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APPENDICES

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APPENDIX A

WCC Highways Response to Live Application

worcestershire county council

Nigel Gorski
Economy and Infrastructure
Development Control Engineer

County Hall
Spetchley Road
Worcester
WR5 2NP

Paul Lester
Bromsgrove District Council
Parkside
Market Street
Bromsgrove
Worcestershire
B61 8DA

Date: 07 February 2022
Your ref: 21/01830/FUL
Ask for: Nigel Gorski

Dear Paul Lester,

TOWN AND COUNTRY PLANNING ACT 1990
(DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015
ARTICLE 18 CONSULTATION WITH HIGHWAY AUTHORITY

PROPOSAL: **Residential development (Class C3) with a vehicular access point onto Hither Green Lane, play areas, public open space including footways and cycleways, sustainable urban drainage systems and all other ancillary and enabling infrastructure**
LOCATION: **Land West of Hither Green Lane, Redditch, Worcestershire**
APPLICANT: **Mr. A. Rowan**

Worcestershire County Council acting in its role as the Highway Authority has undertaken a full assessment of this planning application. Based on the appraisal of the development proposals. The Transport Planning and Development Management Team Leader on behalf of the County Council, under Article 18 of the Town and Country Planning (Development Management Procedure)(England) Order, 2015 recommends that this application be **deferred.**

The Highway Authority has undertaken a review of the Transport Assessment (TA) dated October 2021, as prepared on behalf of the applicant by Mode Transport Planning. Our comments are set out below.

Planning context

It is understood that this application site does not form a strategic allocation within the adopted Redditch Local Plan (2011-2030). The principle of development in this location is therefore not established and remains untested.

Tel: Tel: 01905 845373 Email: ngorski@worcestershire.gov.uk
www.worcestershire.gov.uk

Development proposals

The development proposals include for a residential site of 216 units comprising mix of private, social and affordable housing. The planning application form identifies the proposals to include no.81 x 3 bedroom private dwellings, no. 70 x 4 plus bedroom private dwellings, no. 26 x 2 bedroom social dwellings, no. 4 x 2 bedroom social flats, and no. 3 x 3 bedroom social dwellings. The site will also include no. 6 x 2 bedroom affordable dwellings and no. 17 x 3 bedroom affordable dwellings.

The proposals will replace the north-western parcel of the existing golf course located to the west of Hither Green Lane and include a new T junction access from Hither Green Lane.

Access

A single point of vehicular access is provided to the site as a new priority crossroads junction with Hither Green Lane. This junction also includes an unnamed access road serving the golf range on the opposite side of the carriageway. The TA intends the access to incorporate a 5.5m width carriageway, with 10m corner radii and 2m wide footways on either side.

For access visibility, this needs to be determined using 85th percentile speed data and not be based on the speed limit of the carriageway. Visibility should be measures from a distance of 2.4m (x) distance along the edge of the carriageway and include any tangents to the kerb line.

The swept paths provided for the access junction (with Hither Green Lane) show a refuse vehicle traversing over the centre site to turn in and out of the site. The access junction should be designed to accommodate these movements. The access design should be revisited.

Para. 4.3.1 of the TA states that *'on account of the scale of development proposed, an alternative point of access into the site will be provided for emergency vehicles'.* This to be provided on to Dagnell End Road at the western end of the site, with a 3.7m wide pedestrian link, with retractable bollards to prevent private vehicle access.

This access is however not shown on the 'proposed site layout' drawing prepared by Urban Design Ref: ME-24-21S. If proposed, the emergency access needs to be included on this drawing, with details shown of how it fits into the remainder of the site.

The TA states that a tracking assessment has been undertaken to show that a Fire Tender (8.6m) can access and egress the site via the emergency access point.

It is accepted that a fire tender could access via this route, but the access needs to be shown to a suitable level of design, complete with visibility information and details of how it could connect to the footway. Details of how the bollards could be lowered in an emergency also needs to be presented in the TA.

A TRO will also likely be required to facilitate the proposed emergency access.

Internal site design

Comments on the internal site design include:

- The site access onto Hither Green Lane proposes a visibility splay of 2.4 × 43m. This should be checked to ensure the splay is not compromised by the proposed entrance feature walls. In the southerly direction the splay should also be provided to the tangent of the nearside kerb on the curve in Hither Green Lane.
- The shared private drives indicated close to the site access create potential conflict points due to their proximity to the main access.
- All bends should have a minimum radius of 20m in accordance with the WCC Streetscape Design Guide. Suitable forward visibility should also be provided on all curves based on 20mph design speed (25m). A design speed of 15mph and 17 metre forward visibility may be acceptable on the shorter cul-de-sacs. If this extends beyond the adoptable footway or verge, then the back of footway/verge should be moved to define the visibility envelope. There are some locations where this will affect proposed plots.
- Two bends are indicated with 90-degree outer kerb lines. These serve no functional purpose and create a potential liability for the Highway Authority and the channels cannot be fully cleaned by mechanical road sweepers. These are not acceptable for adoption and should be converted to suitable radii.
- Build-outs / narrowing's appear to be proposed at three locations within the road network. These serve no functional purpose to maintain suitable vehicle speeds and are not considered necessary to aid pedestrians crossing the road. They are however a potential future maintenance and operational liability to the Highway Authority and should be removed from the design.
- All turning heads must comply with the minimum dimensions specified in WCC's Streetscape Design Guide. Some of the turning facilities are currently not compliant. However, the turning head adjacent to plots 107 to 113 exceeds the Council's requirements for adoption and should be reduced to 26m.
- A 2m wide footway should be provided at all locations where properties have direct pedestrian access to the roads. Some cul-de-sac roads appear to have

a hybrid design, which is neither traditional or shared space with 2m footways on one side and 1m service strips on the other side. There is no logic to the arrangement and only likely to raise questions/complaints from residents. 2m footways should be provided on both sides in suitable locations, or a level shared space provided in those cul-de-sac type areas.

- The road serving plots 180 – 189 and 171 – 179 appears to be a hybrid design between traditional road and shared surface. As a through route, it is unlikely to be suitable for shared use, and should have footways both sides as properties have direct frontage access. The road alignment is also unacceptable with the offset chicane effect. This serves no functional purpose and is likely to become a pinch point for refuse and delivery vehicles should parking take place nearby. The road should be realigned with a suitable constant width.
- One-metre-wide grass service strips are not considered viable as the grass rarely becomes established due to the kerb foundations/construction either side. These would need to be hard surfaced if offered for adoption.
- There appear to be short surface change features at a few locations, which again serve no functional purpose and should be removed.
- The internal swept path analysis should be based on the 11.7 metre refuse truck indicated within the supplied TA. No swept paths should overhang adoptable footways or service strips. Localised widening should also be provided on bends to allow a refuse truck and car to pass each other within the carriageway.
- The applicant should be aware of the maximum adoptable carriageway and footway gradients as detailed within WCC Highway Design Guide. Any block paved roads must have a minimum longitudinal gradient of 1 in 80 to reduce the risk of standing surface water. If this is not achievable then a tarmac surface will be required.
- Any private parking spaces abutting the back of adoptable footway or service strip should be a minimum of 6 metres deep.
- Tactile paving should be provided at junction crossing points. These should be placed on the pedestrian desire lines.
- Details of suitable surface water drainage arrangements for capture and discharge of water from the roads and footways would need to be provided before adoption of the roads was considered.

Street lighting

The street lighting team at WCC inform that a suitably qualified lighting engineer should be appointed to carry out an assessment for the proposed development in line with WCC's Street Lighting Design Guide (SLDG). Given the anticipated increase in usage

the assessment should also include the existing junction between Dagnell End Road and Hither Green Lane.

Should lighting be required consideration shall be given, in consultation with WCC, regarding the need for any proposed lighting to tie in with the existing decorative style currently used on Hither Green Lane.

It should also be noted that replacement lighting from Dagnell End Road to a suitable point beyond the proposed development access may be required in line with the guidance given in the SLDG with specific regard to WCC's ongoing energy, ecological and maintenance commitments. Please note it is a requirement to provide an environmental impact assessment of any lighting proposals and this shall be carried out by a qualified ecologist.

Any private lighting within the development shall need to be designed sympathetically to the surrounding environment and should include liaison with WCC's ecologist and the parish council to ensure the proposals are acceptable.

Trip generation

Mode have presented vehicle trip rates derived from TRICS and compared these to site surveys used in the Brockhill Phase 3 application. The TRICS results presented are not accepted by the Highway Authority for this site, as they reflect 'edge of town' sites with much greater sustainable transport connections. As the Hither Green Lane is more limited in its access to a good public transport network, rail, cycle and amenities in a close walking distance, the trip rates should reflect this. Especially as the proposals include some quite sizable dwellings. The trip rates presented for the Brockhill Phase 3 proposals are believed suitable for the site proposals.

The Highway Authority accepts the two-way vehicle trip rates of 0.706 (AM) and 0.750 (PM), generating 152 two-way trips (AM) and 162 two-way trips (PM).

Trip distribution / assignment

Para. 5.4.2 of the TA uses trip distribution information presented for the Brockhill Phase 3 proposals and '*the local road network has been analysed and traffic has been distributed to the zones'.* The Highway Authority requires greater clarity on how trip distribution / assignment has been calculated, as it is not clear from the information presented in the TA. This would utilise 'journey to work' census data and trips to other key destinations i.e. education, retail, etc.

Traffic figures in Appendix F are required to show the assignment of proposed development traffic separate from background and committed development trips. Traffic figures should show each traffic group separately included, so it is clear how the total traffic flows have been established. This information is requested.

Traffic Impact

Committed development traffic

In terms of committed development traffic, this should include the Brockhill Phase 3 proposals, including any dwellings of the previous Brockhill phases still be to fully be constructed. Consideration should also be given to the Foxlydiate site, given its proximity and size. The LPA should be consultant on what development should be included.

Capacity assessments - Dagnell End Road Signal Junction

Despite utilising information from the Brockhill Phase 3 application, the capacity results for the Dagnell End Road Signal Junction do not match those previously approved by the Highway Authority for the same modelling scenarios, built from a fully validated and calibrated junction model. From a review of the LinSig modelling results, it is apparent that the model itself and results are different.

The Mode LinSig model shows the nearside lane on the Birmingham Road (S) approach to be a short lane, whereas in the previously approved model, this is shown to be a 'long lane'. As the LinSig mode has not been provided, it is anticipated that further differences will also be apparent. The previously approved model should be used to assess capacity at this junction, otherwise a new model should be created, which would first require revalidation and calibration.

Adding vehicle trips to an already congested junction, increasing vehicles queues and delays in this location is not acceptable. This is a key junction provided along an arterial connecting Redditch to the M42 to the north and Birmingham beyond.

Other capacity assessments

For the Highway Authority to accept the junction capacity assessments presented, an AutoCAD drawing showing junction geometry measurements or a scaled drawing should be presented. Some form of base model validation should also be provided and be agreed, before forecast development scenarios are presented.

The Highway Authority does not accept percentage impact results or a 30 trip threshold for the purposes of identifying junctions requiring capacity assessment, and these will be determined by the volumes of development trips anticipated to travel through each junction, trips adding to sensitive movements, and the operation and safety of the junction. Junctions requiring capacity assessments will be fully determined when trip distribution / assignment information is agreed and evidence of model validation / calibration has been provided.

Sustainable transport links

Pedestrian access

The Highway Authority currently identifies the site to have limited accessibility by none car modes of transport. There are currently no pedestrian footway connections from this site to local amenities, including education, health, retail, etc. The Brockhill Phase 3 proposals (committed development) are to provide some pedestrian enhancements to the Dagnell End Road signal junction, with a short extension of the footway on the south side of the Dangell End Road carriageway. These are however shown not to reach the proposed Hither Green Lane site.

Para. 4.4.2 of the TA states that *'a new section of footway will also be provided on the southern side of Dagnell End Road, within the existing highway boundary. This will connect with the existing footway on the southern side of Dagnell End Road, providing a connection west towards the existing footway network along Birmingham Road (A441). This will be subject to confirmation of land ownership and discussions with WCC in order to agree an appropriate mechanism to tie this into the footway improvements associated with Brockhill East Phase 3'*

This connection is welcomed and further details regarding its form are requested. This should be shown on a drawing and take account of the committed improvements identified for the Dagnell End Road signal junction.

Pedestrian connections to the southwest are more important for this site, with this route providing connections to bus stops, the Abbey Stadium and a route to and from the town centre. Routes across fields are unattractive and will not be used at times in the winter when its wet and dark outside. Detailed information should be presented as to how the site will provide attractive pedestrian connections to / from the town centre, along pedestrian desire lines. Details regarding the footway surface, if lit, and crossing points are requested. Further information is requested.

Public transport access
Current Service

The nearest marked bus stops to the proposed development are on the A441 north of the Dagnell End Road junction, in excess of 700 metres away from the centre of the development. Parts of the development will be more than 800 metres away. The walking route to these bus stops does not include a footpath, although it is acknowledged that a part route is being provided as part of the Brockhill Phase 3 proposals.

The stop on the A441 is serviced by Diamond bus services 182 and 183. Only two bus services for each stop in this location, all during the day and not at a time suitable for typical 9-5 employment commuting.

In addition, two school services (S55 and S83) operate in the morning and afternoon to access Bromsgrove Schools. These services are unlikely to be suitable for adults due to the destination and the numbers of children using the service and there is unlikely to be space to take additional children.

Although Hither Green Lane is on the edge of Redditch, secondary schools for the catchment area are: North Bromsgrove High School (approx. 17km), South Bromsgrove High School (approx.. 13.5 km), Alvechurch Middle School (approx.4.9km). These distances necessitate the use of a vehicle as they are not within reach, nor are accessible via a safe route for active travel. The primary school within the catchment is Beoley First School which is approximately 2.5 km from Hither Green Lane. This is a long distance for primary age school children to walk plus there are no footways (at present) along much of Dagnall End Road leading to the school.

Future Service Requirements

In order to make this development acceptable in planning terms meeting the requirements of the 1985 Transport Act, WCC's LTP4 and the NPPF para 124 (c) a new bus or enhanced service will be required.

Due to the current uncertainties around commercial bus services and the complexities of conformance with public sector procurement regulations, Worcestershire County Council policy is to request contributions towards bus services associated with major developments on the basis of a stand-alone service. The envisaged service will provide an hourly frequency service running from Redditch bus station to the development covering working hours to allow access to Redditch for working and the train station for further afield employment opportunities. Without such a service this development would not be acceptable as it would be predominantly car dependent.

School / Community Transport

The statutory duty to provide free home to school transport is detailed in guidelines issued annually by DfE as required under the Education Act 1995. Worcestershire County Council puts these guidelines into effect through its Transport and Travel Policy again revised annually. This is a statutory provision related to the duty to provide school places and is required for the development to proceed as the development will cause the County Council to incur costs as a direct result of the distance between the proposed development and one or more designated schools.

Normally children living in Worcestershire are expected to attend the appropriate designated school for the children's age and address. Where places are not available in the designated school, the children may be assigned to another school or re-designated school. It is anticipated that school to travel and or community contributions may also be required for public transport. These will be identified as the planning application progresses.

Parking

Car and cycle parking is believed to be provided in accordance to standards set out in the WCC Streetscape Design Guide. Although it is noted in Para. 4.6.2 of the TA that the *'application is being submitted in outline form with all matters reserved apart from access, therefore the final quantum of parking will be determined at the Reserved Matters stage'.* A full application has been submitted for the proposals, so any amendments to car parking provision set out in the TA need to be identified and presented now.

Travel planning

The Highway Authority has undertaken a review of the Residential Travel Plan (RTP) and identified that the scope of external site measures put forward to encourage and promote sustainable journeys include:

- To the north of the site, a pedestrian route will link the site with Dagnell End Road and connect to a new section of footway that will be provided on the southern side of Dagnell End Road, connecting to the committed Brockhill Phase 3 proposals in this location,
- To the south and west pedestrian / cycle connections will be provided with the existing footway which runs alongside the River Arrow and connects with Birmingham Road immediately north of the river over-bridge.
- A Travel Information Pack will be produced and disseminated to residents, detailing the opportunities for sustainable travel to and from the site, including

a potential range of incentives and the promotion of regional and national car share websites

- Use of public transport will be with up-to-date public transport timetables, bus maps and ticket information disseminated to the residents. The possibility of offering residents with discounted bus vouchers/passes with local operators will also be investigated.
- Personalised Travel Planning (PTP) will allow residents to contact the TPC and arrange a meeting (either face-to-face or via email/telephone) to discuss their individual circumstances with the TPC who will assist in tailoring a travel plan specific to that resident, incorporating sustainable travel modes as much as possible.

The RTP seeks to achieve a mode shift reduction in single occupancy car trips of 5% (from baseline surveys) over a period of 5 years. Based on the trip generation results presented, the success of the RTP would reduce weekday peak hour car trips by 8 vehicles in the AM and PM peaks.

Based on the level of provision set out in the RTP, the Highway Authority does not believe this mode shift would be realised. The promotion of sustainable journeys is most successful when there are plentiful non-car opportunities in which to choose from. At present, the development site offers limited sustainable options in which to promote.

The Travel Welcome Pack should also be presented to the WCC travel plan officer for review and approval.

Summary

Unlike the Brockhill Phase 3 proposals, the proposals to the west of Hither Green Lane do not form an allocated site in the Redditch Local Plan. The site is more remote in terms of access to sustainable transport provision and amenities in the town centre.

The Highway Authority has undertaken a review of the Mode TA and has identified a series of points that require further consideration / information. The operation of the Dagnell End Road signal junction in particular is a primary concern, given that nearly all proposed development trips generated by this site would travel through it.

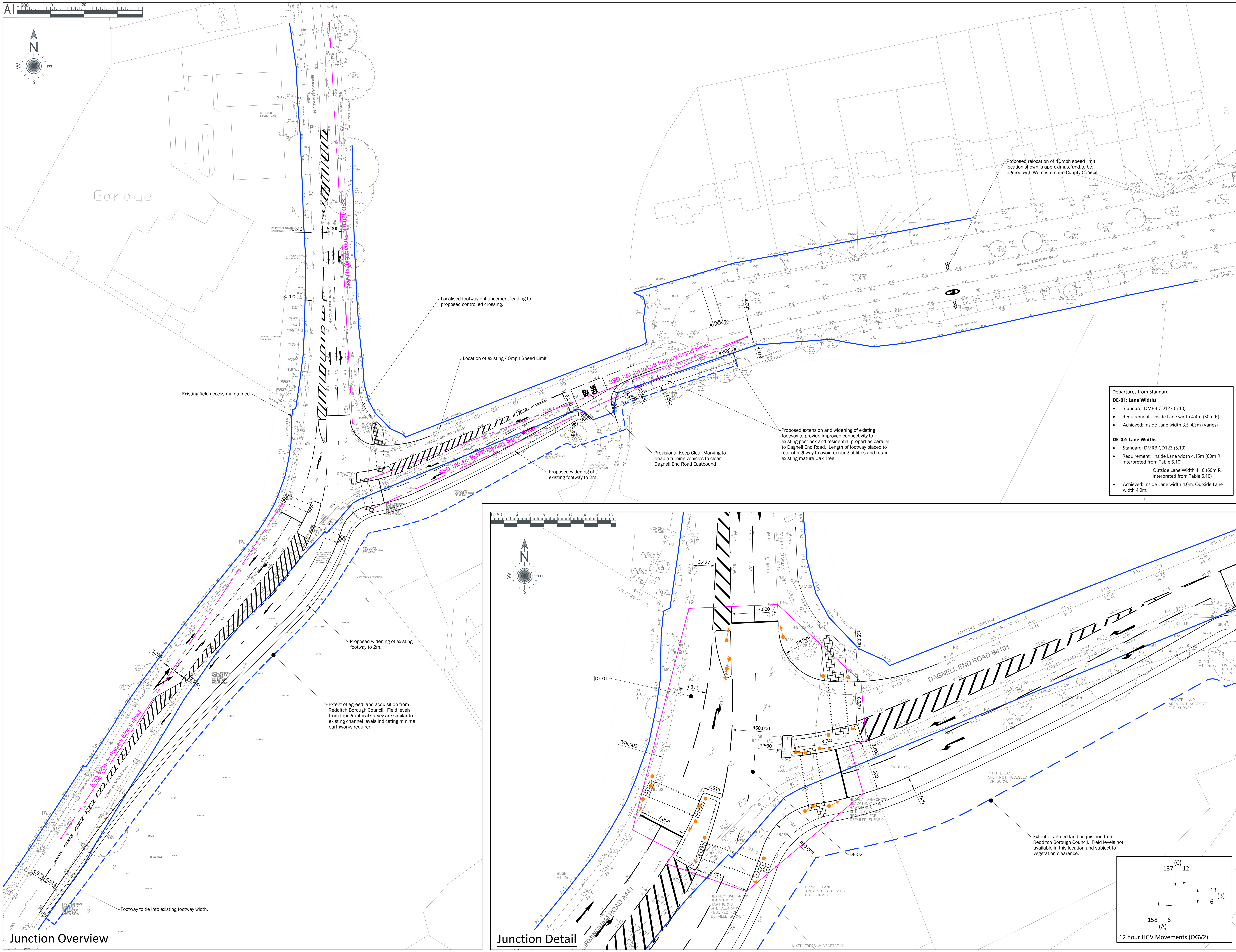
The Highway Authority therefore submits a response of deferral until the required information has been provided and considered.

Yours Sincerely

Nigel Gorski
Development Control Engineer
On behalf of Karen Hanchett, Transport Planning and Development Management Team Leader

APPENDIX B

Dagnell End Road / Birmingham Road – PJA Mitigation Drawing



1:500
Junction Overview
Junction Detail
1:250
Garage
DAGNELL END ROAD B4101
BIRMINGHAM ROAD A441
SSD 120m to Primary Signal Head
SSD 120.4m to O/S Primary Signal Head
SSD 120.4m to N/S Primary Signal Head
Localised footway enhancement leading to proposed controlled crossing.
Location of existing 40mph Speed Limit
Existing field access maintained
Proposed relocation of 40mph speed limit, location shown is approximate and to be agreed with Worcestershire County Council
Proposed widening of existing footway to 2m.
Provisional Keep Clear Marking to enable turning vehicles to clear Dagnell End Road Eastbound
Proposed extension and widening of existing footway to provide improved connectivity to existing post box and residential properties parallel to Dagnell End Road. Length of footway placed to rear of highway to avoid existing utilities and retain existing mature Oak Tree.
Proposed widening of existing footway to 2m.
Extent of agreed land acquisition from Redditch Borough Council. Field levels from topographical survey are similar to existing channel levels indicating minimal earthworks required.
Footway to tie into existing footway width.
Extent of agreed land acquisition from Redditch Borough Council. Field levels not available in this location and subject to vegetation clearance.
DE-01
DE-02
12 hour HGV Movements (OGV2)

Departures from Standard

DE-01: Lane Widths

- Standard: DMRB CD123 (5.10)
- Requirement: Inside Lane width 4.4m (50m R)
- Achieved: Inside Lane width 3.5-4.3m (Varies)

DE-02: Lane Widths

- Standard: DMRB CD123 (5.10)
- Requirement: Inside Lane width 4.15m (60m R, Interpreted from Table 5.10)
  Outside Lane Width 4.10 (60m R, Interpreted from Table 5.10)
- Achieved: Inside Lane width 4.0m, Outside Lane width 4.0m.

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9

Notes

1. Do not scale from this drawing.
2. All dimensions in metres unless stated otherwise.
3. The purpose of this drawing is to demonstrate the ability to deliver a junction improvement scheme at Dagnell End Road in support of an associated residential planning application.
4. This drawing should be read in conjunction with all other project related drawings.
5. Drawing is based on Topographical survey (ref.:27285_R2) and is limited to a 2D design at this stage.
6. OS Mapping is included for context.
7. Highway Boundary information has been reproduced and interpreted from data received from Worcestershire County Council ref 900067 dated 20/07/20..
8. For Private Land Boundary details refer to drawing 2809-P-014.
9. All boundaries have been reproduced from source data, however there are limited features in which to interpret this information against and as such all boundaries should be verified on site.
10. Design has been based on the principles of DMRB CD123, Design of Signalised Junctions and Traffic Signs Manual Chapter 6.
11. Visibility to the primary signal heads on Birmingham Road have been based on a 70kph design speed to reflect the existing 40mph speed limit.
12. Visibility to the primary signal heads on Dagnell End Road have been based on 85th Percentile speed data undertaken on 18th November 2020 and adjusted to reflect an 85th percentile speed of 44mph and visibility of 120.4m.
13. Curve widening has been applied through the junction to reflect the internal bend radii being less than 90m. Full widening has not been achievable and as such, these have been highlighted as Departures from CD123.
14. Vehicular Tracking has been undertaken using the "Design Vehicle" as specified by DMRB CD123. Tracking adjacent to refuge islands has sought to achieve a 500mm clearance between the design vehicle and kerbline where possible as required by Worcestershire County Council. Reference should be made to the predicted daily HGV movements for context.
15. Traffic signal equipment shown on the drawing is indicative and subject to detailed design.
16. The design has been updated in line with highway authority comments and incorporating controlled pedestrian facilities.
17. The design is subject to transport modeling and an updated stage 1 Road Safety Audit.

Key

- Highway Boundary
- Land Acquisition Boundary
- Proposed Channel/Kerbline
- Proposed Back of Footway
- Proposed back of verge
- Forward visibility to Primary signal head
- Junction Inter visibility Zone
- Proposed Red Tactile Paving
- Proposed Primary Signal Head
- Proposed Secondary Signal Head

REV	DATE	REVISION NOTE	BY
P4	23:11:20	Dangnell End Rd island amended, hatching & Keep clear added	SG
P3	19.11.20	Finalised to topographical Survey following meeting with WCC (16/11/20)	SG
P2	12.11.20	Updated layout for Topographical Survey incorporating WCC comments	GH
P1	07.08.20	Widening, staggered crossing WCC comments incorporated	GH
P0	01.12.19	Initial Design	JL

PJA
Seven House ▫ High Street
Longbridge ▫ Birmingham
B31 2UQ ▫ Tel: 0121 475 0234
Birmingham ▫ Bristol
Exeter ▫ London ▫ Reading
pja.co.uk

CLIENT
Persimmon Homes South Midlands

PROJECT
Brockhill East
Dagnell End Road
Junction

DRAWING TITLE
Proposed Signalised
Junction Improvements

DRAWING ISSUE STATUS
PLANNING

PJA JOB No.	SUB-CODE	DRAWING NO.	REVISION
2809	P	12	P4

Revision Letter : P - Prelim / A - Approval / T - Tender / C - Construction

BIM DRAWING REFERENCE
-

SCALE	DRAWN	REVIEWED	DATE
A1@1:500	GH	SG	12.2019

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APPENDIX C

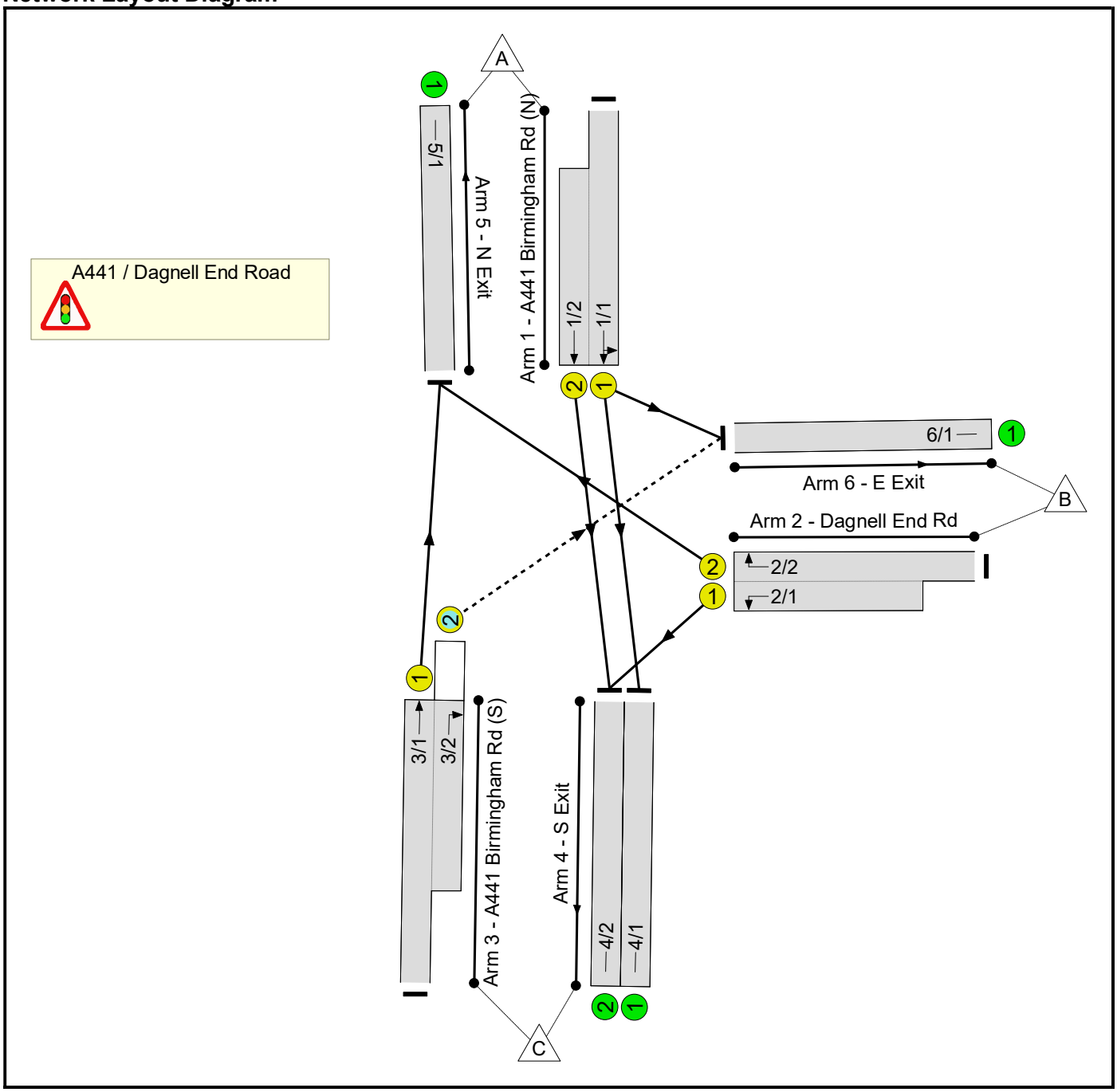
LinSig Model Output Report - Scenario CM3 & CM4

Full Input Data And Results

User and Project Details

Project:	
Title:	**A441 / Dagnell End Road**
Location:	
Additional detail:	Proposed layout
File name:	A441_Dagnell End Rd v2 Rev B.lsg3x
Author:	al
Company:	
Address:	

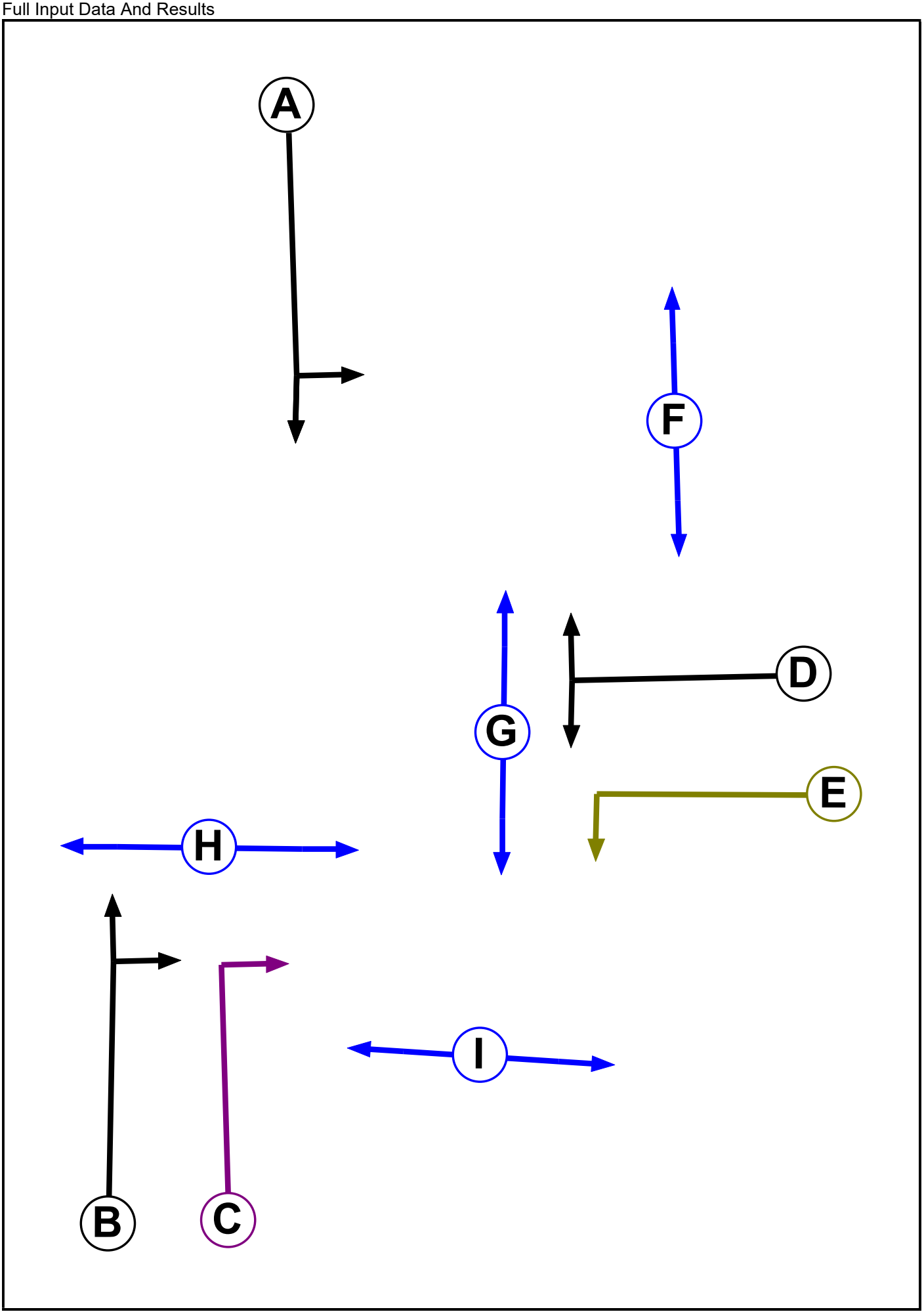
Network Layout Diagram



Full Input Data And Results

Phase Diagram

Full Input Data And Results



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Ind. Arrow	B	4	4
D	Traffic		7	7
E	Filter	D	4	0
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7

Phase Intergreens Matrix

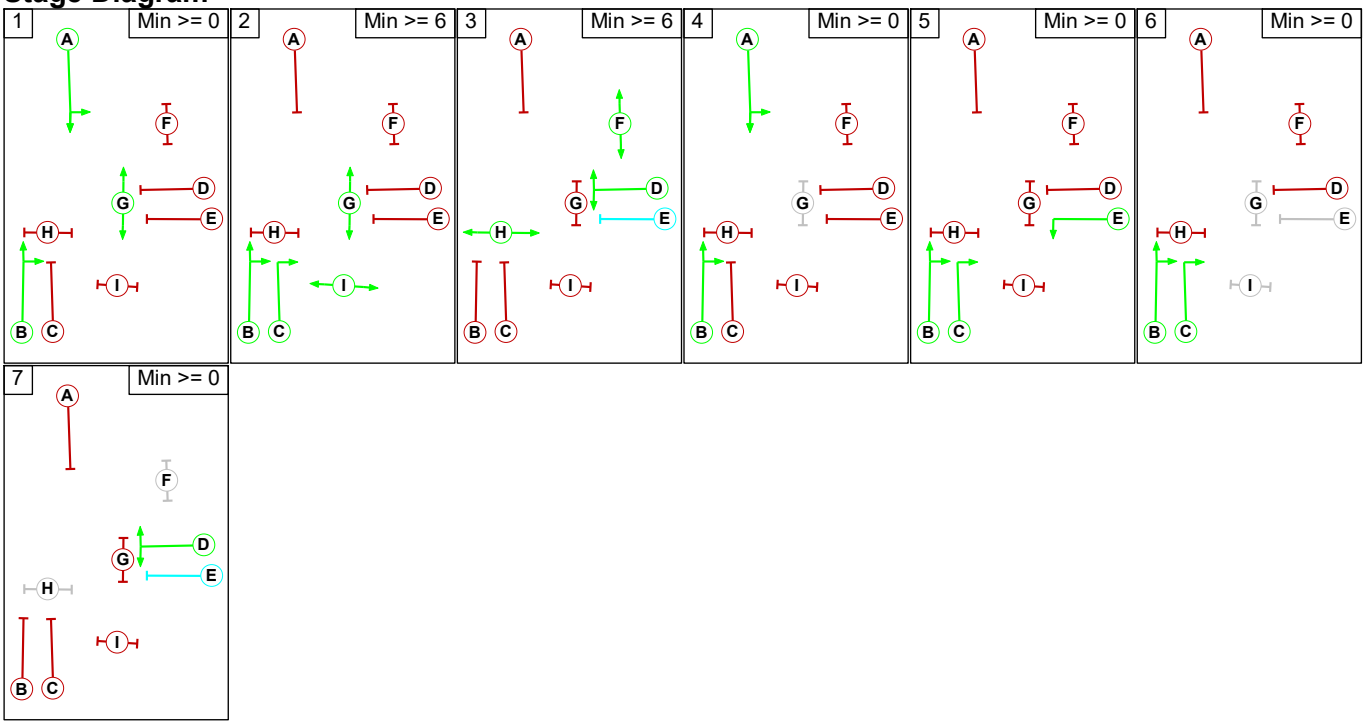
		Starting Phase								
		A	B	C	D	E	F	G	H	I
Terminating Phase	A		-	5	7	7	6	-	-	8
	B	-		-	7	-	8	-	5	-
	C	7	-		7	-	8	-	5	-
	D	7	7	7		-	-	5	-	7
	E	6	-	-	-		-	5	-	7
	F	8	8	8	-	-		-	-	-
	G	-	-	-	9	9	-		-	-
	H	-	8	8	-	-	-	-		-
	I	9	-	-	9	9	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B G
2	B C G I
3	D F H
4	A B
5	B C E
6	B C
7	D

Full Input Data And Results

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	5	6	7
1		8	9	0	9	5	9
2	9		9	9	9	0	9
3	8	8		8	8	8	0
4	0	8	8		7	5	7
5	X	X	8	X		X	7
6	7	0	8	7	0		7
7	7	7	0	7	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A441 / Dagnell End Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
3/2 (A441 Birmingham Rd (S))	6/1 (Right)	1439	0	1/1	1.09	All	3.00	-	0.50	3	3.00
				1/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A441 / Dagnell End Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A441 Birmingham Rd (N))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	50.00
											Arm 6 Left	10.00
1/2 (A441 Birmingham Rd (N))	U	A	2	3	10.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	77.00
2/1 (Dagnell End Rd)	U	D E	2	3	9.6	Geom	-	3.10	0.00	Y	Arm 4 Left	38.00
2/2 (Dagnell End Rd)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Right	9.00
3/1 (A441 Birmingham Rd (S))	U	B	2	3	60.0	User	1800	-	-	-	-	-
3/2 (A441 Birmingham Rd (S))	O	B C	2	3	9.7	User	1800	-	-	-	-	-
4/1 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (E Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2030 AM Effective Base'	08:00	09:00	01:00	
2: '2030 PM Effective Base'	17:00	18:00	01:00	
3: '2030 AM Effective Base + Dev'	08:00	09:00	01:00	
4: '2030 PM Effective Base + Dev'	17:00	18:00	01:00	

Scenario 1: '1' (FG1: '2030 AM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	206	1078	1284
	B	197	0	210	407
	C	1145	241	0	1386
	Tot.	1342	447	1288	3077

Traffic Lane Flows

Lane	Scenario 1: 1
Junction: A441 / Dagnell End Road	
1/1 (with short)	1284(In) 989(Out)
1/2 (short)	295
2/1 (short)	210
2/2 (with short)	407(In) 197(Out)
3/1 (with short)	1386(In) 1145(Out)
3/2 (short)	241
4/1	783
4/2	505
5/1	1342
6/1	447

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.2 %	1815	1815
				Arm 6 Left	10.00	20.8 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2' (FG2: '2030 PM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	132	1043	1175
	B	379	0	255	634
	C	1188	175	0	1363
	Tot.	1567	307	1298	3172

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2
Junction: A441 / Dagnell End Road	
1/1 (with short)	1175(In) 905(Out)
1/2 (short)	270
2/1 (short)	255
2/2 (with short)	634(In) 379(Out)
3/1 (with short)	1363(In) 1188(Out)
3/2 (short)	175
4/1	773
4/2	525
5/1	1567
6/1	307

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	85.4 %	1828	1828
				Arm 6 Left	10.00	14.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '3' (FG3: '2030 AM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	226	1078	1304
	B	255	0	259	514
	C	1145	258	0	1403
	Tot.	1400	484	1337	3221

Traffic Lane Flows

Lane	Scenario 3: 3
Junction: A441 / Dagnell End Road	
1/1 (with short)	1304(In) 1004(Out)
1/2 (short)	300
2/1 (short)	259
2/2 (with short)	514(In) 255(Out)
3/1 (with short)	1403(In) 1145(Out)
3/2 (short)	258
4/1	778
4/2	559
5/1	1400
6/1	484

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	77.5 %	1812	1812
				Arm 6 Left	10.00	22.5 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '4' (FG4: '2030 PM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	187	1043	1230
	B	407	0	278	685
	C	1188	221	0	1409
	Tot.	1595	408	1321	3324

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 4
Junction: A441 / Dagnell End Road	
1/1 (with short)	1230(In) 947(Out)
1/2 (short)	283
2/1 (short)	278
2/2 (with short)	685(In) 407(Out)
3/1 (with short)	1409(In) 1188(Out)
3/2 (short)	221
4/1	760
4/2	561
5/1	1595
6/1	408

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	80.3 %	1817	1817
				Arm 6 Left	10.00	19.7 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '5' (FG1: '2030 AM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	206	1078	1284
	B	197	0	210	407
	C	1145	241	0	1386
	Tot.	1342	447	1288	3077

Traffic Lane Flows

Lane	Scenario 5: 5
Junction: A441 / Dagnell End Road	
1/1 (with short)	1284(In) 989(Out)
1/2 (short)	295
2/1 (short)	210
2/2 (with short)	407(In) 197(Out)
3/1 (with short)	1386(In) 1145(Out)
3/2 (short)	241
4/1	783
4/2	505
5/1	1342
6/1	447

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.2 %	1815	1815
				Arm 6 Left	10.00	20.8 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '6' (FG2: '2030 PM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	132	1043	1175
	B	379	0	255	634
	C	1188	175	0	1363
	Tot.	1567	307	1298	3172

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 6
Junction: A441 / Dagnell End Road	
1/1 (with short)	1175(In) 905(Out)
1/2 (short)	270
2/1 (short)	255
2/2 (with short)	634(In) 379(Out)
3/1 (with short)	1363(In) 1188(Out)
3/2 (short)	175
4/1	773
4/2	525
5/1	1567
6/1	307

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	85.4 %	1828	1828
				Arm 6 Left	10.00	14.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '7' (FG3: '2030 AM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	226	1078	1304
	B	255	0	259	514
	C	1145	258	0	1403
	Tot.	1400	484	1337	3221

Traffic Lane Flows

Lane	Scenario 7: 7
Junction: A441 / Dagnell End Road	
1/1 (with short)	1304(In) 1004(Out)
1/2 (short)	300
2/1 (short)	259
2/2 (with short)	514(In) 255(Out)
3/1 (with short)	1403(In) 1145(Out)
3/2 (short)	258
4/1	778
4/2	559
5/1	1400
6/1	484

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	77.5 %	1812	1812
				Arm 6 Left	10.00	22.5 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '8' (FG4: '2030 PM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	187	1043	1230
	B	407	0	278	685
	C	1188	221	0	1409
	Tot.	1595	408	1321	3324

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 8
Junction: A441 / Dagnell End Road	
1/1 (with short)	1230(In) 947(Out)
1/2 (short)	283
2/1 (short)	278
2/2 (with short)	685(In) 407(Out)
3/1 (with short)	1409(In) 1188(Out)
3/2 (short)	221
4/1	760
4/2	561
5/1	1595
6/1	408

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	80.3 %	1817	1817
				Arm 6 Left	10.00	19.7 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '9' (FG1: '2030 AM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	206	1078	1284
	B	197	0	210	407
	C	1145	241	0	1386
	Tot.	1342	447	1288	3077

Traffic Lane Flows

Lane	Scenario 9: 9
Junction: A441 / Dagnell End Road	
1/1 (with short)	1284(In) 998(Out)
1/2 (short)	286
2/1 (short)	210
2/2 (with short)	407(In) 197(Out)
3/1 (with short)	1386(In) 1145(Out)
3/2 (short)	241
4/1	792
4/2	496
5/1	1342
6/1	447

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.4 %	1816	1816
				Arm 6 Left	10.00	20.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: '10' (FG2: '2030 PM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	132	1043	1175
	B	379	0	255	634
	C	1188	175	0	1363
	Tot.	1567	307	1298	3172

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 10
Junction: A441 / Dagnell End Road	
1/1 (with short)	1175(In) 899(Out)
1/2 (short)	276
2/1 (short)	255
2/2 (with short)	634(In) 379(Out)
3/1 (with short)	1363(In) 1188(Out)
3/2 (short)	175
4/1	767
4/2	531
5/1	1567
6/1	307

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	85.3 %	1828	1828
				Arm 6 Left	10.00	14.7 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '11' (FG3: '2030 AM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	226	1078	1304
	B	255	0	259	514
	C	1145	258	0	1403
	Tot.	1400	484	1337	3221

Traffic Lane Flows

Lane	Scenario 11: 11
Junction: A441 / Dagnell End Road	
1/1 (with short)	1304(In) 1004(Out)
1/2 (short)	300
2/1 (short)	259
2/2 (with short)	514(In) 255(Out)
3/1 (with short)	1403(In) 1145(Out)
3/2 (short)	258
4/1	778
4/2	559
5/1	1400
6/1	484

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	77.5 %	1812	1812
				Arm 6 Left	10.00	22.5 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 12: '12' (FG4: '2030 PM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	187	1043	1230
	B	407	0	278	685
	C	1188	221	0	1409
	Tot.	1595	408	1321	3324

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 12
Junction: A441 / Dagnell End Road	
1/1 (with short)	1230(In) 947(Out)
1/2 (short)	283
2/1 (short)	278
2/2 (with short)	685(In) 407(Out)
3/1 (with short)	1409(In) 1188(Out)
3/2 (short)	221
4/1	760
4/2	561
5/1	1595
6/1	408

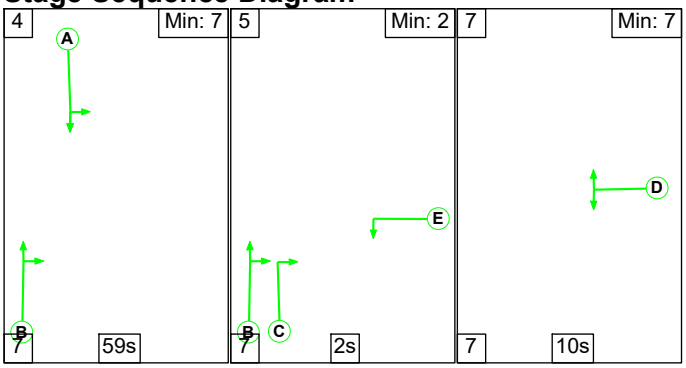
Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	80.3 %	1817	1817
				Arm 6 Left	10.00	19.7 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '1' (FG1: '2030 AM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

