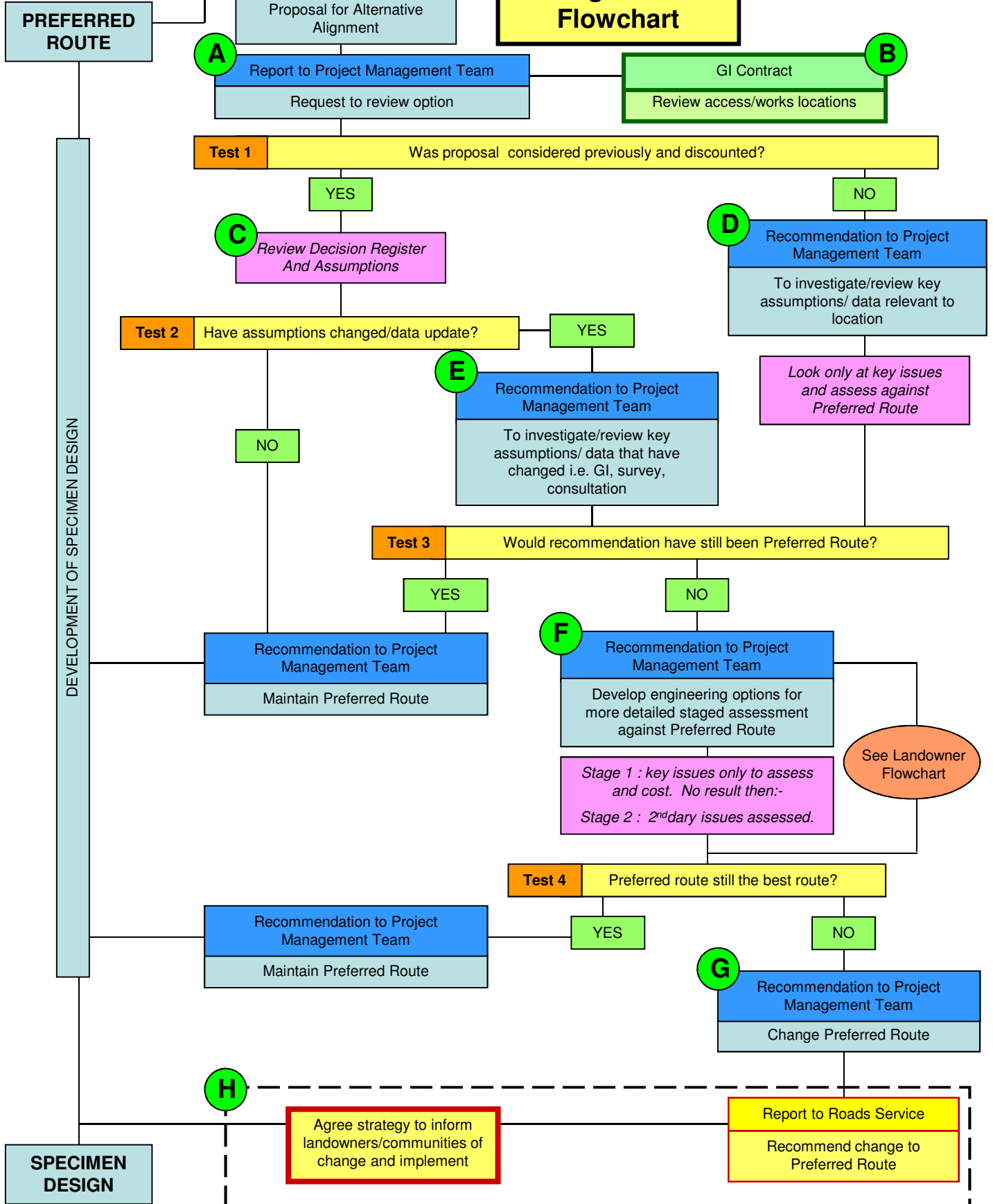
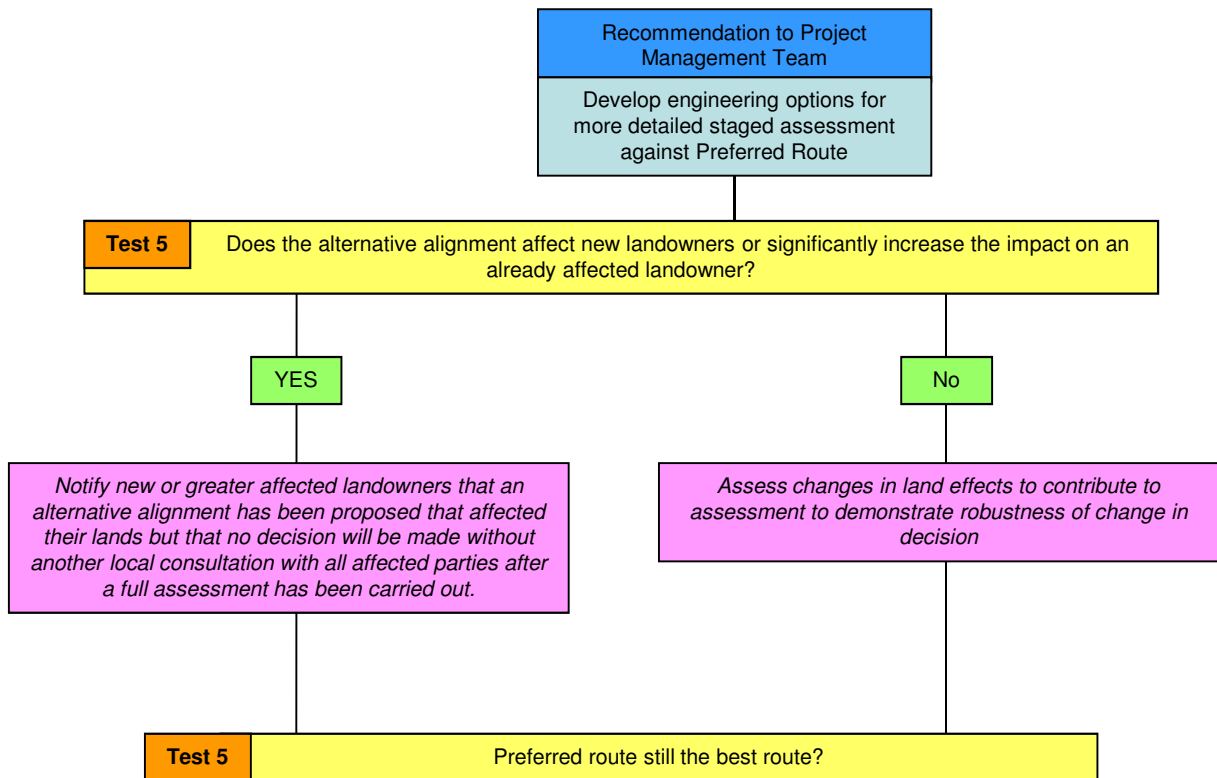


**TBR No 4
Alternative
Alignment
Flowchart**



**Landowner
Flowchart**



TECHNICAL BRIEFING PAPER	No:	4
SUBJECT: Assessment of Alternative Alignments Proposed by Landowners and Others	Date:	19/9/09
AUTHOR: PGE		
REFERENCE DOCUMENTS: Attached Flowcharts; Decision Register		
<p>DISCUSSION:</p> <p>Following publication of the Preferred Route, a number of landowners have proposed alternative alignments at various locations along the route, some being quite short and others longer in length. Invariably these are proposed out of self interest in reducing or removing landtake associated with the scheme. The alternatives proposed by landowners fall into two categories:- i) where landowners request a realignment within their landtake to minimise impacts, use less important land, reduce/remove severance; or ii) where landowners propose a realignment that totally avoids their land. Both types of proposal will, by their nature, have consequences on adjoining lands which will change the impacts on landowners already affected (both positive and negative) and directly affect landowners whose lands were not required for the Preferred Route.</p> <p>It should be noted that as more and more data becomes available which confirms or revises previous assumptions and decisions, the Mouchel team may also put forward alternatives for consideration. The initial forum to declare such information is the section discipline meeting where the SPM may record for consideration/reality check or open the alternative up for immediate discussion by the various disciplines.</p> <p>Likewise, Roads Service may suggest an alternative for consideration, either through their own internal discussions or following consultations with landowners. This request will be channelled through the SPMs for the initial filter/reality check.</p> <p>Roads Service acknowledges that these proposals require due consideration and assessment to demonstrate that any decision making is open, robust and fair. Despite the pressures to give immediate responses, a structured approach is necessary to achieve the correct decision, particularly if that decision may vary the Preferred Route. The process defined in the attached flowcharts identifies the approach to be taken in considering any alternatives proposed by landowners. This flowchart has been developed to a) achieve delivery of the best scheme; and b) minimise resource and fee required to deliver this process.</p> <p>The following notes provide guidance in the interpretation of the flowcharts:</p> <p>A Request to review Option:</p> <p>Any request by a landowner for an alternative route has to be reasonable and achieve the aims and objectives of the scheme. Once a request is received it is passed to the SPM's who will review all such requests to ensure only realistic options are put to the Project Management Team to be taken forward for consideration.</p> <p>B GI Contract: Review access/works locations</p> <p>As this is currently ongoing, it is important that all suggestions for alternatives are passed to the</p>		

GI team immediately. Depending on the level of deviation away from the Preferred Route, an assessment will be made on whether a subtle relocation of boreholes and trial pits will provide adequate information for the assessment of both the PR and the alternative (if required).

