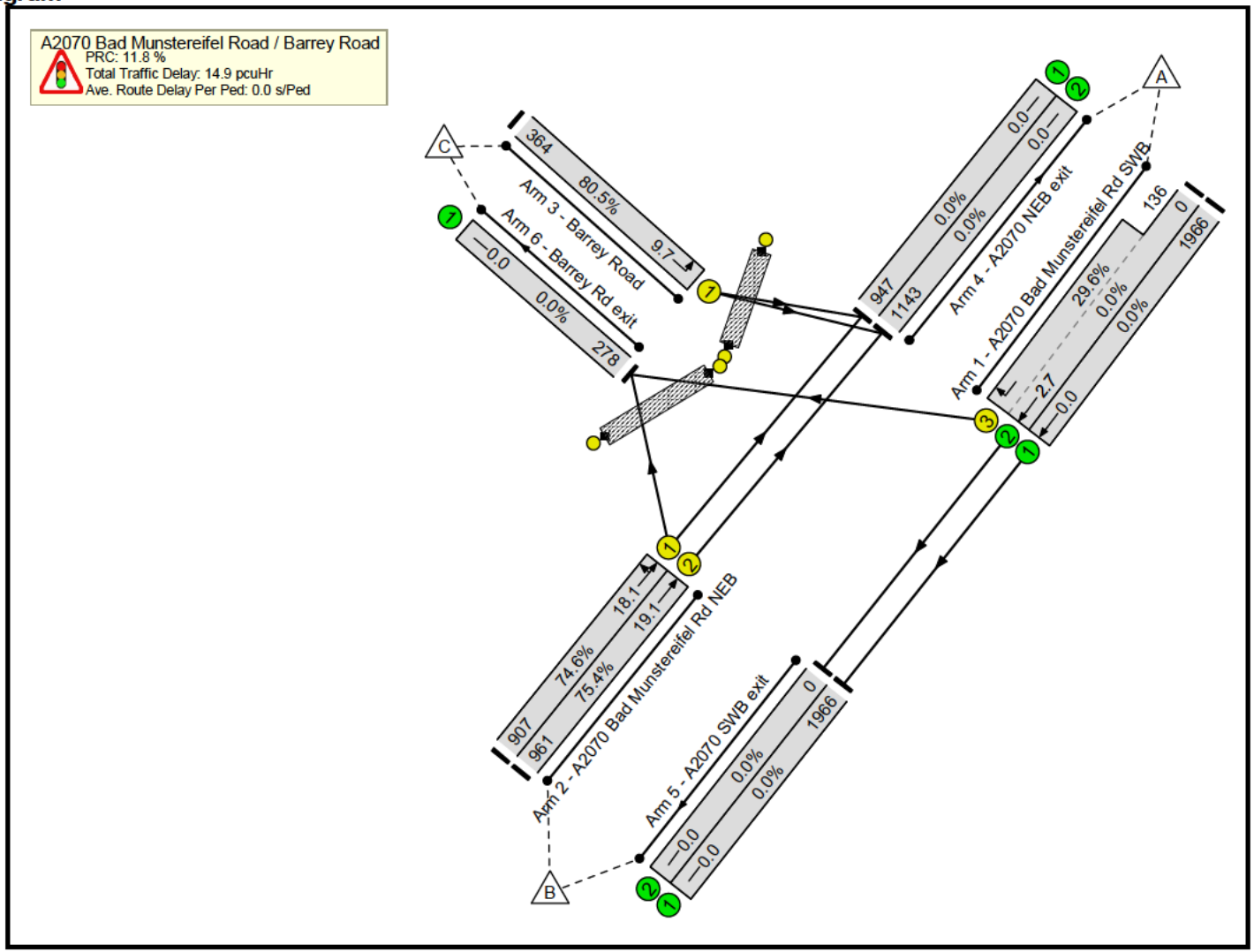
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	61	83
				143	163
				224	244
				303	325
				387	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	56
				88	138
				168	219
				249	298
				330	368
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	56
				88	138
				168	219
				249	298
				330	368
3/1	Barrey Road Left	U	C	64	83
				146	163
				227	244
				306	325
				387	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**80.5%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**80.5%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	1966	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	136	1800:1802	0+460	0.0 : 29.6%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	239	-	-	907	1992	1215	74.6%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	239	-	-	961	2089	1274	75.4%
3/1	Barrey Road Left	U	N/A	N/A	C		5	85	-	-	364	2010	452	80.5%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	947	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1143	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	1966	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	278	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	253	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

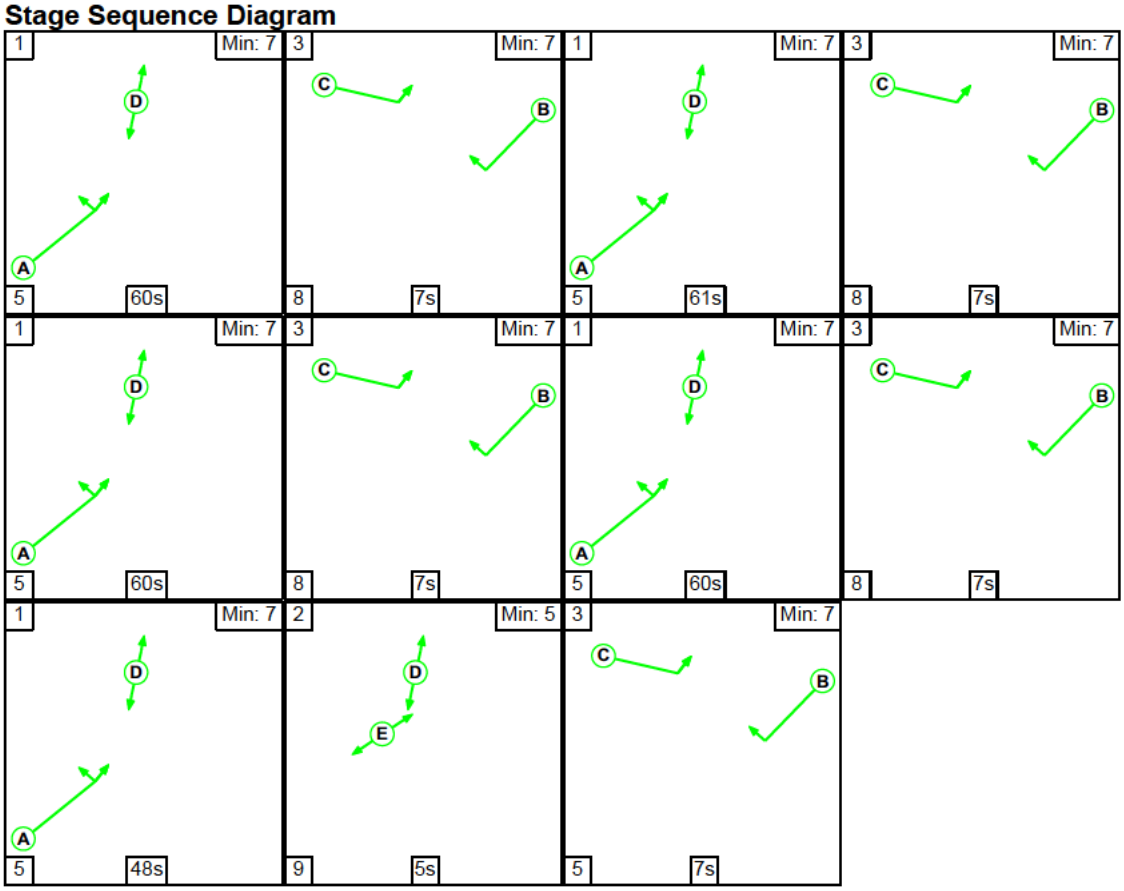
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**9.7**	**5.2**	**0.0**	**14.9**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**9.7**	**5.2**	**0.0**	**14.9**	**-**	**-**	**-**	**-**	
1/1	1966	1966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	136	136	-	-	-	0.9	0.2	-	1.1	29.6	2.5	0.2	2.7	
2/1	907	907	-	-	-	2.8	1.5	-	4.3	17.0	16.6	1.5	18.1	
2/2	961	961	-	-	-	3.0	1.5	-	4.5	17.0	17.6	1.5	19.1	
3/1	364	364	-	-	-	3.0	2.0	-	4.9	48.9	7.7	2.0	9.7	
4/1	947	947	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1143	1143	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1966	1966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	278	278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 11.8 Total Delay for Signalled Lanes (pcuHr): 13.78 Cycle Time (s): 400
PRC Over All Lanes (%): 11.8 Total Delay Over All Lanes(pcuHr): 14.90

Scenario 5: '2026 Base AM Peak' (FG5: '2026 Base AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	60	7	61	7	60	7	60	7	48	5
Change Point	0	65	80	146	161	226	241	306	321	374

Stage	3									
Duration	7									
Change Point	388									

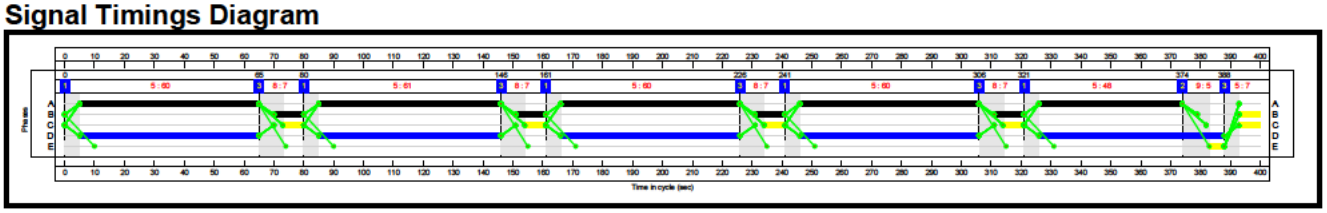
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	60	5	65	61	85	146
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	70	80	10	151	161
C	Barrey Road Left	Traffic	7	73	80	7	154	161
D	Pedestrians across Barrey Road approach	Pedestrian	60	5	65	61	85	146
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	60	166	226	60	246	306
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	231	241	10	311	321
C	Barrey Road Left	Traffic	7	234	241	7	314	321
D	Pedestrians across Barrey Road approach	Pedestrian	60	166	226	60	246	306
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	48	326	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	62	326	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

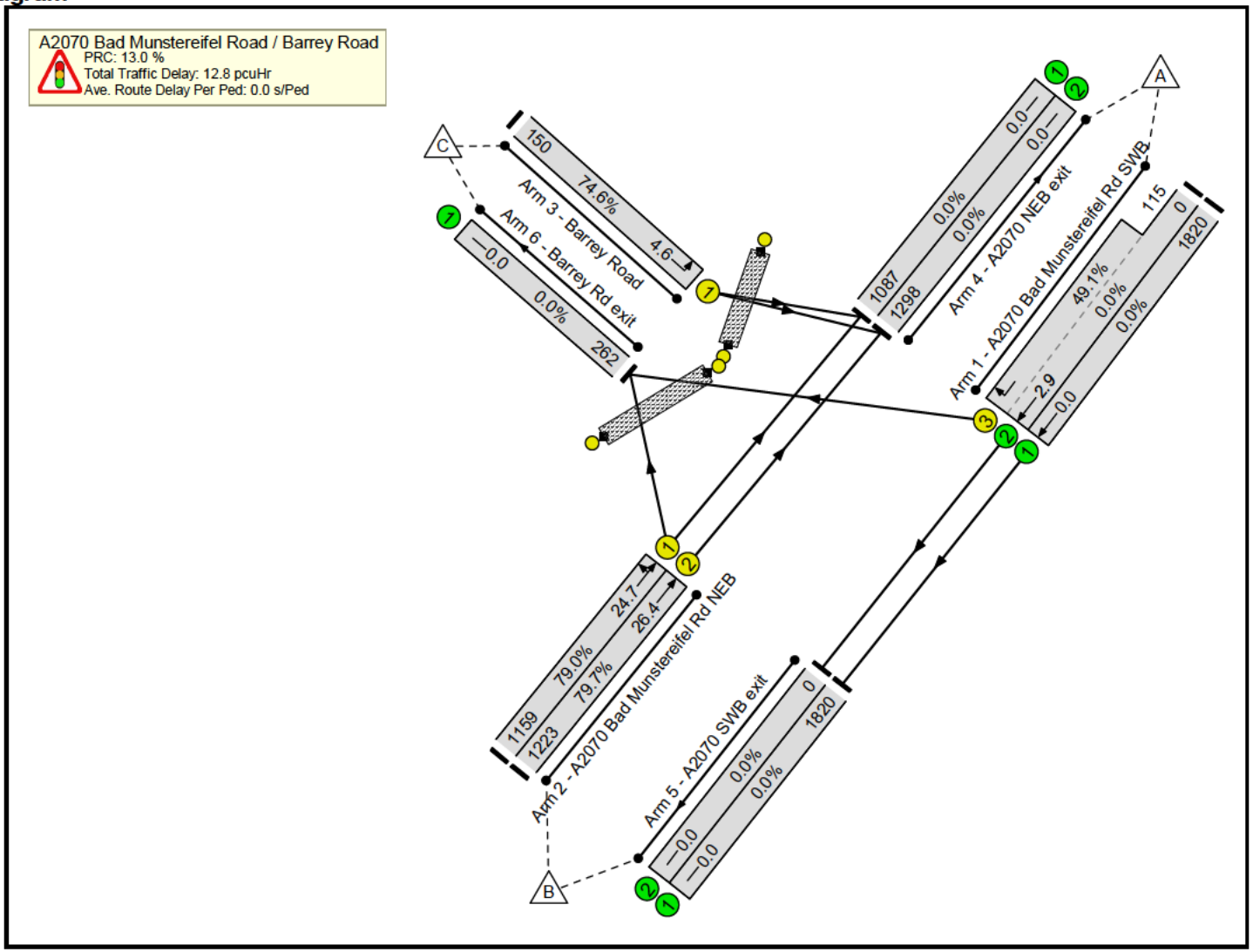
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	70	80
				151	161
				231	241
				311	321
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	65
				85	146
				166	226
				246	306
				326	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	65
				85	146
				166	226
				246	306
				326	374
3/1	Barrey Road Left	U	C	73	80
				154	161
				234	241
				314	321
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**79.7%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**79.7%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	1820	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	115	1800:1802	0+234	0.0 : 49.1%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1159	1995	1466	79.0%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1223	2089	1535	79.7%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	150	2010	201	74.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1087	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1298	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	1820	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	262	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

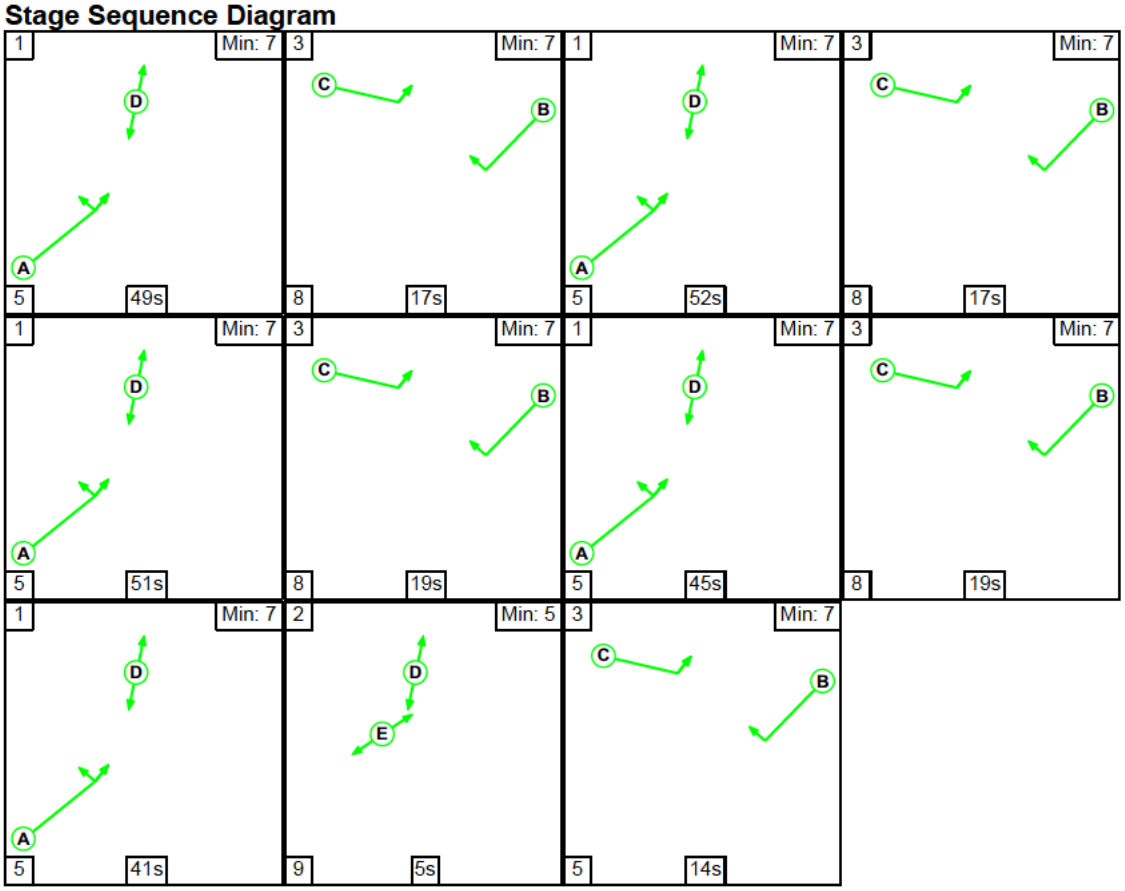
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**7.1**	**5.7**	**0.0**	**12.8**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**7.1**	**5.7**	**0.0**	**12.8**	**-**	**-**	**-**	**-**	
1/1	1820	1820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	115	115	-	-	-	1.0	0.5	-	1.5	47.3	2.4	0.5	2.9	
2/1	1159	1159	-	-	-	2.3	1.9	-	4.1	12.8	22.9	1.9	24.7	
2/2	1223	1223	-	-	-	2.4	1.9	-	4.3	12.8	24.5	1.9	26.4	
3/1	150	150	-	-	-	1.5	1.4	-	2.9	68.5	3.3	1.4	4.6	
4/1	1087	1087	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1298	1298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1820	1820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 13.0 Total Delay for Signalled Lanes (pcuHr): 11.30 Cycle Time (s): 400
PRC Over All Lanes (%): 13.0 Total Delay Over All Lanes(pcuHr): 12.82

Scenario 6: '2026 Base PM Peak' (FG6: '2026 Base PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	49	17	52	17	51	19	45	19	41	5
Change Point	0	54	79	136	161	217	244	294	321	367

Stage	3									
Duration	14									
Change Point	381									

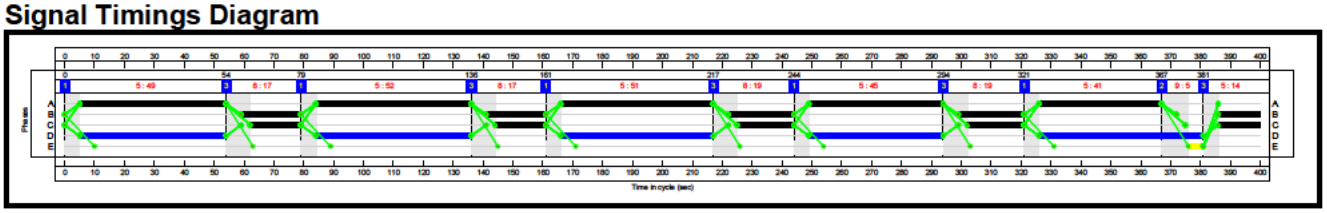
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	49	5	54	52	84	136
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	20	59	79	20	141	161
C	Barrey Road Left	Traffic	17	62	79	17	144	161
D	Pedestrians across Barrey Road approach	Pedestrian	49	5	54	52	84	136
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	376	381			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	166	217	45	249	294
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	22	222	244	22	299	321
C	Barrey Road Left	Traffic	19	225	244	19	302	321
D	Pedestrians across Barrey Road approach	Pedestrian	51	166	217	45	249	294
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	41	326	367
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	14	386	0
C	Barrey Road Left	Traffic	14	386	0
D	Pedestrians across Barrey Road approach	Pedestrian	55	326	381
E	Pedestrians across Exit to Barrey Road	Pedestrian			

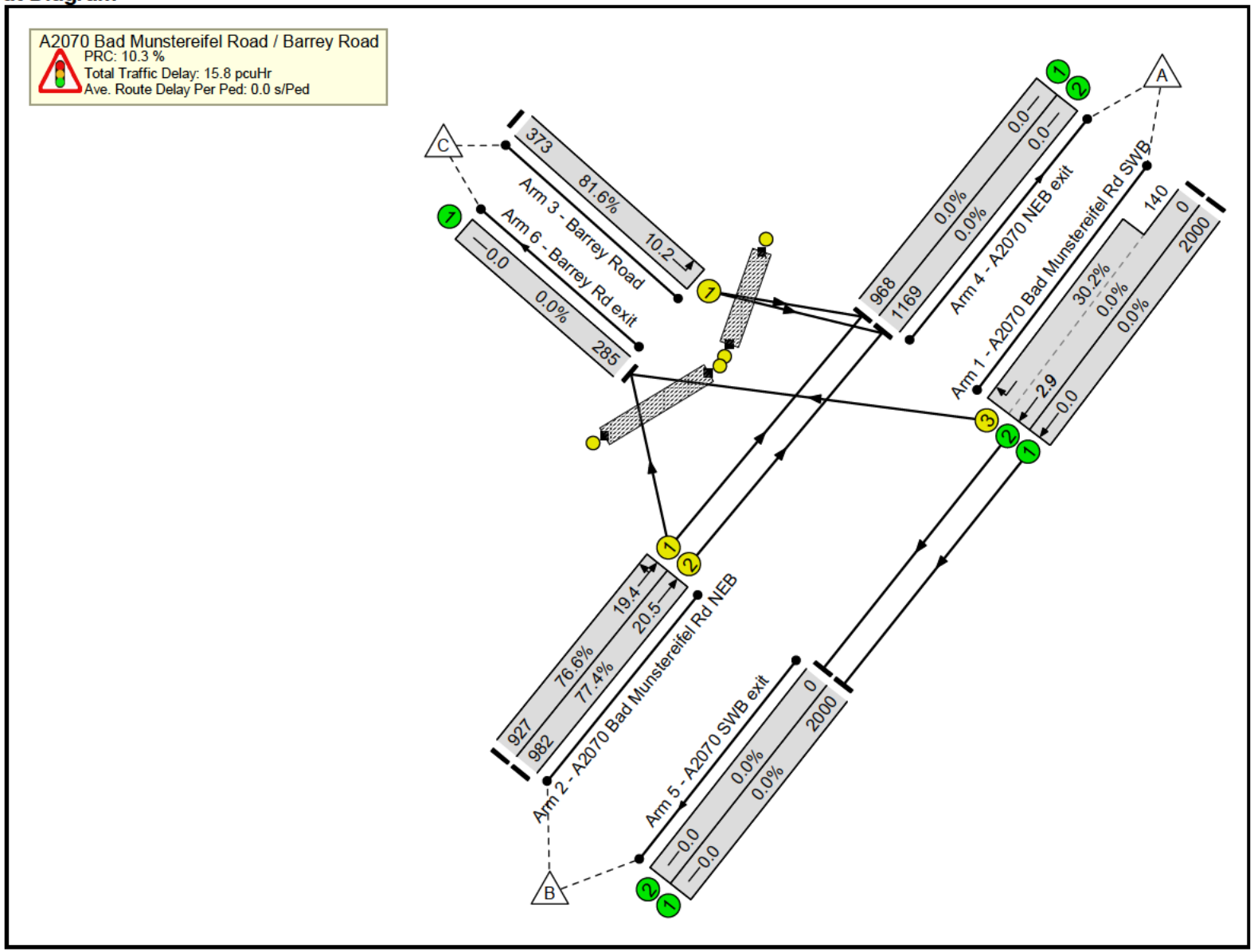
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	59	79
				141	161
				222	244
				299	321
				386	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	54
				84	136
				166	217
				249	294
				326	367
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	54
				84	136
				166	217
				249	294
				326	367
3/1	Barrey Road Left	U	C	62	79
				144	161
				225	244
				302	321
				386	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**81.6%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**81.6%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2000	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	140	1800:1802	0+464	0.0 : 30.2%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	238	-	-	927	1992	1210	76.6%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	238	-	-	982	2089	1269	77.4%
3/1	Barrey Road Left	U	N/A	N/A	C		5	86	-	-	373	2010	457	81.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	968	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1169	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2000	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	285	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	252	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

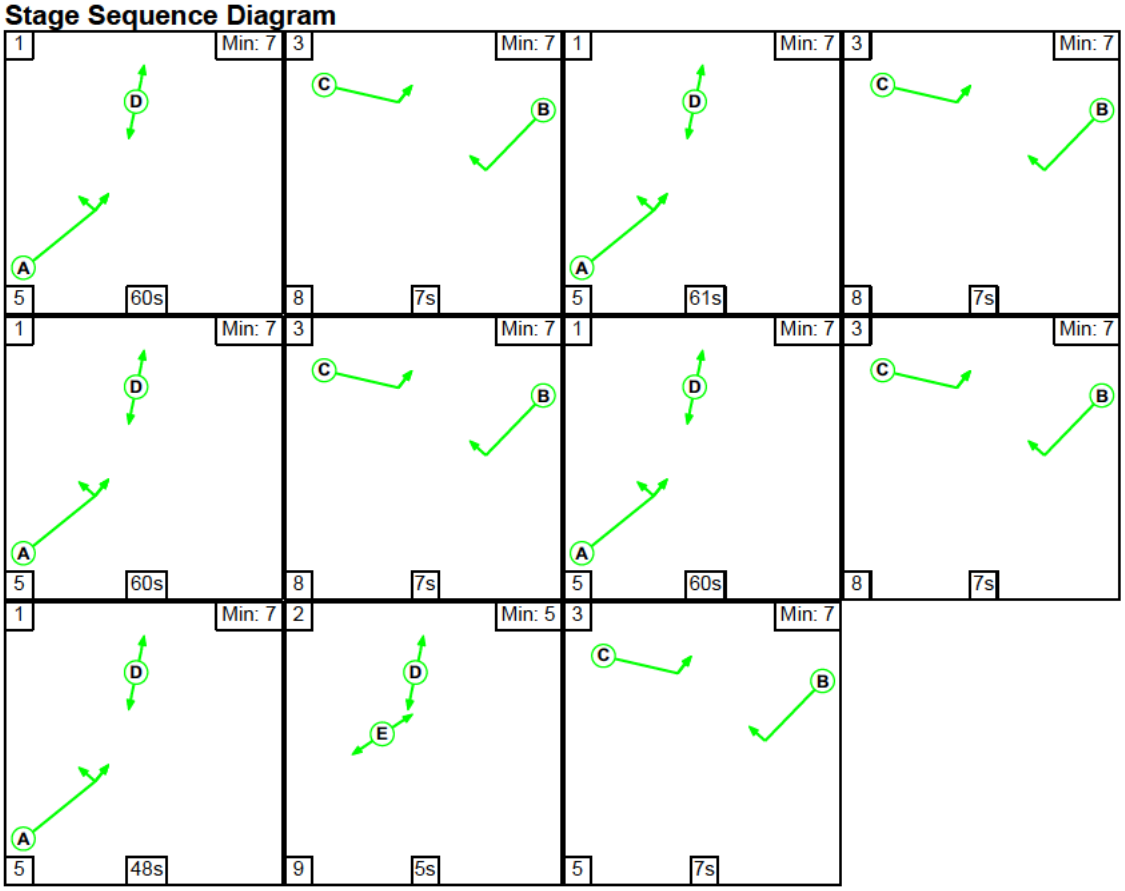
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**10.2**	**5.6**	**0.0**	**15.8**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**10.2**	**5.6**	**0.0**	**15.8**	**-**	**-**	**-**	**-**	
1/1	2000	2000	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	140	140	-	-	-	0.9	0.2	-	1.1	29.5	2.7	0.2	2.9	
2/1	927	927	-	-	-	3.0	1.6	-	4.6	17.9	17.8	1.6	19.4	
2/2	982	982	-	-	-	3.2	1.7	-	4.9	17.9	18.8	1.7	20.5	
3/1	373	373	-	-	-	3.0	2.1	-	5.2	49.7	8.1	2.1	10.2	
4/1	968	968	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1169	1169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2000	2000	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 10.3 Total Delay for Signalled Lanes (pcuHr): 14.65 Cycle Time (s): 400
PRC Over All Lanes (%): 10.3 Total Delay Over All Lanes(pcuHr): 15.80

Scenario 7: '2026 Base+Sev AM Peak' (FG7: '2026 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	60	7	61	7	60	7	60	7	48	5
Change Point	0	65	80	146	161	226	241	306	321	374

Stage	3									
Duration	7									
Change Point	388									

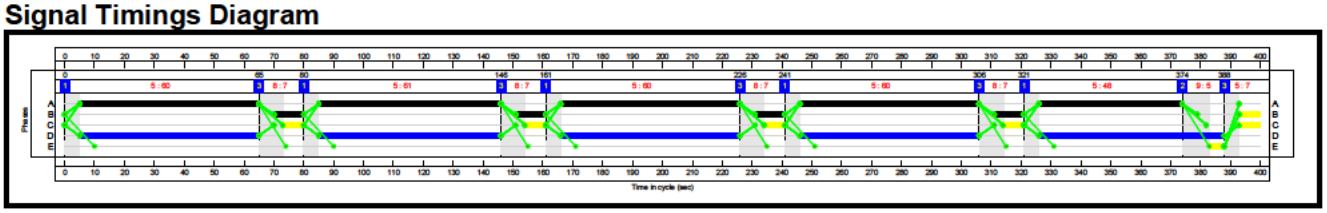
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	60	5	65	61	85	146
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	70	80	10	151	161
C	Barrey Road Left	Traffic	7	73	80	7	154	161
D	Pedestrians across Barrey Road approach	Pedestrian	60	5	65	61	85	146
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	60	166	226	60	246	306
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	231	241	10	311	321
C	Barrey Road Left	Traffic	7	234	241	7	314	321
D	Pedestrians across Barrey Road approach	Pedestrian	60	166	226	60	246	306
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	48	326	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	62	326	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

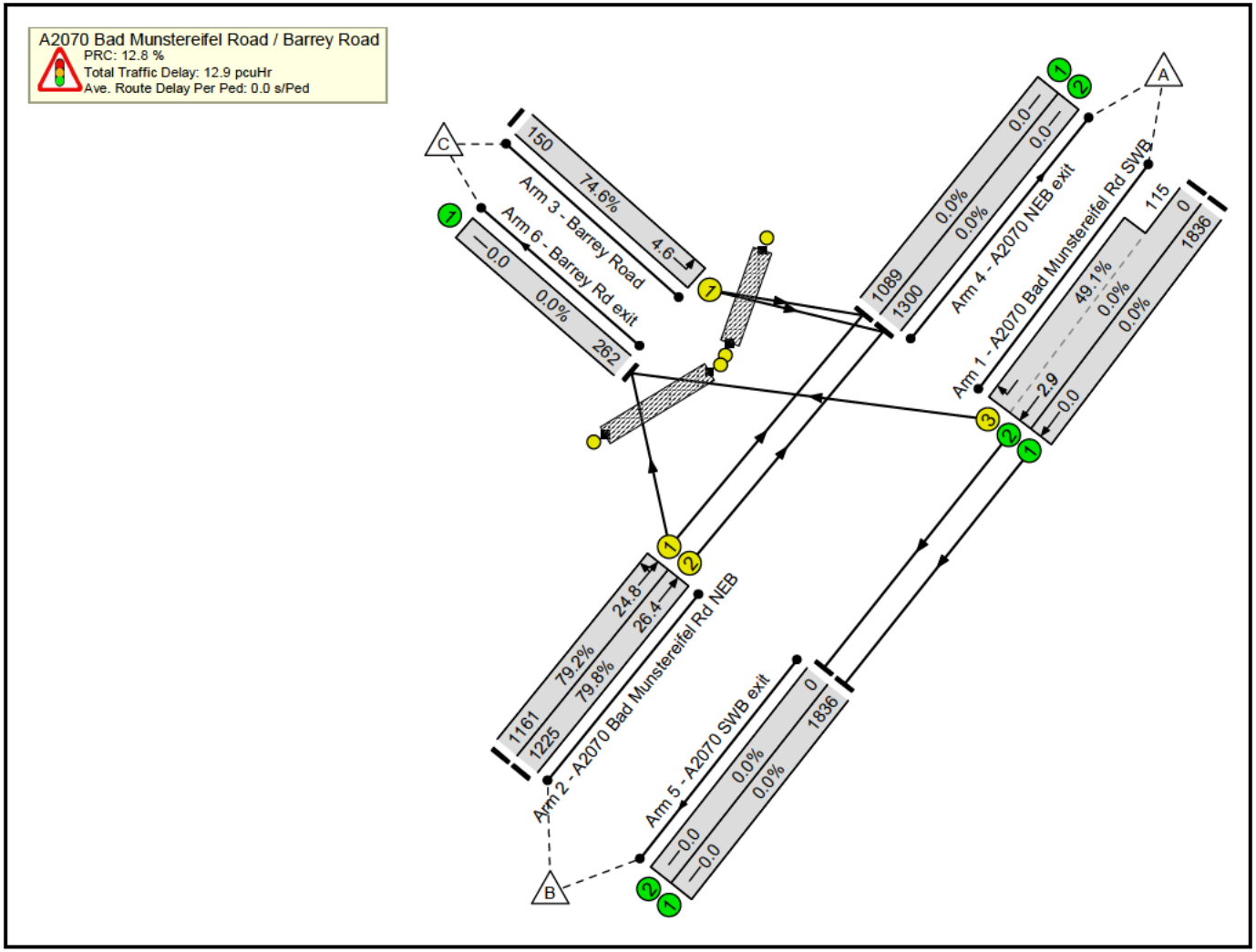
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	70	80
				151	161
				231	241
				311	321
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	65
				85	146
				166	226
				246	306
				326	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	65
				85	146
				166	226
				246	306
				326	374
3/1	Barrey Road Left	U	C	73	80
				154	161
				234	241
				314	321
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**79.8%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**79.8%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	1836	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	115	1800:1802	0+234	0.0 : 49.1%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1161	1995	1466	79.2%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1225	2089	1535	79.8%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	150	2010	201	74.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1089	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1300	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	1836	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	262	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

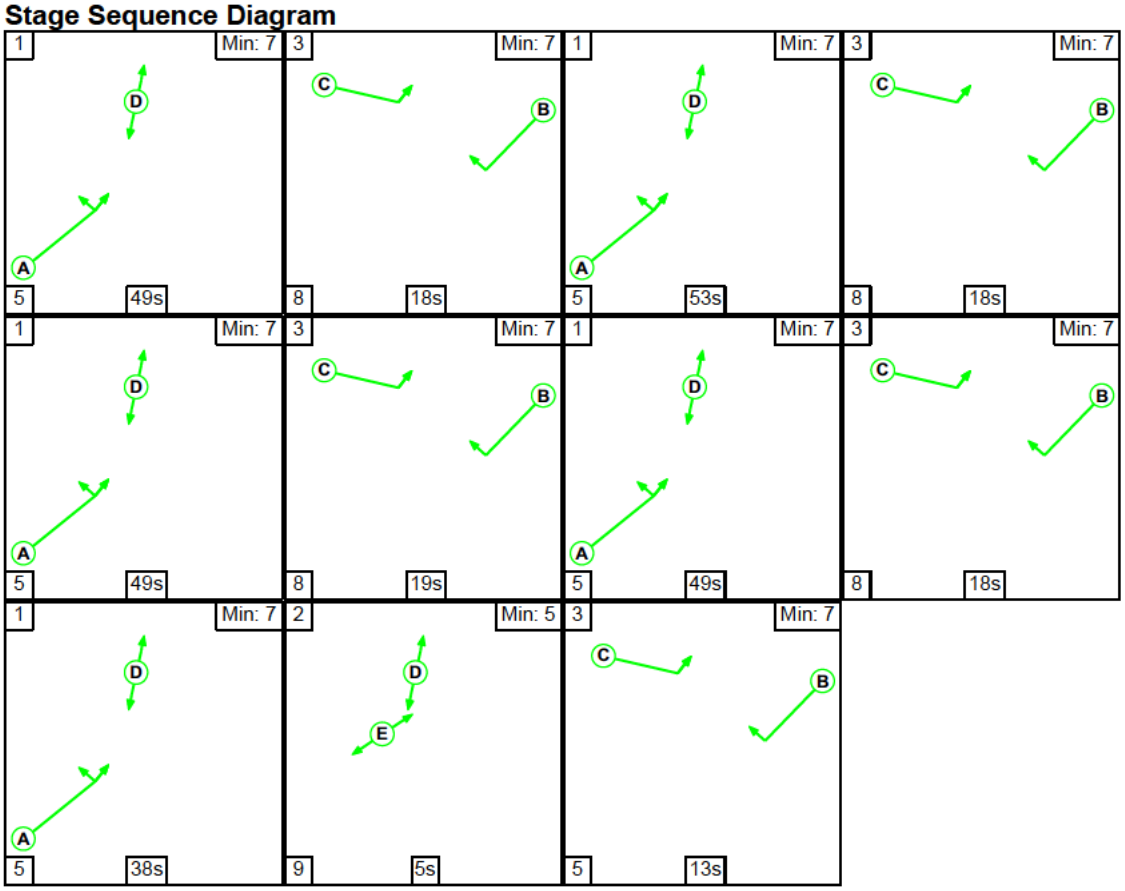
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**7.2**	**5.7**	**0.0**	**12.9**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**7.2**	**5.7**	**0.0**	**12.9**	**-**	**-**	**-**	**-**	
1/1	1836	1836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	115	115	-	-	-	1.0	0.5	-	1.5	47.3	2.4	0.5	2.9	
2/1	1161	1161	-	-	-	2.3	1.9	-	4.1	12.8	22.9	1.9	24.8	
2/2	1225	1225	-	-	-	2.4	1.9	-	4.4	12.8	24.5	1.9	26.4	
3/1	150	150	-	-	-	1.5	1.4	-	2.9	68.5	3.3	1.4	4.6	
4/1	1089	1089	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1300	1300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	1836	1836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 12.8 Total Delay for Signalled Lanes (pcuHr): 11.35 Cycle Time (s): 400
PRC Over All Lanes (%): 12.8 Total Delay Over All Lanes(pcuHr): 12.86

Scenario 8: '2026 Base+Sev PM Peak' (FG8: '2026 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	49	18	53	18	49	19	49	18	38	5
Change Point	0	54	80	138	164	218	245	299	325	368

Stage	3									
Duration	13									
Change Point	382									

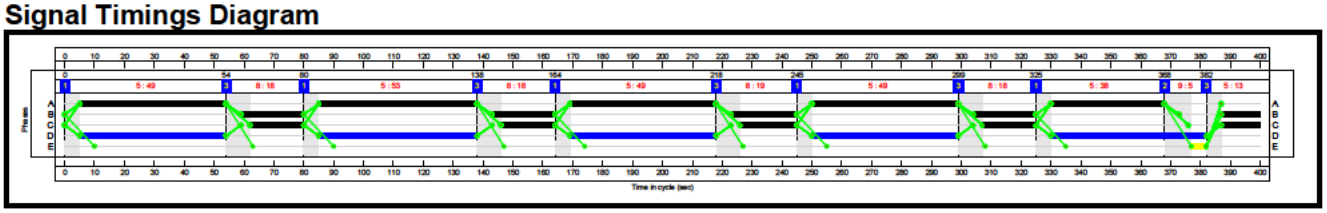
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	49	5	54	53	85	138
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	21	59	80	21	143	164
C	Barrey Road Left	Traffic	18	62	80	18	146	164
D	Pedestrians across Barrey Road approach	Pedestrian	49	5	54	53	85	138
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	377	382			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	49	169	218	49	250	299
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	22	223	245	21	304	325
C	Barrey Road Left	Traffic	19	226	245	18	307	325
D	Pedestrians across Barrey Road approach	Pedestrian	49	169	218	49	250	299
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	38	330	368
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	13	387	0
C	Barrey Road Left	Traffic	13	387	0
D	Pedestrians across Barrey Road approach	Pedestrian	52	330	382
E	Pedestrians across Exit to Barrey Road	Pedestrian			

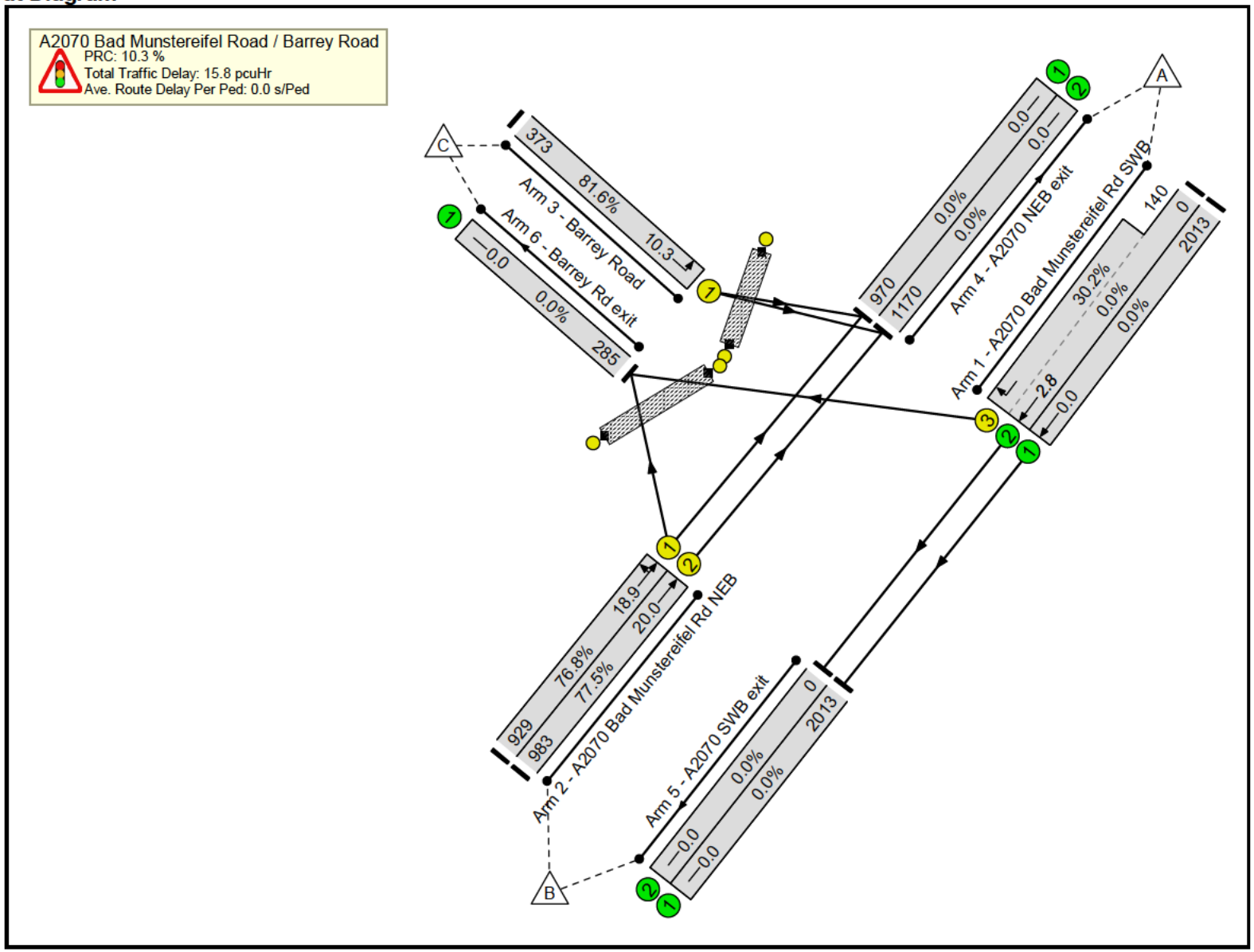
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	59	80
				143	164
				223	245
				304	325
				387	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	54
				85	138
				169	218
				250	299
				330	368
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	54
				85	138
				169	218
				250	299
				330	368
3/1	Barrey Road Left	U	C	62	80
				146	164
				226	245
				307	325
				387	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**81.6%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**81.6%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2013	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	140	1800:1802	0+464	0.0 : 30.2%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	238	-	-	929	1992	1210	76.8%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	238	-	-	983	2089	1269	77.5%
3/1	Barrey Road Left	U	N/A	N/A	C		5	86	-	-	373	2010	457	81.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	970	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1170	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2013	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	285	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	252	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