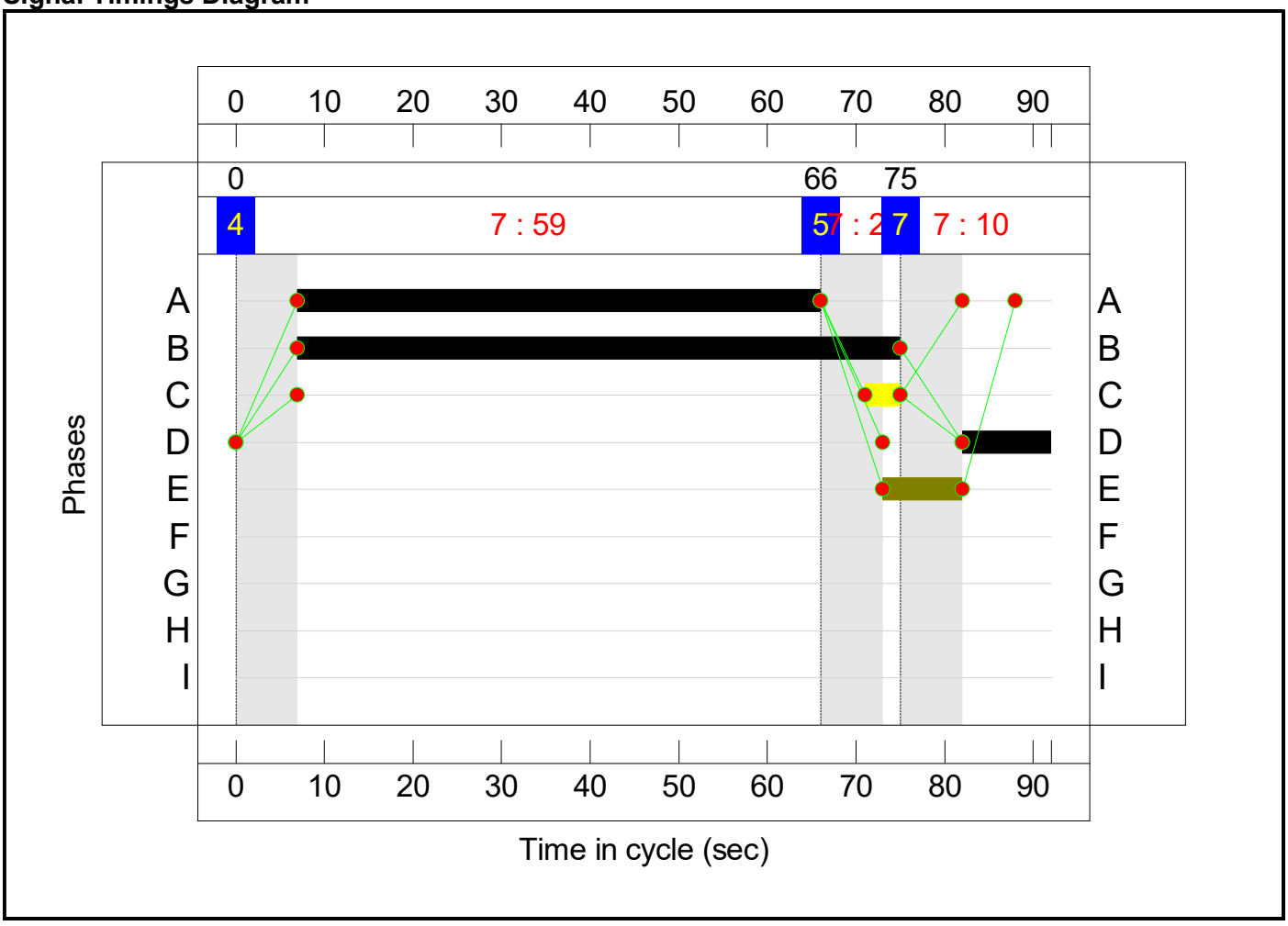
Stage Sequence Diagram



Stage Timings

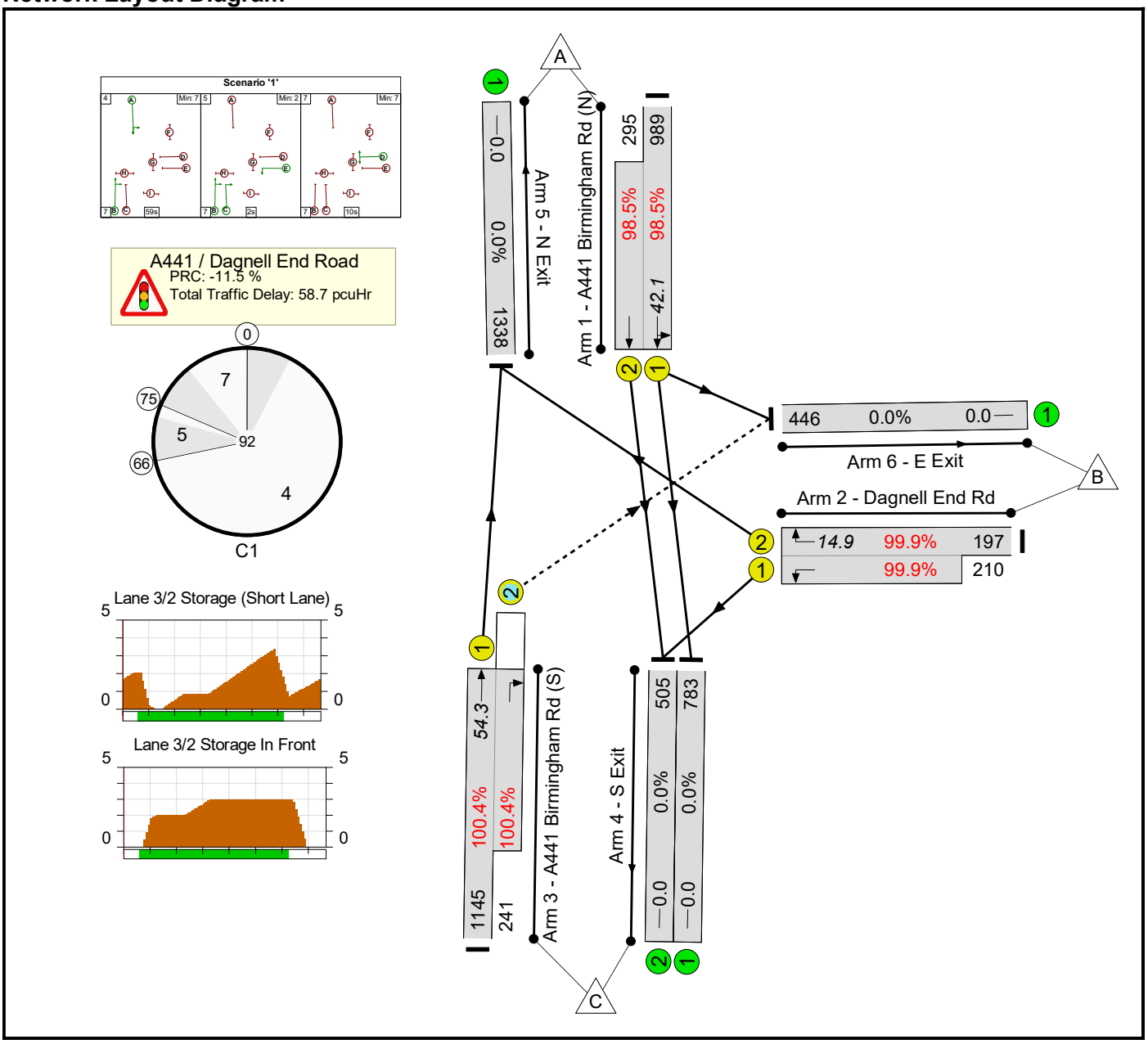
Stage	4	5	7
Duration	59	2	10
Change Point	0	66	75

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**100.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**100.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	59	-	1284	1815:1878	1004+299	98.5 : 98.5%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	10:19	9	407	1650:1852	197+210	99.9 : 99.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	68	4	1386	1726:1679	1141+240	100.4 : 100.4%
4/1	S Exit	U	N/A	N/A	-		-	-	-	783	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1342	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%

Full Input Data And Results

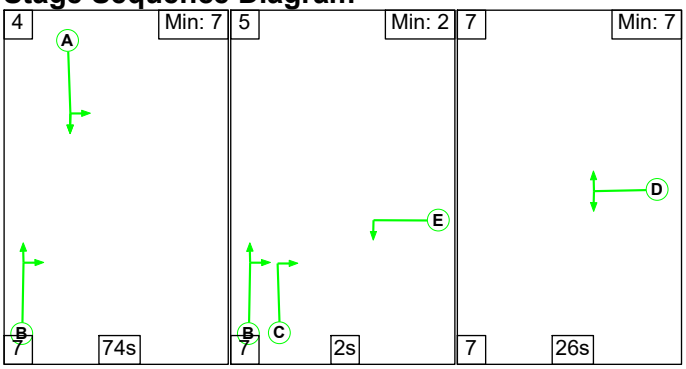
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**1**	**128**	**111**	**13.2**	**43.7**	**1.8**	**58.7**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**1**	**128**	**111**	**13.2**	**43.7**	**1.8**	**58.7**	**-**	**-**	**-**	**-**
1/1+1/2	1284	1284	-	-	-	4.7	13.7	-	18.4 (14.4+4.1)	51.7 (52.3:49.5)	28.4	13.7	42.1
2/2+2/1	407	407	-	-	-	4.1	9.9	-	14.0 (7.0+7.0)	123.9 (128.4:119.7)	5.0	9.9	14.9
3/1+3/2	1386	1381	1	128	111	4.4	20.0	1.8	26.2 (19.9+6.3)	68.1 (62.4:94.8)	34.3	20.0	54.3
4/1	783	783	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1338	1338	-	-	-	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

C1 PRC for Signalled Lanes (%): -11.5 Total Delay for Signalled Lanes (pcuHr): 58.65 Cycle Time (s): 92
PRC Over All Lanes (%): -11.5 Total Delay Over All Lanes(pcuHr): 58.65

Full Input Data And Results

Scenario 2: '2' (FG2: '2030 PM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

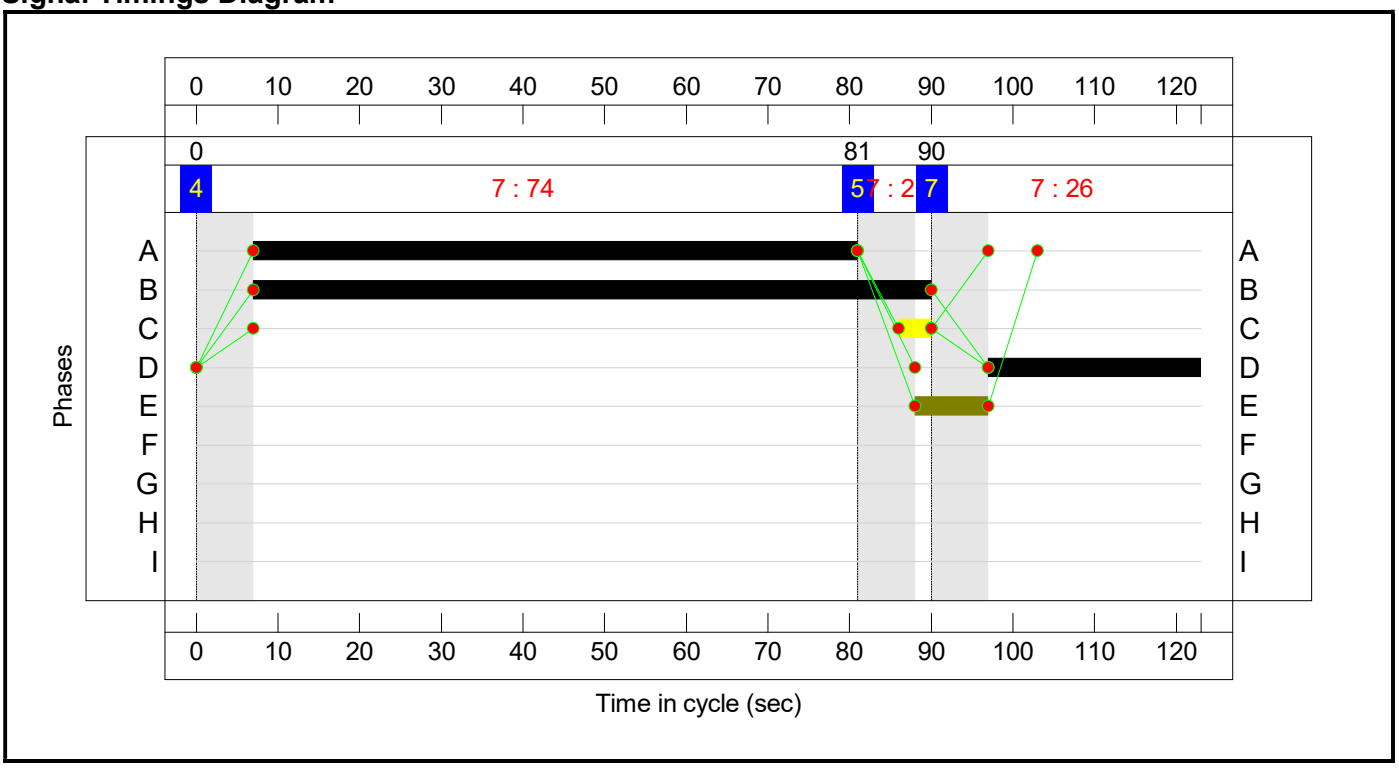
Stage Sequence Diagram



Stage Timings

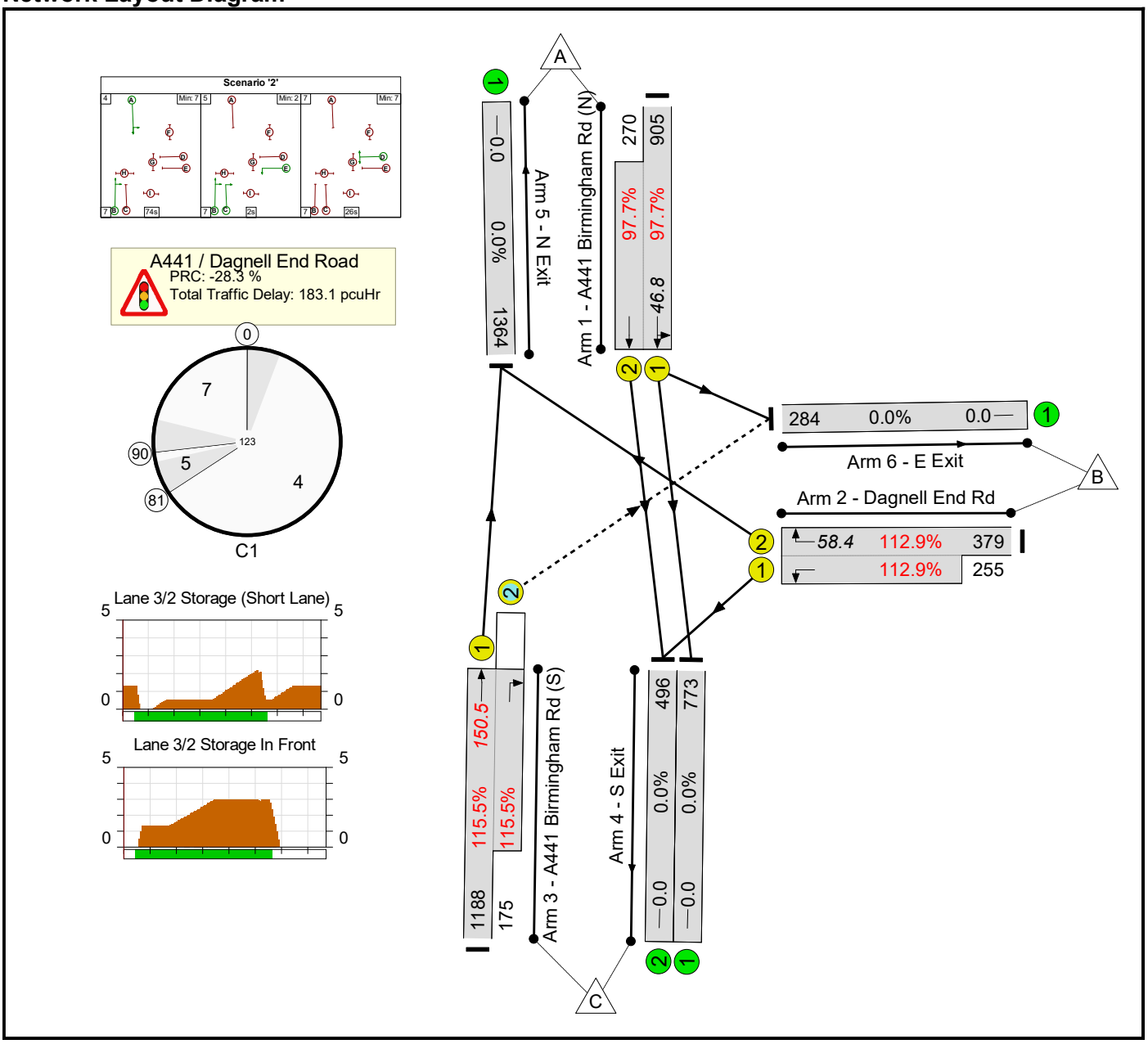
Stage	4	5	7
Duration	74	2	26
Change Point	0	81	90

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.5%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.5%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	74	-	1175	1828:1878	926+276	97.7 : 97.7%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	26:35	9	634	1650:1852	336+226	112.9 : 112.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	83	4	1363	1641:1800	1029+152	115.5 : 115.5%
4/1	S Exit	U	N/A	N/A	-		-	-	-	773	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1567	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%

Full Input Data And Results

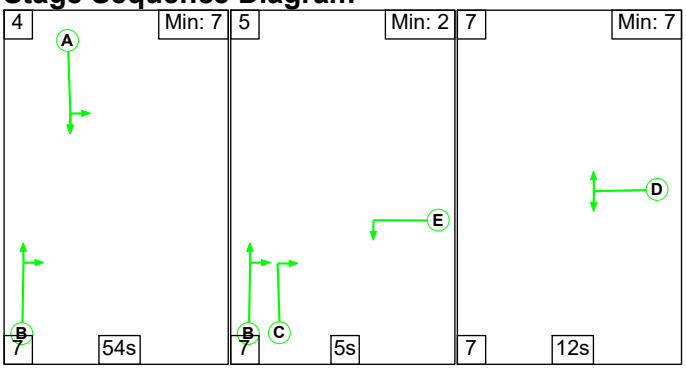
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**6**	**102**	**43**	**34.9**	**146.8**	**1.4**	**183.1**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**6**	**102**	**43**	**34.9**	**146.8**	**1.4**	**183.1**	**-**	**-**	**-**	**-**
1/1+1/2	1175	1175	-	-	-	6.8	11.6	-	18.4 (14.3+4.1)	56.2 (56.8:54.4)	35.2	11.6	46.8
2/2+2/1	634	561	-	-	-	11.1	40.2	-	51.3 (31.3+20.1)	291.4 (297.0:283.1)	18.2	40.2	58.4
3/1+3/2	1363	1180	6	102	43	17.0	94.9	1.4	113.4 (97.5+15.9)	299.6 (295.5:327.8)	55.5	94.9	150.5
4/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1364	1364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -28.3 Total Delay for Signalled Lanes (pcuHr): 183.12 Cycle Time (s): 123
PRC Over All Lanes (%): -28.3 Total Delay Over All Lanes(pcuHr): 183.12

Full Input Data And Results

Scenario 3: '3' (FG3: '2030 AM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

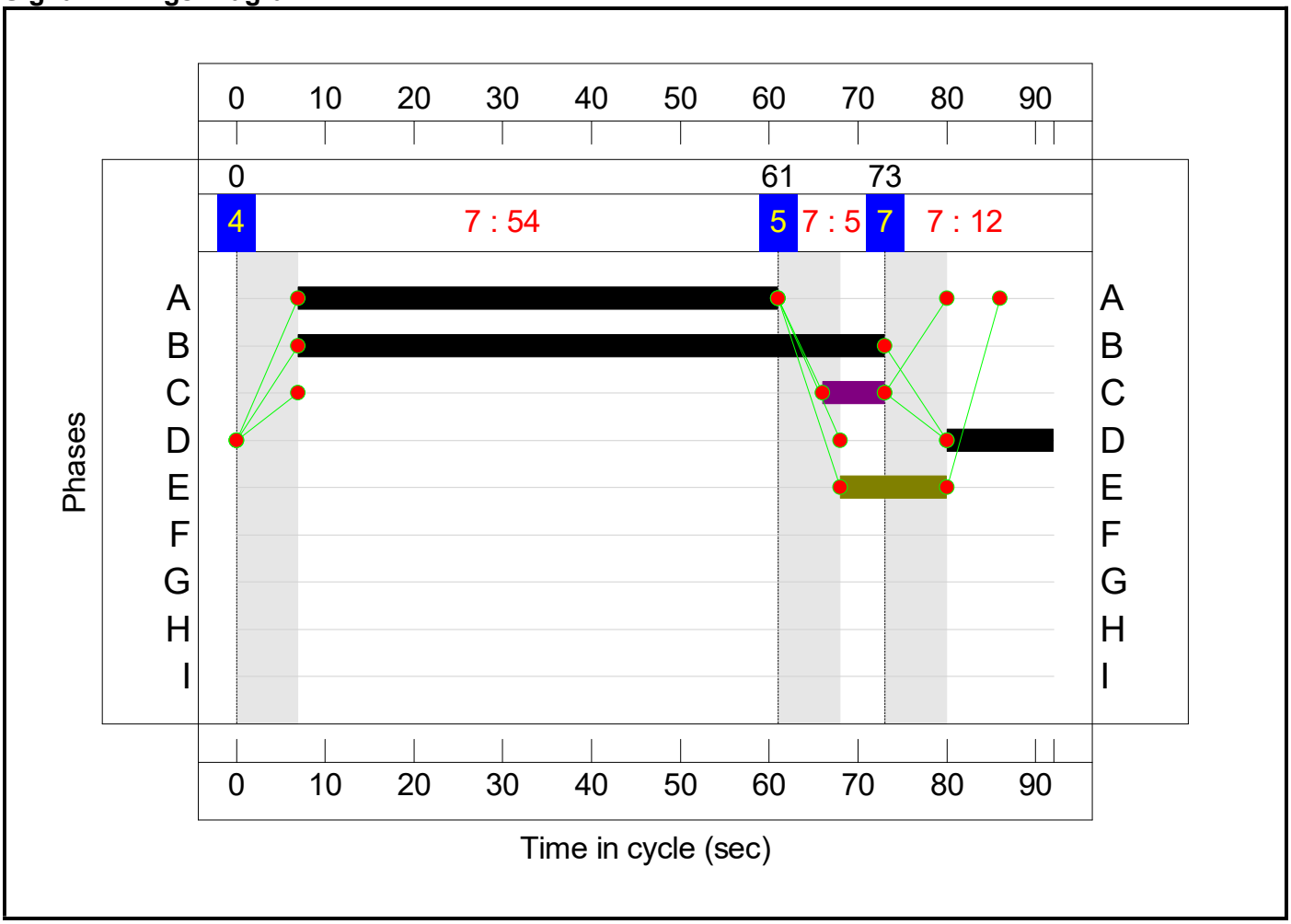
Stage Sequence Diagram



Stage Timings

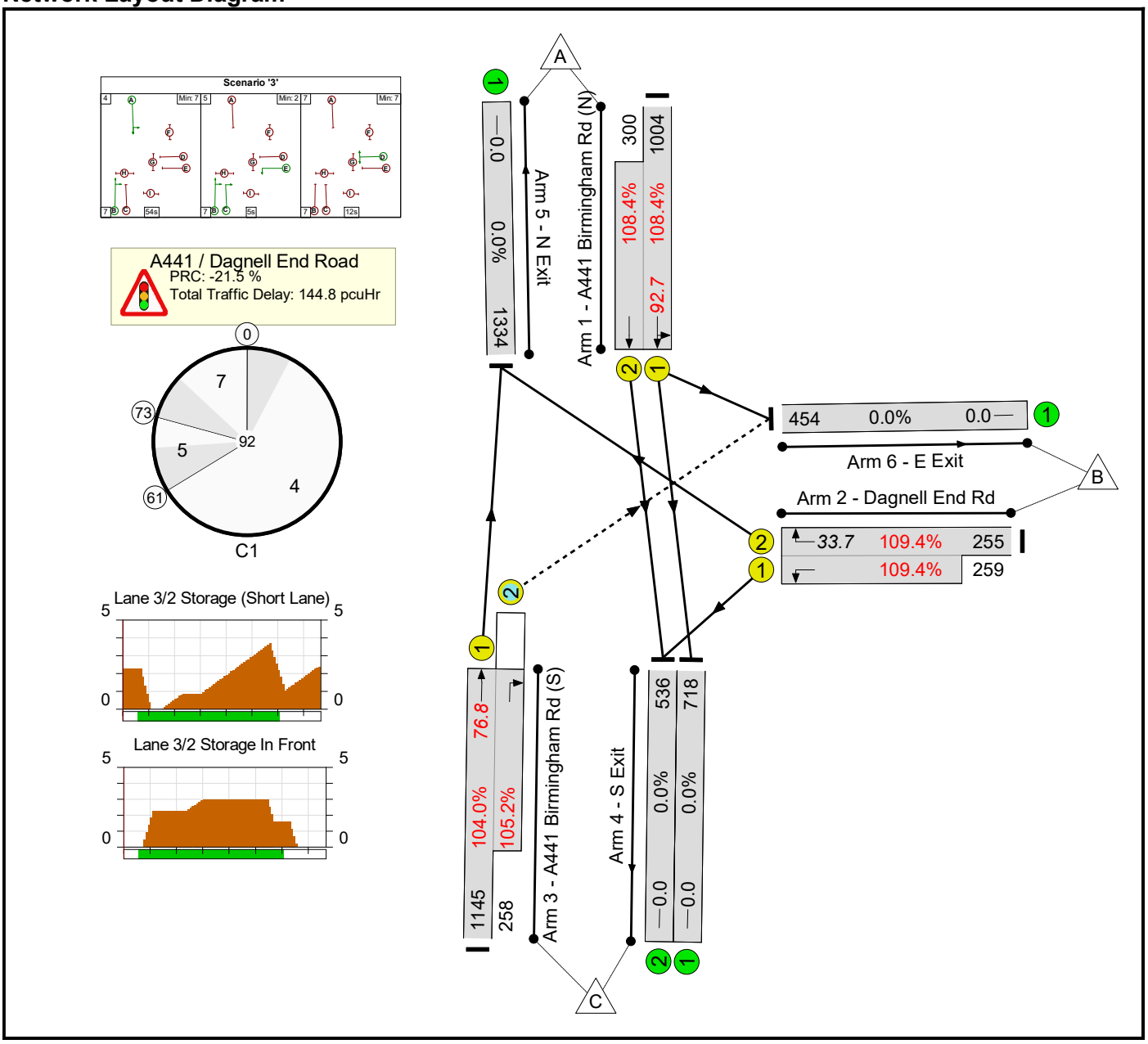
Stage	4	5	7
Duration	54	5	12
Change Point	0	61	73

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**109.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**109.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	54	-	1304	1812:1878	926+277	108.4 : 108.4%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	12:24	12	514	1650:1852	233+237	109.4 : 109.4%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	66	7	1403	1726:1679	1101+245	104.0 : 105.2%
4/1	S Exit	U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	559	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1400	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**183**	**63**	**22.3**	**120.8**	**1.6**	**144.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**183**	**63**	**22.3**	**120.8**	**1.6**	**144.8**	**-**	**-**	**-**	**-**
1/1+1/2	1304	1203	-	-	-	10.1	56.2	-	66.3 (51.2+15.1)	182.9 (183.6:180.6)	36.5	56.2	92.7
2/2+2/1	514	492	-	-	-	5.4	26.8	-	32.2 (16.7+15.6)	225.8 (235.5:216.2)	6.9	26.8	33.7
3/1+3/2	1403	1346	0	183	63	6.9	37.8	1.6	46.3 (34.9+11.4)	118.8 (109.8:159.0)	39.0	37.8	76.8
4/1	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	536	536	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1334	1334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	454	454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -21.5
PRC Over All Lanes (%): -21.5

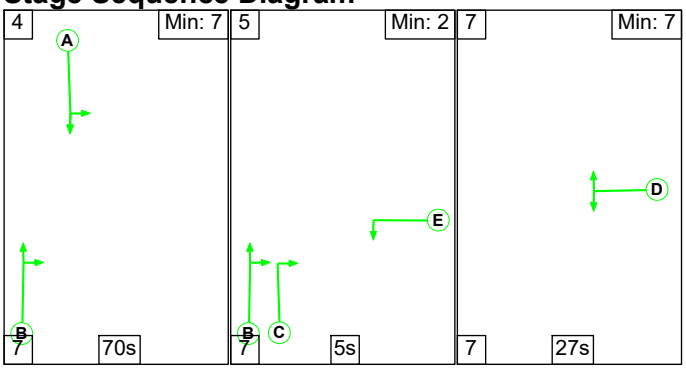
Total Delay for Signalled Lanes (pcuHr): 144.80
Total Delay Over All Lanes(pcuHr): 144.80

Cycle Time (s): 92

Full Input Data And Results

Scenario 4: '4' (FG4: '2030 PM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

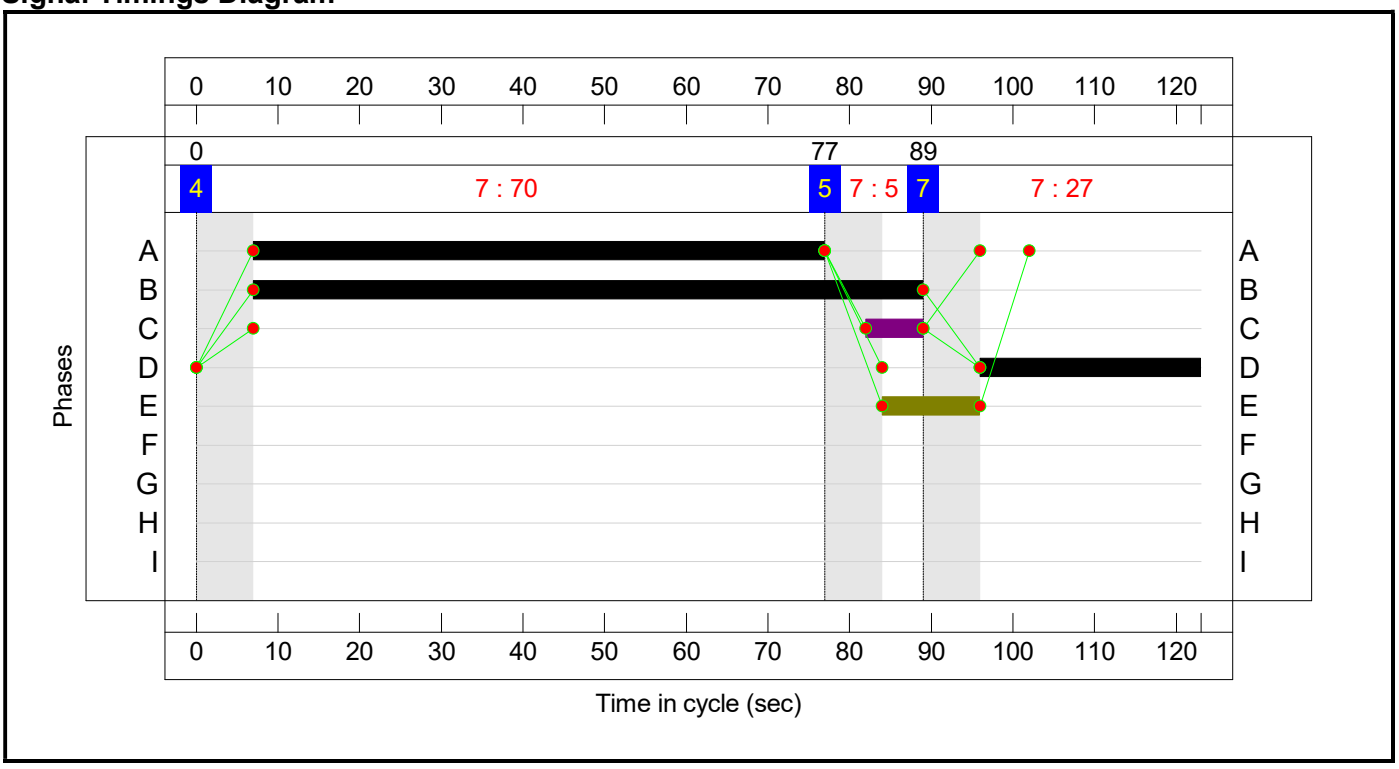
Stage Sequence Diagram



Stage Timings

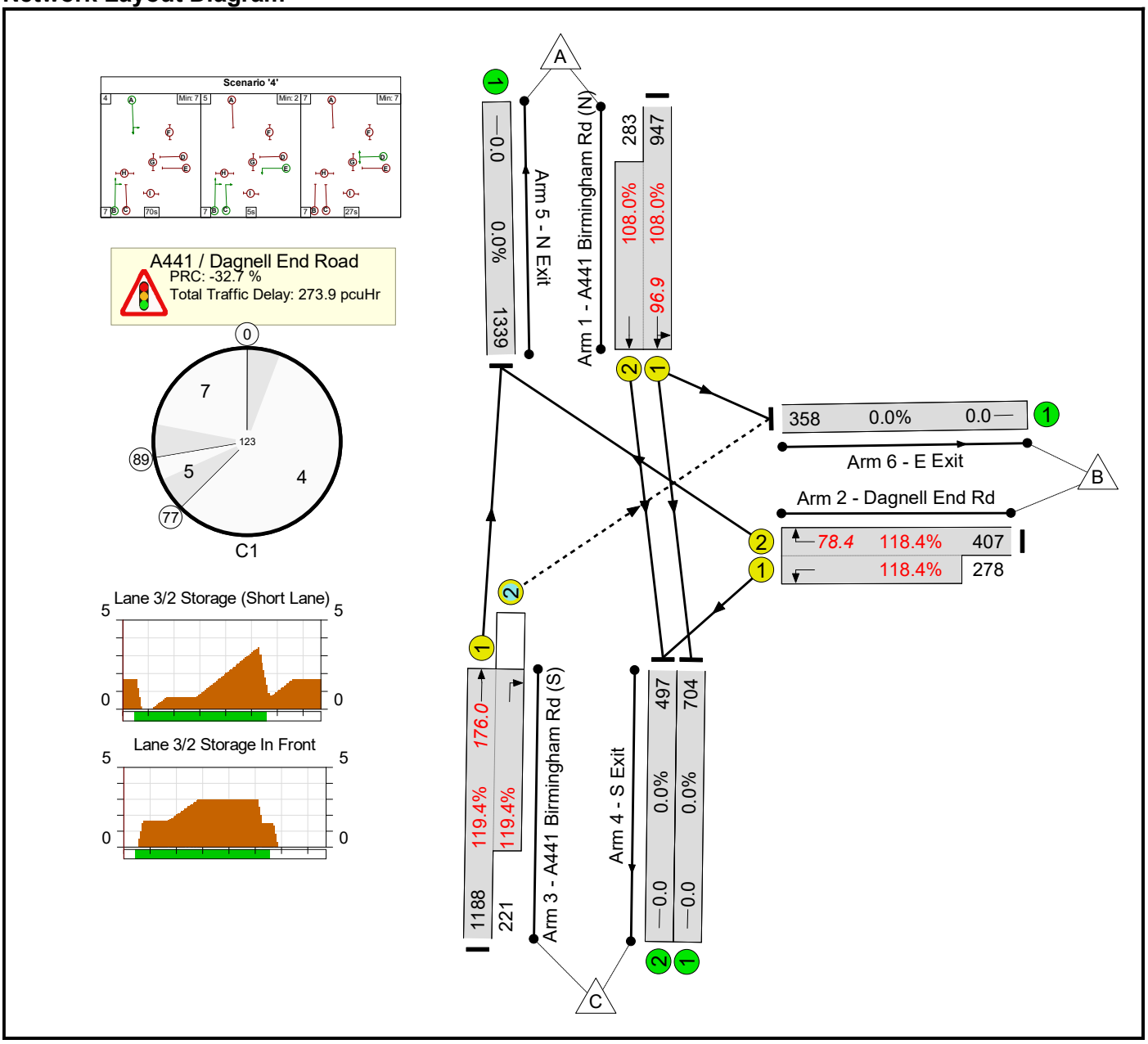
Stage	4	5	7
Duration	70	5	27
Change Point	0	77	89

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**119.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**119.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	70	-	1230	1817:1878	877+262	108.0 : 108.0%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	27:39	12	685	1650:1852	344+235	118.4 : 118.4%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	82	7	1409	1641:1800	995+185	119.4 : 119.4%
4/1	S Exit	U	N/A	N/A	-		-	-	-	760	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1595	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%

Full Input Data And Results

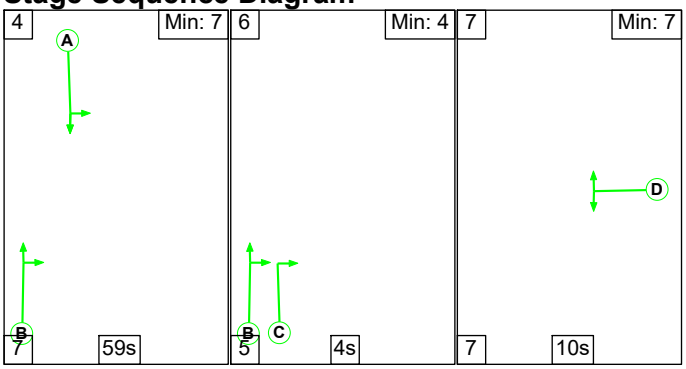
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**0**	**146**	**39**	**47.3**	**225.2**	**1.5**	**273.9**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**146**	**39**	**47.3**	**225.2**	**1.5**	**273.9**	**-**	**-**	**-**	**-**
1/1+1/2	1230	1139	-	-	-	13.2	51.4	-	64.6 (49.9+14.7)	189.0 (189.6:187.1)	45.6	51.4	96.9
2/2+2/1	685	578	-	-	-	13.9	56.3	-	70.2 (42.4+27.8)	368.9 (374.8:360.3)	22.0	56.3	78.4
3/1+3/2	1409	1180	0	146	39	20.2	117.5	1.5	139.2 (115.8+23.4)	355.6 (350.9:380.8)	58.5	117.5	176.0
4/1	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1339	1339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -32.7 Total Delay for Signalled Lanes (pcuHr): 273.92 Cycle Time (s): 123
PRC Over All Lanes (%): -32.7 Total Delay Over All Lanes(pcuHr): 273.92

Full Input Data And Results

Scenario 5: '5' (FG1: '2030 AM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

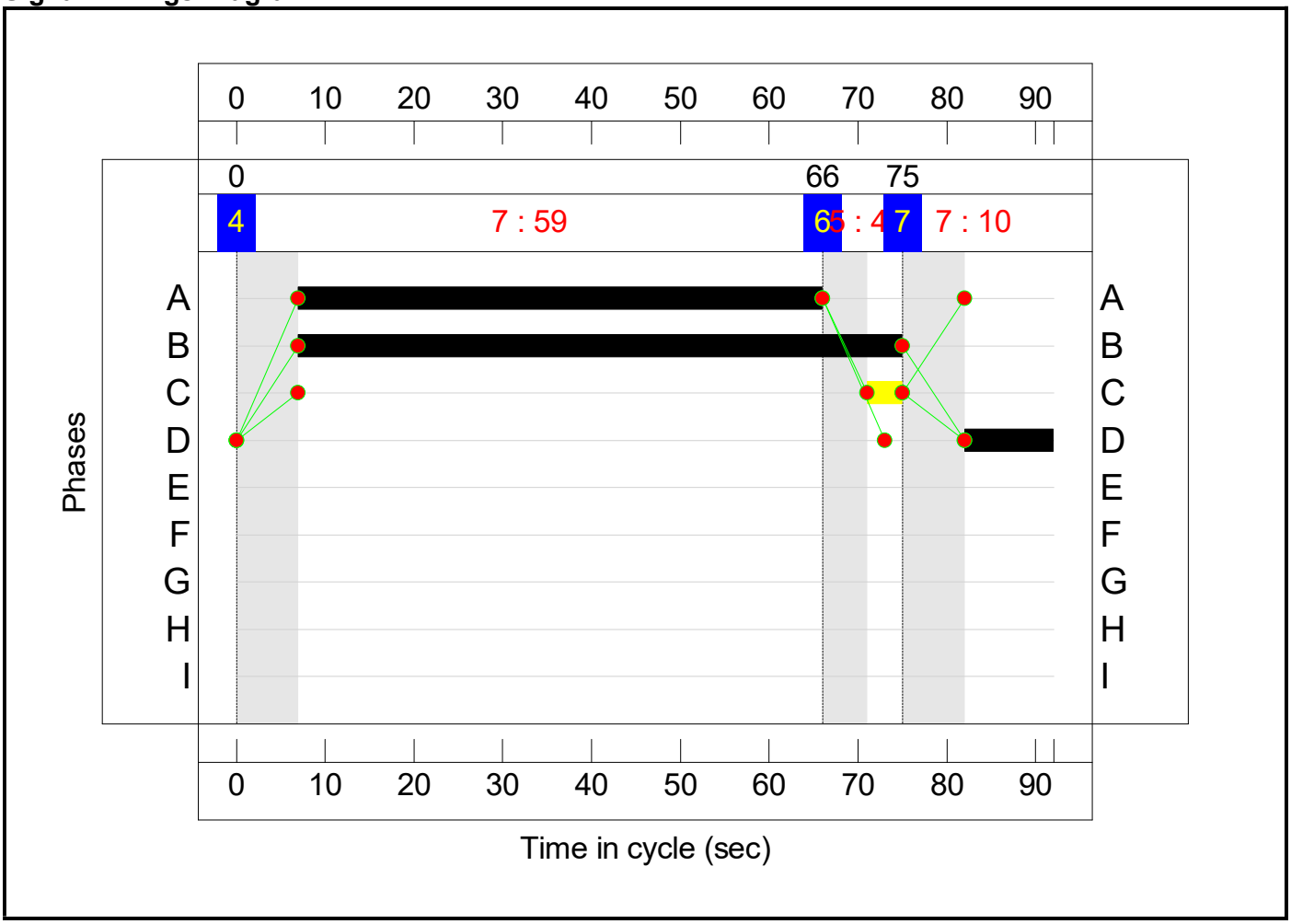
Stage Sequence Diagram



Stage Timings

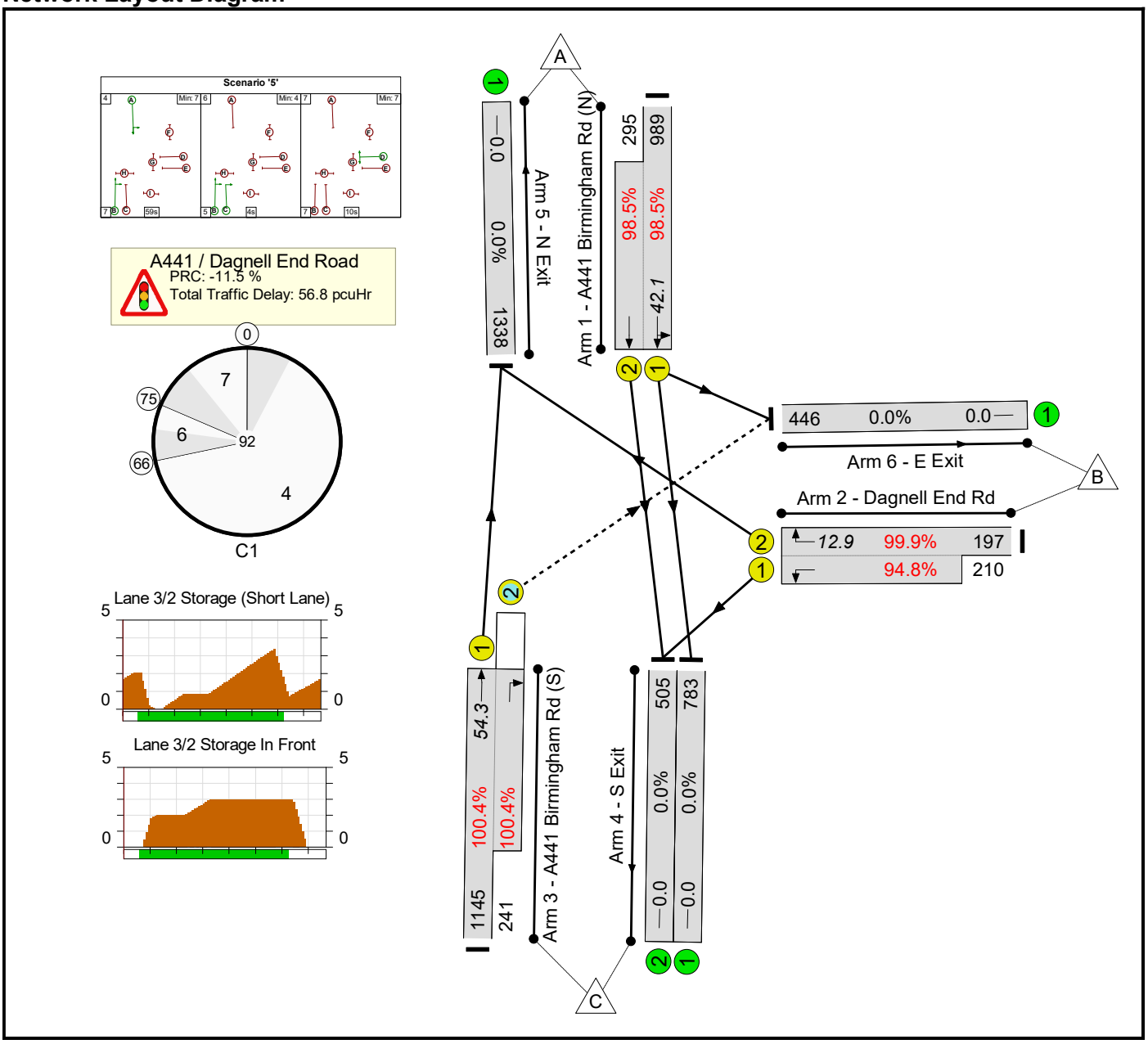
Stage	4	6	7
Duration	59	4	10
Change Point	0	66	75

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**100.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**100.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	59	-	1284	1815:1878	1004+299	98.5 : 98.5%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	10	0	407	1650:1852	197+221	99.9 : 94.8%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	68	4	1386	1726:1679	1141+240	100.4 : 100.4%
4/1	S Exit	U	N/A	N/A	-		-	-	-	783	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1342	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**1**	**128**	**111**	**13.7**	**41.3**	**1.8**	**56.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**1**	**128**	**111**	**13.7**	**41.3**	**1.8**	**56.8**	**-**	**-**	**-**	**-**
1/1+1/2	1284	1284	-	-	-	4.7	13.7	-	18.4 (14.4+4.1)	51.7 (52.3:49.5)	28.4	13.7	42.1
2/2+2/1	407	407	-	-	-	4.6	7.6	-	12.1 (5.9+6.3)	107.4 (107.5:107.2)	5.3	7.6	12.9
3/1+3/2	1386	1381	1	128	111	4.4	20.0	1.8	26.2 (19.9+6.3)	68.1 (62.4:94.8)	34.3	20.0	54.3
4/1	783	783	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1338	1338	-	-	-	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

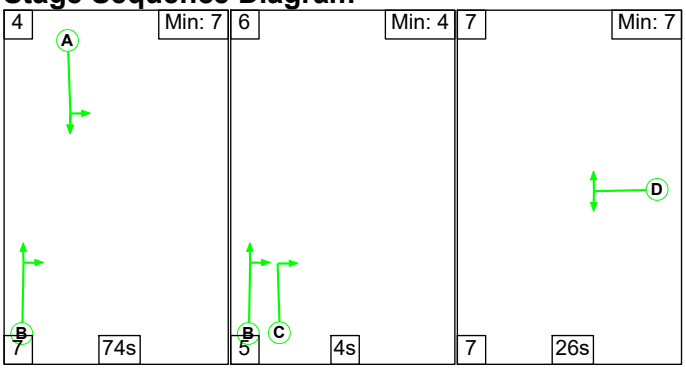
C1 PRC for Signalled Lanes (%): -11.5 Total Delay for Signalled Lanes (pcuHr): 56.78 Cycle Time (s): 92

PRC Over All Lanes (%): -11.5 Total Delay Over All Lanes(pcuHr): 56.78

Full Input Data And Results

Scenario 6: '6' (FG2: '2030 PM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

