

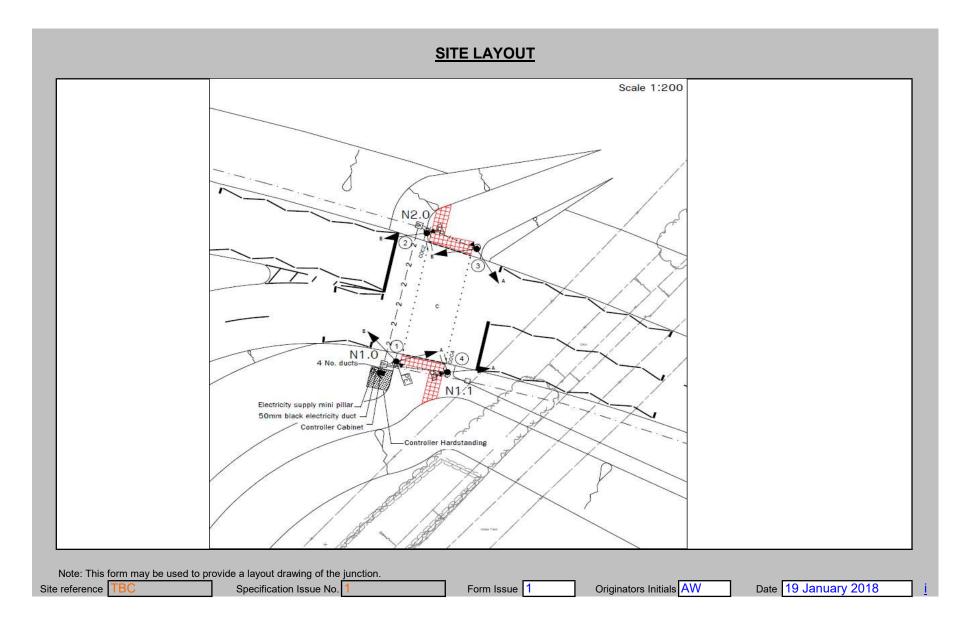
	GENERAL SPECIFICATION	N FORM
Customer:	MLM Consulting	
Area Specifications & Customer Drawings:	18007-101 Haverhill Relief Road	
Intersection / General Description:	Haverhill Relief Road Toucan, East	of Roundabout, Suffolk
Controller - New/Modification (select one):	New	Serial number:
Specification Section:		
Quotation number (Customer):		
Quotation number (Company):		
Company Order Number:		
Intersection Number:		Issue: 1
Equipment Installation by:		
Slot Cutting by:		
Civils Works by:		
Communication Provider, Type and Number or IP address:		
Customers Engineer:	Telephone number:	E-mail:
Alfie Winn	01245 996472	alfie.winn@greensignals.co.uk
Incoming Electrical Supply:	Operating Voltage (select one):	Lamp Dimming (select one):
230 V 50 Hz	Extra Low Voltage-E	ELV Dimming
		Dimming voltage None �
Average Power Watts (Dim) Average 169.00	e Power Watts (Bright) Average Po	ower kVA (Bright) Peak Power Watts 375.29 319.00
e reference TBC Specification Issue	e No. 1 Form Issue 1	Originators Initials AW Date 19 January 2018