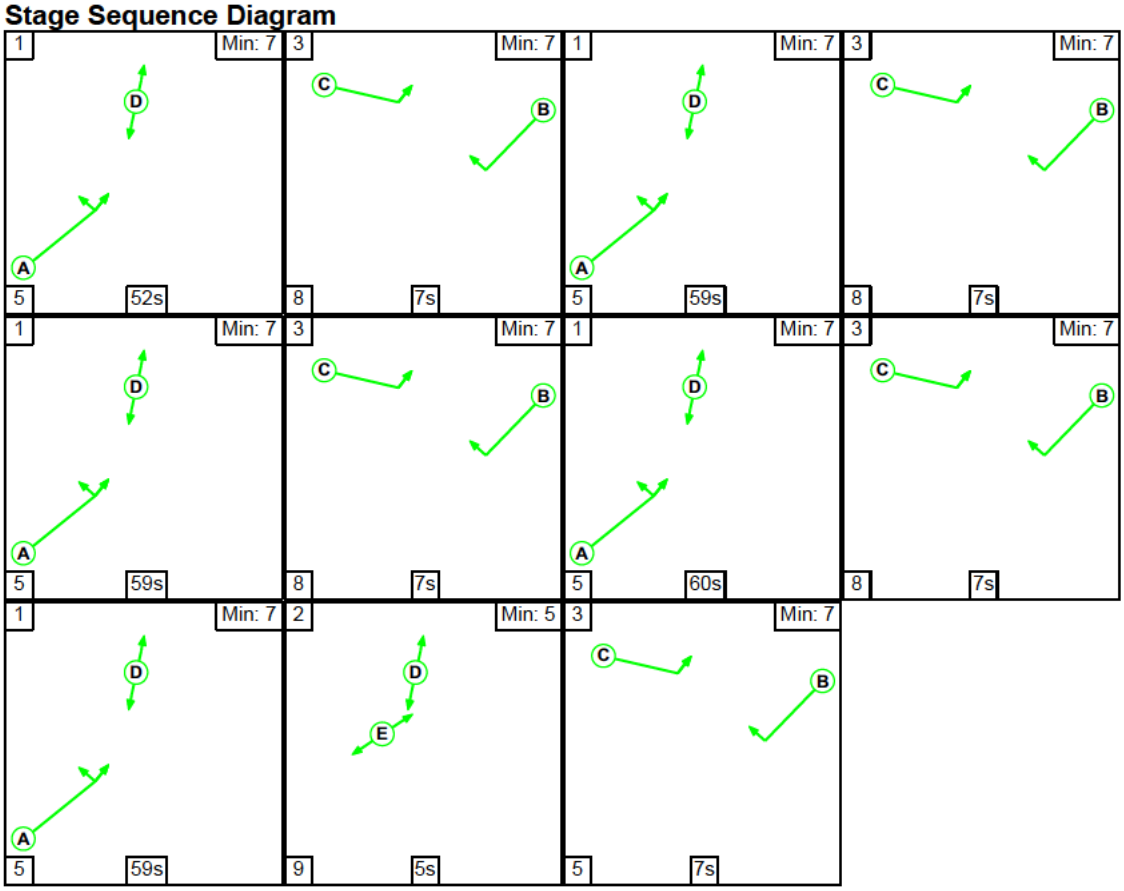
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**10.2**	**5.7**	**0.0**	**15.8**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**10.2**	**5.7**	**0.0**	**15.8**	**-**	**-**	**-**	**-**	
1/1	2013	2013	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	140	140	-	-	-	0.9	0.2	-	1.1	29.5	2.6	0.2	2.8	
2/1	929	929	-	-	-	3.0	1.6	-	4.6	17.9	17.3	1.6	18.9	
2/2	983	983	-	-	-	3.2	1.7	-	4.9	17.9	18.3	1.7	20.0	
3/1	373	373	-	-	-	3.0	2.1	-	5.1	49.7	8.2	2.1	10.3	
4/1	970	970	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1170	1170	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2013	2013	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 10.3 Total Delay for Signalled Lanes (pcuHr): 14.67 Cycle Time (s): 400
PRC Over All Lanes (%): 10.3 Total Delay Over All Lanes(pcuHr): 15.82

Scenario 9: '2036 Base AM Peak' (FG9: '2036 Base AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	52	7	59	7	59	7	60	7	59	5
Change Point	0	57	72	136	151	215	230	295	310	374

Stage	3									
Duration	7									
Change Point	388									

Phase Timings

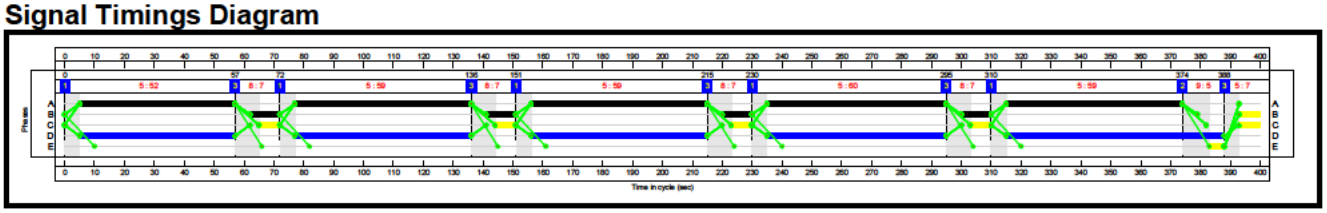
Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	52	5	57	59	77	136
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	62	72	10	141	151
C	Barrey Road Left	Traffic	7	65	72	7	144	151
D	Pedestrians across Barrey Road approach	Pedestrian	52	5	57	59	77	136
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Detailed Input Data And Results

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	59	156	215	60	235	295
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	220	230	10	300	310
C	Barrey Road Left	Traffic	7	223	230	7	303	310
D	Pedestrians across Barrey Road approach	Pedestrian	59	156	215	60	235	295
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	59	315	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	73	315	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

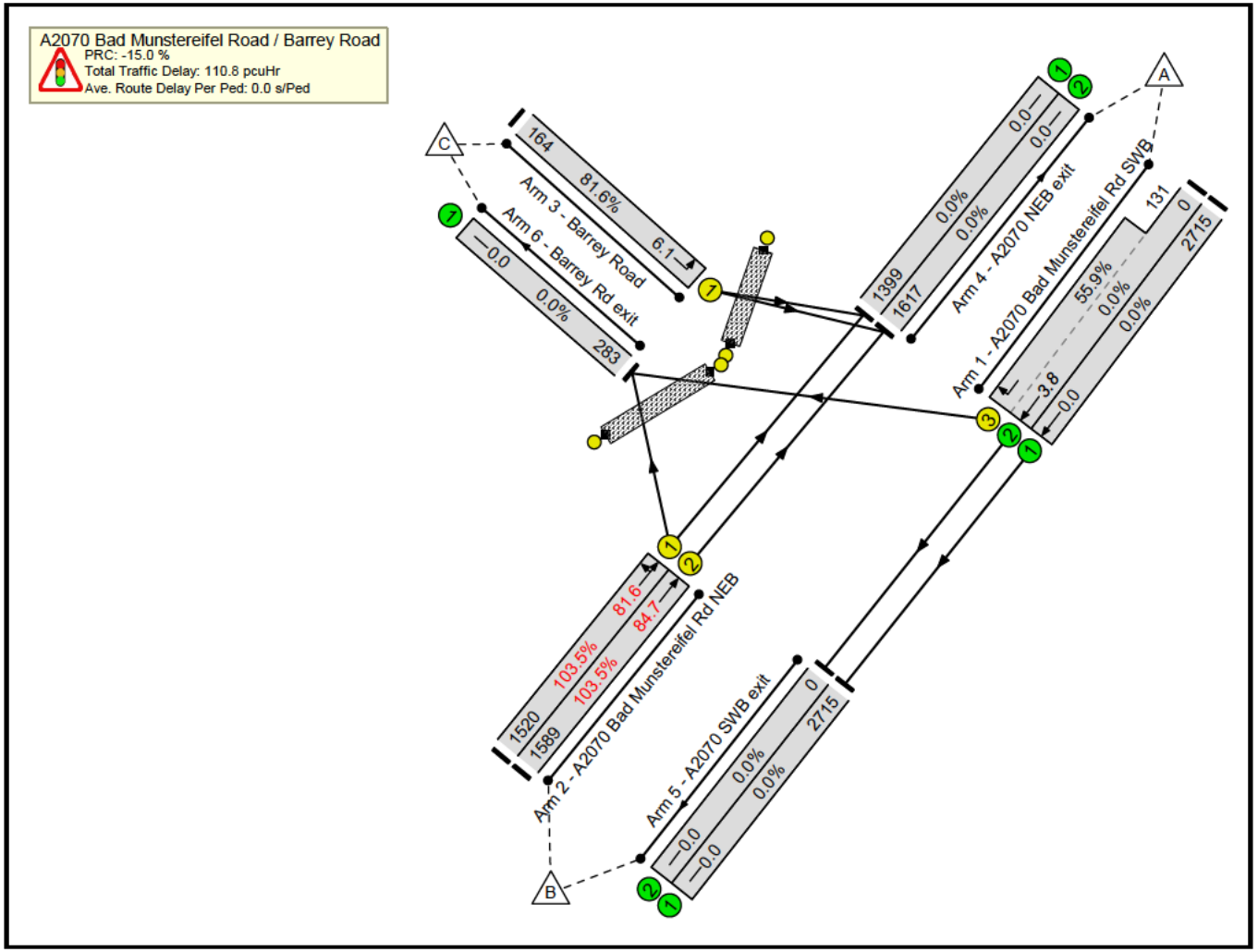
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	62	72
				141	151
				220	230
				300	310
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	57
				77	136
				156	215
				235	295
				315	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	57
				77	136
				156	215
				235	295
				315	374
3/1	Barrey Road Left	U	C	65	72
				144	151
				223	230
				303	310
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**103.5%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**103.5%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2715	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	131	1800:1802	0+234	0.0 : 55.9%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1520	1998	1469	103.5%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1589	2089	1535	103.5%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	164	2010	201	81.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1445	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1671	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2715	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	288	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

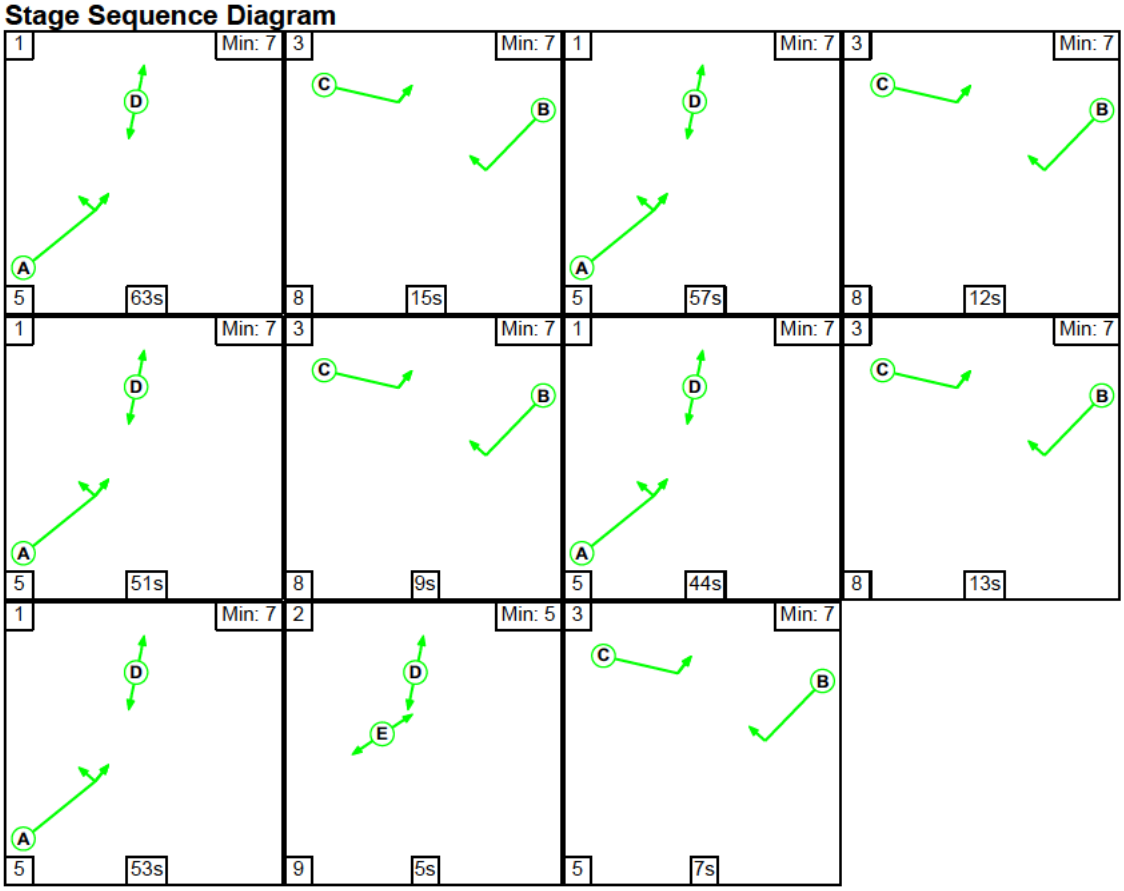
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**34.5**	**76.3**	**0.0**	**110.8**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**34.5**	**76.3**	**0.0**	**110.8**	**-**	**-**	**-**	**-**	
1/1	2715	2715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	131	131	-	-	-	1.2	0.6	-	1.8	50.2	3.2	0.6	3.8	
2/1	1520	1469	-	-	-	15.5	36.2	-	51.7	122.5	45.3	36.2	81.6	
2/2	1589	1535	-	-	-	16.2	37.4	-	53.6	121.4	47.3	37.4	84.7	
3/1	164	164	-	-	-	1.6	2.0	-	3.6	79.4	4.1	2.0	6.1	
4/1	1399	1399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1617	1617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2715	2715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): -15.0 Total Delay for Signalled Lanes (pcuHr): 108.94 Cycle Time (s): 400
PRC Over All Lanes (%): -15.0 Total Delay Over All Lanes(pcuHr): 110.76

Scenario 10: '2036 Base PM Peak' (FG10: '2036 Base PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	63	15	57	12	51	9	44	13	53	5
Change Point	0	68	91	153	173	229	246	295	316	374

Stage	3									
Duration	7									
Change Point	388									

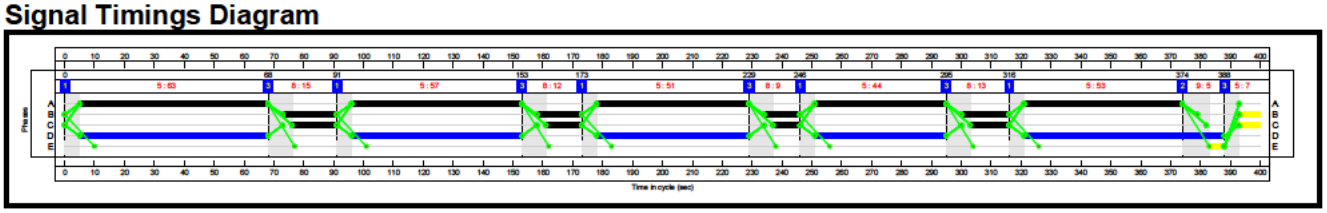
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	63	5	68	57	96	153
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	18	73	91	15	158	173
C	Barrey Road Left	Traffic	15	76	91	12	161	173
D	Pedestrians across Barrey Road approach	Pedestrian	63	5	68	57	96	153
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	178	229	44	251	295
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	12	234	246	16	300	316
C	Barrey Road Left	Traffic	9	237	246	13	303	316
D	Pedestrians across Barrey Road approach	Pedestrian	51	178	229	44	251	295
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	53	321	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	67	321	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

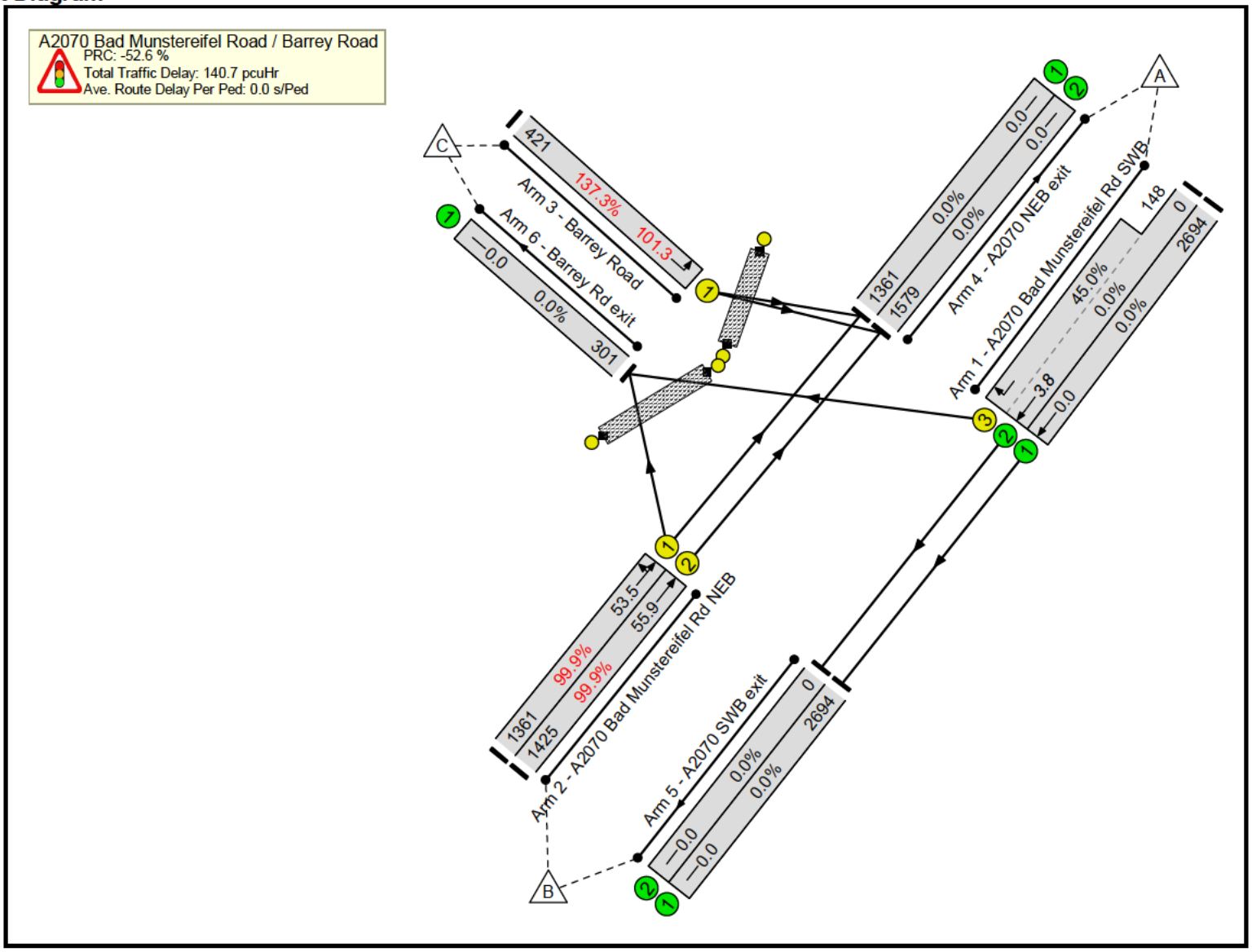
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	73	91
				158	173
				234	246
				300	316
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	68
				96	153
				178	229
				251	295
				321	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	68
				96	153
				178	229
				251	295
				321	374
3/1	Barrey Road Left	U	C	76	91
				161	173
				237	246
				303	316
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**137.3%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**137.3%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2694	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	148	1800:1802	0+329	0.0 : 45.0%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	268	-	-	1361	1997	1363	99.9%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	268	-	-	1425	2089	1426	99.9%
3/1	Barrey Road Left	U	N/A	N/A	C		5	56	-	-	421	2010	307	137.3%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1418	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1636	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2694	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	301	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	282	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

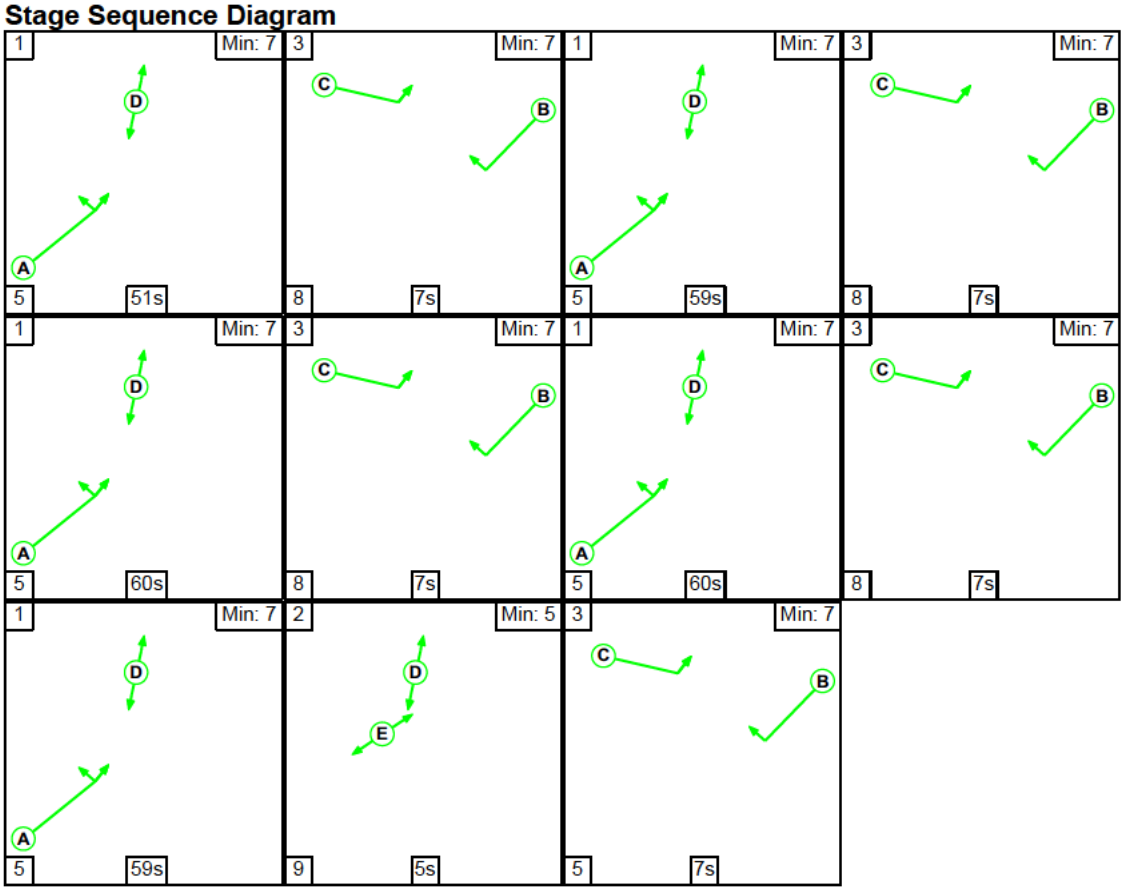
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**44.6**	**96.1**	**0.0**	**140.7**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**44.6**	**96.1**	**0.0**	**140.7**	**-**	**-**	**-**	**-**	
1/1	2694	2694	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	148	148	-	-	-	1.2	0.4	-	1.6	39.5	3.4	0.4	3.8	
2/1	1361	1361	-	-	-	4.9	18.0	-	22.8	60.4	35.5	18.0	53.5	
2/2	1425	1425	-	-	-	5.1	18.7	-	23.8	60.2	37.2	18.7	55.9	
3/1	421	307	-	-	-	33.4	59.0	-	92.4	790.2	42.3	59.0	101.3	
4/1	1361	1361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1579	1579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2694	2694	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): -52.6 Total Delay for Signalled Lanes (pcuHr): 139.05 Cycle Time (s): 400
PRC Over All Lanes (%): -52.6 Total Delay Over All Lanes(pcuHr): 140.67

Scenario 11: '2036 Base+Sev AM Peak' (FG11: '2036 Base+Sev AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	51	7	59	7	60	7	60	7	59	5
Change Point	0	56	71	135	150	215	230	295	310	374

Stage	3									
Duration	7									
Change Point	388									

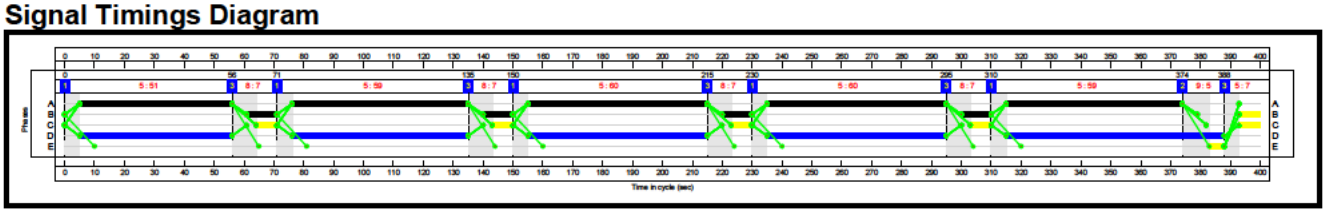
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	51	5	56	59	76	135
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	61	71	10	140	150
C	Barrey Road Left	Traffic	7	64	71	7	143	150
D	Pedestrians across Barrey Road approach	Pedestrian	51	5	56	59	76	135
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	60	155	215	60	235	295
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	220	230	10	300	310
C	Barrey Road Left	Traffic	7	223	230	7	303	310
D	Pedestrians across Barrey Road approach	Pedestrian	60	155	215	60	235	295
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	59	315	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	73	315	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

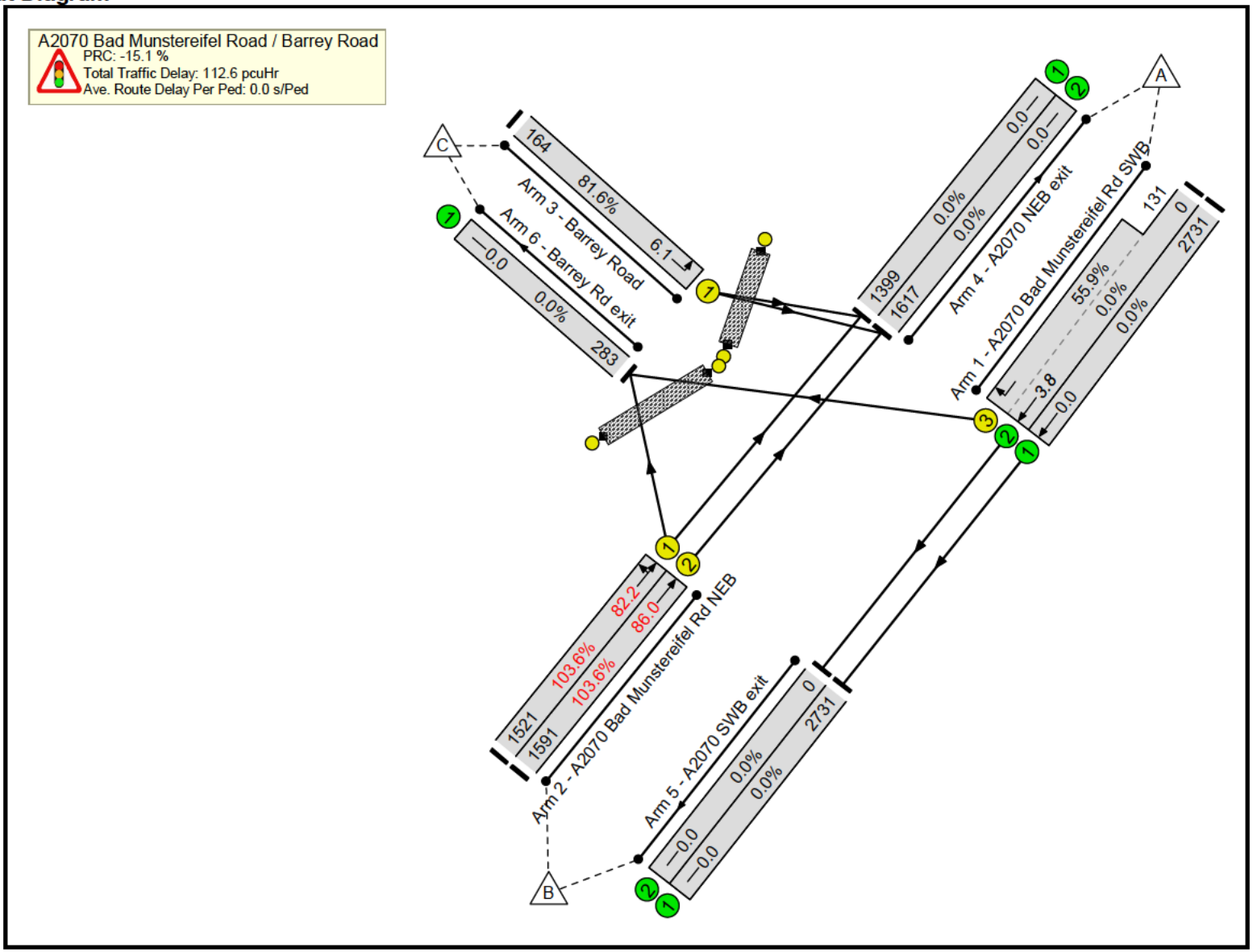
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	61	71
				140	150
				220	230
				300	310
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	56
				76	135
				155	215
				235	295
				315	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	56
				76	135
				155	215
				235	295
				315	374
3/1	Barrey Road Left	U	C	64	71
				143	150
				223	230
				303	310
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**103.6%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**103.6%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2731	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	131	1800:1802	0+234	0.0 : 55.9%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1521	1998	1469	103.6%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1591	2089	1535	103.6%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	164	2010	201	81.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1446	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1673	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2731	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	288	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

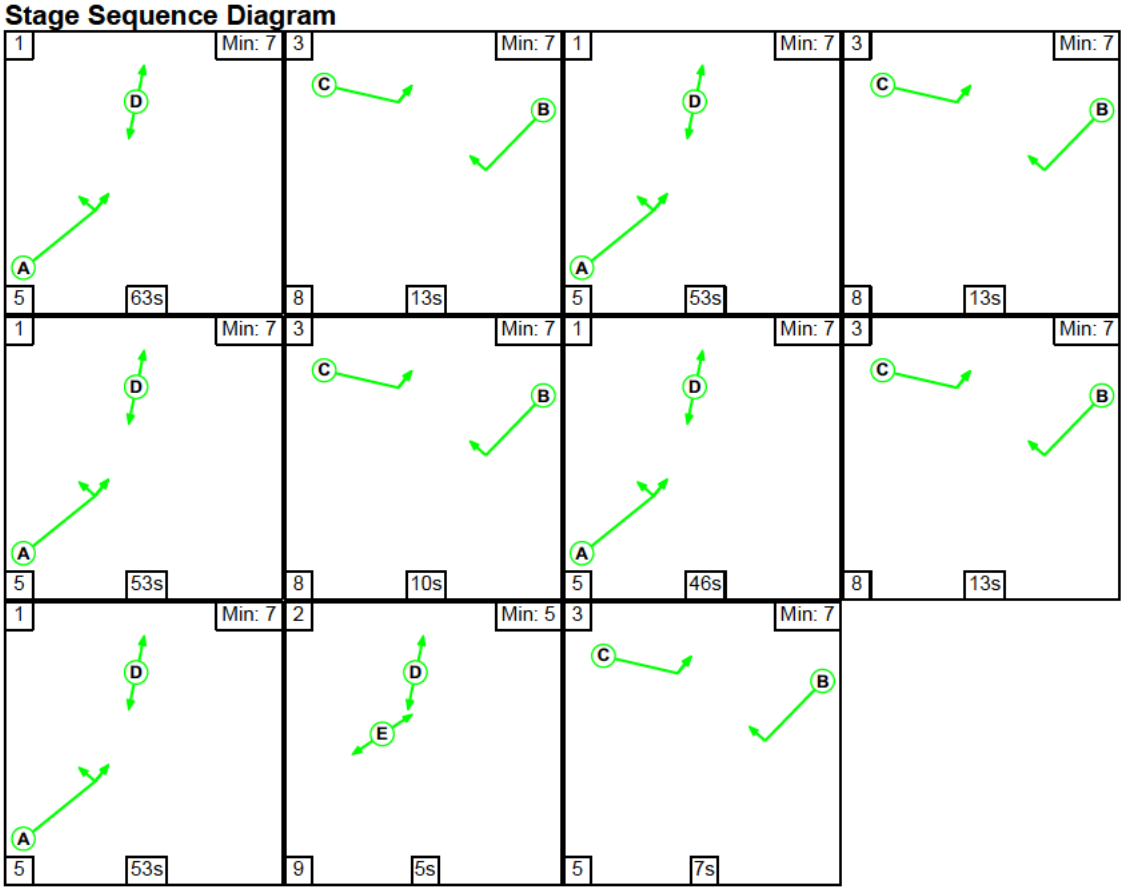
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**35.2**	**77.4**	**0.0**	**112.6**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**35.2**	**77.4**	**0.0**	**112.6**	**-**	**-**	**-**	**-**	
1/1	2731	2731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	131	131	-	-	-	1.2	0.6	-	1.8	50.2	3.2	0.6	3.8	
2/1	1521	1469	-	-	-	15.7	36.6	-	52.4	123.9	45.6	36.6	82.2	
2/2	1591	1535	-	-	-	16.6	38.2	-	54.8	124.0	47.8	38.2	86.0	
3/1	164	164	-	-	-	1.6	2.0	-	3.6	79.4	4.1	2.0	6.1	
4/1	1399	1399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1617	1617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2731	2731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): -15.1 Total Delay for Signalled Lanes (pcuHr): 110.78 Cycle Time (s): 400
PRC Over All Lanes (%): -15.1 Total Delay Over All Lanes(pcuHr): 112.61

Scenario 12: '2036 Base+Sev PM Peak' (FG12: '2036 Base+Sev PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	63	13	53	13	53	10	46	13	53	5
Change Point	0	68	89	147	168	226	244	295	316	374

Stage	3									
Duration	7									
Change Point	388									

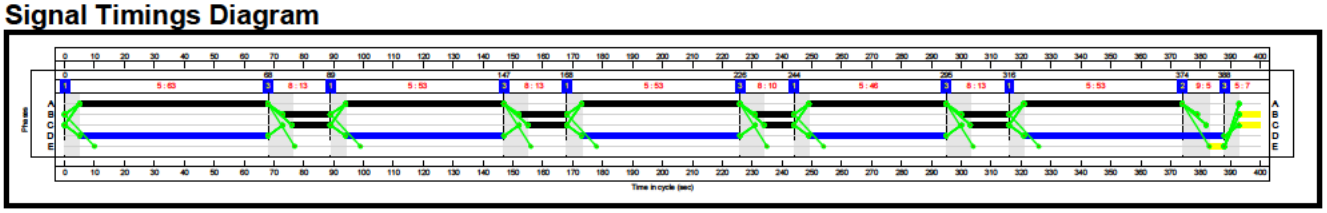
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	63	5	68	53	94	147
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	16	73	89	16	152	168
C	Barrey Road Left	Traffic	13	76	89	13	155	168
D	Pedestrians across Barrey Road approach	Pedestrian	63	5	68	53	94	147
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	53	173	226	46	249	295
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	13	231	244	16	300	316
C	Barrey Road Left	Traffic	10	234	244	13	303	316
D	Pedestrians across Barrey Road approach	Pedestrian	53	173	226	46	249	295
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	53	321	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	67	321	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

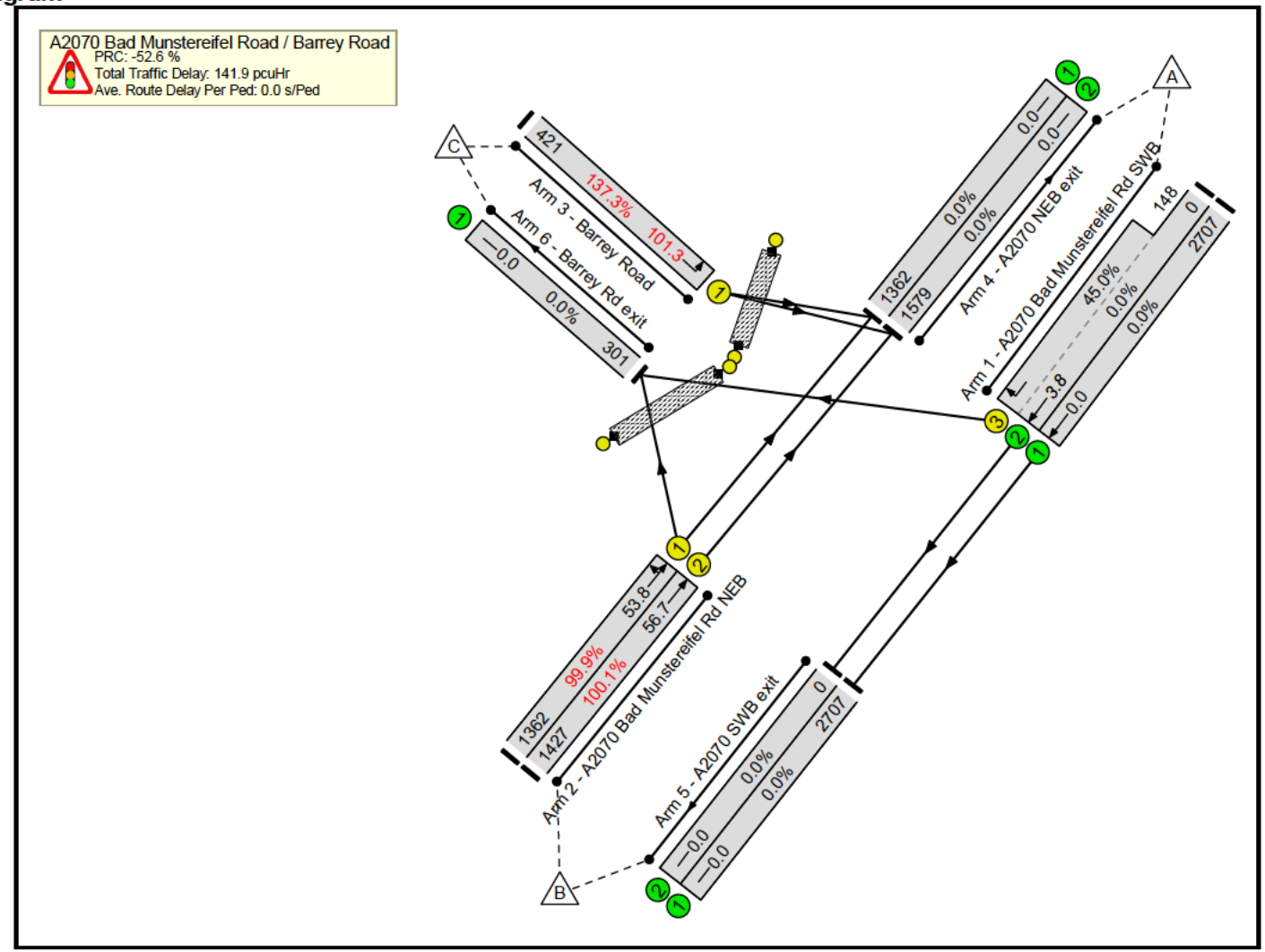
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	73	89
				152	168
				231	244
				300	316
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	68
				94	147
				173	226
				249	295
				321	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	68
				94	147
				173	226
				249	295
				321	374
3/1	Barrey Road Left	U	C	76	89
				155	168
				234	244
				303	316
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**137.3%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**137.3%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2707	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	148	1800:1802	0+329	0.0 : 45.0%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	268	-	-	1362	1997	1363	99.9%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	268	-	-	1427	2089	1426	100.1%
3/1	Barrey Road Left	U	N/A	N/A	C		5	56	-	-	421	2010	307	137.3%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1419	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1638	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2707	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	301	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	282	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