Test 1: Has a landowner alternative been considered and discounted as part of the route selection process?

Whilst the team members will have an immediate knowledge to answer this question, a review of the previous reports is necessary particularly where a proposal is not on the exact line of a previously discounted route but is covered by the same constraints.

C (Answer to Test 1 is Yes)

Carry out a review of the previous assumptions, data base and decisions made to see if any aspects of the data have changed. (note that this could also be a change in data that makes the Preferred Route a less attractive alignment than before).

D (Answer to Test 1 is No)

If not considered previously but an alternative alignment is valid of further assessment, the SPM will recommend to the Project Management Team that further work is carried out. This needs to be very structured and based on an initial assessment of the key issues associated with the alignment as determined by the SPMs and Fiona Symes. This will be iterative and robust and will only stop if it is demonstrated that the alternative does not replace the Preferred Route.

Test 2: Have assumptions changed/data update?

As described in C above, the initial assumptions/data need reviewing. Note that this is part of the process and is not a blame exercise. The whole team bought into the decisions made previously and if there are genuine changes that challenge previous decisions then they need to be addressed now within the team rather than in public at the public inquiry.

E (Answer to Test 2 is Yes)

If data has changed or new data available then it needs to be re-evaluated and tested against the Preferred Route. Only the discipline where data has changed/new data needs to be assessed.

Test 3: Would recommendation have still been Preferred Route?

Test 3 needs to be asked repeated throughout this assessment process. At any point in the assessment where the alternative fails to prove to be better than the Preferred Route then the SPM's will make a recommendation to the Project Management Team that the assessment stops and the Specimen Design continues to be developed using the Preferred Route.

F (Answer to Test 3 is No)

If the assessment of any changed data results in an initial indication that an alternative is a better alignment than the Preferred Route, a more detailed and fuller assessment is required. This will be instructed by the Project Management Team. The exact nature of the full assessment will be determined by the SPMs and discipline leaders and form part of the recommendation to the Project Management Team.

Test 4: Preferred route still the best route?

Unlike Test 3 this can only be asked upon completion of the full assessment which culminates in a local AST between the Preferred Route and the alternative alignment including full cost implications for the budget.

G (Answer to Test 4 is No)

This change to the Preferred Route will be presented by the SPMs to the Project Management Team who will in turn present the recommendation to Roads Service. This

H Strategy for Change of Preferred Route

This needs to address the communications strategy to inform all stakeholders and interested parties of the change – from Minister through to landowners. This needs developing to complement the Comms Strategy for the scheme controlled by Rachel Eagleson.

Land Issues:***Test 5: Does the alternative alignment affect new landowners or significantly increase the impact on an already affected landowner?***

Where the landownership balance changes then the communication with the community has to be clear and careful to avoid the community blaming landowners affected by the Preferred Route. The message has to be that an alternative route has been put forward and the requirement is to test this route against the Preferred Route. Any change to the Preferred Route will be fully supported by Roads Service as the better route (compared with the announced PR) which meets the aims of the scheme with least impact on the community.

Test 6: Preferred route still the best route?

If the outcome of this test is no then the change needs to be communicated in a controlled manner which may require a community meeting to present the results of the assessment. The approach to be taken can only be decided as the assessment progresses.

Resources and Fees:

The current forecasts by disciplines and SPMs, whilst including development of and input into the specimen design, do include all the assessment that may come out of this approach to dealing with alternative alignments. Resources need to be recorded to enable the budget to be managed and evaluate change controls if necessary. Andy Heap will advise on how this will be managed.

Appendix 5A - Mainline Departures from Standard and Relaxations Summary- Section 1

Reference Number	Location	Design Speed	Chainage	Associated relaxations / Departures	Desirable Minimum (m)	Departure	Number of Steps Below Desirable Minimum
No Departures from Standards for Section 1 Mainline*							
Reference Number	Location	Design Speed	Chainage	Associated relaxations / Departures	Desirable Minimum (m)	Relaxation	Number of Steps Below Desirable Minimum
S1/ML/R/001	McKeans Moss Curve (1020m radius) Northbound (Lane 1)	120A	12370 - 11020	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/001a	McKeans Moss Curve (1020m radius) Northbound (Lane 2)	120A	12370 - 11020	-	SSD = 295m	SSD = 275m min.	1 Step
S1/ML/R/002	McKeans Moss Curve (1020m radius) Southbound (Lane 2)	120A	10860 - 12090	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/003	River Glenmornan crossing (1020m radius) Northbound (Lane 2)	120A	13160 - 12850	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/004	River Glenmornan crossing (1020m radius) Southbound (Lane 1)	120A	12520 - 12850	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/004a	River Glenmornan crossing (1020m radius) Southbound (Lane 2)	120A	12700 - 12800	-	SSD = 295m	SSD = 280m min.	1 Step
S1/ML/R/005	Park Road crossing (1020m radius) Northbound (Lane 1)	120A	13750 - 13420	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/005a	Park Road crossing (1020m radius) Northbound (Lane 2)	120A	13640 - 13500	-	SSD = 295m	SSD = 280m min.	1 Step
S1/ML/R/006	Park Road crossing (1020m radius) Southbound (Lane 2)	120A	13140 - 13400	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/007	WITHDRAWN						

S1/ML/R/008	North - West of Strabane	120A	15640 - 15760	-	q = 0.3	q = 0.6	1 Step
S1/ML/R/009	North - West of Strabane	120A	15890 - 15940	-	q = 0.3	q = 0.6	1 Step
S1/ML/R/010	North - West of Strabane Northbound (Lane 1)	120A	15960 - 15860	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/010a	North - West of Strabane Northbound (Lane 2)	120A	15940 - 15860	-	SSD = 295m	SSD = 215m min.	1 Step
S1/ML/R/011	Junction 1 - West of Newbuildings	120A	290 - 340	-	255mR	R = 180m	1 Step

Appendix 5B –Side Road Schedule –Section 1

Side Road	Side Road Category	Approx Mainline Chainage	Average Existing Cross-section (F denotes footway)			Traffic Movements (2way, 12hr) from TCS		Proposed Cross-section (F denotes footway)			Over/Under the A5	Closure Options			Other Comments/details eg. Bus Route, NMU issues, business considerations
			Nearside Verge (m)	Carriageway (m)	Offside Verge (m)	Vehicle	NMU	Nearside Verge (m)	Carriageway (m)	Offside Verge (m)		Remain Open at All Times (except short off peak periods)	Close During Construction	Permanently Stop Off	
Dunnalong Road	U	3900	0.5	3.8	0.5	157	10	2.5	6.0	2.5	Over	Yes	No	No	Local School Bus Route Meenagh Road Unsuitable As Alternative (No Right Turn Pocket From A5, Passing Places On Meenagh Road Required) Offline Improves Drainage Options
Meenagh Road	U	4900	N/A	2.8	N/A	56	0	N/A	N/A	N/A	Over	No	Yes, Provision needed to maintain cattle movements	Yes	Meenagh Road retained for use by the landowner
Existing A5, Victoria Road	A	6400	1	7.8	1	N/A	N/A	N/A	N/A	N/A	Under	Yes	No	No	Retain Existing A5 Online Level of Existing A5 unchanged
Cloghboy Road	U	6400	0.5	4.7	0.5	485	8	2.5	6.0	2.5	N/A	Yes	No	No	School Bus Route
Tamnabraday Road (U1813)	U	7100	0.6	3	1.2	N/A	N/A	2.5	3.6	2.5	N/A	Yes	No	Yes, but realigned	Connection to Victoria Road stopped up and realigned to connect to Tamnabraday

