Middlesbrough and Redcar and Cleveland Councils

Joint Strategic Transport Needs Assessment

Model Assessment Report

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Context

Arup and Fore Consulting have been commissioned by Middlesbrough Council (MC) and Redcar and Cleveland Borough Council (RCBC) to evaluate the performance of the road network within the Middlesbrough and Redcar and Cleveland areas, taking into account future development including the South Tees Regeneration Master Plan (STRMP).

The outputs from this work provide an insight into how well the future highway network would cope with the additional STRMP development including committed infrastructure schemes within the local area. This report does not consider any further infrastructure beyond the committed schemes and therefore all scenarios are considered as 'Do Minimum' situations.

Methodology

Arup was provided the latest version of the Tees Valley Model (TVM) by the Tees Valley Combined Authority (TVCA) with demand matrices for modelled years including 2020, 2025, 2030 and 2035. Committed infrastructure schemes were checked across each of the model years and added where required to the following two Do Minimum scenarios:

- A 'Do-Minimum' scenario comprising of committed development and committed infrastructure schemes; and
- A 'Do-Minimum + STRMP' scenario comprising of committed development, committed infrastructure schemes and the STRMP development.

In order to reflect the development associated with the STRMP, factors were calculated for each of the STRMP model zones and applied to the matrices received from TVCA.

The inclusion of the committed infrastructure in the Do Minimum models means that any benefits associated with these schemes have been captured across all scenarios tested. This includes committed schemes that have not been implemented as yet, such as A66 Cargo Fleet Through-about and the Southern Cross Improvements. Both of these schemes have had their benefits quantified by alternative, more detailed, modelling approaches.

Study Findings

Following the model tests a number of conclusions were made and are covered in further detail in the report. In summary, the key findings show:

- Junctions experiencing the greatest impacts across Middlesbrough and Redcar and Cleveland include Greystones Roundabout, A1053/A1085 Roundabout, Tees Dock Roundabout and A171 Swans Corner;

- Journey times on major east-west corridors increase in future years, particularly when the STRMP is included in the model;
- New infrastructure schemes such as the Longlands to Ladgate Lane Link Road help north-south links from 2025 but also attract increased traffic on east-west routes including Ladgate Lane;
- Journey times on the A66 suffer as a result of increased congestion between the A19 and Marton Road as well as the approach to the Cargo Fleet Lane junction;
- Journey times on the A174 eastbound increase significantly on the approach to Greystones Roundabout;
- There are lesser impacts on A19 / A174 junction but it does show deterioration in the PM Peak in future years;
- An increase in bus service frequencies and/or new bus services does little to alter traffic conditions and there is a negligible change to vehicle journey times as a result of bus service improvements; the buses would experience the same traffic conditions as other vehicles. This highlights that additional measures (bus priority / lanes etc) would be required to support public transport enhancements; and
- A demand forecasting model has been utilised to assess if a park and ride station at Nunthorpe Parkway would be viable. Initial results indicate that the station could attract approximately 125 cars into the park and ride site which would accordingly remove some car trips off the routes into Middlesbrough.
- There would be merit in exploring possible improvements at the following junctions:
    - Greystones Roundabout;
    - A1053/A1085 Roundabout;
    - Tees Dock Roundabout; and
    - A171 Swans Corner.
- A new Eastern Tees Crossing should be explored as a way of relieving future congestion on the A66 in the vicinity of Middlesbrough.
- Consideration should be given to undertaking further work to determine the impact of south facing sliproads on the A19 at Low Lane, to relieve longer term impacts on A19 / A174 Interchange.

1 Introduction

1.1 Purpose of the Study

Arup and Fore Consulting have been commissioned by MC and RCBC to provide a Strategic Transport Needs Assessment to illustrate, through a transparent and robust process, the transport needs of both Councils in support of their economic growth ambitions, particularly following the creation of the South Tees Development Corporation (STDC). This will enable both Councils to contribute effectively to the delivery of the wider Tees Valley Strategic Transport Plan (STP), currently being prepared by the Tees Valley Combined Authority (TVCA), and also to influence future national investment programmes on both road and rail.

There are three stages to the study:

- Stage 1 – Why – which is complete and summarised the work to date and identified a set of objectives against which to assess future transport interventions;
- Stage 2 – What – the current stage, which reviews the baseline transport position and assesses the impact of potential public transport interventions; and
- Stage 3 – How – will set out a strategic route to delivering the required interventions, cumulating in an action plan aimed at achieving the growth ambitions of the two councils.