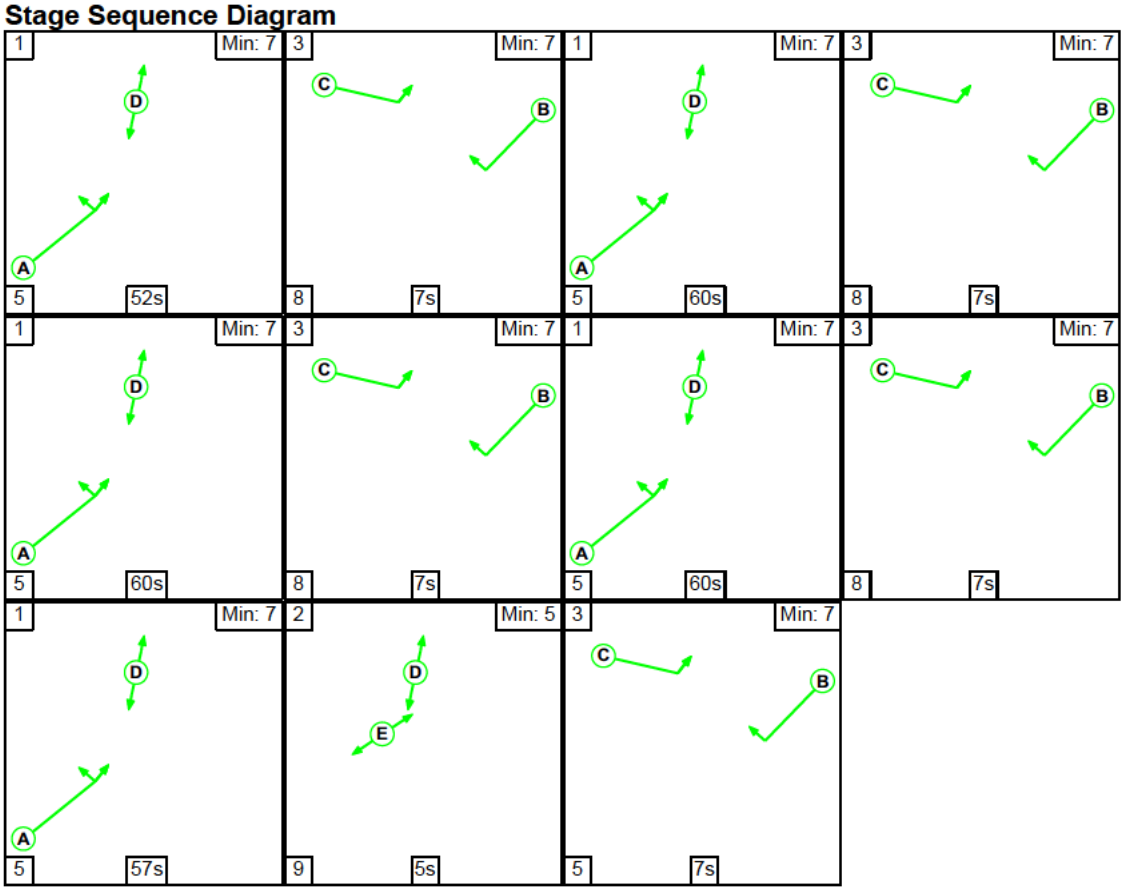
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**45.0**	**96.8**	**0.0**	**141.9**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**45.0**	**96.8**	**0.0**	**141.9**	**-**	**-**	**-**	**-**	
1/1	2707	2707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	148	148	-	-	-	1.2	0.4	-	1.6	39.4	3.4	0.4	3.8	
2/1	1362	1362	-	-	-	4.9	18.2	-	23.1	61.0	35.6	18.2	53.8	
2/2	1427	1426	-	-	-	5.4	19.2	-	24.6	62.1	37.5	19.2	56.7	
3/1	421	307	-	-	-	33.6	59.0	-	92.6	791.7	42.3	59.0	101.3	
4/1	1362	1362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1579	1579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2707	2707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): -52.6 Total Delay for Signalled Lanes (pcuHr): 140.26 Cycle Time (s): 400
PRC Over All Lanes (%): -52.6 Total Delay Over All Lanes(pcuHr): 141.88

Scenario 13: '2036 Base+Sev 4 AM Peak' (FG13: '2036 Base+Sev 4 AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	52	7	60	7	60	7	60	7	57	5
Change Point	0	57	72	137	152	217	232	297	312	374

Stage	3									
Duration	7									
Change Point	388									

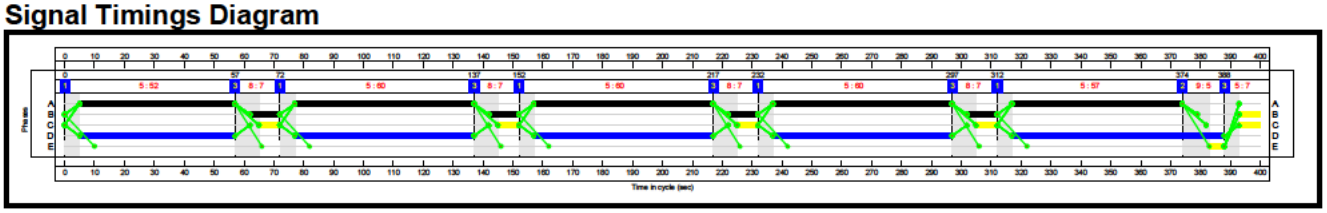
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	52	5	57	60	77	137
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	62	72	10	142	152
C	Barrey Road Left	Traffic	7	65	72	7	145	152
D	Pedestrians across Barrey Road approach	Pedestrian	52	5	57	60	77	137
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	60	157	217	60	237	297
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	10	222	232	10	302	312
C	Barrey Road Left	Traffic	7	225	232	7	305	312
D	Pedestrians across Barrey Road approach	Pedestrian	60	157	217	60	237	297
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	57	317	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	71	317	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

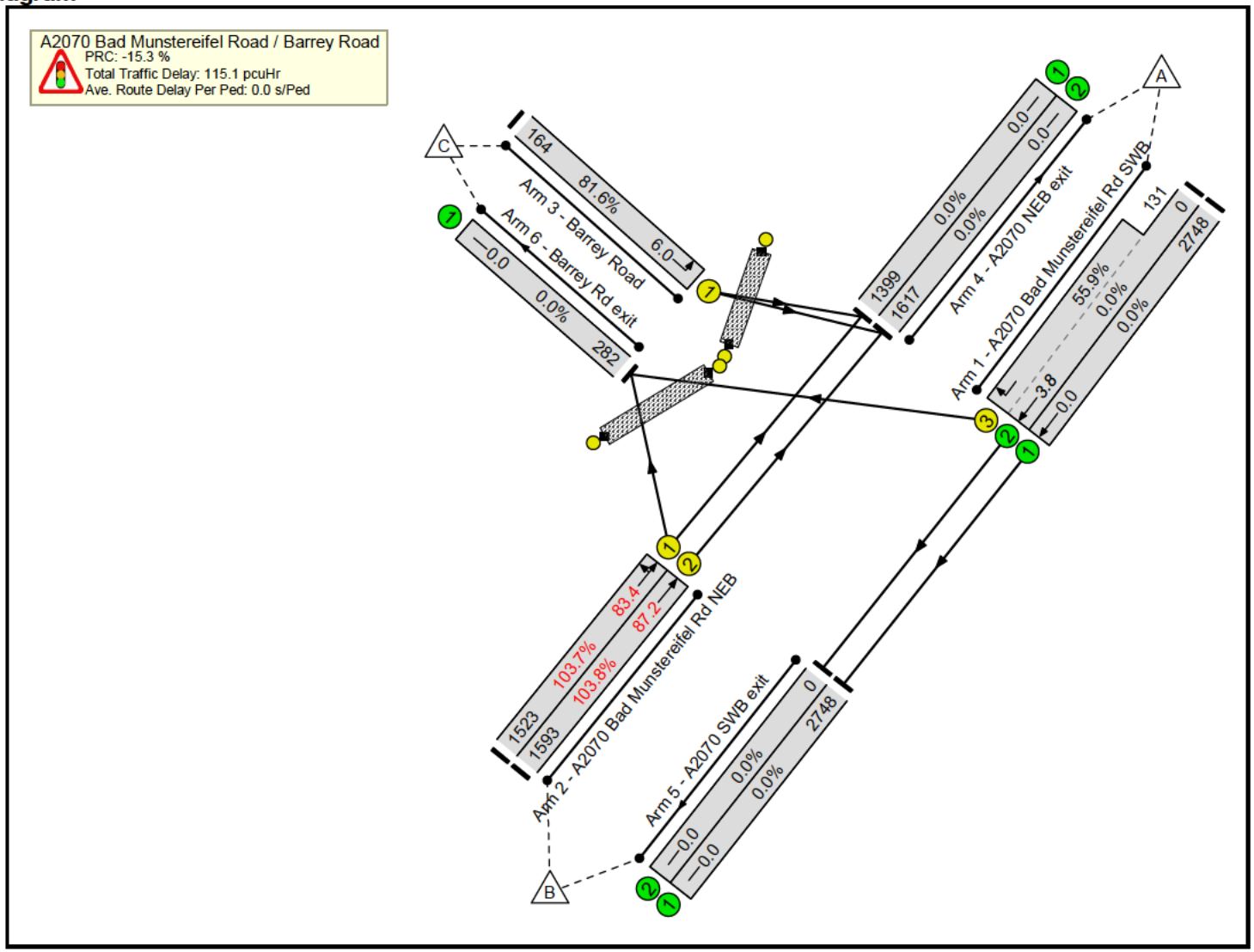
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	62	72
				142	152
				222	232
				302	312
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	57
				77	137
				157	217
				237	297
				317	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	57
				77	137
				157	217
				237	297
				317	374
3/1	Barrey Road Left	U	C	65	72
				145	152
				225	232
				305	312
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**103.8%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**103.8%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2748	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	131	1800:1802	0+234	0.0 : 55.9%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	289	-	-	1523	1998	1469	103.7%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	289	-	-	1593	2089	1535	103.8%
3/1	Barrey Road Left	U	N/A	N/A	C		5	35	-	-	164	2010	201	81.6%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1448	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1675	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2748	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	288	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	303	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

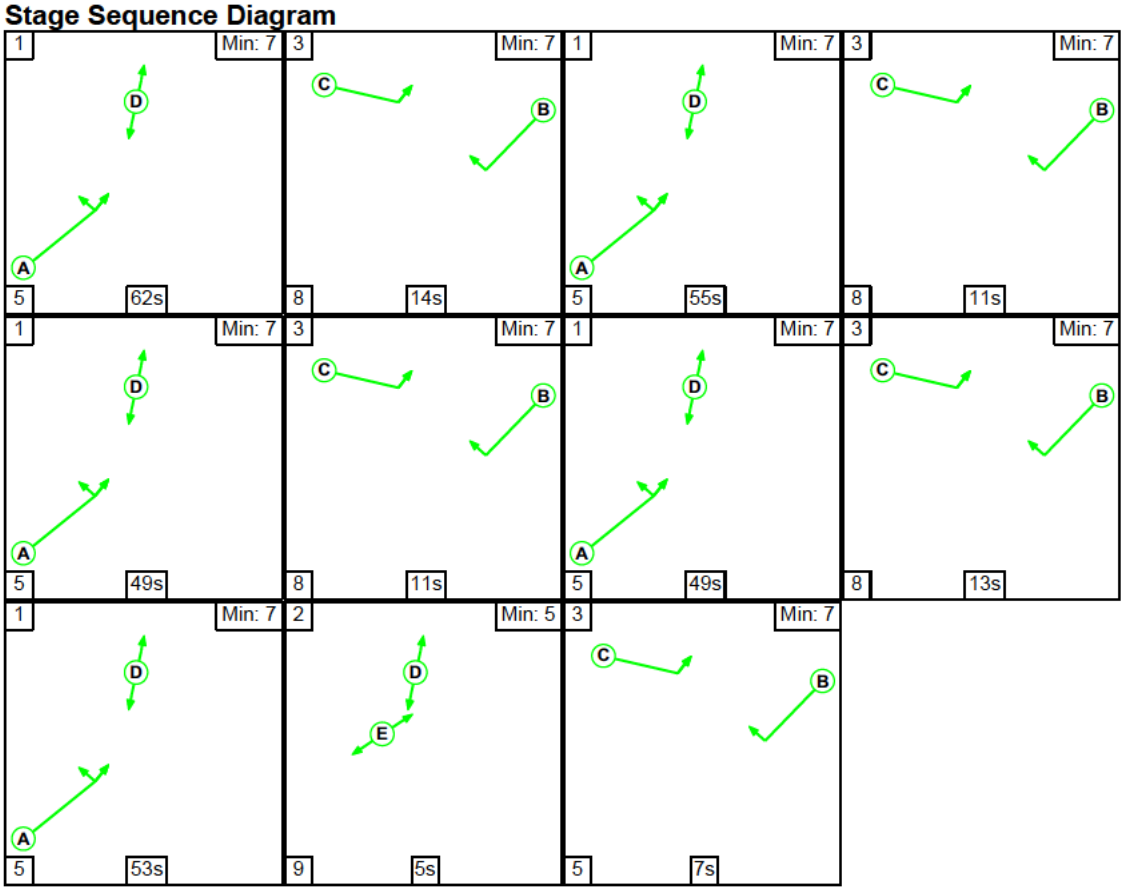
Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**36.1**	**79.0**	**0.0**	**115.1**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**36.1**	**79.0**	**0.0**	**115.1**	**-**	**-**	**-**	**-**	
1/1	2748	2748	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	131	131	-	-	-	1.2	0.6	-	1.8	50.1	3.1	0.6	3.8	
2/1	1523	1469	-	-	-	16.2	37.4	-	53.6	126.7	46.0	37.4	83.4	
2/2	1593	1535	-	-	-	17.1	39.0	-	56.1	126.7	48.2	39.0	87.2	
3/1	164	164	-	-	-	1.6	2.0	-	3.6	79.4	4.0	2.0	6.0	
4/1	1399	1399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1617	1617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2748	2748	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	282	282	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): -15.3 Total Delay for Signalled Lanes (pcuHr): 113.30 Cycle Time (s): 400
PRC Over All Lanes (%): -15.3 Total Delay Over All Lanes(pcuHr): 115.13

Scenario 14: '2036 Base+Sev 4 PM Peak' (FG14: '2036 Base+Sev 4 PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



Stage Timings

Stage	1	3	1	3	1	3	1	3	1	2
Duration	62	14	55	11	49	11	49	13	53	5
Change Point	0	67	89	149	168	222	241	295	316	374

Stage	3									
Duration	7									
Change Point	388									

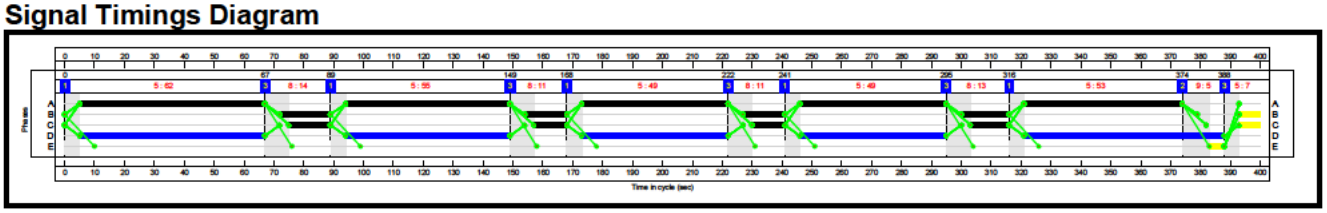
Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	62	5	67	55	94	149
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	17	72	89	14	154	168
C	Barrey Road Left	Traffic	14	75	89	11	157	168
D	Pedestrians across Barrey Road approach	Pedestrian	62	5	67	55	94	149
E	Pedestrians across Exit to Barrey Road	Pedestrian	5	383	388			

Phase Name	Description	Phase	Green Period 3			Green Period 4		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	49	173	222	49	246	295
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	14	227	241	16	300	316
C	Barrey Road Left	Traffic	11	230	241	13	303	316
D	Pedestrians across Barrey Road approach	Pedestrian	49	173	222	49	246	295
E	Pedestrians across Exit to Barrey Road	Pedestrian						

Phase Name	Description	Phase	Green Period 5		
			Total Green	Start Time	End Time
A	A2070 Bad Munstereifel Rd NEB Ahead Left	Traffic	53	321	374
B	A2070 Bad Munstereifel Rd SWB Right	Traffic	7	393	0
C	Barrey Road Left	Traffic	7	393	0
D	Pedestrians across Barrey Road approach	Pedestrian	67	321	388
E	Pedestrians across Exit to Barrey Road	Pedestrian			

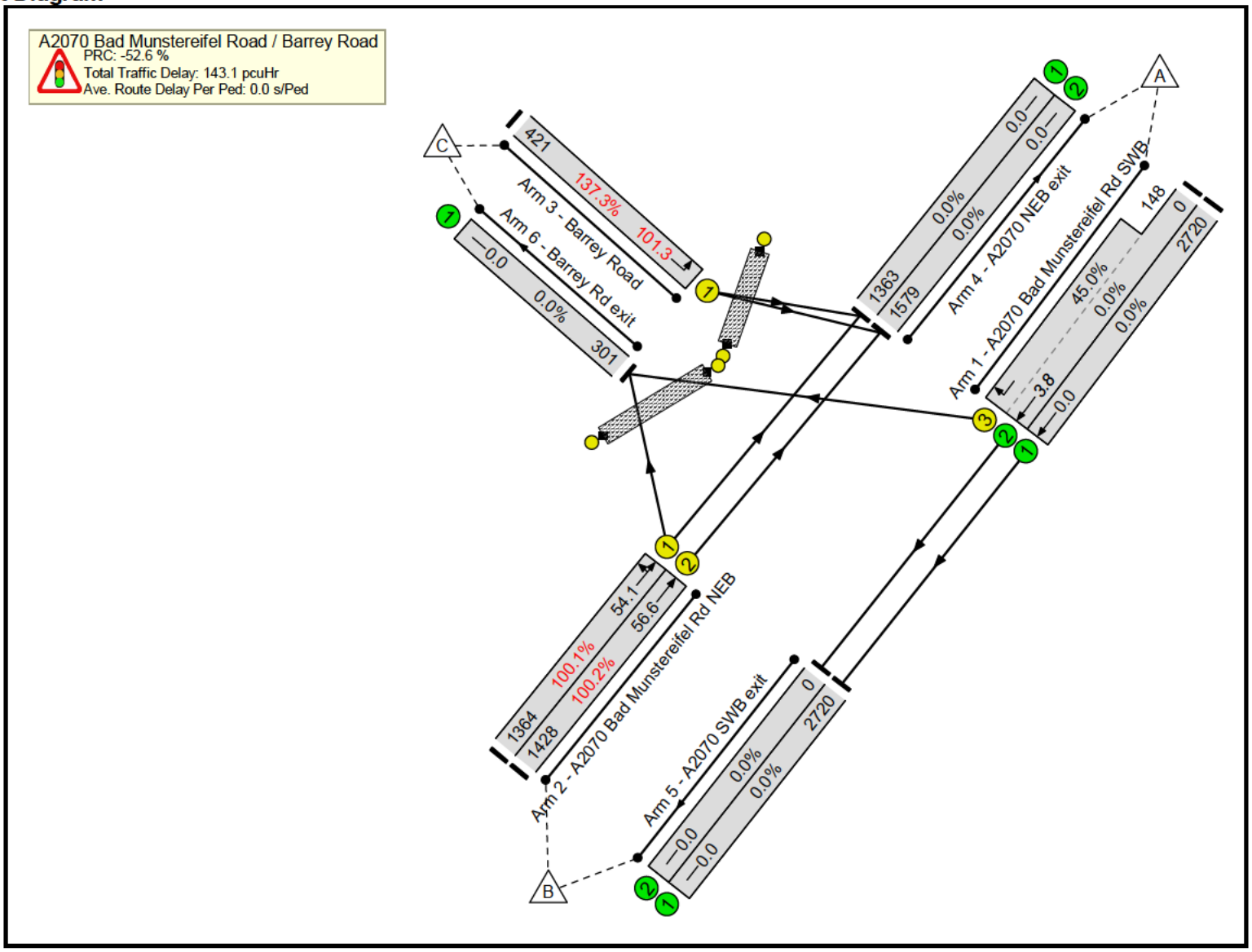
Signal Timings Diagram



Lane Green Times

Junction: A2070 Bad Munstereifel Road / Barrey Road					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/3	A2070 Bad Munstereifel Rd SWB Right	U	B	72	89
				154	168
				227	241
				300	316
				393	0
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	A	5	67
				94	149
				173	222
				246	295
				321	374
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	A	5	67
				94	149
				173	222
				246	295
				321	374
3/1	Barrey Road Left	U	C	75	89
				157	168
				230	241
				303	316
				393	0

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J3) A2070 Bad Munstereifel Rd / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**137.3%**
A2070 Bad Munstereifel Road / Barrey Road	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**137.3%**
1/1	A2070 Bad Munstereifel Rd SWB Ahead	U	N/A	N/A	-		-	-	-	-	2720	Inf	Inf	0.0%
1/2+1/3	A2070 Bad Munstereifel Rd SWB Ahead Right	U	N/A	N/A	- B		-	-	-	-	148	1800:1802	0+329	0.0 : 45.0%
2/1	A2070 Bad Munstereifel Rd NEB Ahead Left	U	N/A	N/A	A		5	268	-	-	1364	1997	1363	100.1%
2/2	A2070 Bad Munstereifel Rd NEB Ahead	U	N/A	N/A	A		5	268	-	-	1428	2089	1426	100.2%
3/1	Barrey Road Left	U	N/A	N/A	C		5	56	-	-	421	2010	307	137.3%
4/1	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1421	Inf	Inf	0.0%
4/2	A2070 NEB exit	U	N/A	N/A	-		-	-	-	-	1639	Inf	Inf	0.0%
5/1	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	2720	Inf	Inf	0.0%
5/2	A2070 SWB exit	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	Barrey Rd exit	U	N/A	N/A	-		-	-	-	-	301	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		5	282	-	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	5	-	-	0	-	0	0.0%

Detailed Input Data And Results

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: J3) A2070 Bad Munstereifel Rd / Barrey Road	**-**	**-**	**0**	**0**	**0**	**45.5**	**97.6**	**0.0**	**143.1**	**-**	**-**	**-**	**-**	
A2070 Bad Munstereifel Road / Barrey Road	**-**	**-**	**0**	**0**	**0**	**45.5**	**97.6**	**0.0**	**143.1**	**-**	**-**	**-**	**-**	
1/1	2720	2720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
1/2+1/3	148	148	-	-	-	1.2	0.4	-	1.6	39.4	3.4	0.4	3.8	
2/1	1364	1363	-	-	-	5.2	18.7	-	23.9	63.1	35.4	18.7	54.1	
2/2	1428	1426	-	-	-	5.6	19.5	-	25.1	63.2	37.1	19.5	56.6	
3/1	421	307	-	-	-	33.5	59.0	-	92.5	791.2	42.3	59.0	101.3	
4/1	1363	1363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	1579	1579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	2720	2720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): -52.6 Total Delay for Signalled Lanes (pcuHr): 141.51 Cycle Time (s): 400
PRC Over All Lanes (%): -52.6 Total Delay Over All Lanes(pcuHr): 143.13

S. Junctions 11 Output – Junction 4

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.0.0.2177
© Copyright TRL Software Limited, 2024

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: J4) A2070 3-arm RBT.j11
Path: H:\Projects\WIE20982\110\01_Deliverables\01_WIP\CA\4) Models\J4
Report generation date: 25/03/2025 17:13:20

»2024 | Base | AM
»2024 | Base | PM
»2024 | Base+Sev | AM
»2024 | Base+Sev | PM
»2026 | Base | AM
»2026 | Base | PM
»2026 | Base+Sev | AM
»2026 | Base+Sev | PM
»2036 | Base | AM
»2036 | Base | PM
»2036 | Base+Sev | AM
»2036 | Base+Sev | PM
»2036 | Base+Sev 4 | AM
»2036 | Base+Sev 4 | PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2024 - Base					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.9	6.30	0.64	2.5	7.59	0.71
2 - A2070 (E) via M20 J10a	0.2	2.48	0.16	0.1	2.42	0.07
3 - A2070 Bad Munstereifel Road (SW)	1.2	3.75	0.52	1.0	3.17	0.49
	2024 - Base+Sev					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.9	6.41	0.65	2.5	7.71	0.71
2 - A2070 (E) via M20 J10a	0.2	2.51	0.17	0.1	2.48	0.09
3 - A2070 Bad Munstereifel Road (SW)	1.2	3.79	0.52	1.0	3.24	0.49
	2026 - Base					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	2.1	6.79	0.66	2.8	8.35	0.73
2 - A2070 (E) via M20 J10a	0.2	2.52	0.17	0.1	2.46	0.07
3 - A2070 Bad Munstereifel Road (SW)	1.3	3.87	0.54	1.0	3.25	0.50
	2026 - Base+Sev					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	2.1	6.90	0.67	2.9	8.51	0.74
2 - A2070 (E) via M20 J10a	0.2	2.56	0.18	0.1	2.52	0.09
3 - A2070 Bad Munstereifel Road (SW)	1.3	3.91	0.54	1.1	3.32	0.51
	2036 - Base					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	136.0	258.78	1.18	149.4	288.79	1.20
2 - A2070 (E) via M20 J10a	0.3	3.20	0.22	0.1	2.91	0.10
3 - A2070 Bad Munstereifel Road (SW)	2.5	6.02	0.70	2.2	5.21	0.69
	2036 - Base+Sev					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	140.8	267.24	1.18	153.9	297.29	1.21
2 - A2070 (E) via M20 J10a	0.3	3.23	0.23	0.1	2.98	0.12
3 - A2070 Bad Munstereifel Road (SW)	2.5	6.11	0.70	2.3	5.40	0.69
	2036 - Base+Sev 4					
1 - A2070 Bad Munstereifel Road (N) via M20 J10	143.9	272.84	1.19	156.0	301.08	1.21
2 - A2070 (E) via M20 J10a	0.3	3.24	0.23	0.2	3.00	0.13
3 - A2070 Bad Munstereifel Road (SW)	2.5	6.14	0.70	2.3	5.44	0.70

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

File summary

File Description

Title	A2070 3-arm Roundabout
Location	
Site number	
Date	08/01/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	WIE20982 Sevington IBF
Enumerator	WATERLOO\CSMS4
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75		✓				0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024	Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2024	Base	PM	ONE HOUR	16:15	17:45	15	✓
D3	2024	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓
D4	2024	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓
D5	2026	Base	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026	Base	PM	ONE HOUR	16:15	17:45	15	✓
D7	2026	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓
D11	2036	Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2036	Base	PM	ONE HOUR	16:15	17:45	15	✓
D13	2036	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓
D14	2036	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓
D15	2036	Base+Sev 4	AM	ONE HOUR	07:30	09:00	15	✓
D16	2036	Base+Sev 4	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.00	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A2070 Bad Munstereifel Road (N) via M20 J10		
2	A2070 (E) via M20 J10a		
3	A2070 Bad Munstereifel Road (SW)		

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)	Entry only	Exit only
1 - A2070 Bad Munstereifel Road (N) via M20 J10	7.00	7.50	21.0	28.0	70.0	16.0		
2 - A2070 (E) via M20 J10a	6.50	8.00	20.0	35.0	70.0	16.0		
3 - A2070 Bad Munstereifel Road (SW)	7.00	7.50	16.5	20.0	70.0	16.0		

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		
2 - A2070 (E) via M20 J10a	✓	100
3 - A2070 Bad Munstereifel Road (SW)	✓	100

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.631	2403
2 - A2070 (E) via M20 J10a	0.648	2498
3 - A2070 Bad Munstereifel Road (SW)	0.622	2369

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024	Base	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	977	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1112	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2330	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	3	22	952
	2 - A2070 (E) via M20 J10a	258	1	853
	3 - A2070 Bad Munstereifel Road (SW)	1293	945	92

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.64	6.30	1.9	A	897	1345	104.21	4.65	1.16	104.22	4.65
2 - A2070 (E) via M20 J10a	0.16	2.48	0.2	A	1020	356	13.40	2.26	0.15	13.40	2.26
3 - A2070 Bad Munstereifel Road (SW)	0.52	3.75	1.2	A	2138	1427	76.21	3.20	0.85	76.21	3.20

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	736	736	184	0	973	779	1912	0.385	733	196	
2 - A2070 (E) via M20 J10a	837	195	49	642	0	785	1990	0.098	195	727	
3 - A2070 Bad Munstereifel Road (SW)	1754	781	195	973	642	197	2246	0.348	778	783	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	878	878	220	0	1162	932	1815	0.484	877	235	
2 - A2070 (E) via M20 J10a	1000	233	58	767	0	940	1890	0.123	233	869	
3 - A2070 Bad Munstereifel Road (SW)	2095	932	233	1162	767	235	2222	0.419	931	937	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1076	1076	269	0	1424	1141	1683	0.639	1072	287	
2 - A2070 (E) via M20 J10a	1224	285	71	939	0	1149	1754	0.163	285	1064	
3 - A2070 Bad Munstereifel Road (SW)	2565	1142	285	1424	939	288	2189	0.521	1140	1146	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1076	1076	269	0	1424	1143	1682	0.640	1076	287	
2 - A2070 (E) via M20 J10a	1224	285	71	939	0	1153	1752	0.163	285	1066	
3 - A2070 Bad Munstereifel Road (SW)	2565	1142	285	1424	939	288	2189	0.522	1142	1149	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	878	878	220	0	1162	935	1813	0.484	882	235	
2 - A2070 (E) via M20 J10a	1000	233	58	767	0	945	1887	0.123	233	872	
3 - A2070 Bad Munstereifel Road (SW)	2095	932	233	1162	767	236	2222	0.420	934	942	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	736	736	184	0	973	782	1910	0.385	737	197	
2 - A2070 (E) via M20 J10a	837	195	49	642	0	790	1987	0.098	195	730	
3 - A2070 Bad Munstereifel Road (SW)	1754	781	195	973	642	197	2246	0.348	782	787	

Queueing Delay Results for each time segment

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	9.67	0.64	3.235	A
2 - A2070 (E) via M20 J10a	1.62	0.11	2.027	A
3 - A2070 Bad Munstereifel Road (SW)	8.52	0.57	2.671	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	14.45	0.96	4.068	A
2 - A2070 (E) via M20 J10a	2.11	0.14	2.196	A
3 - A2070 Bad Munstereifel Road (SW)	11.58	0.77	3.045	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	26.46	1.76	6.221	A
2 - A2070 (E) via M20 J10a	2.90	0.19	2.477	A
3 - A2070 Bad Munstereifel Road (SW)	17.29	1.15	3.744	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	27.85	1.86	6.298	A
2 - A2070 (E) via M20 J10a	2.94	0.20	2.481	A
3 - A2070 Bad Munstereifel Road (SW)	17.76	1.18	3.753	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	15.54	1.04	4.115	A
2 - A2070 (E) via M20 J10a	2.16	0.14	2.201	A
3 - A2070 Bad Munstereifel Road (SW)	12.15	0.81	3.056	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	10.23	0.68	3.261	A
2 - A2070 (E) via M20 J10a	1.67	0.11	2.032	A
3 - A2070 Bad Munstereifel Road (SW)	8.91	0.59	2.687	A

2024 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.13	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024	Base	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1085	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1036	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2092	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	76	1008
	2 - A2070 (E) via M20 J10a	96	6	934
	3 - A2070 Bad Munstereifel Road (SW)	1072	866	154

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.71	7.59	2.5	A	996	1493	131.42	5.28	1.46	131.43	5.28
2 - A2070 (E) via M20 J10a	0.07	2.42	0.1	A	951	140	5.22	2.23	0.06	5.22	2.23
3 - A2070 Bad Munstereifel Road (SW)	0.49	3.17	1.0	A	1920	1404	65.03	2.78	0.72	65.03	2.78

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	817	817	204	0	807	770	1917	0.426	814	73	
2 - A2070 (E) via M20 J10a	780	77	19	703	0	872	1933	0.040	77	712	
3 - A2070 Bad Munstereifel Road (SW)	1575	768	192	807	703	77	2321	0.331	766	872	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	975	975	244	0	964	922	1822	0.535	974	87	
2 - A2070 (E) via M20 J10a	931	92	23	840	0	1044	1822	0.050	92	852	
3 - A2070 Bad Munstereifel Road (SW)	1881	917	229	964	840	93	2311	0.397	916	1043	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1195	1195	299	0	1180	1128	1691	0.706	1190	107	
2 - A2070 (E) via M20 J10a	1141	112	28	1028	0	1276	1672	0.067	112	1042	
3 - A2070 Bad Munstereifel Road (SW)	2303	1123	281	1180	1028	113	2298	0.489	1122	1275	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1195	1195	299	0	1180	1130	1690	0.707	1194	107	
2 - A2070 (E) via M20 J10a	1141	112	28	1028	0	1280	1669	0.067	112	1044	
3 - A2070 Bad Munstereifel Road (SW)	2303	1123	281	1180	1028	113	2298	0.489	1123	1279	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	975	975	244	0	964	924	1820	0.536	980	87	
2 - A2070 (E) via M20 J10a	931	92	23	840	0	1050	1818	0.050	92	854	
3 - A2070 Bad Munstereifel Road (SW)	1881	917	229	964	840	93	2311	0.397	918	1049	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	817	817	204	0	807	773	1915	0.426	819	73	
2 - A2070 (E) via M20 J10a	780	77	19	703	0	877	1930	0.040	77	714	
3 - A2070 Bad Munstereifel Road (SW)	1575	768	192	807	703	78	2321	0.331	769	877	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	11.28	0.75	3.405	A
2 - A2070 (E) via M20 J10a	0.64	0.04	2.031	A
3 - A2070 Bad Munstereifel Road (SW)	7.52	0.50	2.395	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	17.42	1.16	4.434	A
2 - A2070 (E) via M20 J10a	0.82	0.05	2.179	A
3 - A2070 Bad Munstereifel Road (SW)	10.02	0.67	2.671	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	34.66	2.31	7.439	A
2 - A2070 (E) via M20 J10a	1.12	0.07	2.417	A
3 - A2070 Bad Munstereifel Road (SW)	14.45	0.96	3.166	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	37.08	2.47	7.593	A
2 - A2070 (E) via M20 J10a	1.13	0.08	2.422	A
3 - A2070 Bad Munstereifel Road (SW)	14.78	0.99	3.171	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	18.97	1.26	4.511	A
2 - A2070 (E) via M20 J10a	0.85	0.06	2.185	A
3 - A2070 Bad Munstereifel Road (SW)	10.44	0.70	2.680	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	12.01	0.80	3.442	A
2 - A2070 (E) via M20 J10a	0.66	0.04	2.036	A
3 - A2070 Bad Munstereifel Road (SW)	7.82	0.52	2.404	A

2024 | Base+Sev | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.05	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	985	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1131	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2334	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	3	22	960
	2 - A2070 (E) via M20 J10a	270	1	860
	3 - A2070 Bad Munstereifel Road (SW)	1295	947	92

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.65	6.41	1.9	A	904	1356	106.33	4.71	1.18	106.34	4.71
2 - A2070 (E) via M20 J10a	0.17	2.51	0.2	A	1038	373	14.17	2.28	0.16	14.17	2.28
3 - A2070 Bad Munstereifel Road (SW)	0.52	3.79	1.2	A	2142	1430	76.94	3.23	0.85	76.94	3.23

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	742	742	185	0	975	781	1911	0.388	739	205	
2 - A2070 (E) via M20 J10a	851	204	51	647	0	791	1986	0.103	204	728	
3 - A2070 Bad Munstereifel Road (SW)	1757	782	196	975	647	206	2241	0.349	780	789	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	885	885	221	0	1164	934	1814	0.488	884	245	
2 - A2070 (E) via M20 J10a	1017	244	61	773	0	947	1885	0.129	243	871	
3 - A2070 Bad Munstereifel Road (SW)	2098	934	234	1164	773	246	2216	0.422	933	944	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1085	1085	271	0	1426	1143	1682	0.645	1081	300	
2 - A2070 (E) via M20 J10a	1245	298	75	947	0	1158	1748	0.171	298	1066	
3 - A2070 Bad Munstereifel Road (SW)	2570	1144	286	1426	947	301	2181	0.524	1142	1155	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1085	1085	271	0	1426	1145	1681	0.645	1084	301	
2 - A2070 (E) via M20 J10a	1245	298	75	947	0	1161	1746	0.171	298	1068	
3 - A2070 Bad Munstereifel Road (SW)	2570	1144	286	1426	947	302	2181	0.524	1144	1158	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	885	885	221	0	1164	937	1812	0.489	889	246	
2 - A2070 (E) via M20 J10a	1017	244	61	773	0	952	1882	0.129	244	874	
3 - A2070 Bad Munstereifel Road (SW)	2098	934	234	1164	773	247	2215	0.422	936	949	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	742	742	185	0	975	784	1909	0.389	743	206	
2 - A2070 (E) via M20 J10a	851	204	51	647	0	796	1983	0.103	204	731	
3 - A2070 Bad Munstereifel Road (SW)	1757	782	196	975	647	206	2240	0.349	783	793	

Queueing Delay Results for each time segment

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	9.80	0.65	3.254	A
2 - A2070 (E) via M20 J10a	1.71	0.11	2.042	A
3 - A2070 Bad Munstereifel Road (SW)	8.58	0.57	2.687	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	14.69	0.98	4.104	A
2 - A2070 (E) via M20 J10a	2.22	0.15	2.217	A
3 - A2070 Bad Munstereifel Road (SW)	11.68	0.78	3.066	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	27.09	1.81	6.322	A
2 - A2070 (E) via M20 J10a	3.07	0.20	2.509	A
3 - A2070 Bad Munstereifel Road (SW)	17.49	1.17	3.786	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	28.55	1.90	6.406	A
2 - A2070 (E) via M20 J10a	3.12	0.21	2.513	A
3 - A2070 Bad Munstereifel Road (SW)	17.97	1.20	3.791	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	15.81	1.05	4.154	A
2 - A2070 (E) via M20 J10a	2.29	0.15	2.222	A
3 - A2070 Bad Munstereifel Road (SW)	12.26	0.82	3.079	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	10.38	0.69	3.283	A
2 - A2070 (E) via M20 J10a	1.76	0.12	2.047	A
3 - A2070 Bad Munstereifel Road (SW)	8.97	0.60	2.702	A

2024 | Base+Sev | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.19	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1091	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1076	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2095	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	76	1014
	2 - A2070 (E) via M20 J10a	130	6	940
	3 - A2070 Bad Munstereifel Road (SW)	1074	867	154

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.71	7.71	2.5	A	1001	1502	133.51	5.33	1.48	133.52	5.33
2 - A2070 (E) via M20 J10a	0.09	2.48	0.1	A	987	187	7.09	2.27	0.08	7.09	2.27
3 - A2070 Bad Munstereifel Road (SW)	0.49	3.24	1.0	A	1922	1405	66.16	2.82	0.74	66.17	2.82

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	821	821	205	0	809	771	1917	0.429	818	98	
2 - A2070 (E) via M20 J10a	810	102	26	708	0	877	1931	0.053	102	712	
3 - A2070 Bad Munstereifel Road (SW)	1577	769	192	809	708	103	2305	0.334	767	876	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	981	981	245	0	966	923	1821	0.539	979	118	
2 - A2070 (E) via M20 J10a	967	122	31	845	0	1049	1819	0.067	122	852	
3 - A2070 Bad Munstereifel Road (SW)	1883	918	229	966	845	123	2292	0.400	917	1048	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1201	1201	300	0	1182	1129	1690	0.711	1196	144	
2 - A2070 (E) via M20 J10a	1185	150	37	1035	0	1282	1668	0.090	150	1043	
3 - A2070 Bad Munstereifel Road (SW)	2307	1124	281	1182	1035	151	2275	0.494	1123	1281	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1201	1201	300	0	1182	1131	1690	0.711	1201	144	
2 - A2070 (E) via M20 J10a	1185	150	37	1035	0	1287	1665	0.090	150	1045	
3 - A2070 Bad Munstereifel Road (SW)	2307	1124	281	1182	1035	151	2275	0.494	1124	1286	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	981	981	245	0	966	925	1820	0.539	986	118	
2 - A2070 (E) via M20 J10a	967	122	31	845	0	1056	1815	0.067	122	855	
3 - A2070 Bad Munstereifel Road (SW)	1883	918	229	966	845	123	2292	0.400	919	1055	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	821	821	205	0	809	774	1915	0.429	823	99	
2 - A2070 (E) via M20 J10a	810	102	26	708	0	882	1927	0.053	102	715	
3 - A2070 Bad Munstereifel Road (SW)	1577	769	192	809	708	103	2305	0.334	769	881	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	11.40	0.76	3.420	A
2 - A2070 (E) via M20 J10a	0.87	0.06	2.059	A
3 - A2070 Bad Munstereifel Road (SW)	7.61	0.51	2.420	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	17.63	1.18	4.466	A
2 - A2070 (E) via M20 J10a	1.12	0.07	2.218	A
3 - A2070 Bad Munstereifel Road (SW)	10.17	0.68	2.710	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	35.30	2.35	7.543	A
2 - A2070 (E) via M20 J10a	1.53	0.10	2.479	A
3 - A2070 Bad Munstereifel Road (SW)	14.76	0.98	3.233	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	37.82	2.52	7.705	A
2 - A2070 (E) via M20 J10a	1.55	0.10	2.484	A
3 - A2070 Bad Munstereifel Road (SW)	15.10	1.01	3.238	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	19.22	1.28	4.547	A
2 - A2070 (E) via M20 J10a	1.15	0.08	2.224	A
3 - A2070 Bad Munstereifel Road (SW)	10.61	0.71	2.719	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	12.14	0.81	3.458	A
2 - A2070 (E) via M20 J10a	0.89	0.06	2.064	A
3 - A2070 Bad Munstereifel Road (SW)	7.91	0.53	2.431	A

2026 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.18	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026	Base	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1001	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1138	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2386	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	3	23	975
	2 - A2070 (E) via M20 J10a	264	1	873
	3 - A2070 Bad Munstereifel Road (SW)	1324	968	94

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.66	6.79	2.1	A	919	1378	112.58	4.90	1.25	112.59	4.90
2 - A2070 (E) via M20 J10a	0.17	2.52	0.2	A	1044	365	13.90	2.29	0.15	13.90	2.29
3 - A2070 Bad Munstereifel Road (SW)	0.54	3.87	1.3	A	2189	1462	79.89	3.28	0.89	79.90	3.28