Donagheady Road	U	7800	0.5	4.4	0.5	216	0	2.5	6.0	2.5	Over	Yes	No	No	School Bus Route
Existing A5, Victoria Road	A	9100	2	9	2	9823	N/A	2	9	2	Under	Yes	No	No	Retain existing A5 Online. Level of existing A5 unchanged.
Willow Road	A	8900	0.5	4.3	0.5	58	1	2.5*	3.6*	2.5*	N/A	Yes	No	No	Run an offline route parallel to the mainline tying in South of the crossing of the A5WTC
Ash Avenue	U	9600	0.5	3.2	0.5	45	6	2.5*	3.6	2.5*	N/A	No	Yes, with suitable local Alt	Yes	Access to be provided Via diversion from Drumenny Road
Drumenny Road	U	10000	1.5	4	1.5	79	2	1.5	4.10	1.5	Under	No	Yes, with suitable local alt	No	Drumenny Road to remain as existing
Ballydonaghy Road	U	10900	0.5	2.9	0.5	60	0	N/A	N/A	N/A	N/A	No	Yes, with suitable local Alt	Yes, but realigned	Connected to Moss Road west of A5WTC
Moss Road	U	11000	1.5	2.3	1.5	10	0	1.5	2.3	1.5	Under	No	Yes, with suitable local Alt	No	Existing Road to remain as existing. No works proposed.
Greenlaw Road	U	12900	0.5	3.3	0.5	18	24	2.5*	3.6**	2.5*	N/A	No	Yes, with suitable local Alt	No	NMU link provided to Park Road North on west side of A5WTC
Park Road (North)	U	13500	1.5	2.8	1.5	126	18	N/A	N/A	N/A	Under	No	Yes, with suitable local Alt	No	Park Road to remain as is. Option to use Greenlaw Road during construction as a temporary means of access.
Woodend Road (North)(B49)	B	14750	1.0	7.0	1.0	4052	N/A	2.5	8.0	2.5	N/A	Yes	No	No	New roundabout on existing A5 with connection to B49
Woodend Road (South)	B	14820	1.0	7.0	1.0	4052	N/A	2.5	8.0	2.5	N/A	Yes	No	No	New roundabout on existing A5 with connection to B49

Old Park Road	U	14720	1.0	6.0	1.0	126	18	2.5	6.0	2.5	N/A	N/A	Yes, with suitable local Alt	No	
Spruce Road	U	15000	0.5	3.3	0.5	150	14	N/A	N/A	N/A	N/A	No	Yes	Yes	Spruce Road to be stopped up. Traffic to be diverted through proposed Junction 3.
Park Road South	U	17100	1.0	4.5	1.0	126	18	2.5*	6.0**	2.5*	N/A	Yes	No	No	Realigned via new link road to Lifford road (Junction 4)
Urney Road(B85)	B	19500	0.5	4.7	0.5	1686	10	2.5	6.0	2.5	Under	No	No	No	Urney Road to go under Junction 7 Diverted offline to the North West.
Carrick Avenue	U	19600	0.5	3.1	0.5	141	7	2.5	6.0	2.5	N/A	Yes	Once new link to Ureny Road Constructed	No	
Strahans Road	U	20500	0.75	3	0.75	149	32	2.5	6.0	2.5	Over	Yes	Yes, with suitable local alt	No	Strahans Road to remain mostly on line and to be widened from the existing A5.
Bog Lane Road	U	21100	N/A	5.3	N/A	168	10	N/A	N/A	N/A	N/A	No	Yes	Yes	Alternative route via Orchard Road and Knockroe Road
Knockroe Road	U	21300	0.5	4.3	0.5	106	27	2.5	6.0	2.5	N/A	Yes	Yes, once link to Orchard Road complete	Yes, but realigned	Connected to Orchard Road south of A5WTC
Orchard Road	U	21500	0.5	5.15	0.5	1370	0	2.5	6.0	2.5	Over	Yes	No	No	School Bus Route
Peacock Road	U	22300	0.75	4.4	0.75	980	5	N/A	N/A	N/A	N/A	No	Yes	Yes	School Bus Route. Turning heads shown on main drawing.

Appendix 5C – Side Road Departures from Standard Summary Table – Section 1

Road Name	Mainline Chainage	Design Speed* (kph)	Number of Departures						
			Horizontal	Vertical	Cross -Section	SSD	Combinations	Access Visibility**	Other
Junction 1 Existing A5 (North) (Victoria Road)	385	60B	1	0	0	0	0	0	0
Junction 1 Existing A5 (South) (Victoria Road)	445	60B	3	1	0	2	2	0	0
Junction 2 Existing A5 (North) (Victoria Road)	1770	100A	2	1	1	0	0	0	0
Junction 2 Existing A5 (South) (Victoria Road)	1770	100A	1	1	0	2	0	0	0
Junction 2 Link to A5 WTC	1770	60B	0	3	1	0	0	1	0
Dunnalong Road	3900	85B	1	2	1	0	1	2	0
Cloghboy Road	6400	85B	1	3	1	0	0	0	0
Tamnabraday Road (U1813)	7100	60B	2	1	2	0	3	0	0
Donagheady Road	7800	85A	6	5	0	3	2	10	0
Willow Road	8900	70A	5	1	1	2	2	0	0
Ash Avenue	9600	85B	7	0	1	2	2	3	0
Drumenny Road	10000	85B	1	2	1	0	1	2	0
Ballydonaghy Road	10900	70A	6	1	1	1	2	0	0
Moss Road	11000	85A	0	0	1	2	0	1	0
Woodend Road (North)(B49)	14750	85A	6	2	1	2	0	2	0
Woodend Road (South)	14750	85A	2	2	1	2	0	3	0
Junction 3 Link to East Roundabout	14720	60B	0	1	1	0	0	0	0
Junction 3 Link to West Roundabout	14720	70A	0	0	1	1	0	0	0
Old Park Road	14720	85B	0	4	1	2	0	0	0
Park Road South	17100	85B	4	0	1	2	3	3	0
Junction 4 Roundabout Link	17650	100A	3	0	1	1	0	0	0
Lifford Road(A38)	17800	70A	2	0	0	1	0	1	2
Junction 4-5 Link (Lifford Road)	17800	70A	1	0	1	1	0	0	2
Urney Road(B85)	19500	85B	4	1	1	5	3	1	0

Carrick Avenue	19600	85A	2	3	1	2	0	1	0
Strahans Road	20500	85B	2	3	1	2	1	2	0
Knockroe Road	21300	85A	4	1	1	2	1	2	0
Orchard Road	21500	85A	0	1	1	2	0	0	0

NOTES:

*All side roads are assumed to have a design speed of 100kph. Departures were submitted for a reduction in the design speed based on either, the plated speed pf the road or the calculated design speed using the assessment in TD9/93

** Visibility for all accesses within the proposed modified area were assessed and those all those within SSD of the tie in points.

Appendix 5D – Junction Summary Table – Section 1

Junction 1 - New Buildings- Roundabout – Ch450m						
A5WTC/Existing A5 Roundabout Ch450m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
70	9.0	A	North Arm -Existing A5 (Victoria Road)	1	2	1
		B	West Arm - Proposed A5	1	2	2
		C	South Arm - Existing A5 (Victoria Road)	1	2	1

Junction 2 - Newbuildings- Roundabout - Ch1750m						
A5wtc/Existing A5 Link Roundabout Ch1750m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
75	9.0	A	North Arm - Proposed A5	2	2	2
		B	East Arm -Connector Road	1	2	1

		C	South Arm - Proposed A5	2	2	2
Existing A5 Roundabout Ch1750m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
45	7.0	A	North Arm -Existing A5 (Victoria Road)	1	2	1
		B	West Arm - Connector Road	1	2	1
		C	South Arm - Existing A5 (Victoria Road)	1	2	1

Junction 3 - Strabane North - Grade Separated Junction - Ch14700m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 3 NB On-Slip	GSJ	70	TD40/94	Type A	0	
Junction 3 NB Off-Slip	GSJ	70	TD40/94	Type A	0	
Junction 3 SB On-Slip	GSJ	70	TD40/94	Type A	0	
Junction 3 SB Off-Slip	GSJ	70	TD40/94	Type A	0	
Western Roundabout CH14700						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	8.0	A	North Arm -A5 Northbound On Slip	0	0	1

		B	East Arm - Link Road	1	2	1
		C	South Arm -A5 Northbound Off Slip	1	2	0
		D	West Arm - Old Park Road	1	2	1
Eastern Roundabout CH 14700m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
45	7.0	A	North Arm -A5 Southbound Off-Slip	1	2	0
		B	East Arm- Link Road	1	2	1
		C	West Arm -Link Road	1	2	1
South-Eastern Roundabout CH 14700m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
80.00	9.0	A	North Arm -Existing A5 (Victoria Road)	1	2	1
		B	East Arm- Woodend Road North	1	2	1
		C	South Arm -Existing A5 (Victoria Road)	1	2	1
		D	South West Arm - A5 Southbound On-Slip	0	0	1
		E	West Arm -Link Road	1	2	1