This report presents the results from Stage 2; reviewing the baseline position and assessing the impact of public transport interventions. The Tees Valley Multi Modal Model (TVM) has been obtained and reviewed and this report presents outputs indicating how well the highway network performs in future years up to 2035. It includes committed developments and committed highway improvements but no additional highway interventions have been tested at this stage of the study. Development at the STRMP site has been added in future years and further details of how development traffic has been calculated and assigned in the model is provided in **Section 2**.

The Stage 2 work has included for the testing of the impact of increasing bus service frequencies on certain routes within the TVM. An excel demand forecasting model has also been developed to test the impact of a new rail station in Nunthorpe. Further details regarding the public transport scenarios are provided in **Section 5**.

1.2 Study Area

The study area is bounded by the A19 to the west, the River Tees to the north, the North Sea coast to the east, and the East Cleveland Hills to the south. This is shown in **Figure 1**.

Figure 1: Study Area

1.3 This Report

This structure of this report is as follows:

- Section 2 provides details of how traffic associated with the STRMP has been forecast and incorporated into the transport model;
- Section 3 provides a summary of the assessment methodology, including the infrastructure that is expected to be in place in each modelled scenario;
- The results of the highway model analysis are presented in Section 4 with the public transport outputs presented in Section 5; and
- Section 6 summarises the key findings and recommendations from this stage of the study and advises the next steps for the Transport Needs Assessment.

2 South Tees Masterplan

2.1 Introduction

Whilst at this stage the transport modelling is only to review the baseline position without any additional developments or interventions, it was considered necessary to add traffic associated with the STRMP to the transport model to see how it could affect the highway network in future years.

2.2 STRMP – Trip Generation

The trip generation has not yet been forecast and therefore an exercise to determine the likely trip generation from the proposed STRMP was undertaken and was informed by three sources of data:

- Method 1: The potential trips that could be generated based on the site's aspiration to accommodate 20,000 jobs. This method used 2011 Census journey to work data to derive the mode share of those working on the site, and TRICS land use data (a trip rate database) to derive the AM and PM peak hour profile for each mode of transport;
- Method 2: The number of trips using TRICS trips rates applied to the site area; and
- Method 3: Using trip rates from a similar development Arup has worked on; Sunderland's International Advanced Manufacturing Park (IAMP). Systra undertook a detailed assessment for IAMP which is a similar industrial development in the North East.

Reviewing all three data sources enabled a benchmarked estimate to be prepared that suggested the site would generate a total of approximately 4,000 car trips in both the AM and PM peaks (assuming 16,000 jobs in 2035).

2.3 Adding STRMP Growth to TVM

The STRMP suggests that there is the potential for the site to accommodate 20,000 jobs over the period 2017 to 2042. Based on this information, a proportion of the total 20,000 jobs has been assumed for each of the modelled years which is outlined in **Table 1**. The proportion of jobs created in each of the modelled years reflects a robust and ambitious scenario in which the site achieves 80% of the total maximum number of jobs expected to be delivered across the site by 2035. This timescale would result in all 20,000 jobs being realised by 2040, slightly ahead of the redevelopment programme end (2042).

In 2015, the SSI steel and iron production plant closed with the loss of around 2,000 jobs. To ensure the model reflects this, and considering the robust scenario outlined above, the total number of jobs has been reduced by 2,000 for each of the modelled years.

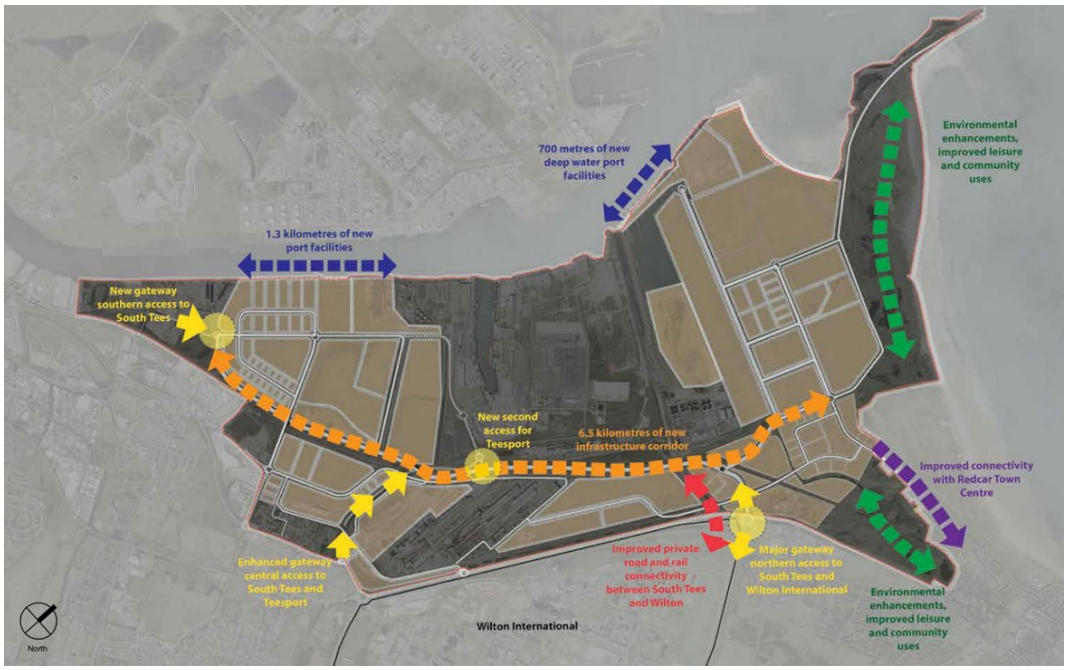
Table 1: Assumed Proportion of Total Jobs for Modelled Years