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	754	754	188	0	997	798	1900	0.397	751	201	
2 - A2070 (E) via M20 J10a	857	200	50	657	0	804	1978	0.101	199	745	
3 - A2070 Bad Munstereifel Road (SW)	1796	800	200	997	657	201	2244	0.356	797	802	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	900	900	225	0	1190	955	1801	0.500	898	240	
2 - A2070 (E) via M20 J10a	1023	238	60	785	0	962	1875	0.127	238	891	
3 - A2070 Bad Munstereifel Road (SW)	2145	955	239	1190	785	241	2219	0.430	954	960	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1102	1102	276	0	1458	1169	1666	0.662	1098	294	
2 - A2070 (E) via M20 J10a	1253	292	73	961	0	1176	1737	0.168	292	1091	
3 - A2070 Bad Munstereifel Road (SW)	2627	1169	292	1458	961	295	2185	0.535	1168	1173	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1102	1102	276	0	1458	1170	1665	0.662	1102	294	
2 - A2070 (E) via M20 J10a	1253	292	73	961	0	1180	1734	0.168	292	1092	
3 - A2070 Bad Munstereifel Road (SW)	2627	1169	292	1458	961	295	2185	0.535	1169	1177	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	900	900	225	0	1190	957	1799	0.500	904	240	
2 - A2070 (E) via M20 J10a	1023	238	60	785	0	968	1872	0.127	238	893	
3 - A2070 Bad Munstereifel Road (SW)	2145	955	239	1190	785	241	2219	0.430	956	965	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	754	754	188	0	997	801	1898	0.397	755	201	
2 - A2070 (E) via M20 J10a	857	200	50	657	0	809	1975	0.101	200	748	
3 - A2070 Bad Munstereifel Road (SW)	1796	800	200	997	657	202	2243	0.356	800	806	

Queueing Delay Results for each time segment

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	10.15	0.68	3.317	A
2 - A2070 (E) via M20 J10a	1.68	0.11	2.046	A
3 - A2070 Bad Munstereifel Road (SW)	8.85	0.59	2.714	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	15.36	1.02	4.227	A
2 - A2070 (E) via M20 J10a	2.18	0.15	2.223	A
3 - A2070 Bad Munstereifel Road (SW)	12.09	0.81	3.108	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.00	1.93	6.685	A
2 - A2070 (E) via M20 J10a	3.02	0.20	2.518	A
3 - A2070 Bad Munstereifel Road (SW)	18.23	1.22	3.858	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	30.70	2.05	6.788	A
2 - A2070 (E) via M20 J10a	3.06	0.20	2.523	A
3 - A2070 Bad Munstereifel Road (SW)	18.74	1.25	3.871	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	16.59	1.11	4.287	A
2 - A2070 (E) via M20 J10a	2.24	0.15	2.230	A
3 - A2070 Bad Munstereifel Road (SW)	12.71	0.85	3.119	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	10.77	0.72	3.347	A
2 - A2070 (E) via M20 J10a	1.73	0.12	2.051	A
3 - A2070 Bad Munstereifel Road (SW)	9.26	0.62	2.729	A

2026 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.37	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026	Base	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1111	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1060	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2142	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	78	1032
	2 - A2070 (E) via M20 J10a	98	6	956
	3 - A2070 Bad Munstereifel Road (SW)	1098	887	157

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.73	8.35	2.8	A	1019	1529	143.73	5.64	1.60	143.74	5.64
2 - A2070 (E) via M20 J10a	0.07	2.46	0.1	A	973	143	5.38	2.25	0.06	5.38	2.25
3 - A2070 Bad Munstereifel Road (SW)	0.50	3.25	1.0	A	1966	1437	67.80	2.83	0.75	67.81	2.83

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	836	836	209	0	827	788	1906	0.439	833	74	
2 - A2070 (E) via M20 J10a	798	78	20	720	0	893	1920	0.041	78	729	
3 - A2070 Bad Munstereifel Road (SW)	1613	786	196	827	720	79	2320	0.339	784	892	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	999	999	250	0	987	943	1808	0.552	997	89	
2 - A2070 (E) via M20 J10a	953	93	23	859	0	1068	1807	0.052	93	872	
3 - A2070 Bad Munstereifel Road (SW)	1926	939	235	987	859	94	2310	0.406	938	1067	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1223	1223	306	0	1209	1155	1675	0.731	1217	109	
2 - A2070 (E) via M20 J10a	1167	115	29	1053	0	1305	1654	0.069	114	1068	
3 - A2070 Bad Munstereifel Road (SW)	2358	1149	287	1209	1053	116	2297	0.500	1148	1303	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1223	1223	306	0	1209	1156	1674	0.731	1223	109	
2 - A2070 (E) via M20 J10a	1167	115	29	1053	0	1310	1650	0.069	115	1069	
3 - A2070 Bad Munstereifel Road (SW)	2358	1149	287	1209	1053	116	2297	0.500	1149	1309	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	999	999	250	0	987	945	1807	0.553	1005	89	
2 - A2070 (E) via M20 J10a	953	93	23	859	0	1076	1802	0.052	94	874	
3 - A2070 Bad Munstereifel Road (SW)	1926	939	235	987	859	94	2310	0.406	940	1075	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	836	836	209	0	827	791	1904	0.439	838	75	
2 - A2070 (E) via M20 J10a	798	78	20	720	0	898	1917	0.041	78	732	
3 - A2070 Bad Munstereifel Road (SW)	1613	786	196	827	720	79	2320	0.339	787	897	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	11.87	0.79	3.503	A
2 - A2070 (E) via M20 J10a	0.66	0.04	2.047	A
3 - A2070 Bad Munstereifel Road (SW)	7.79	0.52	2.424	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	18.60	1.24	4.635	A
2 - A2070 (E) via M20 J10a	0.85	0.06	2.201	A
3 - A2070 Bad Munstereifel Road (SW)	10.42	0.69	2.715	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	38.55	2.57	8.138	A
2 - A2070 (E) via M20 J10a	1.15	0.08	2.450	A
3 - A2070 Bad Munstereifel Road (SW)	15.14	1.01	3.243	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	41.63	2.78	8.350	A
2 - A2070 (E) via M20 J10a	1.17	0.08	2.456	A
3 - A2070 Bad Munstereifel Road (SW)	15.49	1.03	3.248	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	20.40	1.36	4.731	A
2 - A2070 (E) via M20 J10a	0.87	0.06	2.207	A
3 - A2070 Bad Munstereifel Road (SW)	10.87	0.72	2.723	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	12.68	0.85	3.541	A
2 - A2070 (E) via M20 J10a	0.68	0.05	2.052	A
3 - A2070 Bad Munstereifel Road (SW)	8.11	0.54	2.434	A

2026 | Base+Sev | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.23	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1009	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1158	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2389	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	3	23	983
	2 - A2070 (E) via M20 J10a	276	1	881
	3 - A2070 Bad Munstereifel Road (SW)	1326	969	94

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.67	6.90	2.1	A	926	1389	114.85	4.96	1.28	114.85	4.96
2 - A2070 (E) via M20 J10a	0.18	2.56	0.2	A	1063	381	14.68	2.31	0.16	14.68	2.31
3 - A2070 Bad Munstereifel Road (SW)	0.54	3.91	1.3	A	2192	1463	80.53	3.30	0.89	80.54	3.30

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	760	760	190	0	998	799	1899	0.400	757	210	
2 - A2070 (E) via M20 J10a	872	209	52	663	0	810	1974	0.106	208	745	
3 - A2070 Bad Munstereifel Road (SW)	1799	800	200	998	663	210	2238	0.358	798	808	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	907	907	227	0	1192	956	1800	0.504	906	251	
2 - A2070 (E) via M20 J10a	1041	249	62	792	0	969	1871	0.133	249	892	
3 - A2070 Bad Munstereifel Road (SW)	2148	956	239	1192	792	252	2212	0.432	955	967	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1111	1111	278	0	1460	1170	1665	0.667	1107	307	
2 - A2070 (E) via M20 J10a	1275	305	76	970	0	1185	1731	0.176	305	1092	
3 - A2070 Bad Munstereifel Road (SW)	2630	1170	293	1460	970	308	2177	0.538	1169	1182	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1111	1111	278	0	1460	1171	1664	0.668	1111	307	
2 - A2070 (E) via M20 J10a	1275	305	76	970	0	1189	1728	0.176	305	1093	
3 - A2070 Bad Munstereifel Road (SW)	2630	1170	293	1460	970	308	2177	0.538	1170	1186	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	907	907	227	0	1192	958	1799	0.504	911	251	
2 - A2070 (E) via M20 J10a	1041	249	62	792	0	975	1867	0.133	249	894	
3 - A2070 Bad Munstereifel Road (SW)	2148	956	239	1192	792	252	2212	0.432	957	972	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	760	760	190	0	998	802	1897	0.400	761	210	
2 - A2070 (E) via M20 J10a	872	209	52	663	0	815	1971	0.106	209	748	
3 - A2070 Bad Munstereifel Road (SW)	1799	800	200	998	663	211	2238	0.358	801	812	

Queueing Delay Results for each time segment

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	10.29	0.69	3.336	A
2 - A2070 (E) via M20 J10a	1.76	0.12	2.061	A
3 - A2070 Bad Munstereifel Road (SW)	8.90	0.59	2.726	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	15.61	1.04	4.264	A
2 - A2070 (E) via M20 J10a	2.30	0.15	2.244	A
3 - A2070 Bad Munstereifel Road (SW)	12.17	0.81	3.127	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.68	1.98	6.797	A
2 - A2070 (E) via M20 J10a	3.19	0.21	2.552	A
3 - A2070 Bad Munstereifel Road (SW)	18.41	1.23	3.894	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	31.46	2.10	6.905	A
2 - A2070 (E) via M20 J10a	3.24	0.22	2.556	A
3 - A2070 Bad Munstereifel Road (SW)	18.93	1.26	3.907	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	16.88	1.13	4.324	A
2 - A2070 (E) via M20 J10a	2.37	0.16	2.249	A
3 - A2070 Bad Munstereifel Road (SW)	12.80	0.85	3.138	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	10.92	0.73	3.367	A
2 - A2070 (E) via M20 J10a	1.82	0.12	2.065	A
3 - A2070 Bad Munstereifel Road (SW)	9.31	0.62	2.741	A

2026 | Base+Sev | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.45	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1118	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1100	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	2144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	78	1039
	2 - A2070 (E) via M20 J10a	132	6	962
	3 - A2070 Bad Munstereifel Road (SW)	1099	888	157

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	0.74	8.51	2.9	A	1026	1539	146.50	5.71	1.63	146.51	5.71
2 - A2070 (E) via M20 J10a	0.09	2.52	0.1	A	1009	190	7.28	2.30	0.08	7.28	2.30
3 - A2070 Bad Munstereifel Road (SW)	0.51	3.32	1.1	A	1967	1438	69.01	2.88	0.77	69.01	2.88

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	842	842	210	0	827	789	1905	0.442	838	100	
2 - A2070 (E) via M20 J10a	828	104	26	724	0	898	1917	0.054	104	730	
3 - A2070 Bad Munstereifel Road (SW)	1614	787	197	827	724	104	2304	0.341	785	897	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1005	1005	251	0	988	944	1807	0.556	1003	119	
2 - A2070 (E) via M20 J10a	989	124	31	865	0	1074	1803	0.069	124	873	
3 - A2070 Bad Munstereifel Road (SW)	1927	939	235	988	865	125	2291	0.410	939	1073	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1231	1231	308	0	1210	1156	1674	0.735	1225	146	
2 - A2070 (E) via M20 J10a	1211	152	38	1059	0	1312	1649	0.092	152	1069	
3 - A2070 Bad Munstereifel Road (SW)	2361	1151	288	1210	1059	153	2274	0.506	1149	1311	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1231	1231	308	0	1210	1157	1673	0.736	1231	146	
2 - A2070 (E) via M20 J10a	1211	152	38	1059	0	1318	1645	0.092	152	1070	
3 - A2070 Bad Munstereifel Road (SW)	2361	1151	288	1210	1059	153	2274	0.506	1151	1317	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1005	1005	251	0	988	946	1806	0.556	1011	120	
2 - A2070 (E) via M20 J10a	989	124	31	865	0	1082	1798	0.069	124	875	
3 - A2070 Bad Munstereifel Road (SW)	1927	939	235	988	865	125	2291	0.410	941	1081	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	842	842	210	0	827	792	1903	0.442	844	100	
2 - A2070 (E) via M20 J10a	828	104	26	724	0	903	1914	0.054	104	733	
3 - A2070 Bad Munstereifel Road (SW)	1614	787	197	827	724	105	2304	0.342	787	902	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	12.01	0.80	3.522	A
2 - A2070 (E) via M20 J10a	0.89	0.06	2.076	A
3 - A2070 Bad Munstereifel Road (SW)	7.88	0.53	2.451	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	18.87	1.26	4.673	A
2 - A2070 (E) via M20 J10a	1.15	0.08	2.242	A
3 - A2070 Bad Munstereifel Road (SW)	10.58	0.71	2.755	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	39.42	2.63	8.282	A
2 - A2070 (E) via M20 J10a	1.57	0.10	2.514	A
3 - A2070 Bad Munstereifel Road (SW)	15.47	1.03	3.311	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	42.65	2.84	8.509	A
2 - A2070 (E) via M20 J10a	1.59	0.11	2.521	A
3 - A2070 Bad Munstereifel Road (SW)	15.83	1.06	3.319	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	20.73	1.38	4.775	A
2 - A2070 (E) via M20 J10a	1.18	0.08	2.251	A
3 - A2070 Bad Munstereifel Road (SW)	11.05	0.74	2.763	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	12.83	0.86	3.561	A
2 - A2070 (E) via M20 J10a	0.91	0.06	2.081	A
3 - A2070 Bad Munstereifel Road (SW)	8.20	0.55	2.461	A

2036 | Base | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	68.45	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	68.45	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2036	Base	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1550	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1540	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	3116	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	4	33	1513
	2 - A2070 (E) via M20 J10a	299	1	1240
	3 - A2070 Bad Munstereifel Road (SW)	1746	1250	120

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.18	258.78	136.0	F	1422	2133	4263.93	119.92	47.38	4264.02	119.92
2 - A2070 (E) via M20 J10a	0.22	3.20	0.3	A	1413	413	20.29	2.95	0.23	20.29	2.95
3 - A2070 Bad Munstereifel Road (SW)	0.70	6.02	2.5	A	2859	1886	142.83	4.54	1.59	142.84	4.54

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1167	1167	292	0	1314	1028	1754	0.665	1159	227	
2 - A2070 (E) via M20 J10a	1159	226	56	934	0	1224	1706	0.132	225	963	
3 - A2070 Bad Munstereifel Road (SW)	2346	1031	258	1314	934	228	2227	0.463	1028	1221	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1393	1393	348	0	1570	1231	1627	0.857	1379	272	
2 - A2070 (E) via M20 J10a	1384	270	67	1115	0	1457	1555	0.173	269	1152	
3 - A2070 Bad Munstereifel Road (SW)	2801	1232	308	1570	1115	273	2199	0.560	1230	1454	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1707	1707	427	0	1922	1505	1453	1.174	1442	333	
2 - A2070 (E) via M20 J10a	1696	330	83	1365	0	1543	1499	0.220	330	1404	
3 - A2070 Bad Munstereifel Road (SW)	3431	1508	377	1922	1365	334	2161	0.698	1504	1539	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1707	1707	427	0	1922	1509	1451	1.176	1450	333	
2 - A2070 (E) via M20 J10a	1696	330	83	1365	0	1551	1494	0.221	330	1408	
3 - A2070 Bad Munstereifel Road (SW)	3431	1508	377	1922	1365	334	2161	0.698	1508	1547	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1393	1393	348	0	1570	1237	1623	0.859	1610	273	1
2 - A2070 (E) via M20 J10a	1384	270	67	1115	0	1684	1408	0.192	270	1163	
3 - A2070 Bad Munstereifel Road (SW)	2801	1232	308	1570	1115	274	2198	0.560	1236	1680	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1167	1167	292	0	1314	1034	1751	0.667	1485	229	
2 - A2070 (E) via M20 J10a	1159	226	56	934	0	1544	1498	0.151	226	975	
3 - A2070 Bad Munstereifel Road (SW)	2346	1031	258	1314	934	230	2226	0.463	1033	1540	

Queueing Delay Results for each time segment

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.22	1.95	6.332	A
2 - A2070 (E) via M20 J10a	2.27	0.15	2.457	A
3 - A2070 Bad Munstereifel Road (SW)	13.68	0.91	3.271	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	74.57	4.97	14.636	B
2 - A2070 (E) via M20 J10a	3.13	0.21	2.832	A
3 - A2070 Bad Munstereifel Road (SW)	20.13	1.34	4.051	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	593.59	39.57	106.287	F
2 - A2070 (E) via M20 J10a	4.21	0.28	3.113	A
3 - A2070 Bad Munstereifel Road (SW)	35.35	2.36	5.945	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1559.29	103.95	258.778	F
2 - A2070 (E) via M20 J10a	4.28	0.29	3.127	A
3 - A2070 Bad Munstereifel Road (SW)	37.32	2.49	6.024	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1634.10	108.94	243.298	F
2 - A2070 (E) via M20 J10a	3.65	0.24	3.201	A
3 - A2070 Bad Munstereifel Road (SW)	21.78	1.45	4.105	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	373.17	24.88	43.173	E
2 - A2070 (E) via M20 J10a	2.74	0.18	2.861	A
3 - A2070 Bad Munstereifel Road (SW)	14.56	0.97	3.302	A

2036 | Base | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	77.12	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	77.12	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2036	Base	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1541	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1430	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	3060	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	93	1447
	2 - A2070 (E) via M20 J10a	128	6	1296
	3 - A2070 Bad Munstereifel Road (SW)	1642	1206	212

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.20	288.79	149.4	F	1414	2121	4893.91	138.44	54.38	4894.01	138.44
2 - A2070 (E) via M20 J10a	0.10	2.91	0.1	A	1312	184	8.38	2.73	0.09	8.38	2.73
3 - A2070 Bad Munstereifel Road (SW)	0.69	5.21	2.2	A	2808	1952	131.19	4.03	1.46	131.21	4.03

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1160	1160	290	0	1236	1069	1729	0.671	1152	97	
2 - A2070 (E) via M20 J10a	1077	101	25	976	0	1241	1694	0.060	101	979	
3 - A2070 Bad Munstereifel Road (SW)	2304	1068	267	1236	976	101	2306	0.463	1064	1241	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1385	1385	346	0	1476	1279	1596	0.868	1369	116	
2 - A2070 (E) via M20 J10a	1286	120	30	1165	0	1477	1542	0.078	120	1171	
3 - A2070 Bad Munstereifel Road (SW)	2751	1275	319	1476	1165	121	2293	0.556	1273	1476	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1697	1697	424	0	1808	1564	1416	1.198	1407	142	
2 - A2070 (E) via M20 J10a	1574	148	37	1427	0	1555	1491	0.099	147	1416	
3 - A2070 Bad Munstereifel Road (SW)	3369	1561	390	1808	1427	148	2277	0.686	1558	1554	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1697	1697	424	0	1808	1568	1414	1.200	1413	142	
2 - A2070 (E) via M20 J10a	1574	148	37	1427	0	1561	1487	0.099	148	1420	
3 - A2070 Bad Munstereifel Road (SW)	3369	1561	390	1808	1427	148	2276	0.686	1561	1560	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1385	1385	346	0	1476	1284	1593	0.870	1582	116	1
2 - A2070 (E) via M20 J10a	1286	120	30	1165	0	1678	1412	0.085	121	1188	
3 - A2070 Bad Munstereifel Road (SW)	2751	1275	319	1476	1165	122	2293	0.556	1278	1677	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1160	1160	290	0	1236	1074	1726	0.672	1552	97	1
2 - A2070 (E) via M20 J10a	1077	101	25	976	0	1618	1450	0.070	101	1008	
3 - A2070 Bad Munstereifel Road (SW)	2304	1068	267	1236	976	102	2305	0.463	1069	1617	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.52	1.97	6.441	A
2 - A2070 (E) via M20 J10a	0.98	0.07	2.362	A
3 - A2070 Bad Munstereifel Road (SW)	12.99	0.87	2.993	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	78.55	5.24	15.615	C
2 - A2070 (E) via M20 J10a	1.31	0.09	2.648	A
3 - A2070 Bad Munstereifel Road (SW)	18.81	1.25	3.647	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	644.44	42.96	117.450	F
2 - A2070 (E) via M20 J10a	1.70	0.11	2.801	A
3 - A2070 Bad Munstereifel Road (SW)	31.95	2.13	5.159	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1709.21	113.95	288.786	F
2 - A2070 (E) via M20 J10a	1.72	0.11	2.810	A
3 - A2070 Bad Munstereifel Road (SW)	33.49	2.23	5.210	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1871.80	124.79	282.425	F
2 - A2070 (E) via M20 J10a	1.48	0.10	2.915	A
3 - A2070 Bad Munstereifel Road (SW)	20.20	1.35	3.689	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	560.39	37.36	76.592	F
2 - A2070 (E) via M20 J10a	1.19	0.08	2.791	A
3 - A2070 Bad Munstereifel Road (SW)	13.75	0.92	3.021	A

2036 | Base+Sev | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	70.62	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	70.62	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2036	Base+Sev	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1558	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1560	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	3119	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	4	33	1521
	2 - A2070 (E) via M20 J10a	311	1	1248
	3 - A2070 Bad Munstereifel Road (SW)	1748	1251	120

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.18	267.24	140.8	F	1430	2144	4485.55	125.50	49.84	4485.63	125.50
2 - A2070 (E) via M20 J10a	0.23	3.23	0.3	A	1431	429	21.36	2.98	0.24	21.36	2.98
3 - A2070 Bad Munstereifel Road (SW)	0.70	6.11	2.5	A	2862	1887	144.41	4.59	1.60	144.42	4.59

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1173	1173	293	0	1316	1029	1754	0.669	1165	236	
2 - A2070 (E) via M20 J10a	1174	235	59	940	0	1230	1702	0.138	234	964	
3 - A2070 Bad Munstereifel Road (SW)	2348	1032	258	1316	940	237	2221	0.465	1028	1227	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1401	1401	350	0	1571	1232	1626	0.861	1385	283	
2 - A2070 (E) via M20 J10a	1402	280	70	1122	0	1464	1550	0.181	280	1153	
3 - A2070 Bad Munstereifel Road (SW)	2804	1233	308	1571	1122	284	2192	0.562	1231	1460	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1715	1715	429	0	1925	1506	1453	1.181	1442	346	
2 - A2070 (E) via M20 J10a	1718	344	86	1374	0	1543	1499	0.229	343	1405	
3 - A2070 Bad Munstereifel Road (SW)	3434	1509	377	1925	1374	347	2153	0.701	1505	1540	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1715	1715	429	0	1925	1510	1450	1.183	1449	346	
2 - A2070 (E) via M20 J10a	1718	344	86	1374	0	1551	1494	0.230	344	1409	
3 - A2070 Bad Munstereifel Road (SW)	3434	1509	377	1925	1374	347	2153	0.701	1509	1547	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1401	1401	350	0	1571	1238	1622	0.863	1610	284	1
2 - A2070 (E) via M20 J10a	1402	280	70	1122	0	1684	1408	0.199	281	1164	
3 - A2070 Bad Munstereifel Road (SW)	2804	1233	308	1571	1122	285	2192	0.562	1237	1680	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1173	1173	293	0	1316	1035	1750	0.670	1518	238	
2 - A2070 (E) via M20 J10a	1174	235	59	940	0	1576	1478	0.159	235	976	
3 - A2070 Bad Munstereifel Road (SW)	2348	1032	258	1316	940	239	2220	0.465	1034	1572	

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.66	1.98	6.397	A
2 - A2070 (E) via M20 J10a	2.38	0.16	2.478	A
3 - A2070 Bad Munstereifel Road (SW)	13.76	0.92	3.277	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	76.69	5.11	15.018	C
2 - A2070 (E) via M20 J10a	3.29	0.22	2.865	A
3 - A2070 Bad Munstereifel Road (SW)	20.29	1.35	4.084	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	612.27	40.82	109.411	F
2 - A2070 (E) via M20 J10a	4.43	0.30	3.149	A
3 - A2070 Bad Munstereifel Road (SW)	35.84	2.39	6.029	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1612.66	107.51	267.241	F
2 - A2070 (E) via M20 J10a	4.51	0.30	3.162	A
3 - A2070 Bad Munstereifel Road (SW)	37.87	2.52	6.112	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1719.02	114.60	255.610	F
2 - A2070 (E) via M20 J10a	3.84	0.26	3.231	A
3 - A2070 Bad Munstereifel Road (SW)	21.98	1.47	4.141	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	435.25	29.02	53.883	F
2 - A2070 (E) via M20 J10a	2.92	0.19	2.931	A
3 - A2070 Bad Munstereifel Road (SW)	14.66	0.98	3.323	A

2036 | Base+Sev | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	79.12	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	79.12	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2036	Base+Sev	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1548	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1470	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	3063	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	93	1454
	2 - A2070 (E) via M20 J10a	162	6	1302
	3 - A2070 Bad Munstereifel Road (SW)	1643	1208	212

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.21	297.29	153.9	F	1420	2131	5125.07	144.32	56.95	5125.17	144.32
2 - A2070 (E) via M20 J10a	0.12	2.98	0.1	A	1349	231	10.77	2.80	0.12	10.77	2.80
3 - A2070 Bad Munstereifel Road (SW)	0.69	5.40	2.3	A	2811	1955	134.88	4.14	1.50	134.89	4.14

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1165	1165	291	0	1237	1070	1728	0.674	1157	122	
2 - A2070 (E) via M20 J10a	1107	126	32	980	0	1246	1691	0.075	126	980	
3 - A2070 Bad Munstereifel Road (SW)	2306	1069	267	1237	980	127	2290	0.467	1065	1246	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1392	1392	348	0	1477	1280	1595	0.872	1375	146	
2 - A2070 (E) via M20 J10a	1321	151	38	1170	0	1483	1538	0.098	151	1173	
3 - A2070 Bad Munstereifel Road (SW)	2754	1277	319	1477	1170	152	2274	0.561	1275	1482	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1704	1704	426	0	1809	1566	1415	1.205	1406	179	
2 - A2070 (E) via M20 J10a	1619	185	46	1434	0	1555	1492	0.124	185	1418	
3 - A2070 Bad Munstereifel Road (SW)	3372	1563	391	1809	1434	186	2253	0.694	1559	1554	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1704	1704	426	0	1809	1570	1413	1.207	1412	179	
2 - A2070 (E) via M20 J10a	1619	185	46	1434	0	1560	1488	0.124	185	1421	
3 - A2070 Bad Munstereifel Road (SW)	3372	1563	391	1809	1434	186	2253	0.694	1563	1560	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1392	1392	348	0	1477	1286	1592	0.874	1581	147	1
2 - A2070 (E) via M20 J10a	1321	151	38	1170	0	1677	1412	0.107	151	1190	
3 - A2070 Bad Munstereifel Road (SW)	2754	1277	319	1477	1170	152	2274	0.561	1281	1676	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1165	1165	291	0	1237	1075	1725	0.676	1582	123	1
2 - A2070 (E) via M20 J10a	1107	126	32	980	0	1647	1432	0.088	127	1010	
3 - A2070 Bad Munstereifel Road (SW)	2306	1069	267	1237	980	128	2289	0.467	1071	1646	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.94	2.00	6.507	A
2 - A2070 (E) via M20 J10a	1.25	0.08	2.403	A
3 - A2070 Bad Munstereifel Road (SW)	13.19	0.88	3.036	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	80.77	5.38	16.029	C
2 - A2070 (E) via M20 J10a	1.68	0.11	2.710	A
3 - A2070 Bad Munstereifel Road (SW)	19.21	1.28	3.723	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	662.77	44.18	120.649	F
2 - A2070 (E) via M20 J10a	2.18	0.15	2.877	A
3 - A2070 Bad Munstereifel Road (SW)	33.07	2.20	5.343	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1760.79	117.39	297.292	F
2 - A2070 (E) via M20 J10a	2.22	0.15	2.886	A
3 - A2070 Bad Munstereifel Road (SW)	34.75	2.32	5.403	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1953.91	130.26	294.643	F
2 - A2070 (E) via M20 J10a	1.90	0.13	2.984	A
3 - A2070 Bad Munstereifel Road (SW)	20.68	1.38	3.768	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	636.88	42.46	89.704	F
2 - A2070 (E) via M20 J10a	1.54	0.10	2.883	A
3 - A2070 Bad Munstereifel Road (SW)	13.98	0.93	3.062	A

2036 | Base+Sev 4 | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	72.11	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	72.11	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2036	Base+Sev 4	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1563	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1566	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	3121	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	4	33	1526
	2 - A2070 (E) via M20 J10a	313	1	1252
	3 - A2070 Bad Munstereifel Road (SW)	1749	1252	120

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	5	6
	2 - A2070 (E) via M20 J10a	1	0	6
	3 - A2070 Bad Munstereifel Road (SW)	4	10	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.19	272.84	143.9	F	1434	2151	4634.09	129.24	51.49	4634.18	129.24
2 - A2070 (E) via M20 J10a	0.23	3.24	0.3	A	1437	432	21.58	3.00	0.24	21.58	3.00
3 - A2070 Bad Munstereifel Road (SW)	0.70	6.14	2.5	A	2864	1888	144.91	4.60	1.61	144.92	4.60

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1177	1177	294	0	1317	1030	1753	0.671	1168	238	
2 - A2070 (E) via M20 J10a	1179	236	59	943	0	1234	1699	0.139	236	965	
3 - A2070 Bad Munstereifel Road (SW)	2350	1033	258	1317	943	239	2220	0.465	1029	1231	

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1405	1405	351	0	1572	1233	1625	0.864	1390	285	
2 - A2070 (E) via M20 J10a	1408	282	71	1126	0	1468	1548	0.182	282	1154	
3 - A2070 Bad Munstereifel Road (SW)	2806	1233	308	1572	1126	286	2191	0.563	1232	1464	

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1721	1721	430	0	1926	1507	1452	1.185	1442	348	
2 - A2070 (E) via M20 J10a	1724	346	86	1378	0	1543	1499	0.231	345	1406	
3 - A2070 Bad Munstereifel Road (SW)	3436	1511	378	1926	1378	349	2152	0.702	1506	1539	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1721	1721	430	0	1926	1512	1449	1.187	1449	348	
2 - A2070 (E) via M20 J10a	1724	346	86	1378	0	1550	1495	0.231	346	1410	
3 - A2070 Bad Munstereifel Road (SW)	3436	1511	378	1926	1378	349	2151	0.702	1510	1546	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1405	1405	351	0	1572	1239	1621	0.867	1610	286	1
2 - A2070 (E) via M20 J10a	1408	282	71	1126	0	1684	1408	0.201	282	1165	
3 - A2070 Bad Munstereifel Road (SW)	2806	1233	308	1572	1126	287	2191	0.563	1238	1680	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1177	1177	294	0	1317	1036	1750	0.672	1538	240	
2 - A2070 (E) via M20 J10a	1179	236	59	943	0	1596	1464	0.161	237	978	
3 - A2070 Bad Munstereifel Road (SW)	2350	1033	258	1317	943	241	2219	0.465	1035	1593	

Queueing Delay Results for each time segment

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	29.94	2.00	6.442	A
2 - A2070 (E) via M20 J10a	2.41	0.16	2.485	A
3 - A2070 Bad Munstereifel Road (SW)	13.79	0.92	3.291	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	78.12	5.21	15.278	C
2 - A2070 (E) via M20 J10a	3.33	0.22	2.875	A
3 - A2070 Bad Munstereifel Road (SW)	20.35	1.36	4.092	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	624.61	41.64	111.493	F
2 - A2070 (E) via M20 J10a	4.46	0.30	3.155	A
3 - A2070 Bad Munstereifel Road (SW)	35.99	2.40	6.052	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1647.71	109.85	272.842	F
2 - A2070 (E) via M20 J10a	4.54	0.30	3.167	A
3 - A2070 Bad Munstereifel Road (SW)	38.04	2.54	6.135	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1774.65	118.31	263.704	F
2 - A2070 (E) via M20 J10a	3.87	0.26	3.236	A
3 - A2070 Bad Munstereifel Road (SW)	22.05	1.47	4.148	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	479.06	31.94	61.579	F
2 - A2070 (E) via M20 J10a	2.97	0.20	2.964	A
3 - A2070 Bad Munstereifel Road (SW)	14.69	0.98	3.325	A

2036 | Base+Sev 4 | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	80.08	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	80.08	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2036	Base+Sev 4	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A2070 Bad Munstereifel Road (N) via M20 J10		ONE HOUR	✓	1551	100.000
2 - A2070 (E) via M20 J10a		ONE HOUR	✓	1479	100.000
3 - A2070 Bad Munstereifel Road (SW)		ONE HOUR	✓	3065	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	1	93	1457
	2 - A2070 (E) via M20 J10a	168	6	1305
	3 - A2070 Bad Munstereifel Road (SW)	1644	1209	212

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		1 - A2070 Bad Munstereifel Road (N) via M20 J10	2 - A2070 (E) via M20 J10a	3 - A2070 Bad Munstereifel Road (SW)
From	1 - A2070 Bad Munstereifel Road (N) via M20 J10	0	1	5
	2 - A2070 (E) via M20 J10a	4	20	10
	3 - A2070 Bad Munstereifel Road (SW)	2	4	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1.21	301.08	156.0	F	1423	2135	5229.13	146.97	58.10	5229.23	146.97
2 - A2070 (E) via M20 J10a	0.13	3.00	0.2	A	1357	239	11.22	2.81	0.12	11.22	2.81
3 - A2070 Bad Munstereifel Road (SW)	0.70	5.44	2.3	A	2812	1956	135.71	4.16	1.51	135.72	4.16

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1168	1168	292	0	1238	1071	1728	0.676	1159	127	
2 - A2070 (E) via M20 J10a	1113	131	33	982	0	1249	1690	0.078	131	981	
3 - A2070 Bad Munstereifel Road (SW)	2307	1070	267	1238	982	131	2287	0.468	1066	1248	

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1394	1394	349	0	1478	1281	1595	0.874	1377	152	
2 - A2070 (E) via M20 J10a	1330	156	39	1173	0	1485	1537	0.102	156	1173	
3 - A2070 Bad Munstereifel Road (SW)	2755	1277	319	1478	1173	157	2271	0.563	1276	1484	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1708	1708	427	0	1810	1567	1414	1.207	1406	186	
2 - A2070 (E) via M20 J10a	1628	192	48	1437	0	1554	1492	0.128	191	1419	
3 - A2070 Bad Munstereifel Road (SW)	3375	1565	391	1810	1437	192	2249	0.696	1561	1553	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1708	1708	427	0	1810	1571	1412	1.210	1411	186	
2 - A2070 (E) via M20 J10a	1628	192	48	1437	0	1560	1488	0.129	192	1422	
3 - A2070 Bad Munstereifel Road (SW)	3375	1565	391	1810	1437	192	2249	0.696	1564	1559	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1394	1394	349	0	1478	1287	1591	0.876	1581	152	1
2 - A2070 (E) via M20 J10a	1330	156	39	1173	0	1677	1412	0.111	157	1190	
3 - A2070 Bad Munstereifel Road (SW)	2755	1277	319	1478	1173	158	2271	0.563	1281	1676	

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	q (
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1168	1168	292	0	1238	1076	1724	0.677	1596	128	1
2 - A2070 (E) via M20 J10a	1113	131	33	982	0	1660	1423	0.092	131	1012	
3 - A2070 Bad Munstereifel Road (SW)	2307	1070	267	1238	982	132	2287	0.468	1072	1659	

Queueing Delay Results for each time segment

16:15 - 16:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	30.13	2.01	6.536	A
2 - A2070 (E) via M20 J10a	1.29	0.09	2.411	A
3 - A2070 Bad Munstereifel Road (SW)	13.23	0.88	3.045	A

16:30 - 16:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	81.77	5.45	16.216	C
2 - A2070 (E) via M20 J10a	1.75	0.12	2.724	A
3 - A2070 Bad Munstereifel Road (SW)	19.30	1.29	3.739	A

16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	670.95	44.73	122.085	F
2 - A2070 (E) via M20 J10a	2.27	0.15	2.891	A
3 - A2070 Bad Munstereifel Road (SW)	33.33	2.22	5.383	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1783.66	118.91	301.079	F
2 - A2070 (E) via M20 J10a	2.31	0.15	2.899	A
3 - A2070 Bad Munstereifel Road (SW)	35.03	2.34	5.444	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	1990.14	132.68	300.045	F
2 - A2070 (E) via M20 J10a	1.98	0.13	2.996	A
3 - A2070 Bad Munstereifel Road (SW)	20.78	1.39	3.785	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A2070 Bad Munstereifel Road (N) via M20 J10	672.48	44.83	95.631	F
2 - A2070 (E) via M20 J10a	1.61	0.11	2.911	A
3 - A2070 Bad Munstereifel Road (SW)	14.03	0.94	3.072	A

T. LinSig Output & Signal Controller Data – Junction 5

MOVA Tools

Site Configuration

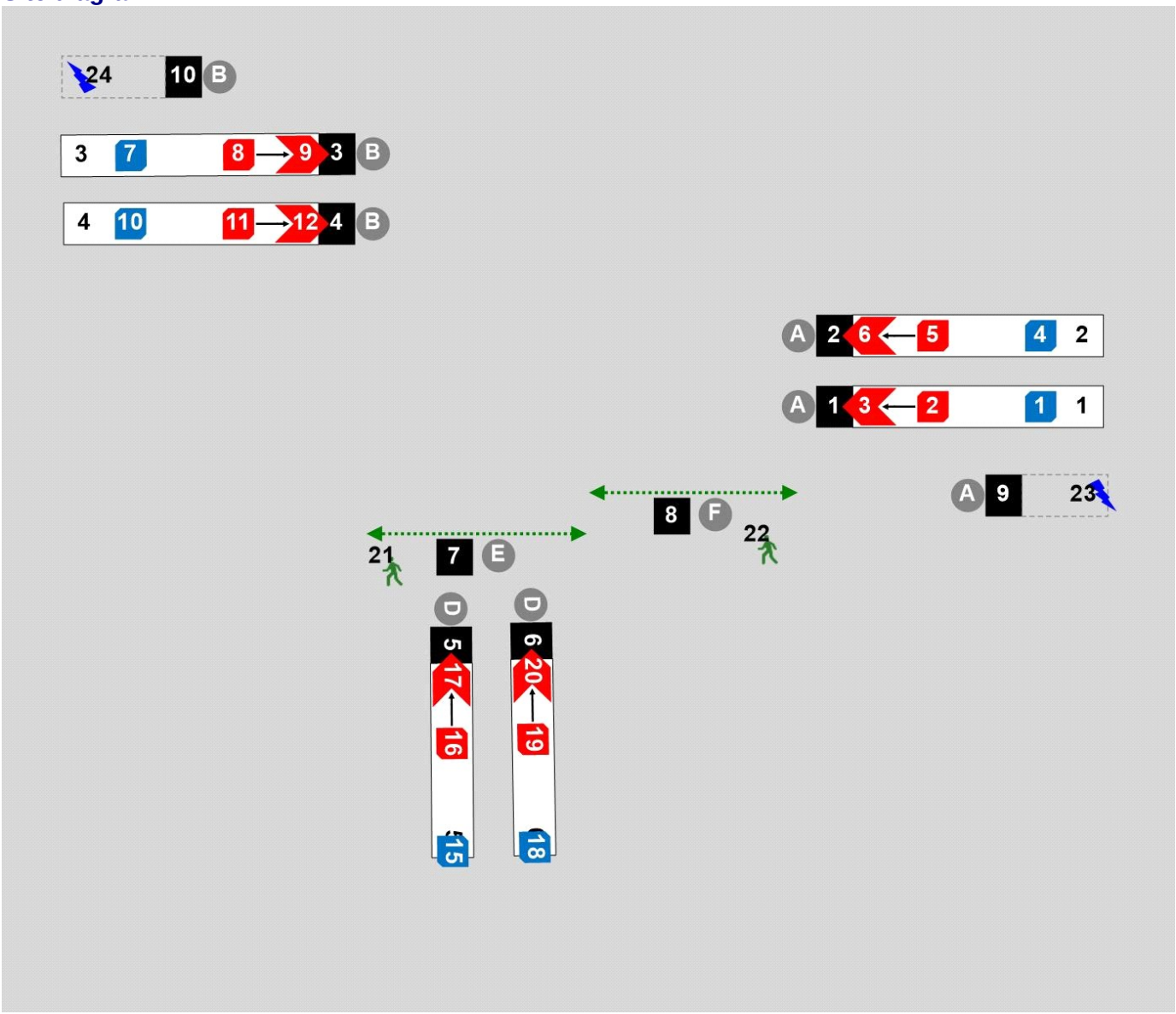
Version: 3.2.0.482 [3-Dec-2019]
© Copyright TRL Limited, 2020

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 770758 software@trl.co.uk www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: SEVINGTON NO RT.mova
Path: C:\Users\par19175\OneDrive - Mott MacDonald\EU Exit
Report generation date: 28/10/2020 11:56:06

Site diagram



Data Plan 1 - (untitled)

Controller details

MOVA Controller 1

ID	1
MOVA Version	M8.0
Name	Sevington IBF
Description	Without Right Turn Stage
Main Stage [MAINST]	1
Total Green Limit [TOTALG] (s)	120
Detector ON [DETON]	Closed circuit
Stage Confirm ON [STAGON]	Open circuit
Phase Confirm ON [PHASON]	Open circuit
Stage Demand ON [STGDEM]	Closed circuit

Phases

Phases

Phase ID	A	B	C	D	E	F
Name						
Phase Type	Traffic	Traffic	Dummy	Traffic	Pedestrian	Pedestrian
Associated Phase						
Minimum Green (s)	7.0	7.0	7.0	7.0	6.0	6.0
Interstage Behaviour [LPHASE]	Never runs during interstage	Has phase confirm	Never runs during interstage	Never runs during interstage	Runs between consecutive stages	Never runs during interstage
Phase Confirm Channel [LPHASE]		3				

Phase Intergreen Matrix for Controller 1

		To					
		A	B	C	D	E	F
From	A	-			6		10
	B		-		5		
	C			-			
	D	6	9		-	6	
	E				9	-	
	F	9					-

Stages

Stages

Stage	1	2
Description		
Phases In Stage	A,B,E	D,F
Auto Set Stage Minimum	✓	✓
Stage Minimum [MIN] (s)	7.0	7.0
Stage Maximum [MAX] (s)	60.0	60.0
All Red Pedestrian Stage [REDPED]		

Stages: Pedestrians

Stage	1	2
Enable Pedestrian Short Cycling		
PEDMAX1 (s)		
PEDMAX2 (%)		