Junction 4 & 5 - Strabane - Lifford - Grade Separated Junction-Ch17700m						
Junction Slip Name	Junction Type	Design Speeh (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 5 SB Off-Slip	GSJ	70	TD40/94	Diverge Taper		
Roundabout at Existing A5 Barnhill Road CH 17650m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
70	9.0	A	North West Arm -A5 Southbound Off-Slip	1	2	0
		B	North Arm - Existing A5 Barnhill Road	1	2	1
		C	East Arm - Railway Street	1	2	1
		D	South Arm -Existing A5 Barnhill Road	1	2	1
		E	South West Arm - Link Road to Junction 4	1	2	1

Roundabout at Lifford Road CH 17800m

Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
65	9.0	A	North Arm - Link Road	1	2	1
		B	East Arm - Link Road to Junction 5	1	2	1
		C	South West Arm - Lifford Road	1	2	1
Roundabout at Lifford Road CH 17500m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	7.2	A	North Arm - Park Road	1	2	1
		B	East Arm - A5 Northbound On-Slip	0	0	1
		C	South Arm - Link Road	1	2	0

Junction 6 - Strabane - Roundabout - Ch18000m						
Roundabout on Ch18000m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	9.0	A	North Arm -Existing A5 (Bradley Way)	1	2	1
		B	East Arm -Bradley Way	1	2	1
		C	South Arm - Existing A5 (Great Northern Link)	2	3	2
		D	West Arm (North) - A5 Northbound Off-Slip	1	2	0
		E	West Arm (South) - A5 Southbound On-Slip	0	0	1

Junction 7 - Strabane South- Roundabout - Ch19450m						
Roundabout on Ch19450m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
70	9.0	A	North Arm - Link to N15	1	2	1

		B	East Arm -Proposed A5	2	3	2
		C	South Arm - Proposed A5	2	3	2

Junction 8 - Sion Mills- Compact Grade Separated Junction - Ch22050m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 8 NB On/Off-Slip	Compact GSJ	70	TD40/94	-	0	
Junction 8 SB On/Off-Slip	Compact GSJ	70	TD40/94	-	0	
Roundabout on Existing A5 Ch22050m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	8.5	A	North Arm - Existing A5 (Melmount Road)	1	2	1
		B	East Arm -Link to A5	1	2	1
		C	South Arm - Existing A5 (Melmount Road)	1	2	1
		D	Private Access	1	2	1

Appendix 6A – Mainline Departures from Standard and Relaxations Summary –
Section 2

Reference Number	Location	Design Speed	Chainage	Associated Relaxations / Departures	Desirable Minimum (m)	Departure	Number of Steps Below Desirable Minimum
S2/ML/D/002	Mellon Country Inn (Northbound)	120A	40390 - 43545	n/a	295m	Reduction in SSD to: 230m min (Lane 2)	1 step (Lane 2)
S2/ML/D/003	Mellon Country Inn (Northbound)	120A	43390 - 43710	n/a	295m	Reduction in SSD to: 233m min (Lane 2)	1 step (Lane 2)
Reference Number	Location	Design Speed	Chainage	Associated Relaxations / Departures	Desirable Minimum (m)	Relaxation	Number of Steps Below Desirable Minimum
S2/ML/R/016	River Drumragh crossing (Northbound)	120A	57520 - 56690 56470 - 56470	S2/ML/R/016a S2/ML/R/016b S2/ML/R/016c	295m	Reduction in SSD to: 215m min (Lane 2)	1 step (Lane 2)
S2/ML/R/016a	River Drumragh crossing (Northbound)	120A	56690 - 56470	S2/ML/R/016 S2/ML/R/016b S2/ML/R/016C	295m	Reduction in SSD to: 160m min (Lane 2)	2 steps (Lane 2)
S2/ML/R/016b	River Drumragh crossing (Northbound)	120A	57460 - 56900	S2/ML/R/016 S2/ML/R/016a S2/ML/R/016c	295m	Reduction in SSD to: 215m min (Lane 1)	1 Step (Lane 1)
S2/ML/R/016c	River Drumragh crossing (Northbound)	120A	31760 - 31840	S2/ML/R/016 S2/ML/R/016a S2/ML/R/016b	295m	Reduction in SSD to: 255m min (Lane 2)	1 step (Lane 2)
S2/ML/R/005	River Drumragh crossing (Southbound)	120A	55970 - 56470 56690 - 56940	S2/ML/R/005a S2/ML/R/005b	295m	Reduction in SSD to: 215m min (Lane 1)	1 Step (Lane 1)

S2/ML/R/005a	River Drumragh crossing (Southbound)	120A	56690 - 56470	S2/ML/R/005 S2/ML/R/005b	295m	Reduction in SSD to: 160m min (Lane 1)	2 steps (Lane 1)
S2/ML/R/005b	River Drumragh crossing (Southbound)	120A	56610 - 56880	S2/ML/R/005 S2/ML/R/005a	295m	Reduction in SSD to: 215m min (Lane 2)	1 step (Lane 2)
S2/ML/R/006	South of Victoria Bridge (Northbound)	120A	32620 - 32060	n/a	295m	Reduction in SSD to: 215m min (Lane 1)	1 step (Lane 1)
S2/ML/R/007	South of Victoria Bridge (Southbound)	120A	31840 - 32310	S2/ML/D/001	295m	Reduction in SSD to: 215m min (Lane 2)	1 step (Lane 2)
S2/ML/R/008	Withdrawn - NB Lane 2 SSD reduction is now considered a departure (S2/ML/D/002) due to introduction of maintenance accesses. Extents also reduced.						
S2/ML/R/009	Mellon Country Inn (Southbound)	120A	43060 - 43430	S2/ML/R/009a	295m	Reduction in SSD to: 160m min (Lane 1)	2 steps (Lane 1)
S2/ML/R/009a	Mellon Country Inn (Southbound)	120A	43130 - 43310	S2/ML/R/009	295m	Reduction in SSD to: 215m min (Lane 2)	1 step (Lane 2)
S2/ML/R/010	Withdrawn - Through re-design						
S2/ML/R/011	Fairywater Crossing (Southbound)	120A	49875 - 50280	S2/ML/R/011a	295m	Reduction in SSD to: 160m min (Lane 2)	2 steps (Lane 2)
S2/ML/R/011a	Fairywater Crossing (Southbound)	120A	49875 - 50280	S2/ML/R/011	295m	Reduction in SSD to: 215m min (Lane 1)	1 step (Lane 1)

S2/ML/R/012	North of Gillygooly (Northbound)	120A	50820 - 51470	S2/ML/R/012a	295m	Reduction in SSD to: 160m min (Lane 2)	2 steps (Lane 2)
S2/ML/R/012a	North of Gillygooly (Northbound)	120A	51050 - 50960	S2/ML/R/012	295m	Reduction in SSD to: 215m min (Lane 1)	1 step (Lane 1)
S2/ML/R/013	North of Gillygooly (Southbound)	120A	50520 - 51140	S2/ML/R/013a	295m	Reduction in SSD to: 160m min (Lane 1)	2 steps (Lane 1)
S2/ML/R/013a	North of Gillygooly (Southbound)	120A	50610 - 50770	S2/ML/R/013	295m	Reduction in SSD to: 215m min (Lane 2)	1 step (Lane 2)
S2/ML/R/014	Withdrawn - SSD reduction will not be realised as there is a deposition area that will remove the need for safety fence which previously encroached on visibility.						
S2/ML/R/015	South of Gillygooly (Southbound)	120A	51305 - 51700	n/a	295m	Reduction in SSD to: 215m min (Lane 2)	1 step (Lane 2)

Appendix 6B – Side Road Summary Table – Section 2

Side Road	Average Existing Cross-section (F denotes footway)			Traffic Movements (2way, 12hr) from TCS		Proposed Cross-section (F denotes footway)			Closure Options				Other Comments/Details eg Bus Route, NMU issues. Business considerations.			
	Side Road Category	Proposed Design Speed Classification	Mainline Chainage	Nearside Verge (m)	Carriageway (m)	Offside Verge (m)	Vehicle	NMU	Nearside Verge (m)	Carriageway (m)	Offside Verge (m)	Over/Under the A5		Remain Open at All Times (except short off peak periods)	Close During Construction	Permanently Stop Off
Primrose Park	U	85A	27215	3.5	5.7	1.75F	530	110	2.5	7	2.5	Over	Yes	No	No	School Access
Bells Park Road (B165)	B165	70A	27995	N/A	5.4	N/A	1320	24	2.5	6	2.5	Over	Yes	No	No	No suitable landowner access alternative.
Garden Road	U	85B	27800	0.5	4.2	0.5	N/A	N/A	2.5	6	2.5	N/A			No	Realigned junction with Bells Park Road
High Road	U	85B	28595	0.9	2.5	0.9	N/A	N/A	N/A	N/A	N/A	N/A			Yes	Alternative route via Bells Park Road and Peacock Road
Seein Road	U	85B	29165	1	3	0.7	179	11	2.5	7.2	2.5	Over	Yes	No	No	