Form Title	Form No.	Form Issue Number	Originator Initials	Date Originated	Auditor Initials	Date Audite dd/mm/yy
R2500 General Specification	1	1	AW	19/01/18	CRW	31/01/1
ndex (This page)	ll l	1	AW	22/01/18	CRW	31/01/1
ndex (Continued)	lla	1	AW	22/01/18	CRW	31/01/1
ndex (Continued)	Ilb	1	AW	22/01/18	CRW	31/01/1
Configuration Notes	III	1	AW	19/01/18	CRW	31/01/1
Site Layout	IV	1	AW	19/01/18	CRW	31/01/1
Basic Site Data	V					
Basic Site Data (Continued)	Va					
Basic Site Data (Continued)	Vb					
Basic Site Data (Continued)	Vc					
ntersection Phase Data	VI	1	AW	19/01/18	CRW	31/01/
Conflicting Phases	VII					
Phase Inter-green timings	VIII					
Phase Inter-green limit values	IX					
amp Monitoring & Extend Inter-green facility	Х	1	AW	22/01/18	CRW	31/01/1
Additional phase delays	XI					
Jse of stages	XII	1	AW	19/01/18	CRW	31/01/1
Prohibited/Alternative Stage	XIII					
Prohibited/AlternativeStage (Continued)	XIIIa					
Prohibited/AlternativeStage (Continued)	XIIIb					
Prohibited/AlternativeStage (Continued)	XIIIc					
Prohibited/AlternativeStage (Continued)	XIIId					
Prohibited/AlternativeStage (Continued)	XIIIe					
Prohibited/AlternativeStage (Continued)	XIIIf					
Prohibited/AlternativeStage (Continued)	XIIIg					
Prohibited/AlternativeStage (Continued)	XIIIh					
Master Time Clock	XIV	1	AW	22/01/18	CRW	31/01/1
Master Time Clock (Continued)	XIVa					
Master Time Clock (Continued)	XIVb					
Master Time Clock (Continued)	XIVc					

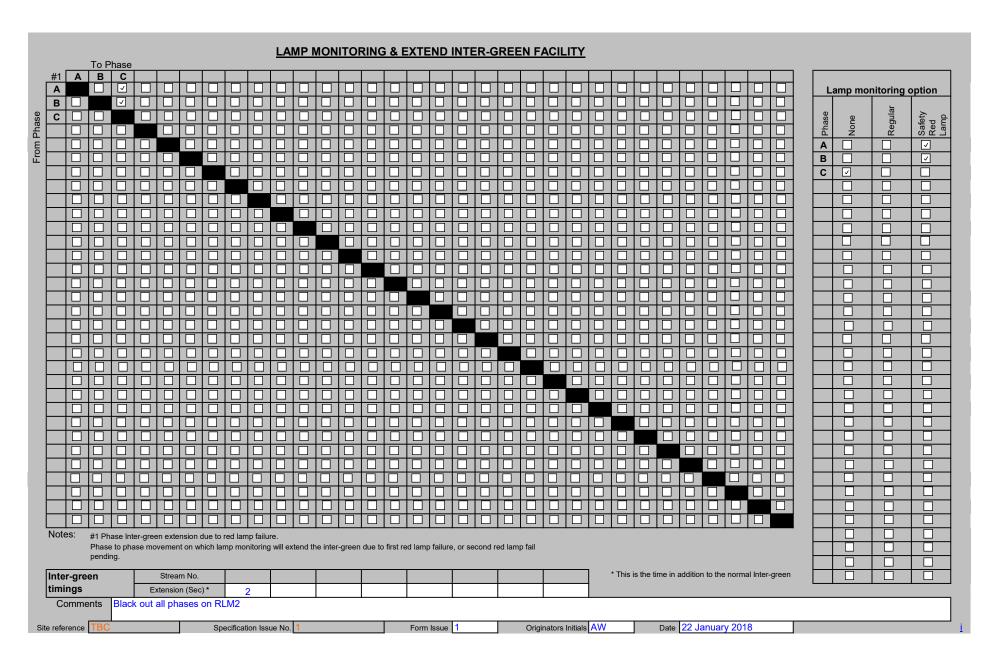
Form Title	Form No.	Form Issue Number	Originator Initials	Date Originated dd/mm/yy	Auditor Initials	Date Audite dd/mm/yy
Master Time Clock (Continued)	XIVd					
Master Time Clock (Continued)	XIVe					
Master Time Clock (Continued)	XIVf					
Master Time Clock (Continued)	XIVg					
Mode Priority	XV	1	AW	19/01/18	CRW	31/01/
ixed Time Mode	XVI					
Phase Green Timings	XVII	1	AW	19/01/18	CRW	31/01/
Detectors and Push-buttons	XVIII	1	AW	19/01/18	CRW	31/01/
Detectors and Push-buttons (Continued)	XVIIIa	1	AW	19/01/18	CRW	31/01/
Detectors and Push-buttons (Continued)	XVIIIb					
Detectors and Push-buttons (Continued)	XVIIIc					
Detectors and Push-buttons (Continued)	XVIIId					
Detectors and Push-buttons (Continued)	XVIIIe					
Detectors and Push-buttons (Continued)	XVIIIf					
Detectors and Push-buttons (Continued)	XVIIIg					
Detectors and Push-buttons (Continued)	XVIIIh					
III-Red Extension	XIX					
Speed Discrimination / Assessment	XX					
Cableless Linking Facility	XXI					
Cableless Linking Facility (Continued)	XXIa					
Cableless Linking Facility (Continued)	XXIb					
Cableless Linking Facility (Continued)	XXIc					
Cableless Linking Facility (Continued)	XXId					
Cableless Linking Facility (Continued)	XXIe					
Cableless Linking Facility (Continued)	XXIf					
Cableless Linking Facility (Continued)	XXIg					1
lurry Call(s)	XXII					1
Jrban Traffic Control	XXIII	1	AW	22/01/18	CRW	31/01/
Jrban Traffic Control (Continuation)	XXIIIa					1
JTC Reply Bit Functionality	XXIV	1	AW	22/01/18	CRW	31/01/