Stages: Emergency And Priority

Stage	1	2
Max green extension (Emergency) [EMXMAX] (s)	0	0
Max green extension (Priority) [PRXMAX] (s)	10	10
Enable using BUSMAX		
BUSMAX1 (s)		
BUSMAX2 (%)		

Stages: Alerts

Stage	1	2
Occupancy alert threshold (ON) [OCCUAL on]	9.90	9.90
Occupancy alert threshold (OFF) [OCCUAL off]	9.90	9.90

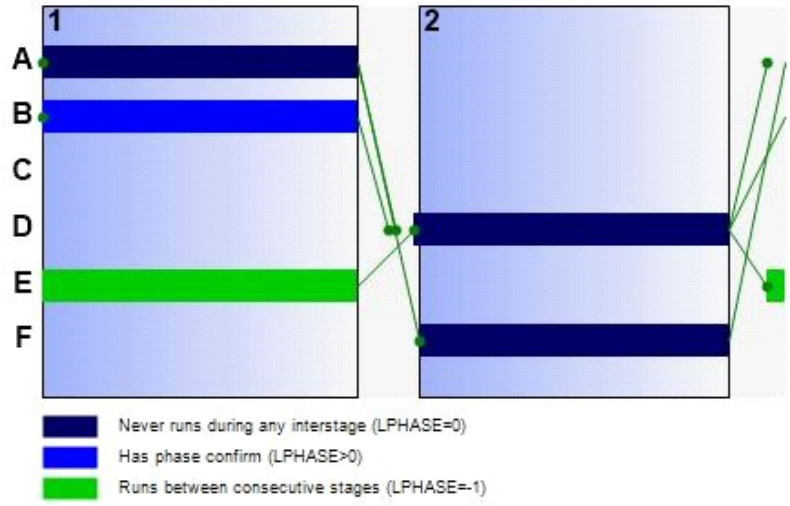
Interstage Matrix for Controller 1

		To	
		1	2
From	1	-	10
	2	9	-

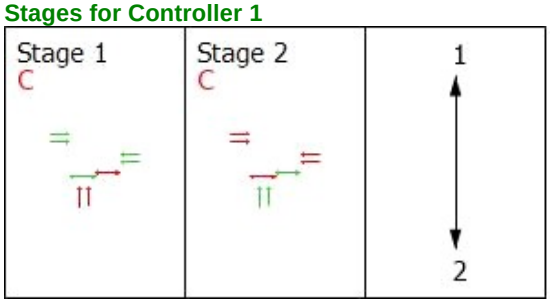
Banned Stage transitions for Controller 1

		To	
		1	2
From	1	-	Allow
	2	Allow	-

Stages and phases for Controller 1



Stages for Controller 1



LGREEN and SDCODE Matrix

LGREEN matrix

	Link									
		1	2	3	4	5	6	7	8	9	10
Stage	1	1	1	1	1	0	0	1	0	1	1
	2	0	0	0	0	1	1	0	1	0	0

SDCODE matrix

	Link									
		1	2	3	4	5	6	7	8	9	10
Stage	1	1	1	1	1			3		1	1
	2					1	1		3		

Links

Links

Link	1	2	3	4	5	6	7	8	9	10
Name										
Description										
Lanes	1	2	3	4	5	6				
Phase	A	A	B	B	D	D	E	F	A	B
Link Type [LTYPE]	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Pedestrian	Pedestrian	Priority	Priority
Demand Channel							21	22		
Latched										
Volumetric Detection										
Use Wait Channel										
Wait Channel [WAITCH]										
LPHASE_ RAW	0	0	3	3	0	0	-1	0	0	3
LTYPE_ RAW	0	0	0	0	0	0	121	122	99	99

Link: Modelling

Link	1	2	3	4	5	6	7	8	9	10
Auto Set Link Minimum Green	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Link Minimum Green [LMIN] (s)	7.0	7.0	7.0	7.0	7.0	7.0	6.0	6.0	7.0	7.0
Link Maximum Green [LNKMAX] (s)	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
Auto Set Stop Penalty	✓	✓	✓	✓	✓	✓				
Heavy Vehicles (%)	90	10	10	10	90	90				
Stop Penalty [STOPEN] (s)	28.0	12.0	12.0	12.0	13.0	13.0				
Encourage Pedestrian Stage							Off	Off		
Auto-set End of Saturation Time	✓	✓	✓	✓	✓	✓				
End of Saturation Time [ESLMAX] (s)	60.0	60.0	60.0	60.0	60.0	60.0				
Auto Set Lost Time	✓	✓	✓	✓	✓	✓				
Lost Time [LOSTIM] (s)	17.0	17.0	12.0	12.0	16.0	16.0				

Link: Offside Turners

Link	1	2	3	4	5	6	7	8	9	10
Auto set MIXOUT	✓	✓	✓	✓	✓	✓				
Early cut-off demand type [MIXOUT]	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	-	-	-	-
Vehicles between X and OUT dets [MIXOUT] (veh)										

Link: Emergency and Priority

Link	9	10
Use Bus Weighting?	✓	✓
Associated Lane [ASCLAN]	1	1
EP1: Has Detector?	✓	✓
EP1: Detector ID [EPDET1]	23	24
EP1: Extension [EPEXT1] (s)	1	1
EP1: Distance (m)	100.0	100.0
EP1: Cruise Speed (m/s)	11.0	11.0
EP1: Cruise Time [EPCRT1] (s)	9.1	9.1
EP2: Has Detector?		
EP2: Detector ID [EPDET2]		
EP2: Extension [EPEXT2] (s)		
EP2: Distance (m)		
EP2: Cruise Speed (m/s)		
EP2: Cruise Time [EPCRT2] (s)		
Hold Time [HOLDTM] (s)	1	1
Cancel Detector Type	None	None
Cancel Detector ID [CANDET]		
Bus Weight [BUSWGT]	1000	1000

Link: Constants

Link	1	2	3	4	5	6	7	8	9	10
Auto Set	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MINPCS	50	50	50	50	50	50	50	50	50	50
Is Short Link [SHORTL]										
Number Of Main Lanes [NMAINL]	1	1	1	1	1	1	0	0	0	0

Lanes

Lanes

Lane	1	2	3	4	5	6
Name						
Description						
Lane Type	Normal	Normal	Normal	Normal	Normal	Normal
Short Lane Length [DSHORT] (m)						
Lane Weighting Factor [LANEWF]	5	1	1	1	1	1
Cruise Speed [CSPEED] (m/s)	12.0	12.0	12.0	12.0	8.0	8.0
Enter headway?	✓	✓	✓	✓	✓	✓
Headway [SATINC] (s)	2.0	1.9	1.9	1.9	2.1	2.1
Saturation Flow (veh/hr)	1800	1895	1895	1895	1714	1714
Start-up Lost Time [STLOST] (s)	1.3	1.3	1.3	1.3	1.3	1.3
Saturation Flow Feedback [USESF]	Off	Off	Off	Off	Off	Off
Start-up Lost Time Feedback [USEST]	Off	Off	Off	Off	Off	Off

Lane: Detectors

Lane	1	2	3	4	5	6
X Detector ID [X]	2	5	8	11	16	19
X Detector distance [DX] (m)	40.0	40.0	40.0	40.0	35.0	35.0
IN Detector?	✓	✓	✓	✓	✓	✓
IN Detector ID [IN]	1	4	7	10	15	18
IN Detector distance [DIN] (m)	80.0	80.0	80.0	80.0	60.0	60.0
Auto Set	✓	✓	✓	✓	✓	✓
X Detector cruise time [CRUSX] (s)	3.0	3.0	3.0	3.0	4.0	4.0
X Detector queue clear time [MOVEQX] (s)	16.5	16.0	16.0	16.0	15.5	15.5
IN Detector cruise time [CRUSIN] (s)	6.5	6.5	6.5	6.5	7.0	7.0
IN Detector queue clear time [MOVQIN] (s)	26.5	26.5	26.5	26.5	20.0	20.0
Queue Detection Time [QMINON] (s)	6.0	6.0	6.0	6.0	6.0	6.0

Lane: Combination Detectors

Lane	1	2	3	4	5	6
COMB-X Detector present?						
COMB-X Detector ID [COMBX]						
Associated X Det 1 [ASSOCD-1]						
Associated X Det 2?						
Associated X Det 2 [ASSOCD-2]						
Auto Set COMTIM	✓	✓	✓	✓	✓	✓
Time To Use Combination [COMTIM] (s)						

Lane: Other Detectors

Lane	1	2	3	4	5	6
OUT Detector?						
OUT Detector ID						
IN-SINK Detector?						
IN-SINK Detector ID						
X-SINK Detector?						
X-SINK Detector ID						
STOPLINE Detector?	✓	✓	✓	✓	✓	✓
STOPLINE Detector ID	3	6	9	12	17	20
AutoSet ALT-UP	✓	✓	✓	✓	✓	✓
ALT-UP Detector?	✓	✓	✓	✓	✓	✓
ALT-UP Detector ID	1	4	7	10	15	18
ALT-DOWN Detector?						
ALT-DOWN Detector ID						
IN-SINK2 Detector?						
IN-SINK2 Detector ID						
X-SINK2 Detector?						
X-SINK2 Detector ID						

Lane: Oversaturation

Lane	1	2	3	4	5	6
Auto Set Critical Vehicle Count	✓	✓	✓	✓	✓	✓
Detector For Oversaturation Checking [XOSAT]	IN detector	IN detector	IN detector	IN detector	IN detector	IN detector
Critical Vehicle Count [OSATCC] (veh)	6	6	6	6	6	6
Critical Vehicle Count Compact [OSATCX] (veh)	5	5	5	5	4	4
Critical Vehicle Time [OSATTM]	13.0	13.0	13.0	13.0	10.5	10.5

Lane: Alerts

Lane	1	2	3	4	5	6
Enable Oversaturation Alert						
Oversaturation Cycles [OSATAL]						
Enable Exit Blocking Alert						
Exit Blocking Cycles [EXITAL]						

Lane: Advanced

Lane	1	2	3	4	5	6
Auto set Advanced Values	✓	✓	✓	✓	✓	✓
Max Minimum Green [MAXMIN] (s)	13.5	13.0	13.0	13.0	12.5	12.5
Utilised Amber Time [GAMBER] (s)	2.0	2.0	2.0	2.0	1.5	1.5
Saturation Flow Gap [SATGAP] (s)	1.4	1.4	1.4	1.4	1.4	1.4
Critical Gap [CRITG] (s)	3.4	3.4	3.4	3.4	3.4	3.4
Lengthened Critical Gap [PCRITG] (%)	0	0	0	0	0	0
Portion Of Critical Gap [RCRITG] (%)	0	0	0	0	0	0

Logging

Logging

Telephone Number	
TMA Logging Period [TMAPRD]	60

Logging: Error weighting

Error type	Weighting
Auto Set	✓
Faulty detector [2]	0
Stage not ended [3]	5
Intergreen not ended [4]	5
Invalid stage demanded [5]	5
Wrong stage confirmed [6]	5
Multiple stage confirms [14]	0
Watchdog routine [8]	5
Divide error [16]	5
Program error [11]	0

Logging: Saturation Flow Logs

Time Period	Start Time (HH:mm)	End Time (HH:mm)
Weekday Period 1	07:30	09:30
Weekday Period 2	16:30	18:30
Weekday Period 3	09:30	16:30
Weekday Period 4	18:30	22:00
Saturday	09:00	17:00
Sunday	10:00	16:00

Constants

Constants

Auto Set	SCAN	MINEXT (s)	MAXEXT (s)	ADDGAP	SUBGAP	NDETS	STAGES	NLINKS	NLANES
✓	0.5	3.0	9.6	0.5	0.5	24	2	10	6

Summary of Detectors and Confirms

Detectors

Detector	Detector Type	Link	Lane	Data Plan
1	N		1	
2	X		1	
3	Stopline		1	
4	N		2	
5	X		2	
6	Stopline		2	
7	N		3	
8	X		3	
9	Stopline		3	
10	N		4	
11	X		4	
12	Stopline		4	
15	N		5	
16	X		5	
17	Stopline		5	
18	N		6	
19	X		6	
20	Stopline		6	
21	Pedestrian	7		
22	Pedestrian	8		
23	E/P	9		
24	E/P	10		

Confirms

Confirm	Stage	Phase
1	1	
2	2	
3		B

Special Conditioning

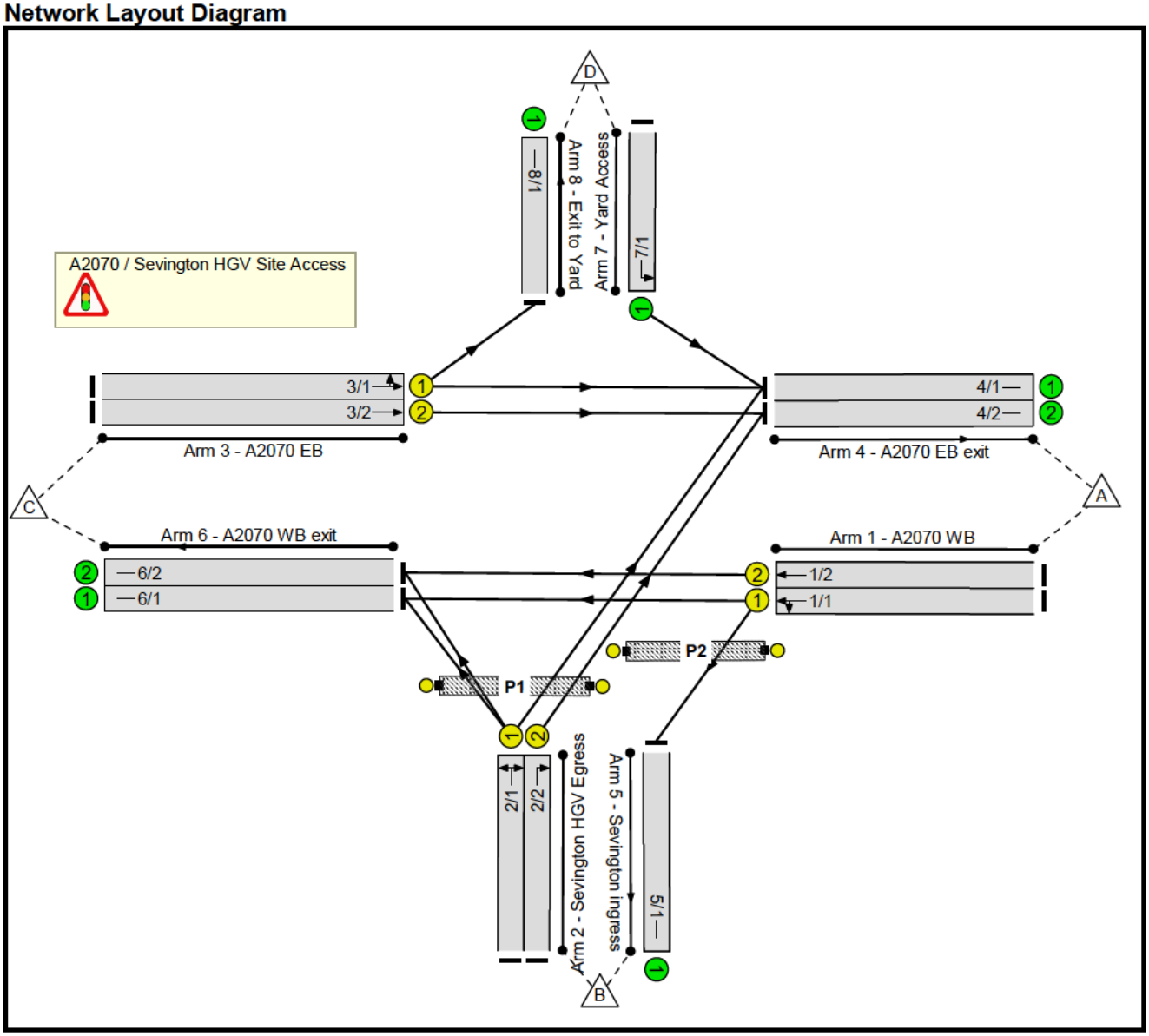
No rules have been defined

Detailed Input Data And Results

User and Project Details

Project:	**WIE20982 Sevington IBF**
Title:	**J5) A2070 / Sevington HGV Access**
Location:	
Design Layout Ref:	Existing Layout
Date Completed:	March 2025
Model Purpose:	For TA
Additional detail:	
File name:	J5) A2070_Sevington HGV Access.lsg3x
Author:	CSMS4
Company:	WIE
Address:	
Linsig Version:	3, 3, 0, 6

Network Layout Diagram



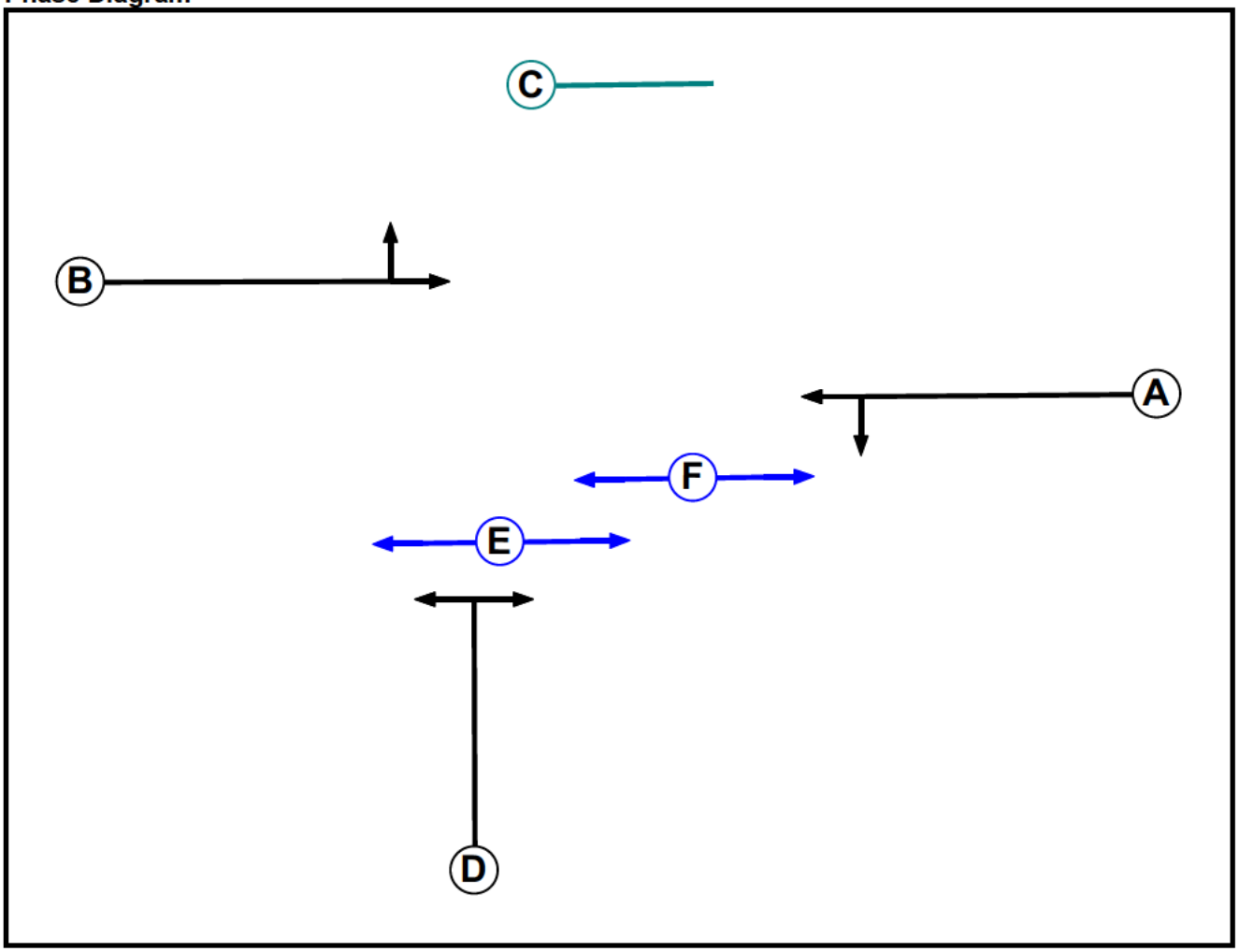
Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2024 Base AM	2024 Base AM	Network Control Plan 1	07:45 - 08:45	60	67.4	7.39
2	2024 Base PM	2024 Base PM	Network Control Plan 1	16:30 - 17:30	60	67.5	7.77
3	2024 Base+Sev (Obs) AM	2024 Base+Sev (Obs) AM	Network Control Plan 1	07:45 - 08:45	60	48.3	9.15
4	2024 Base+Sev (Obs) PM	2024 Base+Sev (Obs) PM	Network Control Plan 1	16:30 - 17:30	60	68.9	8.31
5	2026 Base AM	2026 Base AM	Network Control Plan 1	07:45 - 08:45	60	89.9	5.38
6	2026 Base PM	2026 Base PM	Network Control Plan 1	16:30 - 17:30	60	102.8	4.97
7	2026 Base+Sev AM	2026 Base+Sev AM	Network Control Plan 1	07:45 - 08:45	60	63.3	7.76
8	2026 Base+Sev PM	2026 Base+Sev PM	Network Control Plan 1	16:30 - 17:30	60	65.8	8.49
9	2036 Base AM	2036 Base AM	Network Control Plan 1	07:45 - 08:45	60	40.1	8.55
10	2036 Base PM	2036 Base PM	Network Control Plan 1	16:30 - 17:30	60	50.3	7.94
11	2036 Base+Sev AM	2036 Base+Sev AM	Network Control Plan 1	07:45 - 08:45	60	25.1	11.40
12	2036 Base+Sev PM	2036 Base+Sev PM	Network Control Plan 1	16:30 - 17:30	60	28.8	11.98
13	2036 Base+Sev 4 AM	2036 Base+Sev 4 AM	Network Control Plan 1	07:45 - 08:45	60	22.7	12.00
14	2036 Base+Sev 4 PM	2036 Base+Sev 4 PM	Network Control Plan 1	16:30 - 17:30	60	25.8	12.94

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1	Gen		Stage Stream 1	6	2	A2070 / Sevington HGV Site Access	

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Dummy		7	7
D	Traffic		7	7
E	Pedestrian		6	6
F	Pedestrian		6	6

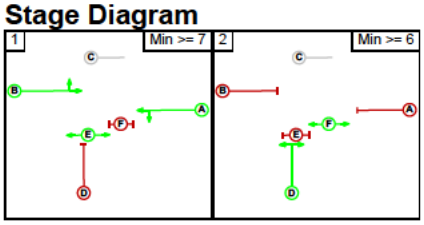
Phase Intergreens Matrix

Terminating Phase	Starting Phase A	B	C	D	E	F
A		-	-	6	-	10
B	-		-	5	-	-
C	-	-		-	-	-
D	6	9	-		6	-
E	-	-	-	9		-
F	9	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B E
2	D F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2
1		10
2	9	

Lane Input Data

Junction: A2070 / Sevington HGV Site Access

Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A2070 WB)	U	A	2	3	60.0	Geom	-	3.72	0.00	Y	Arm 5 Left Arm 6 Ahead	23.51 Inf
1/2 (A2070 WB)	U	A	2	3	60.0	Geom	-	3.72	0.00	N	Arm 6 Ahead	Inf
2/1 (Sevington HGV Egress)	U	D	2	3	60.0	Geom	-	4.26	0.00	Y	Arm 4 Right Arm 6 Left	37.00 26.13
2/2 (Sevington HGV Egress)	U	D	2	3	60.0	Geom	-	4.26	0.00	N	Arm 4 Right	32.24
3/1 (A2070 EB)	U	B	2	3	60.0	Geom	-	3.63	0.00	Y	Arm 4 Ahead Arm 8 Left	Inf 10.00
3/2 (A2070 EB)	U	B	2	3	60.0	Geom	-	3.63	0.00	N	Arm 4 Ahead	Inf
4/1 (A2070 EB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (A2070 EB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Sevington ingress)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (A2070 WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2 (A2070 WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Yard Access)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Exit to Yard)	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: A2070 / Sevington HGV Site Access
There are no Opposed Lanes in this Junction

Lane Connector Input Data

Junction: A2070 / Sevington HGV Site Access				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	5/1	Internal	5	35
1/1	6/1	Internal	5	35
1/2	6/2	Internal	5	35
2/1	4/1	Internal	5	35
2/1	6/1	Internal	5	35
2/1	6/2	Internal	5	35
2/2	4/2	Internal	5	35
3/1	4/1	Internal	5	35
3/1	8/1	Internal	5	35
3/2	4/2	Internal	5	35
7/1	4/1	Internal	5	35

Scenario 1: '2024 Base AM' (FG1: '2024 Base AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access

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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	0.0 %	1987	1987
				Arm 6 Ahead	Inf	100.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	0.0 %	2041	2041
				Arm 6 Left	26.13	0.0 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	0.0 %	2181	2181
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.6 %	1977	1977
				Arm 8 Left	10.00	0.4 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 1

Scenario 2: '2024 Base PM' (FG2: '2024 Base PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	0.0 %	1987	1987
				Arm 6 Ahead	Inf	100.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	0.0 %	2041	2041
				Arm 6 Left	26.13	0.0 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	0.0 %	2181	2181
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 2

Scenario 3: '2024 Base+Sev (Obs) AM' (FG3: '2024 Base+Sev (Obs) AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	24.5 %	1956	1956
				Arm 6 Ahead	Inf	75.5 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	86.4 %	1957	1957
				Arm 6 Left	26.13	13.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.6 %	1977	1977
				Arm 8 Left	10.00	0.4 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 3

Scenario 4: '2024 Base+Sev (Obs) PM' (FG4: '2024 Base+Sev (Obs) PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	32.8 %	1946	1946
				Arm 6 Ahead	Inf	67.2 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	73.4 %	1953	1953
				Arm 6 Left	26.13	26.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 4

Scenario 5: '2026 Base AM' (FG5: '2026 Base AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	0.0 %	1987	1987
				Arm 6 Ahead	Inf	100.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	0.0 %	2041	2041
				Arm 6 Left	26.13	0.0 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	0.0 %	2181	2181
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.6 %	1977	1977
				Arm 8 Left	10.00	0.4 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 5

Scenario 6: '2026 Base PM' (FG6: '2026 Base PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	0.0 %	1987	1987
				Arm 6 Ahead	Inf	100.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	0.0 %	2041	2041
				Arm 6 Left	26.13	0.0 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	0.0 %	2181	2181
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 6

Scenario 7: '2026 Base+Sev AM' (FG7: '2026 Base+Sev AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	24.0 %	1957	1957
				Arm 6 Ahead	Inf	76.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	86.4 %	1957	1957
				Arm 6 Left	26.13	13.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.6 %	1977	1977
				Arm 8 Left	10.00	0.4 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 7

Scenario 8: '2026 Base+Sev PM' (FG8: '2026 Base+Sev PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	32.2 %	1947	1947
				Arm 6 Ahead	Inf	67.8 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	73.4 %	1953	1953
				Arm 6 Left	26.13	26.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 8

Scenario 9: '2036 Base AM' (FG9: '2036 Base AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	0.0 %	1987	1987
				Arm 6 Ahead	Inf	100.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	0.0 %	2041	2041
				Arm 6 Left	26.13	0.0 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	0.0 %	2181	2181
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.7 %	1977	1977
				Arm 8 Left	10.00	0.3 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 9

Scenario 10: '2036 Base PM' (FG10: '2036 Base PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access

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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	0.0 %	1987	1987
				Arm 6 Ahead	Inf	100.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	0.0 %	2041	2041
				Arm 6 Left	26.13	0.0 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	0.0 %	2181	2181
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 10

Scenario 11: '2036 Base+Sev AM' (FG11: '2036 Base+Sev AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	18.3 %	1964	1964
				Arm 6 Ahead	Inf	81.7 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	86.4 %	1957	1957
				Arm 6 Left	26.13	13.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.7 %	1977	1977
				Arm 8 Left	10.00	0.3 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 11

Scenario 12: '2036 Base+Sev PM' (FG12: '2036 Base+Sev PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	24.9 %	1956	1956
				Arm 6 Ahead	Inf	75.1 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	73.4 %	1953	1953
				Arm 6 Left	26.13	26.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 12

Scenario 13: '2036 Base+Sev 4 AM' (FG13: '2036 Base+Sev 4 AM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	21.0 %	1961	1961
				Arm 6 Ahead	Inf	79.0 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	86.4 %	1957	1957
				Arm 6 Left	26.13	13.6 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	99.7 %	1977	1977
				Arm 8 Left	10.00	0.3 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 13

Scenario 14: '2036 Base+Sev 4 PM' (FG14: '2036 Base+Sev 4 PM', Plan 1: 'Network Control Plan 1')

Lane Saturation Flows

Junction: A2070 / Sevington HGV Site Access								
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 (A2070 WB)	3.72	0.00	Y	Arm 5 Left	23.51	28.4 %	1952	1952
				Arm 6 Ahead	Inf	71.6 %		
1/2 (A2070 WB)	3.72	0.00	N	Arm 6 Ahead	Inf	100.0 %	2127	2127
2/1 (Sevington HGV Egress)	4.26	0.00	Y	Arm 4 Right	37.00	73.3 %	1953	1953
				Arm 6 Left	26.13	26.7 %		
2/2 (Sevington HGV Egress)	4.26	0.00	N	Arm 4 Right	32.24	100.0 %	2084	2084
3/1 (A2070 EB)	3.63	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1978	1978
				Arm 8 Left	10.00	0.0 %		
3/2 (A2070 EB)	3.63	0.00	N	Arm 4 Ahead	Inf	100.0 %	2118	2118
4/1 (A2070 EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (A2070 EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (Sevington ingress Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (A2070 WB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A2070 WB exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (Yard Access Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (Exit to Yard Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 14

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 Base AM'	07:45	08:45	01:00	
2: '2024 Base PM'	16:30	17:30	01:00	
3: '2024 Base+Sev (Obs) AM'	07:45	08:45	01:00	
4: '2024 Base+Sev (Obs) PM'	16:30	17:30	01:00	
5: '2026 Base AM'	07:45	08:45	01:00	
6: '2026 Base PM'	16:30	17:30	01:00	
7: '2026 Base+Sev AM'	07:45	08:45	01:00	
8: '2026 Base+Sev PM'	16:30	17:30	01:00	
9: '2036 Base AM'	07:45	08:45	01:00	
10: '2036 Base PM'	16:30	17:30	01:00	
11: '2036 Base+Sev AM'	07:45	08:45	01:00	
12: '2036 Base+Sev PM'	16:30	17:30	01:00	
13: '2036 Base+Sev 4 AM'	07:45	08:45	01:00	
14: '2036 Base+Sev 4 PM'	16:30	17:30	01:00	

Traffic Flows, Desired

FG1: '2024 Base AM'

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1104	0	1104
	B	0	0	0	0	0
	C	975	0	0	2	977
	D	0	0	0	0	0
	Tot.	975	0	1104	2	2081

FG2: '2024 Base PM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	0	1033	0	1033
B	0	0	0	0	0
C	938	0	0	0	938
D	2	0	0	0	2
Tot.	940	0	1033	0	1973

FG3: '2024 Base+Sev (Obs) AM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	155	1112	0	1267
B	164	0	12	0	176
C	976	0	0	2	978
D	0	0	0	0	0
Tot.	1140	155	1124	2	2421

FG4: '2024 Base+Sev (Obs) PM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	204	1040	0	1244
B	223	0	34	0	257
C	939	0	0	0	939
D	2	0	0	0	2
Tot.	1164	204	1074	0	2442

FG5: '2026 Base AM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	0	1131	0	1131
B	0	0	0	0	0
C	998	0	0	2	1000
D	0	0	0	0	0
Tot.	998	0	1131	2	2131

FG6: '2026 Base PM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	0	1058	0	1058
B	0	0	0	0	0
C	960	0	0	0	960
D	2	0	0	0	2
Tot.	962	0	1058	0	2020

FG7: '2026 Base+Sev AM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	155	1139	0	1294
B	164	0	12	0	176
C	1000	0	0	2	1002
D	0	0	0	0	0
Tot.	1164	155	1151	2	2472

FG8: '2026 Base+Sev PM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	204	1064	0	1268
B	223	0	34	0	257
C	961	0	0	0	961
D	2	0	0	0	2
Tot.	1186	204	1098	0	2488

FG9: '2036 Base AM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	0	1533	0	1533
B	0	0	0	0	0
C	1291	0	0	2	1293
D	0	0	0	0	0
Tot.	1291	0	1533	2	2826

FG10: '2036 Base PM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	0	1429	0	1429
B	0	0	0	0	0
C	1294	0	0	0	1294
D	2	0	0	0	2
Tot.	1296	0	1429	0	2725

FG11: '2036 Base+Sev AM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	155	1540	0	1695
B	164	0	12	0	176
C	1292	0	0	2	1294
D	0	0	0	0	0
Tot.	1456	155	1552	2	3165

FG12: '2036 Base+Sev PM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	204	1435	0	1639
B	223	0	34	0	257
C	1296	0	0	0	1296
D	2	0	0	0	2
Tot.	1521	204	1469	0	3194

FG13: '2036 Base+Sev 4 AM'
Desired Flow :

Origin \ Destination	A	B	C	D	Tot.
A	0	181	1544	0	1725
B	191	0	14	0	205
C	1293	0	0	2	1295
D	0	0	0	0	0
Tot.	1484	181	1558	2	3225

FG14: '2036 Base+Sev 4 PM'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	238	1438	0	1676
	B	260	0	40	0	300
	C	1297	0	0	0	1297
	D	2	0	0	0	2
	Tot.	1559	238	1478	0	3275

Scenario 1: '2024 Base AM' (FG1: '2024 Base AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1104	0	1104
	B	0	0	0	0	0
	C	975	0	0	2	977
	D	0	0	0	0	0
	Tot.	975	0	1104	2	2081

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 2: '2024 Base PM' (FG2: '2024 Base PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1033	0	1033
	B	0	0	0	0	0
	C	938	0	0	0	938
	D	2	0	0	0	2
	Tot.	940	0	1033	0	1973

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 3: '2024 Base+Sev (Obs) AM' (FG3: '2024 Base+Sev (Obs) AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	155	1112	0	1267
	B	164	0	12	0	176
	C	976	0	0	2	978
	D	0	0	0	0	0
	Tot.	1140	155	1124	2	2421

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 4: '2024 Base+Sev (Obs) PM' (FG4: '2024 Base+Sev (Obs) PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	204	1040	0	1244
	B	223	0	34	0	257
	C	939	0	0	0	939
	D	2	0	0	0	2
	Tot.	1164	204	1074	0	2442

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 5: '2026 Base AM' (FG5: '2026 Base AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1131	0	1131
	B	0	0	0	0	0
	C	998	0	0	2	1000
	D	0	0	0	0	0
	Tot.	998	0	1131	2	2131

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 6: '2026 Base PM' (FG6: '2026 Base PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1058	0	1058
	B	0	0	0	0	0
	C	960	0	0	0	960
	D	2	0	0	0	2
	Tot.	962	0	1058	0	2020

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 7: '2026 Base+Sev AM' (FG7: '2026 Base+Sev AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	155	1139	0	1294
	B	164	0	12	0	176
	C	1000	0	0	2	1002
	D	0	0	0	0	0
	Tot.	1164	155	1151	2	2472

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 8: '2026 Base+Sev PM' (FG8: '2026 Base+Sev PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	204	1064	0	1268
	B	223	0	34	0	257
	C	961	0	0	0	961
	D	2	0	0	0	2
	Tot.	1186	204	1098	0	2488

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 9: '2036 Base AM' (FG9: '2036 Base AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1533	0	1533
	B	0	0	0	0	0
	C	1291	0	0	2	1293
	D	0	0	0	0	0
	Tot.	1291	0	1533	2	2826

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 10: '2036 Base PM' (FG10: '2036 Base PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	1429	0	1429
	B	0	0	0	0	0
	C	1294	0	0	0	1294
	D	2	0	0	0	2
	Tot.	1296	0	1429	0	2725

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 11: '2036 Base+Sev AM' (FG11: '2036 Base+Sev AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	155	1540	0	1695
	B	164	0	12	0	176
	C	1292	0	0	2	1294
	D	0	0	0	0	0
	Tot.	1456	155	1552	2	3165

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 12: '2036 Base+Sev PM' (FG12: '2036 Base+Sev PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	204	1435	0	1639
	B	223	0	34	0	257
	C	1296	0	0	0	1296
	D	2	0	0	0	2
	Tot.	1521	204	1469	0	3194

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 13: '2036 Base+Sev 4 AM' (FG13: '2036 Base+Sev 4 AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	181	1544	0	1725
	B	191	0	14	0	205
	C	1293	0	0	2	1295
	D	0	0	0	0	0
	Tot.	1484	181	1558	2	3225

Traffic Flows, Difference
Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 14: '2036 Base+Sev 4 PM' (FG14: '2036 Base+Sev 4 PM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Actual
Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	238	1438	0	1676
	B	260	0	40	0	300
	C	1297	0	0	0	1297
	D	2	0	0	0	2
	Tot.	1559	238	1478	0	3275

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Traffic Lane Flows

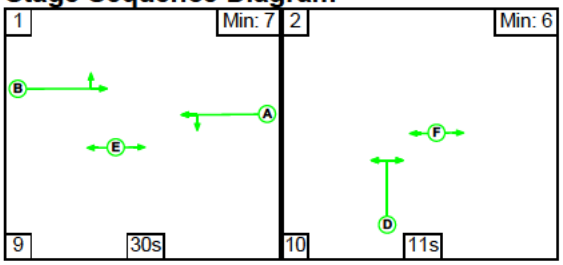
Lane	Scenario 1: 2024 Base AM	Scenario 2: 2024 Base PM	Scenario 3: 2024 Base+Sev (Obs) AM	Scenario 4: 2024 Base+Sev (Obs) PM	Scenario 5: 2026 Base AM	Scenario 6: 2026 Base PM
Junction: A2070 / Sevington HGV Site Access						
1/1	552	516	633	622	565	529
1/2	552	517	634	622	566	529
2/1	0	0	88	128	0	0
2/2	0	0	88	129	0	0
3/1	489	469	489	469	500	480
3/2	488	469	489	470	500	480
4/1	487	471	563	565	498	482
4/2	488	469	577	599	500	480
5/1	0	0	155	204	0	0
6/1	552	516	484	435	565	529
6/2	552	517	640	639	566	529
7/1	0	2	0	2	0	2
8/1	2	0	2	0	2	0

Lane	Scenario 7: 2026 Base+Sev AM	Scenario 8: 2026 Base+Sev PM	Scenario 9: 2036 Base AM	Scenario 10: 2036 Base PM	Scenario 11: 2036 Base+Sev AM	Scenario 12: 2036 Base+Sev PM
Junction: A2070 / Sevington HGV Site Access						
1/1	647	634	766	714	848	820
1/2	647	634	767	715	847	819
2/1	88	128	0	0	88	128
2/2	88	129	0	0	88	129
3/1	501	480	647	647	647	648
3/2	501	481	646	647	647	648
4/1	575	576	645	649	721	744
4/2	589	610	646	647	735	777
5/1	155	204	0	0	155	204
6/1	498	447	766	714	699	633
6/2	653	651	767	715	853	836
7/1	0	2	0	2	0	2
8/1	2	0	2	0	2	0

Lane	Scenario 13: 2036 Base+Sev 4 AM	Scenario 14: 2036 Base+Sev 4 PM
Junction: A2070 / Sevington HGV Site Access		
1/1	863	838
1/2	862	838
2/1	103	150
2/2	102	150
3/1	648	648
3/2	647	649
4/1	735	760
4/2	749	799
5/1	181	238
6/1	689	620
6/2	869	858
7/1	0	2
8/1	2	0

Scenario 1: '2024 Base AM' (FG1: '2024 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



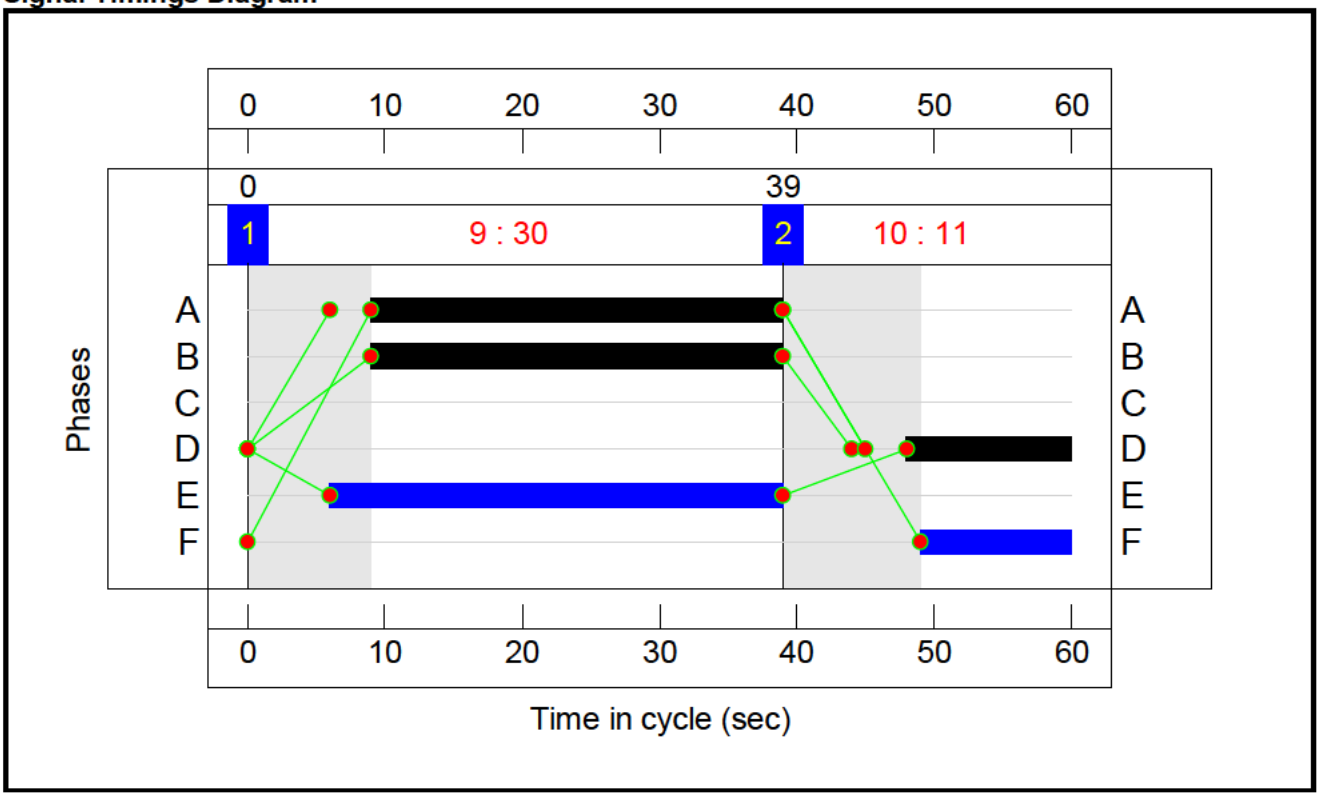
Stage Timings

Stage	1	2
Duration	30	11
Change Point	0	39

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	30	9	39
B	A2070 EB Ahead Left	Traffic	30	9	39
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	12	48	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	33	6	39
F	Pedestrians across exit to Sevington IBF	Pedestrian	11	49	0