Concess Road	U	70A	30140	0.9	3.3	2.1	103	0	2.5	6	2.5	Under	Yes	No	No	Short term closure to construct road and lift bridge beams.
Fyfin Road (B72)	B72	85B	31445	0.7	6	1.3	N/A	N/A	2.5	6	2.5	Under	Yes	No	No	Shuttle work to construct pavement / lift beams. WELB bus route.
Stone Road	U	85B	31910	2.1	2.8	1.2	N/A	N/A	2.5	6	2.5	Over	No	Yes	No	Temporary closure with diversion using re-aligned Urbalreagh Road
Urbalreagh Road North	U	85B	31985	0.5	5	0.8	N/A	N/A	2.5	5.6	2.5	N/A			Yes - Divert onto Stone Road	Connects with Stone Road.
Urbalreagh Road South	U	85B	31985	0.5	5	0.8	N/A	N/A	2.5	5.6	2.5	N/A			Yes - Divert onto Stone Road	
Derg Road	U	70A	33995	0.8	3.3	2.3	N/A	N/A	2.5	7.2	2.5	Over	Yes	No	No	
Deerpark Road (B164)	B164	85B	34725	N/A	5	N/A	839	N/A	2.5	6	2.5	Over	Yes	No	No	Ardstraw traffic, farm machinery. Short term closures road and lift bridge beams.
Milltown Road	U	85B	35305	0.7	2.8	0.7	85	0	N/A	N/A	N/A	N/A			Yes	Alternative route via Deerpark Road and Coolaghy Road

Coolaghy Road	U	85B	35500	1.0	3.0	1.0	N/A	N/A	N/A	N/A	N/A	N/A			Yes	
Magheracoltan Road	U	85B	36285	N/A	4.6	N/A	518	6	2.5	6	2.5	Under	Yes	No	No	Short term closures to construct road and lift bridge beams
Drumlegagh Road North	U	85A	37130	1.4	4.8	1	960	1	2.5	5	2.5	N/A	Yes	No	Yes - divert onto J10 slip.	WELB bus route. Connects to Northbound Slip Road Link and Baronscourt Road West of A5WTC
Golf Course Road	U	85B	37280	0.9	2.9	1.4	N/A	N/A	N/A	N/A	N/A	N/A			Yes	Alternative route via Baronscourt Road and Magheracoltan Road
Baronscourt Road (B84)	B84	85B	37290	N/A	4.8	N/A	869	4	2.5	6	2.5	Over	Yes	No	No	2 No new roundabouts for Junction 10.
Oldcastle Road	U	85B	38625	N/A	3.1	1.5	486	36	2.5	6	2.5	Over	Yes	No	No	Access to lorry business from Newtown
Honeyford Lane	U	85B	39000	1.0	3.5	1.0	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes	Yes	Stopped up.
Glen Road (North) (Link to Gortgranagh Road)	U	70A	39305	1.3	2.5	N/A	N/A	N/A	2.5	6	2.5	N/A	Yes	No	Yes - divert onto new Gortgranagh Road	Connects to Gortgranagh Road on north side of A5WTC.

Gortgranagh Road	U	70A	39510	N/A	2.9	N/A	98	0	2.5	6	2.5	Over	Yes	No	No	
Glen Road South (Link to Gortgranagh Road)	U	70A	39305	1.3	2.5	N/A	N/A	N/A	2.5	6	2.5	N/A	Yes	No	Yes - divert onto new Gortgranagh Road	Connects to Gortgranagh Road on south side of A5WTC.
Castletown Road (North)	U	85B	40060	N/A	4	N/A	186	1	2.5	6	2.5	Over	Yes	No	No	
Grange Road	U	70A	40220	1.2	2.5	1.2	26	0	2.5	6	2.5	N/A			Yes - divert onto new Castletown Road	Connects to Castletown Road on east of A5WTC.
West Road	U	70A	41180	N/A	3	1.2	50	0	2.5	6	2.5	Under	Yes	No	No	
Joe's Lane	U	70A	42610	1.5	2.5	N/A	N/A	N/A	2.5	6	2.5	Over	Yes	No	No	Also known as Hamiltons Road (U1523)
Gordon's Lane	U	70A	43700	0.6	3	0.7	N/A	N/A	N/A	N/A	N/A	Under			No	Changed to Access track

Killynure Road	U	70A	44980	1.2	2.6	1.2	74	2	2.5	6	2.5	Over	Yes	No	No	
Castletown Road (South)	U	85A	45688	2	4.5	2	292	0	2.5	6	2.5	Under	Yes	No	No	Short term closures to construct road and lift bridge beams
McFarlands Road (U1516)	U	70A	45800	N/A	3	N/A	N/A	N/A	2.5	4.2	2.5	N/A			Yes - divert onto Castletown Road	Connects to Castletown Road on west of A5WTC.
Cashty Road	U	70A	46970	1	3.6	1.8	N/A	N/A	2.5	6	2.5	N/A			No	Upgraded junction with Dunteige Road
Dunteige Road	U	85B	46970	N/A	4	N/A	N/A	N/A	2.5	6	2.5	Over	Yes	No	No	Landowner livestock and machinery movements, milk lorry access and deliveries. WELB bus route.
Lisnagirr Road	U	70A	47605	1.6	3.3	1.9	195	1	N/A	N/A	N/A	Under			No	Reduced height underbridge.
Tully Road (North)	U	70A	48100	1.6	3.5	1.6	33	0	N/A	N/A	N/A	N/A			Yes, but realigned	Connects to Rash Road east of A5WTC.
Rash Road	U	70A	48305	1.5	2.8	1.6	31	0	2.5	6	2.5	Over	Yes	No	No	
Tully Road (South)	U	70A	48495	1.2	2.6	0.6	N/A	N/A	2.5	5.2	2.5	N/A			Yes, but realigned	Alternative route via Rash Road

Todds Road	U	85B	49890	1.2	2.5	1.2	21	5	N/A	N/A	N/A	N/A			Yes	Access provided to Drumlegagh Road South
Mellon Park Drive	U	60B	50495	N/A	2.6	N/A	43	12	2.5	6	2.5	Over	Yes	No	Yes, but realigned	New bridge access A5WTC
Gillygooley Road (B50)	B50	85B	51255	0.5	6	0.5	3783	N/A	2.5	6	2.5	Over	Yes	No	No	WELB bus route.
Mullaghmena Road	U	85B	51255	1.5	3	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Upgrade of junction with Gillygooley Road.
Aghnamoyle Road	U	85B	52145	0.8	3.8	1.7	N/A	N/A	2.5	6	2.5	Over	No	Yes	No	Use existing and re-aligned Botera Road as temporary diversion until complete
Botera Road	U	70A	52235	1.6	2.6	2	N/A	N/A	2.5	4.2	2.5	N/A			Yes, but realigned	School Bus Route. Connects to Aghnamoyle Road west of A5WTC.
Tamlaght Road	U	70A	53205	0.5	4	0.5	N/A	N/A	2.5	5.8	2.5	Over	No	Yes	No	School Bus Route
Brookmount Road	U	85B	53825	N/A	5	N/A	N/A	N/A	2.5	6	2.5	Under	Yes	No	No	Short term closures to construct road and lift bridge beams
Junction 12 - Clannabogan Road (A32)	A32	100A	54045	2.5	13.5	2.5	8305	N/A	2.5	13.5	2.5	Under	Yes	No	No	Short term closures to construct road and lift bridge beams. School Bus Route.
Loughmuck Road	U	85B	54485	N/A	4	N/A	374	17	2.5	7.2	2.5	Under	Yes	No	No	

Beagh Road	U	70A	55980	N/A	3.5	N/A	N/A	N/A	2.5	6	2.5	Over	Yes	No	No	Livestock and machinery movements.
Ballynahatty Road	U	70A	56530	N/A	3	N/A	N/A	N/A	2.5	6	2.5	Over	Yes	No	No	
Blackfort Road	U	70A	57130	N/A	3.5	N/A	N/A	N/A	2.5	6	2.5	Over	Yes	No	No	Livestock and machinery movements.
Drumragh Road	U	70A	57300	0.5	3	0.5	N/A	N/A	2.5	4	2.5	N/A			Yes, but realigned	Diverted onto Blackfort Road.