Form Title The state of the st	rm Issue Number 1	Originator Initials AW	Date Originated dispersion of the dispersion of	Auditor Initials CRW	Date Audite dd/mm/yy
Emergency Mode Time Example Continue Accordance Emergency Mode Time Example Continued Emergency Mode Time Eme			19/01/18	CRW	31/01/1
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Emergency Mode Time Emergency Mode Time Link & Facilities Pedestrian Crossing Pedestrian Crossing (Continuation) Emergency Mode Time XXVIII XXVIII Pedestrian Crossing (Continuation) XXVIIII Pedestrian Crossing (Continuation) XXVIIII Pedestrian Crossing (Continuation) XXVIII Pedestrian Crossing (Continuation) XXVIII Pedestrian Crossing (Continuation) XXVIII XXVIII XXVIII XXVIII XXVIII XXXII Analysis Continued XXXA Analysis Continued XXXII Power Calculation XXXII Inal Data Summary Sheet	1				1
Emergency Mode Time Define Link & Facilities Pedestrian Crossing Pedestrian Crossing (Continuation) Example 1 Example 2 Exam	1				
Pedestrian Crossing Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Pedestrian Crossing (Continuation) Education Crossing (Continuation) Educations Educations Educations Educations Educations Education Educations Edu	1				1
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conditions Conditions (Continued) Continued) Conditions (Continued) Condit					
onditions (Continued) xxxxi onditions (Continued) xxxxi xxxi onditions (Continued) xxxxi xxxi anal Data Summary Sheet	1	AW	22/01/18	CRW	31/01/1
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onditions (Continued) xxxxy onditions (Continued) xxxxy onditions (Continued) xxxxi onditions (Continued) xxxxi xxxi					
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Power Calculation XXXI Inal Data Summary Sheet XXXII					
Power Calculation XXXI Inal Data Summary Sheet XXXII					
nal Data Summary Sheet XXXII					
	1	AW	22/01/18	CRW	31/01/1
					\top
					\top
					\vdash
ms, such as Contract Appendicies or full site layout drawings, may be included in the Index for completeness					

		CONFIGURATION NOTES	<u>.</u>	
General Controller Requi The control strategy for the Lamp Dimming to be 27v		stage 1 to be the revertive stage.		
Detection Requirements: nductive loops for both No	: orthbound and Southbound.			
Operational Modes: MOVA, VA and Manual				
Note: This form may be used to p		others, such as any new facilities in this is		
reference TBC	Specification Issue No. 1	Form Issue 1	Originators Initials AW	Date 19 January 2018