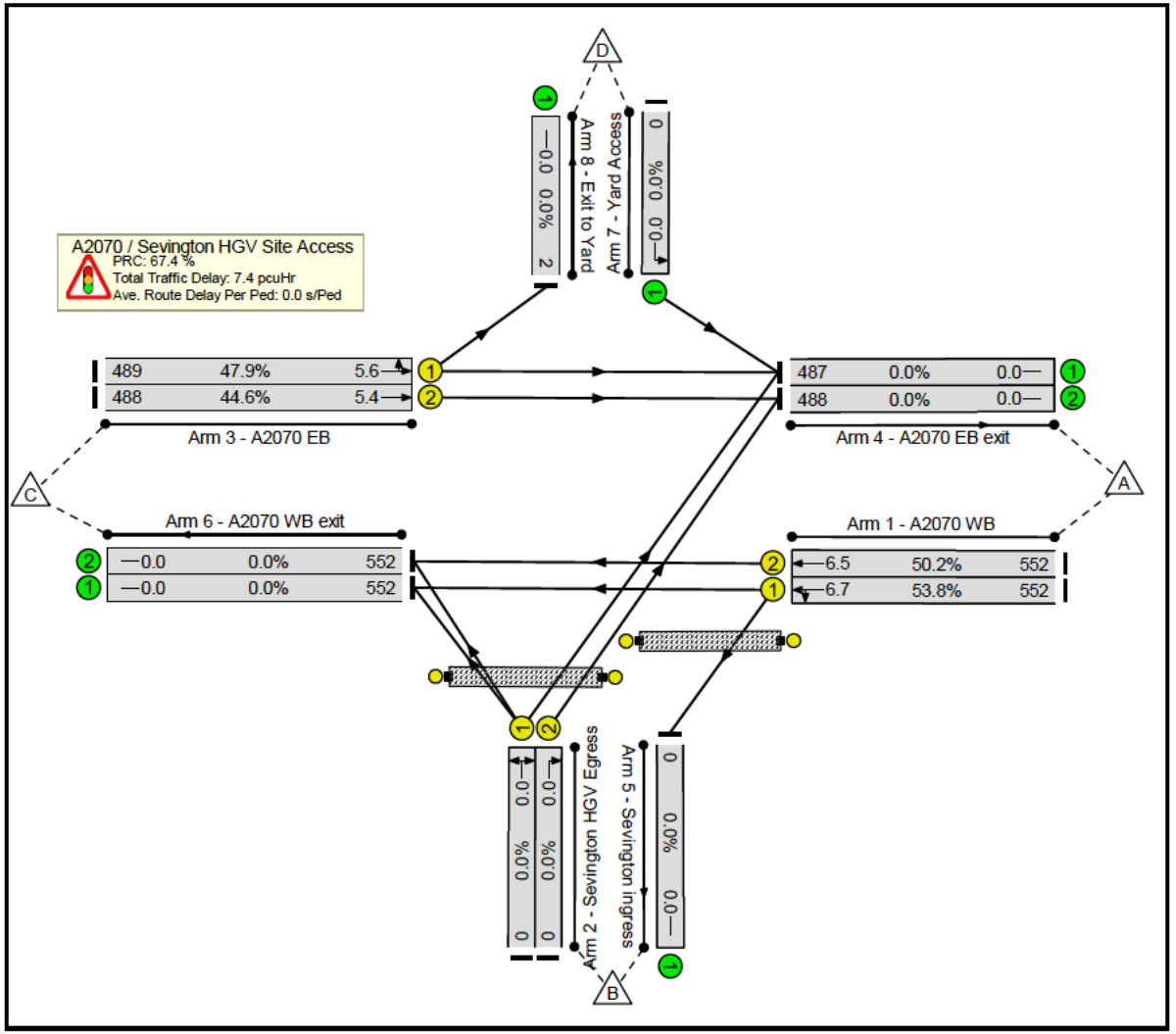
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	39
1/2	A2070 WB Ahead	U	A	9	39
2/1	Sevington HGV Egress Right Left	U	D	48	0
2/2	Sevington HGV Egress Right	U	D	48	0
3/1	A2070 EB Ahead Left	U	B	9	39
3/2	A2070 EB Ahead	U	B	9	39

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**53.8%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**53.8%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	30	-	-	552	1987	1027	53.8%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	30	-	-	552	2127	1099	50.2%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	12	-	-	0	2041	442	0.0%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	12	-	-	0	2181	473	0.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	30	-	-	489	1977	1021	47.9%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	30	-	-	488	2118	1094	44.6%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	487	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	488	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	552	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	552	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	33	-	-	0	-	0	0.0%

Detailed Input Data And Results

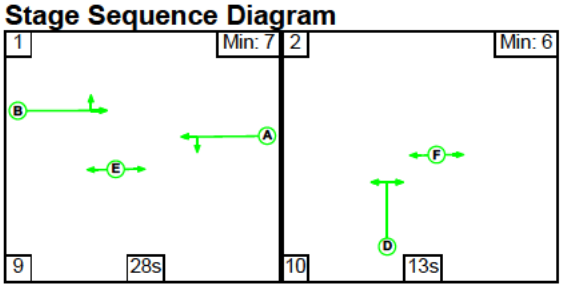
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	11	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.4**	**1.9**	**0.0**	**7.4**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.4**	**1.9**	**0.0**	**7.4**	**-**	**-**	**-**	**-**	
1/1	552	552	-	-	-	1.5	0.6	-	2.1	13.5	6.1	0.6	6.7	
1/2	552	552	-	-	-	1.5	0.5	-	2.0	12.8	6.0	0.5	6.5	
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
2/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
3/1	489	489	-	-	-	1.3	0.5	-	1.7	12.7	5.2	0.5	5.6	
3/2	488	488	-	-	-	1.2	0.4	-	1.6	12.1	5.0	0.4	5.4	
4/1	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	488	488	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	552	552	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	552	552	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 67.4 Total Delay for Signalled Lanes (pcuHr): 7.39 Cycle Time (s): 60
PRC Over All Lanes (%): 67.4 Total Delay Over All Lanes(pcuHr): 7.39

Scenario 2: '2024 Base PM' (FG2: '2024 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



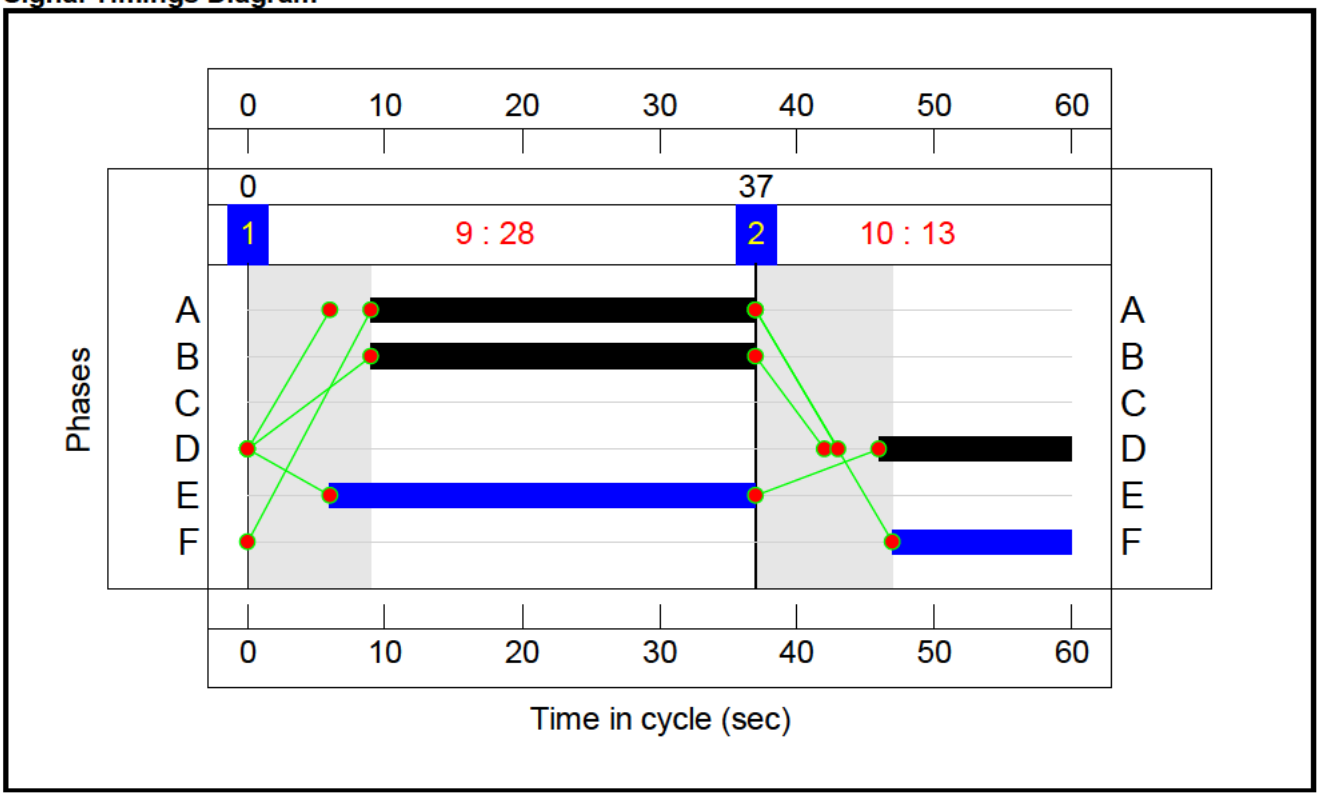
Stage Timings

Stage	1	2
Duration	28	13
Change Point	0	37

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	28	9	37
B	A2070 EB Ahead Left	Traffic	28	9	37
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	14	46	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	31	6	37
F	Pedestrians across exit to Sevington IBF	Pedestrian	13	47	0

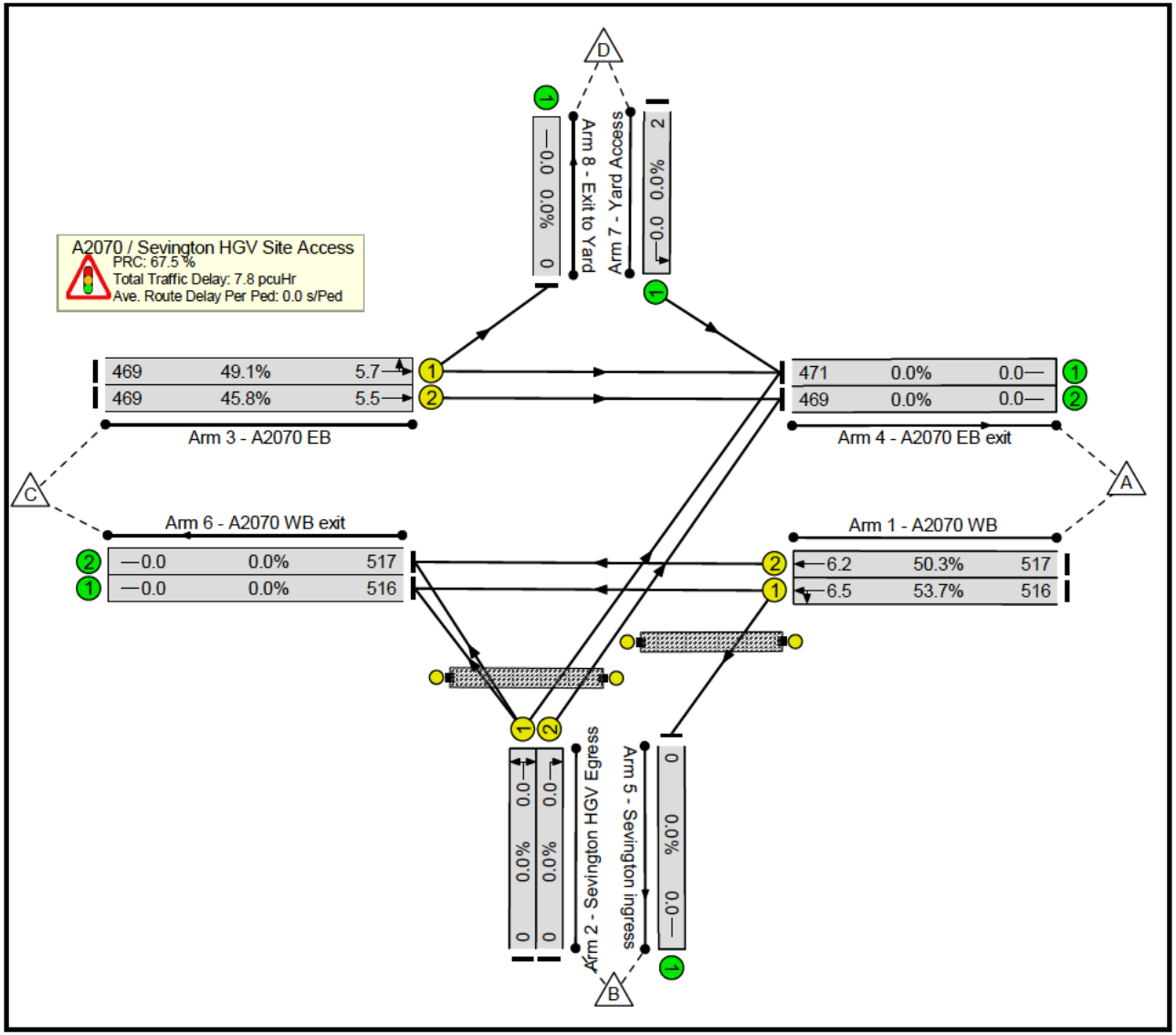
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	37
1/2	A2070 WB Ahead	U	A	9	37
2/1	Sevington HGV Egress Right Left	U	D	46	0
2/2	Sevington HGV Egress Right	U	D	46	0
3/1	A2070 EB Ahead Left	U	B	9	37
3/2	A2070 EB Ahead	U	B	9	37

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**53.7%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**53.7%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	28	-	-	516	1987	960	53.7%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	28	-	-	517	2127	1028	50.3%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	14	-	-	0	2041	510	0.0%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	14	-	-	0	2181	545	0.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	28	-	-	469	1978	956	49.1%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	28	-	-	469	2118	1024	45.8%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	471	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	469	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	516	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	517	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	31	-	-	0	-	0	0.0%

Detailed Input Data And Results

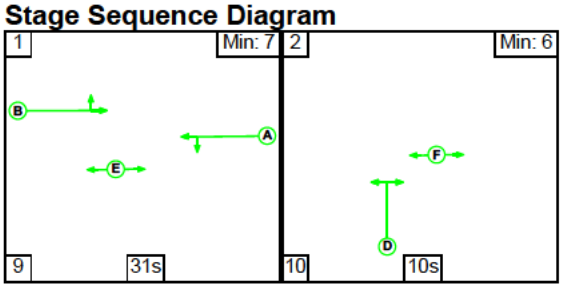
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.8**	**2.0**	**0.0**	**7.8**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.8**	**2.0**	**0.0**	**7.8**	**-**	**-**	**-**	**-**	
1/1	516	516	-	-	-	1.6	0.6	-	2.1	14.9	5.9	0.6	6.5	
1/2	517	517	-	-	-	1.5	0.5	-	2.0	14.1	5.7	0.5	6.2	
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
2/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
3/1	469	469	-	-	-	1.4	0.5	-	1.8	14.2	5.2	0.5	5.7	
3/2	469	469	-	-	-	1.3	0.4	-	1.8	13.5	5.1	0.4	5.5	
4/1	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 67.5 Total Delay for Signalled Lanes (pcuHr): 7.77 Cycle Time (s): 60
PRC Over All Lanes (%): 67.5 Total Delay Over All Lanes(pcuHr): 7.77

Scenario 3: '2024 Base+Sev (Obs) AM' (FG3: '2024 Base+Sev (Obs) AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



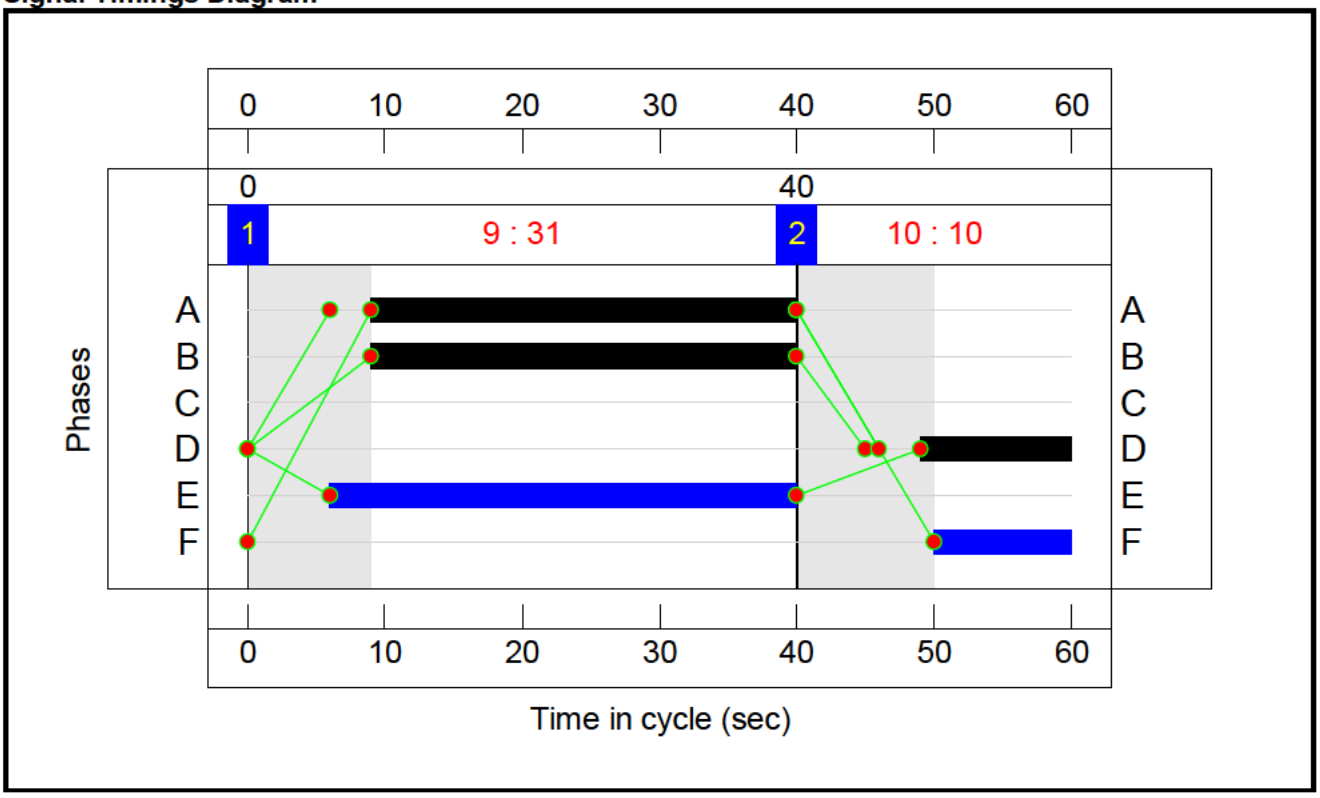
Stage Timings

Stage	1	2
Duration	31	10
Change Point	0	40

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	31	9	40
B	A2070 EB Ahead Left	Traffic	31	9	40
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	11	49	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	34	6	40
F	Pedestrians across exit to Sevington IBF	Pedestrian	10	50	0

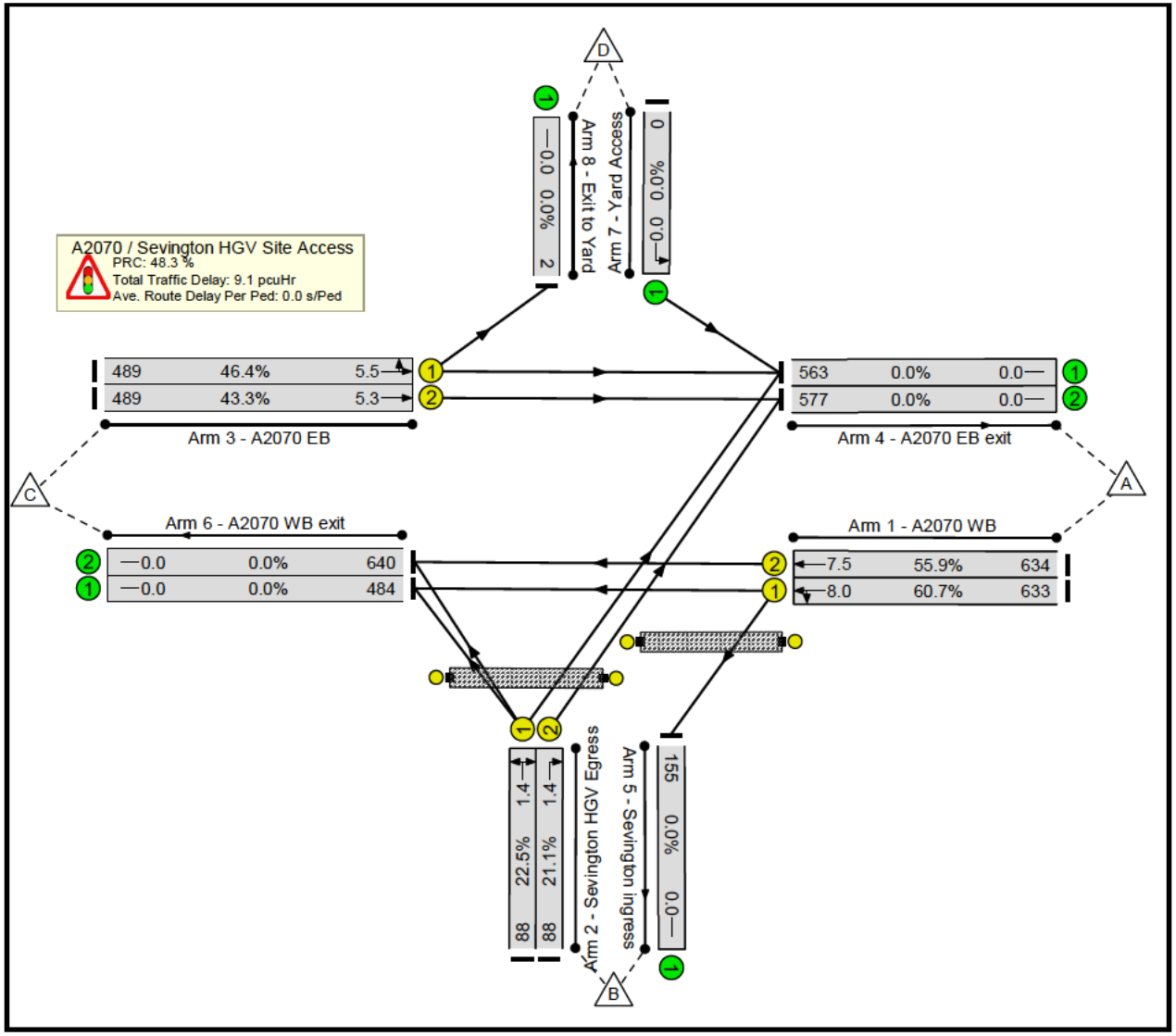
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	40
1/2	A2070 WB Ahead	U	A	9	40
2/1	Sevington HGV Egress Right Left	U	D	49	0
2/2	Sevington HGV Egress Right	U	D	49	0
3/1	A2070 EB Ahead Left	U	B	9	40
3/2	A2070 EB Ahead	U	B	9	40

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**60.7%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**60.7%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	31	-	-	633	1956	1043	60.7%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	31	-	-	634	2127	1134	55.9%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	11	-	-	88	1957	391	22.5%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	11	-	-	88	2084	417	21.1%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	31	-	-	489	1977	1054	46.4%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	31	-	-	489	2118	1130	43.3%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	563	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	577	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	155	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	484	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	640	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	34	-	-	0	-	0	0.0%

Detailed Input Data And Results

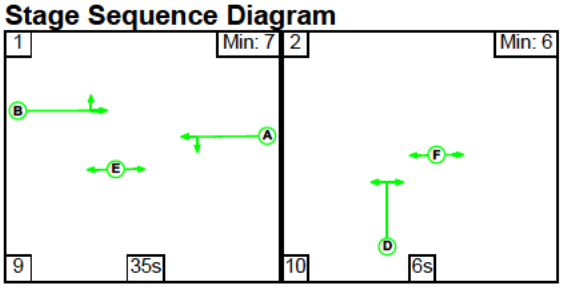
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	10	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**6.7**	**2.5**	**0.0**	**9.1**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**6.7**	**2.5**	**0.0**	**9.1**	**-**	**-**	**-**	**-**	
1/1	633	633	-	-	-	1.7	0.8	-	2.5	14.0	7.2	0.8	8.0	
1/2	634	634	-	-	-	1.6	0.6	-	2.3	12.9	6.9	0.6	7.5	
2/1	88	88	-	-	-	0.5	0.1	-	0.6	26.1	1.2	0.1	1.4	
2/2	88	88	-	-	-	0.5	0.1	-	0.6	25.5	1.2	0.1	1.4	
3/1	489	489	-	-	-	1.2	0.4	-	1.6	11.9	5.0	0.4	5.5	
3/2	489	489	-	-	-	1.2	0.4	-	1.5	11.3	4.9	0.4	5.3	
4/1	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	577	577	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	484	484	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	640	640	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 48.3 Total Delay for Signalled Lanes (pcuHr): 9.15 Cycle Time (s): 60
PRC Over All Lanes (%): 48.3 Total Delay Over All Lanes(pcuHr): 9.15

Scenario 4: '2024 Base+Sev (Obs) PM' (FG4: '2024 Base+Sev (Obs) PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



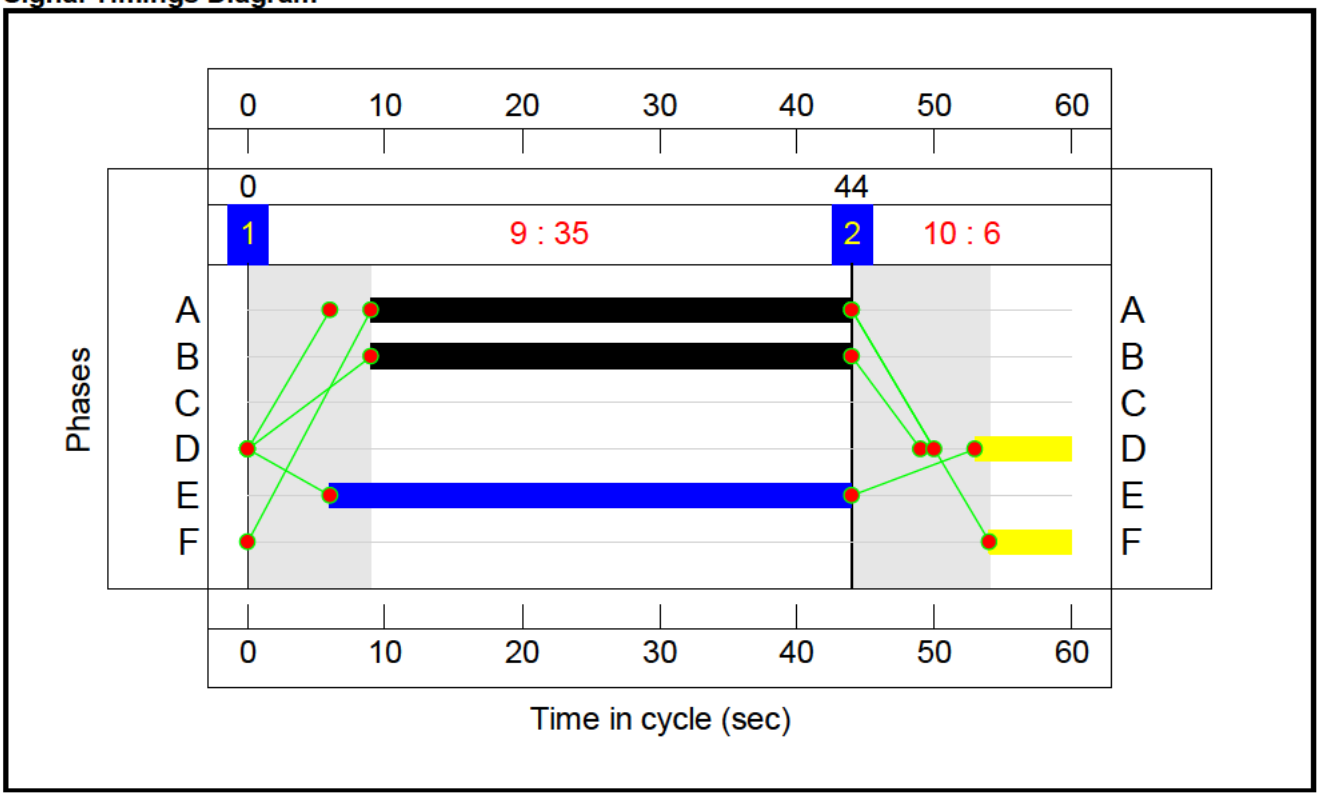
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

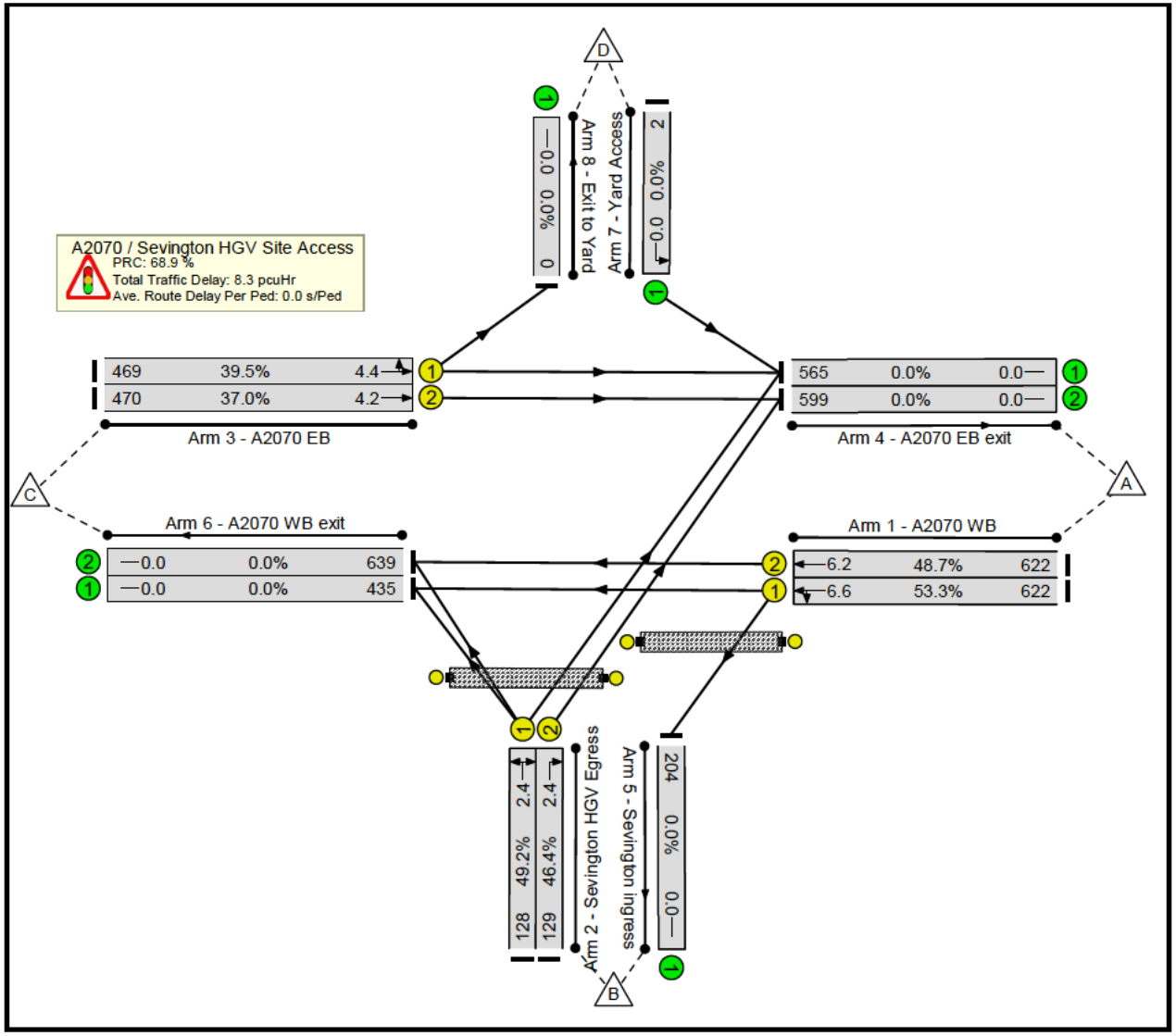
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**53.3%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**53.3%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	622	1946	1168	53.3%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	622	2127	1276	48.7%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	128	1953	260	49.2%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	129	2084	278	46.4%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	469	1978	1187	39.5%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	470	2118	1271	37.0%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	565	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	599	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	204	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	435	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	639	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

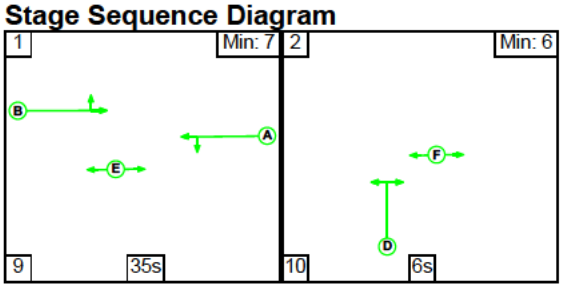
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.7**	**2.6**	**0.0**	**8.3**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.7**	**2.6**	**0.0**	**8.3**	**-**	**-**	**-**	**-**	
1/1	622	622	-	-	-	1.2	0.6	-	1.8	10.4	6.0	0.6	6.6	
1/2	622	622	-	-	-	1.2	0.5	-	1.6	9.5	5.7	0.5	6.2	
2/1	128	128	-	-	-	0.9	0.5	-	1.3	37.6	2.0	0.5	2.4	
2/2	129	129	-	-	-	0.9	0.4	-	1.3	36.1	2.0	0.4	2.4	
3/1	469	469	-	-	-	0.8	0.3	-	1.1	8.8	4.0	0.3	4.4	
3/2	470	470	-	-	-	0.8	0.3	-	1.1	8.4	3.9	0.3	4.2	
4/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	639	639	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 68.9 Total Delay for Signalled Lanes (pcuHr): 8.31 Cycle Time (s): 60
PRC Over All Lanes (%): 68.9 Total Delay Over All Lanes(pcuHr): 8.31

Scenario 5: '2026 Base AM' (FG5: '2026 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



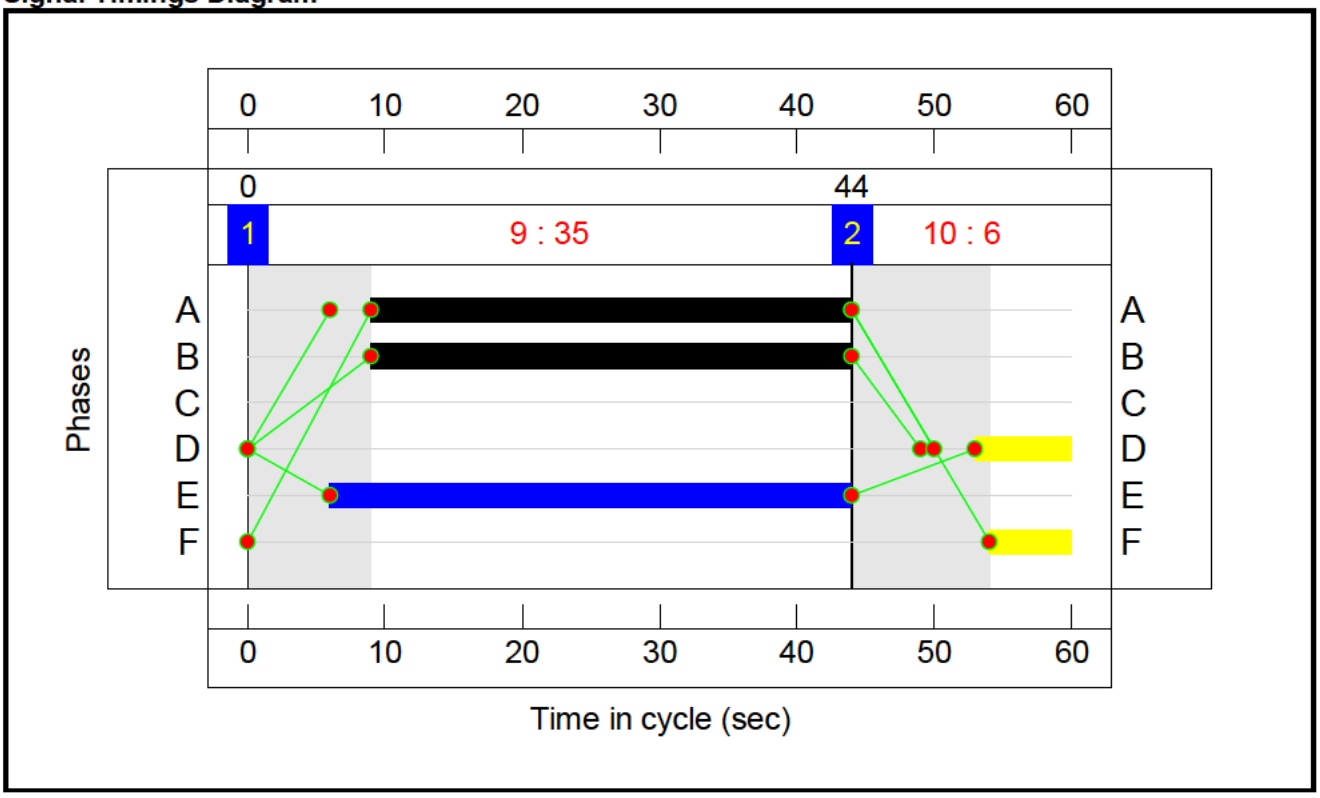
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

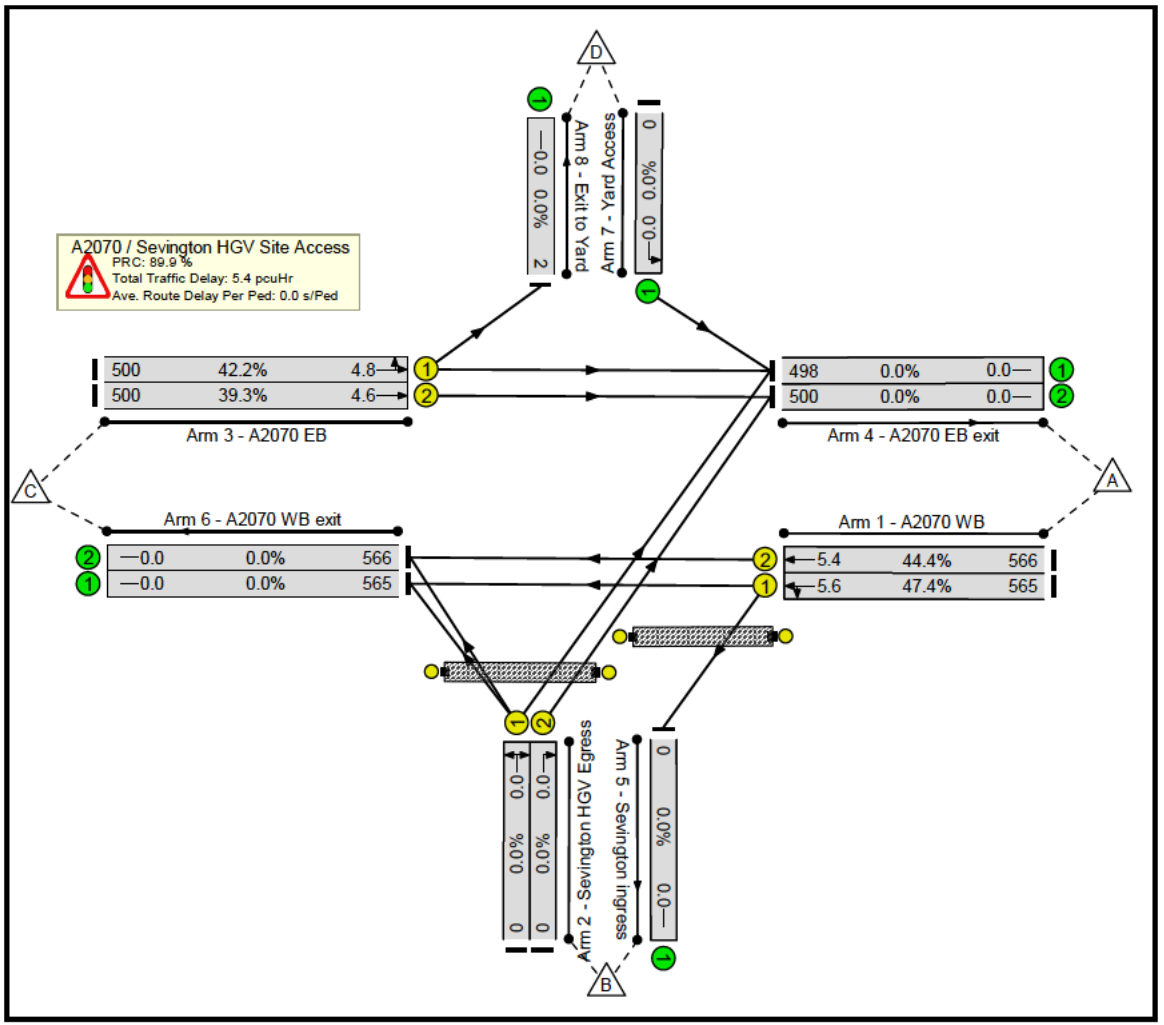
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**47.4%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**47.4%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	565	1987	1192	47.4%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	566	2127	1276	44.4%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	0	2041	272	0.0%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	0	2181	291	0.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	500	1977	1186	42.2%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	500	2118	1271	39.3%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	498	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	500	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	565	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	566	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