Appendix 6C – Side Road Departure from Standard Summary Table – Section 2

Road Name	Mainline Chainage	Design Speed* (kph)	Number of Departures						
			Horizontal	Vertical	Cross -Section	SSD	Combinations	Access Visibility**	Other
Primrose Park	27215	85A	2	2	1	0	1	2	1
Bells Park Road (B165)	27995	70A	2	1	1	1	0	6	0
Garden Road	27800	85B	2	3	1	1	0	2	0
Seein Road	29165	85B	2	0	1	1	3	4	3
Concess Road	30140	70A	2	1	1	2	0	2	0
Fyfin Road (B72)	31445	85B	2	6	1	1	1	4	0
Stone Road	31910	85B	1	2	1	2	2	3	0
Urbalreagh Road North	31985	85B	3	3	1	2	0	0	0
Urbalreagh Road South	31985	85B	3	2	1	1	1	0	0
Derg Road	33995	70A	2	2	1	1	3	4	0
Deerpark Road (B164)	34725	85B	1	0	1	0	0	3	0
Magheracoltan Road	36285	85B	1	0	1	0	1	3	0
Drumlegagh Road North	37130	85A	3	0	1	0	0	0	0
Baronscourt Road (B84)	37290	85B	2	0	1	0	0	3	0
Oldcastle Road	38625	85B	1	0	1	1	0	3	0
Glen Road (North) (Link to Gortgranagh Road)	39305	70A	3	1	1	2	1	2	0
Gortgranagh Road	39510	70A	2	3	1	3	0	1	0
Glen Road South (Link to Gortgranagh Road)	39305	70A	4	2	1	4	0	1	0
Castletown Road (North)	40060	85B	2	3	1	2	3	4	0
Grange Road	40220	70A	3	2	2	3	0	1	0
West Road	41180	70A	2	0	1	4	1	2	0
Joe's Lane	42610	70A	5	1	1	0	2	0	0
Gordon's Lane	43700	70A	1	1	1	0	3	0	0
Killynure Road	44980	70A	3	0	1	2	3	3	0
Castletown Road (South)	45688	85A	0	1	1	1	0	1	0
McFarlands Road (U1516)	45800	70A	3	1	1	2	0	1	0
Cashty Road	46970	70A	2	1	1	1	1	0	1
Dunteige Road	46970	85B	1	1	1	1	1	2	1
Lisnagirr Road	47605	70A	0	3	1	3	0	2	1

Tully Road (North)	48100	70A	-	-	-	-	-	-	-
Rash Road	48305	70A	3	2	1	4	1	4	0
Tully Road (South)	48495	70A	1	3	1	1	2	1	0
Drumleagh Road South Link	49255	85B	2	1	1	2	1	2	0
Existing A5 Beltany Road (South)	49250	100A	2	3	1	1	1	2	0
Existing A5 Beltany Road (North)	49250	100A	1	0	1	0	1	0	0
Mellon Park Drive	50495	60B	4	1	1	0	1	5	0
Gillygooley Road (B50)	51255	85B	3	1	1	0	1	2	0
Mullaghmena Road	51255	85B	0	1	0	1	0	0	0
Aghnamoyle Road	52145	85B	0	1	1	1	2	2	0
Botera Road	52235	70A	4	2	1	3	0	0	0
Tamlaght Road	53105	70A	3	4	1	2	1	8	0
Brookmount Road	53720	85B	1	0	1	1	0	2	0
Loughmuck Road	54350	85B	2	1	1	2	2	1	0
Beagh Road	55980	70A	2	3	1	1	1	1	0
Ballynahatty Road	56530	70A	2	3	1	1	1	4	2
Blackfort Road	57130	70A	2	2	1	3	1	2	3
Drumragh Road	57300	70A	3	1	1	1	0	1	0

NOTES:

*All side roads are assumed to have a design speed of 100kph. Departures were submitted for a reduction in the design speed based on either, the plated speed of the road or the calculated design speed using the assessment in TD9/93

** Visibility for all accesses within the proposed modified area were assessed and those all those within SSD of the tie in points.

Appendix 6D – Junction Summary Table – Section 2

Junction 9 - Victoria Bridge- Compact Grade Separated Junction - Ch31550m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 9 NB On/Off-Slip	Compact GSJ	30	TD40/94	-	2	
Junction 9 SB On/Off-Slip	Compact GSJ	30	TD40/94	-	2	

Junction 10 - Newtownstewart-Compact Grade Separated Junction- Ch37300m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 10 NB On/Off-Slip	Compact GSJ	30	TD40/94	-	2	
Junction 10 SB On/Off-Slip	Compact GSJ	30	TD40/94	-	2	
Roundabout North of Mainline Ch37300m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
45	7.2	A	North Arm - Approach from Barsoncourt Road	1	2	1
		B	East Arm - Connector Road	1	2	1

		C	South Arm - Approach from Barsoncourt Road	1	2	1
Roundabout South of Mainline Ch37300m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
45	7.2	A	North Arm - Approach from Barsoncourt Road	1	2	1
		B	West Arm - Connector Road	1	2	1
		C	South Arm - Approach from Barsoncourt Road	1	2	1

Junction 11 - Omagh North - Grade Separated Junction-Ch49250m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 11 NB On-Slip	GSJ	70	TD22/06	-	0	
Junction 11 NB Off-Slip	GSJ	70	TD22/06	-	0	
Junction 11 SB On-Slip	GSJ	70	TD22/06	-	0	
Junction 11 SB Off-Slip	GSJ	70	TD22/06	-	0	
Dumb-bell Roundabout west of Mainline CH 49250m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
45	7.2	A	North Arm -A5 Northbound On Slip	0	0	1
		B	East Arm - Link Road	1	2	1
		C	South Arm -A5 Northbound Off Slip	1	2	0
		D	West Arm - Approach from Drumleagh Road South	1	2	1

Dumb-bell Roundabout east of Mainline CH 49250m

Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
45	7.2	A	North Arm -A5 Southbound Off-Slip	1	2	1
		B	East Arm- Approach from existing A5 (Beltany Road)	1	2	1
		C	South Arm -A5 Southbound On-Slip	0	0	1
		D	West Arm -New Link	1	2	1

Junction 12 - Omagh West - Grade Separated Junction-Ch54000m

Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 12 NB On-Slip	GSJ	70	TD22/06	Type A	0	
Junction 12 NB Off-Slip	GSJ	70	TD22/06	Type A	0	
Junction 12 SB On-Slip	GSJ	70	TD22/06	Type A	0	
Junction 12 SB Off-Slip	GSJ	70	TD22/06	Type A	0	

Roundabout at A32 Clanabogan Road CH 54000m

Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
60	7.5	A	North Arm - Approach from Roundabout North of A32	1	2	1
		B	East Arm - A5 Southbound On-Slip	0	0	1
		C	East Arm - A5 Northbound Off-Slip	1	2	0
		D	South Arm - Approach from Roundabout North of A32	1	2	1
		E	West Arm - A5 Northbound On-Slip	0	0	1
		F	West Arm - A5 Southbound Off-Slip	1	2	0

Appendix 7A – Mainline Departures from Standard and Relaxations Summary
– Section 3

Reference Number	Location	Design Speed	Chainage (m)	Associated Relaxations / Departures	Desirable Minimum (m)	Departure	Number of Steps Below Desirable Minimum
S3/ML/D/001	South of Aughnacloy (Single Carriageway) Northbound and Southbound Lanes	100A	92450 - 92780	S3/ML/D/004 S3/ML/D/005	K = 100 SSD = 215m	K=55 SSD= 160m min	1 Step 1 Step
S3/ML/D/002	South of Aughnacloy (Single Carriageway) Northbound and Southbound Lanes	100A	92780 - 93060	S3/ML/D/006	R = 720m K = 100 SSD = 215m	R = 255 K=55 SSD = 160m min	3 Steps 1 Step 1 Step
S3/ML/D/003		100A	62000 - 62075	-	-	Adverse Camber	-
S3/ML/D/004	South of Aughnacloy (Single Carriageway) Northbound and Southbound Lanes	100A	92500	S3/ML/D/001	215m	160m	1 Step
S3/ML/D/005	South of Aughnacloy (Single Carriageway) Northbound and Southbound Lanes	100A	92600	S3/ML/D/001	215m	160m	1 Step
S3/ML/D/006	South of Aughnacloy (Single Carriageway) Northbound and Southbound Lanes	100A	93105	S3/ML/D/002	215m	120m	2 Steps
Reference Number	Location	Design Speed	Chainage (m)	Associated Relaxations / Departures	Desirable Minimum (m)	Relaxation	Number of Steps Below Desirable Minimum
S3/ML/R/001	Withdrawn - Through re-design						
S3/ML/R/002	Withdrawn - Through re-design						
S3/ML/R/003	North of Glenhoy Road crossing (Errigal), Northbound Lanes 1 and 2	120A	79810 - 80380	S3/ML/R/004	G = 4%	Longitudinal gradient of 5.9% up hill	NA
S3/ML/R/004	North of Glenhoy Road crossing (Errigal), Southbound Lanes 1 and 2	120A	79810 - 80380	S3/ML/R/003		Longitudinal gradient of 5.9% up hill	NA