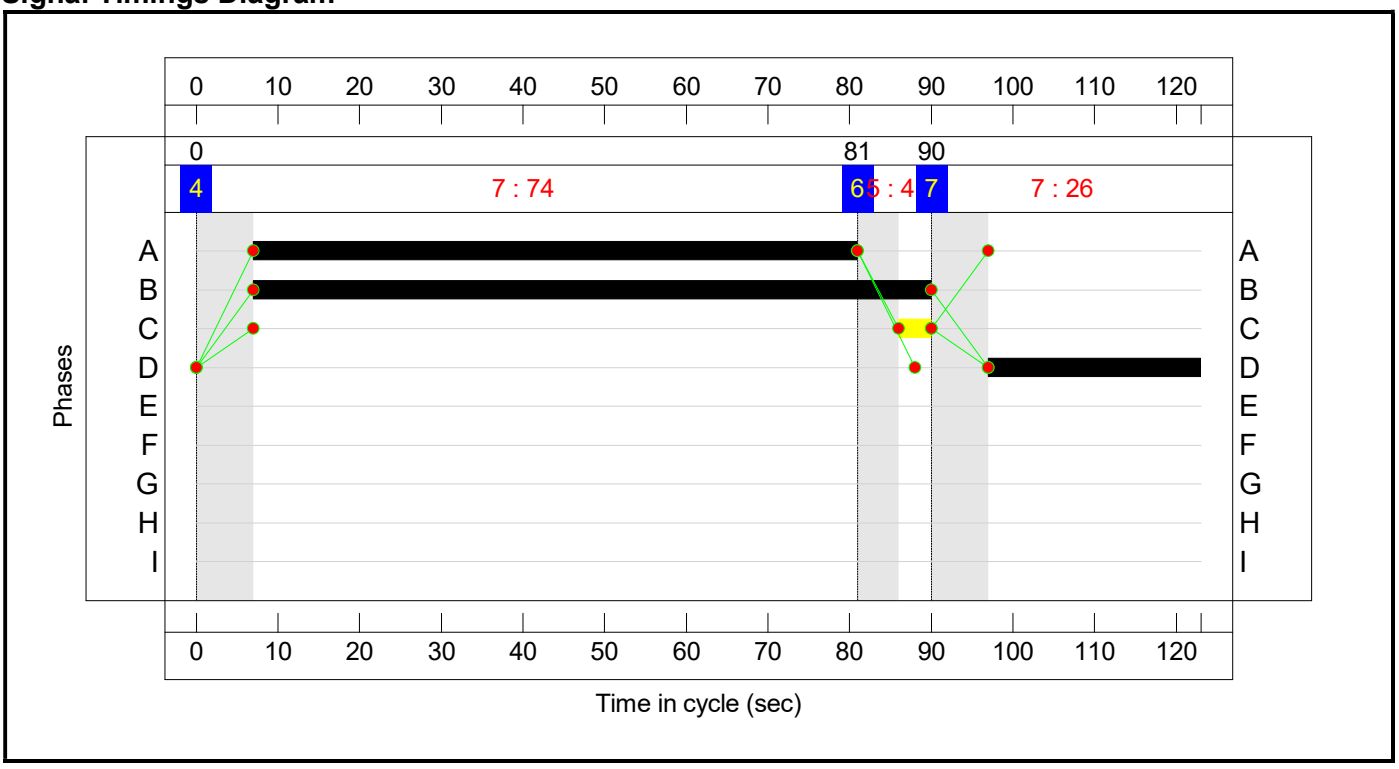
Stage Sequence Diagram



Stage Timings

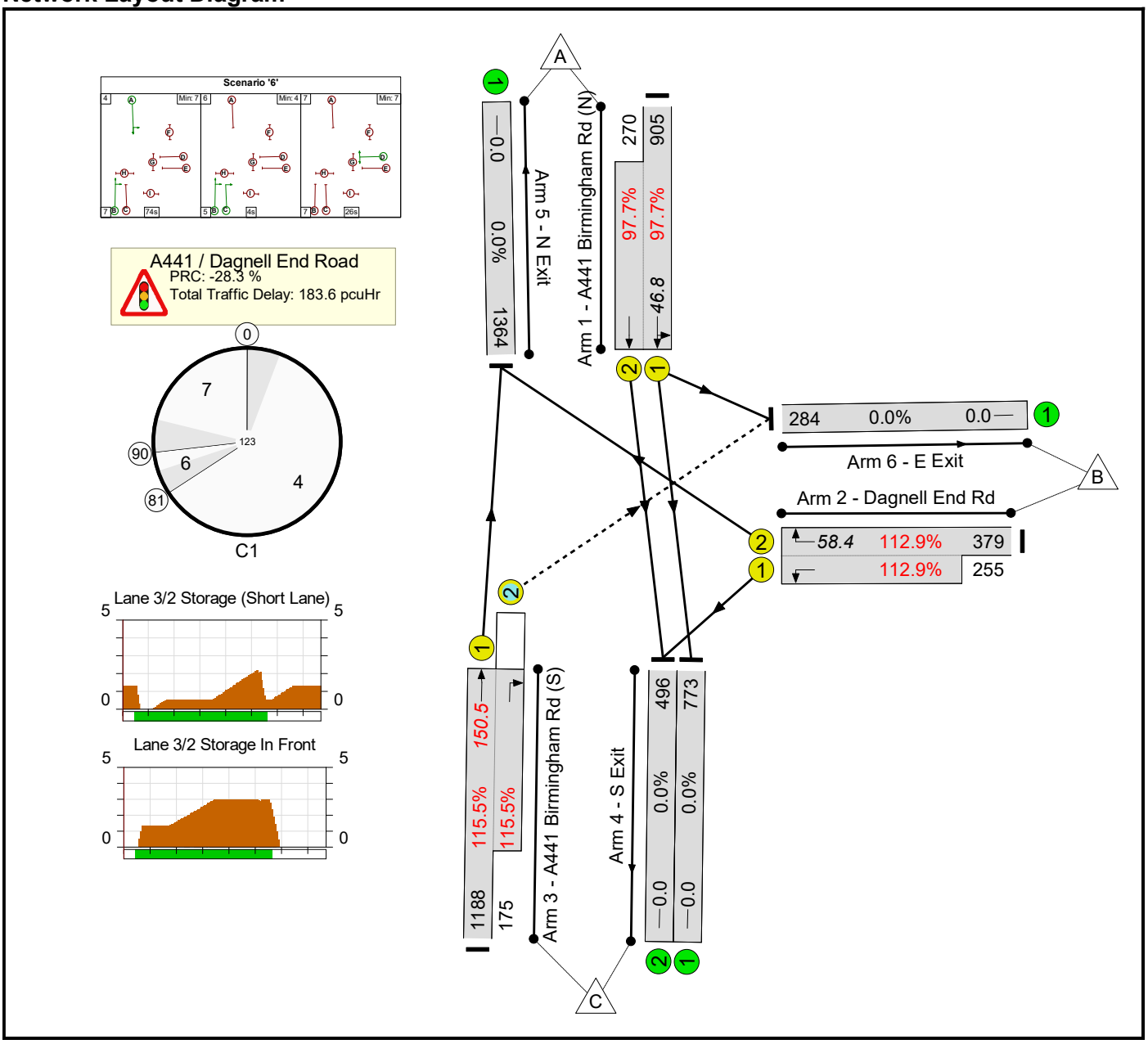
Stage	4	6	7
Duration	74	4	26
Change Point	0	81	90

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.5%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.5%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	74	-	1175	1828:1878	926+276	97.7 : 97.7%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	26	0	634	1650:1852	336+226	112.9 : 112.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	83	4	1363	1641:1800	1029+152	115.5 : 115.5%
4/1	S Exit	U	N/A	N/A	-		-	-	-	773	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1567	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%

Full Input Data And Results

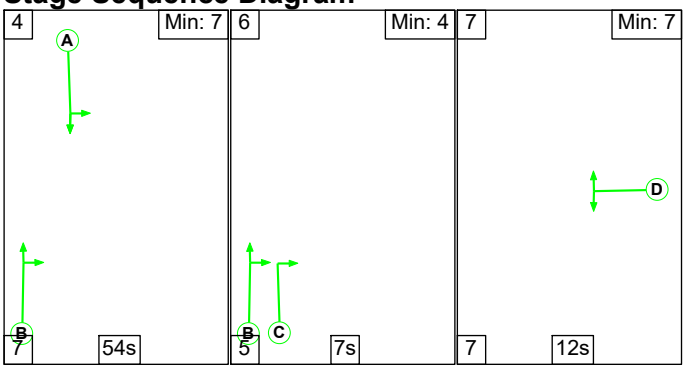
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**6**	**102**	**43**	**35.3**	**146.8**	**1.4**	**183.6**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**6**	**102**	**43**	**35.3**	**146.8**	**1.4**	**183.6**	**-**	**-**	**-**	**-**
1/1+1/2	1175	1175	-	-	-	6.8	11.6	-	18.4 (14.3+4.1)	56.2 (56.8:54.4)	35.2	11.6	46.8
2/2+2/1	634	561	-	-	-	11.5	40.2	-	51.8 (31.3+20.5)	293.9 (297.0:289.2)	18.2	40.2	58.4
3/1+3/2	1363	1180	6	102	43	17.0	94.9	1.4	113.4 (97.5+15.9)	299.6 (295.5:327.8)	55.5	94.9	150.5
4/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1364	1364	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -28.3 Total Delay for Signalled Lanes (pcuHr): 183.55 Cycle Time (s): 123
PRC Over All Lanes (%): -28.3 Total Delay Over All Lanes(pcuHr): 183.55

Full Input Data And Results

Scenario 7: '7' (FG3: '2030 AM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

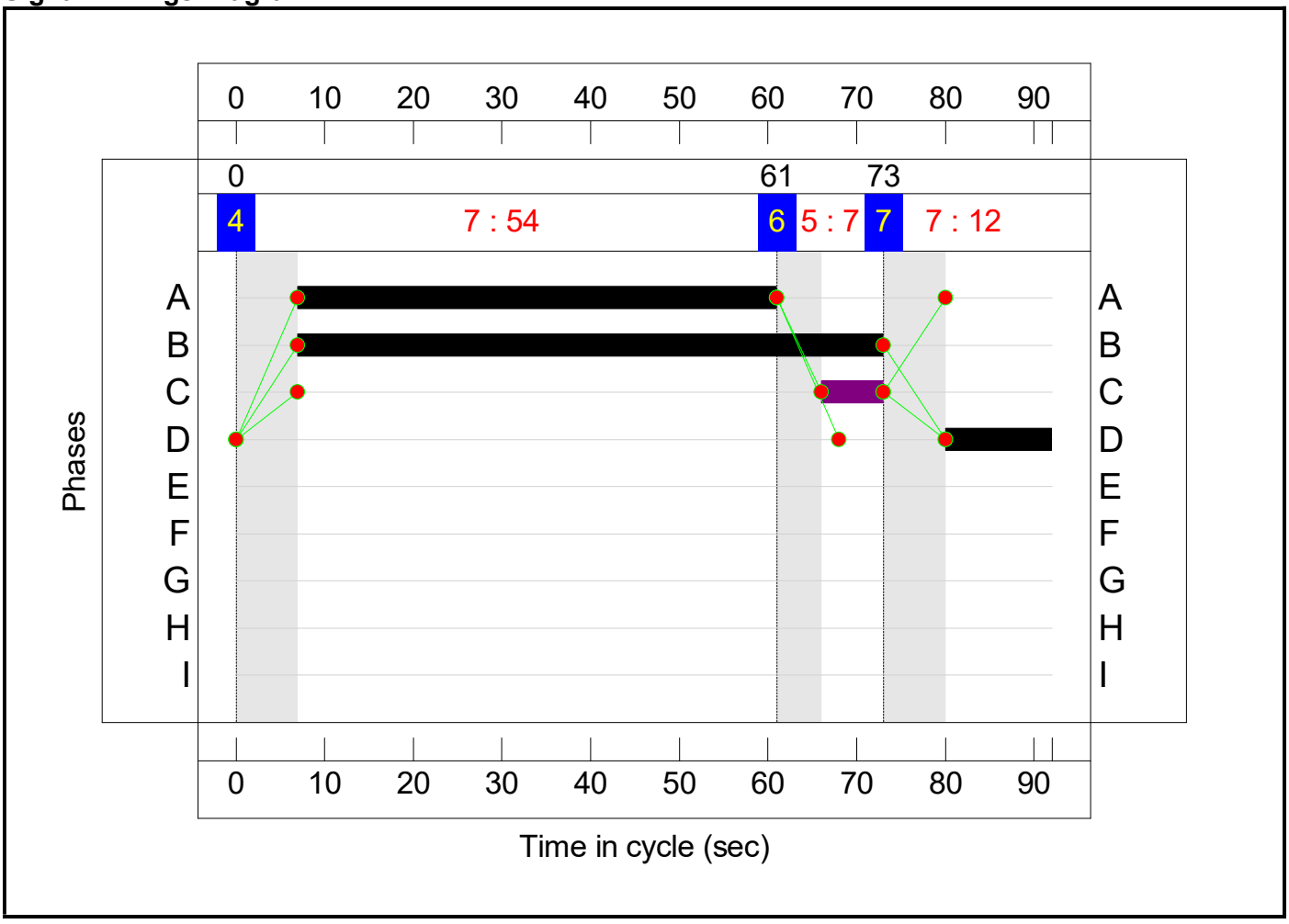
Stage Sequence Diagram



Stage Timings

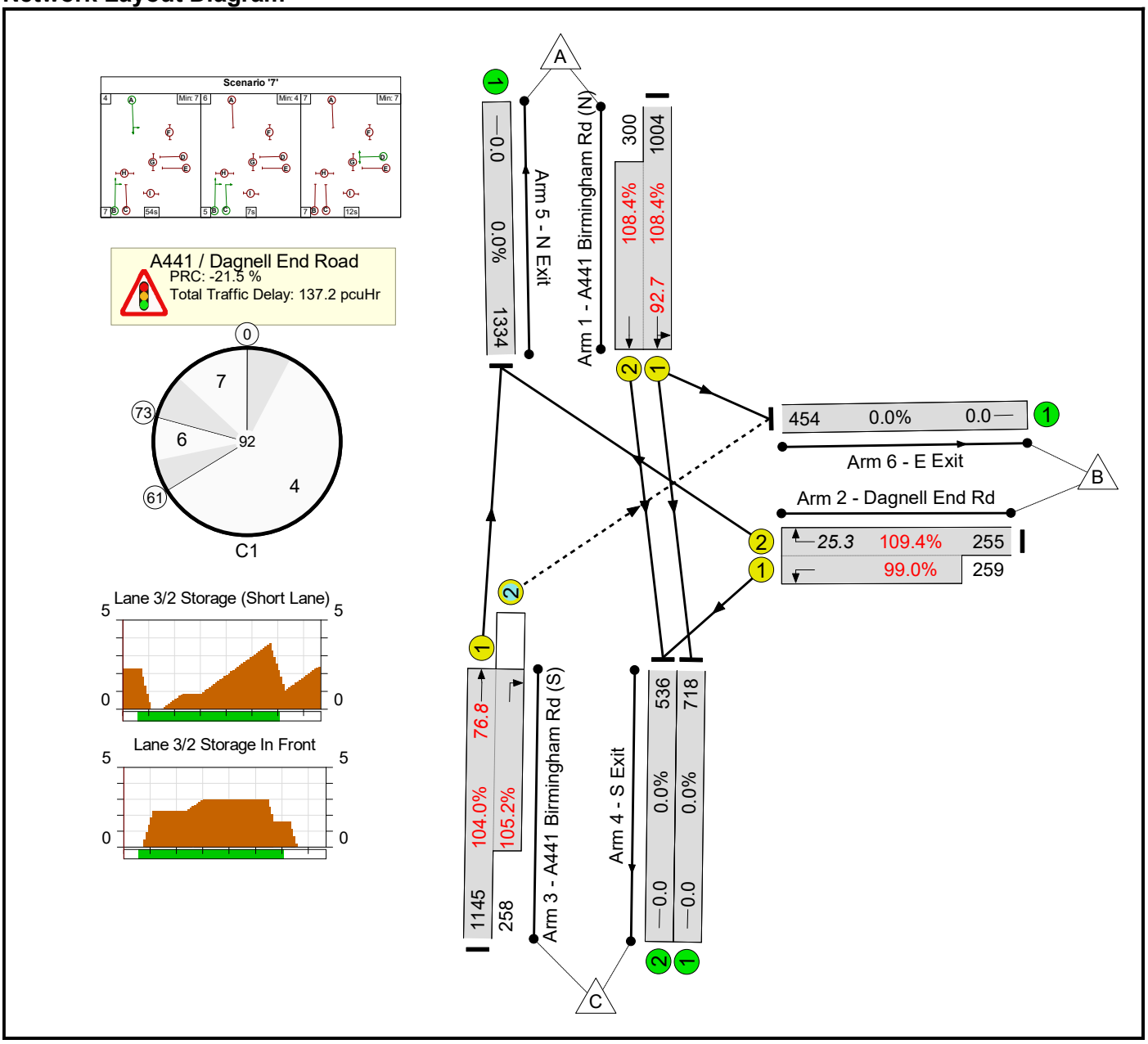
Stage	4	6	7
Duration	54	7	12
Change Point	0	61	73

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**109.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**109.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	54	-	1304	1812:1878	926+277	108.4 : 108.4%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	12	0	514	1650:1852	233+262	109.4 : 99.0%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	66	7	1403	1726:1679	1101+245	104.0 : 105.2%
4/1	S Exit	U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	559	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1400	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**183**	**63**	**23.1**	**112.5**	**1.6**	**137.2**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**183**	**63**	**23.1**	**112.5**	**1.6**	**137.2**	**-**	**-**	**-**	**-**
1/1+1/2	1304	1203	-	-	-	10.1	56.2	-	66.3 (51.2+15.1)	182.9 (183.6:180.6)	36.5	56.2	92.7
2/2+2/1	514	492	-	-	-	6.2	18.4	-	24.7 (18.0+6.6)	172.7 (254.6:92.1)	6.9	18.4	25.3
3/1+3/2	1403	1346	0	183	63	6.9	37.8	1.6	46.3 (34.9+11.4)	118.8 (109.8:159.0)	39.0	37.8	76.8
4/1	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	536	536	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1334	1334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	454	454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -21.5
PRC Over All Lanes (%): -21.5

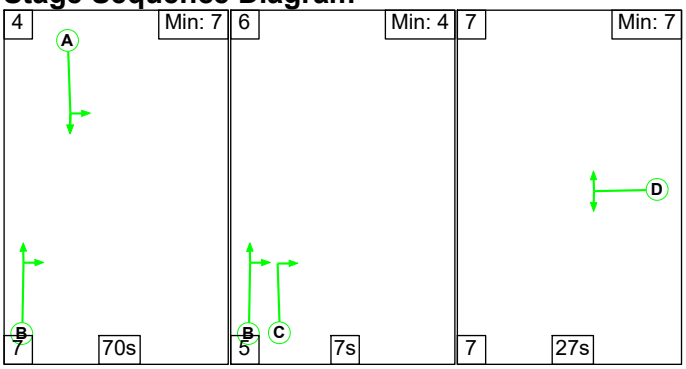
Total Delay for Signalled Lanes (pcuHr): 137.22
Total Delay Over All Lanes(pcuHr): 137.22

Cycle Time (s): 92

Full Input Data And Results

Scenario 8: '8' (FG4: '2030 PM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

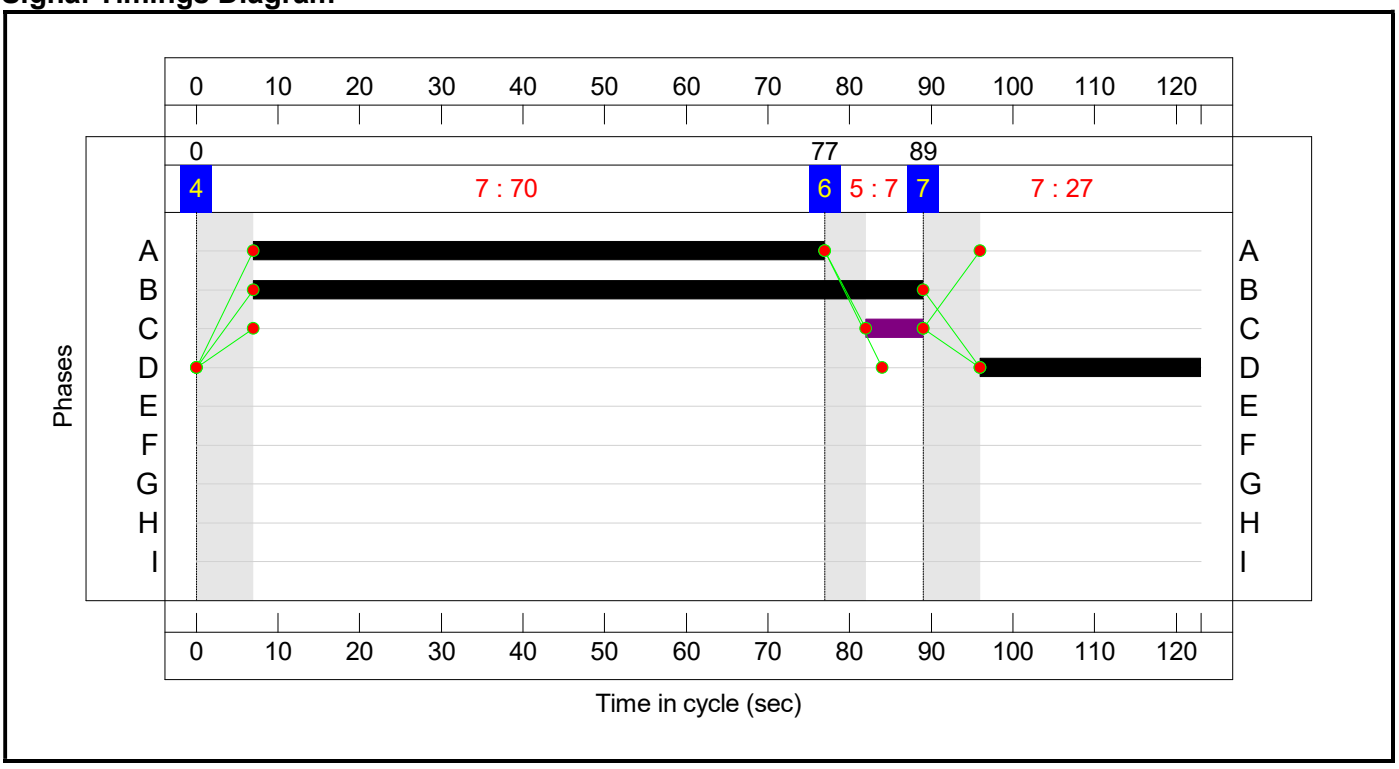
Stage Sequence Diagram



Stage Timings

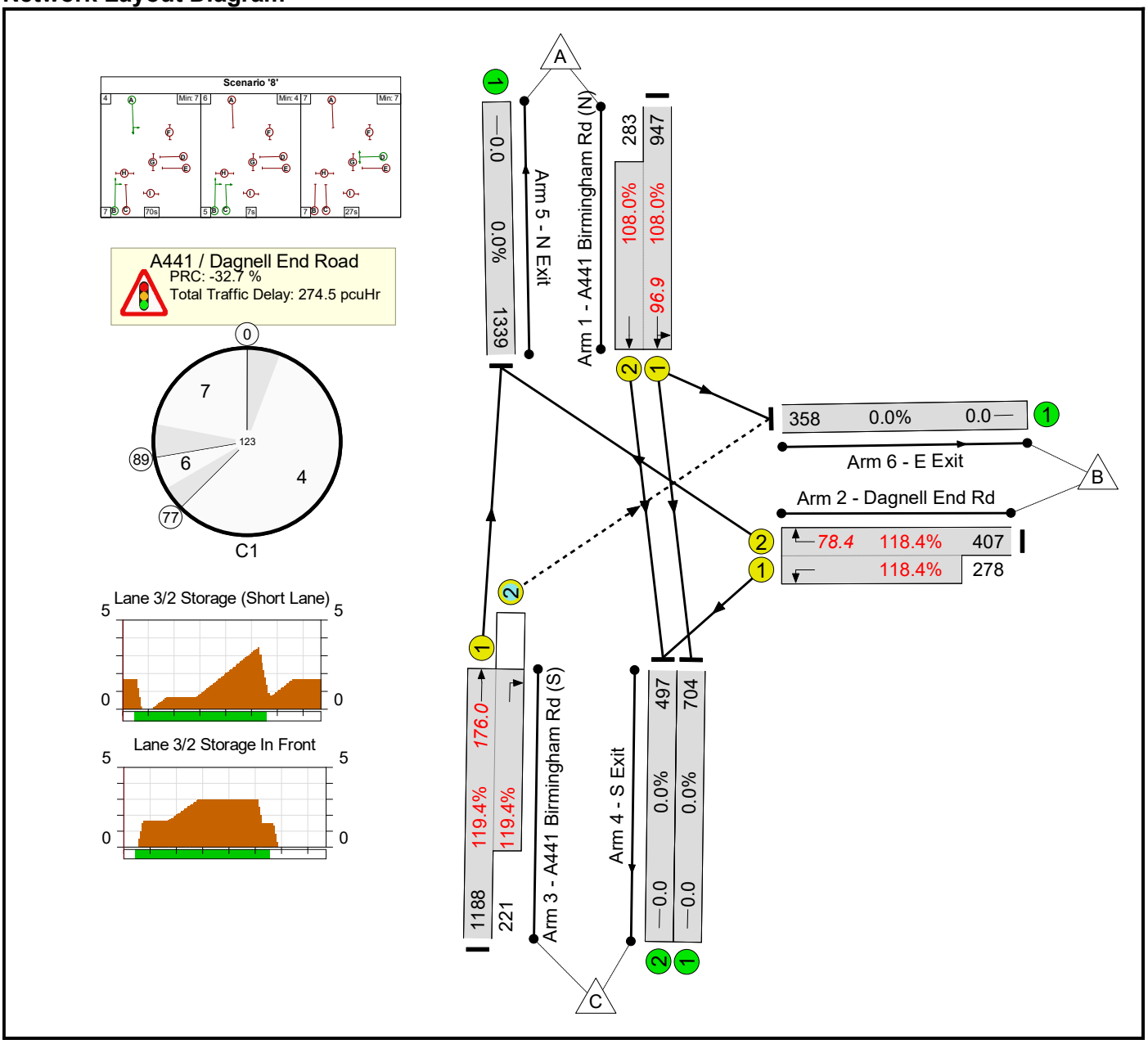
Stage	4	6	7
Duration	70	7	27
Change Point	0	77	89

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**119.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**119.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	70	-	1230	1817:1878	877+262	108.0 : 108.0%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	27	0	685	1650:1852	344+235	118.4 : 118.4%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	82	7	1409	1641:1800	995+185	119.4 : 119.4%
4/1	S Exit	U	N/A	N/A	-		-	-	-	760	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1595	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**146**	**39**	**47.8**	**225.2**	**1.5**	**274.5**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**146**	**39**	**47.8**	**225.2**	**1.5**	**274.5**	**-**	**-**	**-**	**-**
1/1+1/2	1230	1139	-	-	-	13.2	51.4	-	64.6 (49.9+14.7)	189.0 (189.6:187.1)	45.6	51.4	96.9
2/2+2/1	685	578	-	-	-	14.4	56.3	-	70.8 (42.4+28.4)	372.0 (374.8:367.8)	22.0	56.3	78.4
3/1+3/2	1409	1180	0	146	39	20.2	117.5	1.5	139.2 (115.8+23.4)	355.6 (350.9:380.8)	58.5	117.5	176.0
4/1	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	497	497	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1339	1339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -32.7
PRC Over All Lanes (%): -32.7

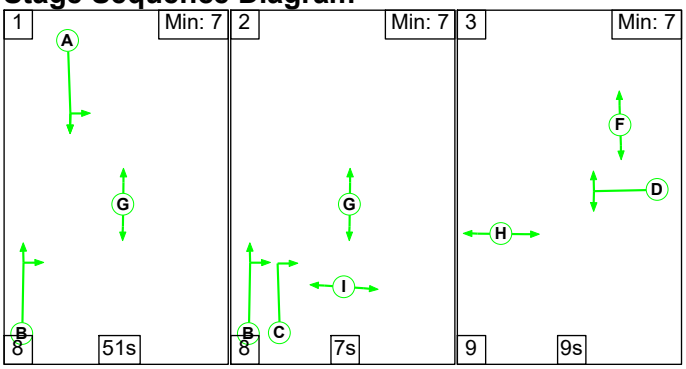
Total Delay for Signalled Lanes (pcuHr): 274.50
Total Delay Over All Lanes(pcuHr): 274.50

Cycle Time (s): 123

Full Input Data And Results

Scenario 9: '9' (FG1: '2030 AM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

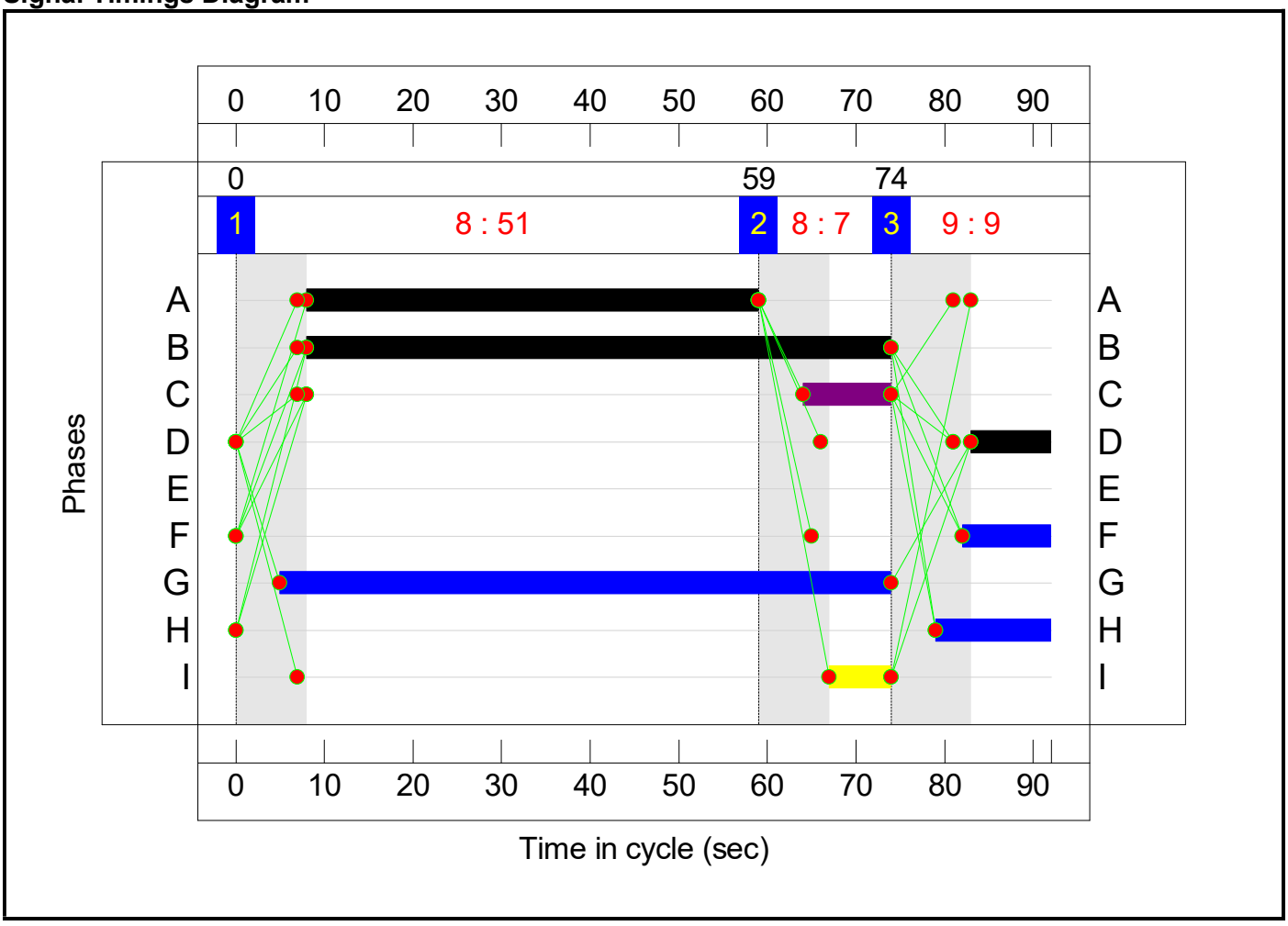
Stage Sequence Diagram



Stage Timings

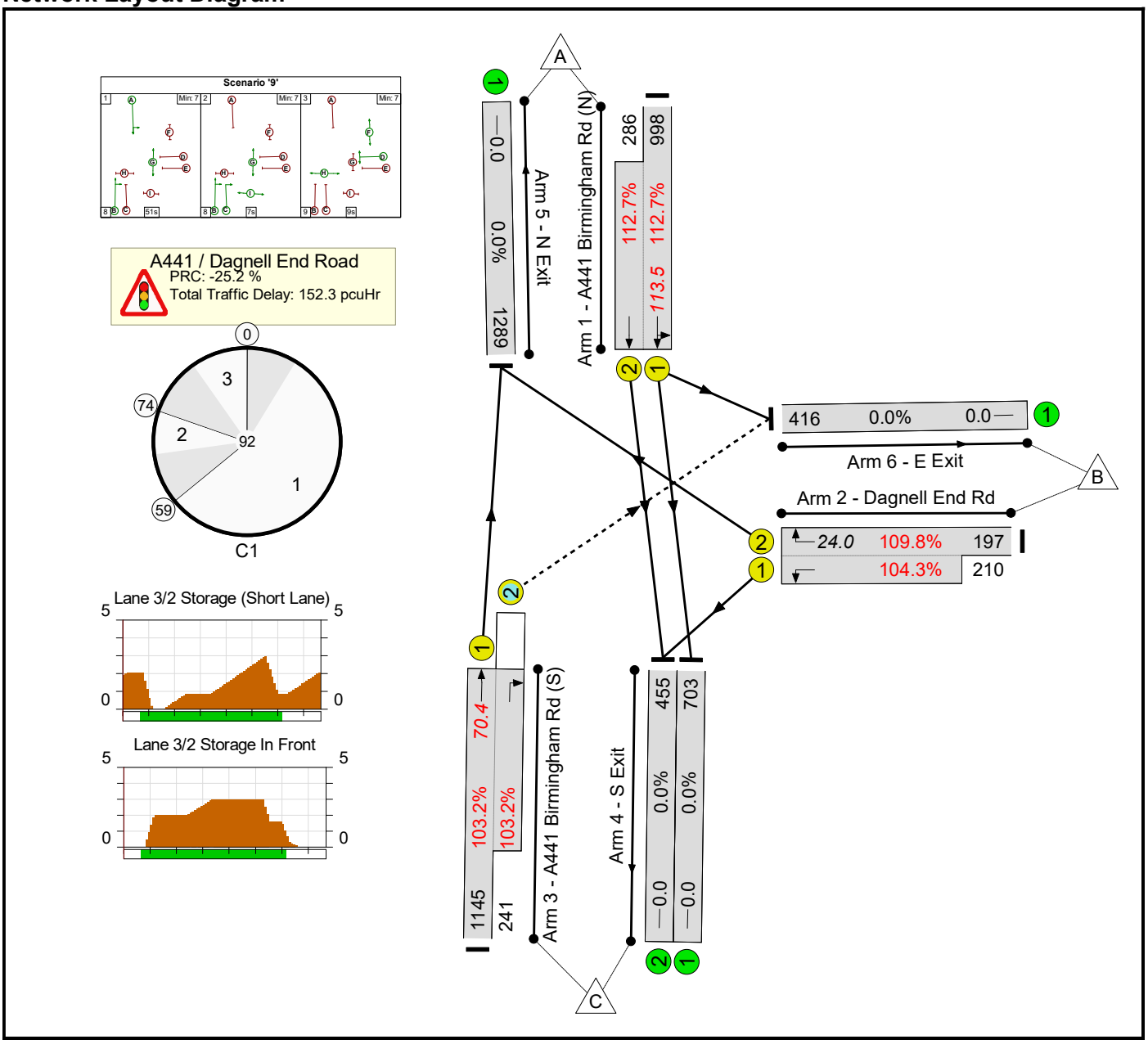
Stage	1	2	3
Duration	51	7	9
Change Point	0	59	74

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**112.7%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**112.7%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	51	-	1284	1816:1878	886+254	112.7 : 112.7%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	9	0	407	1650:1852	179+201	109.8 : 104.3%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	66	10	1386	1726:1679	1110+234	103.2 : 103.2%
4/1	S Exit	U	N/A	N/A	-		-	-	-	792	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1342	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**224**	**10**	**23.8**	**127.1**	**1.5**	**152.3**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**224**	**10**	**23.8**	**127.1**	**1.5**	**152.3**	**-**	**-**	**-**	**-**
1/1+1/2	1284	1140	-	-	-	12.4	76.3	-	88.7 (69.1+19.6)	248.6 (249.3:246.3)	37.2	76.3	113.5
2/2+2/1	407	381	-	-	-	5.3	18.6	-	24.0 (14.2+9.8)	212.1 (259.3:167.7)	5.4	18.6	24.0
3/1+3/2	1386	1343	0	224	10	6.1	32.1	1.5	39.7 (31.4+8.3)	103.1 (98.8:123.5)	38.3	32.1	70.4
4/1	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	455	455	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1289	1289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -25.2
PRC Over All Lanes (%): -25.2

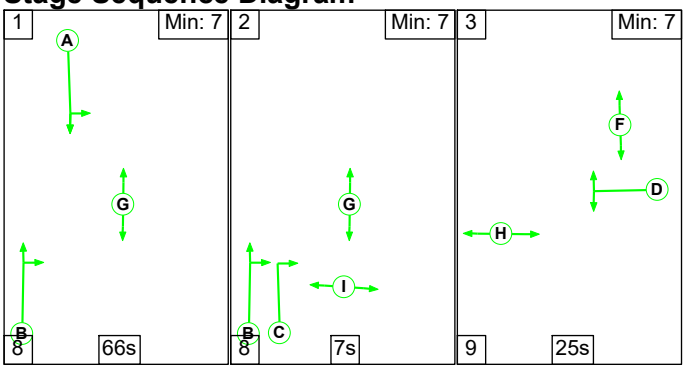
Total Delay for Signalled Lanes (pcuHr): 152.34
Total Delay Over All Lanes(pcuHr): 152.34

Cycle Time (s): 92

Full Input Data And Results

Scenario 10: '10' (FG2: '2030 PM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

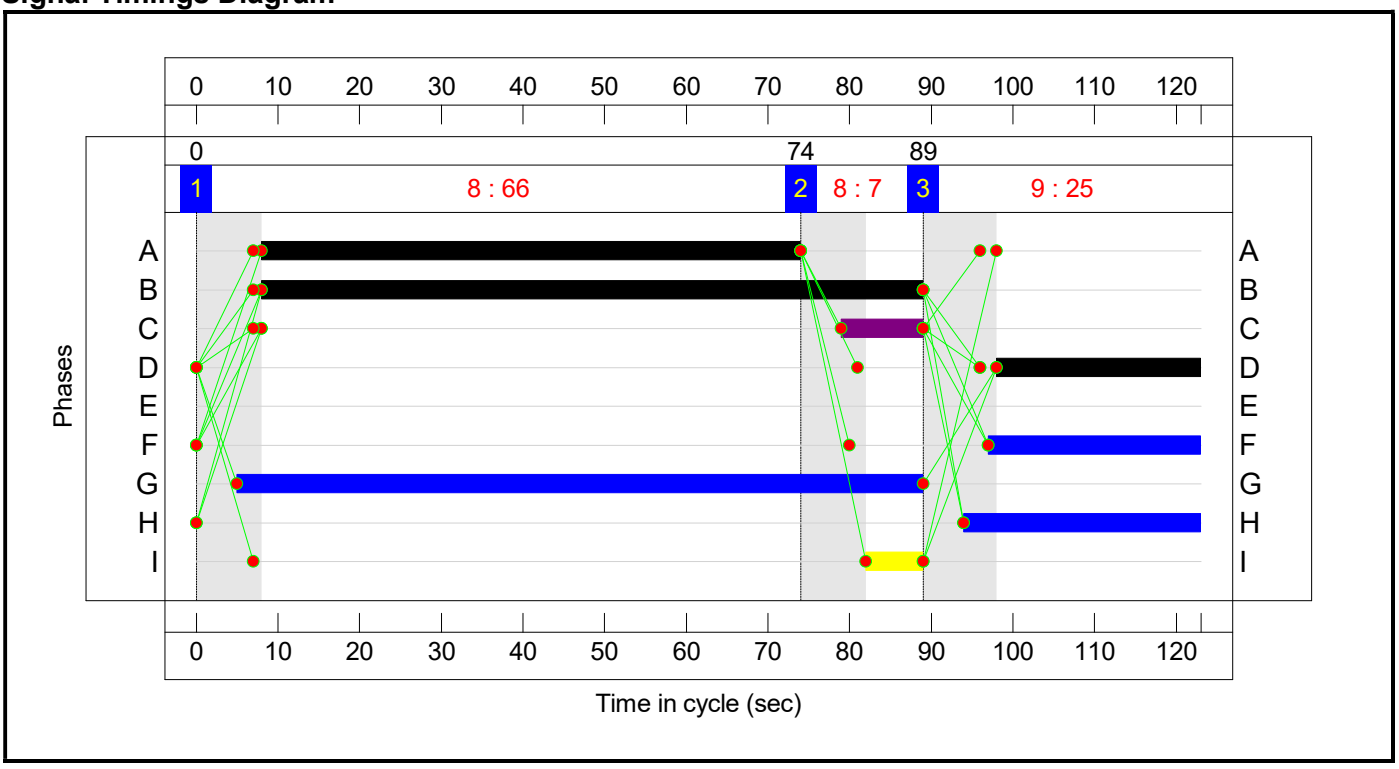
Stage Sequence Diagram



Stage Timings

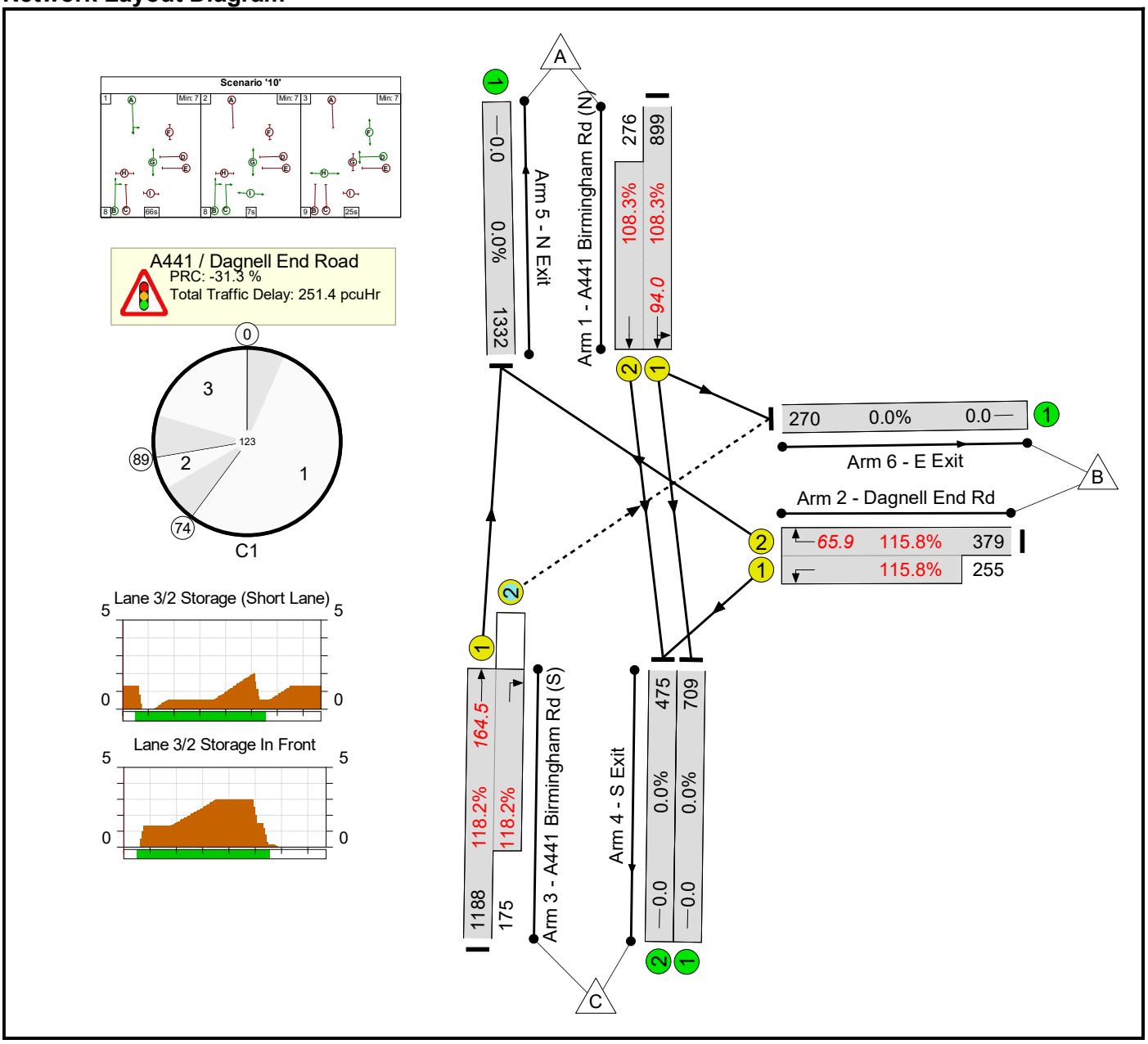
Stage	1	2	3
Duration	66	7	25
Change Point	0	74	89

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**118.2%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**118.2%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	66	-	1175	1828:1878	830+255	108.3 : 108.3%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	25	0	634	1650:1852	327+220	115.8 : 115.8%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	81	10	1363	1641:1800	1005+148	118.2 : 118.2%
4/1	S Exit	U	N/A	N/A	-		-	-	-	767	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1567	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	307	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**143**	**5**	**44.9**	**205.3**	**1.2**	**251.4**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**143**	**5**	**44.9**	**205.3**	**1.2**	**251.4**	**-**	**-**	**-**	**-**
1/1+1/2	1175	1085	-	-	-	13.4	50.6	-	64.0 (49.1+14.9)	196.1 (196.7:194.1)	43.4	50.6	94.0
2/2+2/1	634	547	-	-	-	12.6	46.7	-	59.3 (35.8+23.5)	336.9 (340.0:332.2)	19.2	46.7	65.9
3/1+3/2	1363	1153	0	143	5	18.8	108.0	1.2	128.1 (110.5+17.6)	338.2 (334.9:361.0)	56.5	108.0	164.5
4/1	709	709	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	475	475	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1332	1332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -31.3
PRC Over All Lanes (%): -31.3

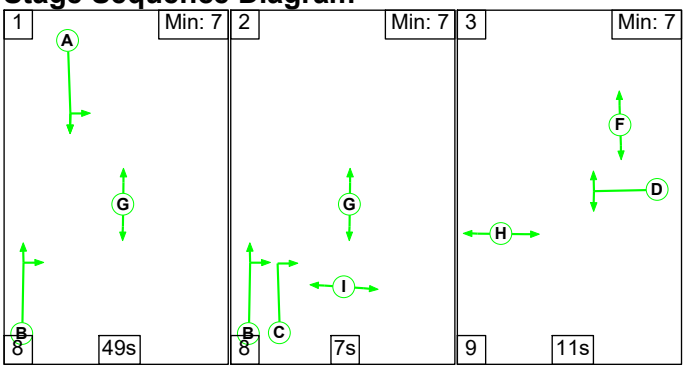
Total Delay for Signalled Lanes (pcuHr): 251.40
Total Delay Over All Lanes(pcuHr): 251.40

Cycle Time (s): 123

Full Input Data And Results

Scenario 11: '11' (FG3: '2030 AM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

