



A5 Western Transport Corridor (A5 WTC)

Appendix TNI – Theme Report: Traffic Forecasts

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Introduction

1. The Environmental Statement (ES) published in February 2016 refers to the strategic traffic model developed in order to predict traffic flows for the Proposed Scheme (reference Section 6.3 of the ES).
2. The purpose of this note is to compare the traffic forecasts in the ES with the previous traffic flows provided at the Public Inquiry held in 2011.
3. The traffic data is reported in Appendix 6A of the ES. The scenarios for which forecasts were produced are shown in Table 1.

Scenario	Description
Base Data 2013	Existing situation
Do-Minimum 2019	No scheme at 2019
Do-Something 2019	Completion of Phase 1 at 2019
Do-Minimum 2023	No scheme at 2023
Do-Something 2023	Completion of Phase 2 at 2023
Do-Minimum 2028	No scheme at 2028
Do-Something 2028	Completion of Phase 3 at 2028
Do-Minimum 2041	No scheme at 2041
Do-Something 2041	Design Year for scheme

Table 1 – Base and Forecast Scenarios for the A5WTC Traffic Model

4. Traffic flows provided to the previous Public Inquiry held in 2011 were derived from a traffic model representing a 2008 base year.
5. For the purpose of the ES the traffic model was updated to a 2013 base year. This incorporated more recent traffic data collected through traffic surveys undertaken during autumn 2013 and spring 2014.
6. This note shows traffic flows along the A5 between New Buildings and Aughnacloy.
7. For comparative purposes the flows provided to the 2011 PI are included. Forecast years provided at the previous PI were for an opening year 2015 and a design year of 2030.
8. The latest model has a base year of 2013 and forecasts were undertaken for 2019 (phase 1), 2023 (phase 2), 2028 (phase 3) and 2041 (design year).
9. Flows are presented as two-way (average hour) for the AM peak period (0730 – 0930), inter-peak (0930 – 1600) and PM Peak period (1600 – 1800). Average Annual Daily Traffic vehicle volumes are also shown.

Comparison of Base Year Flows

10. The first comparison looks at base year flows. The previous 2008 base year model flows are compared with the current 2013 base year model flows.
11. The base year model flow comparisons are shown as follows:
 - Figure 1: Base Year Flow Comparison 2008 and 2013 – Section 1
 - Figure 2: Base Year Flow Comparison 2008 and 2013 – Section 2
 - Figure 3: Base Year Flow Comparison 2008 and 2013 – Section 3
12. The comparison shows that while there are some differences link by link between 2008 and 2013 overall it is considered that the change in traffic volumes along the A5 is modest.

Comparison of Forecast Flows

13. Given the proposed phasing strategy, the most meaningful comparison is between the previous 2030 forecast flows and the latest 2028 forecast flows.
14. The Do-Minimum and Do-Something forecast year flow comparisons are shown as follows:
 - Figure 4: Forecast Year Flow Comparison 2030 (Old) and 2028 (New) – Section 1
 - Figure 5: Forecast Year Flow Comparison 2030 (Old) and 2028 (New) – Section 2
 - Figure 6: Forecast Year Flow Comparison 2030 (Old) and 2028 (New) – Section 3
15. Overall the forecasts are broadly similar. The comparisons show some variation in predicted flows, especially around Strabane. This is not considered unreasonable taking into account the uncertainty when forecasting ahead over fifteen years.

Latest Design Year Forecast Traffic Flows (2041)

16. Traffic flow forecasts have been produced for a 2041 design year using the current model.
17. The 2041 design year flows are shown as follows:
 - Figure 7: Forecast Design Year Flows at 2041 – Section 1

- Figure 8: Forecast Design Year Flows at 2041 – Section 2
- Figure 9: Forecast Design Year Flows at 2041 – Section 3

18. The design year of 2041 was chosen as this represented the horizon year consistent with government projections.
19. This shows that flows continue to increase beyond 2028 with typical daily traffic relief to inter-urban sections of the existing A5 ranging between 14,000 (between New Buildings and Strabane, and between Omagh and Ballygawley) and 10,000 between Strabane and Omagh). To the south of Ballygawley, where flows are lower, there is less traffic relief.