S3/ML/R/005	South of Aughnacloy (Single Carriageway)	100A	92095 - 92340	-	R = 720m	Reduction in Horizontal Radius to 510m	1 Step
S3/ML/R/006	Withdrawn - Through re-design						
S3/ML/R/007	Withdrawn - Through re-design						
S3/ML/R/008	Withdrawn - Through re-design						
S3/ML/R/009	Doogary Peat Bog, Northbound Lane 2	120A	63190 - 63935	S3/ML/R/010	295m	Reduction in SSD to 215m	1 Step
S3/ML/R/010	Doogary Peat Bog, Southbound Lane 2	120A	63000 - 63900	S3/ML/R/009	295m	Reduction in SSD to 215m	1 Step

Appendix 7B – Side Road Schedule –Section 3

Side Road	Side Road Category	Proposed Design Speed Classification	Approx. Mainline Chainage	Average Existing Cross-section (F denotes footway)			Traffic Movements (2way, 12hr) from TCS		Proposed Cross-section (F denotes footway)			Over/Under the A5	Closure Options			Other Comments/details eg Bus Route, NMU issues, business considerations
				Nearside Verge (m)	Carriageway (m)	Offside Verge (m)	Vehicle	NMU	Nearside Verge (m)	Carriageway (m)	Offside Verge (m)		Remain Open at All Times (except short off peak periods)	Close During Construction	Permanently Stop Off	
Junction 13 - Seskinore Road (B83)	B	85B	62065	1.5	6.9	1.5	774	N/A	2.5	7.3	2.5	Over	Yes, but realigned	No	Yes, but realigned	School Bus Route 2 No new roundabouts for Junction 13
Tattykeel Road North	U	85A	62600	1.0	3.1	1.0	N/A	N/A	2.5	6.0	2.5	Over	No	Yes	Yes, but realigned	Connects to existing A5 Doogary Road
Tattykeel Road South	U	85A	63800	1.0	3.1	1.0	N/A	N/A	N/A	N/A	N/A	N/A	No	Yes	Yes	
Drumconnelly Road (North)	U	70A	64400	1.0	3.0	1.0	N/A	N/A	2.5	6.0	2.5	Over	Yes, but realigned	No	Yes, but realigned	Sustrains National Cycle Route School Bus
Tullyrush Road	U	85B	66000	0.5	4.0	0.5	N/A	N/A	2.5	6.0	2.5	Under	No	Yes	No	School Bus Route
Rarone Road	U	85B	66900	1.0	3.0	1.0	95	1	2.5	6.0	2.5	Under	No	Yes	No	
Drumconnlley Road (South)	U	70A	67900	0.5	2.5	0.5	57	2	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Alternative route via Augher Point Road and Rarone Road
Moylagh Road (B46)	B	85B	68695	1.5	6.0	1.5	1021	0	2.5	6.0	2.5	Under	Yes	No	Yes, but realigned	School Bus Route. B46 connection via Augher Point.
Augher Point Road (North)(B46)	B	70A	68695	1.5	6.0	1.5	1021	0	2.5	6.0	2.5	Under	Yes	No	Yes, but realigned	
Moylagh Road (Shared Access)	B	85B	68695	1.5	6.0	1.5	1021	0	2.5	6.0	2.5	Under	Yes	No	Yes, but realigned	

Moylagh Road (East)(B46)	B	85B	68695	1.5	6.0	1.5	1021	0	2.5	6.0	2.5	Under	Yes	No	Yes, but realigned	
Augher Point Road (South)	U	70A	68800	1.5	4.4	1.5	780	0	2.5	6.0	2.5	Under	Yes	No	Yes, but realigned	Connects to Moylagh Road at new roundabout
Killadroy Road	U	85A	70950	0.8	2.5	0.8	199	0	2.5	6.0	2.5	N/A	Yes	No	Yes, but realigned	School Bus Route connects to Greenmount Road east of A5WTC
Greenmount Road	U	85B	71150	0.8	4.9	0.8	934	0	2.5	6.0	2.5	Under	Yes	Yes	Yes, but realigned	School Bus Route
Routingburn Road	U	85B	72000	0.8	6.0	0.8	39	2	N/A	N/A	N/A	N/A	No	Yes	Yes	
Springhill Road	U	85A	73800	N/A	5.0	N/A	623	2	2.5	6.0	2.5	Under	Yes	Yes	No	School Bus Route
Cormore Road	U	85B	75000	1.0	2.5	1.0	-	-	N/A	N/A	N/A	N/A	No	Yes	Yes	
Rockmore Road (West)	U	85B	73800	1.0	3.0	1.0	95	0	1.0	3.0	1.0	N/A	Yes	No	No	
Rockmore Road (East)	U	85B	73800	1.0	3.0	1.0	95	0	1.0	3.0	1.0	N/A	Yes	No	No	
Tullanafoile Road (North)	U	85A	73800	1.0	2.8	1.0	96	5	2.5	6.0	2.5	N/A	Yes	No	No	
Tullanafoile Road (The Rocks)	U	85A	74500	0.5	2.3	0.5	96	5	2.5	6.0	2.5	N/A	Yes	No	No	
Tullanafoile Road (South)	U	85A	74620	1.0	3.0	1.0	96	5	2.5	6.0	2.5	N/A	Yes	No	No	
Tullycorker Road	U	85B	76650	0.5	3.0	0.5	162	0	2.5	6.0	2.5	Over	No	Yes	No	
Tycanny Road	U	70A	78200	0.5	2.5	0.5	235	5	2.5	6.0	2.5	N/A	Yes	No	Yes, but realigned	N/A
Rarogan Road	U	70A	78450	0.5	3.4	0.5	62	0	2.5	6.0	2.5	Under	Yes	Yes	No	304090 Rarogan Road Realigned And Remaining Open. Mainline Alignment Moved To The North, Keeping Newtownsaville Road Open From Which Access To Severed Lands Can Be Gained. Additional Landtake Required For Neighbouring

																	Access Track Earthworks.
Glenhoy Road	U	85B	80200	0.5	3.4	0.5	104	1	2.5	6.0	2.5	Over	Yes, but realigned	No	No		305105 Glenhoy Road Remains Open. Footprint Reduced.
Ballynasaggart Road	U	85B	81700	1	3.7	1	175	0	2.5	6.0	2.5	Over	No	Yes	No		N/A
Crew Road	U	85B	82000	0.5	2.5	0.5	30	0	N/A	N/A	N/A	N/A	Yes	Yes	Yes		N/A
Feddan Road	U	85B	83300	0.5	4.1	0.5	220	3	2.5	6.0	2.5	N/A	Yes	No	Yes, but realigned		Realigned to connect into new roundabout (J15)
Drumcullion Lane	U	85B	83500	1.0	3.2	1.0	-	-	2.5	6.0	2.5	N/A	Yes	No	No		N/A
Drumcullion Lane (West)	U	85B	83500	1.0	3.2	1.0	-	-	2.5	6.0	2.5	N/A	Yes	No	No		N/A
Tullybryan road	U	100A	83400	0.5	4.2	0.5	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes	Yes		Stopped up at A4
A4 Annaghilla Road (Dual Carriageway)	A	120A	83500	3.5	10	3.5	N/A	N/A	2.5	2 x 9.30	2.5	N/A	Yes	No	No		N/A
Tullywinny Road (North)	U	85B	83600	1	2.5	1	76	4	2.5	6.0	2.5	N/A	Yes, but realigned	No	Yes, but realigned		Realigned to connect into existing A4 roundabout
Ballynanny Road	U	85B	83700	1	4.5	1	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes	Yes		Stopped up at A4
Tullywinny Road (South)	U	85B	84400	0.5	3.5	0.5	N/A	N/A	2.5	6.0	2.5	Under	Yes	Yes	No		N/A
Lisginny Road	U	70A	86500	0.5	2.7	0.5	N/A	N/A	2.5	6.0	2.5	Over	Yes	No	No		N/A
Old Chapel Road	U	70A	87800	1.0	3.0	1.0	133	6	2.5	6.0	2.5	Over	Yes	No	No		N/A
Existing A5 Tullyvar Road (North)	A	100A	88400	1.2	7.3	1.2	10489	N/A	2.5	7.3	2.5	Over	Yes	No	No		N/A
Existing A5 Tullyvar Road (South)	U	100A	87800	1.0	3.0	1.0	10489	N/A	2.5	6.0	2.5	Over	Yes	No	No		N/A
Loughans Road	U	70A	88500	1.0	4.0	1.0	N/A	N/A	2.5	6.0	2.5	N/A	Yes	No	No		N/A
Carnteel Road (B35)	B	100B	90300	2.5	7.3	2.5	N/A	N/A	2.5	7.3	2.5	Over	Yes	No	No		
Glack Lane	U	70A	90100	0.5	2.5	0.5	N/A	N/A	1.0	4.0	1.0	N/A	Yes	No	Yes		Downgraded to an access track
Rehaghy Road (B128)	B	85B	90800	0.5	5.5	0.5	N/A	N/A	2.5	6.0	2.5	Under	Yes	No	No		N/A
Douglas Road (North)	U	85B	92600	0.5	3.0	0.5	N/A	N/A	1.0	4.0	1.0	N/A	Yes	No	Yes Downgraded to		

															access track.	
Douglas Road (South)	U	85B	92600	0.5	3.0	0.5	N/A	N/A	1.0	4.0	1.0	N/A	Yes	No	Yes Downgraded to access track.	