Use of phases	Type of	Condition of		ition of ation #3	trian cout	un en	um Limit	Timer	Notes:
Location - Road Name etc	phase #1	Appearance #2	Туре	Assoc'ted Phase	Pedestrian Blackout	Minimum Green	Minimum Green Limit	Window Timer	This form allows up to 32 phases to be
A Haverhill Relief Road Westbound	Т	0	0	-		7	7		specified.
Haverhill Relief Road Eastbound	Т	0	0	-		7	7		
Peds Across Haverhill Relief Road	TN	0	0	-		6	6		#1 Type of phase
									T - Traffic, F - Filter Arrow, I - Indicative Arrow, D - Dummy (allocate after real phases), S - Switched sign, PD - Pedestrian, PU - PUFFIN, TN - TOUCAI (near sided), TF - TOUCAN (far-sided).
									#2 Conditions of phase appearance
									O - Always, 1 - Only if demand exists at start of stage, 2 - If demanded at any time up until the end of the stage, 3 - If demanded at any time during the stage up until window time expires.
									#3 Conditions of phase termination
									O - At end of stage, 1 - When associated phase gains ROW, 2 - When associated phase loses ROW, 3 - At end of minimum green, 4 - At end of maximum green, 5 - Subject to special conditioning
									Additional information
									Phase maxima are specified on Form XVII Additional pedestrian information is specified on Form XXVII
Comments									



													USE	E OF	STA	AGE	<u>s</u>																	
Stage	Stream No.	Window Time	Α	В	С			П	П						П	П	П												П					
0	1																																	
1	1		7	V																														
2	1				V																													
																												Ш	Ш					
						Ш				Ш																		Ш	Ш					
																													Ш					
				Ш		Щ	Щ	Щ	Щ	Щ	Ц	Ц	Щ	Щ	Щ	Щ	Щ	Ш		Ц		Щ			Ц	Ц	Щ	Щ	Щ	Щ	Ц			
				H	Ц	Щ	H	닏	H	Щ	Щ	Ц	닏	Щ	H	닏	닏	Щ	Ц	Щ	Ц	Щ		Ц	Ц	H	Щ	H	H	닏	Щ	L		
			Ц	H	Ц	Щ		닏	H	Щ	Щ	Ц	닏	Щ	Щ	H	H	Щ	Щ	Щ	Ц	Щ		Ц	Щ	Ц		Щ	H	H	Щ			
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			Н	H		H	H	닏	닏	Щ	Щ	Ц	닏	Щ	닏	H	I H	Щ	Ц	Щ	<u>Ц</u>	Щ			Ц	Ц	Щ	Щ	H	닏	Щ	L		
Maria		1- 44					Ш					Ш																	Ш					
	Reversion Deman	QS #1						L														L										L	ш	_
Comme Notes:	#1 Maximum Rev	version Demand																																
		for the same real phase	e unles	ss other	rwise																													
Site reference	TBC	Specificati	on Iss	ue No.	1					Form	Issue	1]	Origi	inators	Initials	AW]	Date	19 Ja	anuar	y 201	8]							<u>i</u>

Number	Day Type	Hours	Minutes	Seconds	Introduce Function Required	Function	Plan / Parameter	Day type
1	8	7	0	0	Audibles On	2a	1	1 Monday
2	8	22	0	0	Audibles Off	2a	0	2 Tuesday
							\perp	3 Wednesday
								4 Thursday
							-	5 Friday
							-	6 Saturday 7 Sunday
								8 All Week
								9 All Week, except Sat & Sun
								10 All Week, except Sun
							-	Function
								0 Isolate controller
								1 Introduce plan
								2 Introduce event defined below:
							\vdash	Switch On Input/Output Active / Inactive / Normal
								2b Introduce Standard / Alternative Max Settin
								2c Switch a sign On / Off
								2d Switch a Phase / Stage In / Out of cycle
								2e Switch To / From Part Time mode
							\vdash	
							-	
		+					+	