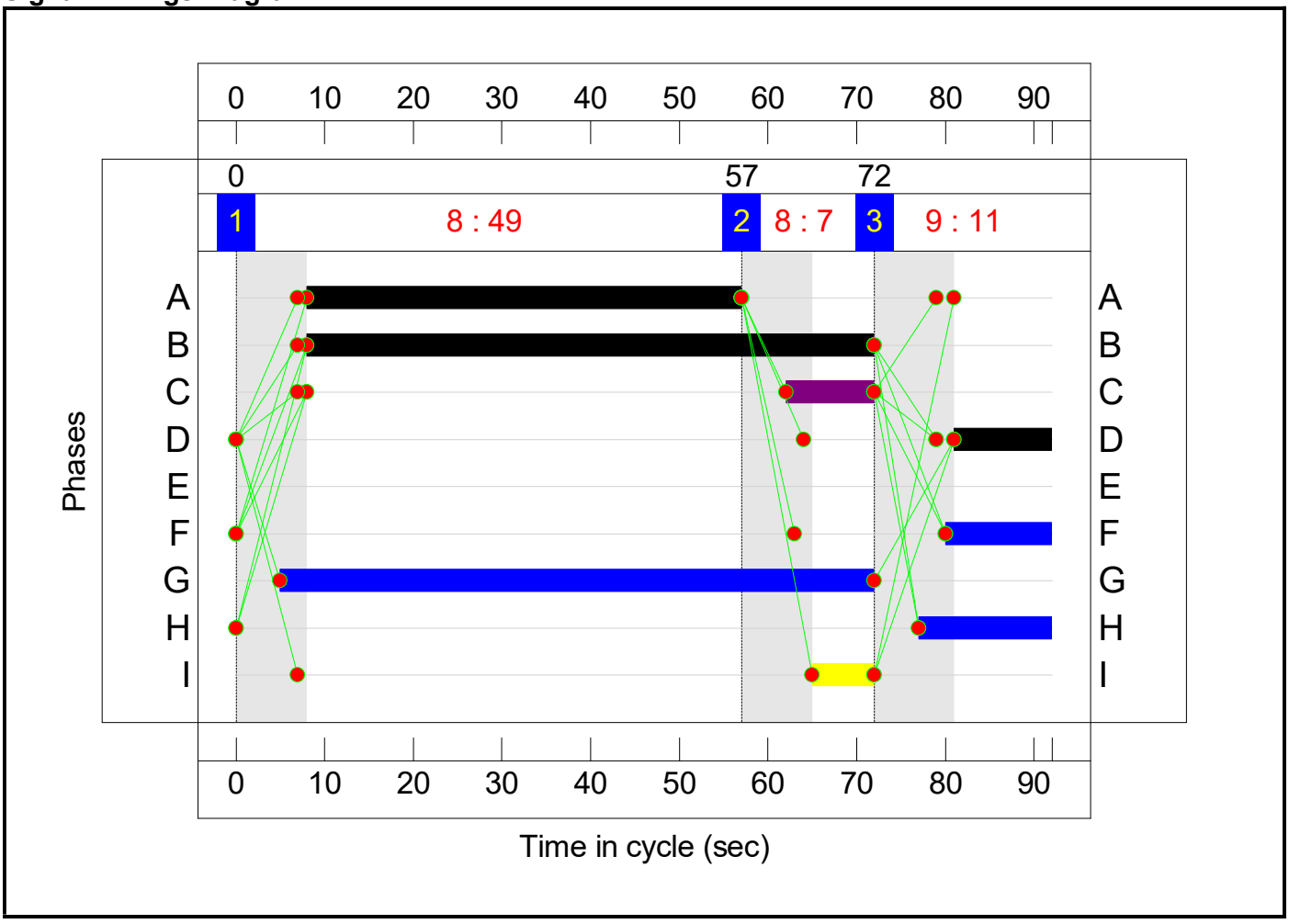
Stage Sequence Diagram



Stage Timings

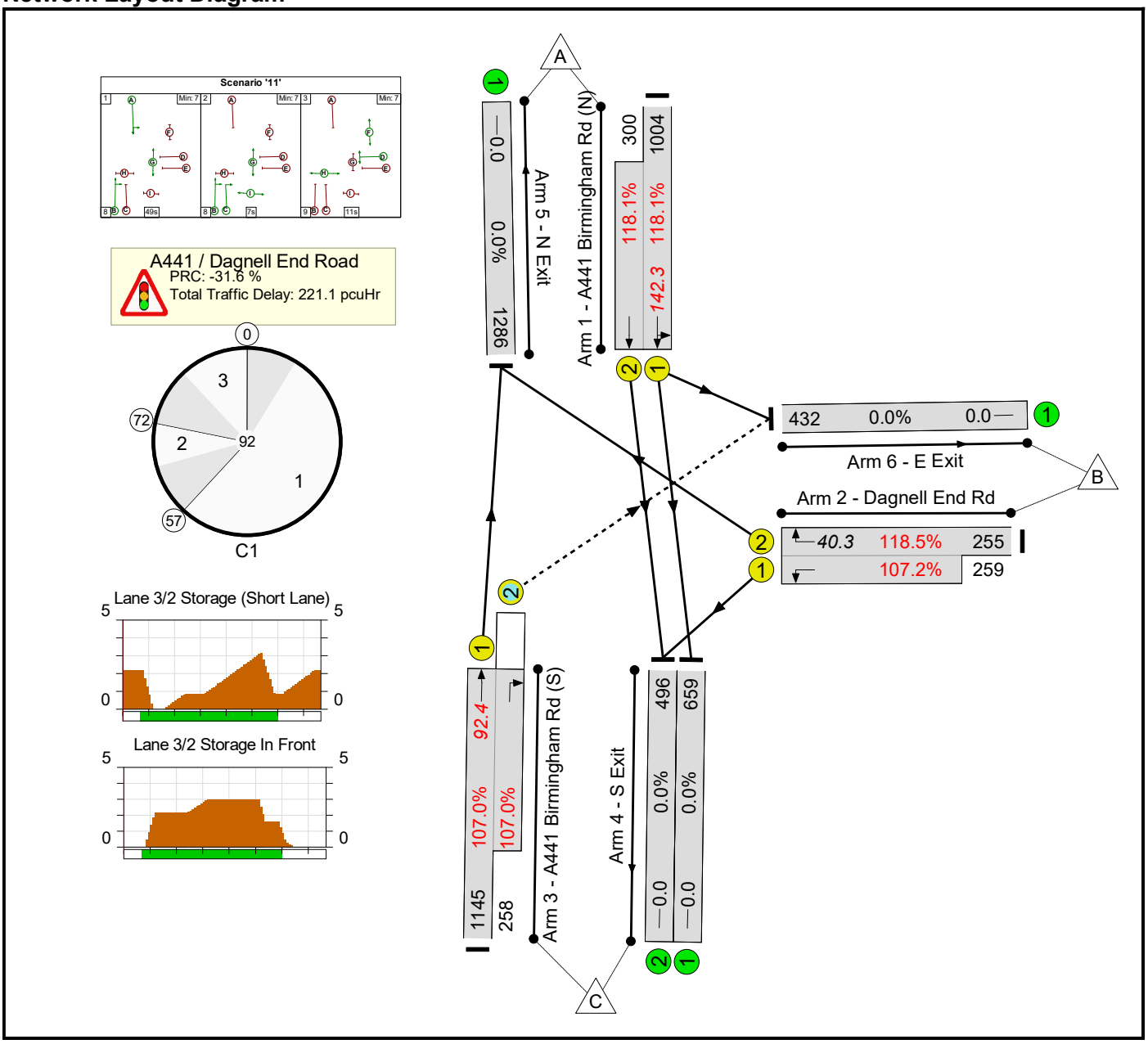
Stage	1	2	3
Duration	49	7	11
Change Point	0	57	72

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**118.5%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**118.5%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	49	-	1304	1812:1878	850+254	118.1 : 118.1%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	11	0	514	1650:1852	215+242	118.5 : 107.2%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	64	10	1403	1726:1679	1070+241	107.0 : 107.0%
4/1	S Exit	U	N/A	N/A	-		-	-	-	778	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	559	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1400	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**231**	**10**	**31.5**	**188.2**	**1.4**	**221.1**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**231**	**10**	**31.5**	**188.2**	**1.4**	**221.1**	**-**	**-**	**-**	**-**
1/1+1/2	1304	1104	-	-	-	15.2	103.2	-	118.4 (91.4+27.1)	326.9 (327.6:324.6)	39.1	103.2	142.3
2/2+2/1	514	457	-	-	-	7.8	32.6	-	40.3 (26.2+14.1)	282.4 (369.7:196.4)	7.8	32.6	40.3
3/1+3/2	1403	1311	0	231	10	8.5	52.5	1.4	62.4 (49.6+12.8)	160.1 (155.9:179.0)	39.9	52.5	92.4
4/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1286	1286	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -31.6
PRC Over All Lanes (%): -31.6

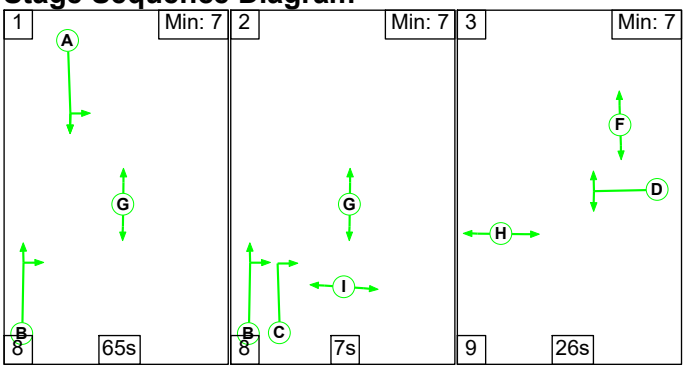
Total Delay for Signalled Lanes (pcuHr): 221.13
Total Delay Over All Lanes(pcuHr): 221.13

Cycle Time (s): 92

Full Input Data And Results

Scenario 12: '12' (FG4: '2030 PM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

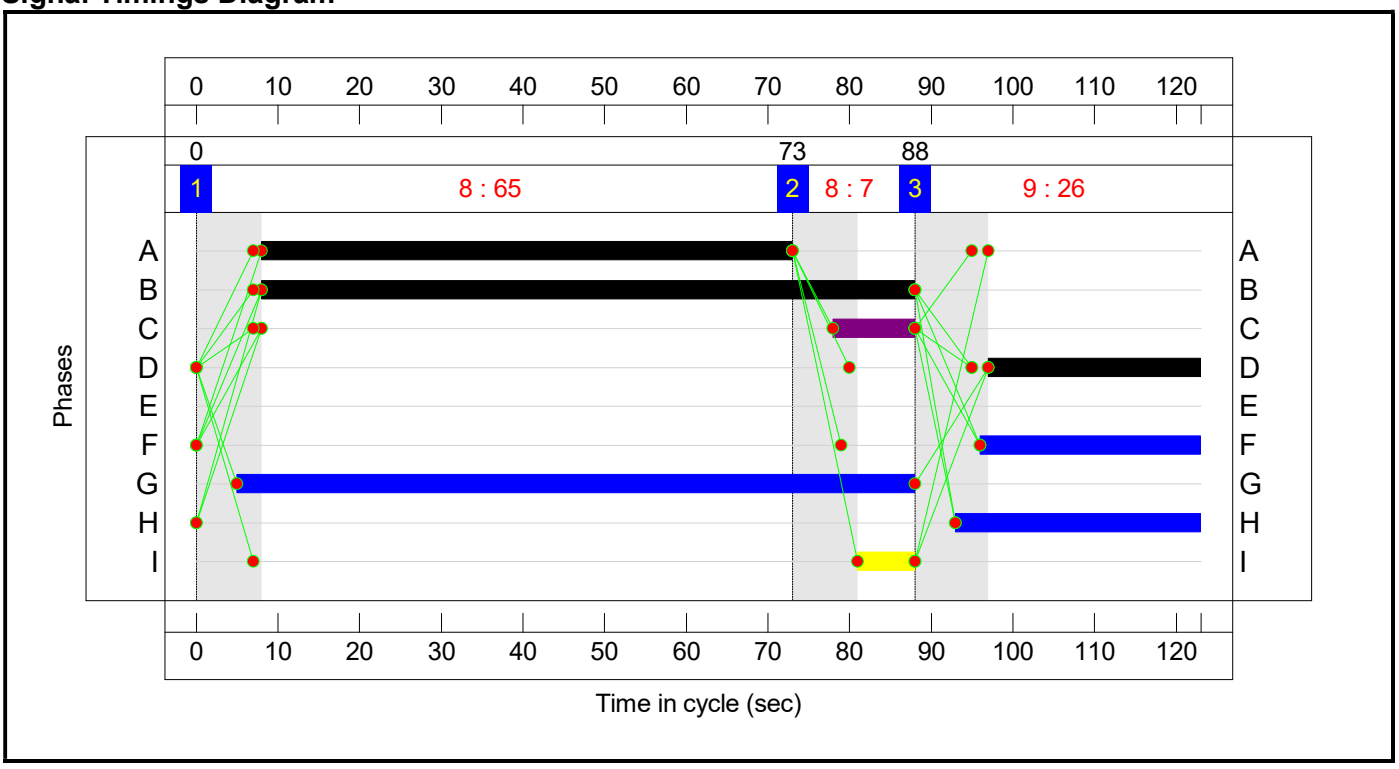
Stage Sequence Diagram



Stage Timings

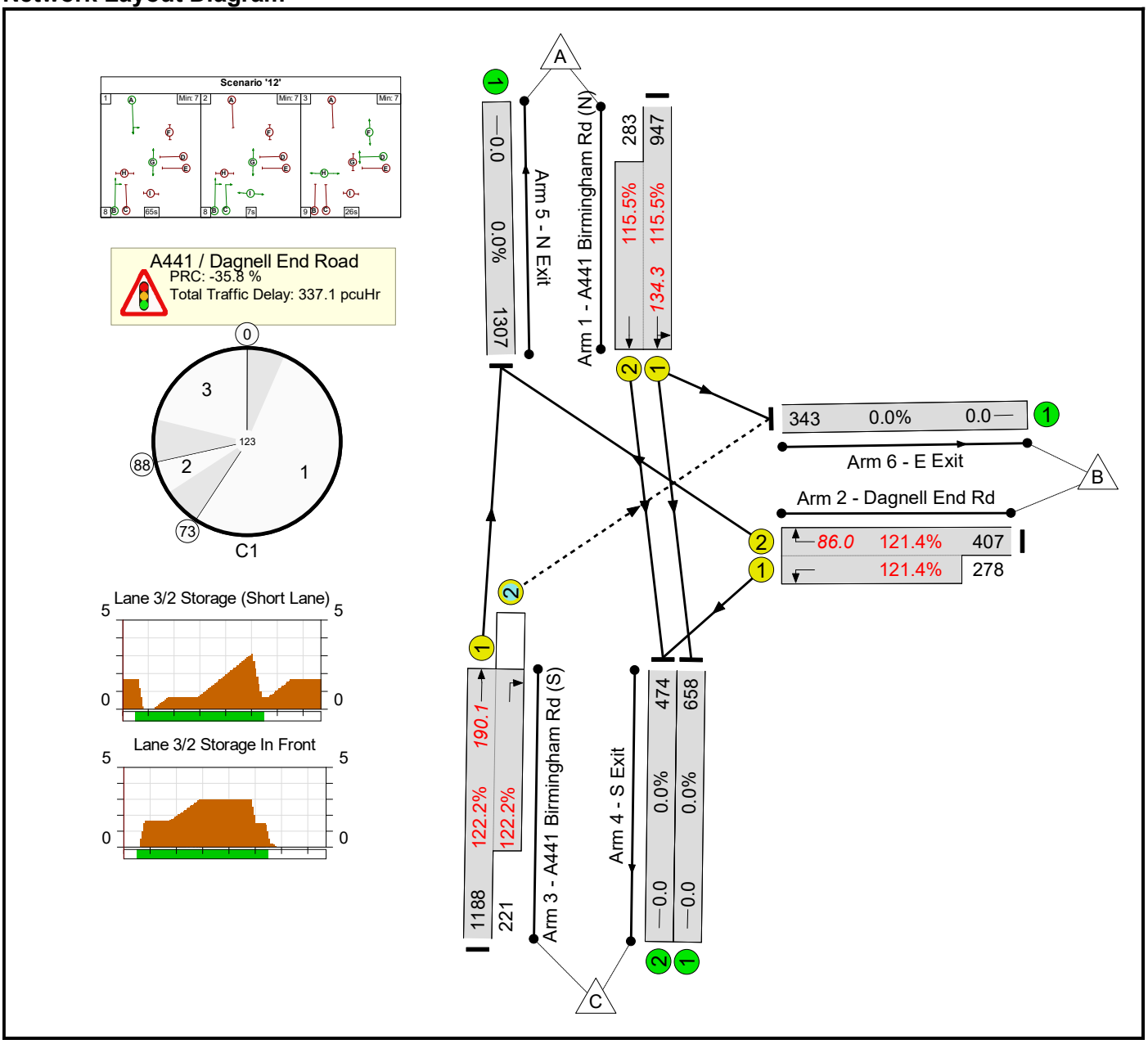
Stage	1	2	3
Duration	65	7	26
Change Point	0	73	88

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**122.2%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**122.2%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	65	-	1230	1817:1878	820+245	115.5 : 115.5%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	26	0	685	1650:1852	335+229	121.4 : 121.4%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	80	10	1409	1641:1800	972+181	122.2 : 122.2%
4/1	S Exit	U	N/A	N/A	-		-	-	-	760	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	561	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1595	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**0**	**174**	**6**	**55.9**	**279.9**	**1.3**	**337.1**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**0**	**174**	**6**	**55.9**	**279.9**	**1.3**	**337.1**	**-**	**-**	**-**	**-**
1/1+1/2	1230	1065	-	-	-	18.3	86.2	-	104.5 (80.6+23.9)	305.9 (306.5:304.0)	48.1	86.2	134.3
2/2+2/1	685	564	-	-	-	15.5	63.0	-	78.6 (47.0+31.6)	413.0 (415.8:408.8)	23.0	63.0	86.0
3/1+3/2	1409	1153	0	174	6	22.0	130.7	1.3	154.0 (128.5+25.5)	393.5 (389.4:415.4)	59.4	130.7	190.1
4/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1307	1307	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	343	343	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -35.8
PRC Over All Lanes (%): -35.8

Total Delay for Signalled Lanes (pcuHr): 337.11
Total Delay Over All Lanes(pcuHr): 337.11

Cycle Time (s): 123

mode
transport planning

APPENDIX D

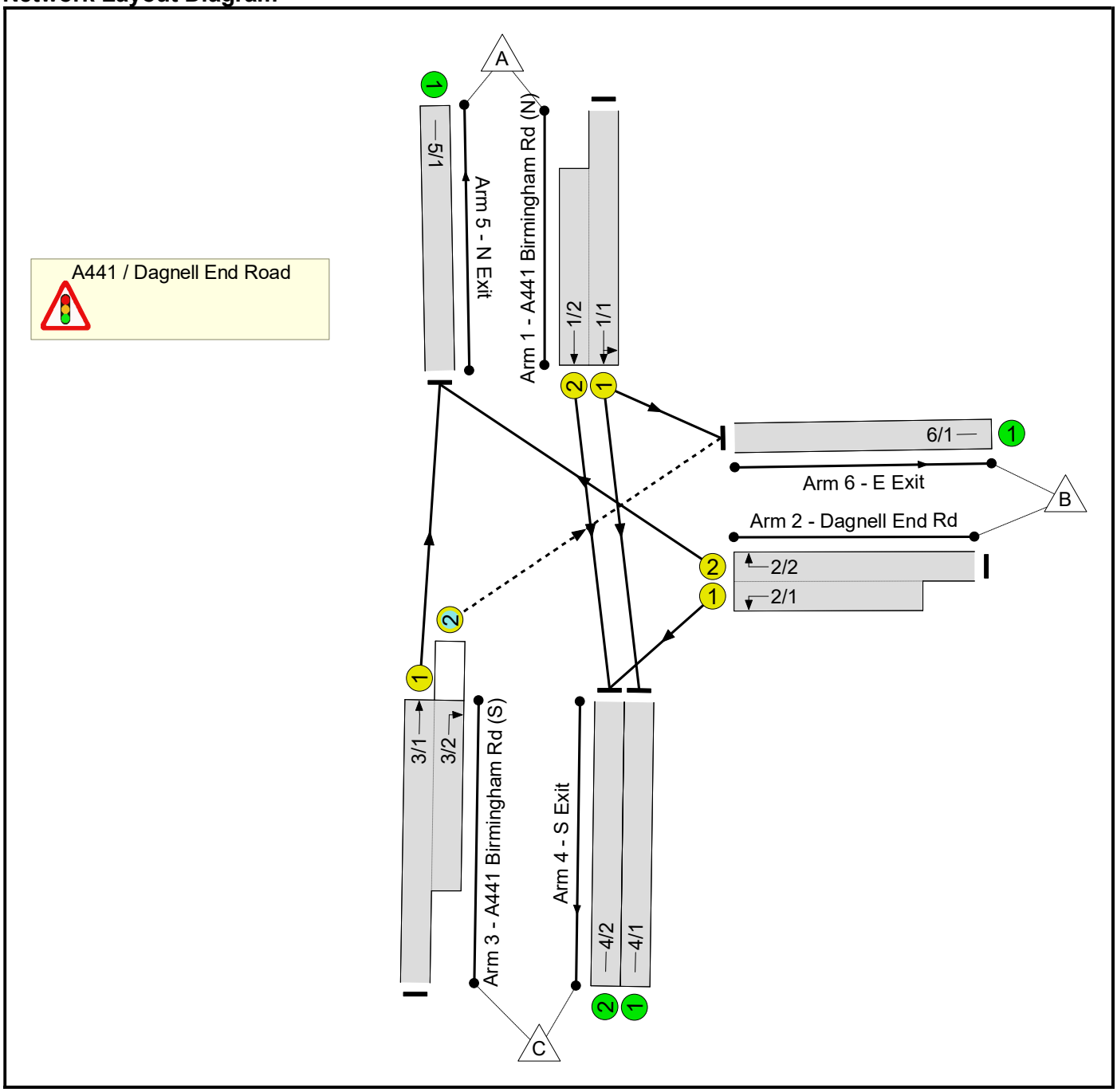
LinSig Model Output Report - Scenario CM1 & CM2

Full Input Data And Results

User and Project Details

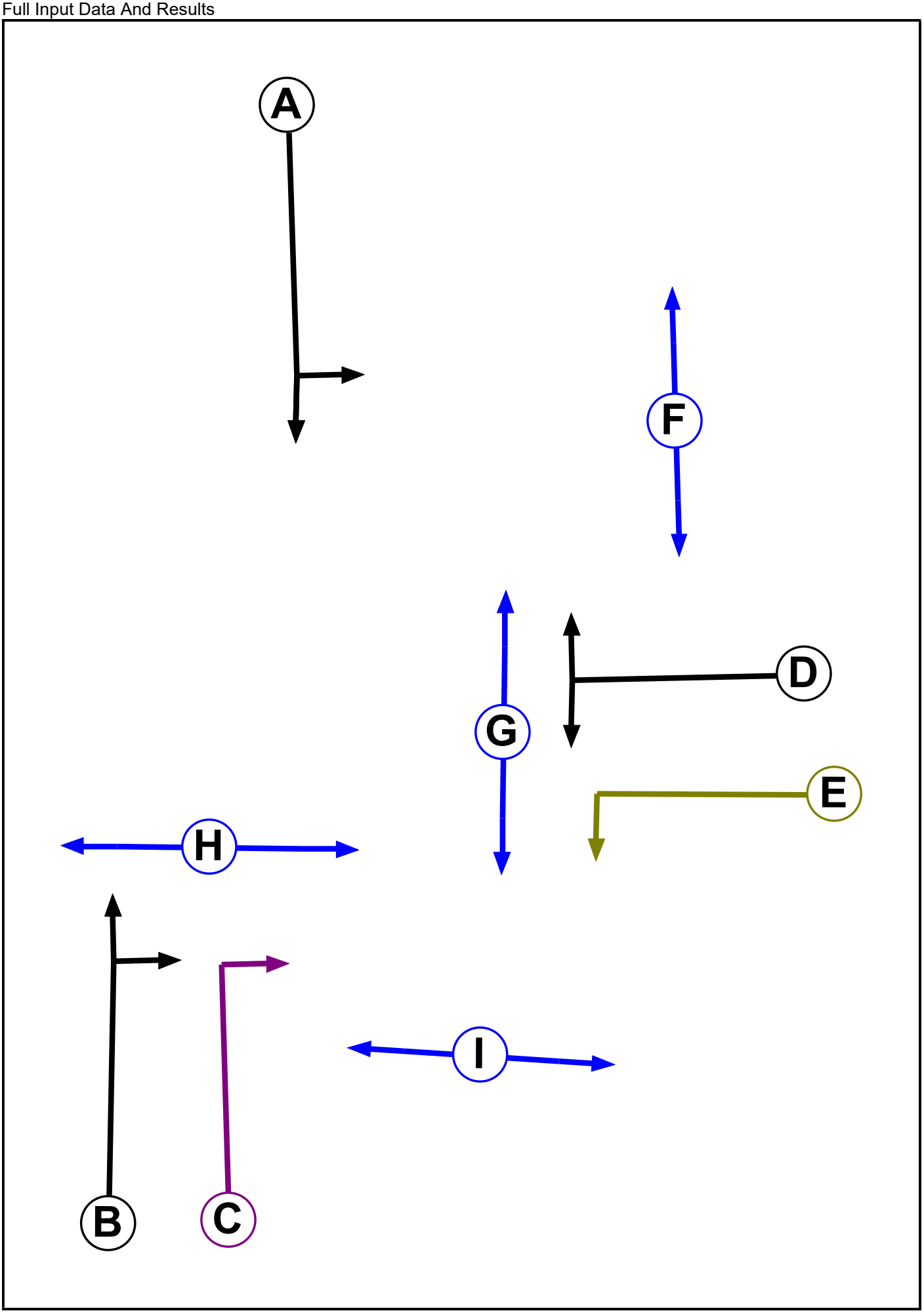
Project:	
Title:	**A441 / Dagnell End Road**
Location:	
Additional detail:	Proposed layout
File name:	A441_Dagnell End Rd v2 Rev B.lsg3x
Author:	al
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram


A
F
D
G
E
H
I
B
C

Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Ind. Arrow	B	4	4
D	Traffic		7	7
E	Filter	D	4	0
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7

Phase Intergreens Matrix

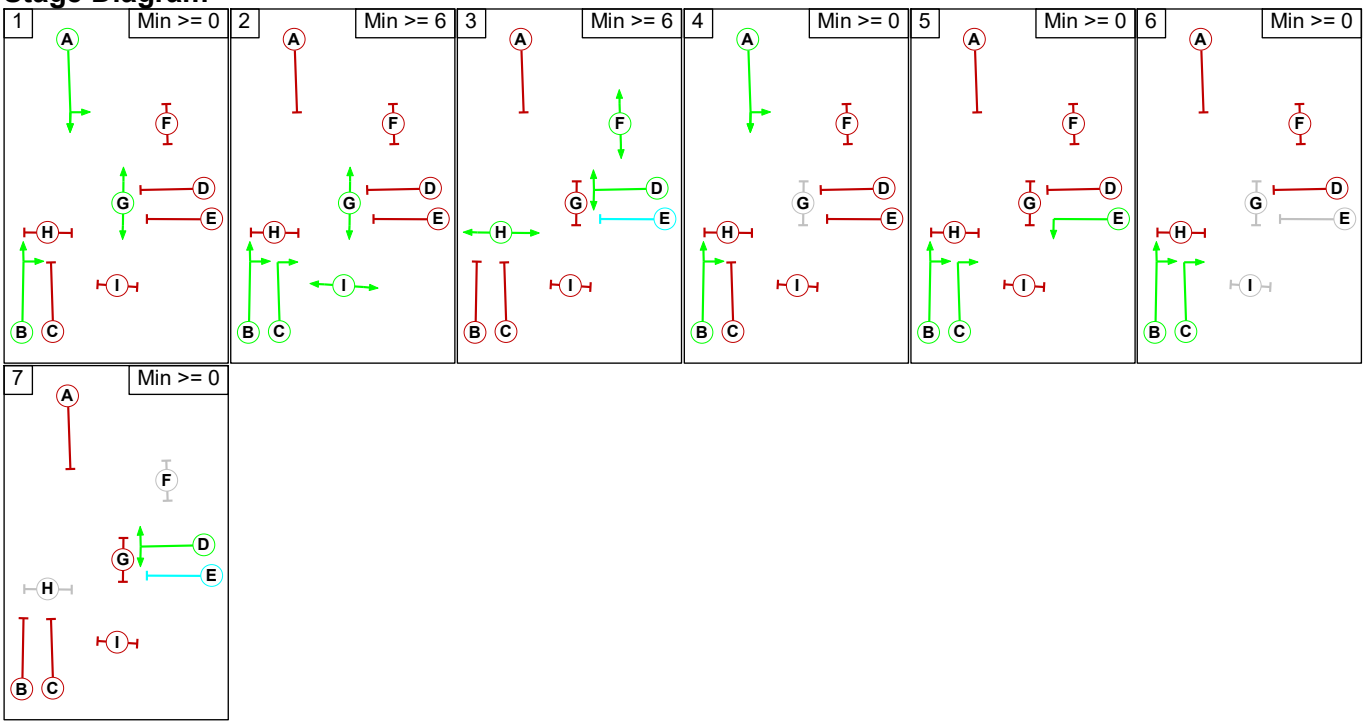
		Starting Phase								
		A	B	C	D	E	F	G	H	I
Terminating Phase	A		-	5	7	7	6	-	-	8
	B	-		-	7	-	8	-	5	-
	C	7	-		7	-	8	-	5	-
	D	7	7	7		-	-	5	-	7
	E	6	-	-	-		-	5	-	7
	F	8	8	8	-	-		-	-	-
	G	-	-	-	9	9	-		-	-
	H	-	8	8	-	-	-	-		-
	I	9	-	-	9	9	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B G
2	B C G I
3	D F H
4	A B
5	B C E
6	B C
7	D

Full Input Data And Results

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	5	6	7
1		8	9	0	9	5	9
2	9		9	9	9	0	9
3	8	8		8	8	8	0
4	0	8	8		7	5	7
5	X	X	8	X		X	7
6	7	0	8	7	0		7
7	7	7	0	7	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A441 / Dagnell End Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
3/2 (A441 Birmingham Rd (S))	6/1 (Right)	1439	0	1/1	1.09	All	3.00	-	0.50	3	3.00
				1/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A441 / Dagnell End Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A441 Birmingham Rd (N))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	50.00
											Arm 6 Left	10.00
1/2 (A441 Birmingham Rd (N))	U	A	2	3	10.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	77.00
2/1 (Dagnell End Rd)	U	D E	2	3	9.6	Geom	-	3.10	0.00	Y	Arm 4 Left	38.00
2/2 (Dagnell End Rd)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Right	9.00
3/1 (A441 Birmingham Rd (S))	U	B	2	3	60.0	User	1800	-	-	-	-	-
3/2 (A441 Birmingham Rd (S))	O	B C	2	3	9.7	User	1800	-	-	-	-	-
4/1 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (E Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2030 AM Effective Base'	08:00	09:00	01:00	
2: '2030 PM Effective Base'	17:00	18:00	01:00	
3: '2030 AM Effective Base + Dev'	08:00	09:00	01:00	
4: '2030 PM Effective Base + Dev'	17:00	18:00	01:00	

Scenario 1: '1' (FG1: '2030 AM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	146	837	983
	B	126	0	184	310
	C	800	144	0	944
	Tot.	926	290	1021	2237

Traffic Lane Flows

Lane	Scenario 1: 1
Junction: A441 / Dagnell End Road	
1/1 (with short)	983(In) 688(Out)
1/2 (short)	295
2/1 (short)	184
2/2 (with short)	310(In) 126(Out)
3/1 (with short)	944(In) 800(Out)
3/2 (short)	144
4/1	542
4/2	479
5/1	926
6/1	290

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	78.8 %	1814	1814
				Arm 6 Left	10.00	21.2 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2' (FG2: '2030 PM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	93	862	955
	B	163	0	202	365
	C	859	121	0	980
	Tot.	1022	214	1064	2300

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2
Junction: A441 / Dagnell End Road	
1/1 (with short)	955(In) 685(Out)
1/2 (short)	270
2/1 (short)	202
2/2 (with short)	365(In) 163(Out)
3/1 (with short)	980(In) 859(Out)
3/2 (short)	121
4/1	592
4/2	472
5/1	1022
6/1	214

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	86.4 %	1830	1830
				Arm 6 Left	10.00	13.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '3' (FG3: '2030 AM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	166	837	1003
	B	184	0	233	417
	C	800	161	0	961
	Tot.	984	327	1070	2381

Traffic Lane Flows

Lane	Scenario 3: 3
Junction: A441 / Dagnell End Road	
1/1 (with short)	1003(In) 703(Out)
1/2 (short)	300
2/1 (short)	233
2/2 (with short)	417(In) 184(Out)
3/1 (with short)	961(In) 800(Out)
3/2 (short)	161
4/1	537
4/2	533
5/1	984
6/1	327

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	76.4 %	1809	1809
				Arm 6 Left	10.00	23.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '4' (FG4: '2030 PM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	148	862	1010
	B	191	0	225	416
	C	905	121	0	1026
	Tot.	1096	269	1087	2452

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 4
Junction: A441 / Dagnell End Road	
1/1 (with short)	1010(In) 727(Out)
1/2 (short)	283
2/1 (short)	225
2/2 (with short)	416(In) 191(Out)
3/1 (with short)	1026(In) 905(Out)
3/2 (short)	121
4/1	579
4/2	508
5/1	1096
6/1	269

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.6 %	1816	1816
				Arm 6 Left	10.00	20.4 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '5' (FG1: '2030 AM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	146	837	983
	B	126	0	184	310
	C	800	144	0	944
	Tot.	926	290	1021	2237

Traffic Lane Flows

Lane	Scenario 5: 5
Junction: A441 / Dagnell End Road	
1/1 (with short)	983(In) 688(Out)
1/2 (short)	295
2/1 (short)	184
2/2 (with short)	310(In) 126(Out)
3/1 (with short)	944(In) 800(Out)
3/2 (short)	144
4/1	542
4/2	479
5/1	926
6/1	290

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	78.8 %	1814	1814
				Arm 6 Left	10.00	21.2 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '6' (FG2: '2030 PM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	93	862	955
	B	163	0	202	365
	C	859	121	0	980
	Tot.	1022	214	1064	2300

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 6
Junction: A441 / Dagnell End Road	
1/1 (with short)	955(In) 685(Out)
1/2 (short)	270
2/1 (short)	202
2/2 (with short)	365(In) 163(Out)
3/1 (with short)	980(In) 859(Out)
3/2 (short)	121
4/1	592
4/2	472
5/1	1022
6/1	214

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	86.4 %	1830	1830
				Arm 6 Left	10.00	13.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '7' (FG3: '2030 AM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	166	837	1003
	B	184	0	233	417
	C	800	161	0	961
	Tot.	984	327	1070	2381

Traffic Lane Flows

Lane	Scenario 7: 7
Junction: A441 / Dagnell End Road	
1/1 (with short)	1003(In) 703(Out)
1/2 (short)	300
2/1 (short)	233
2/2 (with short)	417(In) 184(Out)
3/1 (with short)	961(In) 800(Out)
3/2 (short)	161
4/1	537
4/2	533
5/1	984
6/1	327

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	76.4 %	1809	1809
				Arm 6 Left	10.00	23.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '8' (FG4: '2030 PM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	148	862	1010
	B	191	0	225	416
	C	905	121	0	1026
	Tot.	1096	269	1087	2452

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 8
Junction: A441 / Dagnell End Road	
1/1 (with short)	1010(In) 727(Out)
1/2 (short)	283
2/1 (short)	225
2/2 (with short)	416(In) 191(Out)
3/1 (with short)	1026(In) 905(Out)
3/2 (short)	121
4/1	579
4/2	508
5/1	1096
6/1	269

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.6 %	1816	1816
				Arm 6 Left	10.00	20.4 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '9' (FG1: '2030 AM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	146	837	983
	B	126	0	184	310
	C	800	144	0	944
	Tot.	926	290	1021	2237

Traffic Lane Flows

Lane	Scenario 9: 9
Junction: A441 / Dagnell End Road	
1/1 (with short)	983(In) 688(Out)
1/2 (short)	295
2/1 (short)	184
2/2 (with short)	310(In) 126(Out)
3/1 (with short)	944(In) 800(Out)
3/2 (short)	144
4/1	542
4/2	479
5/1	926
6/1	290

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	78.8 %	1814	1814
				Arm 6 Left	10.00	21.2 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: '10' (FG2: '2030 PM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	93	862	955
	B	163	0	202	365
	C	859	121	0	980
	Tot.	1022	214	1064	2300

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 10
Junction: A441 / Dagnell End Road	
1/1 (with short)	955(In) 860(Out)
1/2 (short)	95
2/1 (short)	202
2/2 (with short)	365(In) 163(Out)
3/1 (with short)	980(In) 859(Out)
3/2 (short)	121
4/1	767
4/2	297
5/1	1022
6/1	214

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	89.2 %	1836	1836
				Arm 6 Left	10.00	10.8 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '11' (FG3: '2030 AM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	166	837	1003
	B	184	0	233	417
	C	800	161	0	961
	Tot.	984	327	1070	2381

Traffic Lane Flows

Lane	Scenario 11: 11
Junction: A441 / Dagnell End Road	
1/1 (with short)	1003(In) 703(Out)
1/2 (short)	300
2/1 (short)	233
2/2 (with short)	417(In) 184(Out)
3/1 (with short)	961(In) 800(Out)
3/2 (short)	161
4/1	537
4/2	533
5/1	984
6/1	327

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	76.4 %	1809	1809
				Arm 6 Left	10.00	23.6 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 12: '12' (FG4: '2030 PM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	148	862	1010
	B	191	0	225	416
	C	905	121	0	1026
	Tot.	1096	269	1087	2452

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 12
Junction: A441 / Dagnell End Road	
1/1 (with short)	1010(In) 727(Out)
1/2 (short)	283
2/1 (short)	225
2/2 (with short)	416(In) 191(Out)
3/1 (with short)	1026(In) 905(Out)
3/2 (short)	121
4/1	579
4/2	508
5/1	1096
6/1	269

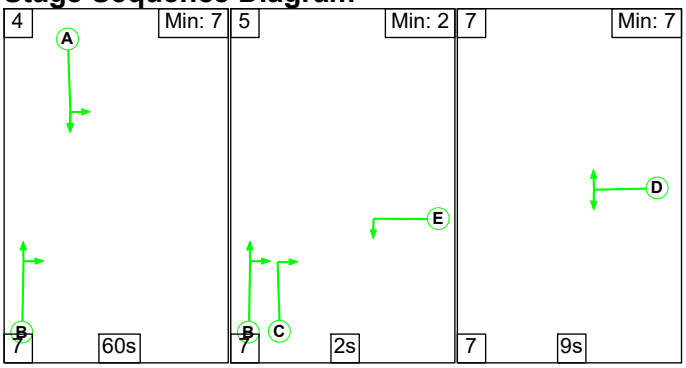
Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.6 %	1816	1816
				Arm 6 Left	10.00	20.4 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '1' (FG1: '2030 AM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

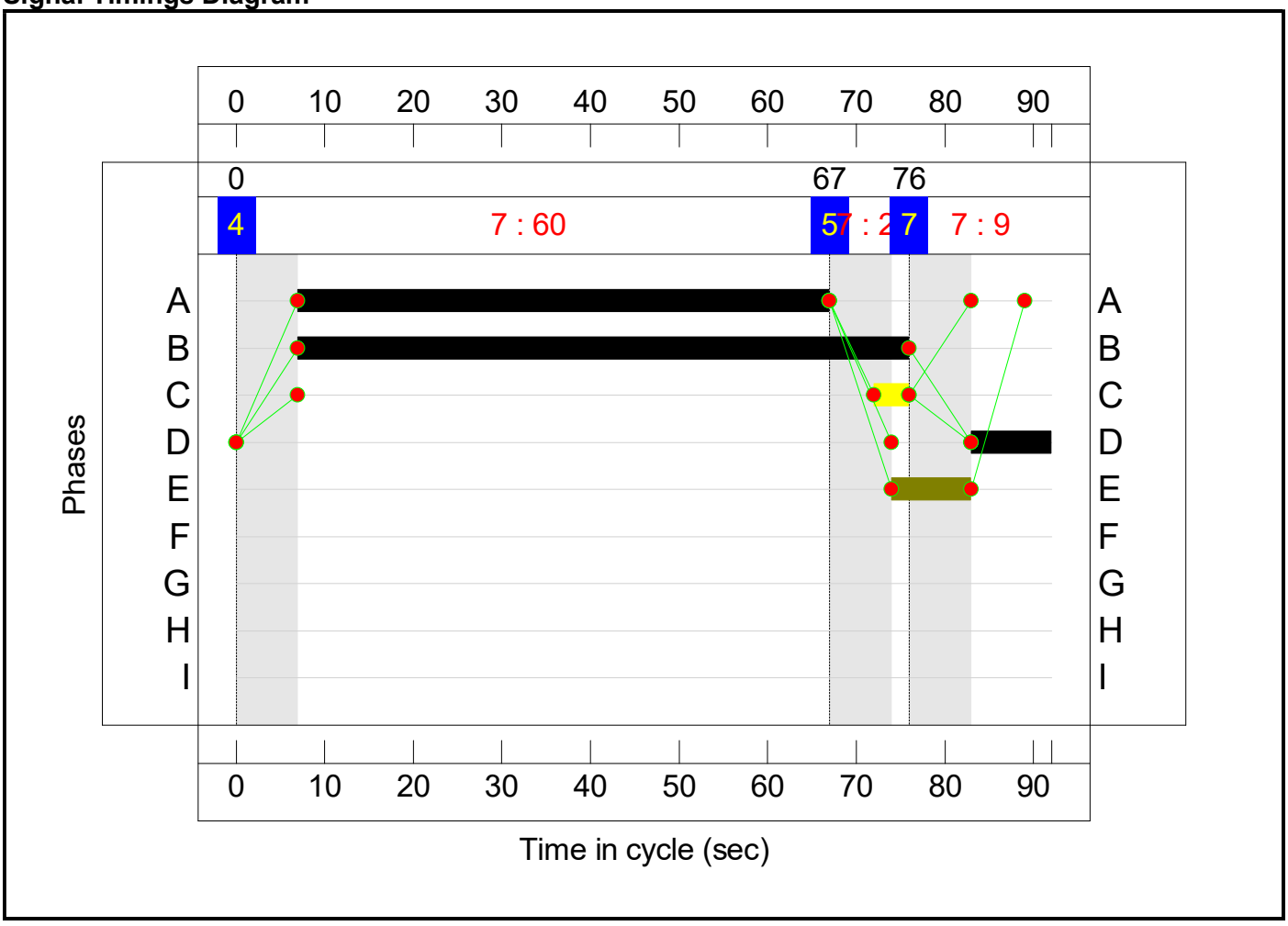
Stage Sequence Diagram



Stage Timings

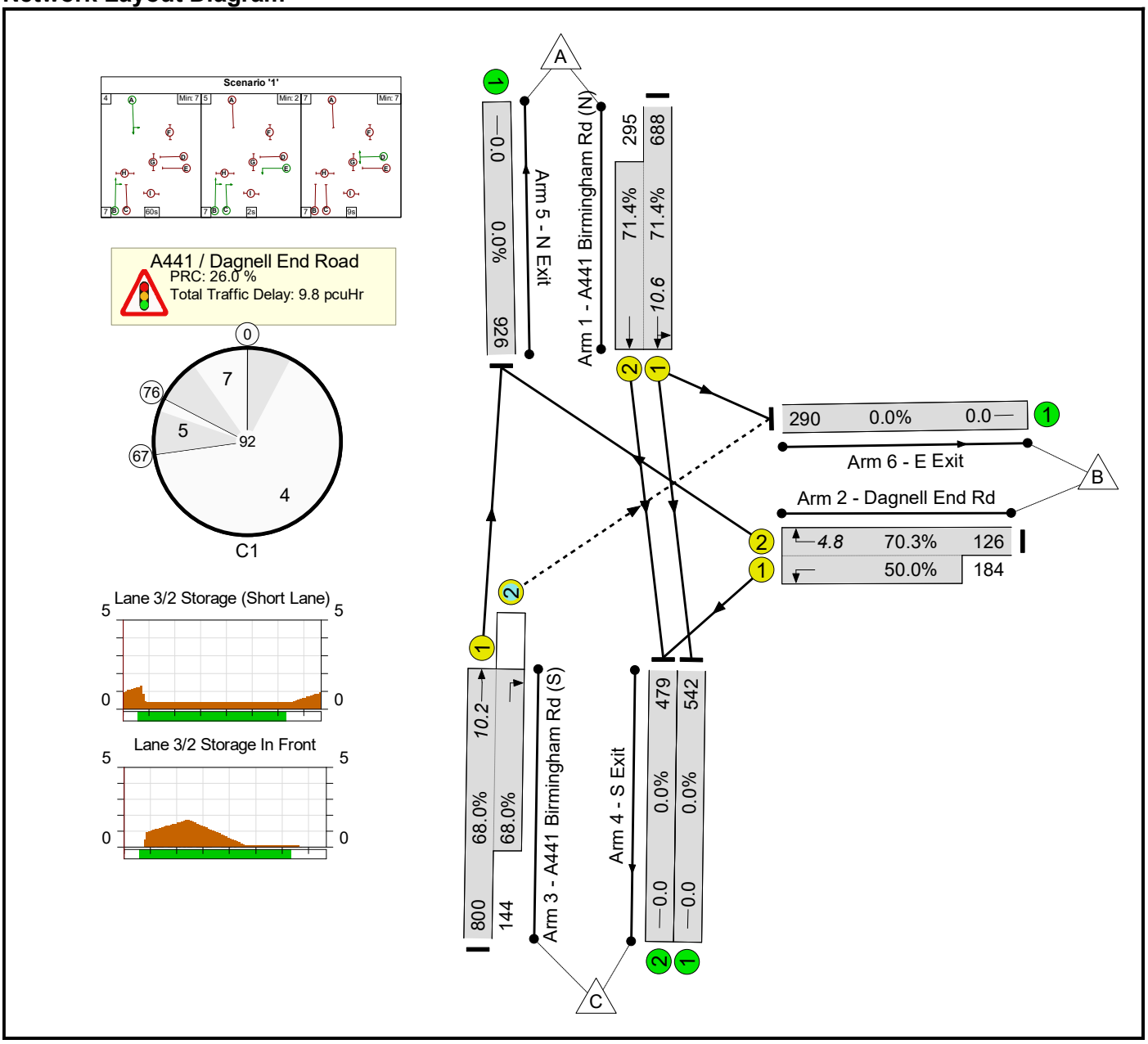
Stage	4	5	7
Duration	60	2	9
Change Point	0	67	76

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**71.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**71.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	60	-	983	1814:1878	963+413	71.4 : 71.4%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	9:18	9	310	1650:1852	179+368	70.3 : 50.0%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	69	4	944	1726:1679	1176+212	68.0 : 68.0%
4/1	S Exit	U	N/A	N/A	-		-	-	-	542	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	479	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%

Full Input Data And Results

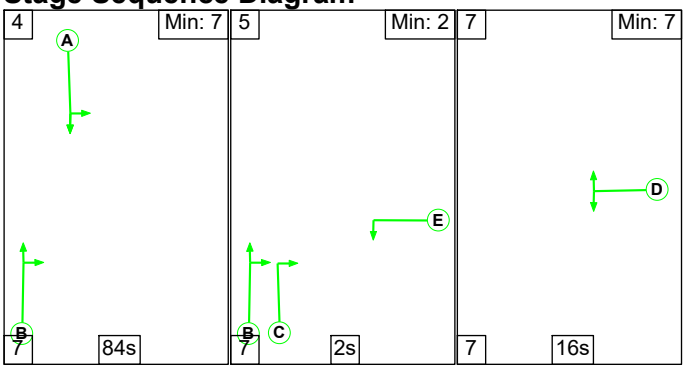
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**128**	**11**	**5**	**6.3**	**3.0**	**0.5**	**9.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**128**	**11**	**5**	**6.3**	**3.0**	**0.5**	**9.8**	**-**	**-**	**-**	**-**
1/1+1/2	983	983	-	-	-	2.1	1.2	-	3.4 (2.5+0.9)	12.3 (13.0:10.8)	9.4	1.2	10.6
2/2+2/1	310	310	-	-	-	3.0	0.6	-	3.7 (1.6+2.0)	42.7 (47.1:39.7)	4.1	0.6	4.8
3/1+3/2	944	944	128	11	5	1.2	1.1	0.5	2.7 (2.0+0.7)	10.4 (8.9:18.3)	9.1	1.1	10.2
4/1	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 26.0 Total Delay for Signalled Lanes (pcuHr): 9.76 Cycle Time (s): 92
PRC Over All Lanes (%): 26.0 Total Delay Over All Lanes(pcuHr): 9.76

Full Input Data And Results

Scenario 2: '2' (FG2: '2030 PM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

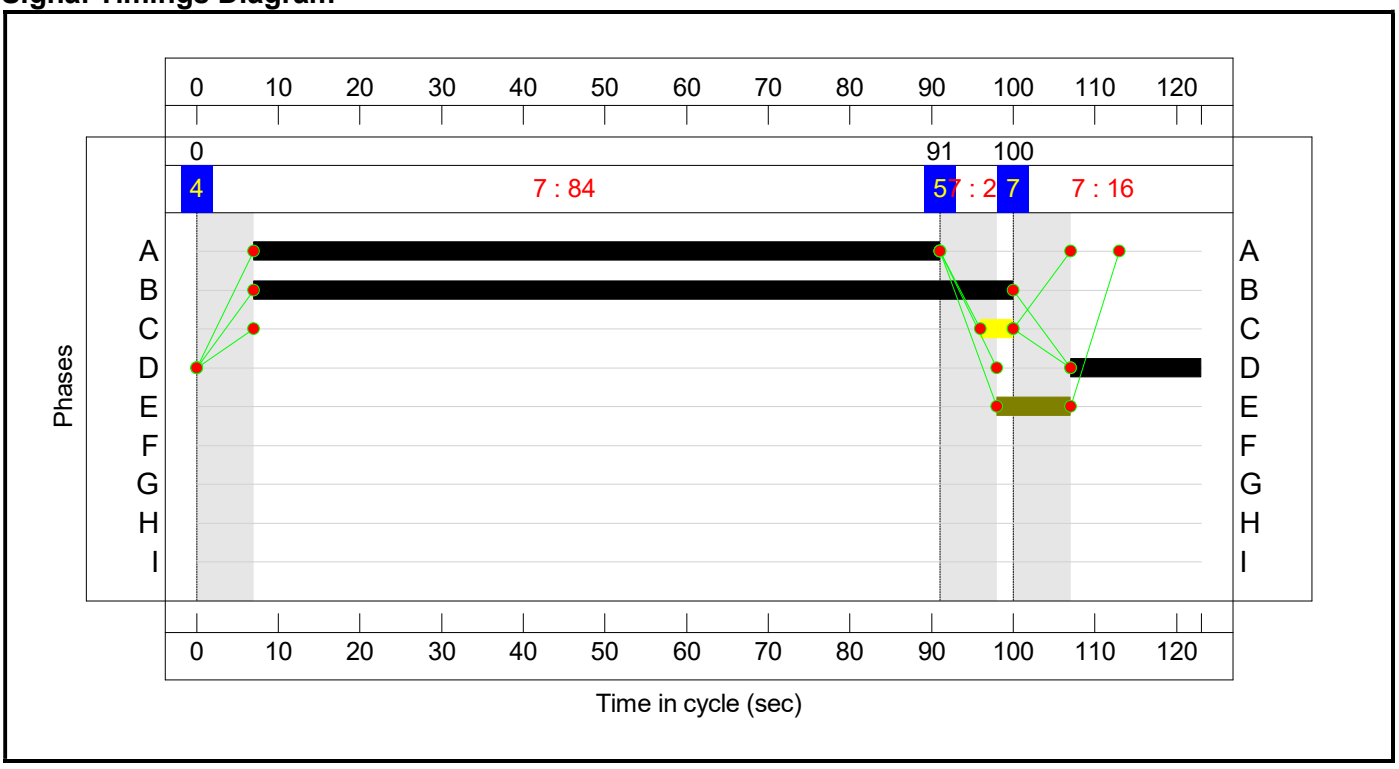
Stage Sequence Diagram



Stage Timings

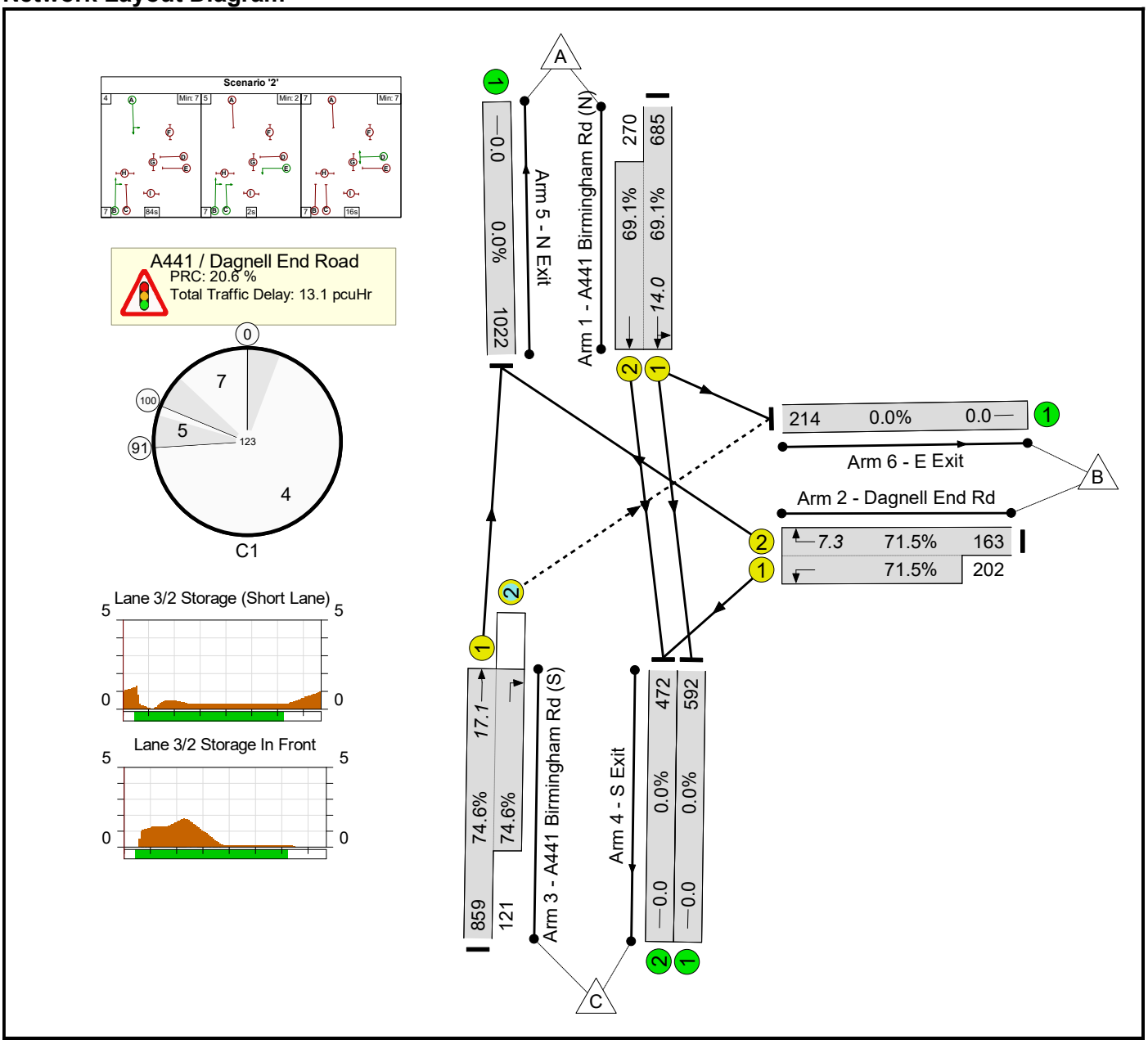
Stage	4	5	7
Duration	84	2	16
Change Point	0	91	100