Figure 1: Base Year Flow Comparison 2008 and 2013 – Section 1

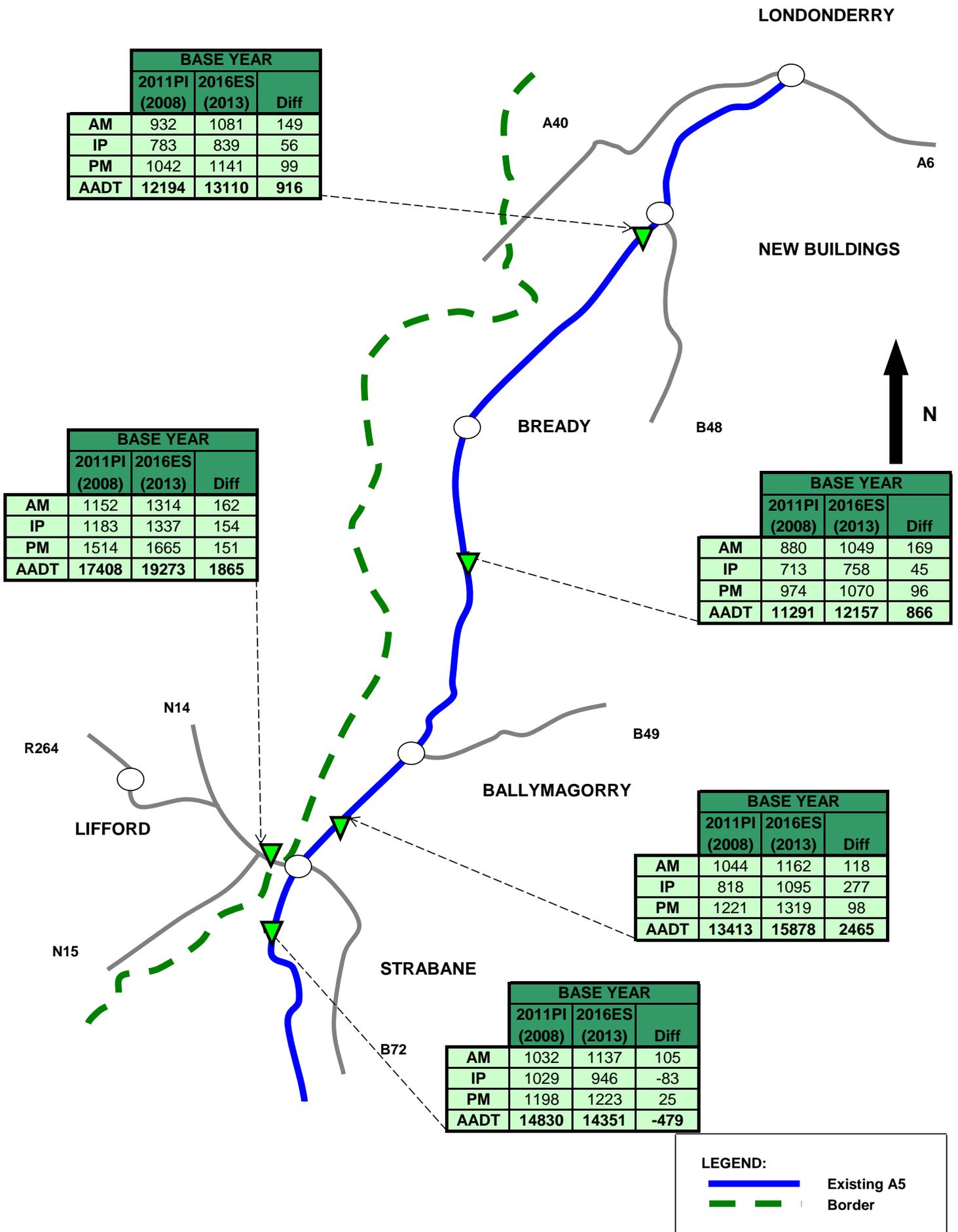


Figure 2: Base Year