MODE PRIORITY Method of Control Stream Part Time - PT Emergency - EM Hurry Call - HC Selected Manual Control - MAN Urban Traffic Control - UTC MOVA 3 2 Selected FXT, VA or CLF Cableless Linking - CLF Priority - PR Either - Vehicle Actuated - VA * OR - Fixed Time - FXT * Assign priority number to each Method of Control. 1 = Top Priority, 2 = Second Priority etc. X = Not used. Unless indicated - Priority will be assigned from top downwards. * Select either VA or FXT for normal operation, not both. Under manual Control, Demand Dependent Filter Green Arrow to appear (select one): Facility Switch Availability Always Facility switch position Facility not operative Manual - Man Fixed Time - FXT Vehicle Actuated - VA This may be achieved by appropriate arrangement of Method of Control Priority. Comments Originators Initials AW Date 19 January 2018 Site reference TBC Specification Issue No. Form Issue 1

PHASE GREEN TIMINGS Phase Maxima Phase Maxima Max B Max C Max D Max E Max H Max B Max D Max G Max F Max G Max C Max E Max F Max H Max A Max A 20 30 20 30 С Comments Site reference TBC Specification Issue No. 1 Originators Initials AW Date 19 January 2018 Form Issue 1

#1		DET	ECTORS AND	<u>PUSHB</u>	<u>UTT</u>	ONS	<u> </u>					
Type No.	Detector Type - Inductive loop, In carriageway, Above Ground, Optical, Video, Push-button, Pedestrian kerb- side, on-crossing etc		Manufacturer - model etc	;							ddress range et No., comm	
1	Inductive Loop											
2	Push Button											
3	On-Crossing											
4												
5												
6												
7												
8												
9												
10												-
			DFM Fail Group		Δcti	ve (M	linutes)			Inactive	(Hours)	
Note	es:		Number #2	Set A	Set		Set C	Set D	Set A	Set B	Set C	Set D
#1 Ty	/pe No.		1	60					18			
	nis form to specify requirements for detection equipment to steach channel of detection on the subsequent detection		2	60								
, i	·	UIIIIS.	3									
	FM Fail / Mode Group	ID the DEM Timin	4									
Group	subsequent detection forms, specify the required Failure Mode Alfor each channel of detection. The failure modes are:	id the Drivi Timing	5									
	I Active, I - Fail Inactive, Y - Use Input on failure, e.g. A1, I3 etc. action of DFM Group Sets should be specified on the Master Time C	lock Form XIV or in	6		-	\dashv						
	I Conditions Form XXIX (dependant upon requirement).		8									
Note	This form may be used to specify the type of detec	tion technologies t		dditional inf	ormati	on as r	equired.					
	ence TBC Specification Iss			ssue 1				nitials AW		Date 19	lanuary 2	018

Number	Location / Title	Type No.	MOVA No.	External	Phase Demanded	Phase Extended	Extension Time (Sec)	Non- latching	Uni- directional	Call Delay (Sec)	Cancel Delay (Sec)	DFM Fail Mode / Group (e.g. A1)	Speed Detector	Special Instructions
1	AIN1	1	1	\square		Α	5	Ц		-	-	A1		
2	AX2	1	2	V	Α	Α	4			-	-	A1		
3	BX3	1	3		В	В	3			-	-	A1	Щ	
4	CPB1	2			С			Ш	Ш	-	-	Y2	Ш	
5	CPB2	2		\mathbb{Z}	С			Ш	Ш	-	-	Y2	Ш	
6	CPB3	2		\mathbb{Z}	С			Ш	Ш	-	-	Y2	Ш	
7	CPB4	2		\square	С				L	-	-	Y2	Ш	
8	COC2	3		\square			С			-	-	A1	빌	
9	COC4	3		\square			С		Ш	-	-	A1		
									$+\Box$					
									$+\Box$					
	_								$+\Box$					
									\Box					
									\Box					
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								杆	┢╤				-71	
												-		
									14					