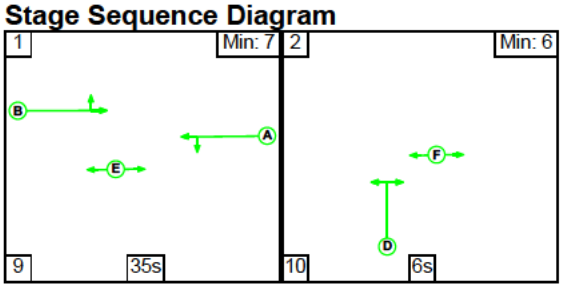
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**3.8**	**1.5**	**0.0**	**5.4**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**3.8**	**1.5**	**0.0**	**5.4**	**-**	**-**	**-**	**-**	
1/1	565	565	-	-	-	1.1	0.4	-	1.5	9.6	5.2	0.4	5.6	
1/2	566	566	-	-	-	1.0	0.4	-	1.4	9.1	5.0	0.4	5.4	
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
2/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
3/1	500	500	-	-	-	0.9	0.4	-	1.3	9.0	4.4	0.4	4.8	
3/2	500	500	-	-	-	0.9	0.3	-	1.2	8.6	4.3	0.3	4.6	
4/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	565	565	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	566	566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 89.9 Total Delay for Signalled Lanes (pcuHr): 5.38 Cycle Time (s): 60
PRC Over All Lanes (%): 89.9 Total Delay Over All Lanes(pcuHr): 5.38

Scenario 6: '2026 Base PM' (FG6: '2026 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



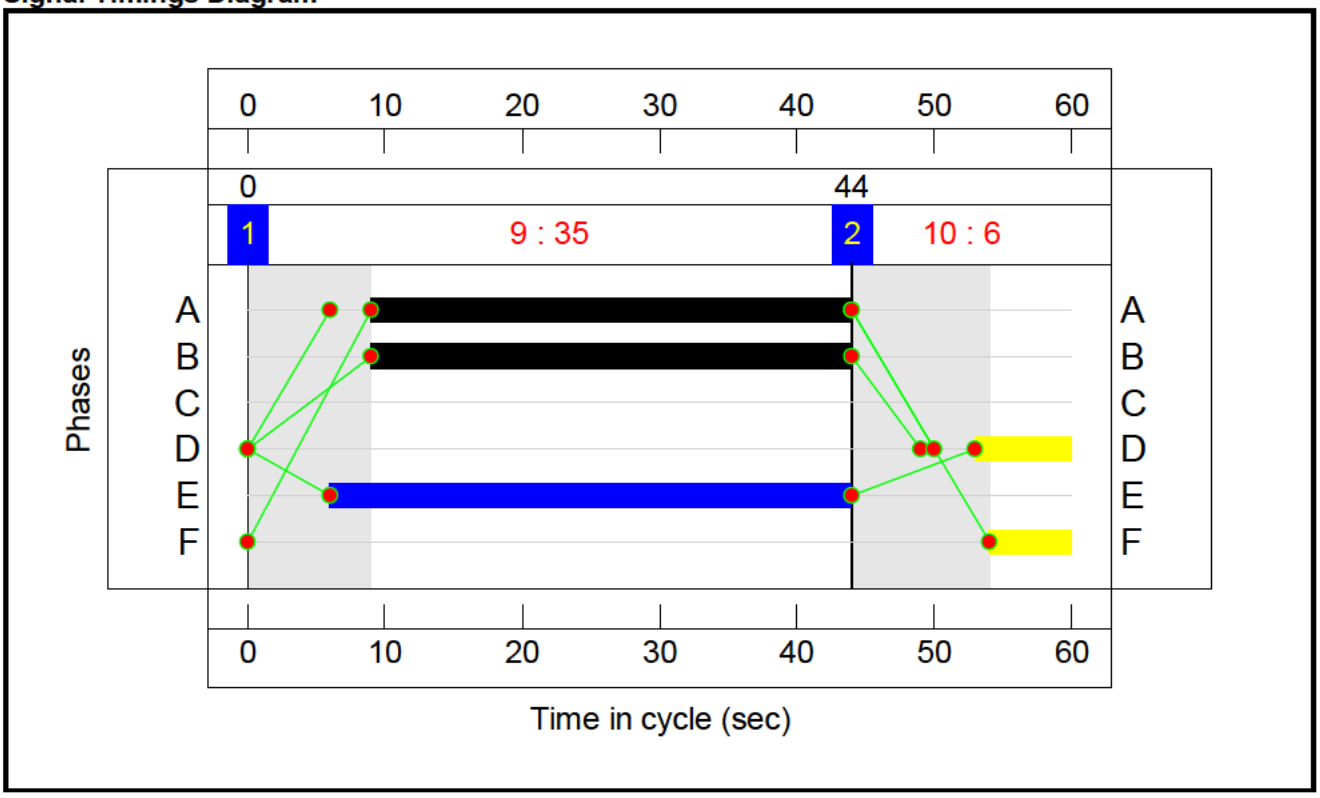
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

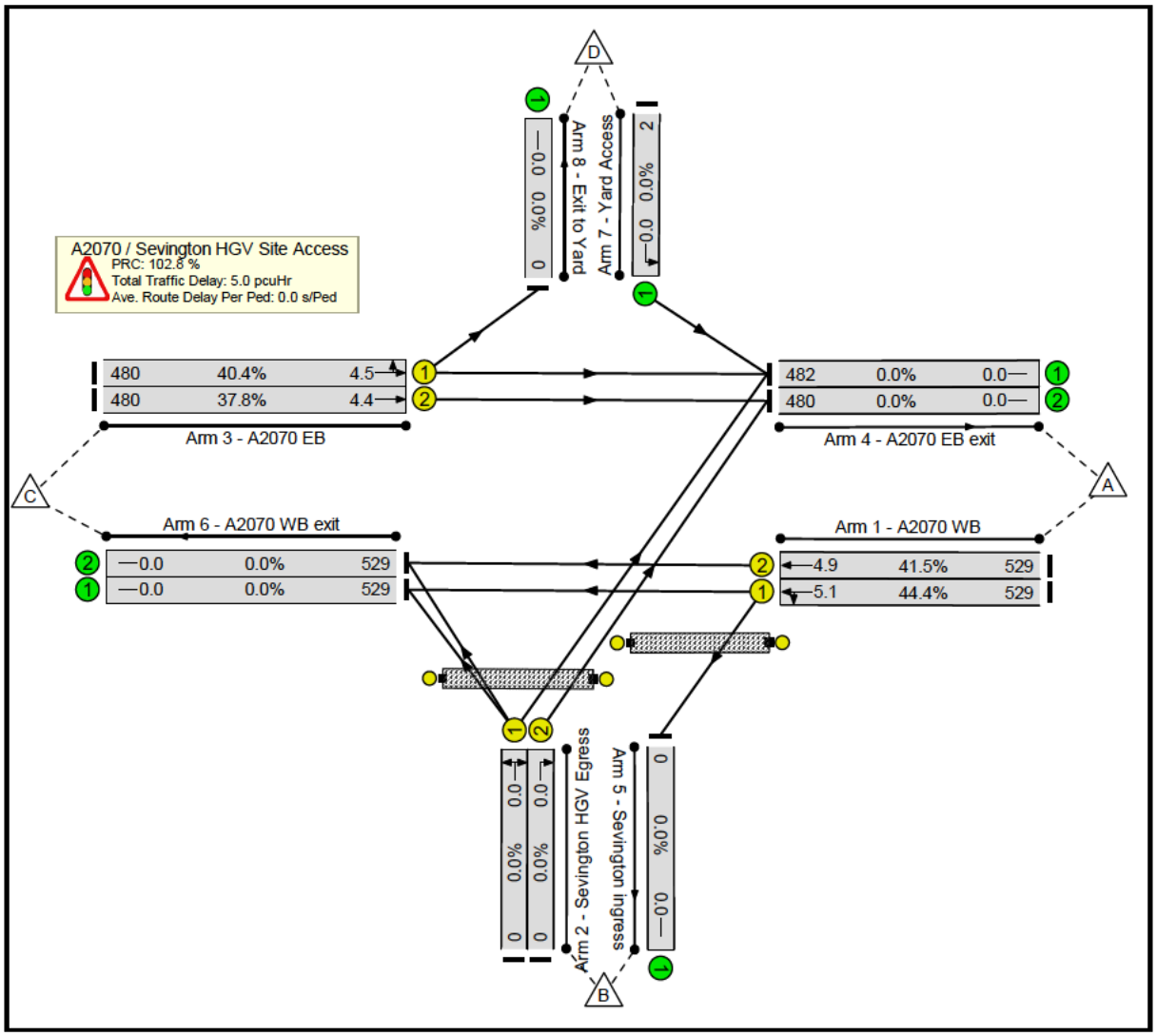
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**44.4%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**44.4%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	529	1987	1192	44.4%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	529	2127	1276	41.5%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	0	2041	272	0.0%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	0	2181	291	0.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	480	1978	1187	40.4%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	480	2118	1271	37.8%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	482	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	480	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	529	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	529	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

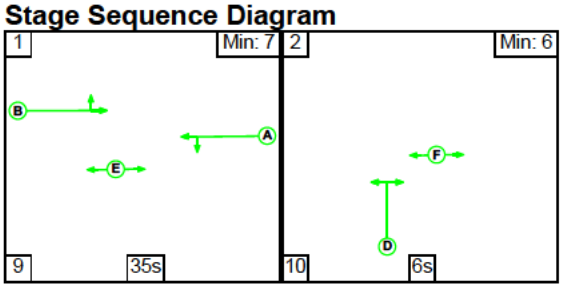
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**3.6**	**1.4**	**0.0**	**5.0**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**3.6**	**1.4**	**0.0**	**5.0**	**-**	**-**	**-**	**-**	
1/1	529	529	-	-	-	1.0	0.4	-	1.4	9.3	4.7	0.4	5.1	
1/2	529	529	-	-	-	0.9	0.4	-	1.3	8.8	4.6	0.4	4.9	
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
2/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
3/1	480	480	-	-	-	0.8	0.3	-	1.2	8.9	4.1	0.3	4.5	
3/2	480	480	-	-	-	0.8	0.3	-	1.1	8.5	4.1	0.3	4.4	
4/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	480	480	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	529	529	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	529	529	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 102.8 Total Delay for Signalled Lanes (pcuHr): 4.97 Cycle Time (s): 60
PRC Over All Lanes (%): 102.8 Total Delay Over All Lanes(pcuHr): 4.97

Scenario 7: '2026 Base+Sev AM' (FG7: '2026 Base+Sev AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



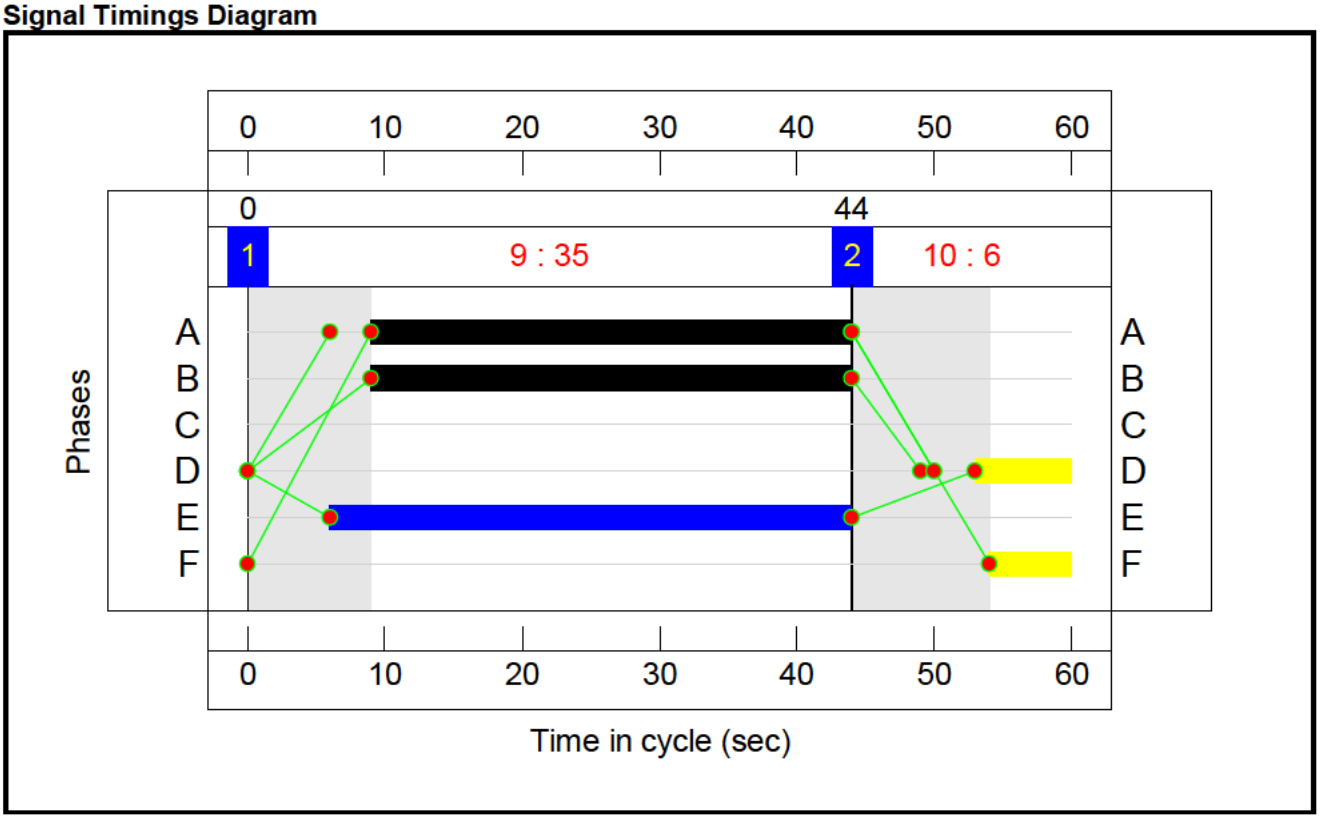
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

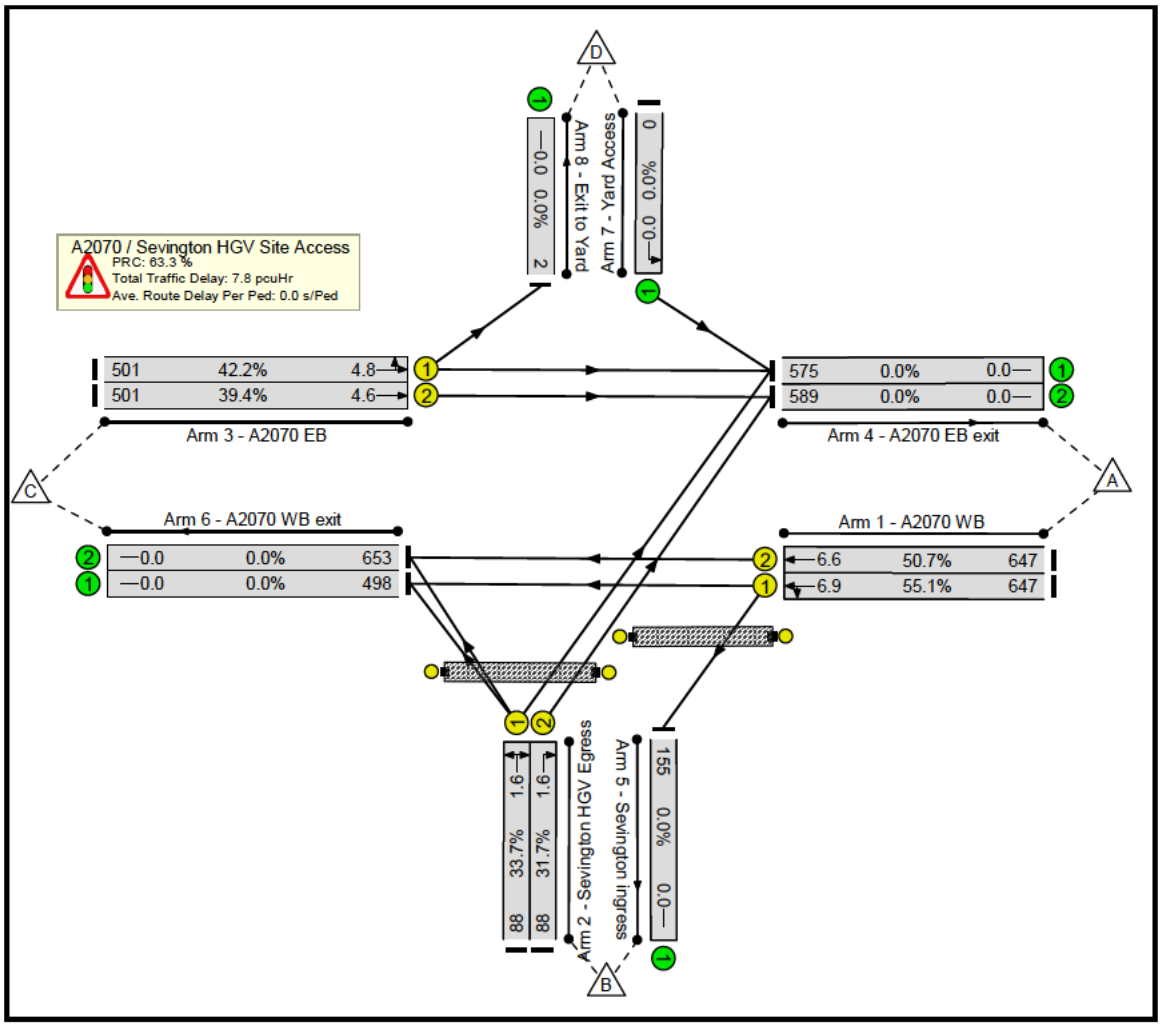
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**55.1%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**55.1%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	647	1957	1174	55.1%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	647	2127	1276	50.7%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	88	1957	261	33.7%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	88	2084	278	31.7%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	501	1977	1186	42.2%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	501	2118	1271	39.4%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	575	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	589	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	155	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	498	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	653	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

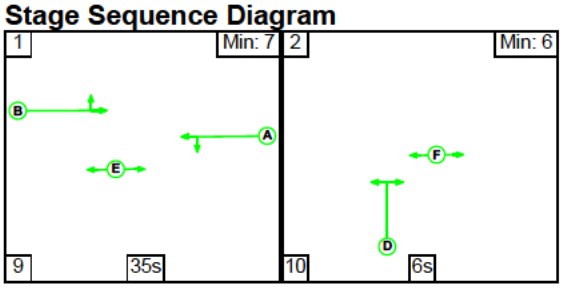
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.5**	**2.3**	**0.0**	**7.8**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.5**	**2.3**	**0.0**	**7.8**	**-**	**-**	**-**	**-**	
1/1	647	647	-	-	-	1.3	0.6	-	1.9	10.6	6.3	0.6	6.9	
1/2	647	647	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.6	
2/1	88	88	-	-	-	0.6	0.3	-	0.8	34.0	1.3	0.3	1.6	
2/2	88	88	-	-	-	0.6	0.2	-	0.8	33.0	1.3	0.2	1.6	
3/1	501	501	-	-	-	0.9	0.4	-	1.3	9.1	4.5	0.4	4.8	
3/2	501	501	-	-	-	0.9	0.3	-	1.2	8.6	4.3	0.3	4.6	
4/1	575	575	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1	PRC for Signalled Lanes (%):	63.3	Total Delay for Signalled Lanes (pcuHr):	7.76	Cycle Time (s): 60
	PRC Over All Lanes (%):	63.3	Total Delay Over All Lanes(pcuHr):	7.76	

Scenario 8: '2026 Base+Sev PM' (FG8: '2026 Base+Sev PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



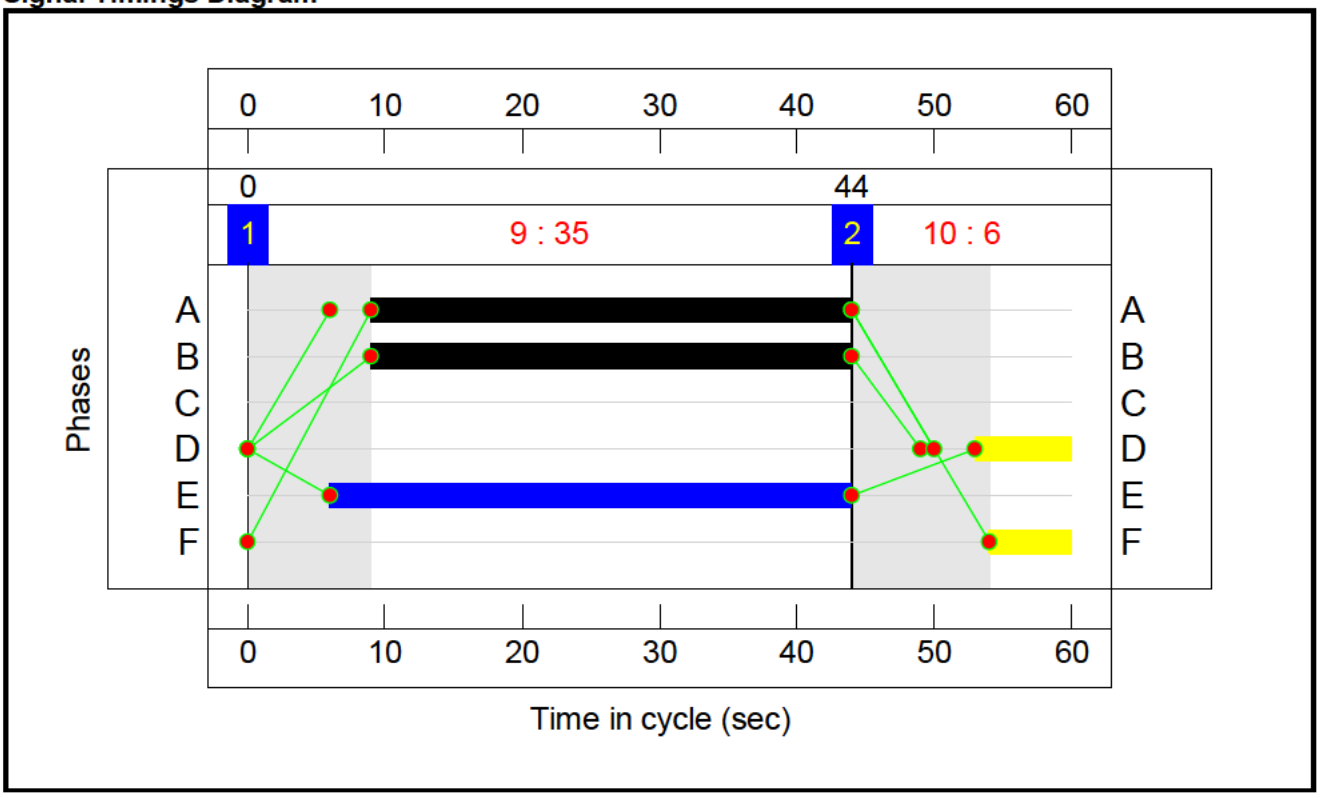
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

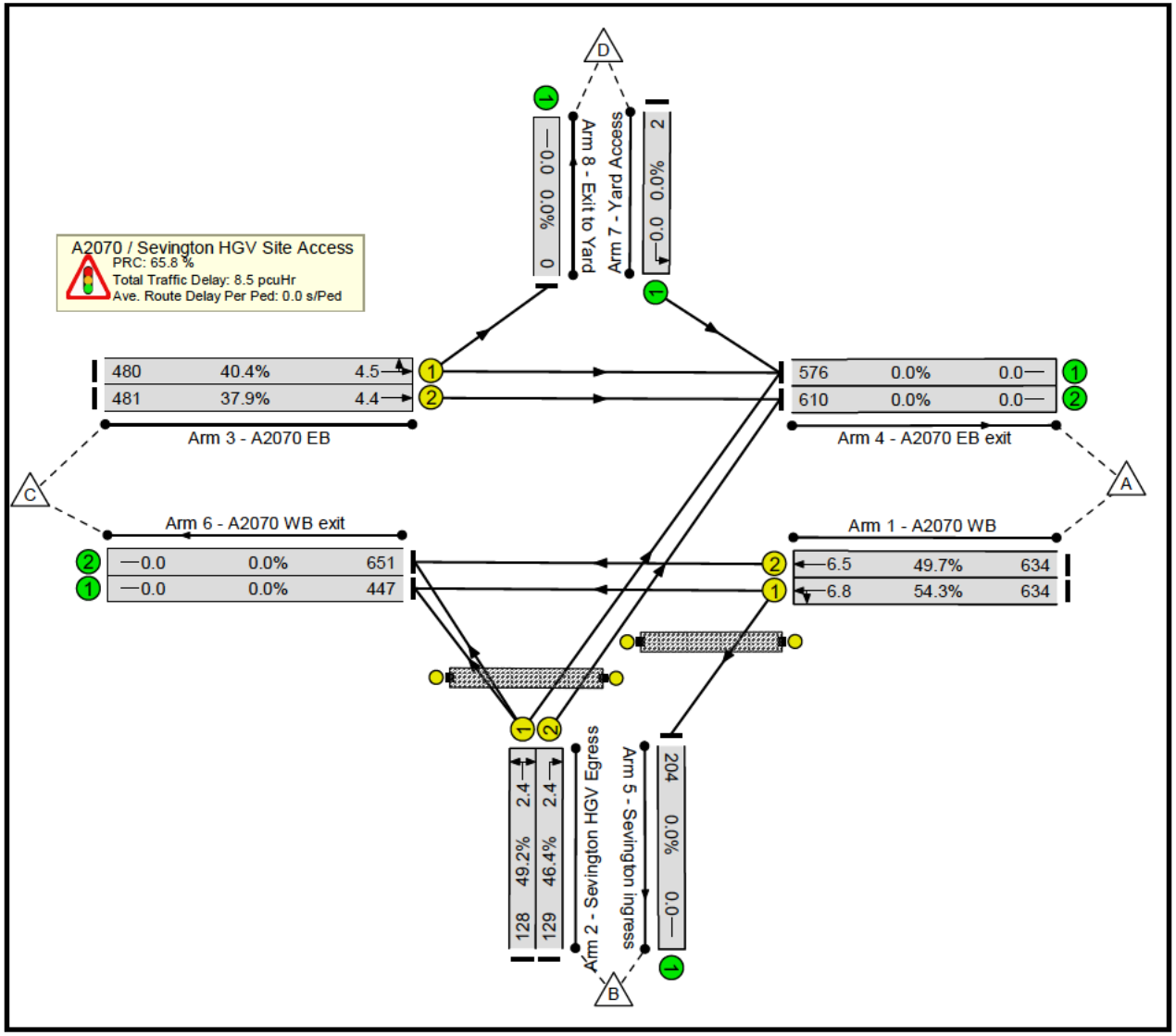
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**54.3%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**54.3%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	634	1947	1168	54.3%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	634	2127	1276	49.7%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	128	1953	260	49.2%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	129	2084	278	46.4%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	480	1978	1187	40.4%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	481	2118	1271	37.9%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	576	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	610	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	204	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	447	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	651	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

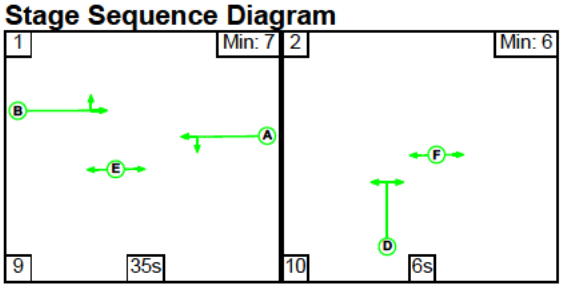
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.9**	**2.6**	**0.0**	**8.5**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.9**	**2.6**	**0.0**	**8.5**	**-**	**-**	**-**	**-**	
1/1	634	634	-	-	-	1.3	0.6	-	1.8	10.5	6.2	0.6	6.8	
1/2	634	634	-	-	-	1.2	0.5	-	1.7	9.6	6.0	0.5	6.5	
2/1	128	128	-	-	-	0.9	0.5	-	1.3	37.6	2.0	0.5	2.4	
2/2	129	129	-	-	-	0.9	0.4	-	1.3	36.1	2.0	0.4	2.4	
3/1	480	480	-	-	-	0.8	0.3	-	1.2	8.9	4.1	0.3	4.5	
3/2	481	481	-	-	-	0.8	0.3	-	1.1	8.5	4.1	0.3	4.4	
4/1	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	610	610	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	651	651	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 65.8 Total Delay for Signalled Lanes (pcuHr): 8.49 Cycle Time (s): 60
PRC Over All Lanes (%): 65.8 Total Delay Over All Lanes(pcuHr): 8.49

Scenario 9: '2036 Base AM' (FG9: '2036 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



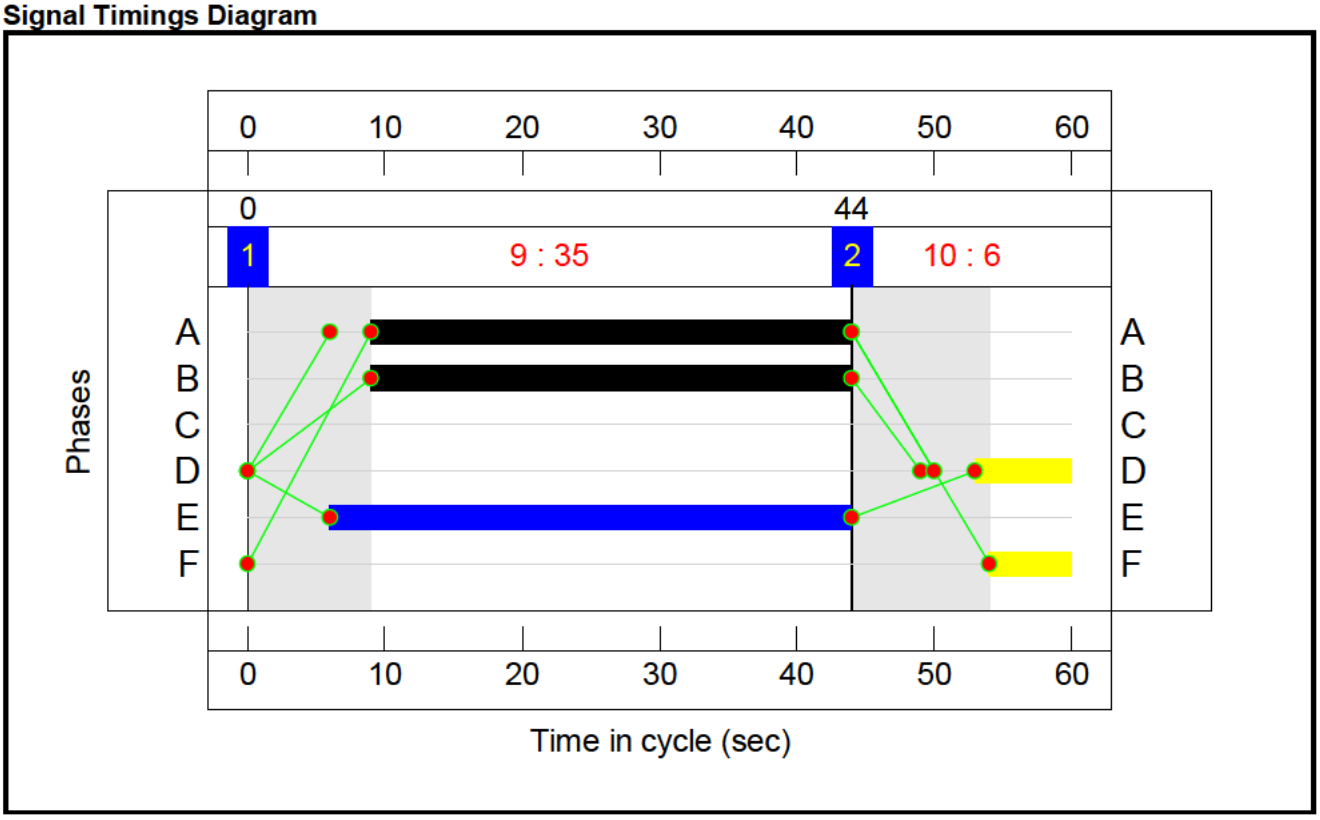
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

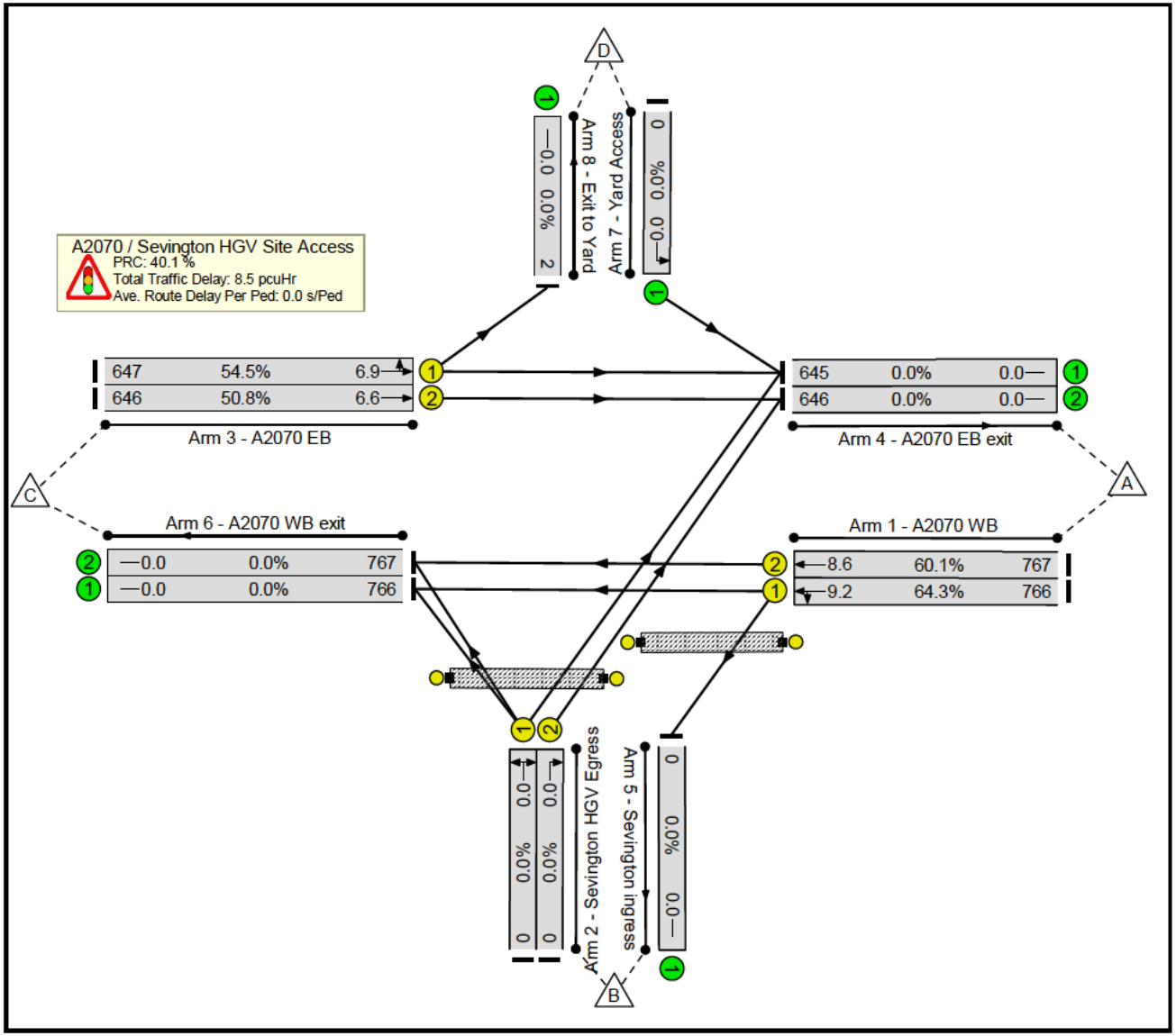
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**64.3%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**64.3%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	766	1987	1192	64.3%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	767	2127	1276	60.1%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	0	2041	272	0.0%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	0	2181	291	0.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	647	1977	1186	54.5%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	646	2118	1271	50.8%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	645	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	646	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	766	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	767	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

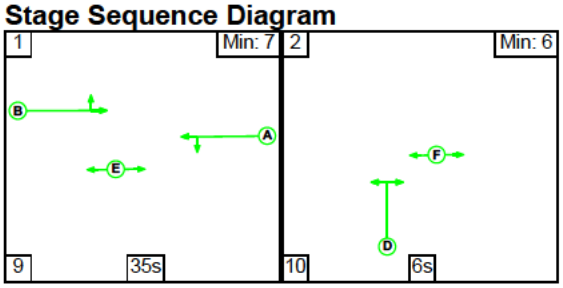
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.8**	**2.8**	**0.0**	**8.5**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.8**	**2.8**	**0.0**	**8.5**	**-**	**-**	**-**	**-**	
1/1	766	766	-	-	-	1.7	0.9	-	2.6	12.0	8.3	0.9	9.2	
1/2	767	767	-	-	-	1.6	0.8	-	2.4	11.0	7.9	0.8	8.6	
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
2/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
3/1	647	647	-	-	-	1.3	0.6	-	1.9	10.5	6.3	0.6	6.9	
3/2	646	646	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.6	
4/1	645	645	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	646	646	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	767	767	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1	PRC for Signalled Lanes (%):	40.1	Total Delay for Signalled Lanes (pcuHr):	8.55	Cycle Time (s):	60
	PRC Over All Lanes (%):	40.1	Total Delay Over All Lanes(pcuHr):	8.55		

Scenario 10: '2036 Base PM' (FG10: '2036 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



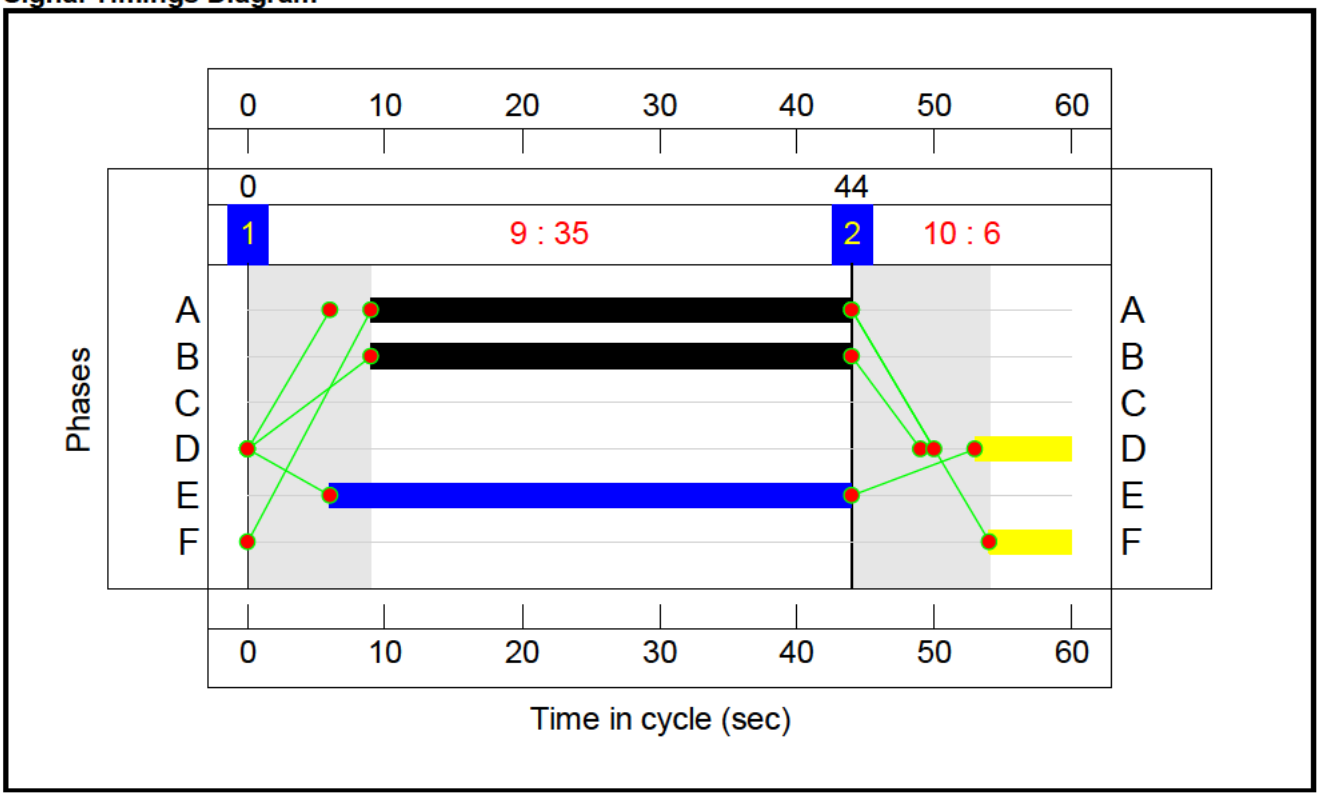
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