Model Year	% STRMP Jobs Created	STRMP Jobs	Historic SSI Jobs	Reduced number of Jobs (Modelled)
2020	20%	4,000	2,000	2,000
2025	40%	8,000	2,000	6,000
2030	60%	12,000	2,000	10,000
2035	80%	16,000	2,000	14,000

2.4 Assigning STRMP Trips

The existing 24-hour production/attraction matrices were adjusted using a factor for each model zone associated with the proposed STRMP. Three access points are proposed to serve the site which are shown (yellow arrows) in **Figure 2**. These consist of a New Gateway southern access to South Tees, an Enhanced Gateway central access to South Tees and Teesport as well as a Major Gateway northern access to South Tees and Wilton International.

Figure 2: South Tees Regeneration Master Plan – Major Attributes



An approximate proportion of the total STRMP development trips for each of the three access points is shown in **Table 2**. This distribution was based on the size of the proposed industrial zones and their nearest access point. As shown in

Table 2, both the New Gateway and Enhanced Gateway have a slightly lower proportion of trips (30% each) compared with the Major Gateway (40%).

Table 2: STRMP Trip Access Proportions – Model Input (AM and PM)

Access	TVM Zone	Proportion of Total Trips
New Gateway (Southern Access)	241	30%
Enhanced Gateway (Central Access)	242	30%
Major Gateway (Northern Access)	244	40%

Factors used to scale up existing demand matrices to include the additional jobs, for each of the TVM zones affected, are shown in **Table 3** to **Table 5**.

The tables show the combined total of productions (houses) and attractions (jobs) before making adjustments for the STRMP. A reduced total to allow for the loss of jobs associated with the old SSI plant has also been calculated (Reference Case – Old SSI + STRMP).

Table 3: Productions/Attractions – TVM Zone 241

Model Year	Productions/Attractions				
	Reference Case	Old SSI	STRMP	Reference Case – Old SSI + STRMP	**Factor**
2020	1,223	825	1,650	2,048	**1.67**
2025	1,871	825	3,300	4,346	**2.32**
2030	2,311	825	4,950	6,436	**2.78**
2035	2,963	825	6,600	8,738	**2.95**

Table 4: Productions/Attractions – TVM Zone 242

Model Year	Productions/Attractions				
	Reference Case	Old SSI	STRMP	Reference Case – Old SSI + STRMP	**Factor**
2020	1,152	825	1,650	1,977	**1.72**
2025	1,275	825	3,300	3,750	**2.94**
2030	1,354	825	4,950	5,479	**4.05**
2035	1,427	825	6,600	7,202	**5.05**

Table 5: Productions/Attractions – TVM Zone 244

Model Year	Productions/Attractions				
	Reference Case	Old SSI	STRMP	Reference Case – Old SSI + STRMP	**Factor**
2020	3,160	1,100	2,200	4,260	**1.35**
2025	3,295	1,100	4,400	6,595	**2.00**
2030	3,491	1,100	6,600	8,991	**2.58**
2035	3,658	1,100	8,800	11,358	**3.10**

2.5 Summary of STRMP Trips

Table 6 shows the resulting trips associated with the STRMP that have been calculated by the model for each scenario in the AM peak. The equivalent PM peak figures are shown in

Table 7.