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.6%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.6%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	84	-	955	1830:1878	991+391	69.1 : 69.1%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	16:25	9	365	1650:1852	228+283	71.5 : 71.5%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	93	4	980	1641:1800	1151+162	74.6 : 74.6%
4/1	S Exit	U	N/A	N/A	-		-	-	-	592	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1022	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%

Full Input Data And Results

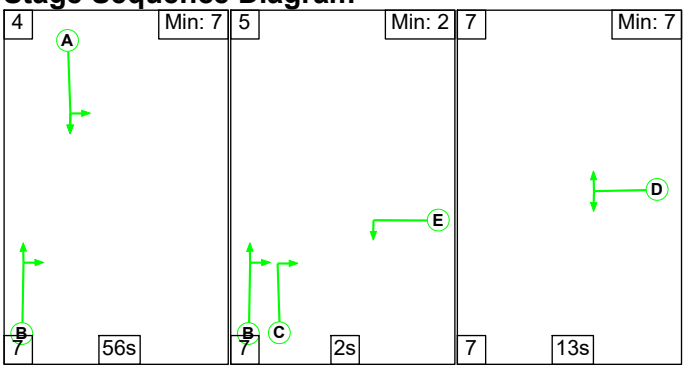
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**8.9**	**3.8**	**0.4**	**13.1**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**8.9**	**3.8**	**0.4**	**13.1**	**-**	**-**	**-**	**-**
1/1+1/2	955	955	-	-	-	2.3	1.1	-	3.4 (2.6+0.8)	13.0 (13.7:11.3)	12.9	1.1	14.0
2/2+2/1	365	365	-	-	-	4.7	1.2	-	5.9 (2.8+3.1)	58.5 (62.8:55.1)	6.1	1.2	7.3
3/1+3/2	980	980	111	7	3	1.9	1.5	0.4	3.8 (3.0+0.8)	13.8 (12.6:22.4)	15.7	1.5	17.1
4/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1022	1022	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 20.6 Total Delay for Signalled Lanes (pcuHr): 13.14 Cycle Time (s): 123
PRC Over All Lanes (%): 20.6 Total Delay Over All Lanes(pcuHr): 13.14

Full Input Data And Results

Scenario 3: '3' (FG3: '2030 AM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

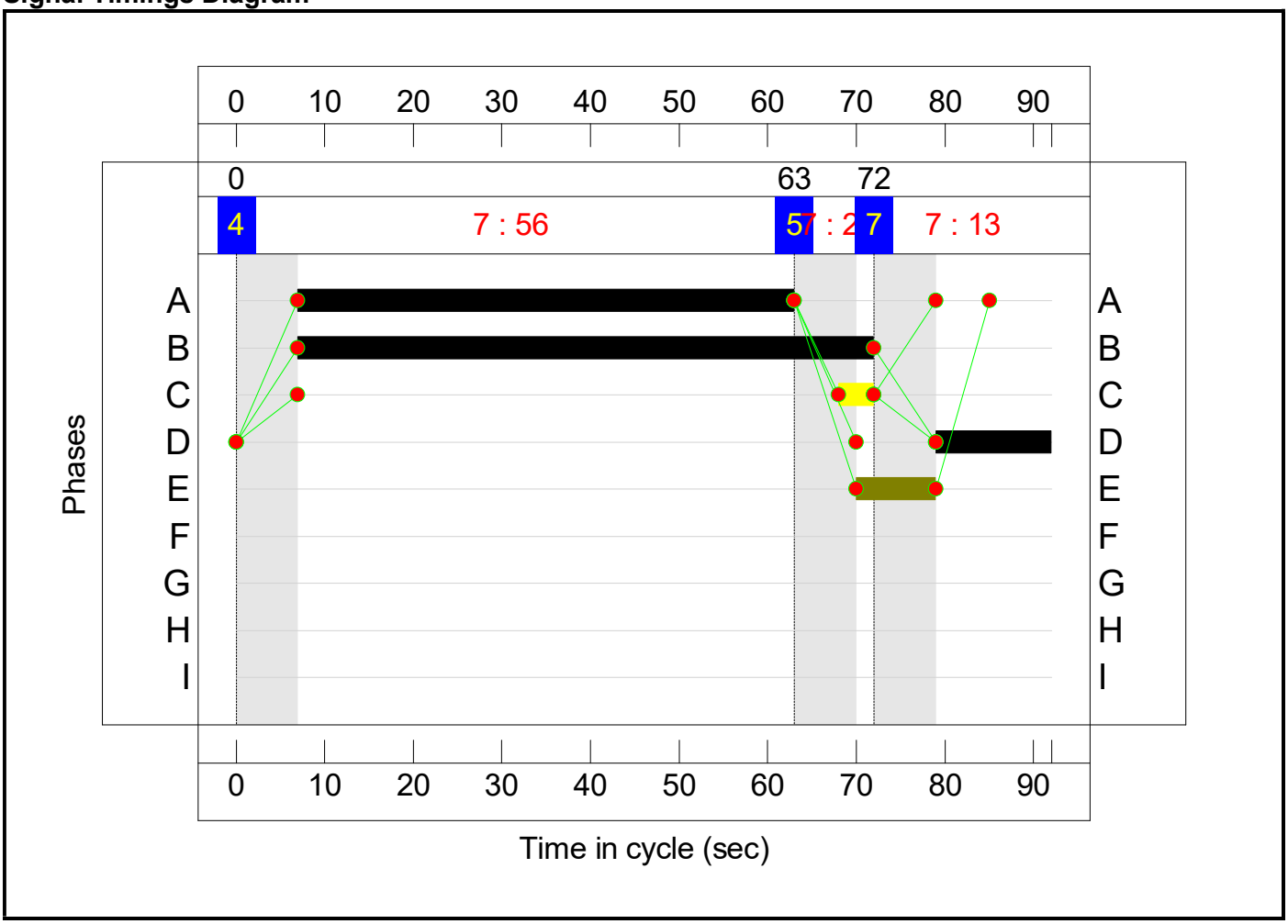
Stage Sequence Diagram



Stage Timings

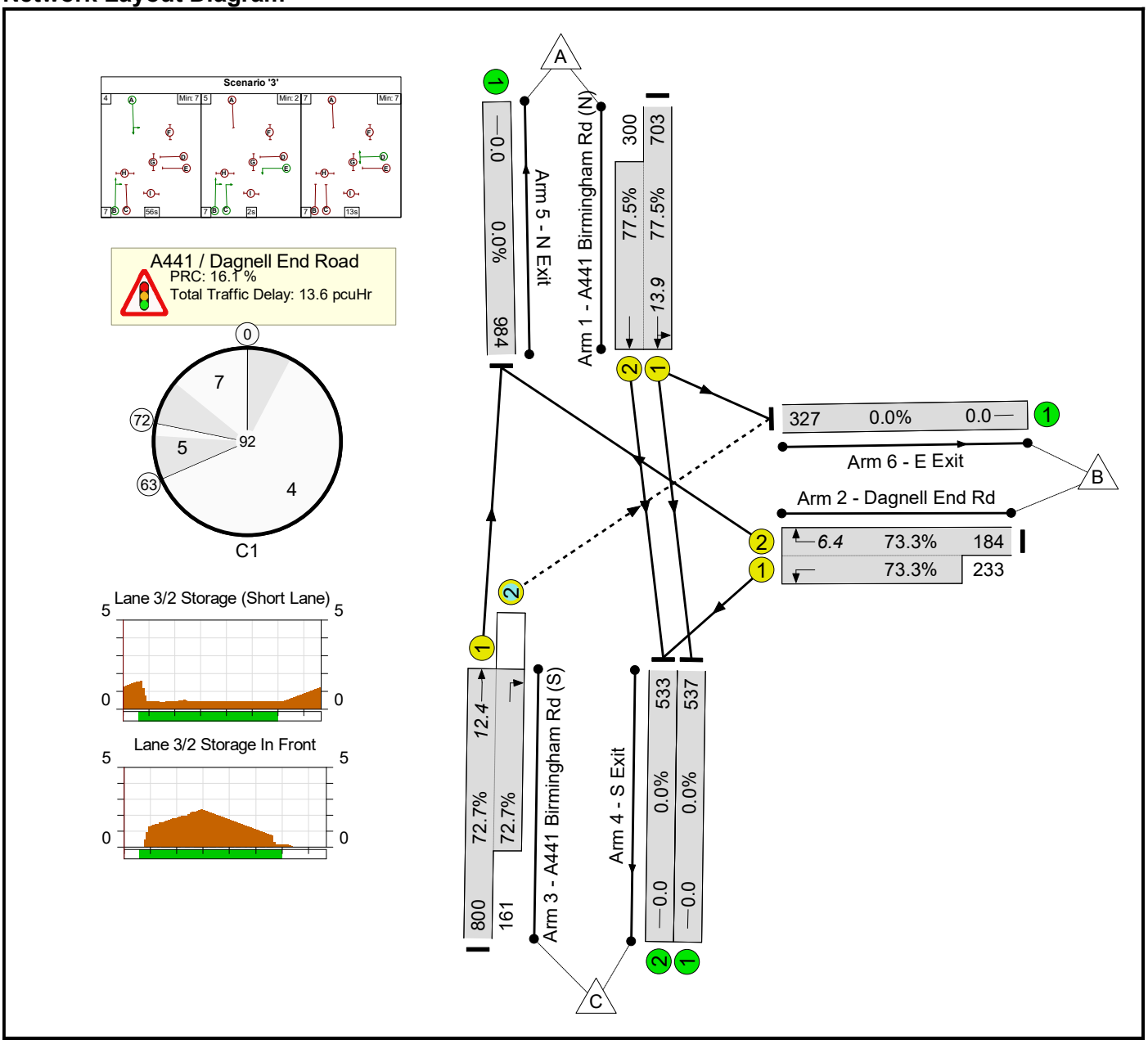
Stage	4	5	7
Duration	56	2	13
Change Point	0	63	72

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.5%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.5%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	56	-	1003	1809:1878	907+387	77.5 : 77.5%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	13:22	9	417	1650:1852	251+318	73.3 : 73.3%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	65	4	961	1726:1679	1100+221	72.7 : 72.7%
4/1	S Exit	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%

Full Input Data And Results

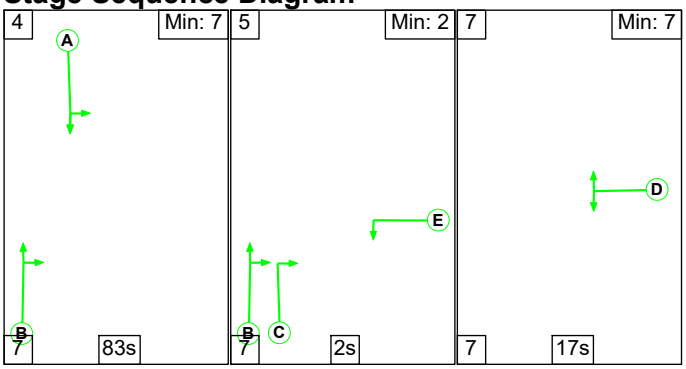
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**120**	**36**	**5**	**8.3**	**4.4**	**0.9**	**13.6**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**120**	**36**	**5**	**8.3**	**4.4**	**0.9**	**13.6**	**-**	**-**	**-**	**-**
1/1+1/2	1003	1003	-	-	-	2.8	1.7	-	4.5 (3.3+1.2)	16.2 (17.1:14.2)	12.2	1.7	13.9
2/2+2/1	417	417	-	-	-	3.8	1.3	-	5.2 (2.5+2.7)	44.6 (48.9:41.2)	5.0	1.3	6.4
3/1+3/2	961	961	120	36	5	1.7	1.3	0.9	4.0 (2.6+1.3)	14.8 (11.8:29.7)	11.0	1.3	12.4
4/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 16.1 Total Delay for Signalled Lanes (pcuHr): 13.63 Cycle Time (s): 92
PRC Over All Lanes (%): 16.1 Total Delay Over All Lanes(pcuHr): 13.63

Full Input Data And Results

Scenario 4: '4' (FG4: '2030 PM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

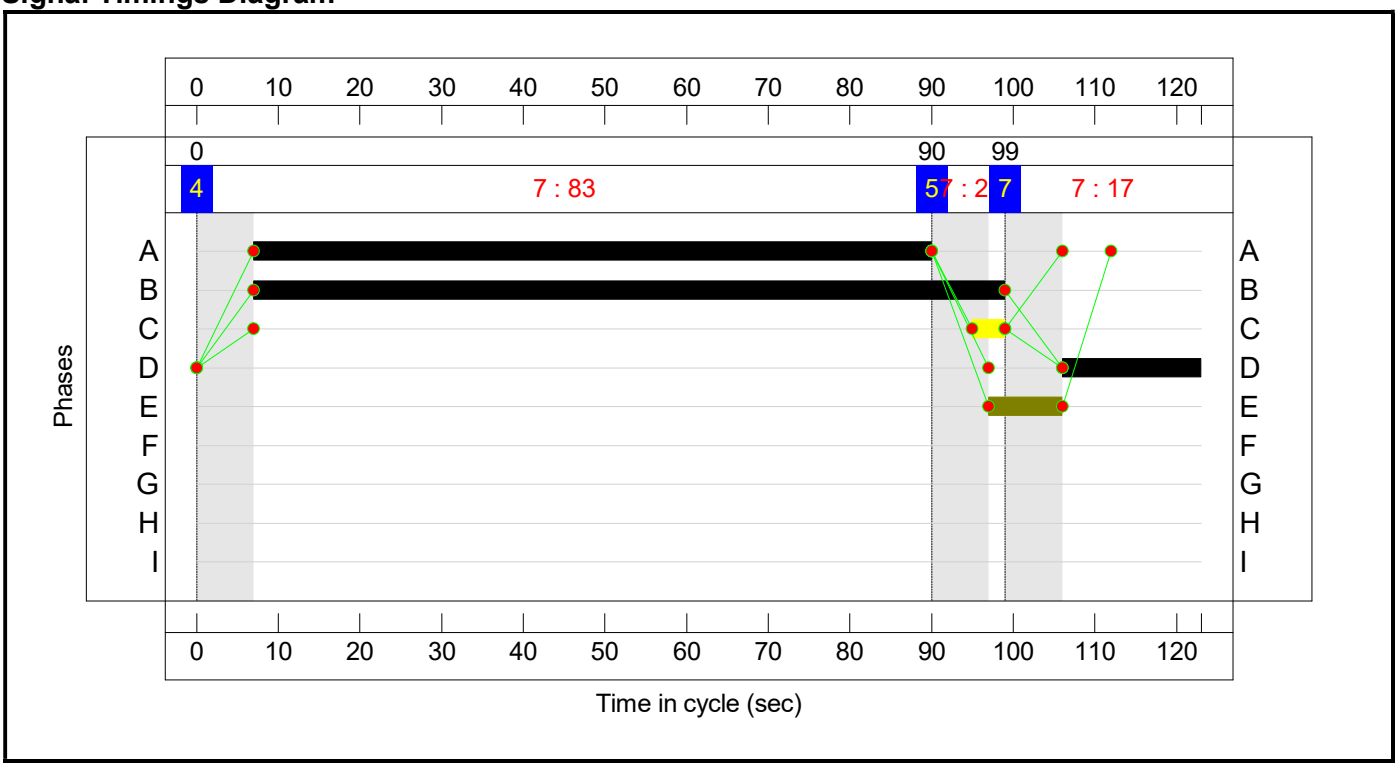
Stage Sequence Diagram



Stage Timings

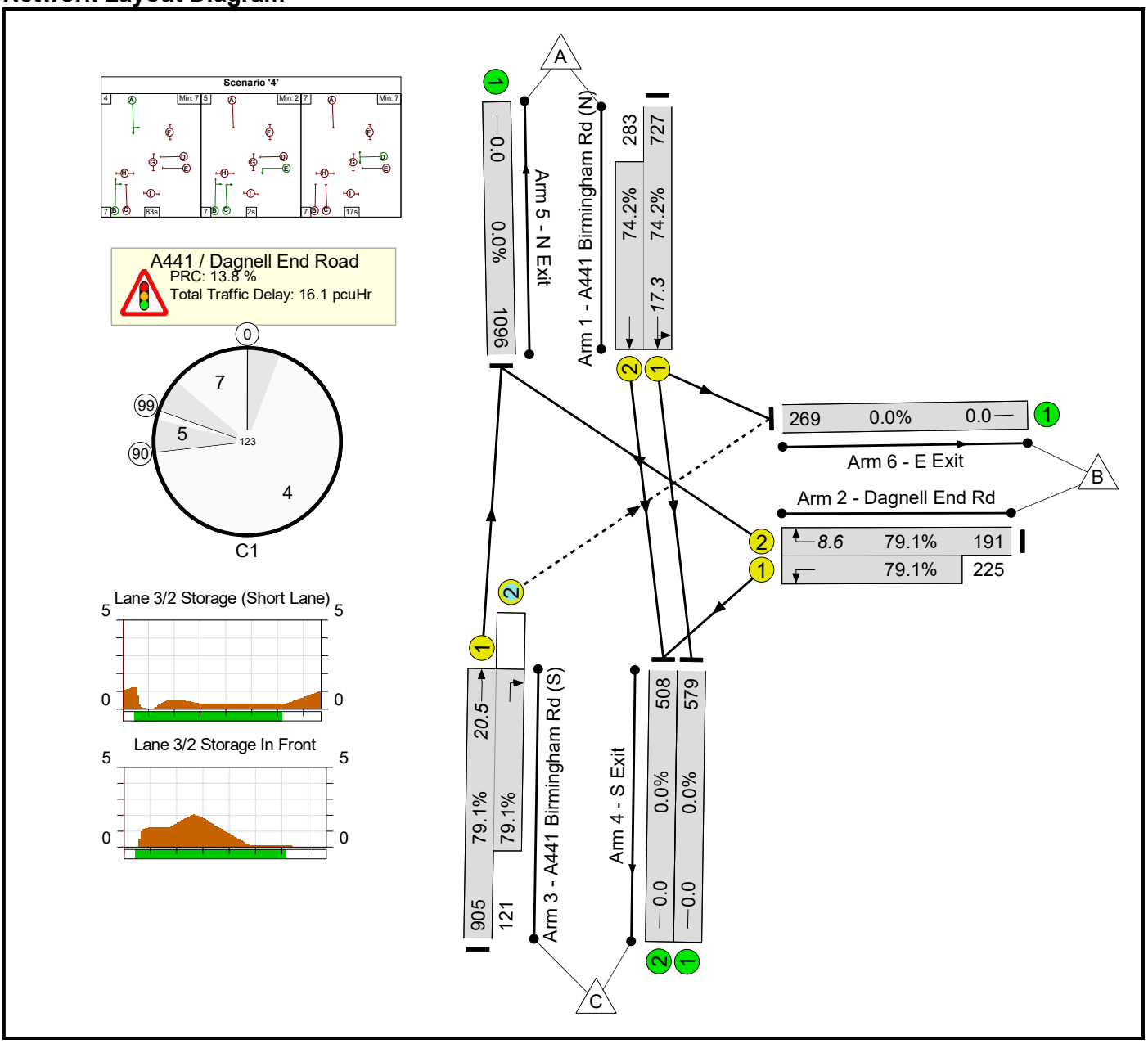
Stage	4	5	7
Duration	83	2	17
Change Point	0	90	99

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.1%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.1%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	83	-	1010	1816:1878	979+381	74.2 : 74.2%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	17:26	9	416	1650:1852	241+284	79.1 : 79.1%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	92	4	1026	1641:1800	1144+153	79.1 : 79.1%
4/1	S Exit	U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1096	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%

Full Input Data And Results

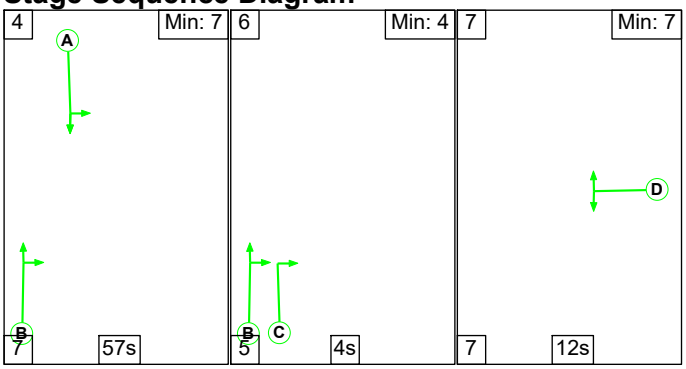
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**10.4**	**5.1**	**0.6**	**16.1**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**10.4**	**5.1**	**0.6**	**16.1**	**-**	**-**	**-**	**-**
1/1+1/2	1010	1010	-	-	-	2.8	1.4	-	4.2 (3.2+1.0)	15.0 (15.6:13.2)	15.9	1.4	17.3
2/2+2/1	416	416	-	-	-	5.4	1.8	-	7.2 (3.5+3.7)	62.2 (66.5:58.5)	6.8	1.8	8.6
3/1+3/2	1026	1026	111	7	3	2.3	1.9	0.6	4.7 (3.7+1.0)	16.6 (14.8:30.1)	18.7	1.9	20.5
4/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1096	1096	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	269	269	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 13.8 Total Delay for Signalled Lanes (pcuHr): 16.12 Cycle Time (s): 123
PRC Over All Lanes (%): 13.8 Total Delay Over All Lanes(pcuHr): 16.12

Full Input Data And Results

Scenario 5: '5' (FG1: '2030 AM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

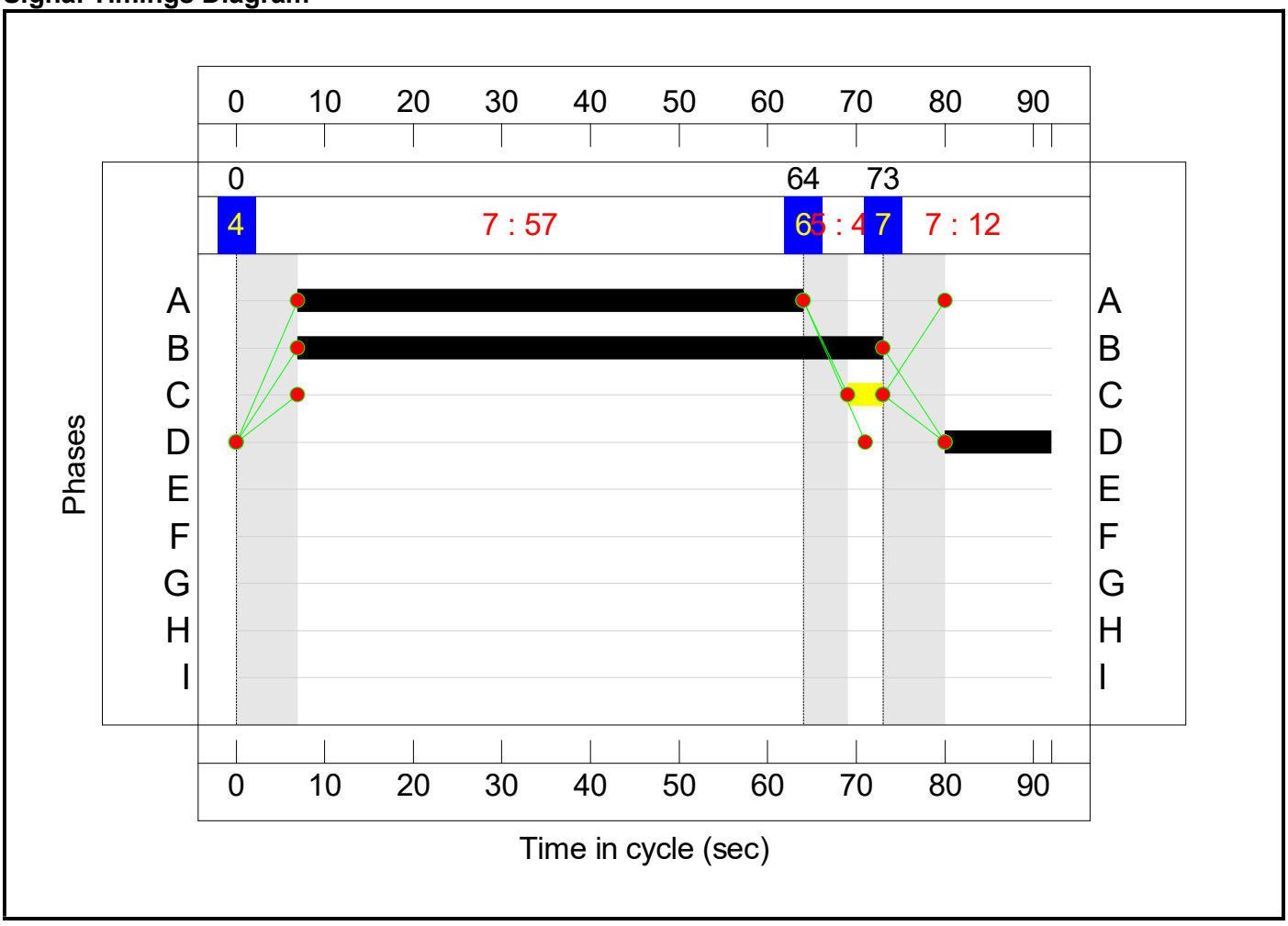
Stage Sequence Diagram



Stage Timings

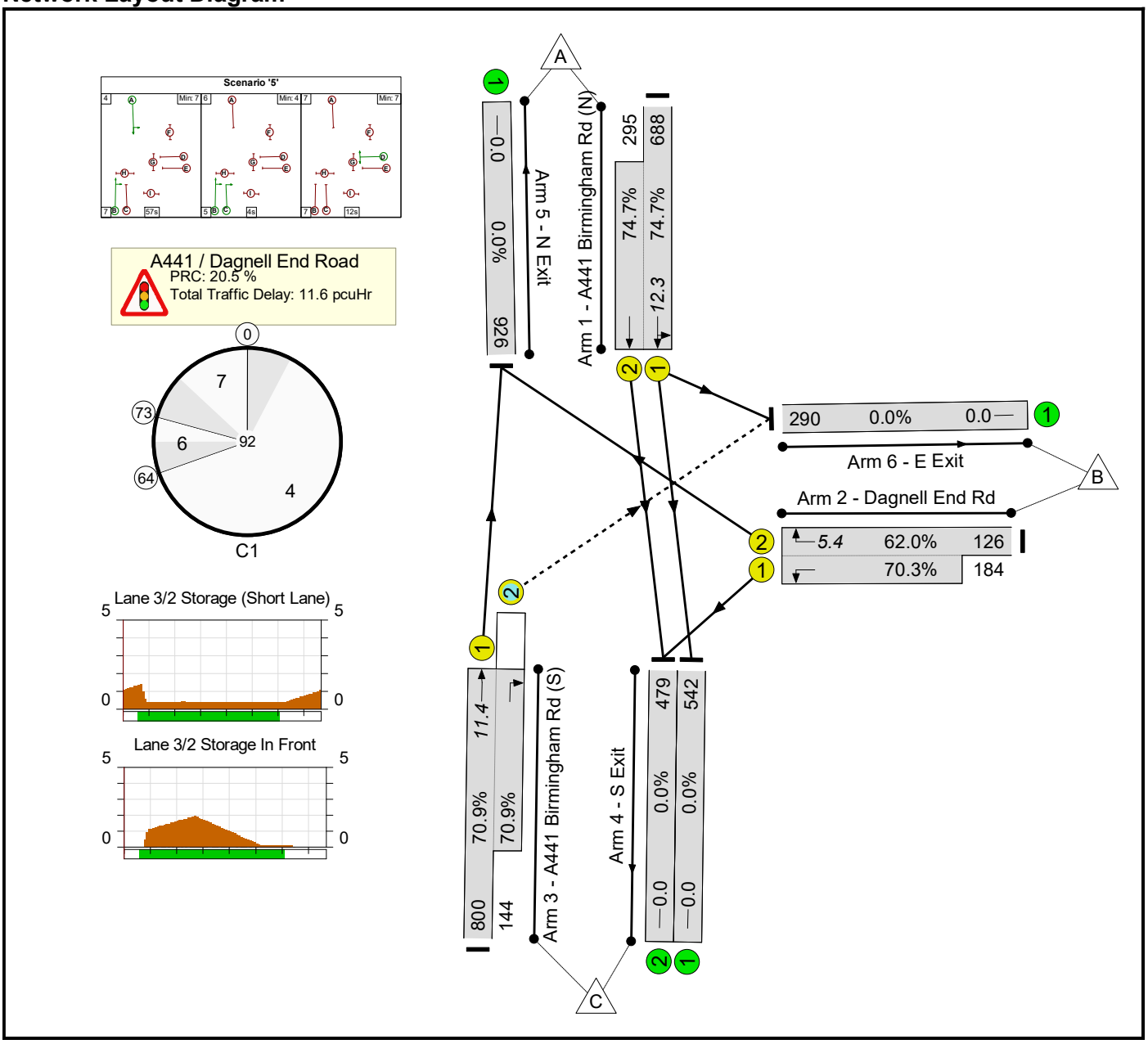
Stage	4	6	7
Duration	57	4	12
Change Point	0	64	73

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.7%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.7%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	57	-	983	1814:1878	921+395	74.7 : 74.7%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	12	0	310	1650:1852	203+262	62.0 : 70.3%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	66	4	944	1726:1679	1129+203	70.9 : 70.9%
4/1	S Exit	U	N/A	N/A	-		-	-	-	542	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	479	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%

Full Input Data And Results

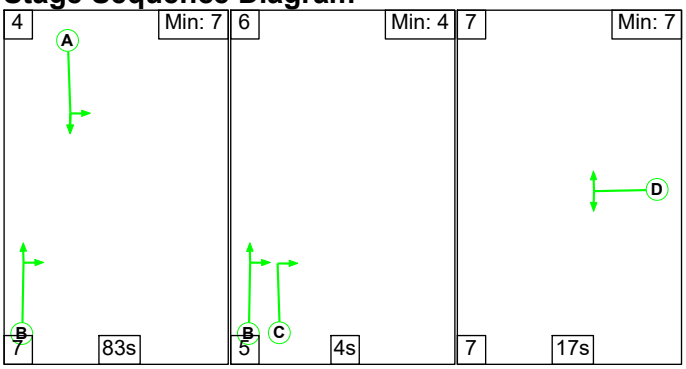
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**128**	**11**	**5**	**7.3**	**3.7**	**0.6**	**11.6**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**128**	**11**	**5**	**7.3**	**3.7**	**0.6**	**11.6**	**-**	**-**	**-**	**-**
1/1+1/2	983	983	-	-	-	2.6	1.5	-	4.0 (3.0+1.1)	14.7 (15.5:12.9)	10.8	1.5	12.3
2/2+2/1	310	310	-	-	-	3.2	1.0	-	4.2 (1.7+2.5)	48.8 (48.2:49.1)	4.4	1.0	5.4
3/1+3/2	944	944	128	11	5	1.6	1.2	0.6	3.4 (2.4+0.9)	12.9 (10.9:23.5)	10.2	1.2	11.4
4/1	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 20.5 Total Delay for Signalled Lanes (pcuHr): 11.59 Cycle Time (s): 92
PRC Over All Lanes (%): 20.5 Total Delay Over All Lanes(pcuHr): 11.59

Full Input Data And Results

Scenario 6: '6' (FG2: '2030 PM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

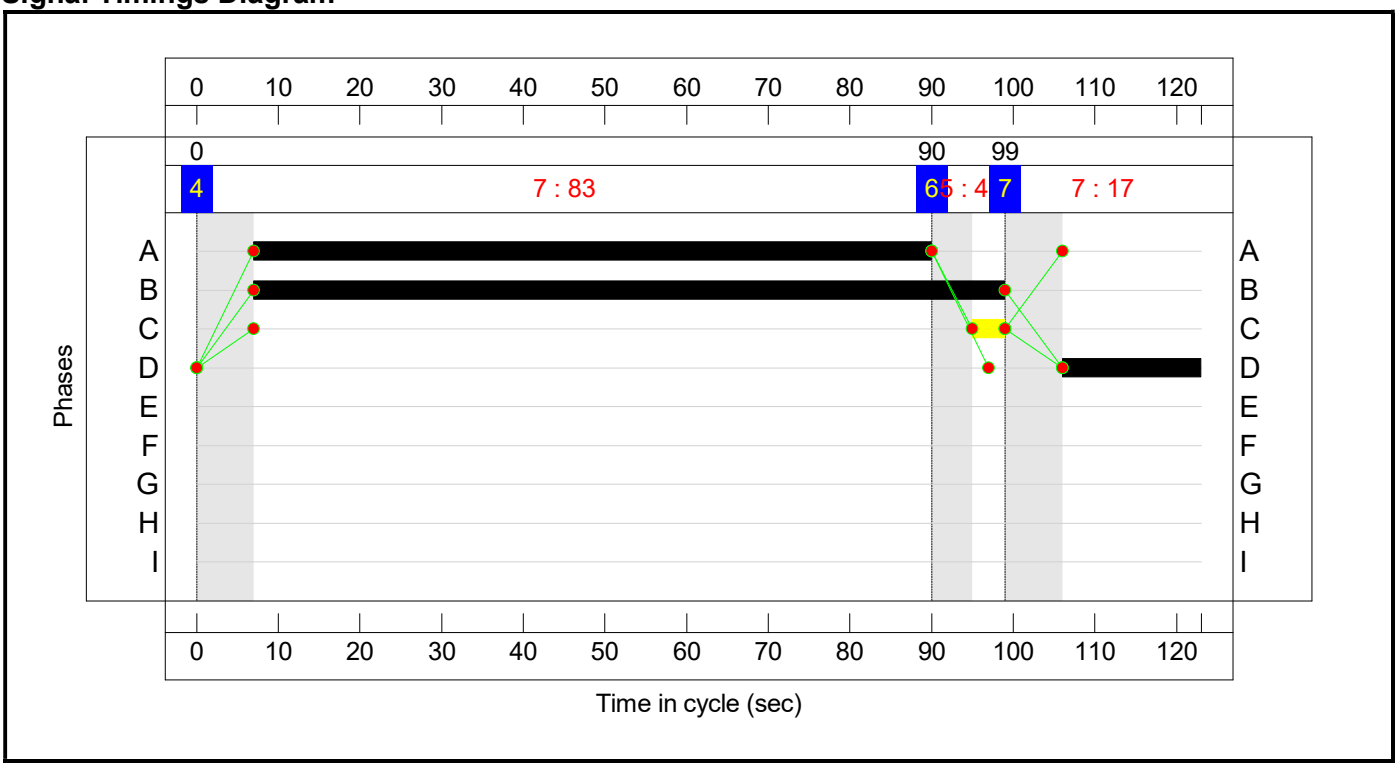
Stage Sequence Diagram



Stage Timings

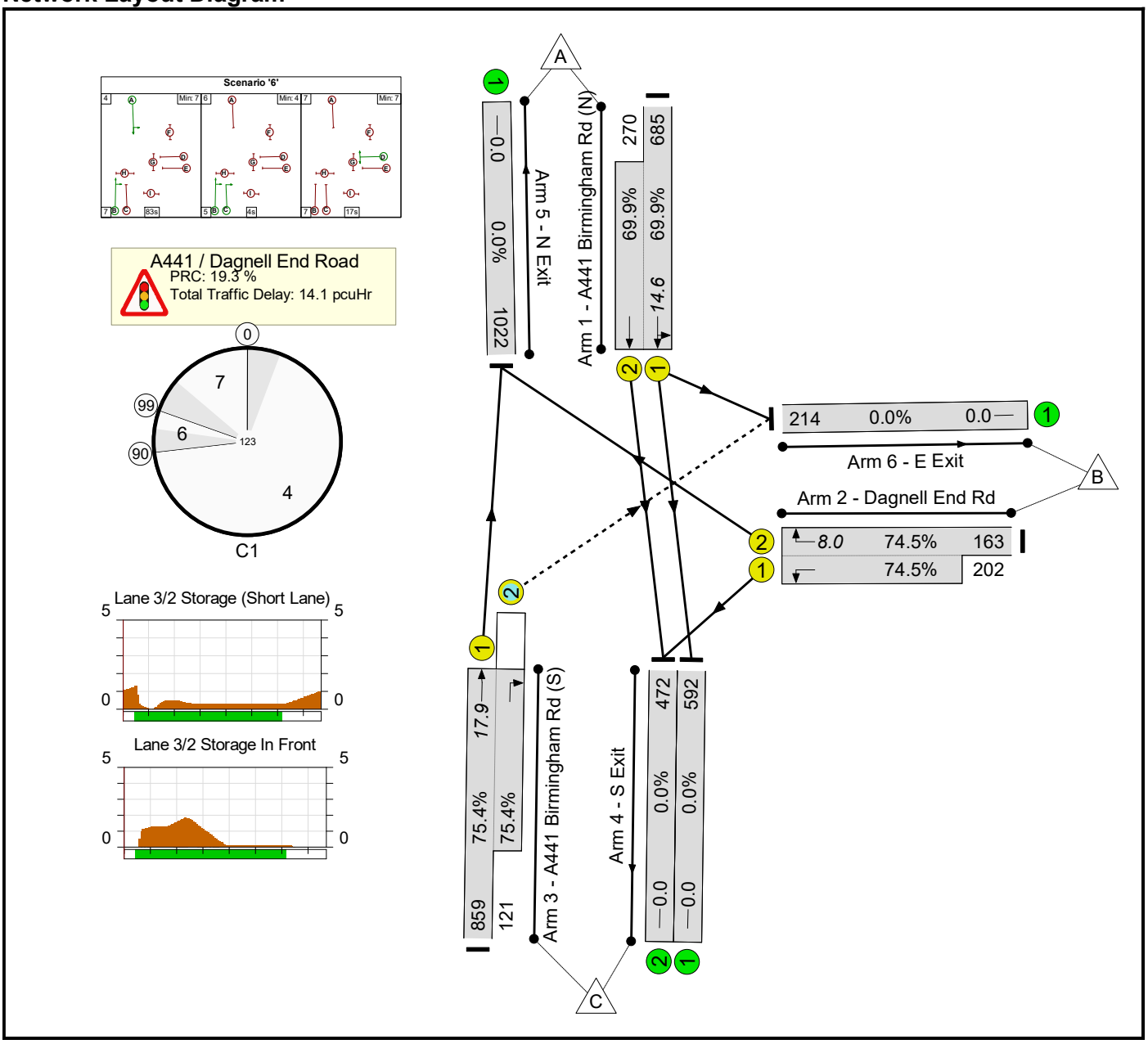
Stage	4	6	7
Duration	83	4	17
Change Point	0	90	99

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**75.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**75.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	83	-	955	1830:1878	981+387	69.9 : 69.9%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	17	0	365	1650:1852	219+271	74.5 : 74.5%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	92	4	980	1641:1800	1139+160	75.4 : 75.4%
4/1	S Exit	U	N/A	N/A	-		-	-	-	592	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1022	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%

Full Input Data And Results

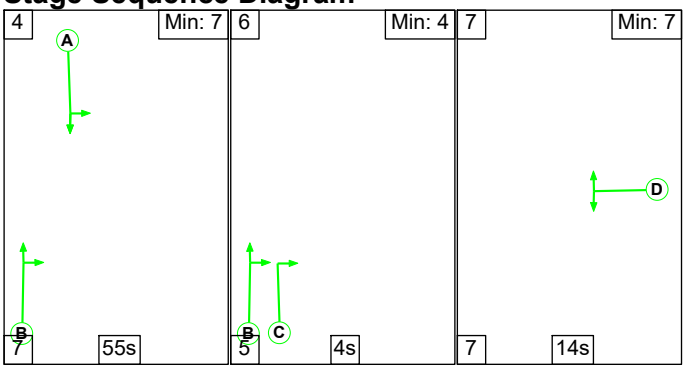
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**9.6**	**4.1**	**0.5**	**14.1**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**9.6**	**4.1**	**0.5**	**14.1**	**-**	**-**	**-**	**-**
1/1+1/2	955	955	-	-	-	2.5	1.2	-	3.6 (2.7+0.9)	13.7 (14.3:11.9)	13.4	1.2	14.6
2/2+2/1	365	365	-	-	-	5.1	1.4	-	6.5 (2.9+3.6)	64.2 (63.8:64.4)	6.6	1.4	8.0
3/1+3/2	980	980	111	7	3	2.0	1.5	0.5	4.0 (3.2+0.8)	14.6 (13.3:23.9)	16.3	1.5	17.9
4/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1022	1022	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 19.3 Total Delay for Signalled Lanes (pcuHr): 14.11 Cycle Time (s): 123
PRC Over All Lanes (%): 19.3 Total Delay Over All Lanes(pcuHr): 14.11

Full Input Data And Results

Scenario 7: '7' (FG3: '2030 AM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

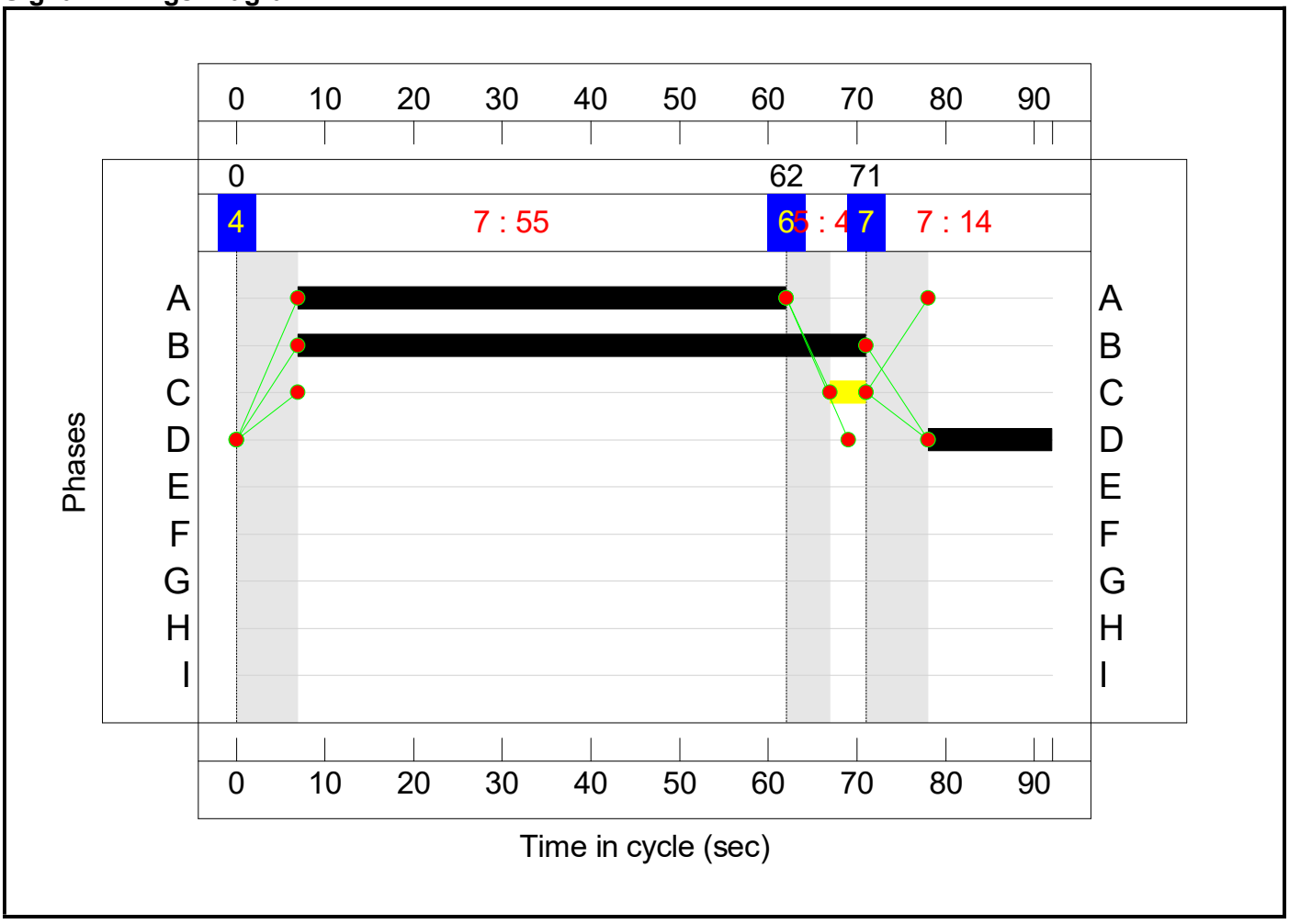
Stage Sequence Diagram



Stage Timings

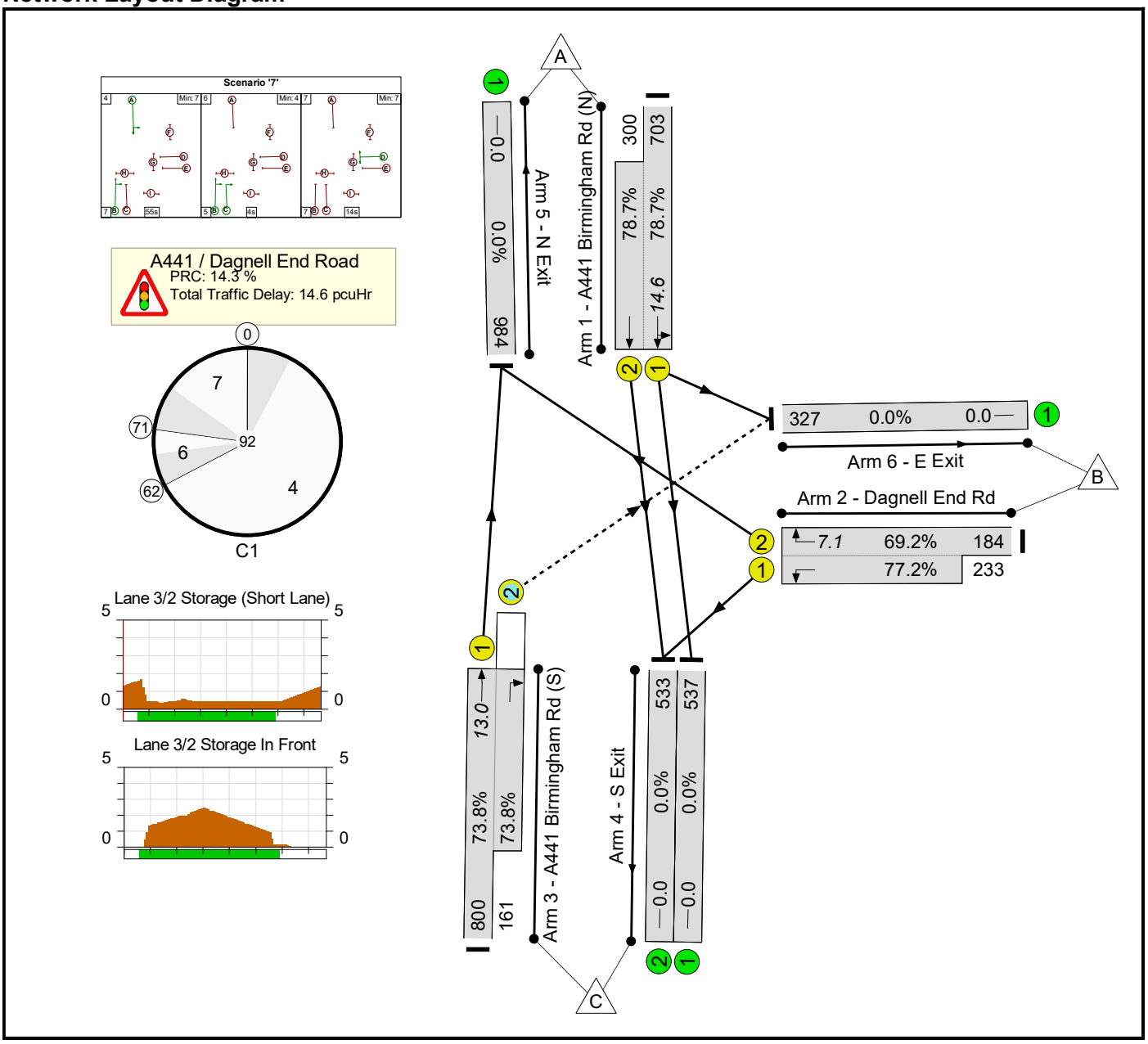
Stage	4	6	7
Duration	55	4	14
Change Point	0	62	71