Flow Comparison 2008 and 2013 – Section 2

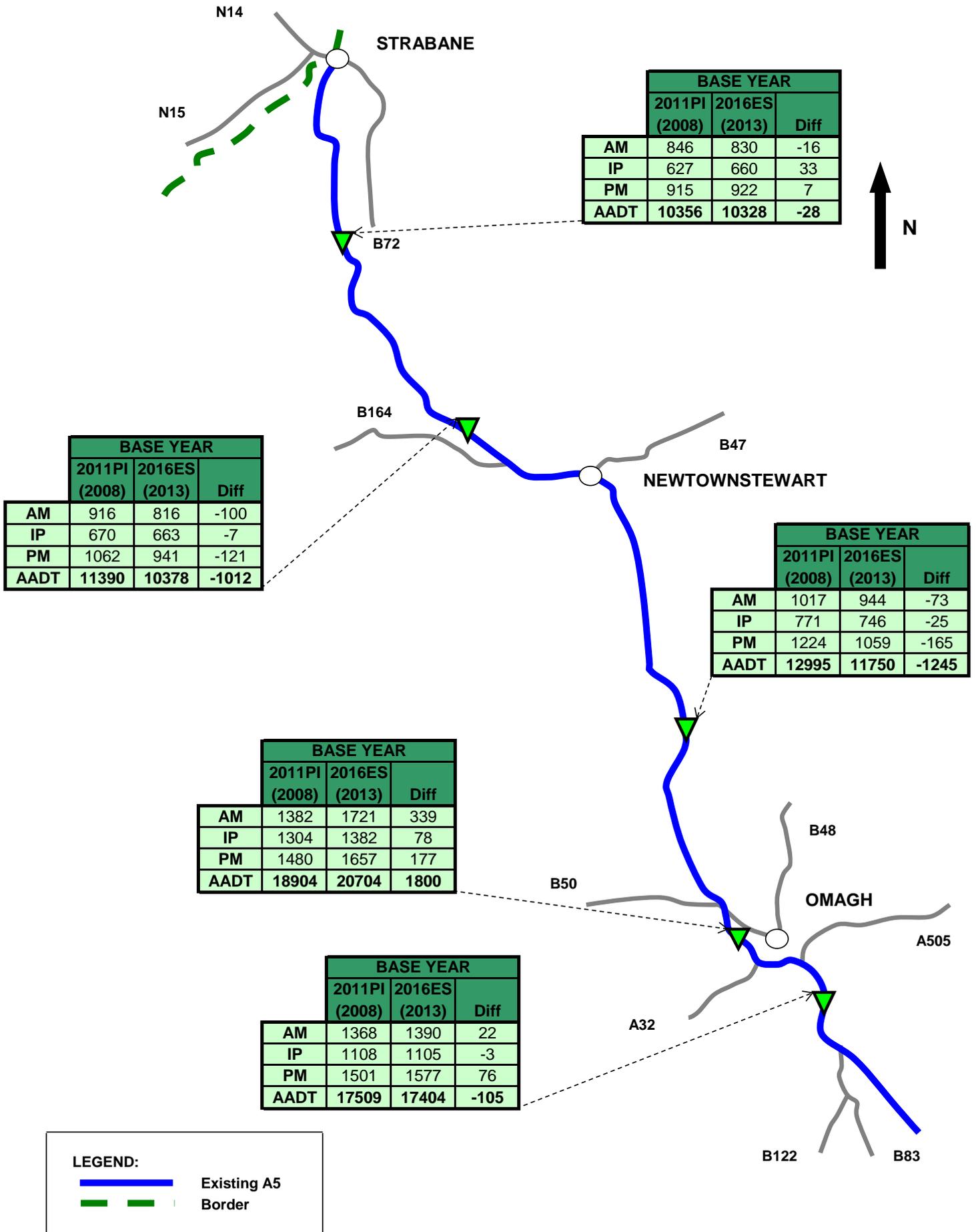
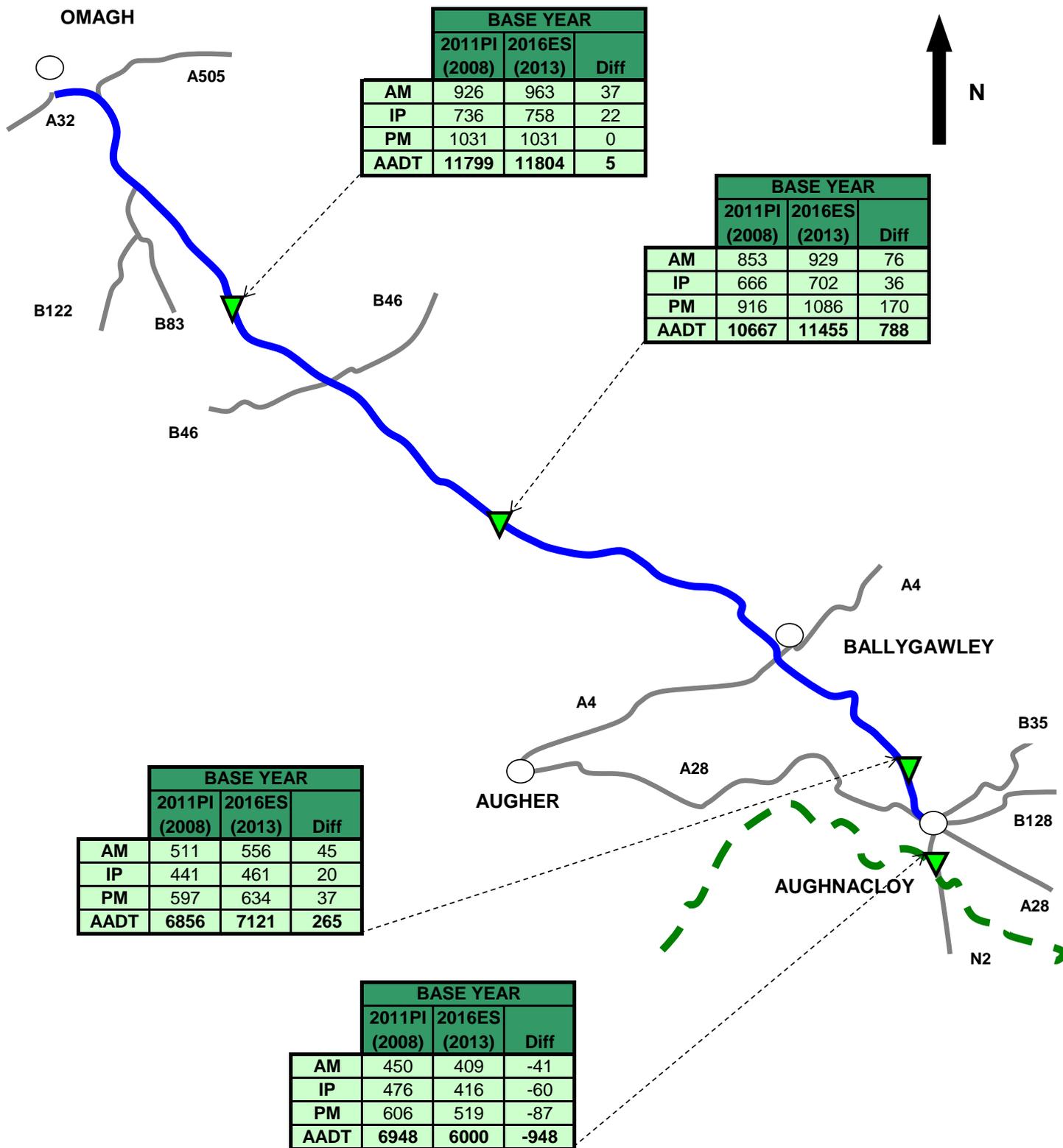