						Co	ontrol We	ords									O.T.U. Manufacturer and Type
Bit Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	MOVA Chamleon RMS
Control Bit	F1	F2														TO	
emand Dependent																	
Bit Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Operation Standard (select one):
Control Bit																	MCE0105/0106
emand Dependent																	
Bit Number	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	UTC initiated by (select one):
Control Bit																	Force Bits and Transmission Confirm
emand Dependent																	Signal TC/TO present
Bit Number	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Signal 10/10 present
Control Bit																	
emand Dependent																	Number of bits
																	Control
						R	eply Wo	rds									Reply
Bit Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Reply Bit	G1	G2	CF	DF	LF1	LF2	LE									CRB	RTC Synchronisation Time
Bit Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Hour Minute Second
Reply Bit																	
Bit Number	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	CC Synchronisation Reply
Reply Bit																	Seconds
Bit Number	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	
Reply Bit																	O.T.U. Address Information
Bit Number	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
Reply Bit																	
Bit Number	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	
Reply Bit																	
Bit Number	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	
Reply Bit																	
Bit Number	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	Enter additional information, such as SCN, Modem
Reply Bit																	number, IP address (as appropriate)
mments																	

Tick as appropriate:	G1 / G2	MC	RR	DF	CF	LF	RF1	RF2	LF2	LE		
Manual mode selected and operative												
Manual mode selected												
No lamp power and/or signals off										V		
Controller fault					✓							
Detector fault				V								
/A or FT selected												
_amp failure						V						
1st Safety red failure									V			
2nd Safety red failure									V			
Notes: 1 - Tick appropris	ate boxes to	indicate re	quired reply	bit function	ality. 2 - Use	e additional	columns an	d rows to d	etail non-sta	andard com	binations.	

			MANUAL PANEL	
			Manual Selection	
	Button No.	Stage(s) Called	Name	
			All Red Stage(s)	
	1	1	Traffic	
	2	2	Crossing	
			Auxillary Visual Indicators	Manual Mode Enable
	Output No.		Function	Always
				7 liways
			A III A 1/1 /	
			Auxillary Switch Inputs	
	Input No.		Function	
Comments	Visual indicat	or to be configure	d to show when in MOVA mode (i.e. Higher Priority)	
Comments	visual illulcat	or to be configured	a to show which in wo vit mode (i.e. riigher i nonty)	
0" (TDC		l	1) A 2 2 3 3 3 4 3 3 5 3 4 3 5 5 5 6 5 6 5 6 5 6 6 6 6 6 6 6 6 6 6	5 : 40 January 2040
Site reference TBC		Specification Issu	ue No. 1 Form Issue 1 Originators Initials AW	Date 19 January 2018 <u>i</u>