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**78.7%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**78.7%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	55	-	1003	1809:1878	893+381	78.7 : 78.7%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	14	0	417	1650:1852	266+302	69.2 : 77.2%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	64	4	961	1726:1679	1084+218	73.8 : 73.8%
4/1	S Exit	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%

Full Input Data And Results

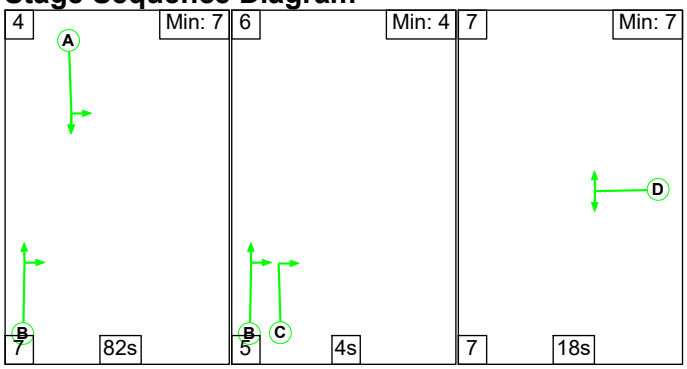
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**113**	**43**	**5**	**9.1**	**4.6**	**1.0**	**14.6**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**113**	**43**	**5**	**9.1**	**4.6**	**1.0**	**14.6**	**-**	**-**	**-**	**-**
1/1+1/2	1003	1003	-	-	-	3.0	1.8	-	4.8 (3.5+1.3)	17.3 (18.2:15.2)	12.8	1.8	14.6
2/2+2/1	417	417	-	-	-	4.2	1.4	-	5.6 (2.5+3.1)	48.3 (48.0:48.6)	5.7	1.4	7.1
3/1+3/2	961	961	113	43	5	1.8	1.4	1.0	4.2 (2.8+1.4)	15.8 (12.6:31.5)	11.6	1.4	13.0
4/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 14.3 Total Delay for Signalled Lanes (pcuHr): 14.62 Cycle Time (s): 92
PRC Over All Lanes (%): 14.3 Total Delay Over All Lanes(pcuHr): 14.62

Full Input Data And Results

Scenario 8: '8' (FG4: '2030 PM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

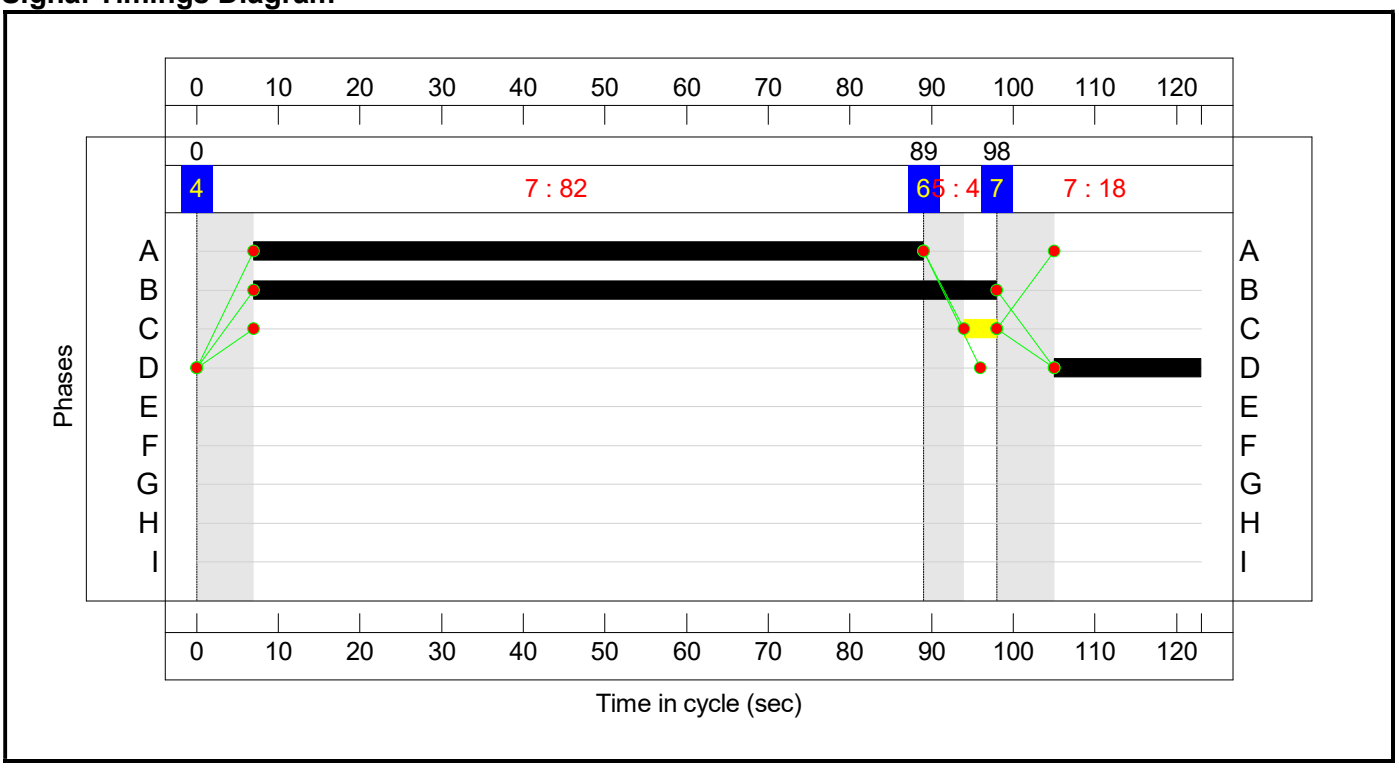
Stage Sequence Diagram



Stage Timings

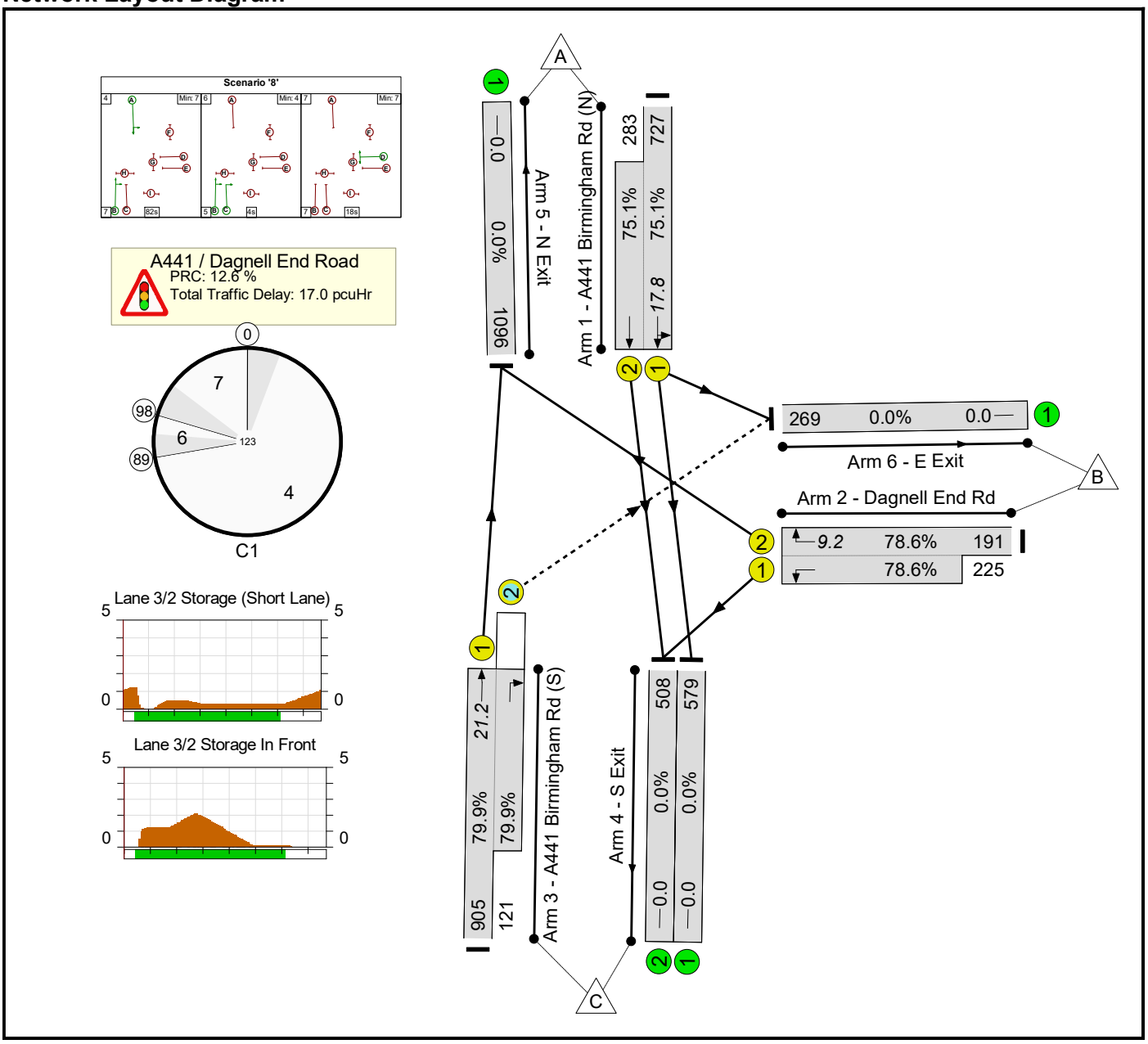
Stage	4	6	7
Duration	82	4	18
Change Point	0	89	98

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.9%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.9%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	82	-	1010	1816:1878	968+377	75.1 : 75.1%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	18	0	416	1650:1852	243+286	78.6 : 78.6%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	91	4	1026	1641:1800	1132+151	79.9 : 79.9%
4/1	S Exit	U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1096	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%

Full Input Data And Results

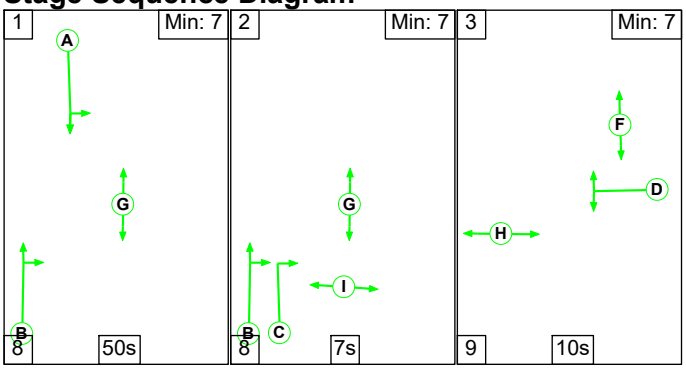
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**11.1**	**5.2**	**0.6**	**17.0**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**111**	**7**	**3**	**11.1**	**5.2**	**0.6**	**17.0**	**-**	**-**	**-**	**-**
1/1+1/2	1010	1010	-	-	-	2.9	1.5	-	4.4 (3.3+1.1)	15.8 (16.4:14.0)	16.3	1.5	17.8
2/2+2/1	416	416	-	-	-	5.8	1.8	-	7.6 (3.5+4.1)	65.4 (65.2:65.5)	7.4	1.8	9.2
3/1+3/2	1026	1026	111	7	3	2.4	2.0	0.6	5.0 (4.0+1.1)	17.7 (15.7:32.0)	19.2	2.0	21.2
4/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1096	1096	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	269	269	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 12.6 Total Delay for Signalled Lanes (pcuHr): 17.01 Cycle Time (s): 123
PRC Over All Lanes (%): 12.6 Total Delay Over All Lanes(pcuHr): 17.01

Full Input Data And Results

Scenario 9: '9' (FG1: '2030 AM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

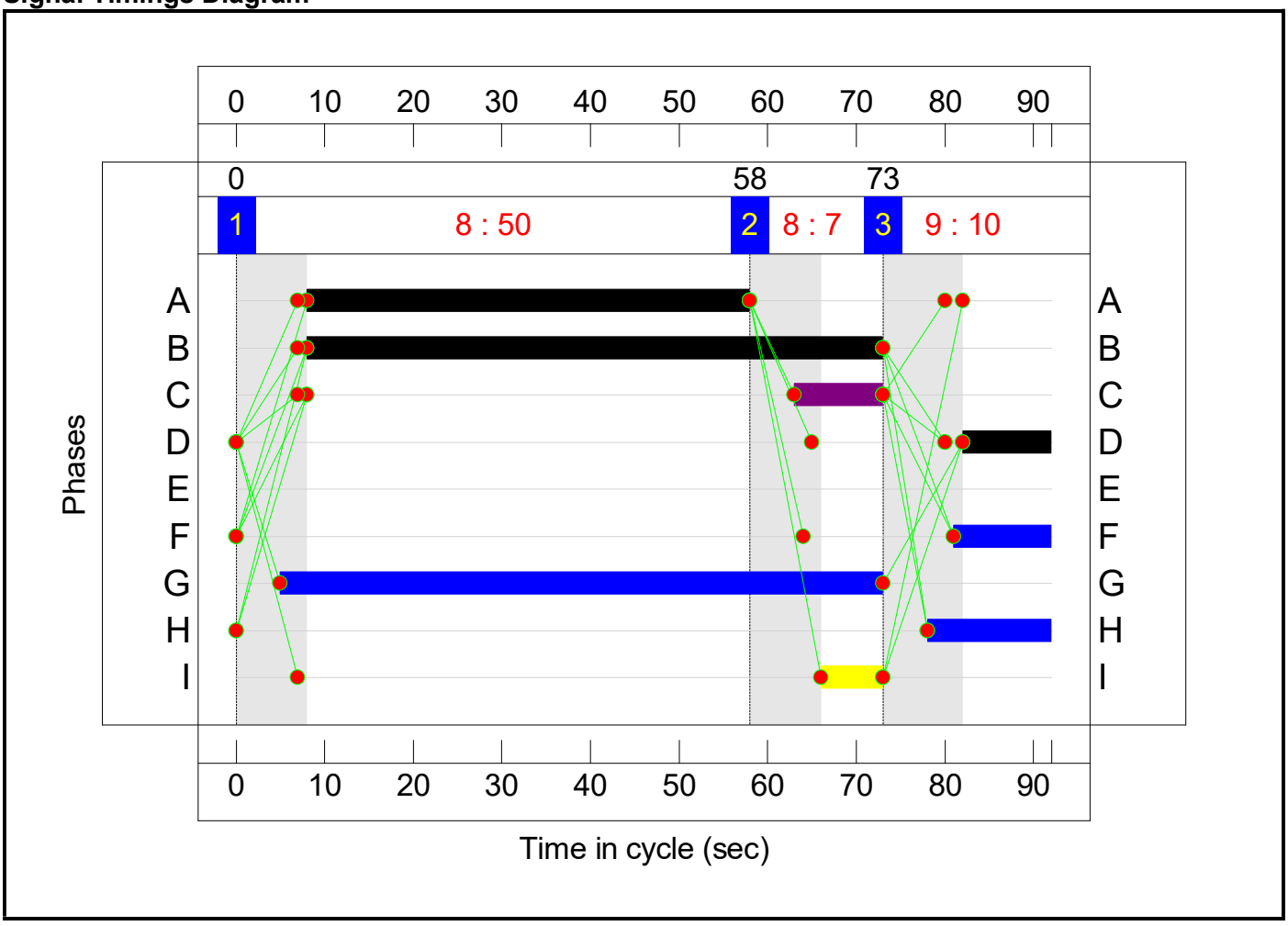
Stage Sequence Diagram



Stage Timings

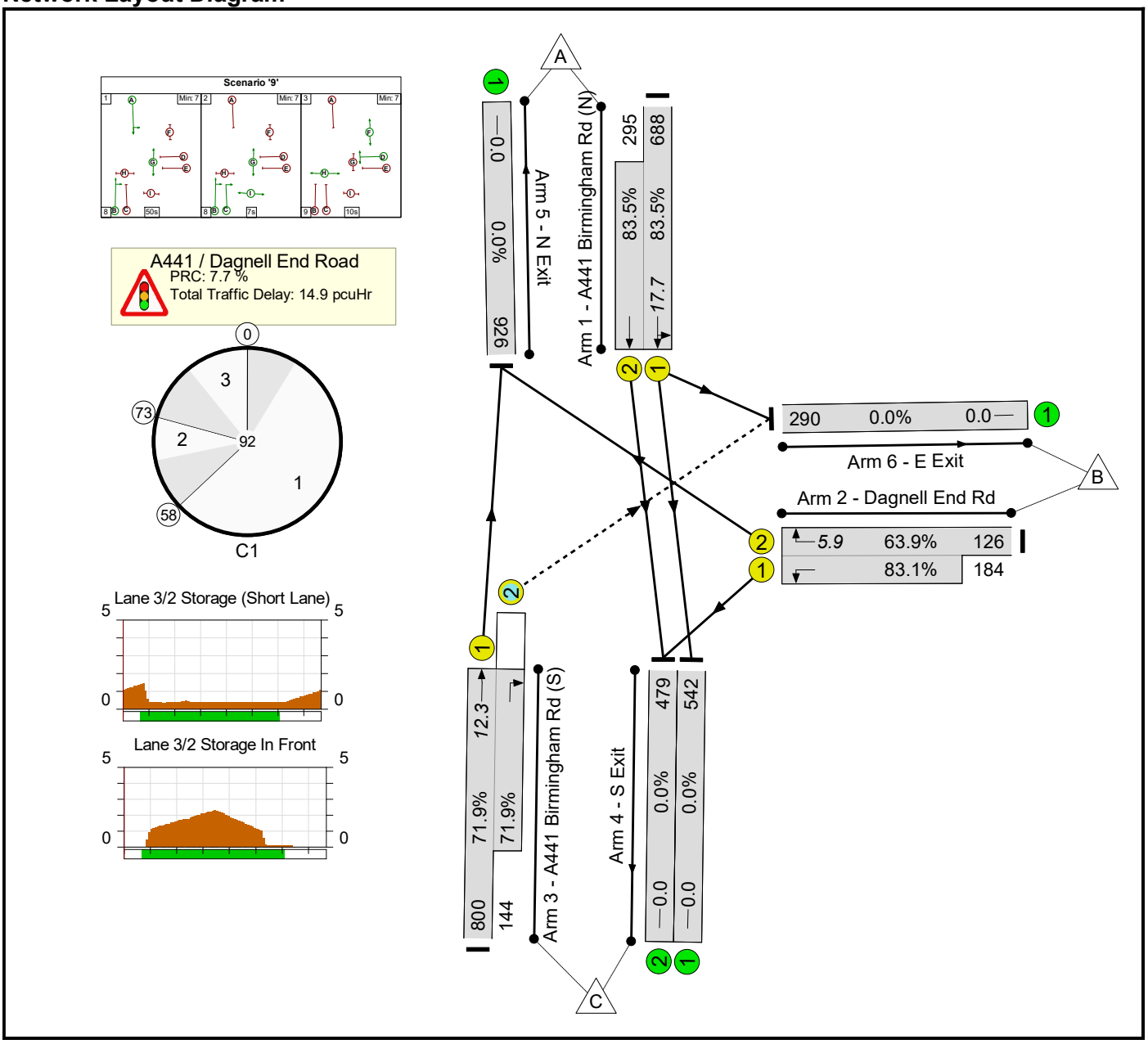
Stage	1	2	3
Duration	50	7	10
Change Point	0	58	73

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.5%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	50	-	983	1814:1878	824+353	83.5 : 83.5%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	10	0	310	1650:1852	197+221	63.9 : 83.1%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	65	10	944	1726:1679	1113+200	71.9 : 71.9%
4/1	S Exit	U	N/A	N/A	-		-	-	-	542	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	479	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%

Full Input Data And Results

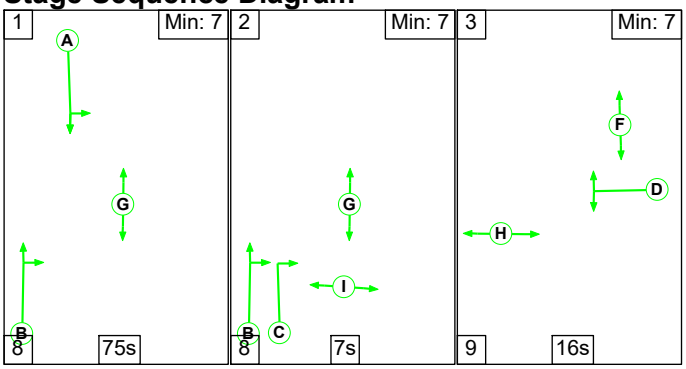
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**84**	**56**	**5**	**8.9**	**5.1**	**0.9**	**14.9**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**84**	**56**	**5**	**8.9**	**5.1**	**0.9**	**14.9**	**-**	**-**	**-**	**-**
1/1+1/2	983	983	-	-	-	3.8	2.5	-	6.3 (4.6+1.7)	23.1 (24.0:20.8)	15.2	2.5	17.7
2/2+2/1	310	310	-	-	-	3.4	1.4	-	4.8 (1.9+2.8)	55.3 (54.8:55.7)	4.5	1.4	5.9
3/1+3/2	944	944	84	56	5	1.7	1.3	0.9	3.8 (2.6+1.2)	14.5 (11.7:30.4)	11.0	1.3	12.3
4/1	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 7.7 Total Delay for Signalled Lanes (pcuHr): 14.88 Cycle Time (s): 92
PRC Over All Lanes (%): 7.7 Total Delay Over All Lanes(pcuHr): 14.88

Full Input Data And Results

Scenario 10: '10' (FG2: '2030 PM Effective Base', Plan 3: 'Network Control Plan 3 (Peds)')

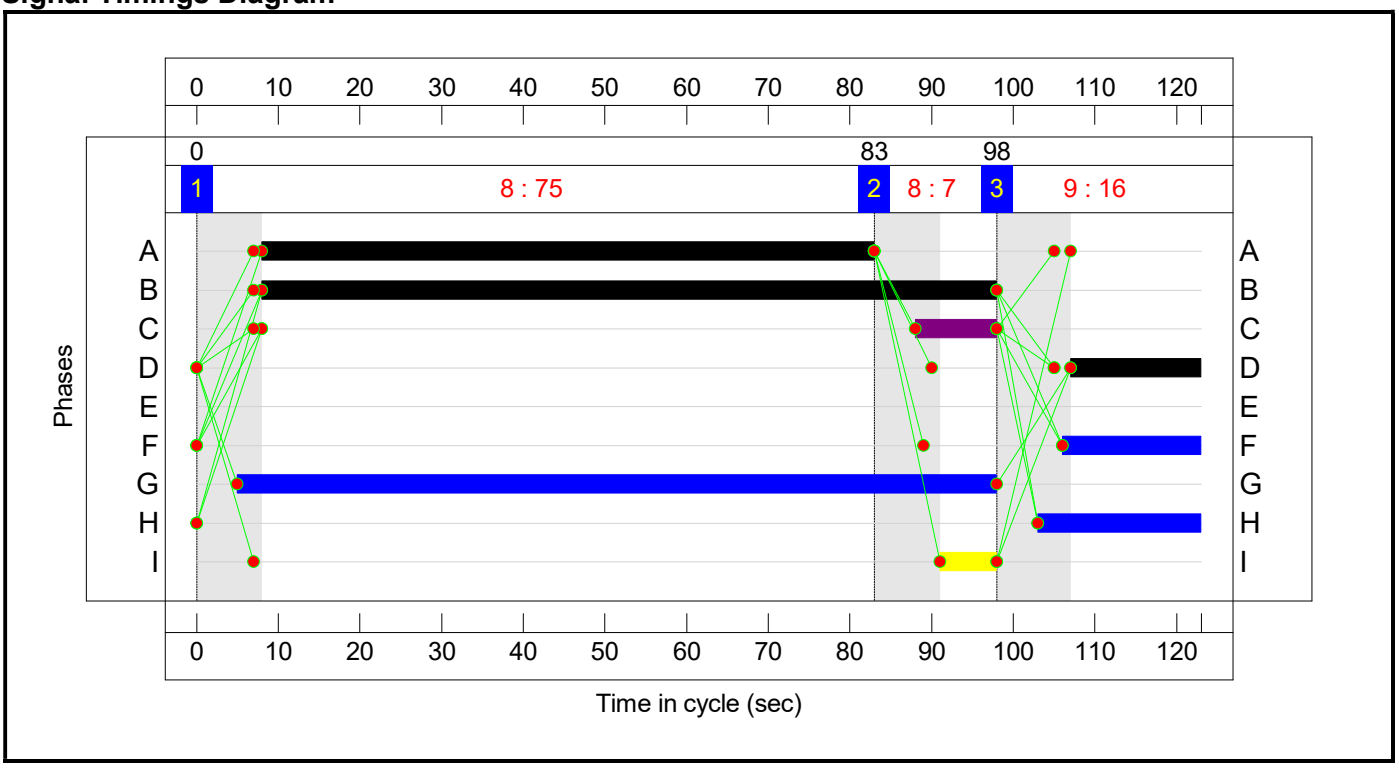
Stage Sequence Diagram



Stage Timings

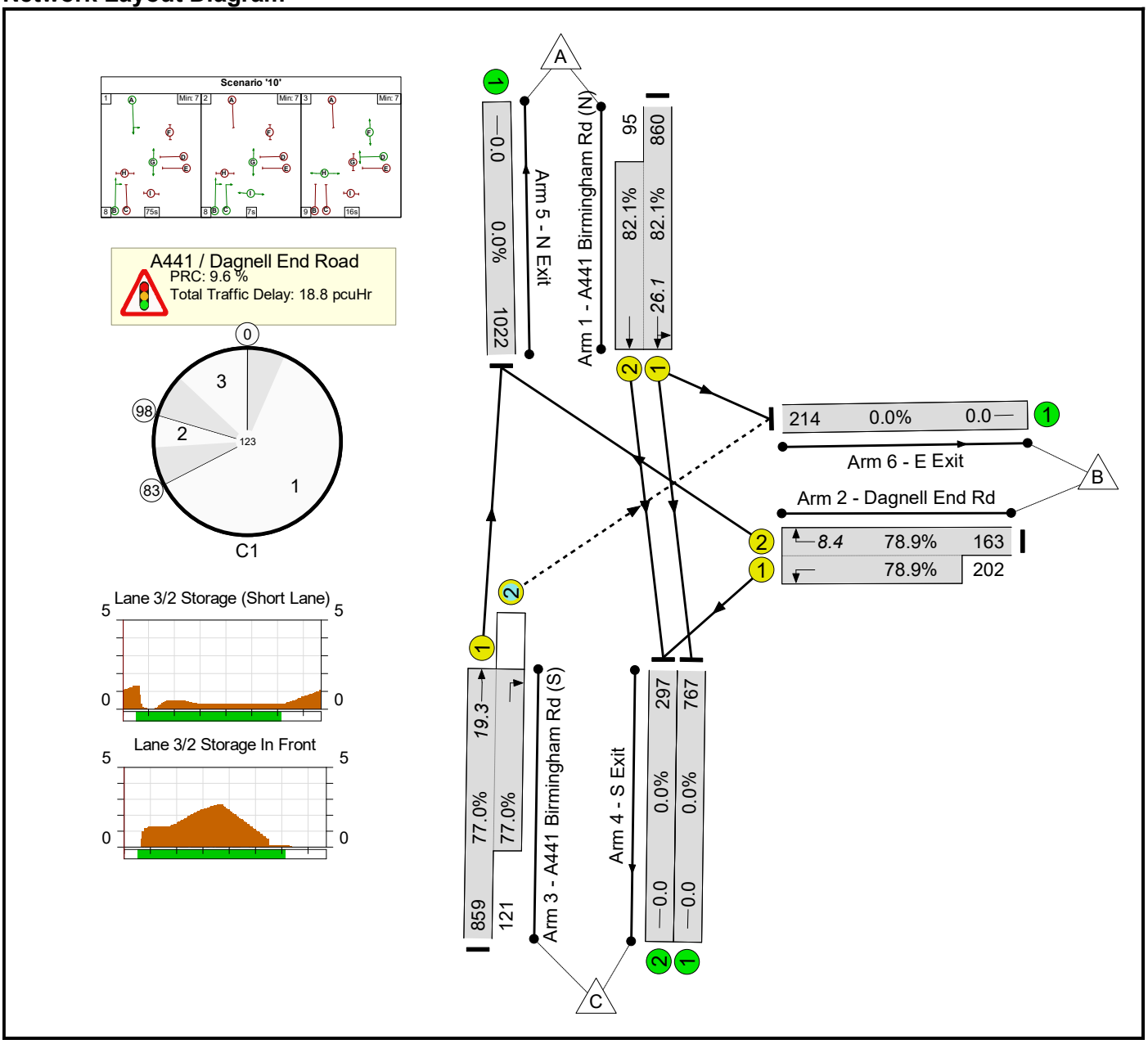
Stage	1	2	3
Duration	75	7	16
Change Point	0	83	98

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.1%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	75	-	955	1836:1878	1047+116	82.1 : 82.1%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	16	0	365	1650:1852	207+256	78.9 : 78.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	90	10	980	1641:1800	1115+157	77.0 : 77.0%
4/1	S Exit	U	N/A	N/A	-		-	-	-	767	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1022	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%

Full Input Data And Results

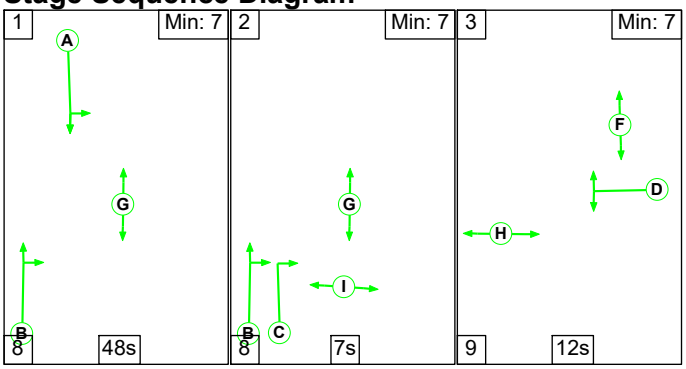
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**93**	**25**	**3**	**12.1**	**5.7**	**1.0**	**18.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**93**	**25**	**3**	**12.1**	**5.7**	**1.0**	**18.8**	**-**	**-**	**-**	**-**
1/1+1/2	955	955	-	-	-	4.6	2.2	-	6.8 (6.2+0.6)	25.7 (26.0:23.0)	23.8	2.2	26.1
2/2+2/1	365	365	-	-	-	5.2	1.8	-	7.0 (3.1+3.9)	68.8 (68.5:69.1)	6.6	1.8	8.4
3/1+3/2	980	980	93	25	3	2.3	1.7	1.0	5.0 (3.6+1.4)	18.2 (14.9:41.6)	17.7	1.7	19.3
4/1	767	767	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1022	1022	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.6 Total Delay for Signalled Lanes (pcuHr): 18.76 Cycle Time (s): 123
PRC Over All Lanes (%): 9.6 Total Delay Over All Lanes(pcuHr): 18.76

Full Input Data And Results

Scenario 11: '11' (FG3: '2030 AM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

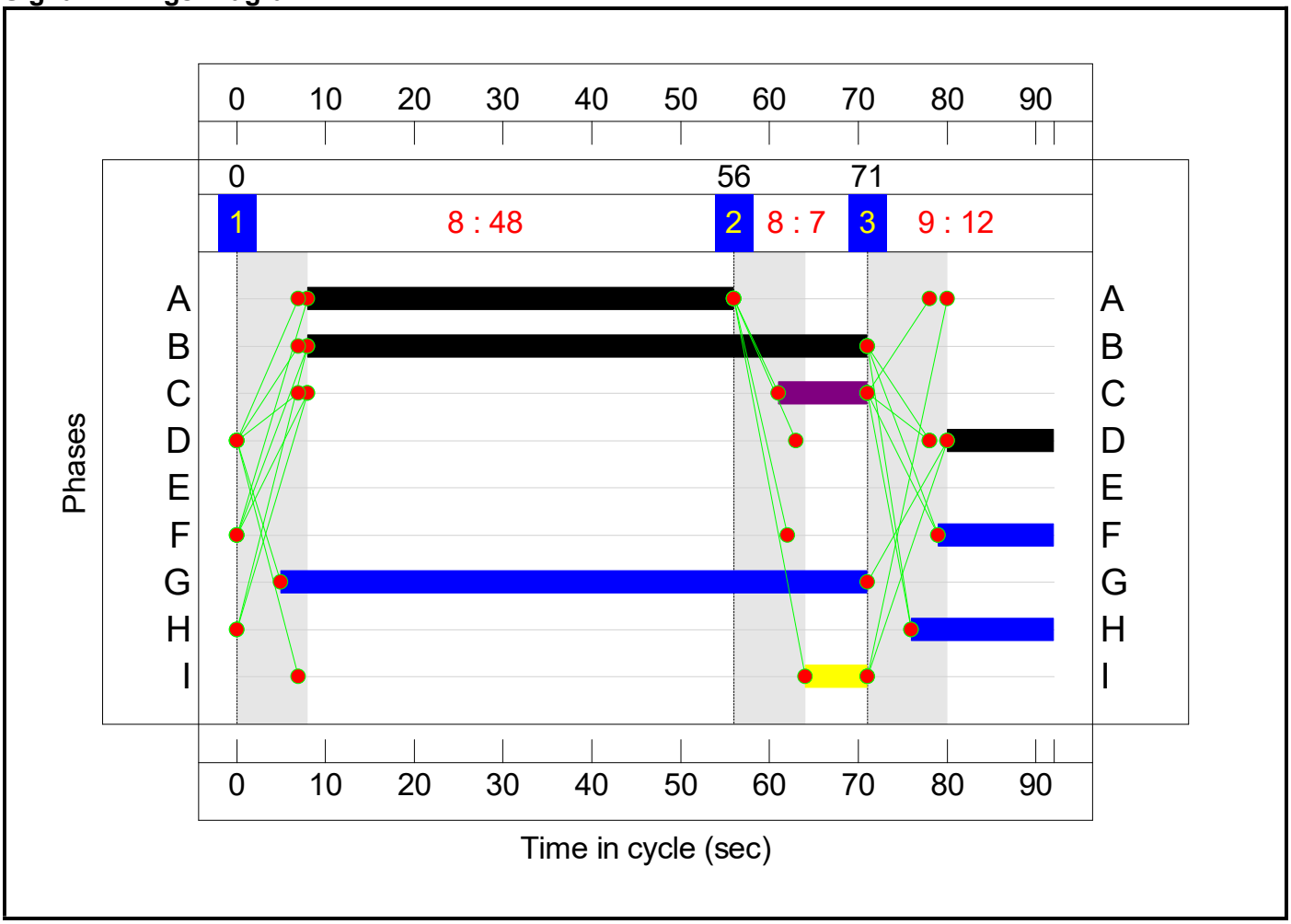
Stage Sequence Diagram



Stage Timings

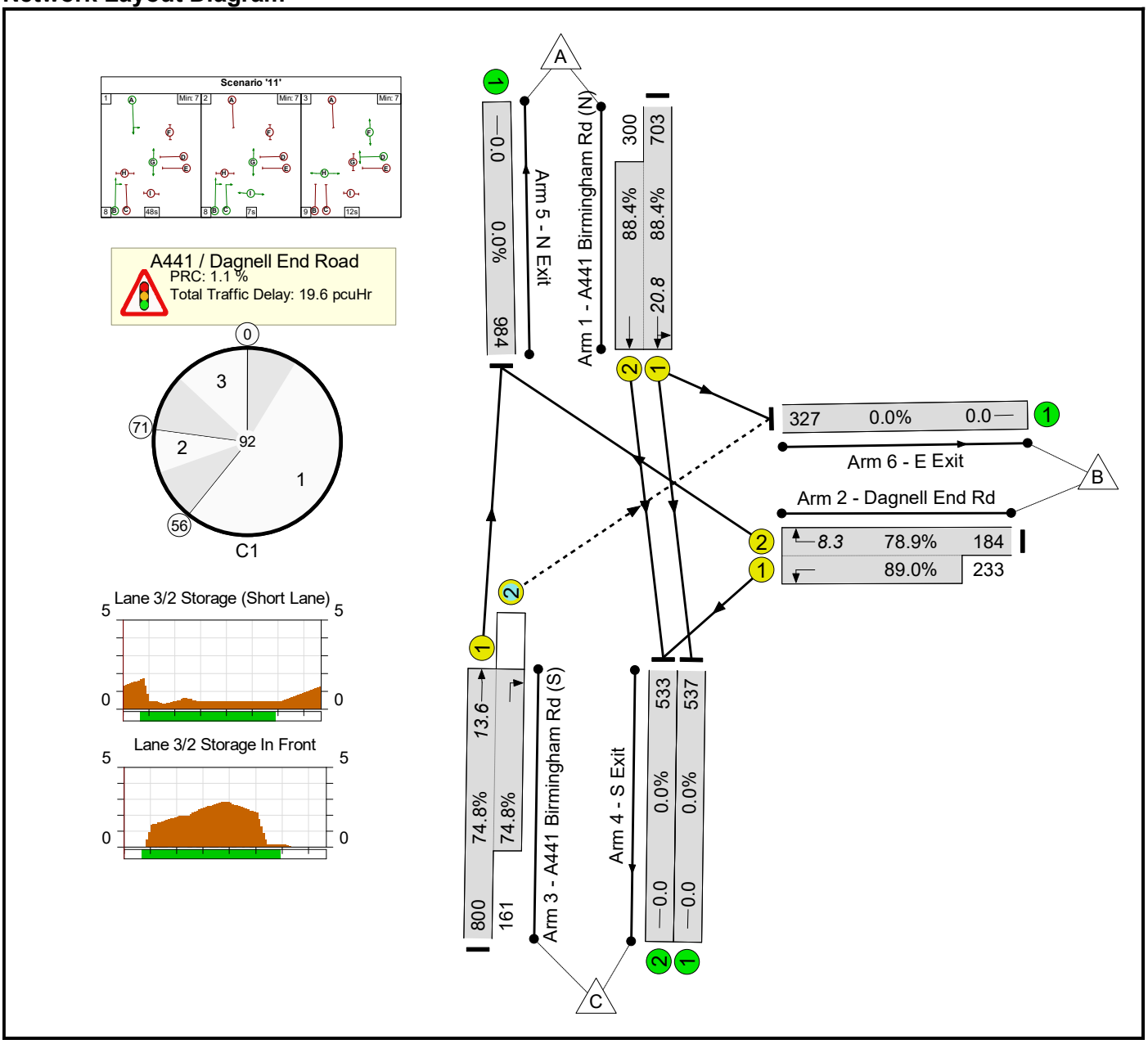
Stage	1	2	3
Duration	48	7	12
Change Point	0	56	71

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.0%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**89.0%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	48	-	1003	1809:1878	795+339	88.4 : 88.4%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	12	0	417	1650:1852	233+262	78.9 : 89.0%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	63	10	961	1726:1679	1069+215	74.8 : 74.8%
4/1	S Exit	U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	533	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%

Full Input Data And Results

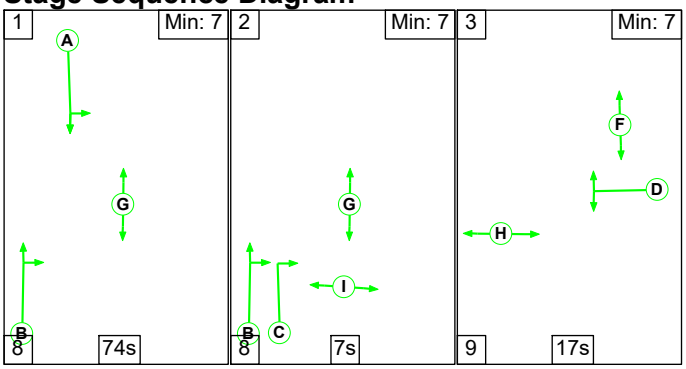
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**54**	**102**	**5**	**10.9**	**7.6**	**1.1**	**19.6**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**54**	**102**	**5**	**10.9**	**7.6**	**1.1**	**19.6**	**-**	**-**	**-**	**-**
1/1+1/2	1003	1003	-	-	-	4.4	3.6	-	8.0 (5.8+2.2)	28.9 (29.8:26.6)	17.2	3.6	20.8
2/2+2/1	417	417	-	-	-	4.5	2.5	-	7.0 (3.1+3.9)	60.2 (59.9:60.5)	5.8	2.5	8.3
3/1+3/2	961	961	54	102	5	2.0	1.5	1.1	4.6 (3.0+1.6)	17.2 (13.5:35.7)	12.1	1.5	13.6
4/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 1.1 Total Delay for Signalled Lanes (pcuHr): 19.61 Cycle Time (s): 92
PRC Over All Lanes (%): 1.1 Total Delay Over All Lanes(pcuHr): 19.61

Full Input Data And Results

Scenario 12: '12' (FG4: '2030 PM Effective Base + Dev', Plan 3: 'Network Control Plan 3 (Peds)')

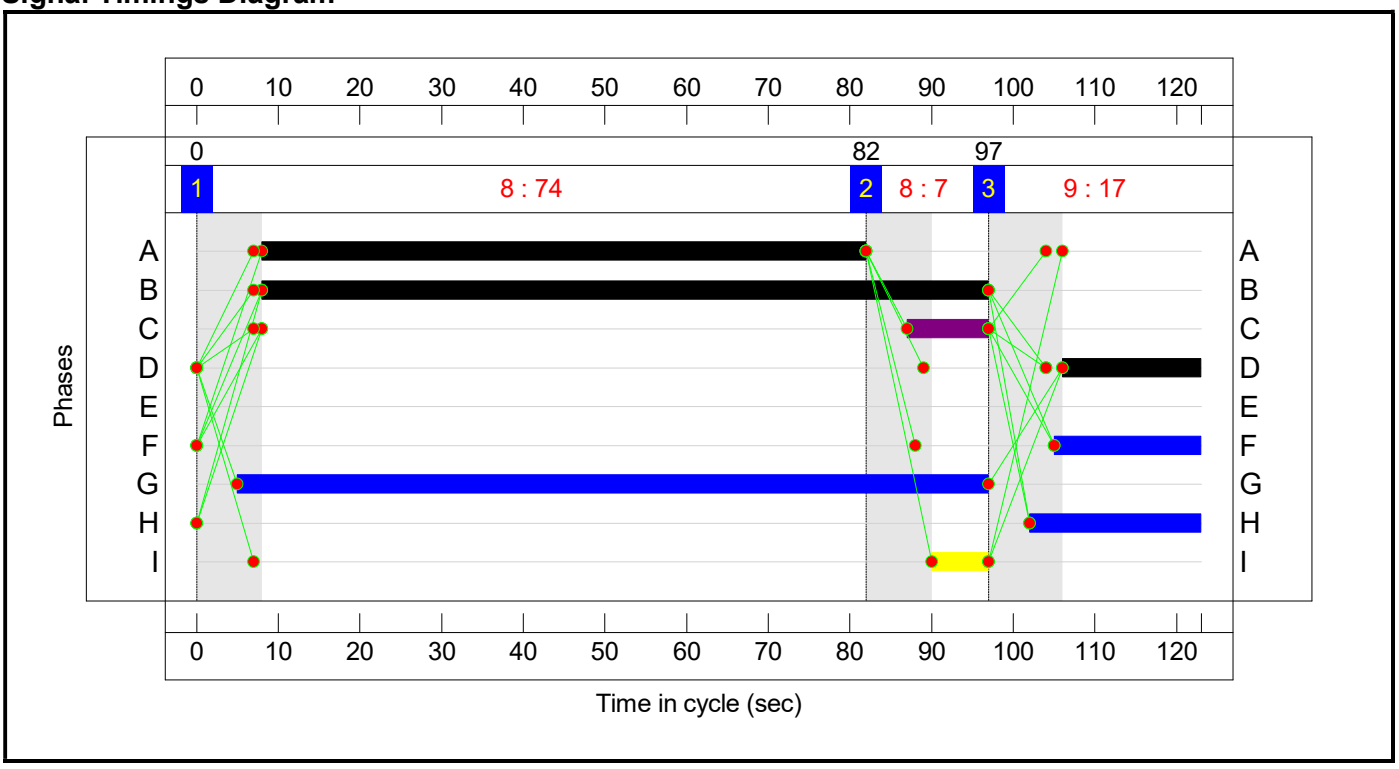
Stage Sequence Diagram



Stage Timings

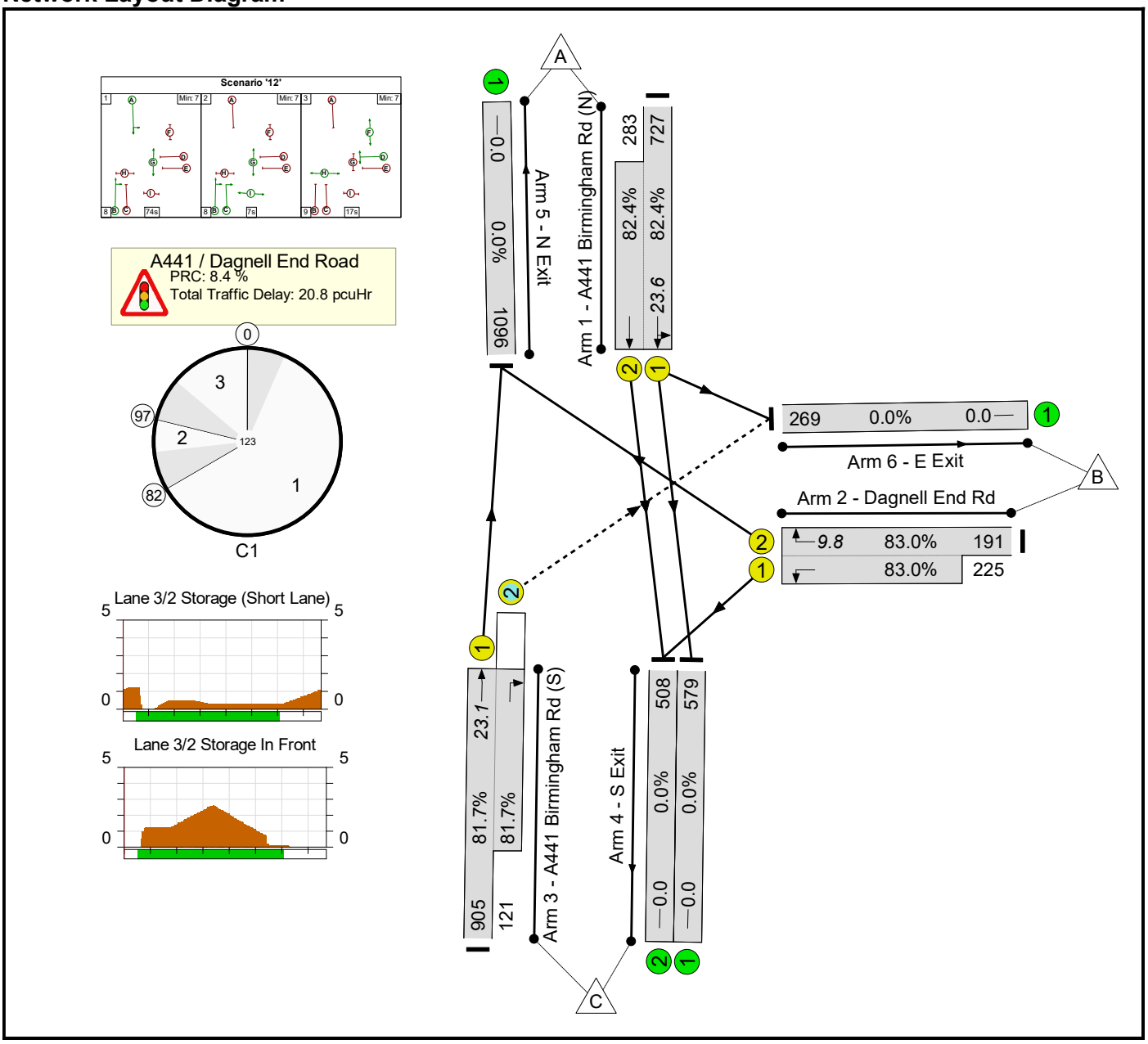
Stage	1	2	3
Duration	74	7	17
Change Point	0	82	97