Figure 3: Base Year Flow Comparison 2008 and 2013 – Section 3



LEGEND:
 Existing A5
 Border

Figure 4: Forecast Year Flow Comparison 2030 (Old) and 2028 (New) – Section 1

	2011PI 2030	2016ES 2028	Diff
DM	1302	1313	11
	1058	1087	29
	1336	1392	56
	16370	16463	93
DS	120	172	52
	143	190	47
	121	345	224
	1833	3051	1218

2011PI 2030	2016ES 2028	Diff
1551	1455	-96
1182	1185	3
1645	1464	-181
19117	17837	-1280

	2011PI 2030	2016ES 2028	Diff
DM	1223	1286	63
	933	990	57
	1226	1310	84
	14839	15372	533
DS	143	232	89
	130	124	-6
	125	244	119
	1823	2372	549

	2011PI 2030	2016ES 2028	Diff
DM	1698	1682	-16
	1705	1827	122
	2187	2248	61
	25220	25945	725
DS	1056	1106	50
	1279	1397	118
	1558	1686	128
	17941	19248	1307

2011PI 2030	2016ES 2028	Diff
1445	1369	-76
1070	1155	85
1530	1481	-49
17575	17428	-147

2011PI 2030	2016ES 2028	Diff
1751	1261	-490
1404	1164	-240
1981	1436	-545
22505	17060	-5445

	2011PI 2030	2016ES 2028	Diff
DM	1440	1459	19
	1433	1453	20
	1630	1595	-35
	20529	20345	-184
DS	600	690	90
	825	687	-138
	734	930	196
	10399	10181	-218

2011PI 2030	2016ES 2028	Diff
1019	807	-212
879	870	-9
1220	1059	-161
13781	12332	-1449

2011PI 2030	2016ES 2028	Diff
1337	1861	524
991	1771	780
1632	2078	446
17000	25459	8460

	2011PI 2030	2016ES 2028	Diff
DM	1448	1525	77
	1074	1581	507
	1607	1778	171
	17876	22106	4230
DS	282	587	305
	91	710	619
	272	826	554
	2483	9752	7270

LEGEND:

- Existing A5
- A5WTC Route
- - - Border

AM	Existing A5	Do Something Scheme
IP		
PM		
AADT		

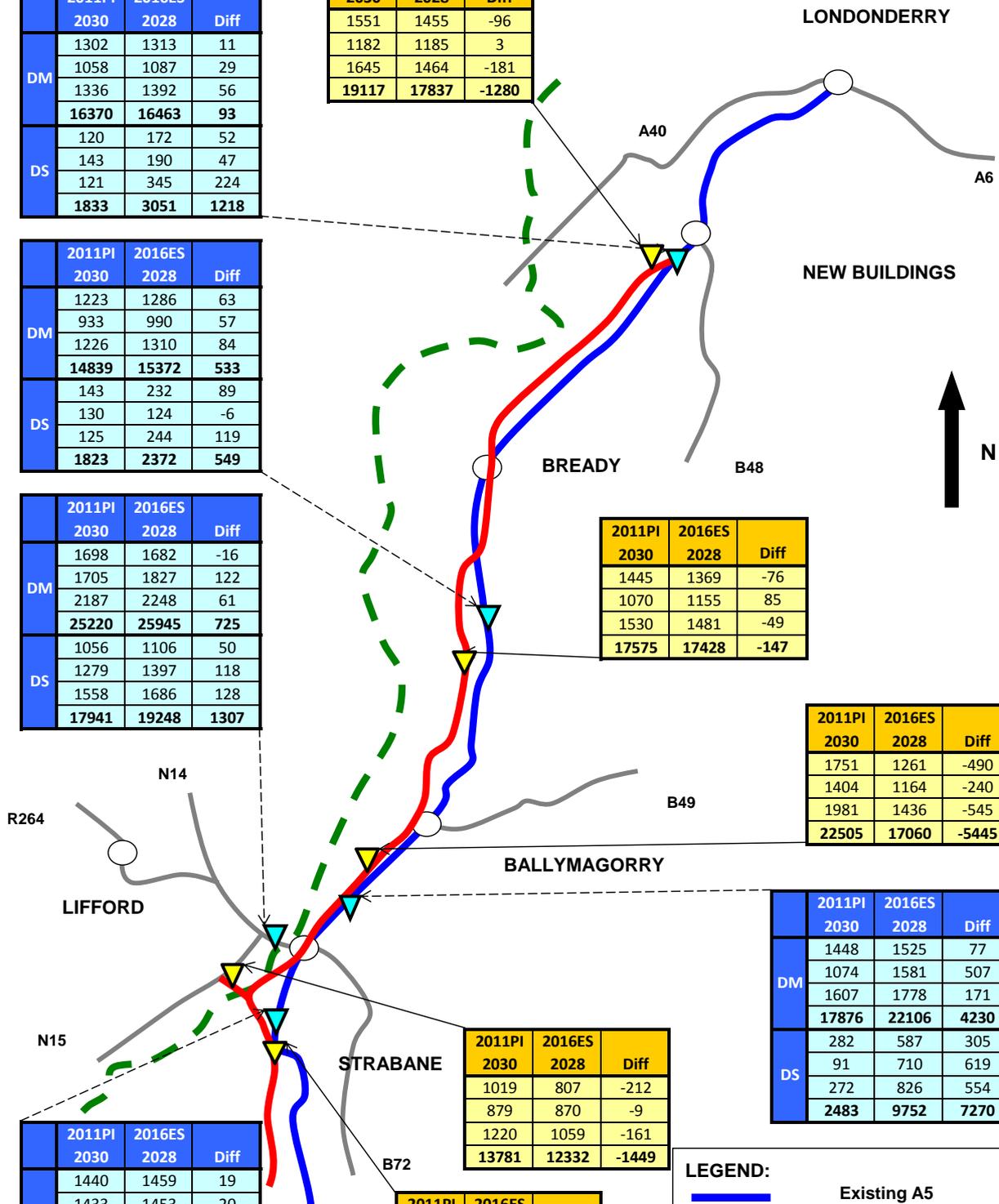