Fixed Vehicle Period (Sec)	Site Locations	Crossing 1: Haverhill Relief Road Toucan Crossing 2:	1	2
Vehicle Phase		Fixed Vehicle Period (Sec)		
Vehicle Phase				
Pre-timed maximum Vehicle to Pedestrian Inter-green All Red gap change (Sec) All Red dap change (Sec) All Red forced change (Sec) Bedestrian Phase Pedestrian Phase Pedestrian Phase Pedestrian demand hold time (Sec) Vehicle Tearmination Delay Time (Sec) Pedestrian demand hold time (Sec) Vehicle Flashing Green Man [Period E] (Sec) Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period V] (Sec) Vehicle Flashing Yellow / Red Vehicle Red / Red Man [Period V] (Sec) Vehicle Flashing Yellow / Red Vehicle Red / Red Man [Period V] (Sec) Vehicle Flashing Yellow / Red Vehicle Red / Red Man [Period V] (Sec) Vehicle Flashing Yellow / Red Vehicle Red / Red Man [Period V] (Se	Vehicle Phase		30	
All Red gap change (Sec) All Red forced change (Sec) All Red forced change (Sec) Pedestrian Phase Pedestrian Phase Pedestrian Phase Pedestrian Phase Pelican Pedestrian demand hold time (Sec) Vehicle Red / Flashing Green Man [Period E] (Sec) Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period G] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) All Red [Period viii] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) 7 Forced change - Vehicle Red / Red Man [Period 7/VII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Pedestrian Audible Signals				
All Red gap change (Sec) All Red forced change (Sec) All Red forced change (Sec) Pedestrian Phase Pedestrian Phase Pedestrian Phase Pedestrian Phase Pelican Pedestrian demand hold time (Sec) Vehicle Red / Flashing Green Man [Period E] (Sec) Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period G] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) All Red [Period viii] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) 7 Forced change - Vehicle Red / Red Man [Period 7/VII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Pedestrian Audible Signals		Vehicle extension (Sec)		
Inter-green	/ehicle to Pedestrian		3	
Pedestrian Phase Pedestrian Phase Pedestrian Phase Pedestrian Phase Pelican Pelican Pelican Pelican Pelican Pelican Pelican Pelican Pelican Pedestrian and TOUCAN far-sided signals Pedestrian Audible Signals		All Red forced change (Sec)		
Rerbside detector extension (Sec)				
Vehicle Termination Delay Time (Sec) Pedestrian demand hold time (Sec) Vehicle Red / Flashing Green Man [Period E] (Sec) Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period G] (Sec) Maximum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Maximum extendible - Vehicle Red / Red Man [Period 5/V] (Sec) Maximum extendible - Vehicle Red / Red Man [Period 5/V] (Sec) Maximum extendible - Vehicle Red / Red Man [Period 5/V] (Sec) Gap-change - Vehicle Red / Red Man [Period 7/VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Pedestrian and TOUCAN near-sided signals Other facilities Pedestrian and TOUCAN near-sided signals Pedestrian Audible Signals Pedestrian Audible Signals		Kerbside detector extension (Sec)		
Vehicle Red / Flashing Green Man [Period E] (Sec) Vehicle Flashing Yellow / Red Man [Period G] (Sec) Vehicle Flashing Yellow / Red Man [Period G] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 6/VI] (Sec) On-crossing extendible - Vehicle Red / Red Man [Period 6/VI] (Sec) Forced change - Vehicle Red / Red Man [Period 6/VI] (Sec) On-crossing extension (Sec) On-crossing extension (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Pedestrian Tactile Signals	Pedestrian Phase	Vehicle Termination Delay Time (Sec)		
Pelican Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec) Vehicle Flashing Yellow / Red Man [Period G] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Maximum extendible - Vehicle Red / Red Man [Period 6/VI] (Sec) TOUCAN near-sided signals PUFFIN and TOUCAN near-sided signals Other facilities Other facilities Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) 3 Maximum extendible - Vehicle Red / Red Man [Period 5/V] (Sec) 7 Forced change - Vehicle Red / Red Man [Period 6/VI] (Sec) Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Vehicle Flashing Yellow / Red Man [Period V] (Sec) On-crossing extension (Sec) Pedestrian Tactile Signals		Pedestrian demand hold time (Sec)		
Vehicle Flashing Yellow / Red Man [Period G] (Sec) Minimum clearance - Vehicle Red / Pedestrian Blackout [Period v] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Maximum extendible - Vehicle Red / Red Man [Period 5/V] (Sec) TOUCAN near-sided signals Other facilities Other facilities Vehicle Flashing Yellow / Red Man [Period vii] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Vehicle Red / Pedestrian Blackout [Period vii] (Sec) Sopred change - Vehicle Red / Red Man [Period 5/V] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Vehicle Red / Pedestrian Blackout [Period vii] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals		Vehicle Red / Flashing Green Man [Period E] (Sec)		
Minimum clearance - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec) Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec) All Red [Period viii] (Sec) On-crossing extension (Sec) Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec) Maximum extendible - Vehicle Red / Red Man [Period 6/VI] (Sec) TOUCAN near-sided signals Forced change - Vehicle Red / Red Man [Period 6/VI] (Sec) Gap-change - Vehicle Red / Red Man [Period 7/VII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Pedestrian Tactile Signals	Pelican	Vehicle Flashing Yellow / Flashing Green Man [Period F] (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities Other facilities	_	Vehicle Flashing Yellow / Red Man [Period G] (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities Other facilities	<u></u>	Minimum clearance - Vehicle Red / Pedestrian Blackout [Period v] (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities Other facilities	Pedestrian and	Maximum extendible - Vehicle Red / Pedestrian Blackout [Period vi] (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities Other facilities	TOUCAN far-	Forced change - Vehicle Red / Pedestrian Blackout [Period vii] (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities Other facilities	sided signals	All Red [Period viii] (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities Other facilities	<u> </u>	On-crossing extension (Sec)		
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities	<u> </u>	Minimum clearance - Vehicle Red / Red Man [Period 5/V] (Sec)	3	
Sided signals Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec) On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities	PUFFIN and	Maximum extendible - Vehicle Red / Red Man [Period 6/VI] (Sec)	7	
On-crossing extension (Sec) Pedestrian Audible Signals Other facilities Other facilities On-crossing extension (Sec) Pedestrian Tactile Signals	1000/11/11001	Forced change - Vehicle Red / Red Man [Period 7/VII] (Sec)	0	
Pedestrian Audible Signals Other facilities Pedestrian Tactile Signals U U	sided signals	Gap-change - Vehicle Red / Red Man [Period 8 / VIII] (Sec)	0	
Other facilities Pedestrian Tactile Signals		On-crossing extension (Sec)	2	
1 deciding Figure 1		Pedestrian Audible Signals	✓	
	Other facilities	Pedestrian Tactile Signals	✓	
IUTC 🗀 II ocal-linking 🗀 I		UTC Local-linking	1	2