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.0%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.0%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	74	-	1010	1816:1878	883+344	82.4 : 82.4%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	17	0	416	1650:1852	230+271	83.0 : 83.0%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	89	10	1026	1641:1800	1108+148	81.7 : 81.7%
4/1	S Exit	U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1096	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**88**	**30**	**3**	**13.1**	**6.8**	**0.9**	**20.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**88**	**30**	**3**	**13.1**	**6.8**	**0.9**	**20.8**	**-**	**-**	**-**	**-**
1/1+1/2	1010	1010	-	-	-	4.4	2.3	-	6.7 (5.0+1.7)	23.9 (24.6:22.1)	21.4	2.3	23.6
2/2+2/1	416	416	-	-	-	5.9	2.3	-	8.2 (3.8+4.4)	70.9 (70.8:71.1)	7.4	2.3	9.8
3/1+3/2	1026	1026	88	30	3	2.8	2.2	0.9	5.9 (4.5+1.4)	20.7 (17.8:42.7)	20.9	2.2	23.1
4/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1096	1096	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	269	269	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 8.4 Total Delay for Signalled Lanes (pcuHr): 20.79 Cycle Time (s): 123
PRC Over All Lanes (%): 8.4 Total Delay Over All Lanes(pcuHr): 20.79

mode
transport planning

APPENDIX E

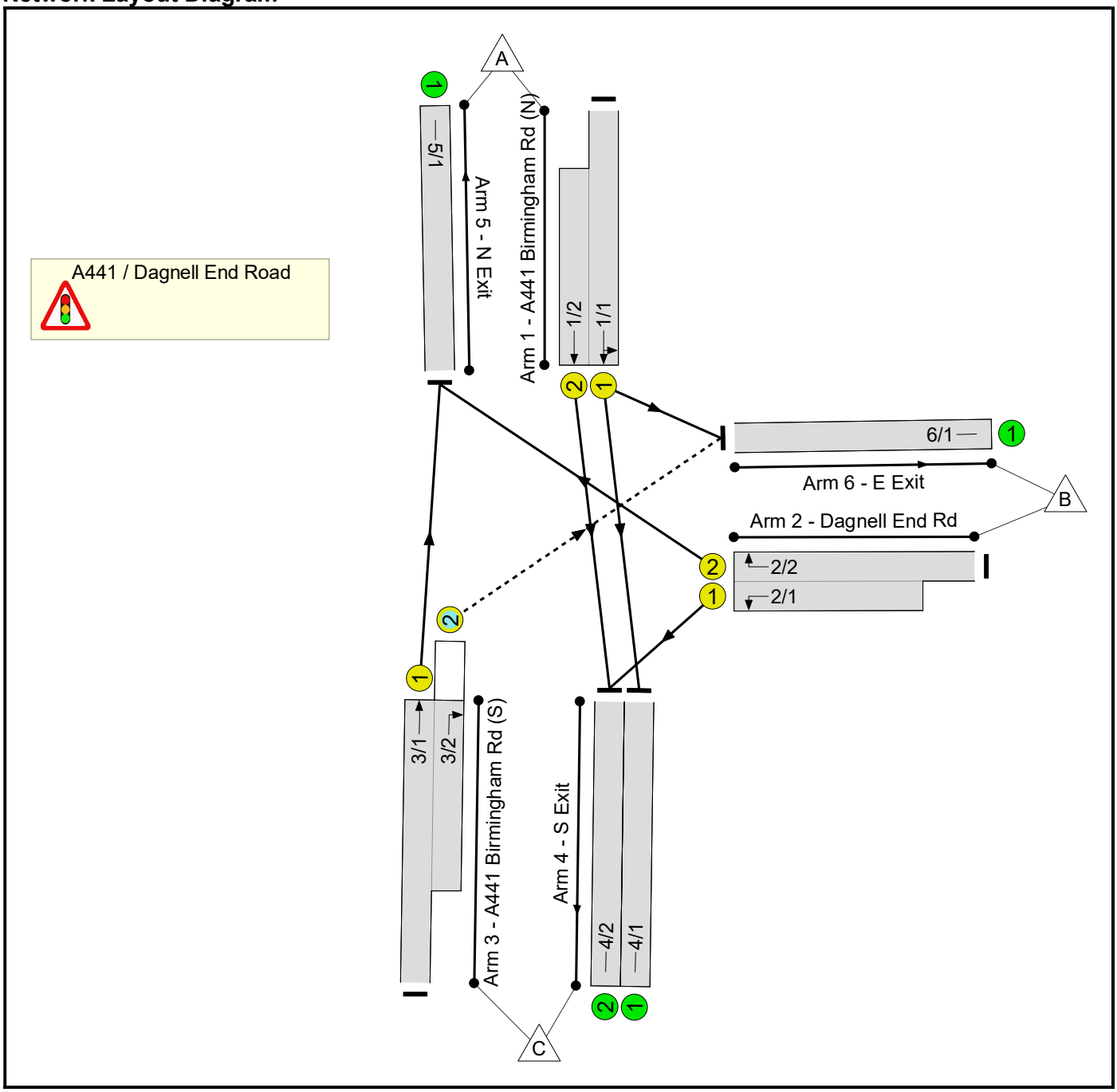
LinSig Model Output Report - Scenario SEN1 & SEN2

Full Input Data And Results

User and Project Details

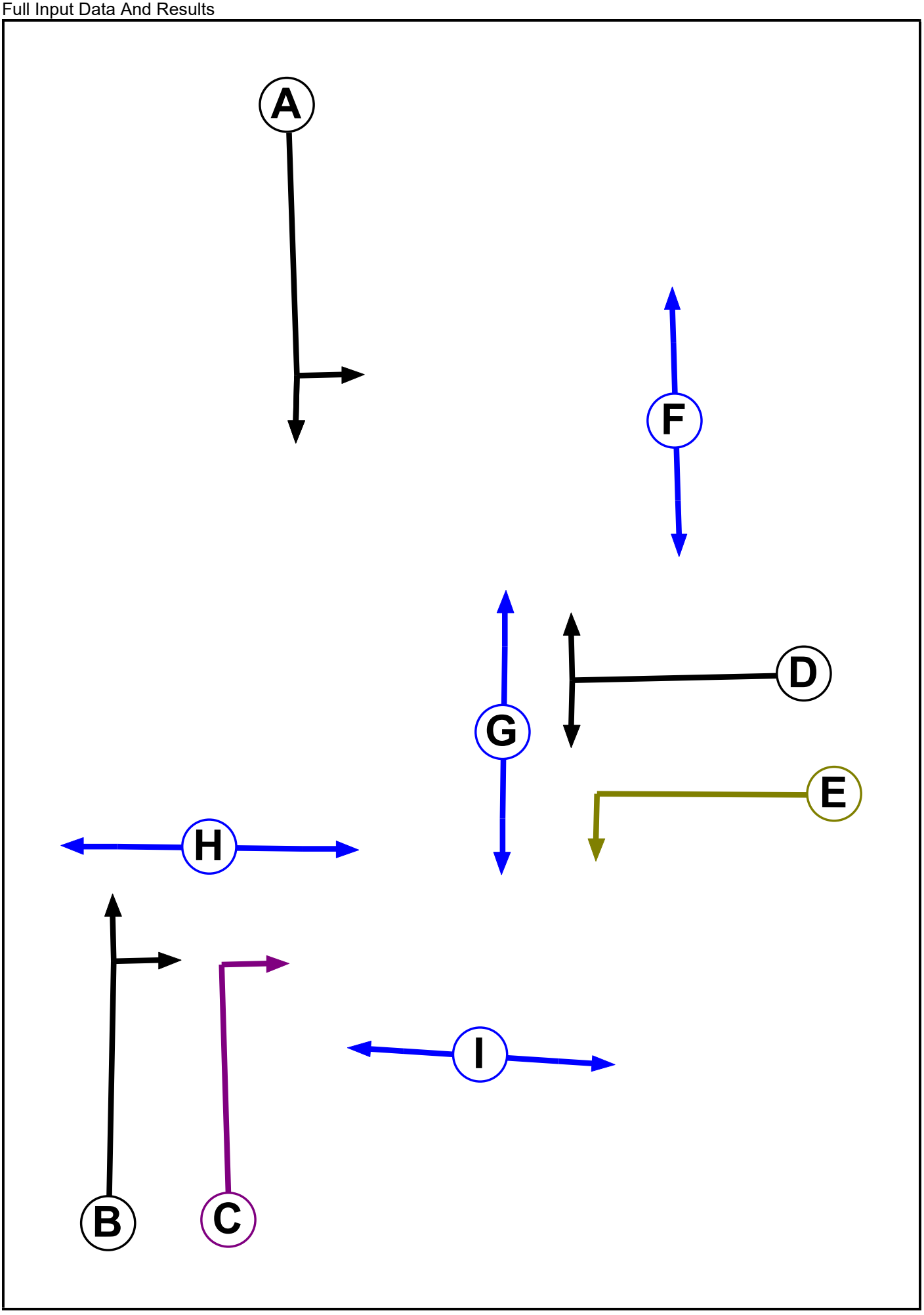
Project:	
Title:	**A441 / Dagnell End Road**
Location:	
Additional detail:	Proposed layout
File name:	A441_Dagnell End Rd v2 Rev B - Sens.lsg3x
Author:	al
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram


A
F
D
G
E
H
I
B
C

Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Ind. Arrow	B	4	4
D	Traffic		7	7
E	Filter	D	4	0
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7

Phase Intergreens Matrix

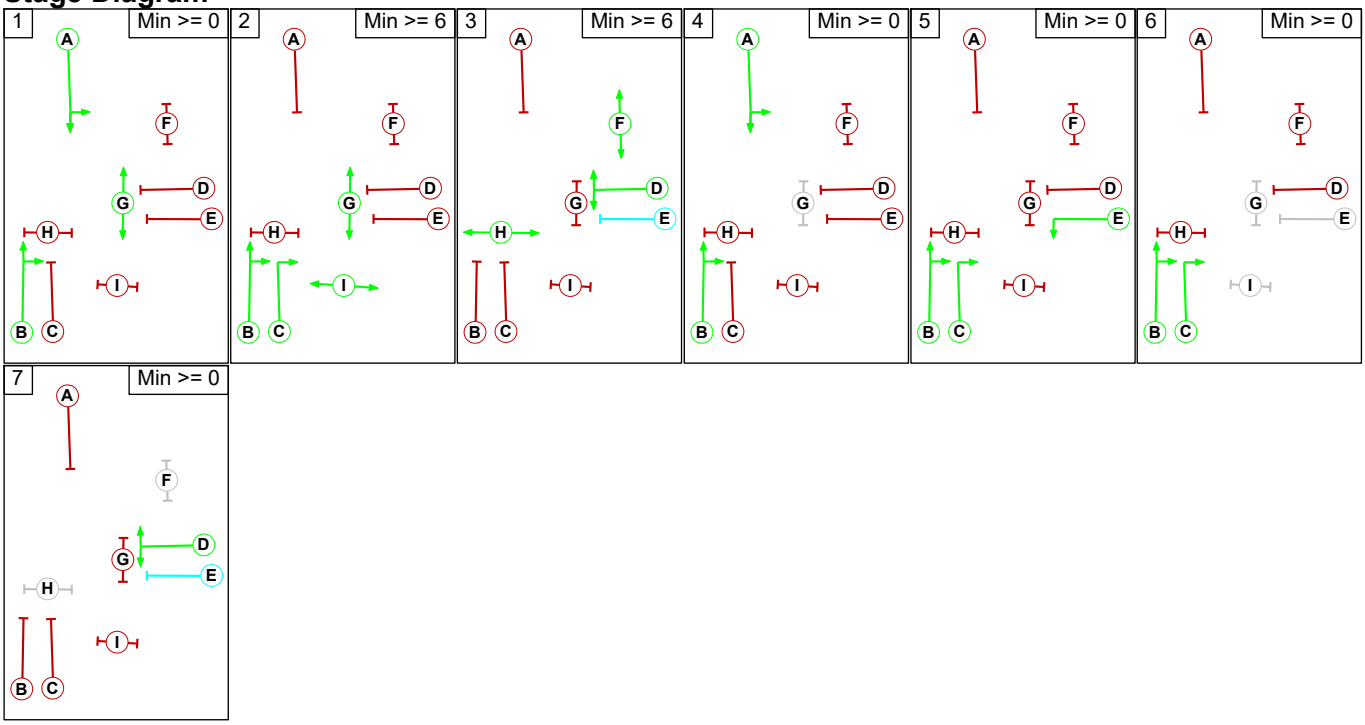
		Starting Phase								
		A	B	C	D	E	F	G	H	I
Terminating Phase	A		-	5	7	7	6	-	-	8
	B	-		-	7	-	8	-	5	-
	C	7	-		7	-	8	-	5	-
	D	7	7	7		-	-	5	-	7
	E	6	-	-	-		-	5	-	7
	F	8	8	8	-	-		-	-	-
	G	-	-	-	9	9	-		-	-
	H	-	8	8	-	-	-	-		-
	I	9	-	-	9	9	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B G
2	B C G I
3	D F H
4	A B
5	B C E
6	B C
7	D

Full Input Data And Results

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	5	6	7
1		8	9	0	9	5	9
2	9		9	9	9	0	9
3	8	8		8	8	8	0
4	0	8	8		7	5	7
5	X	X	8	X		X	7
6	7	0	8	7	0		7
7	7	7	0	7	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A441 / Dagnell End Road											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
3/2 (A441 Birmingham Rd (S))	6/1 (Right)	1439	0	1/1	1.09	All	3.00	-	0.50	3	3.00
				1/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A441 / Dagnell End Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A441 Birmingham Rd (N))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	50.00
											Arm 6 Left	10.00
1/2 (A441 Birmingham Rd (N))	U	A	2	3	10.0	Geom	-	3.00	0.00	Y	Arm 4 Ahead	77.00
2/1 (Dagnell End Rd)	U	D E	2	3	9.6	Geom	-	3.10	0.00	Y	Arm 4 Left	38.00
2/2 (Dagnell End Rd)	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 5 Right	9.00
3/1 (A441 Birmingham Rd (S))	U	B	2	3	60.0	User	1800	-	-	-	-	-
3/2 (A441 Birmingham Rd (S))	O	B C	2	3	9.7	User	1800	-	-	-	-	-
4/1 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (N Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (E Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2030 AM Effective Base'	08:00	09:00	01:00	
2: '2030 PM Effective Base'	17:00	18:00	01:00	
3: '2030 AM Effective Base + Dev'	08:00	09:00	01:00	
4: '2030 PM Effective Base + Dev'	17:00	18:00	01:00	

Scenario 1: '1' (FG1: '2030 AM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	152	897	1049
	B	132	0	193	325
	C	844	150	0	994
	Tot.	976	302	1090	2368

Traffic Lane Flows

Lane	Scenario 1: 1
Junction: A441 / Dagnell End Road	
1/1 (with short)	1049(In) 754(Out)
1/2 (short)	295
2/1 (short)	193
2/2 (with short)	325(In) 132(Out)
3/1 (with short)	994(In) 844(Out)
3/2 (short)	150
4/1	602
4/2	488
5/1	976
6/1	302

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.8 %	1817	1817
				Arm 6 Left	10.00	20.2 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2' (FG2: '2030 PM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	103	990	1093
	B	180	0	220	400
	C	1005	132	0	1137
	Tot.	1185	235	1210	2630

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2
Junction: A441 / Dagnell End Road	
1/1 (with short)	1093(In) 823(Out)
1/2 (short)	270
2/1 (short)	220
2/2 (with short)	400(In) 180(Out)
3/1 (with short)	1137(In) 1005(Out)
3/2 (short)	132
4/1	720
4/2	490
5/1	1185
6/1	235

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	87.5 %	1833	1833
				Arm 6 Left	10.00	12.5 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '3' (FG3: '2030 AM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	172	897	1069
	B	190	0	242	432
	C	844	167	0	1011
	Tot.	1034	339	1139	2512

Traffic Lane Flows

Lane	Scenario 3: 3
Junction: A441 / Dagnell End Road	
1/1 (with short)	1069(In) 769(Out)
1/2 (short)	300
2/1 (short)	242
2/2 (with short)	432(In) 190(Out)
3/1 (with short)	1011(In) 844(Out)
3/2 (short)	167
4/1	597
4/2	542
5/1	1034
6/1	339

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	77.6 %	1812	1812
				Arm 6 Left	10.00	22.4 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '4' (FG4: '2030 PM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	158	990	1148
	B	208	0	243	451
	C	1051	132	0	1183
	Tot.	1259	290	1233	2782

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 4
Junction: A441 / Dagnell End Road	
1/1 (with short)	1148(In) 878(Out)
1/2 (short)	270
2/1 (short)	243
2/2 (with short)	451(In) 208(Out)
3/1 (with short)	1183(In) 1051(Out)
3/2 (short)	132
4/1	720
4/2	513
5/1	1259
6/1	290

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	82.0 %	1821	1821
				Arm 6 Left	10.00	18.0 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '5' (FG1: '2030 AM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	152	897	1049
	B	132	0	193	325
	C	844	150	0	994
	Tot.	976	302	1090	2368

Traffic Lane Flows

Lane	Scenario 5: 5
Junction: A441 / Dagnell End Road	
1/1 (with short)	1049(In) 754(Out)
1/2 (short)	295
2/1 (short)	193
2/2 (with short)	325(In) 132(Out)
3/1 (with short)	994(In) 844(Out)
3/2 (short)	150
4/1	602
4/2	488
5/1	976
6/1	302

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	79.8 %	1817	1817
				Arm 6 Left	10.00	20.2 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '6' (FG2: '2030 PM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	103	990	1093
	B	180	0	220	400
	C	1005	132	0	1137
	Tot.	1185	235	1210	2630

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 6
Junction: A441 / Dagnell End Road	
1/1 (with short)	1093(In) 823(Out)
1/2 (short)	270
2/1 (short)	220
2/2 (with short)	400(In) 180(Out)
3/1 (with short)	1137(In) 1005(Out)
3/2 (short)	132
4/1	720
4/2	490
5/1	1185
6/1	235

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	87.5 %	1833	1833
				Arm 6 Left	10.00	12.5 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '7' (FG3: '2030 AM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	172	897	1069
	B	190	0	242	432
	C	844	167	0	1011
	Tot.	1034	339	1139	2512

Traffic Lane Flows

Lane	Scenario 7: 7
Junction: A441 / Dagnell End Road	
1/1 (with short)	1069(In) 769(Out)
1/2 (short)	300
2/1 (short)	242
2/2 (with short)	432(In) 190(Out)
3/1 (with short)	1011(In) 844(Out)
3/2 (short)	167
4/1	597
4/2	542
5/1	1034
6/1	339

Full Input Data And Results

Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	77.6 %	1812	1812
				Arm 6 Left	10.00	22.4 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1726	1726
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1679	1679
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '8' (FG4: '2030 PM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	158	990	1148
	B	208	0	243	451
	C	1051	132	0	1183
	Tot.	1259	290	1233	2782

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 8
Junction: A441 / Dagnell End Road	
1/1 (with short)	1148(In) 878(Out)
1/2 (short)	270
2/1 (short)	243
2/2 (with short)	451(In) 208(Out)
3/1 (with short)	1183(In) 1051(Out)
3/2 (short)	132
4/1	720
4/2	513
5/1	1259
6/1	290

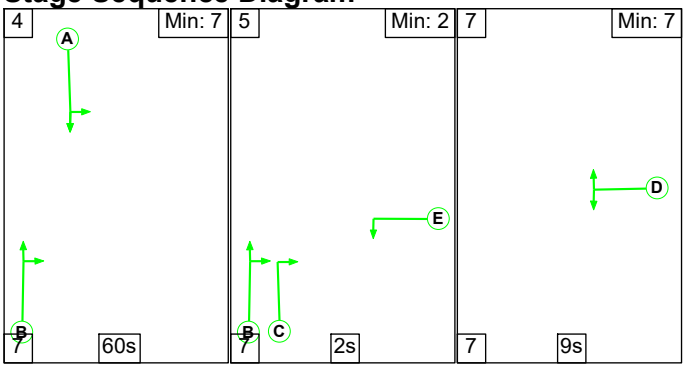
Lane Saturation Flows

Junction: A441 / Dagnell End 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 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	50.00	82.0 %	1821	1821
				Arm 6 Left	10.00	18.0 %		
1/2 (A441 Birmingham Rd (N))	3.00	0.00	Y	Arm 4 Ahead	77.00	100.0 %	1878	1878
2/1 (Dagnell End Rd)	3.10	0.00	Y	Arm 4 Left	38.00	100.0 %	1852	1852
2/2 (Dagnell End Rd)	3.10	0.00	Y	Arm 5 Right	9.00	100.0 %	1650	1650
3/1 (A441 Birmingham Rd (S) Lane 1)	This lane uses a directly entered Saturation Flow						1641	1641
3/2 (A441 Birmingham Rd (S) Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (E Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '1' (FG1: '2030 AM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

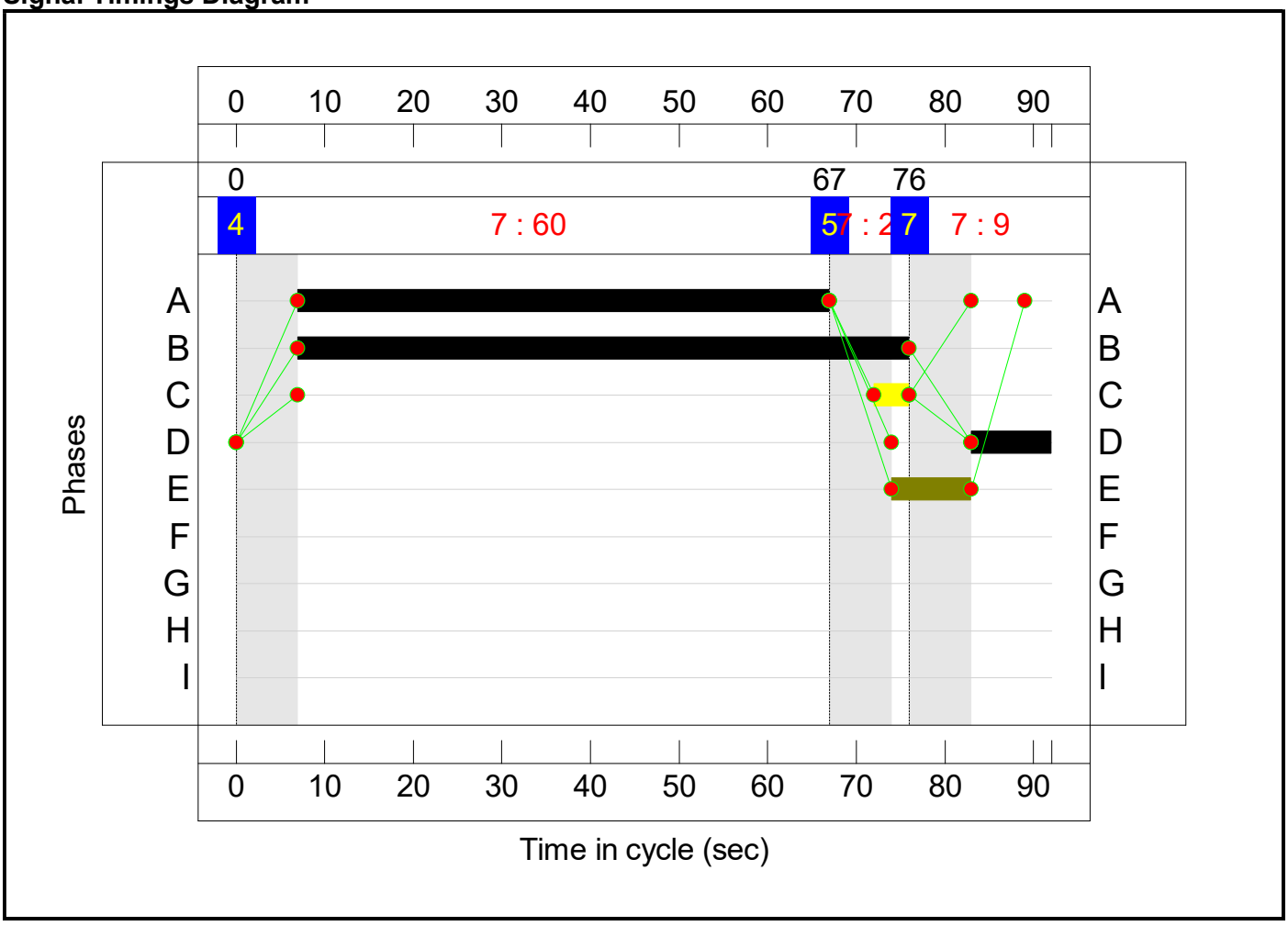
Stage Sequence Diagram



Stage Timings

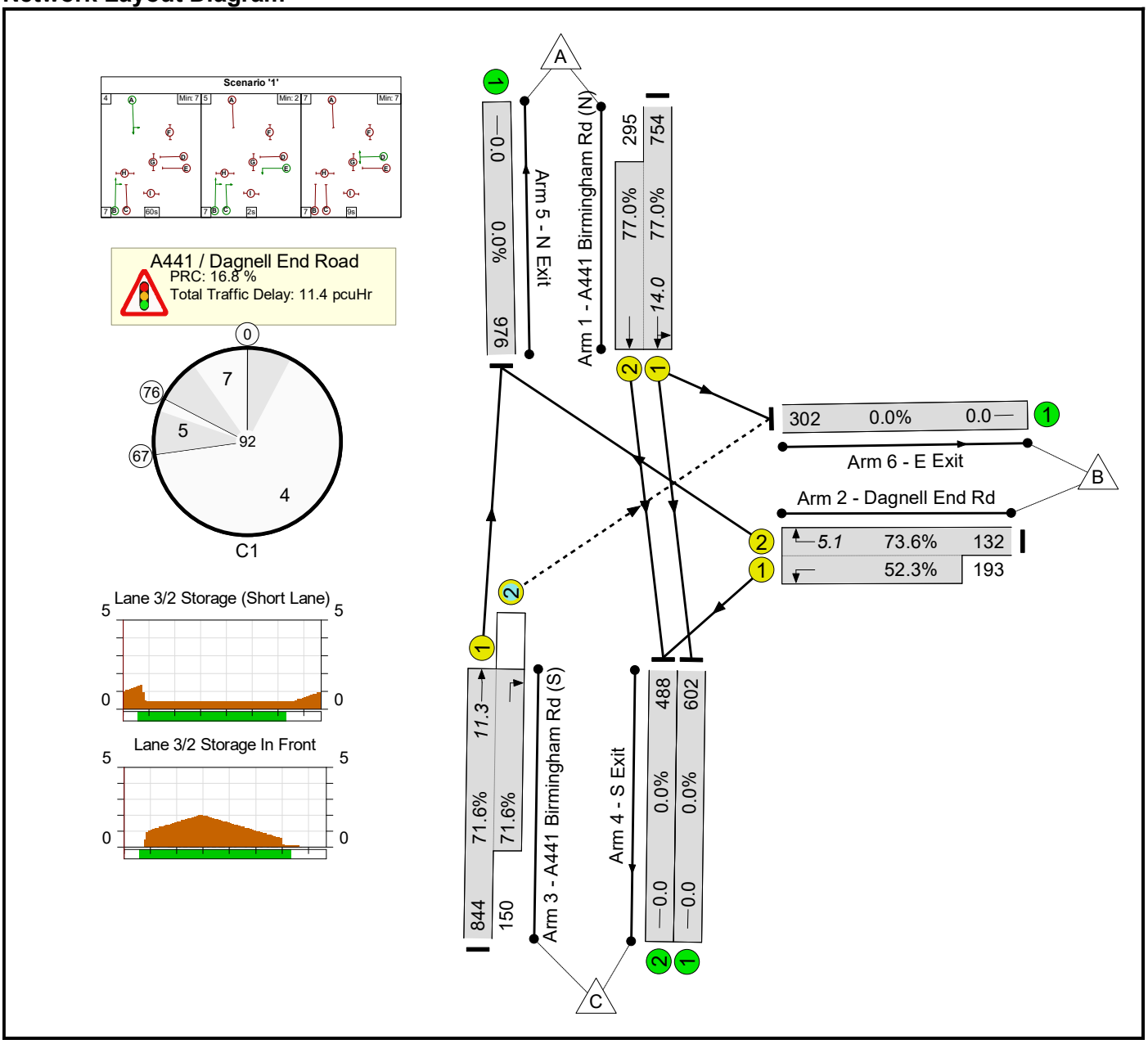
Stage	4	5	7
Duration	60	2	9
Change Point	0	67	76

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.0%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.0%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	60	-	1049	1817:1878	979+383	77.0 : 77.0%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	9:18	9	325	1650:1852	179+369	73.6 : 52.3%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	69	4	994	1726:1679	1178+209	71.6 : 71.6%
4/1	S Exit	U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	976	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%

Full Input Data And Results

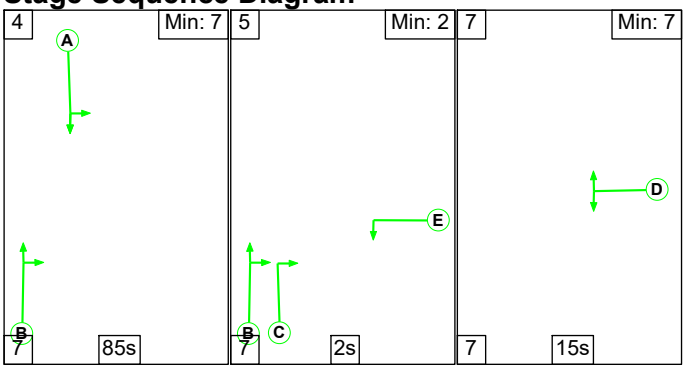
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**117**	**29**	**5**	**6.9**	**3.6**	**0.8**	**11.4**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**117**	**29**	**5**	**6.9**	**3.6**	**0.8**	**11.4**	**-**	**-**	**-**	**-**
1/1+1/2	1049	1049	-	-	-	2.4	1.7	-	4.1 (3.1+1.0)	13.9 (14.7:12.0)	12.3	1.7	14.0
2/2+2/1	325	325	-	-	-	3.2	0.7	-	3.9 (1.8+2.2)	43.3 (47.7:40.3)	4.3	0.7	5.1
3/1+3/2	994	994	117	29	5	1.3	1.3	0.8	3.4 (2.3+1.1)	12.3 (9.7:27.1)	10.1	1.3	11.3
4/1	602	602	-	-	-	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	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 16.8 Total Delay for Signalled Lanes (pcuHr): 11.37 Cycle Time (s): 92
PRC Over All Lanes (%): 16.8 Total Delay Over All Lanes(pcuHr): 11.37

Full Input Data And Results

Scenario 2: '2' (FG2: '2030 PM Effective Base', Plan 1: 'Network Control Plan 1 (no Peds)')

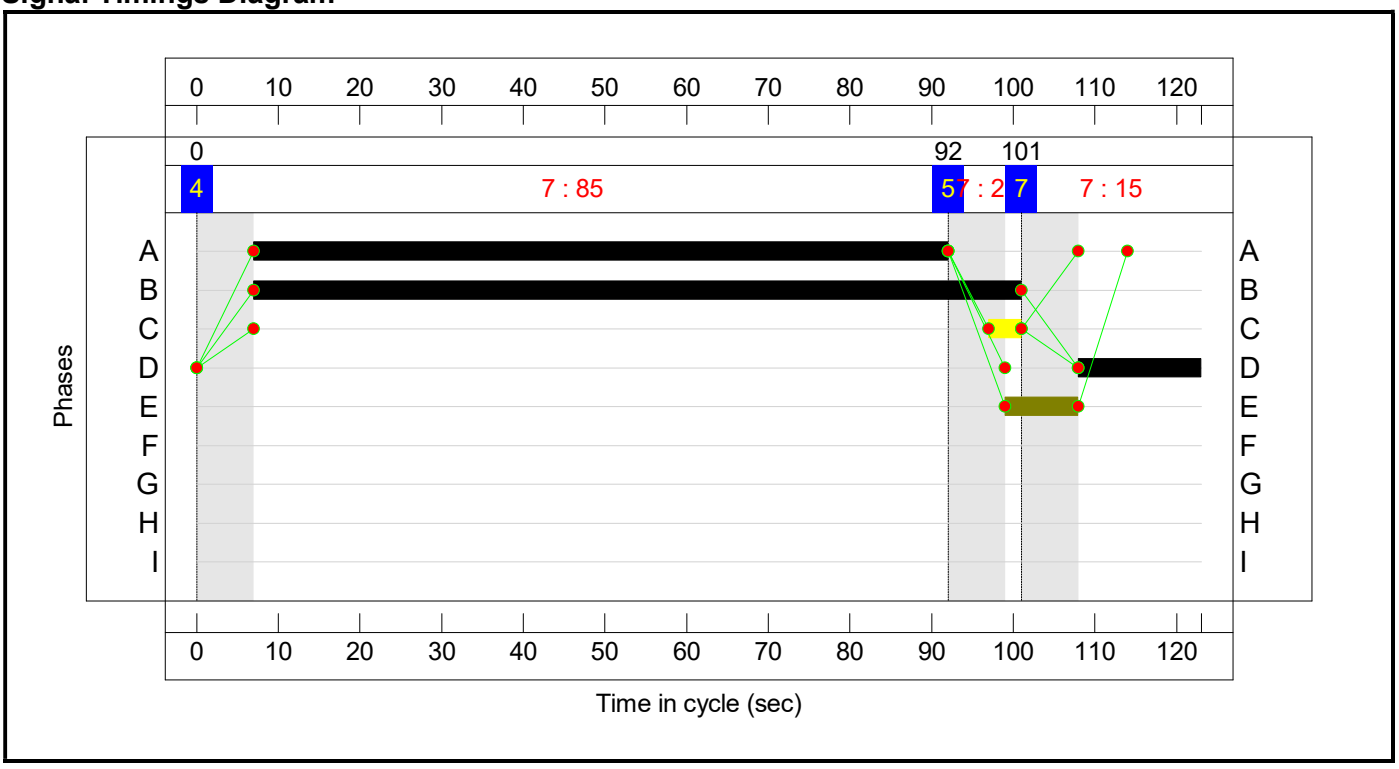
Stage Sequence Diagram



Stage Timings

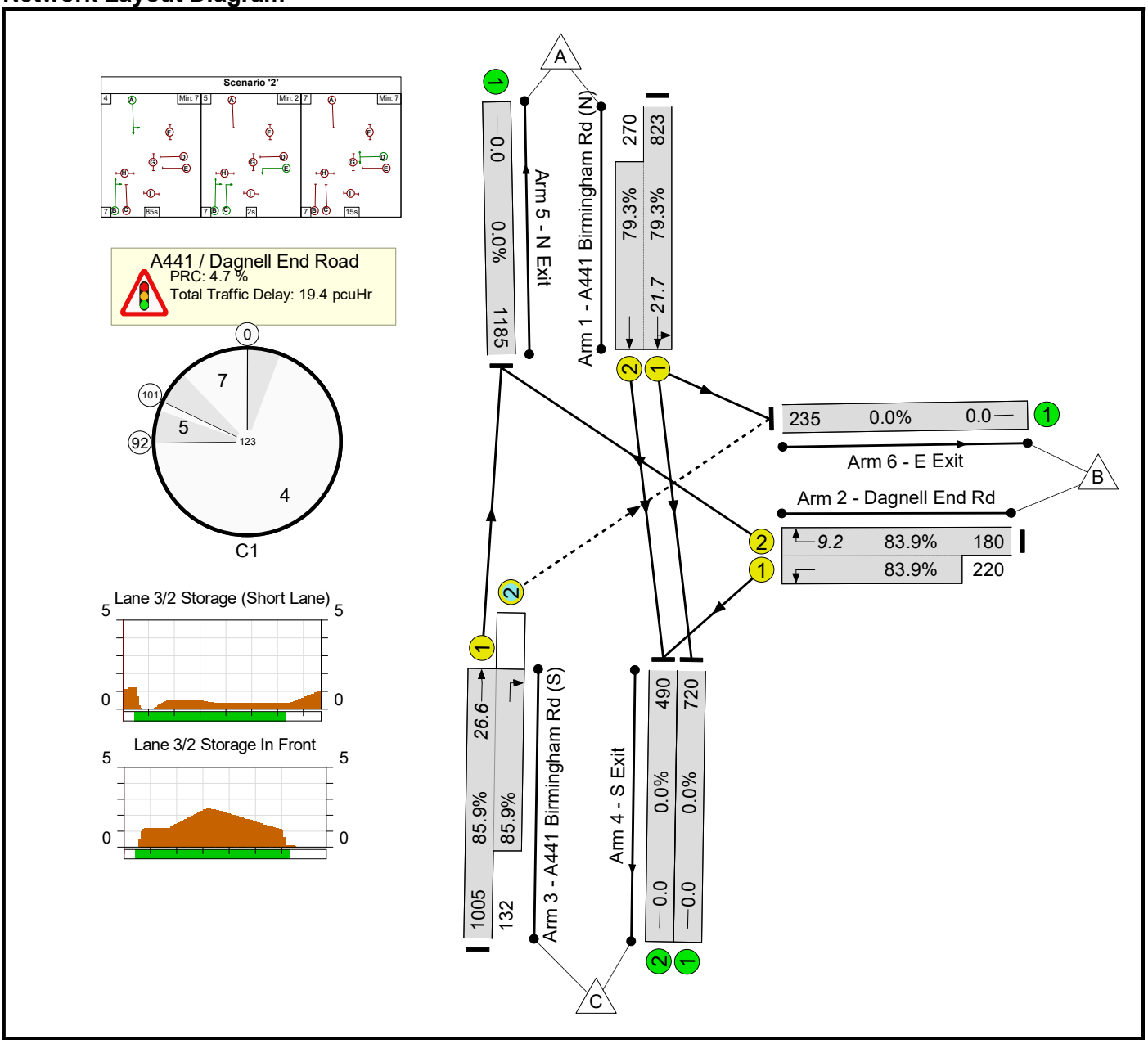
Stage	4	5	7
Duration	85	2	15
Change Point	0	92	101

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.9%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.9%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	85	-	1093	1833:1878	1038+340	79.3 : 79.3%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	15:24	9	400	1650:1852	215+262	83.9 : 83.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	94	4	1137	1641:1800	1169+154	85.9 : 85.9%
4/1	S Exit	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	490	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1185	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%

Full Input Data And Results

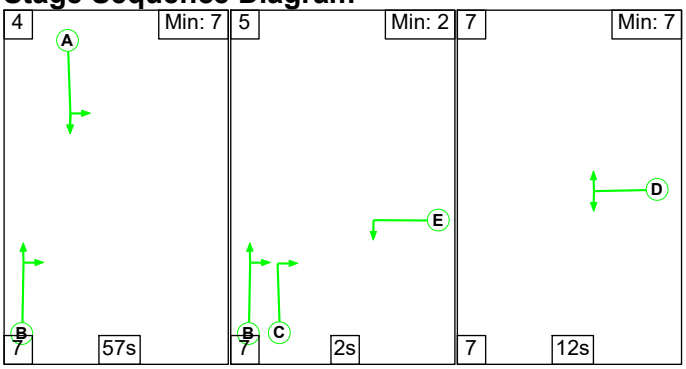
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**93**	**36**	**3**	**11.0**	**7.3**	**1.1**	**19.4**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**93**	**36**	**3**	**11.0**	**7.3**	**1.1**	**19.4**	**-**	**-**	**-**	**-**
1/1+1/2	1093	1093	-	-	-	3.0	1.9	-	4.9 (3.9+1.1)	16.3 (16.9:14.5)	19.8	1.9	21.7
2/2+2/1	400	400	-	-	-	5.3	2.4	-	7.8 (3.7+4.1)	69.9 (74.2:66.3)	6.8	2.4	9.2
3/1+3/2	1137	1137	93	36	3	2.6	3.0	1.1	6.7 (5.0+1.7)	21.1 (17.9:45.2)	23.7	3.0	26.6
4/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1185	1185	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	235	235	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 4.7 Total Delay for Signalled Lanes (pcuHr): 19.36 Cycle Time (s): 123
PRC Over All Lanes (%): 4.7 Total Delay Over All Lanes(pcuHr): 19.36

Full Input Data And Results

Scenario 3: '3' (FG3: '2030 AM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

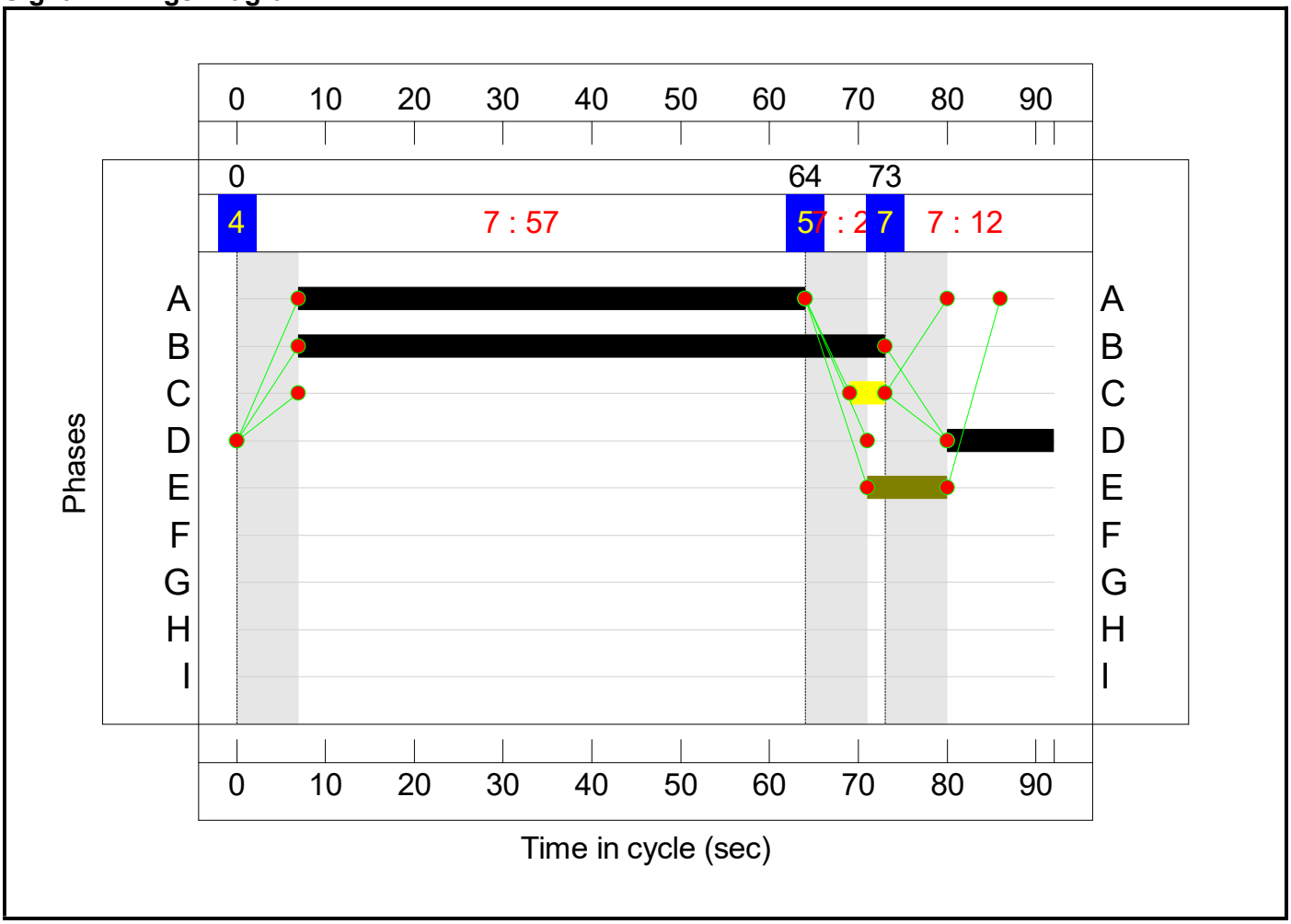
Stage Sequence Diagram



Stage Timings

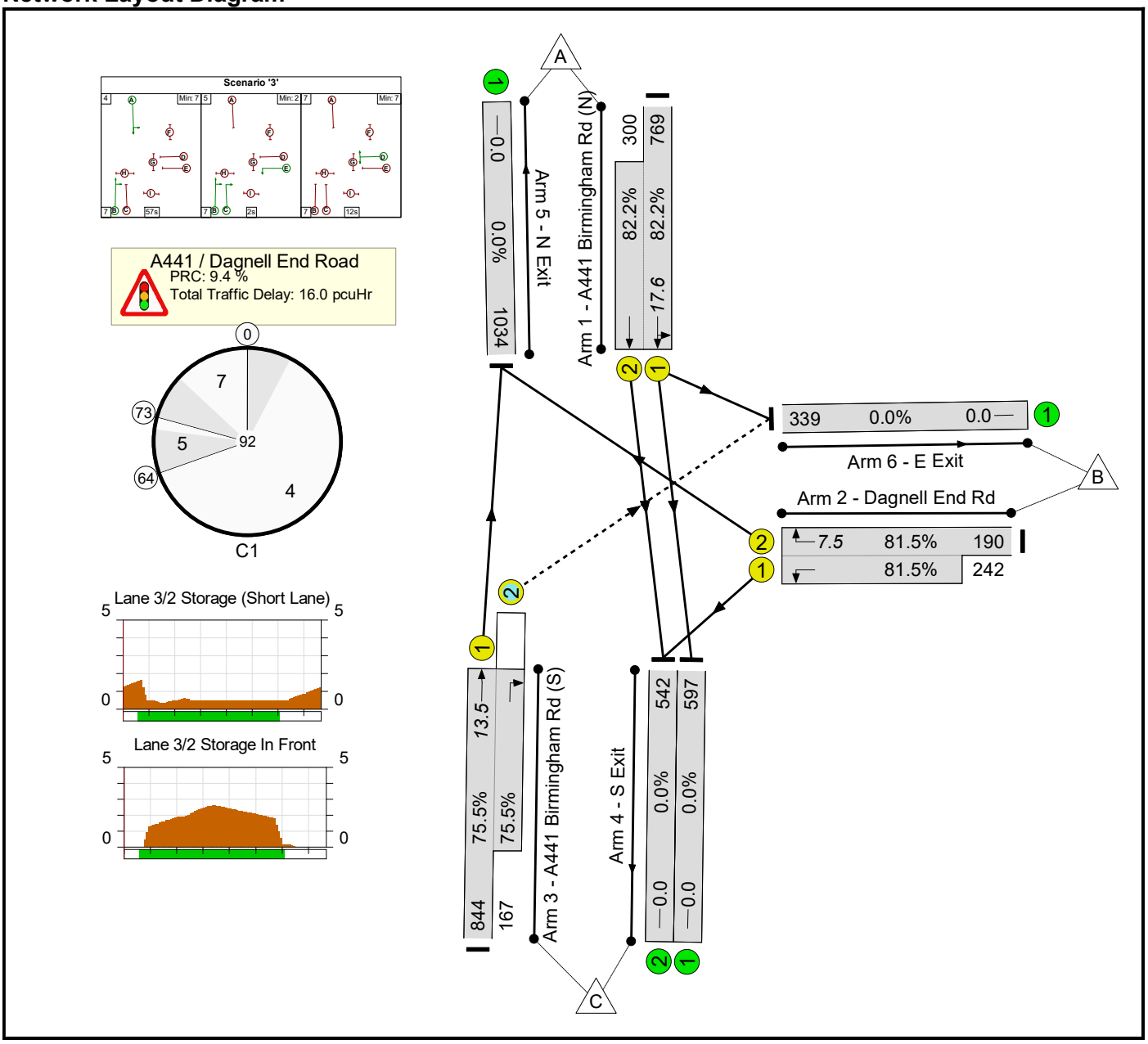
Stage	4	5	7
Duration	57	2	12
Change Point	0	64	73

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.2%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.2%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	57	-	1069	1812:1878	935+365	82.2 : 82.2%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	12:21	9	432	1650:1852	233+297	81.5 : 81.5%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	66	4	1011	1726:1679	1118+221	75.5 : 75.5%
4/1	S Exit	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	542	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1034	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%