Appendix 7C – Side Roads Departure from Standard Summary Table –Section 3

Road Name		Design Speed* (kph)	Number of Departures						
			Horizontal	Vertical	Cross -Section	SSD	Combinations	Access Visibility**	Other
Doogary Avenue	62100	85B	0	1	2	3	1	2	0
Existing A5 Doogary Road North	62100	100A	1	1	1	1	0	0	0
Junction 13 - Seskinore Road (B83)	62065	85B	0	0	1	1	1	1	1
Existing A5 Doogary Road South	62100	100A	0	1	1	3	0	1	1
Tattykeel Road North	62600	85A	0	2	1	0	2	1	0
Drumconnelly Road (North)	64400	70A	0	0	1	0	1	0	0
Tullyrush Road	66000	85B	0	0	1	1	0	1	0
Rarone Road	66900	85B	1	0	1	0	2	3	1
Moylagh Road (B46)	68695	85B	2	2	1	4	0	4	0
Augher Point Road (North)(B46)	68695	70A	2	0	1	2	0	4	0
Moylagh Road (Shared Access)	68695	85B	3	4	1	2	0	1	0
Moylagh Road (East)(B46)	68695	85B	0	0	0	1	0	0	0
Augher Point Road (South)	68800	85B	1	1	1	1	0	2	0
Killadroy Road	70950	85A	2	3	1	2	0	0	0
Greenmount Road	71150	85B	1	1	1	2	0	0	0
Springhill Road	73800	85A	2	3	1	1	0	3	0
Rockmore Road (West)	73800	85B	-	-	-	-	-	-	-
Rockmore Road (East)	73800	85B	-	-	-	-	-	-	-
Tullanafoile Road (North)	73800	85A	0	0	0	0	0	1	0
Tullanafoile Road (The Rocks)	74500	85A	2	4	1	1	1	1	1
Tullanafoile Road (South)	74620	85A	0	4	1	1	0	2	0
Tullycorker Road	76650	85B	0	3	1	0	0	0	0
Tycanny Road	78200	70A	0	1	1	1	0	0	0
Rarogan Road	78450	70A	0	1	1	1	1	1	0
Glenhoy Road	80200	85B	1	6	1	2	0	3	1

Ballynasaggart Road	81700	85B	0	4	1	2	0	3	0
Feddan Road	83300	85B	2	3	1	1	3	6	0
Drumcullion Lane	83500	85B	3	1	1	1	1	2	0
Drumcullion Lane (West)	83500	85B							
A4 Annaghilla Road (Dual Carriageway)	83500	120A	0	0	0	2	0	0	0
Tullywinny Road (North)	83600	85B	3	0	0	1	1	0	0
Tullywinny Road (South)	84400	85B	0	0	1	1	0	0	0
Lisginny Road	86500	70A	1	2	2	2	1	2	0
Old Chapel Road	87800	70A	1	1	1	0	3	5	0
Existing A5 Tullyvar Road (North)	87800	100A	0	1	1	1	0	0	0
Existing A5 Tullyvar Road (South)	88400	100A	0	1	1	1	0	0	0
Loughans Road	88500	70A	2	2	1	2	0	0	0
Carnteel Road (B35)	90300	100B	1	0	1	0	3	2	0
Glack Lane	90000	70B	4	1	1	1	2	0	0
Rehaghy Road (B128)	90800	85B	4	0	1	1	2	1	0
Douglas Road (North)	92600	70A	2	1	1	1	0	1	0
Douglas Road (South)	92600	70A	2	0	1	1	0	1	0

NOTES:

*All side roads are assumed to have a design speed of 100kph. Departures were submitted for a reduction in the design speed based on either, the plated speed Of the road or the calculated design speed using the assessment in TD9/93

** Visibility for all accesses within the proposed modified area were assessed and those all those within SSD of the tie in points.

Appendix 7D –Junction Summary Table – Section 3

Junction 13 -Seskinore / Doogary - Grade Separated Junction- Ch62050m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 13 NB On-Slip	GSJ	70	TD40/94	Merge Taper	0	
Junction 13 NB Off-Slip	GSJ	70	TD40/94	Diverge Taper	0	
Junction 13 SB On-Slip	GSJ	70	TD40/94	Merge Taper	0	
Junction 13 SB Off-Slip	GSJ	70	TD40/94	Diverge Taper	0	
Dumb-bell Roundabout South of Mainline Ch62075m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	7.2	A	North Arm - Roundabout link road	1	2	1
		B	East Arm - A5 Northbound Off Slip	1	2	0
		C	South Arm - Seskinore Road	1	2	1
		D	West Arm - A5 Northbound On Slip	0	0	1

Dumb-bell Roundabout North of Mainline Ch62075m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	7.2	A	North Arm - Roundabout link road	1	2	1
		B	East Arm - A5 Southbound On Slip	0	0	1
		C	South Arm - Roundabout link road	1	2	1
		D	West Arm - A5 Southbound Off Slip	1	2	0
Link road Roundabout at B83/A5						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
50	7.2	A	North Arm -Doogary Avenue	1	2	1
		B	East Arm - Existing A5 (Doogary Road)	1	2	1
		C	South Arm - Roundabout link road	1	2	1
		D	West Arm - Existing A5 (Doogary Road)	1	2	1

Junction 14 - Moylagh - Grade Separated Junction-Ch68700m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 14 NB On-Slip	GSJ	30	TD40/94	Merge Taper	2	
Junction 14 NB Off-Slip	GSJ	30	TD40/94	Diverge Taper	2	
Junction 14 SB On-Slip	GSJ	30	TD40/94	Merge Taper	2	
Junction 14 SB Off-Slip	GSJ	30	TD40/94	Diverge Taper	2	
Roundabout west of Mainline CH 68750m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
32	6	A	East Arm -Augher Point Road North	1	2	1
		B	West Arm - Moylagh Road	1	2	1
		C	South Arm - Augher Point Road South	1	2	1

Junction 15 - Annaghilla- Roundabout - Ch83450m						
Roundabout at A4 Annaghilla Road CH 83450m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
90	9	A	North Arm - Proposed A5	2	2	2
		B	North Arm -Feddan Road	1	1	1
		C	East Arm - A4 Annaghilla Road	2	2	2
		D	South Arm - Proposed A5	2	2	2
		E	West Arm - A4 Annaghilla	2	2	2

Junction 16 - Aughnacloy North - Grade Separated Junction-Ch88400m						
Junction Slip Name	Junction Type	Design Speed (kph)	Relevant Standard	Merge /Diverge Type	Number of Departures	Comments
Junction 16 NB On-Slip	GSJ	70	TD40/94	Merge Taper	2	
Junction 16 SB Off-Slip	GSJ	70	TD40/94	Diverge Taper	2	

Roundabout South of Mainline CH 88400m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
40	8.0	A	North Arm - Roundabout link road	1	2	1
		B	South Arm - Existing A5 Tullyvar Road	1	2	1
		C	West Arm - A5 Northbound On Slip	1	2	1
Roundabout North of Mainline CH 88400m						
Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
60	8.0	A	North Arm -Existing A5 Tullyvar Road	1	2	1
		B	East Arm - Loughan's Road	1	2	1
		C	South Arm - Roundabout link road	1	2	1
		D	West Arm - A5 Southbound Off Slip	1	2	0

Junction 17 - Aughnacloy - Roundabout - Ch91950m

Roundabout at Caledon Road CH 91950m

Roundabout ICD(m)	Circulatory Carriageway (m)	Arm	Description	Approach Lanes	Entry Lanes	Exit Lanes
70	9.0	A	North Arm -A5 Mainline	2	2	2
		B	East Arm - Caledon Road	1	2	1
		C	South Arm - A5 Mainline	1	2	1
		C	West Arm - Caledon Road	1	2	1