Figure 5: Forecast Year Flow Comparison 2030 (Old) and 2028 (New) – Section 2

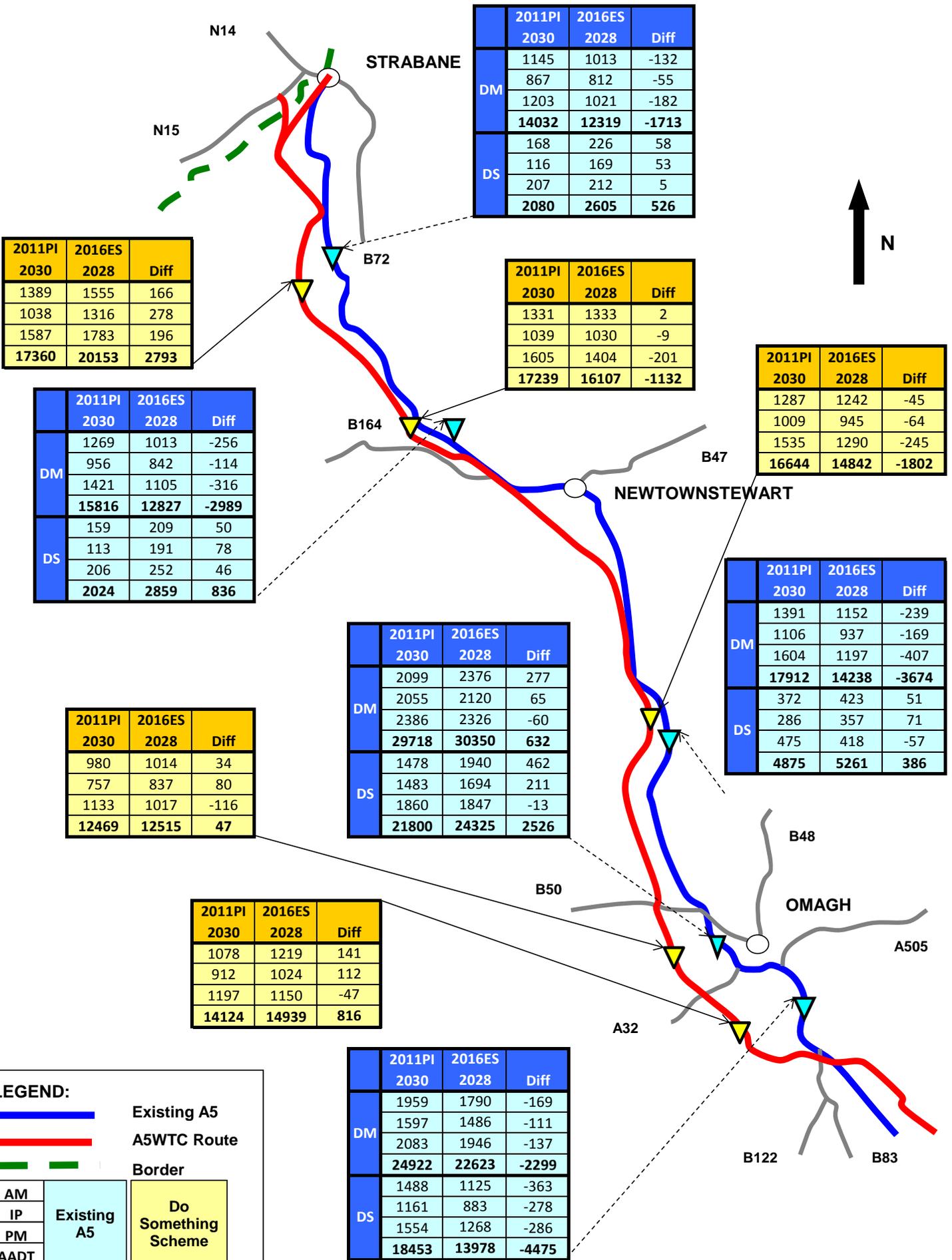
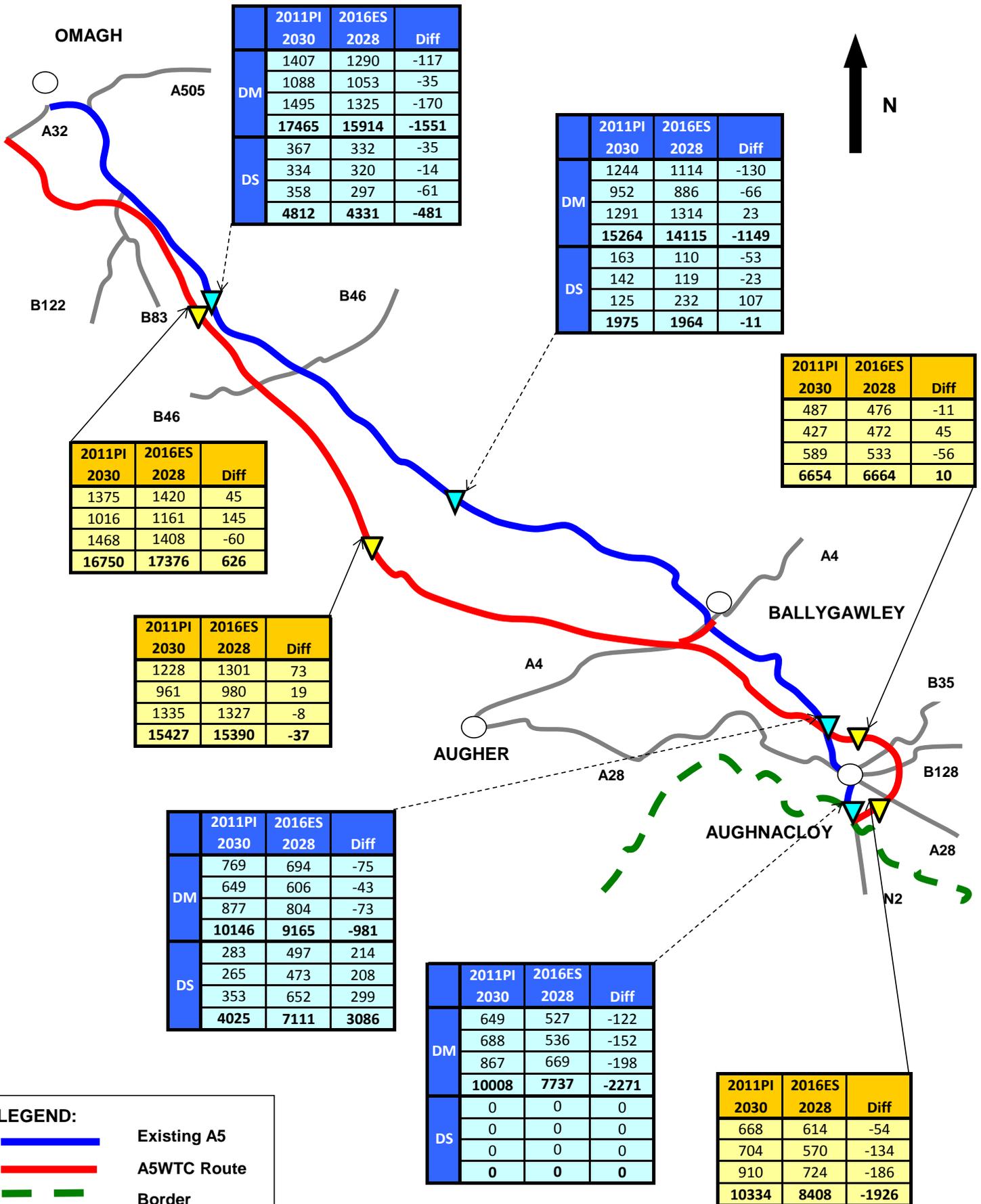