Table 6: STRMP Trips – AM Model Output

Do Minimum Scenario		Zone Number			Total
		241	**242**	**244**	
2020 Infrastructure	In	141	112	486	**739**
	Out	64	41	92	**197**
2020 Infrastructure + development	In	405	312	1,171	**1,888**
	Out	113	90	198	**401**
2025 Infrastructure	In	200	127	515	**842**
	Out	80	46	100	**226**
2025 Infrastructure + development	In	773	587	1,781	**3,141**
	Out	193	167	309	**669**
2030 Infrastructure	In	237	137	547	**921**
	Out	90	49	107	**246**
2030 Infrastructure + development	In	1,081	853	2,344	**4,278**
	Out	261	240	411	**912**
2035 Infrastructure	In	295	148	569	**1,012**
	Out	105	53	114	**272**
2035 Infrastructure + development	In	1,362	1,115	2,809	**5,286**
	Out	326	313	495	**1,134**

As can be seen from the corresponding graphs (**Figure 3** and **Figure 4**) the STRMP adds a significant number of trips to the three access zones in the peak periods. When including the STRMP, AM peak arrivals reach almost 5,300 across the three site access locations whilst PM peak departures for the same year are approximately 4,400.

Figure 3: Total AM Peak Trips to and from the Proposed STRMP

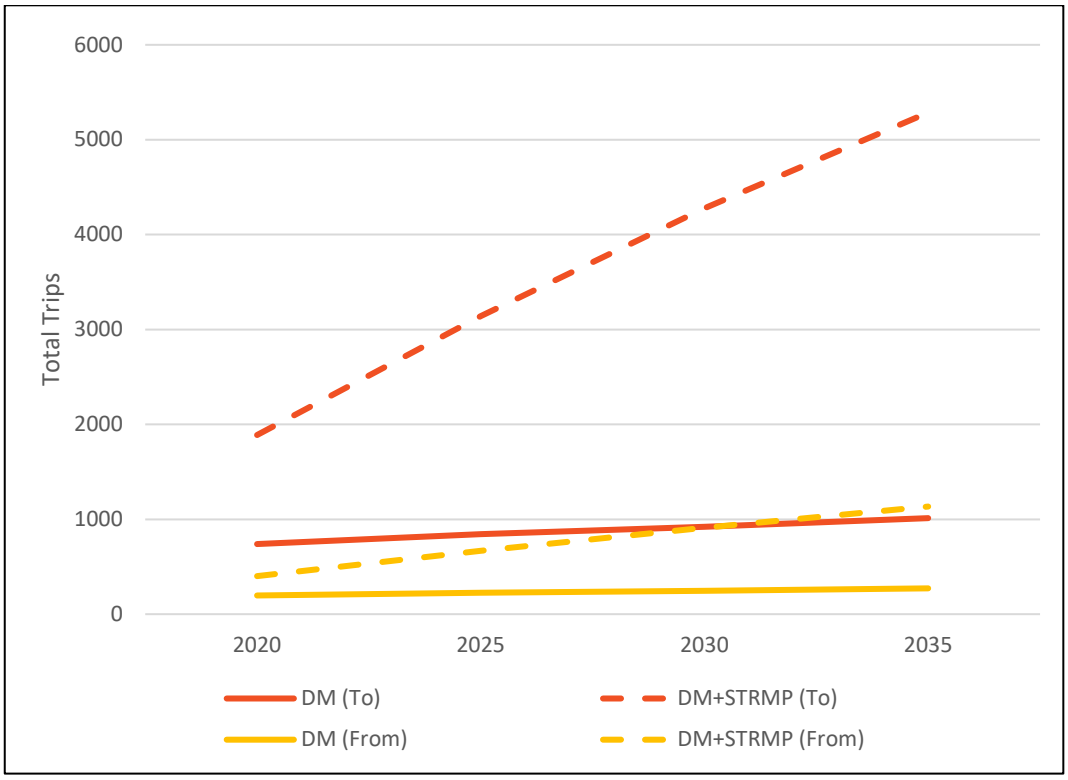
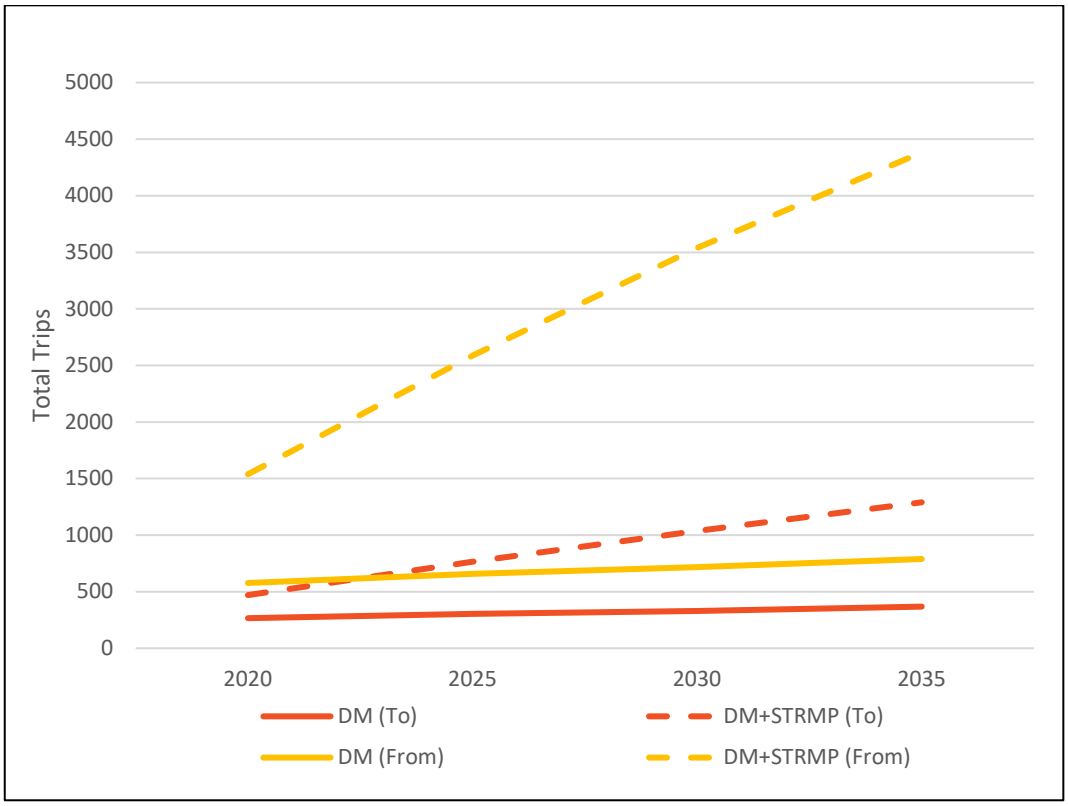