		Inputs					Outputs		
No.	Name	Comments	N/O	N/C	No.	Name	Comments	N/O	N/0
						Phase C Demanded	MOVA Det 4		
						Dummy Det AX2	MOVA Det 5		
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SPECIAL CONDITIONS Stage Change Conditions for change, or other general requirements CRB Bit for MOVA CRB to be inhibited my manual selection and mode If CRB is present and not in MOVA mode, toggle CRB every 120 seconds Notes: If using Boolean expressions, these are examples of symbols which may be used: <F"N"> Computer Force bit for Stage "N"; <D"N"> Computer Demand bit for Stage "N"; <dem "P"> Demand for Phase "P" < -ext"P" > Lack of extensions for Phase "P", < . > Boolean "AND"; < + > Boolean "OR". Modes of operation: FXT, VA, UTC, CLF, MAN (See Form XV for complete list and explanation) Note: This form may be used to provide additional information for stage change conditions, and/or other parameters not covered elsewhere. Specification Issue No. Originators Initials AW Date 22 January 2018 Site reference TB Form Issue 1

Equipment	Quantity	W	atts	Total]
Controller (base build)	1	ţ	50	50	
Additional phase drive card		2	25		
OTU / OMU	1	,	30	30	
Inductive Loop detector pack	1		3	3	
Above ground detectors			6		
Number of audible / tactile units	2		10	20	
Number of regulatory signs		(30		_
Number of pedestrian call accept indicators			6		_
Number of near-side pedestrian indicators	2		16	32	_
Number of pedestrian wait lamps (LED)	2		5	10]
Add additional equipment					
Add additional equipment					
Dimmable Equipment	Quantity	Dim	Bright	Total (dim)	Total (bright)
Number of signal heads (incl' far-side ped's) HI		33	63		
Number of signal heads (incl' far-side ped's) LED	6	4	29	24	174
Number of pedestrian wait lamps (40w)		25	42		
Add additional equipment					
Number of starting ambers (on at start-up)			63		
Dim) Average Power Watts (Bright) 319.00	Power 0.8	5 A \	erage Po kVA (Brig Peak Po	ght) 375.29	