Full Input Data And Results

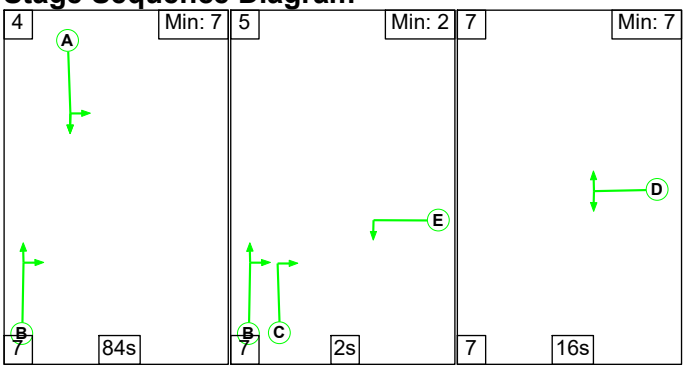
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**83**	**79**	**5**	**8.9**	**5.9**	**1.2**	**16.0**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**83**	**79**	**5**	**8.9**	**5.9**	**1.2**	**16.0**	**-**	**-**	**-**	**-**
1/1+1/2	1069	1069	-	-	-	3.1	2.3	-	5.3 (4.0+1.3)	17.9 (18.8:15.8)	15.3	2.3	17.6
2/2+2/1	432	432	-	-	-	4.1	2.1	-	6.2 (3.0+3.2)	51.6 (55.9:48.2)	5.4	2.1	7.5
3/1+3/2	1011	1011	83	79	5	1.7	1.5	1.2	4.5 (2.8+1.7)	16.0 (12.1:35.9)	11.9	1.5	13.5
4/1	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1034	1034	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.4 Total Delay for Signalled Lanes (pcuHr): 16.02 Cycle Time (s): 92
PRC Over All Lanes (%): 9.4 Total Delay Over All Lanes(pcuHr): 16.02

Full Input Data And Results

Scenario 4: '4' (FG4: '2030 PM Effective Base + Dev', Plan 1: 'Network Control Plan 1 (no Peds)')

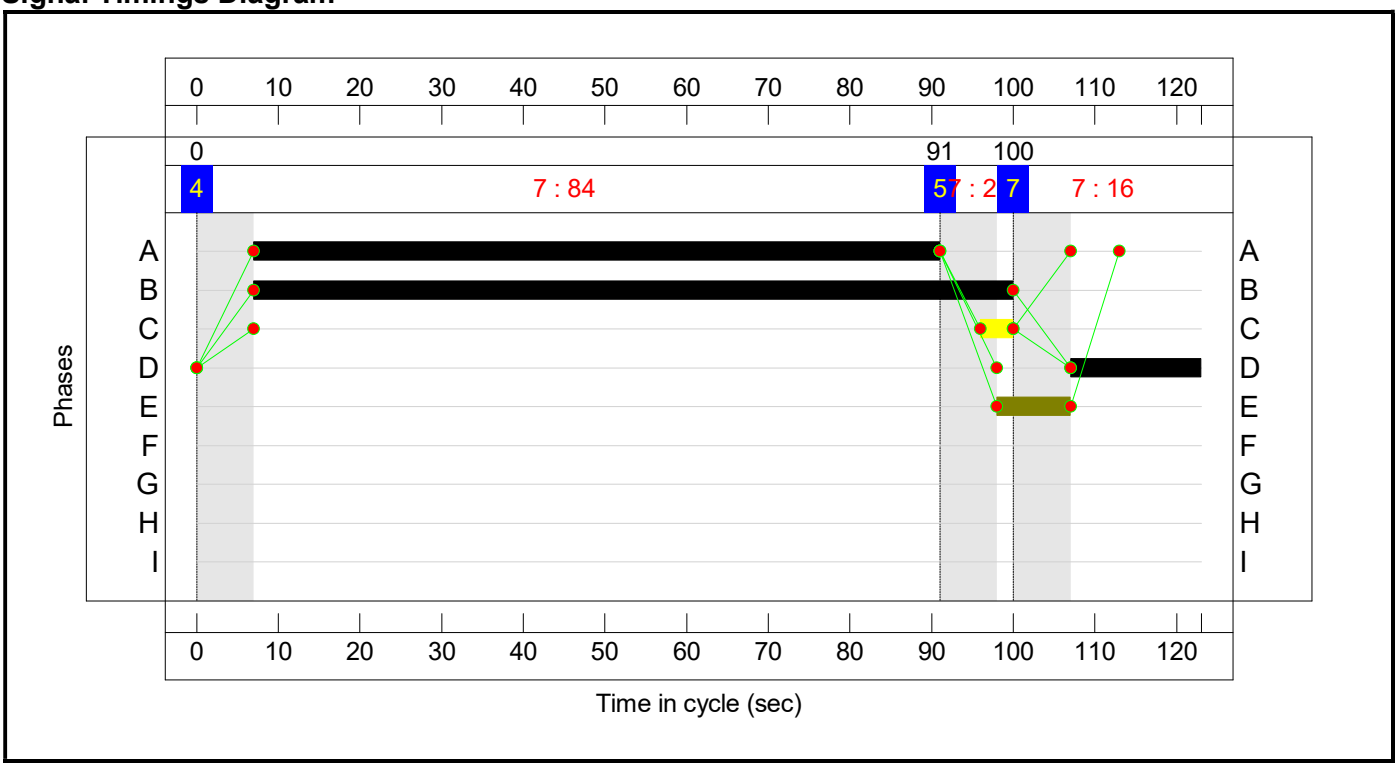
Stage Sequence Diagram



Stage Timings

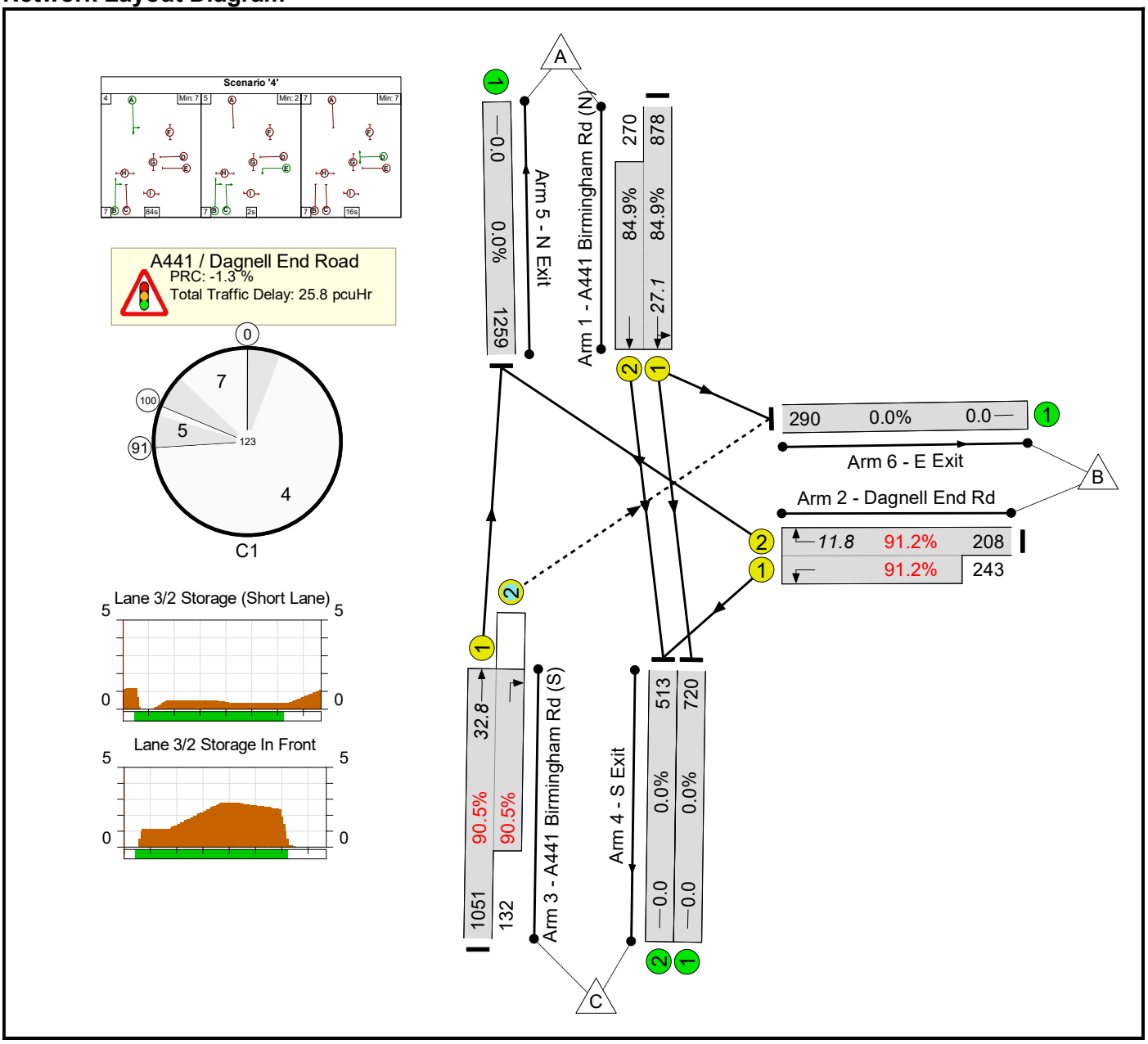
Stage	4	5	7
Duration	84	2	16
Change Point	0	91	100

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.2%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.2%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	84	-	1148	1821:1878	1034+318	84.9 : 84.9%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	16:25	9	451	1650:1852	228+266	91.2 : 91.2%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	93	4	1183	1641:1800	1162+146	90.5 : 90.5%
4/1	S Exit	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1259	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%

Full Input Data And Results

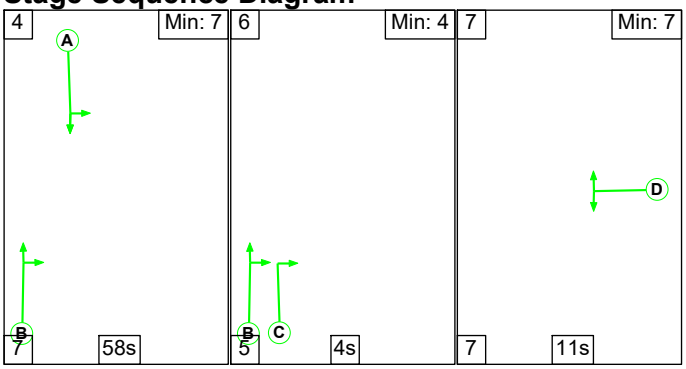
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**55**	**74**	**3**	**13.0**	**11.5**	**1.4**	**25.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**55**	**74**	**3**	**13.0**	**11.5**	**1.4**	**25.8**	**-**	**-**	**-**	**-**
1/1+1/2	1148	1148	-	-	-	3.7	2.7	-	6.5 (5.1+1.4)	20.3 (20.9:18.5)	24.3	2.7	27.1
2/2+2/1	451	451	-	-	-	6.0	4.3	-	10.3 (5.0+5.3)	82.4 (86.8:78.6)	7.5	4.3	11.8
3/1+3/2	1183	1183	55	74	3	3.2	4.4	1.4	9.1 (6.9+2.2)	27.5 (23.6:59.1)	28.4	4.4	32.8
4/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1259	1259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -1.3 Total Delay for Signalled Lanes (pcuHr): 25.85 Cycle Time (s): 123
PRC Over All Lanes (%): -1.3 Total Delay Over All Lanes(pcuHr): 25.85

Full Input Data And Results

Scenario 5: '5' (FG1: '2030 AM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

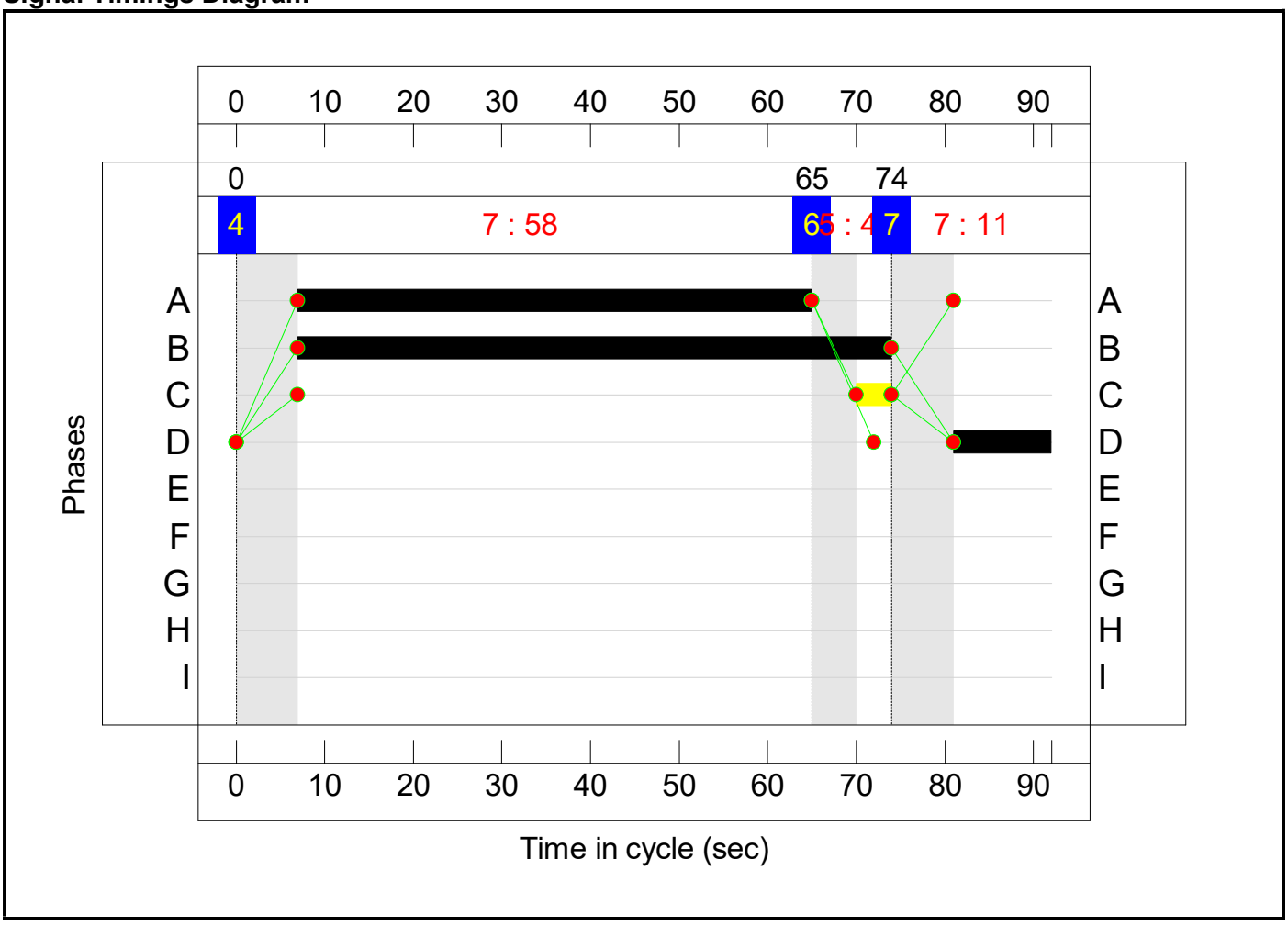
Stage Sequence Diagram



Stage Timings

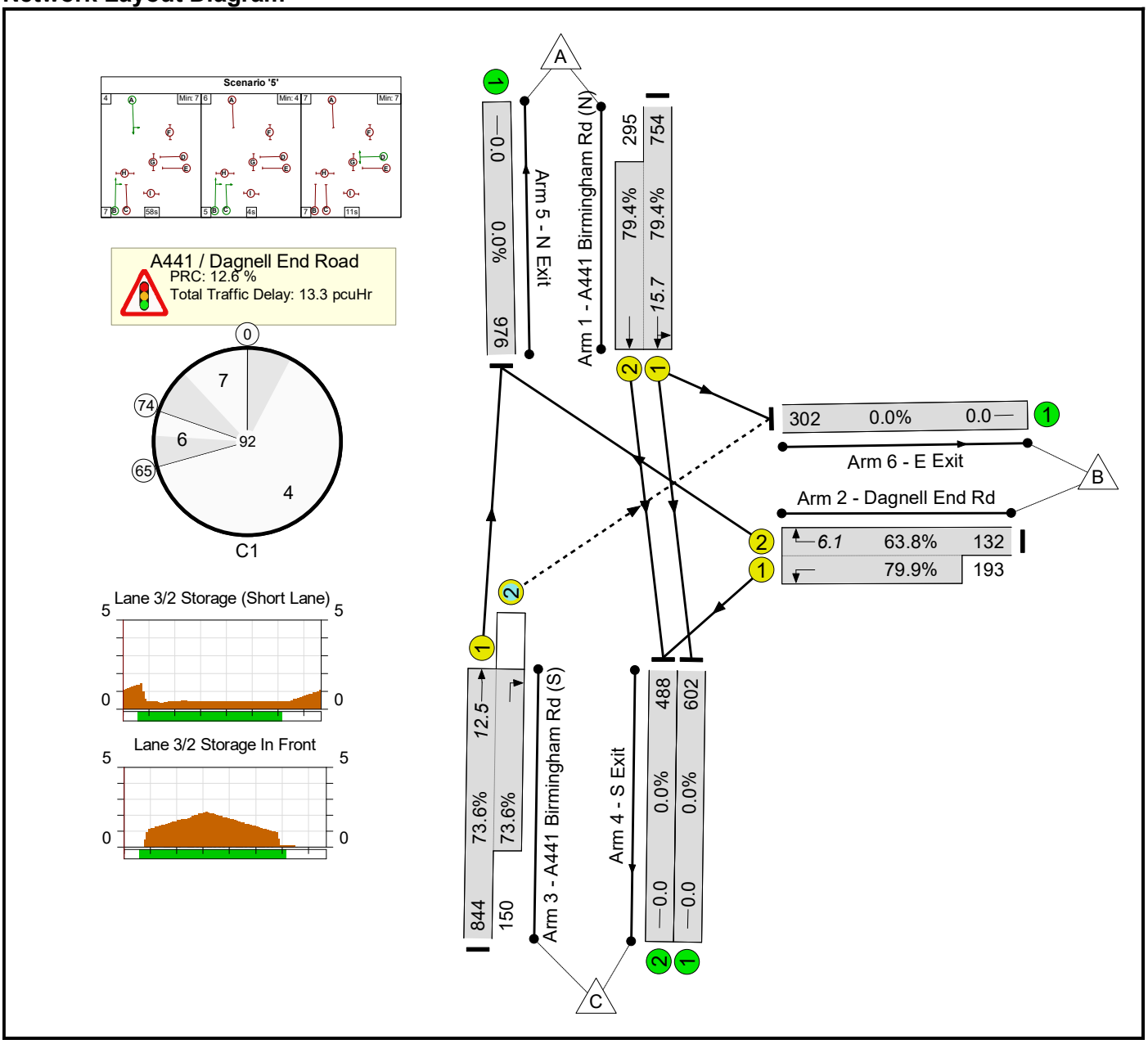
Stage	4	6	7
Duration	58	4	11
Change Point	0	65	74

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.9%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.9%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	58	-	1049	1817:1878	950+372	79.4 : 79.4%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	11	0	325	1650:1852	207+242	63.8 : 79.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	67	4	994	1726:1679	1146+204	73.6 : 73.6%
4/1	S Exit	U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	976	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%

Full Input Data And Results

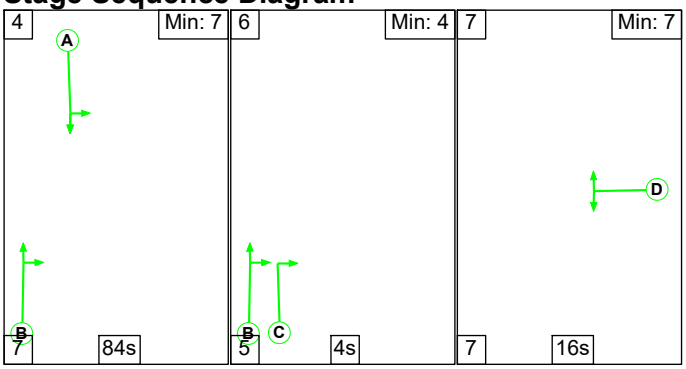
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**103**	**42**	**5**	**7.8**	**4.6**	**0.9**	**13.3**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**103**	**42**	**5**	**7.8**	**4.6**	**0.9**	**13.3**	**-**	**-**	**-**	**-**
1/1+1/2	1049	1049	-	-	-	2.7	1.9	-	4.6 (3.5+1.1)	15.9 (16.7:13.9)	13.8	1.9	15.7
2/2+2/1	325	325	-	-	-	3.5	1.3	-	4.8 (1.9+2.8)	52.7 (52.1:53.1)	4.8	1.3	6.1
3/1+3/2	994	994	103	42	5	1.6	1.4	0.9	3.9 (2.6+1.3)	14.1 (11.1:30.8)	11.1	1.4	12.5
4/1	602	602	-	-	-	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	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 12.6 Total Delay for Signalled Lanes (pcuHr): 13.30 Cycle Time (s): 92
PRC Over All Lanes (%): 12.6 Total Delay Over All Lanes(pcuHr): 13.30

Full Input Data And Results

Scenario 6: '6' (FG2: '2030 PM Effective Base', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

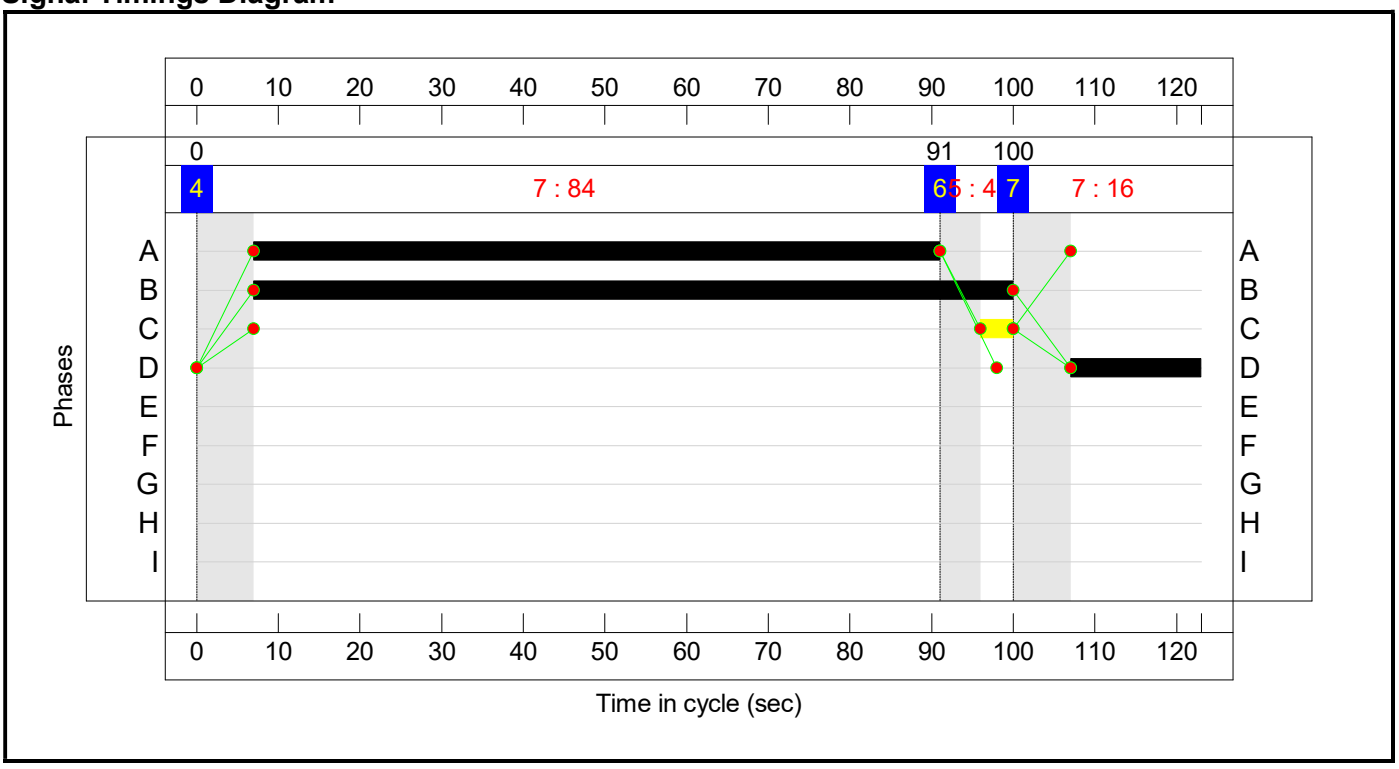
Stage Sequence Diagram



Stage Timings

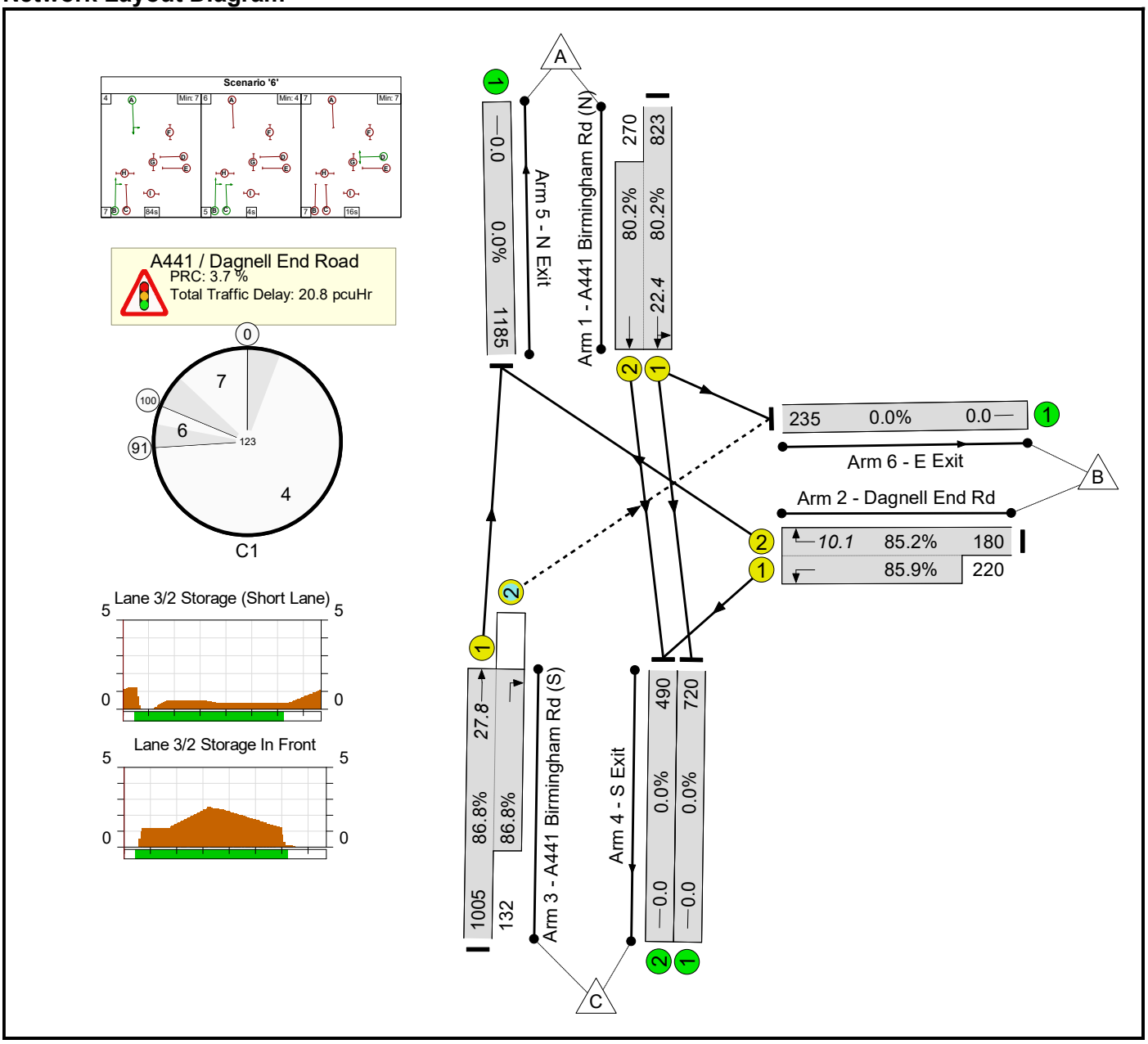
Stage	4	6	7
Duration	84	4	16
Change Point	0	91	100

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.8%**
A441 / Dagnell End Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.8%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	84	-	1093	1833:1878	1026+337	80.2 : 80.2%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	16	0	400	1650:1852	211+256	85.2 : 85.9%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	93	4	1137	1641:1800	1158+152	86.8 : 86.8%
4/1	S Exit	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	490	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1185	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%

Full Input Data And Results

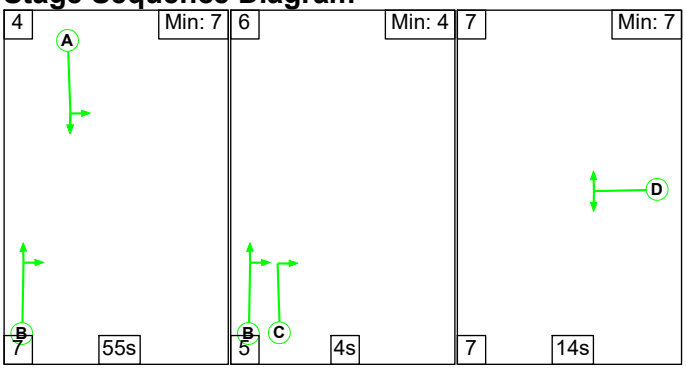
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**89**	**40**	**3**	**11.8**	**7.9**	**1.1**	**20.8**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**89**	**40**	**3**	**11.8**	**7.9**	**1.1**	**20.8**	**-**	**-**	**-**	**-**
1/1+1/2	1093	1093	-	-	-	3.2	2.0	-	5.2 (4.1+1.2)	17.2 (17.8:15.4)	20.4	2.0	22.4
2/2+2/1	400	400	-	-	-	5.7	2.7	-	8.5 (3.8+4.7)	76.3 (76.0:76.6)	7.3	2.7	10.1
3/1+3/2	1137	1137	89	40	3	2.8	3.2	1.1	7.1 (5.4+1.7)	22.5 (19.3:47.5)	24.6	3.2	27.8
4/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1185	1185	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	235	235	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 3.7 Total Delay for Signalled Lanes (pcuHr): 20.83 Cycle Time (s): 123
PRC Over All Lanes (%): 3.7 Total Delay Over All Lanes(pcuHr): 20.83

Full Input Data And Results

Scenario 7: '7' (FG3: '2030 AM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

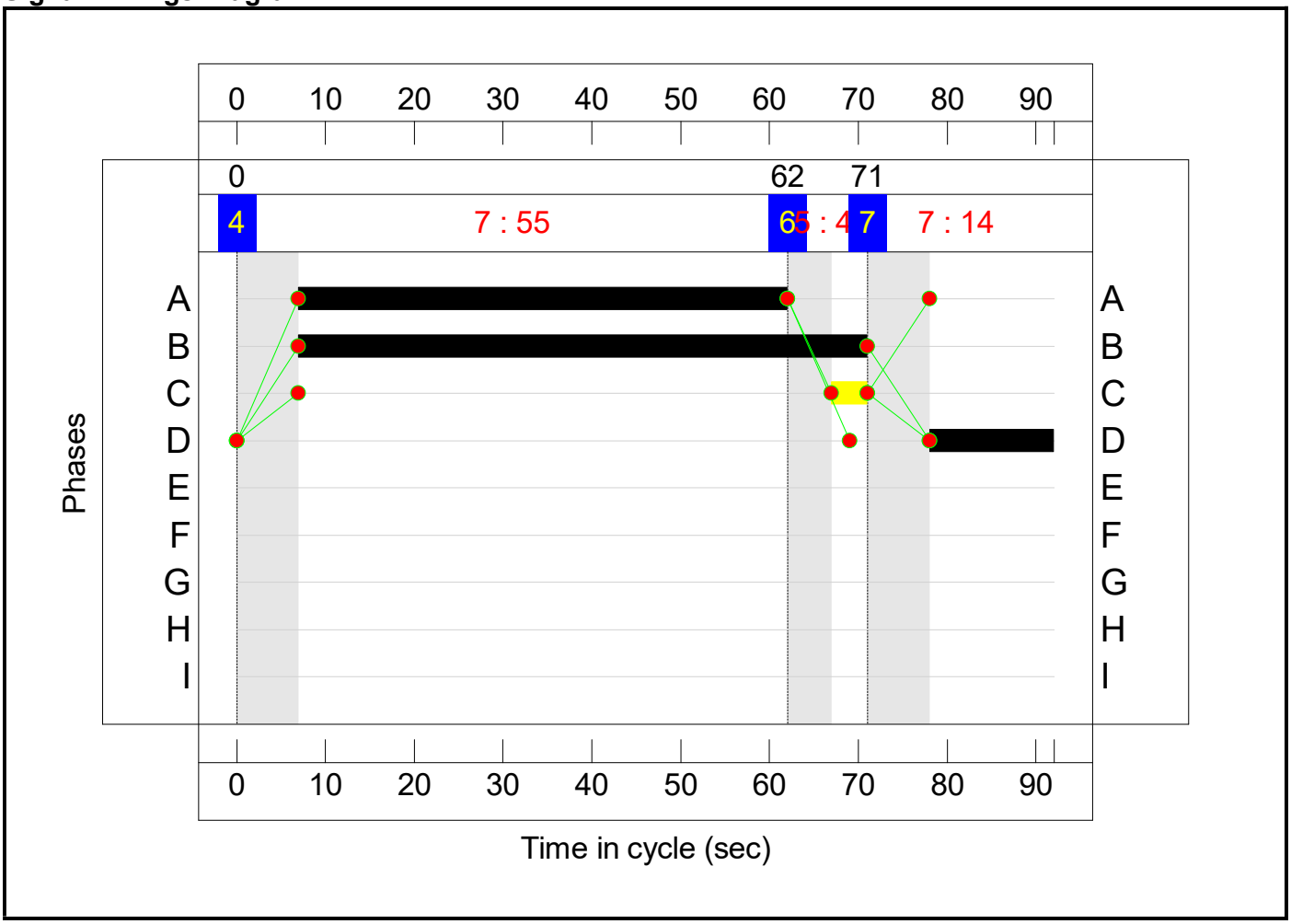
Stage Sequence Diagram



Stage Timings

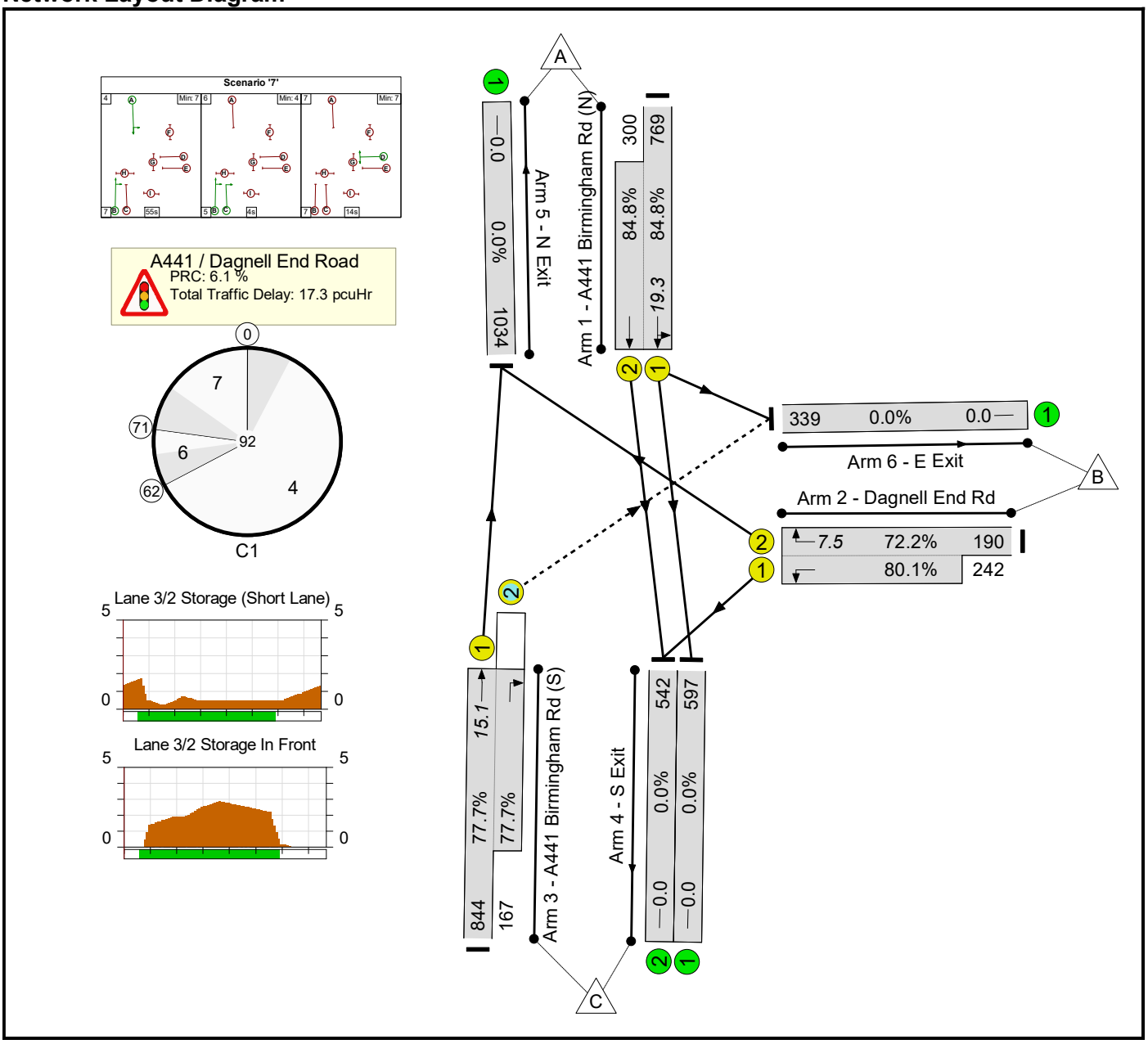
Stage	4	6	7
Duration	55	4	14
Change Point	0	62	71

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.8%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.8%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	55	-	1069	1812:1878	906+354	84.8 : 84.8%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	14	0	432	1650:1852	263+302	72.2 : 80.1%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	64	4	1011	1726:1679	1086+215	77.7 : 77.7%
4/1	S Exit	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	542	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1034	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%

Full Input Data And Results

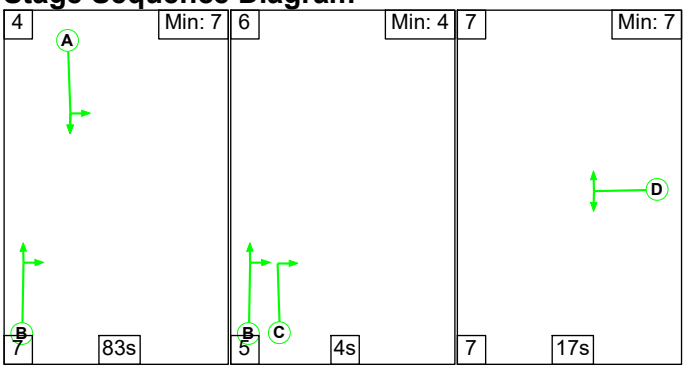
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A441 / Dagnell End Road	**-**	**-**	**68**	**93**	**5**	**9.9**	**6.0**	**1.3**	**17.3**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**68**	**93**	**5**	**9.9**	**6.0**	**1.3**	**17.3**	**-**	**-**	**-**	**-**
1/1+1/2	1069	1069	-	-	-	3.5	2.7	-	6.2 (4.6+1.6)	20.9 (21.7:18.7)	16.5	2.7	19.3
2/2+2/1	432	432	-	-	-	4.4	1.6	-	6.0 (2.6+3.4)	50.0 (49.6:50.3)	5.9	1.6	7.5
3/1+3/2	1011	1011	68	93	5	2.0	1.7	1.3	5.1 (3.3+1.8)	18.1 (13.9:39.1)	13.4	1.7	15.1
4/1	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1034	1034	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 6.1 Total Delay for Signalled Lanes (pcuHr): 17.27 Cycle Time (s): 92
PRC Over All Lanes (%): 6.1 Total Delay Over All Lanes(pcuHr): 17.27

Full Input Data And Results

Scenario 8: '8' (FG4: '2030 PM Effective Base + Dev', Plan 2: 'Network Control Plan 2 (no Peds, no left filter)')

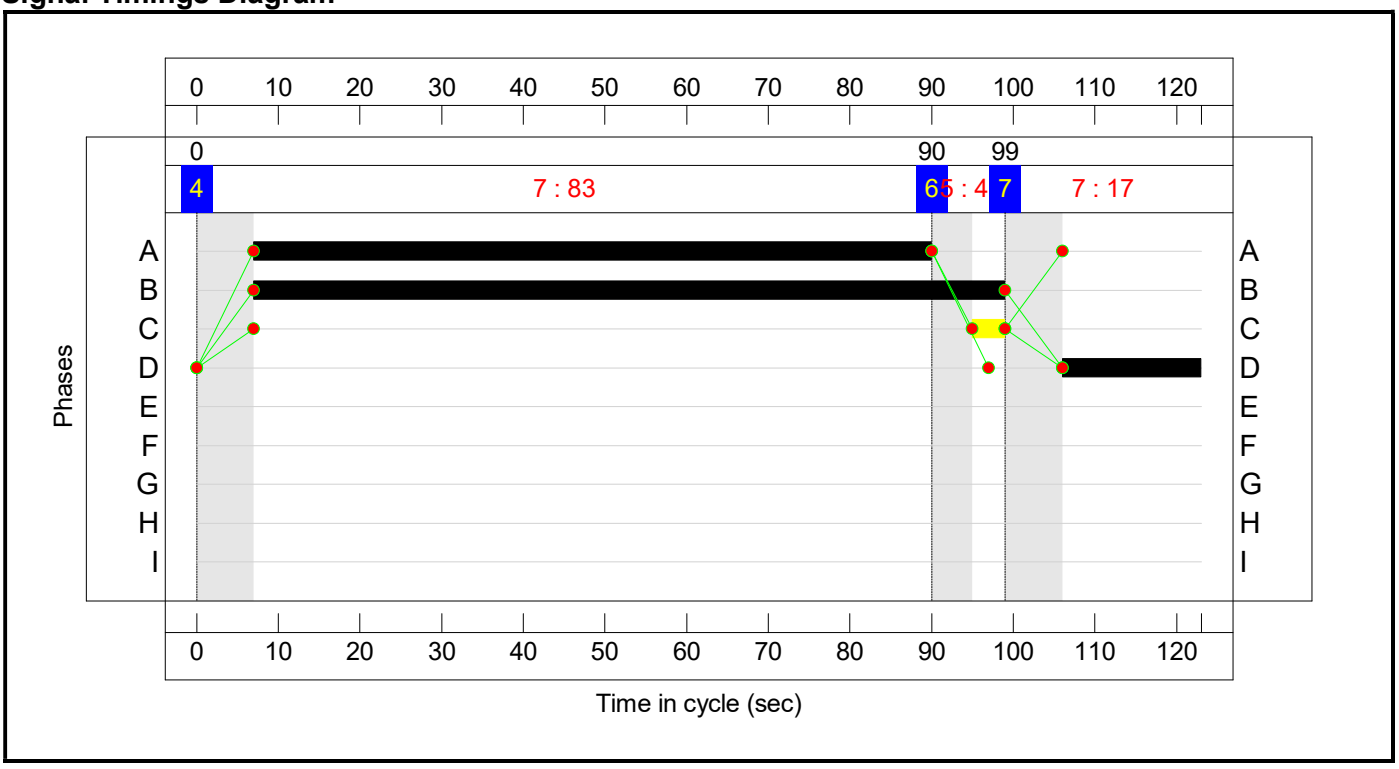
Stage Sequence Diagram



Stage Timings

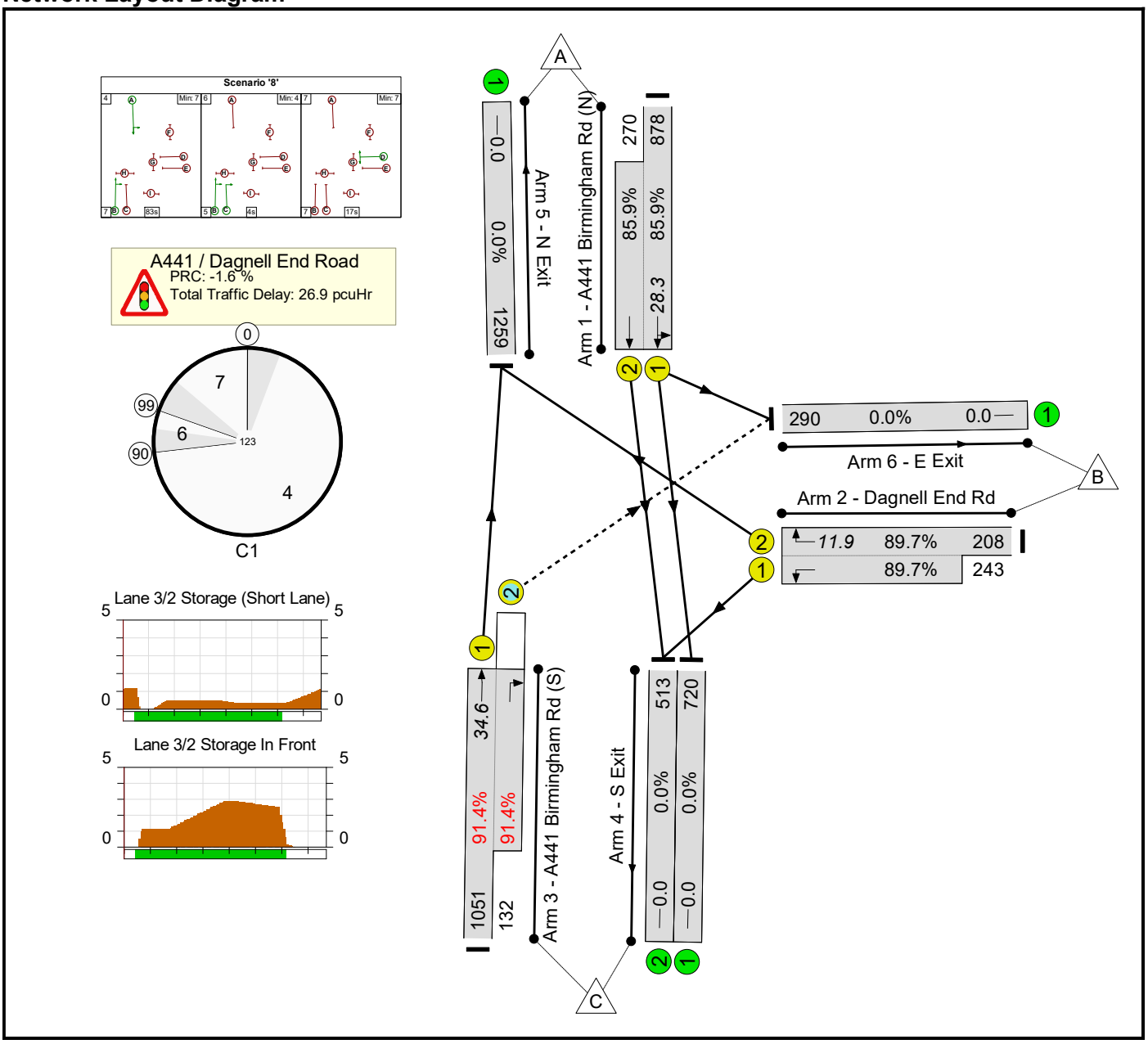
Stage	4	6	7
Duration	83	4	17
Change Point	0	90	99

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.4%**
A441 / Dagnell End Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.4%**
1/1+1/2	A441 Birmingham Rd (N) Ahead Left	U	N/A	N/A	A		1	83	-	1148	1821:1878	1023+314	85.9 : 85.9%
2/2+2/1	Dagnell End Rd Left Right	U	N/A	N/A	D	E	1	17	0	451	1650:1852	232+271	89.7 : 89.7%
3/1+3/2	A441 Birmingham Rd (S) Ahead Right	U+O	N/A	N/A	B	C	1	92	4	1183	1641:1800	1150+144	91.4 : 91.4%
4/1	S Exit	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
4/2	S Exit	U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%
5/1	N Exit	U	N/A	N/A	-		-	-	-	1259	Inf	Inf	0.0%
6/1	E Exit	U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%

Full 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: A441 / Dagnell End Road	**-**	**-**	**51**	**77**	**3**	**13.9**	**11.6**	**1.4**	**26.9**	**-**	**-**	**-**	**-**
A441 / Dagnell End Road	**-**	**-**	**51**	**77**	**3**	**13.9**	**11.6**	**1.4**	**26.9**	**-**	**-**	**-**	**-**
1/1+1/2	1148	1148	-	-	-	4.0	2.9	-	6.9 (5.4+1.5)	21.7 (22.2:19.9)	25.3	2.9	28.3
2/2+2/1	451	451	-	-	-	6.4	3.8	-	10.2 (4.7+5.5)	81.7 (81.5:81.8)	8.1	3.8	11.9
3/1+3/2	1183	1183	51	77	3	3.5	4.9	1.4	9.8 (7.5+2.3)	29.7 (25.7:61.6)	29.7	4.9	34.6
4/1	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1259	1259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -1.6 Total Delay for Signalled Lanes (pcuHr): 26.91 Cycle Time (s): 123
PRC Over All Lanes (%): -1.6 Total Delay Over All Lanes(pcuHr): 26.91

mode
transport planning

keep up with mode:

Birmingham
0121 794 8390

London
020 7293 0217

Manchester
0161 464 9495

Reading
0118 211 8180

info@modetransport.co.uk modetransport.co.uk @mode_transport