Figure 6: Forecast Year Flow Comparison 2030 (Old) and 2028 (New) – Section 3



LEGEND:

- Existing A5 (Blue line)
- A5WTC Route (Red line)
- Border (Green dashed line)

AM	Existing A5	Do Something Scheme
IP		
PM		
AA DT		

Figure 7: Forecast Design Year Flows at 2041 – Section 1

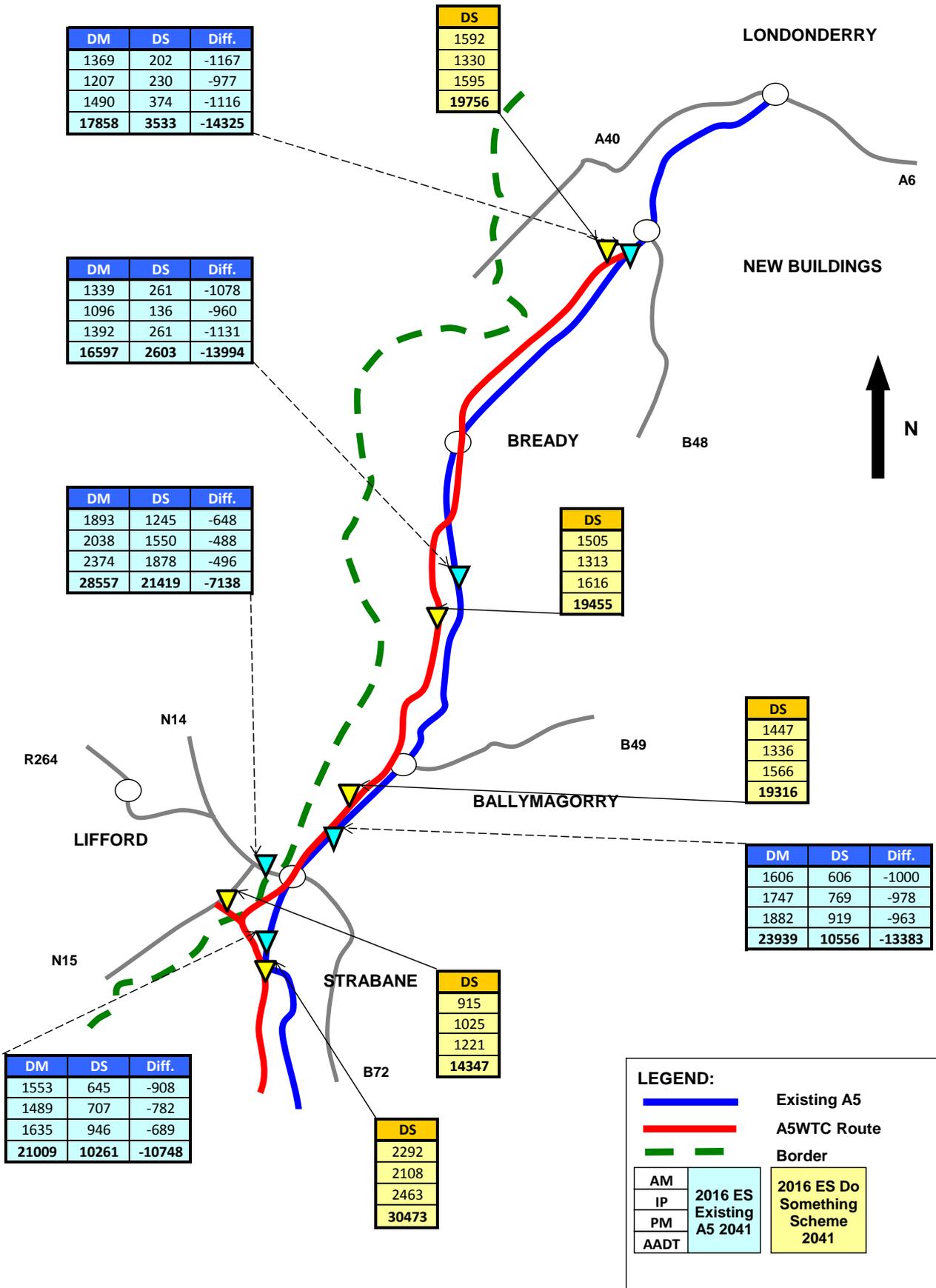
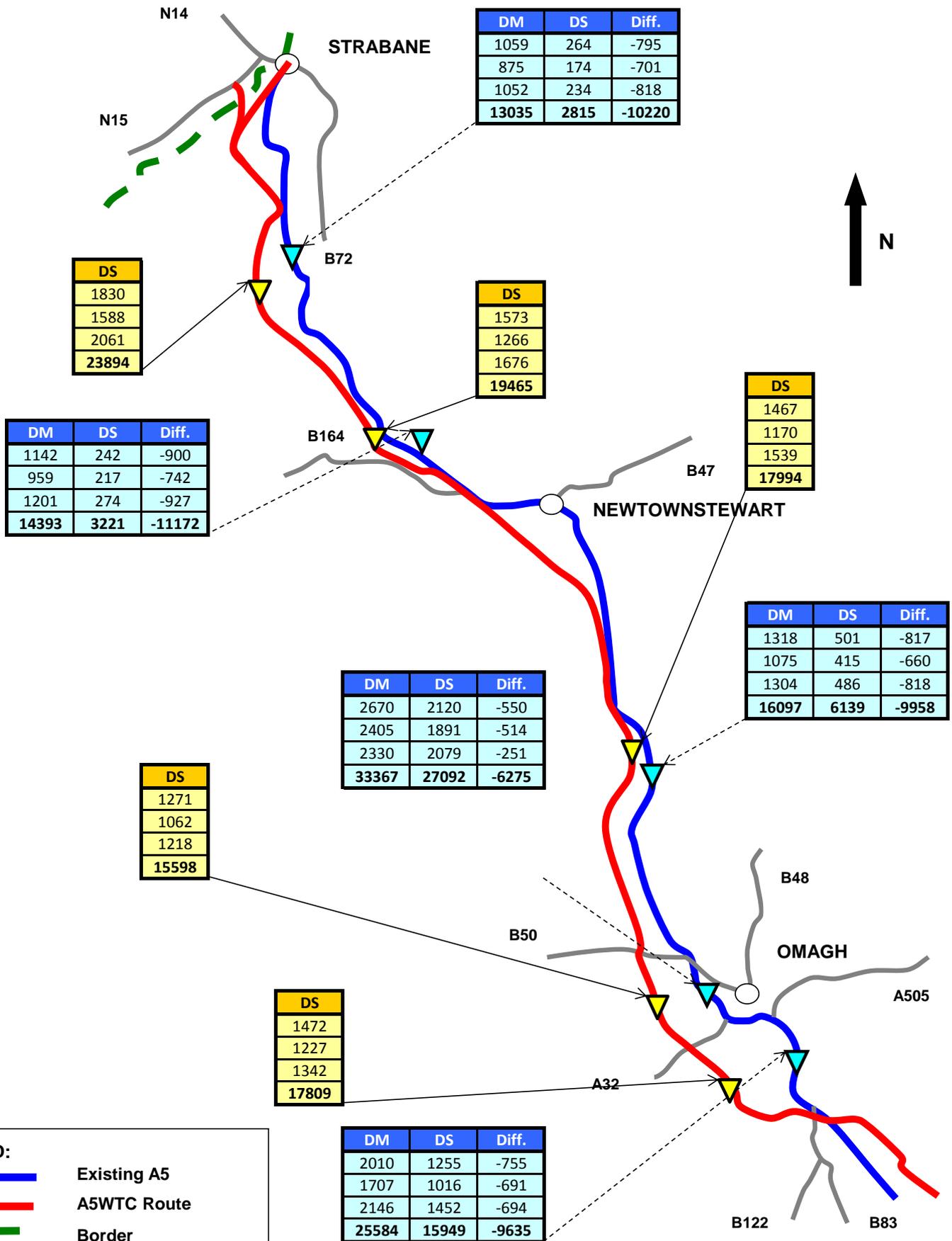