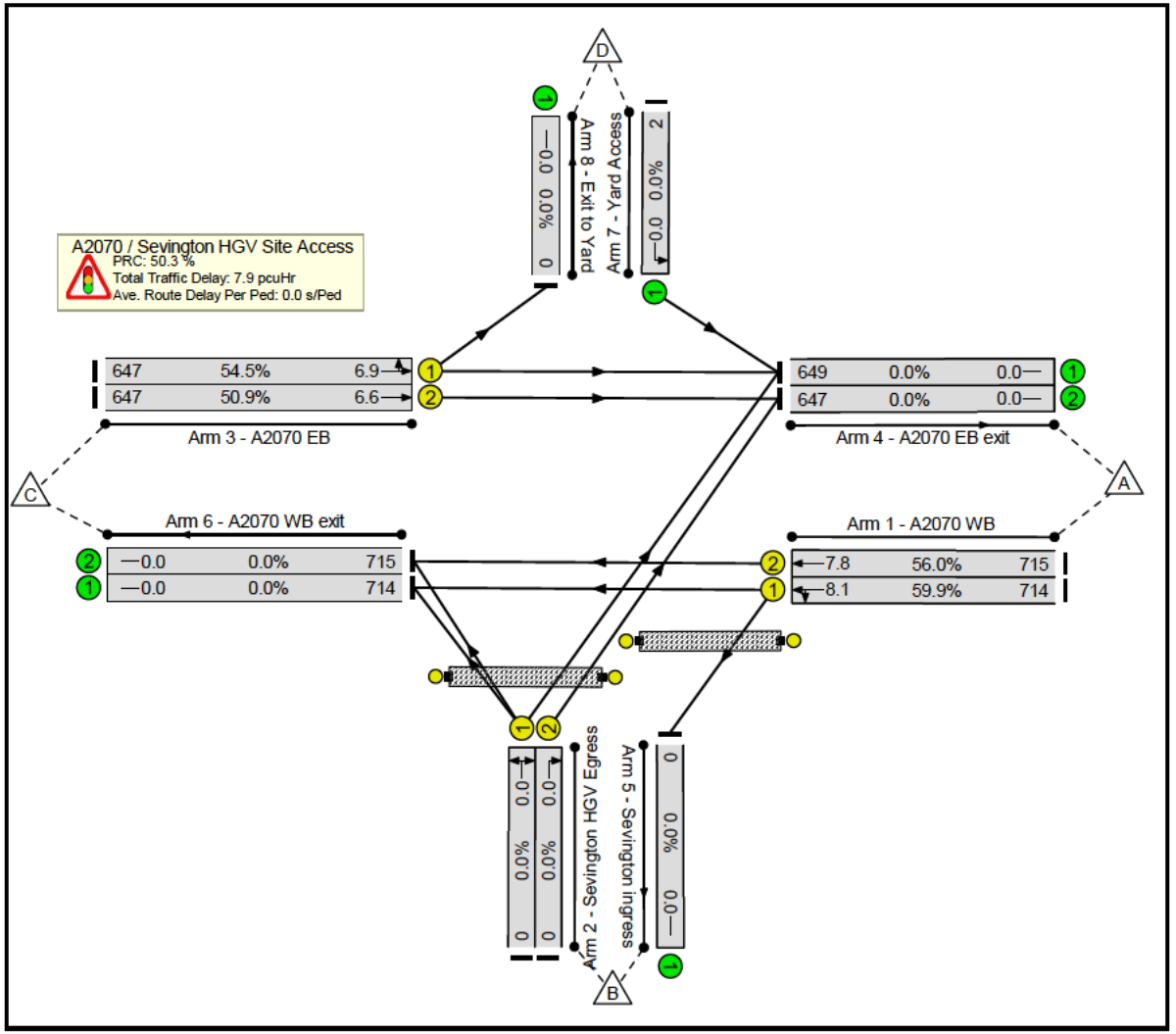
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**59.9%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**59.9%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	714	1987	1192	59.9%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	715	2127	1276	56.0%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	0	2041	272	0.0%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	0	2181	291	0.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	647	1978	1187	54.5%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	647	2118	1271	50.9%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	649	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	647	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	714	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	715	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

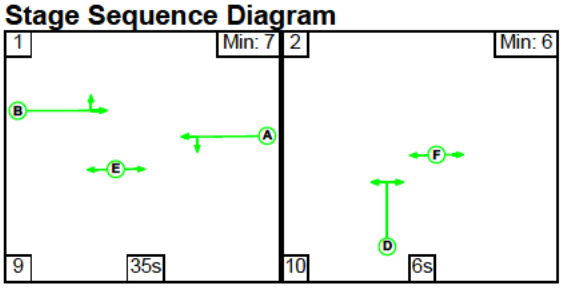
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**5.4**	**2.5**	**0.0**	**7.9**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**5.4**	**2.5**	**0.0**	**7.9**	**-**	**-**	**-**	**-**	
1/1	714	714	-	-	-	1.5	0.7	-	2.2	11.2	7.3	0.7	8.1	
1/2	715	715	-	-	-	1.4	0.6	-	2.1	10.4	7.1	0.6	7.8	
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
2/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
3/1	647	647	-	-	-	1.3	0.6	-	1.9	10.5	6.3	0.6	6.9	
3/2	647	647	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.6	
4/1	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	647	647	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	715	715	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1	PRC for Signalled Lanes (%):	50.3	Total Delay for Signalled Lanes (pcuHr):	7.94	Cycle Time (s):	60
	PRC Over All Lanes (%):	50.3	Total Delay Over All Lanes(pcuHr):	7.94		

Scenario 11: '2036 Base+Sev AM' (FG11: '2036 Base+Sev AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



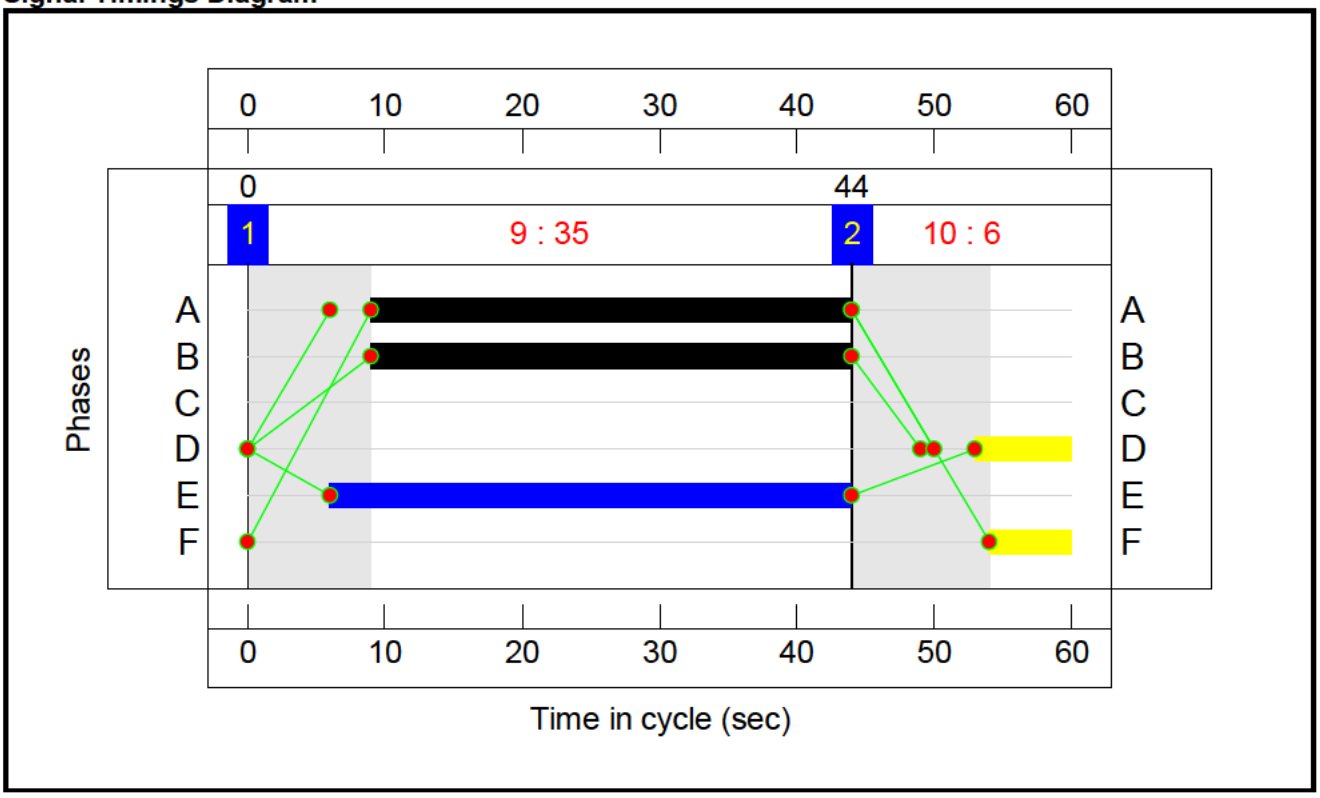
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

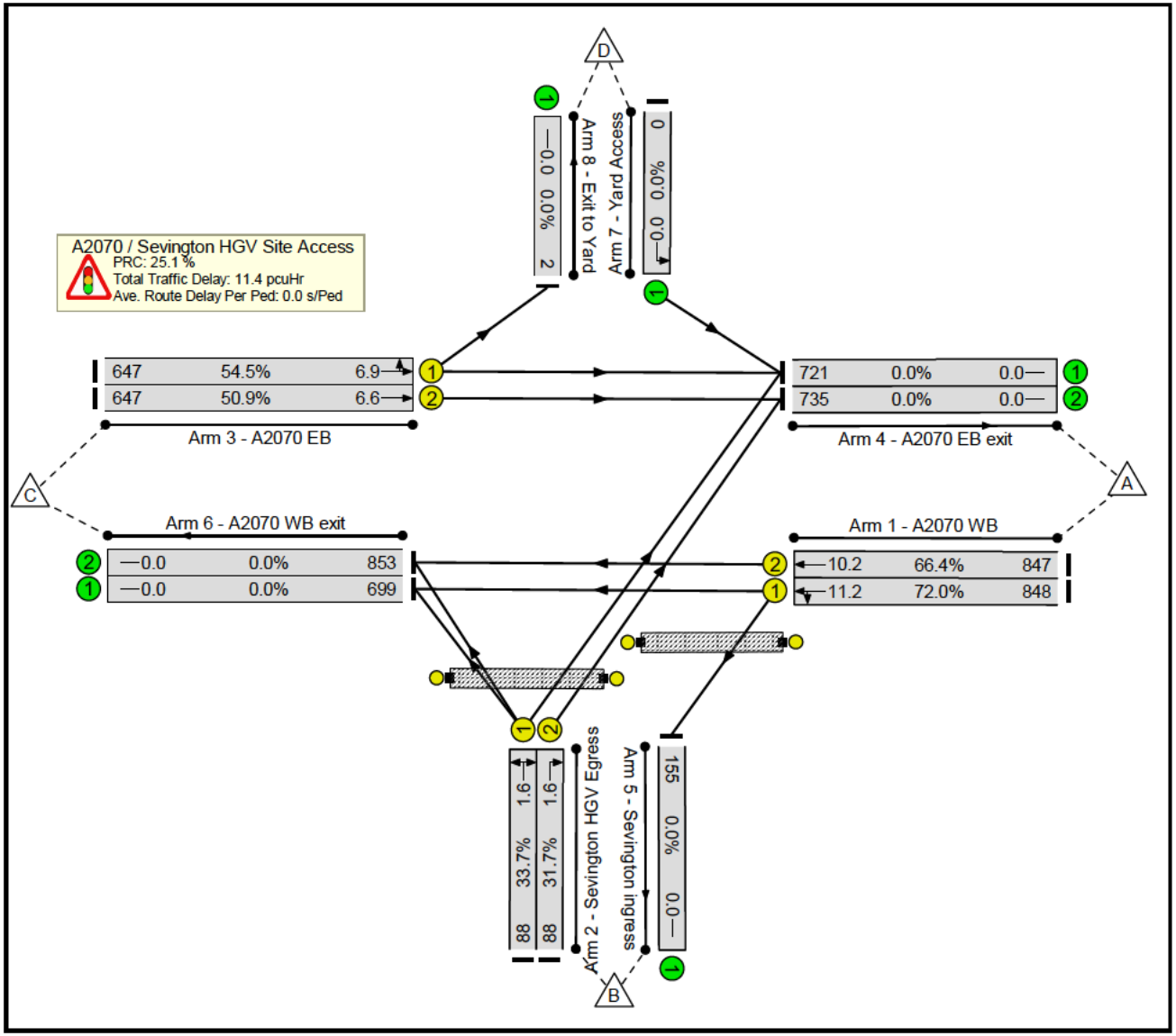
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**72.0%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**72.0%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	848	1964	1178	72.0%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	847	2127	1276	66.4%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	88	1957	261	33.7%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	88	2084	278	31.7%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	647	1977	1186	54.5%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	647	2118	1271	50.9%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	721	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	735	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	155	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	699	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	853	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

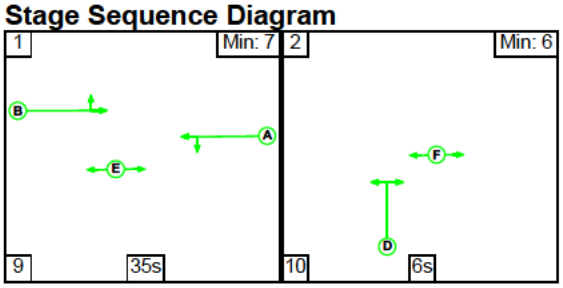
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**7.5**	**3.9**	**0.0**	**11.4**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**7.5**	**3.9**	**0.0**	**11.4**	**-**	**-**	**-**	**-**	
1/1	848	848	-	-	-	2.0	1.3	-	3.3	13.9	9.9	1.3	11.2	
1/2	847	847	-	-	-	1.9	1.0	-	2.9	12.2	9.2	1.0	10.2	
2/1	88	88	-	-	-	0.6	0.3	-	0.8	34.0	1.3	0.3	1.6	
2/2	88	88	-	-	-	0.6	0.2	-	0.8	33.0	1.3	0.2	1.6	
3/1	647	647	-	-	-	1.3	0.6	-	1.9	10.5	6.3	0.6	6.9	
3/2	647	647	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.6	
4/1	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 25.1 Total Delay for Signalled Lanes (pcuHr): 11.40 Cycle Time (s): 60
PRC Over All Lanes (%): 25.1 Total Delay Over All Lanes(pcuHr): 11.40

Scenario 12: '2036 Base+Sev PM' (FG12: '2036 Base+Sev PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



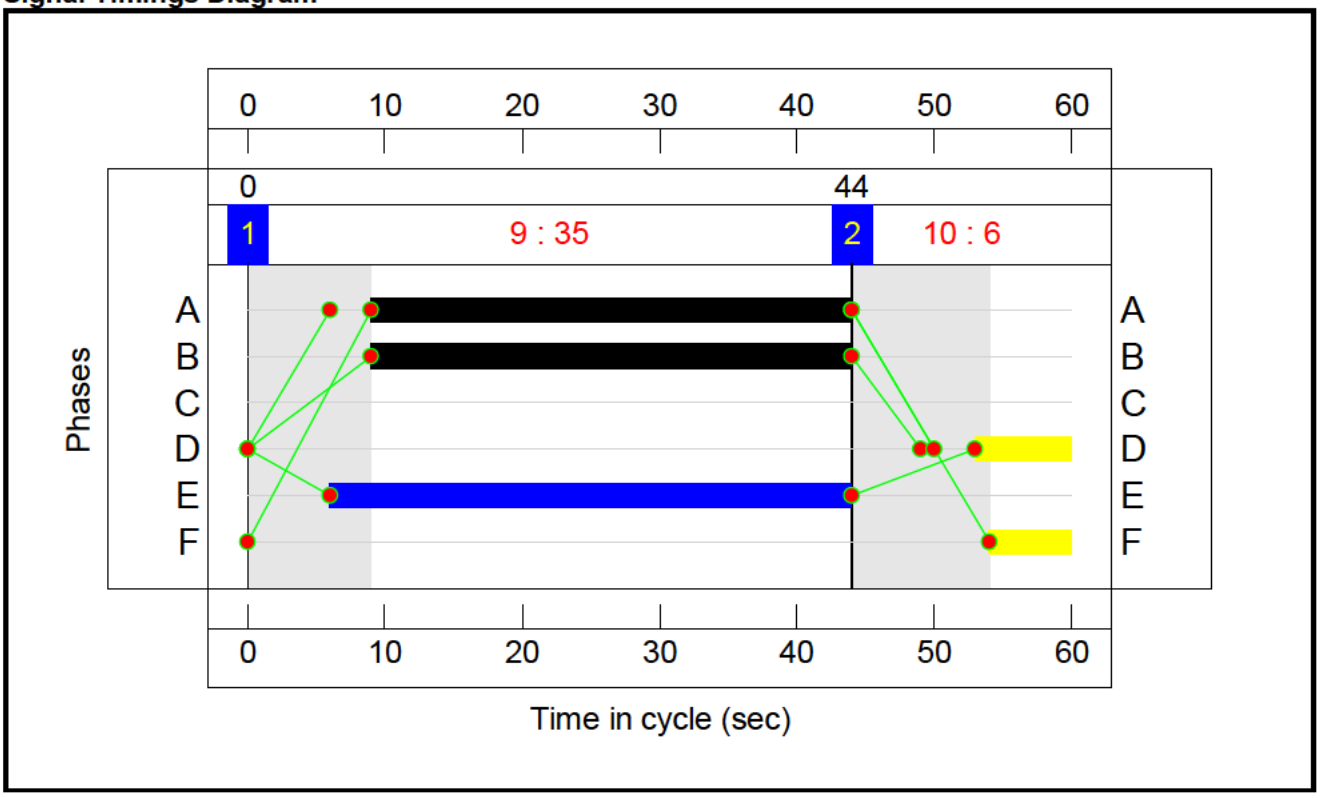
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

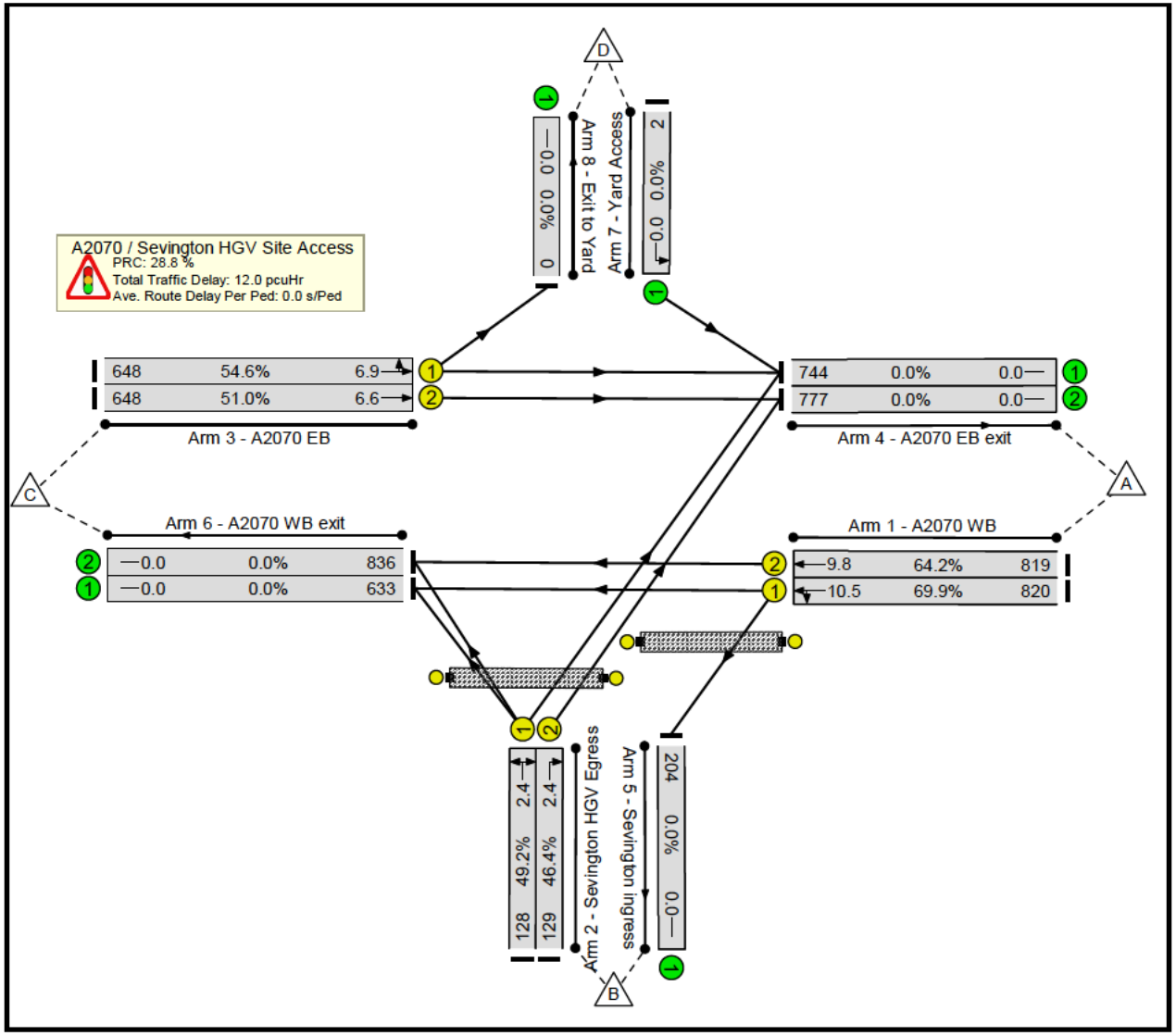
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**69.9%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**69.9%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	820	1956	1174	69.9%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	819	2127	1276	64.2%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	128	1953	260	49.2%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	129	2084	278	46.4%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	648	1978	1187	54.6%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	648	2118	1271	51.0%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	744	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	777	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	204	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	633	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	836	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**7.9**	**4.1**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**7.9**	**4.1**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
1/1	820	820	-	-	-	1.9	1.2	-	3.0	13.3	9.3	1.2	10.5	
1/2	819	819	-	-	-	1.8	0.9	-	2.7	11.7	8.9	0.9	9.8	
2/1	128	128	-	-	-	0.9	0.5	-	1.3	37.6	2.0	0.5	2.4	
2/2	129	129	-	-	-	0.9	0.4	-	1.3	36.1	2.0	0.4	2.4	
3/1	648	648	-	-	-	1.3	0.6	-	1.9	10.5	6.3	0.6	6.9	
3/2	648	648	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.6	
4/1	744	744	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	777	777	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	633	633	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	836	836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1

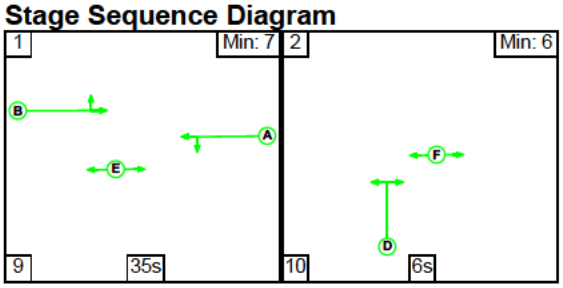
PRC for Signalled Lanes (%): 28.8
PRC Over All Lanes (%): 28.8

Total Delay for Signalled Lanes (pcuHr): 11.98
Total Delay Over All Lanes(pcuHr): 11.98

Cycle Time (s): 60

Scenario 13: '2036 Base+Sev 4 AM' (FG13: '2036 Base+Sev 4 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



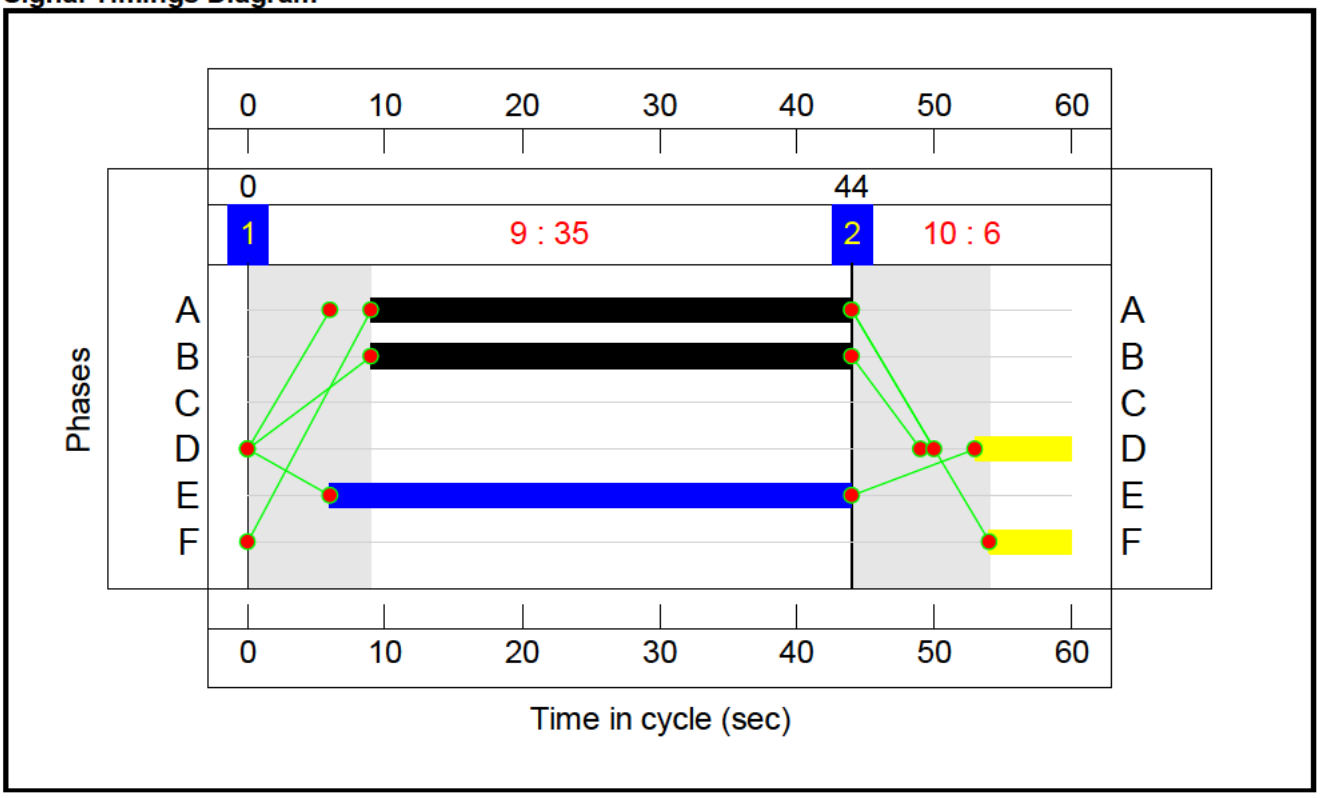
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

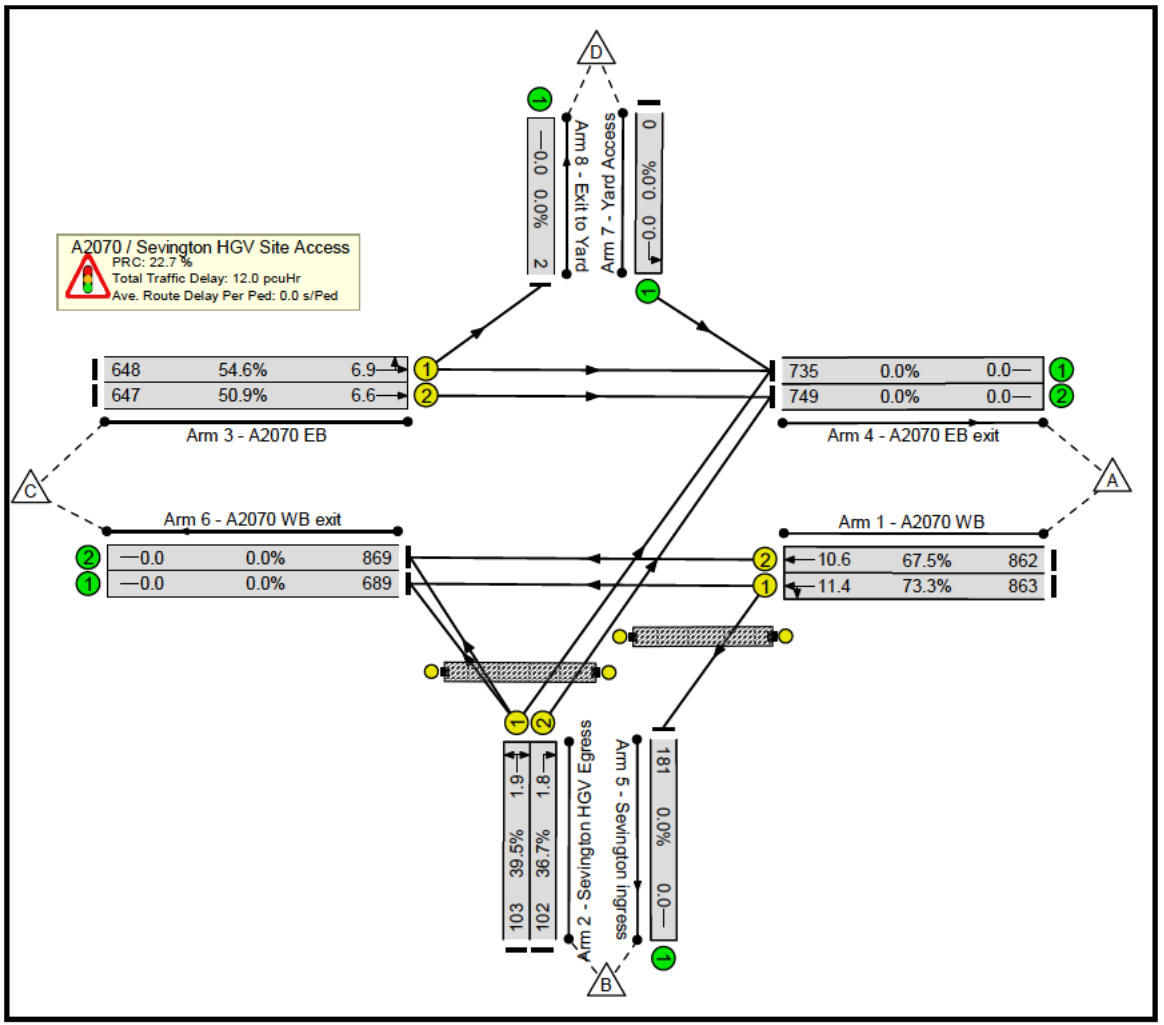
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**73.3%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**73.3%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	863	1961	1177	73.3%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	862	2127	1276	67.5%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	103	1957	261	39.5%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	102	2084	278	36.7%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	648	1977	1186	54.6%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	647	2118	1271	50.9%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	735	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	749	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	181	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	689	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	869	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

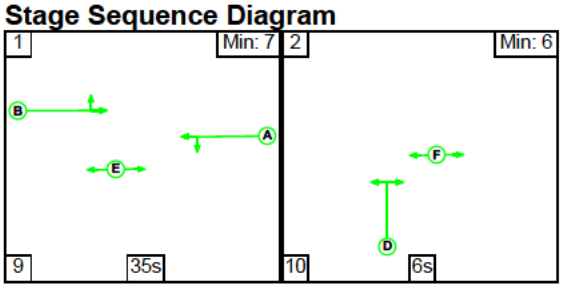
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**7.9**	**4.1**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**7.9**	**4.1**	**0.0**	**12.0**	**-**	**-**	**-**	**-**	
1/1	863	863	-	-	-	2.1	1.4	-	3.4	14.3	10.1	1.4	11.4	
1/2	862	862	-	-	-	1.9	1.0	-	3.0	12.4	9.6	1.0	10.6	
2/1	103	103	-	-	-	0.7	0.3	-	1.0	35.2	1.5	0.3	1.9	
2/2	102	102	-	-	-	0.7	0.3	-	1.0	33.9	1.5	0.3	1.8	
3/1	648	648	-	-	-	1.3	0.6	-	1.9	10.5	6.3	0.6	6.9	
3/2	647	647	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.6	
4/1	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	749	749	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	181	181	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	689	689	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	869	869	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 22.7 Total Delay for Signalled Lanes (pcuHr): 12.00 Cycle Time (s): 60
PRC Over All Lanes (%): 22.7 Total Delay Over All Lanes(pcuHr): 12.00

Scenario 14: '2036 Base+Sev 4 PM' (FG14: '2036 Base+Sev 4 PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram



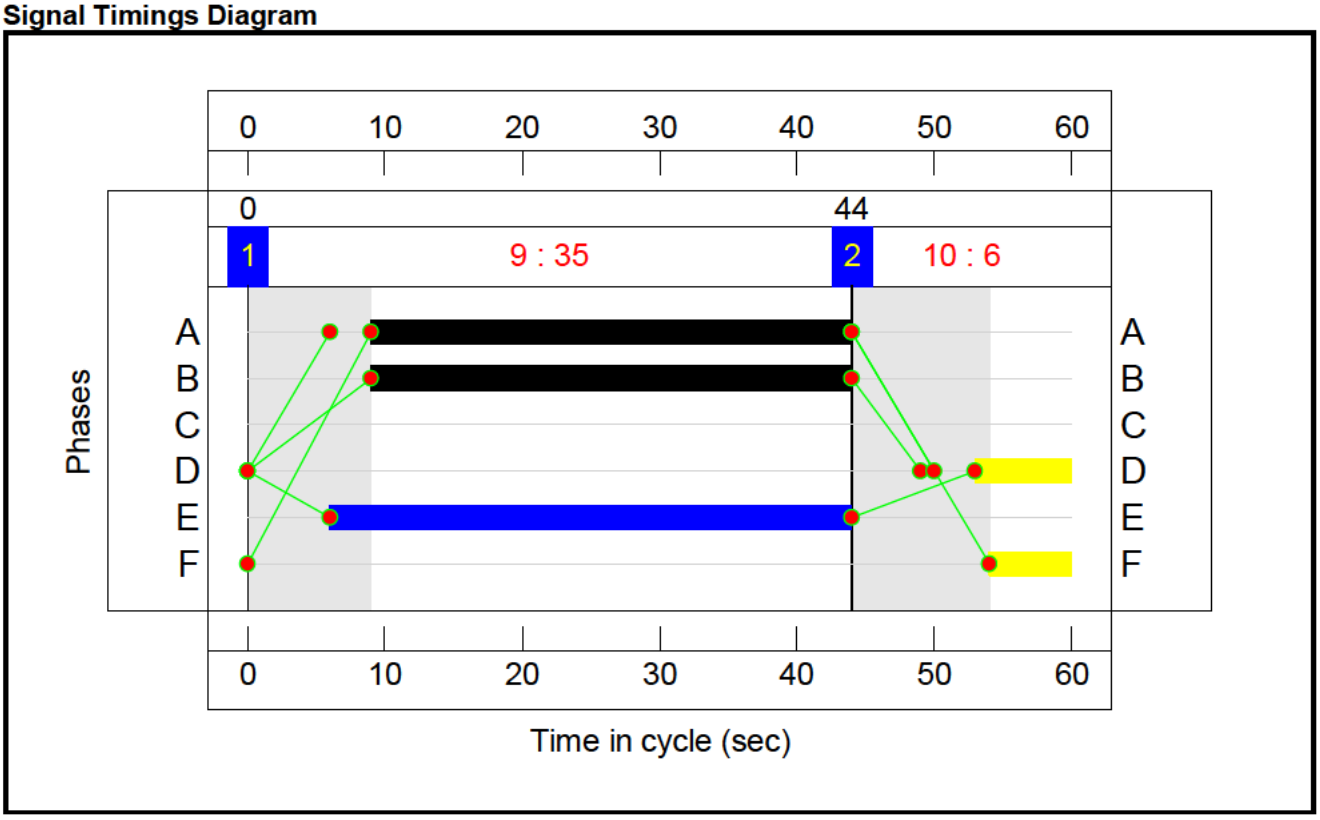
Stage Timings

Stage	1	2
Duration	35	6
Change Point	0	44

Phase Timings

Phase Name	Description	Phase	Green Period 1		
			Total Green	Start Time	End Time
A	A2070 WB Left Ahead	Traffic	35	9	44
B	A2070 EB Ahead Left	Traffic	35	9	44
C	Dummy	Dummy			
D	Sevington HGV Egress Right Left	Traffic	7	53	0
E	Pedestrians across Sevington IBF access approach	Pedestrian	38	6	44
F	Pedestrians across exit to Sevington IBF	Pedestrian	6	54	0

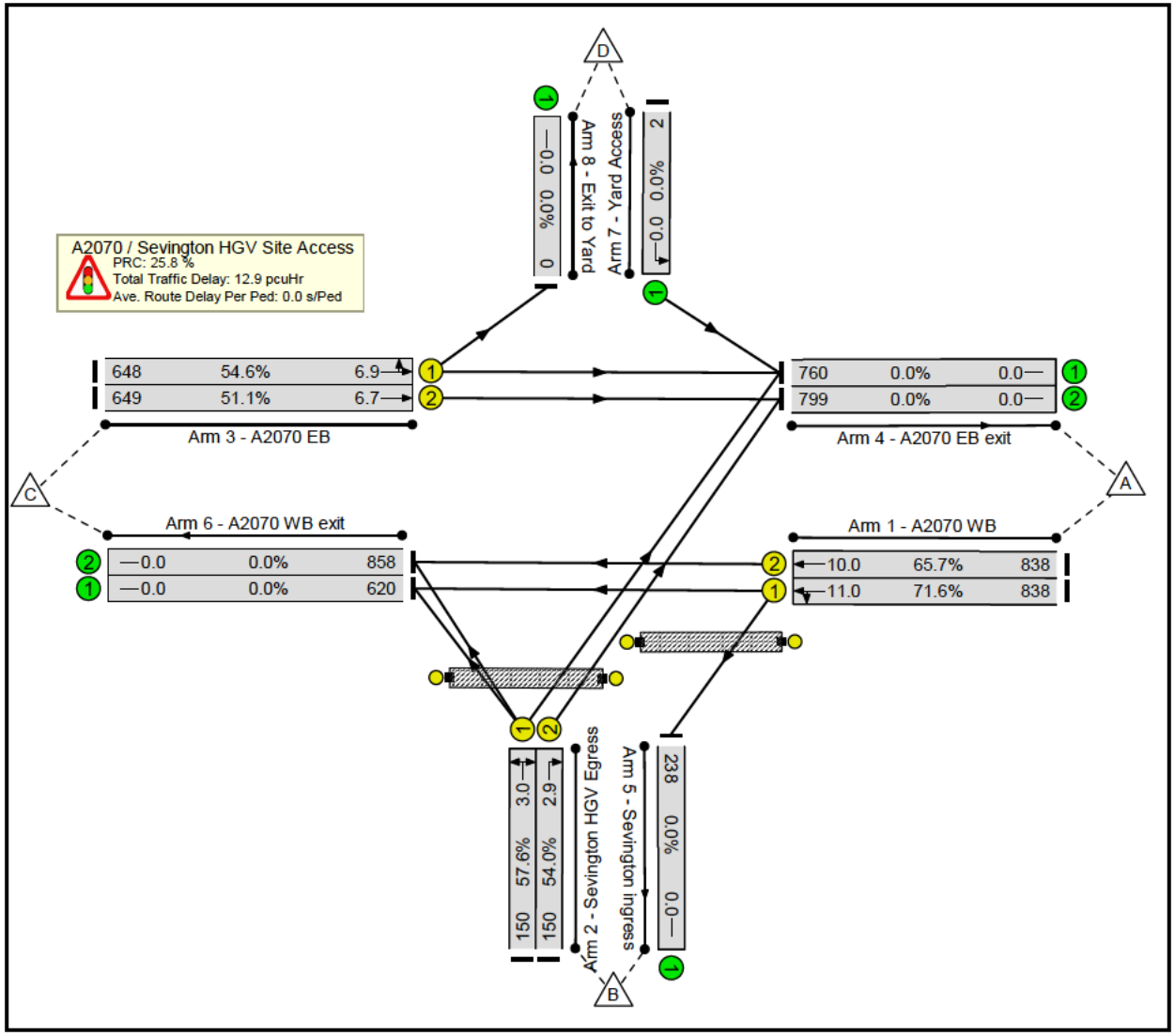
Signal Timings Diagram



Lane Green Times

Junction: A2070 / Sevington HGV Site Access					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A2070 WB Left Ahead	U	A	9	44
1/2	A2070 WB Ahead	U	A	9	44
2/1	Sevington HGV Egress Right Left	U	D	53	0
2/2	Sevington HGV Egress Right	U	D	53	0
3/1	A2070 EB Ahead Left	U	B	9	44
3/2	A2070 EB Ahead	U	B	9	44

Network Layout 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)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: J5) A2070 / Sevington HGV Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**71.6%**
A2070 / Sevington HGV Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**71.6%**
1/1	A2070 WB Left Ahead	U	N/A	N/A	A		1	35	-	-	838	1952	1171	71.6%
1/2	A2070 WB Ahead	U	N/A	N/A	A		1	35	-	-	838	2127	1276	65.7%
2/1	Sevington HGV Egress Right Left	U	N/A	N/A	D		1	7	-	-	150	1953	260	57.6%
2/2	Sevington HGV Egress Right	U	N/A	N/A	D		1	7	-	-	150	2084	278	54.0%
3/1	A2070 EB Ahead Left	U	N/A	N/A	B		1	35	-	-	648	1978	1187	54.6%
3/2	A2070 EB Ahead	U	N/A	N/A	B		1	35	-	-	649	2118	1271	51.1%
4/1	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	760	Inf	Inf	0.0%
4/2	A2070 EB exit	U	N/A	N/A	-		-	-	-	-	799	Inf	Inf	0.0%
5/1	Sevington ingress	U	N/A	N/A	-		-	-	-	-	238	Inf	Inf	0.0%
6/1	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	620	Inf	Inf	0.0%
6/2	A2070 WB exit	U	N/A	N/A	-		-	-	-	-	858	Inf	Inf	0.0%
7/1	Yard Access Left	U	N/A	N/A	-		-	-	-	-	2	Inf	Inf	0.0%
8/1	Exit to Yard	U	N/A	N/A	-		-	-	-	-	0	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	38	-	-	0	-	0	0.0%

Detailed Input Data And Results

Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	-	0	-	0	0.0%

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: J5) A2070 / Sevington HGV Access	**-**	**-**	**0**	**0**	**0**	**8.4**	**4.6**	**0.0**	**12.9**	**-**	**-**	**-**	**-**	
A2070 / Sevington HGV Site Access	**-**	**-**	**0**	**0**	**0**	**8.4**	**4.6**	**0.0**	**12.9**	**-**	**-**	**-**	**-**	
1/1	838	838	-	-	-	2.0	1.2	-	3.2	13.8	9.8	1.2	11.0	
1/2	838	838	-	-	-	1.8	1.0	-	2.8	12.0	9.1	1.0	10.0	
2/1	150	150	-	-	-	1.0	0.7	-	1.7	40.5	2.3	0.7	3.0	
2/2	150	150	-	-	-	1.0	0.6	-	1.6	38.2	2.3	0.6	2.9	
3/1	648	648	-	-	-	1.3	0.6	-	1.9	10.5	6.3	0.6	6.9	
3/2	649	649	-	-	-	1.2	0.5	-	1.8	9.8	6.1	0.5	6.7	
4/1	760	760	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/2	858	858	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-	
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-	

C1 PRC for Signalled Lanes (%): 25.8 Total Delay for Signalled Lanes (pcuHr): 12.94 Cycle Time (s): 60
PRC Over All Lanes (%): 25.8 Total Delay Over All Lanes(pcuHr): 12.94