Figure 8: Forecast Design Year Flows at 2041 – Section 2

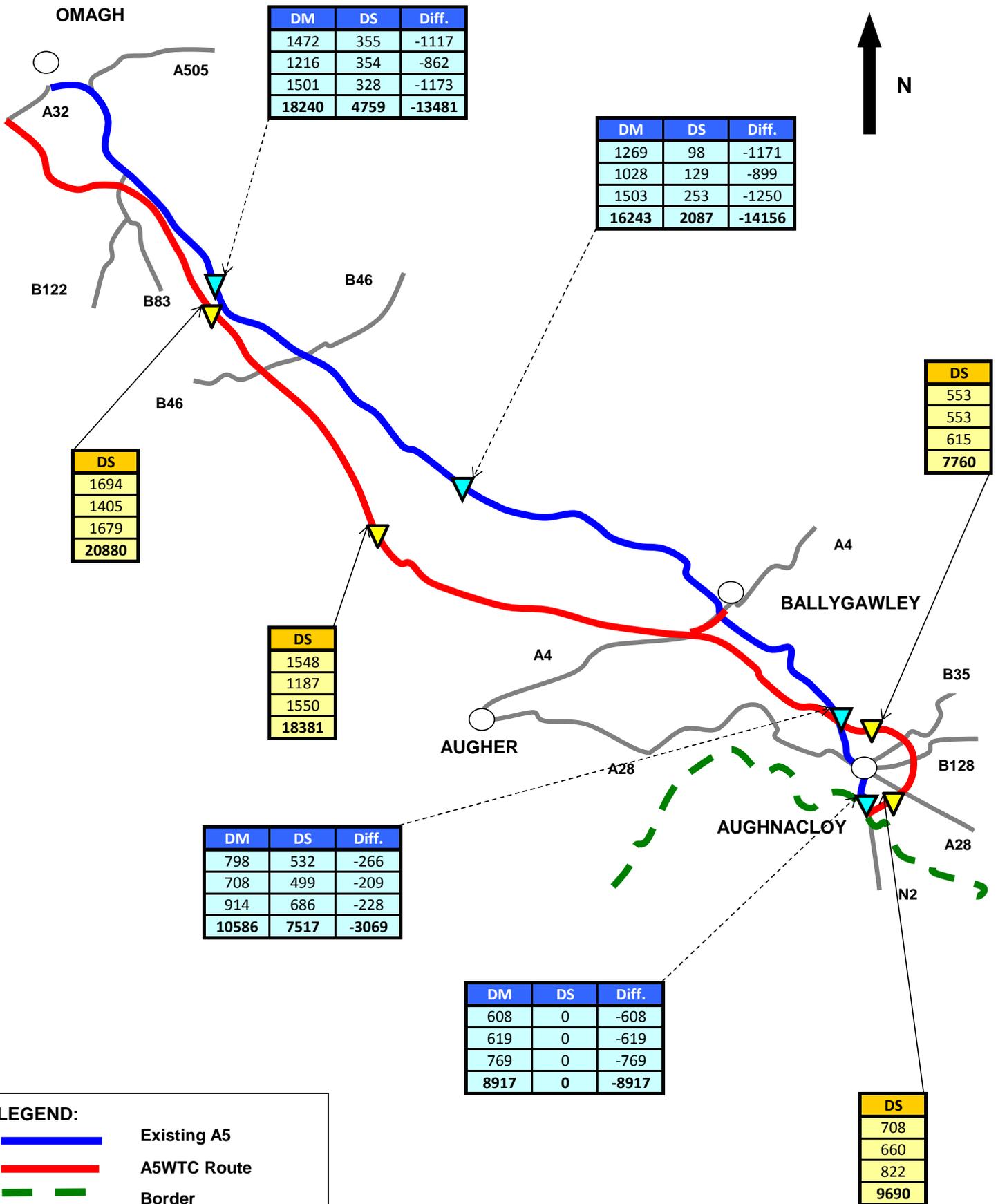


LEGEND:

- Existing A5
- A5WTC Route
- Border

AM	2016 ES Existing A5 2041	2016 ES Do Something Scheme 2041
IP		
PM		
AADT		

Figure 9: Forecast Design Year Flows at 2041 – Section 3



LEGEND:

- Existing A5
- A5WTC Route
- - - Border

AM	2016 ES Existing A5 2041	2016 ES Do Something Scheme 2041
IP		
PM		
AADT		