Table 7: STRMP Trips – PM Model Output

Do Minimum Scenario		Zone Number			Total
		241	**242**	**244**	
2020 Infrastructure	In	104	41	121	**266**
	Out	119	100	358	**577**
2020 Infrastructure + development	In	155	92	223	**470**
	Out	337	271	930	**1,538**
2025 Infrastructure	In	128	46	129	**303**
	Out	170	111	376	**657**
2025 Infrastructure + development	In	255	181	330	**766**
	Out	643	509	1,435	**2,587**
2030 Infrastructure	In	143	49	138	**330**
	Out	201	118	398	**717**
2030 Infrastructure + development	In	339	267	431	**1,037**
	Out	897	739	1,901	**3,537**
2035 Infrastructure	In	167	53	148	**368**
	Out	251	126	412	**789**
2035 Infrastructure + development	In	419	352	519	**1,290**
	Out	1,133	963	2,286	**4,382**

Figure 4: Total PM Peak Trips to and from the Proposed STRMP



3 Transport Modelling

3.1 Introduction

The study has utilised two models to assess the transport impact of future growth scenarios; the Tees Valley Multi Modal Model (TVM) and a bespoke demand forecasting model to review rail interventions.

The TVM is a transport model that has been developed as a Tees Valley wide tool for reviewing the impact of development on the highway network. It is the most suitable tool to use to assess strategic impacts on the highway network but should not be used to assess localised impacts. The model includes junction detail and junction delay at all significant junctions in the network and this detail is sufficient to provide a realistic level of overall delay along a corridor. However, as no effort has been made to validate the delays at each individual junction, the model outputs should be treated with a level of caution.

Arup has developed a logit function based Excel model which uses the generalised cost of using a rail service compared with driving costs to forecast potential rail demand at new station locations. This model has been used to assess the impact of a new station at Nunthorpe.

3.2 Highway Scenarios

The first step of Stage 2 of this study is to review the highway network with the planned interventions (committed infrastructure) and committed developments (included in the future 'Do Minimum' base). The only addition to the model is the STRMP trips. Hence, the following scenarios have been modelled in the TVM:

- Do Minimum with Committed Infrastructure 2020 AM and PM;
- Do Minimum with Committed Infrastructure and STRMP 2020 AM and PM:
- Do Minimum with Committed Infrastructure 2025 AM and PM;
- Do Minimum with Committed Infrastructure and STRMP 2025 AM and PM;
- Do Minimum with Committed Infrastructure 2030 AM and PM;
- Do Minimum with Committed Infrastructure and STRMP 2030 AM and PM;
- Do Minimum with Committed Infrastructure 2035 AM and PM; and
- Do Minimum with Committed Infrastructure and STRMP 2035 AM and PM.

Accordingly, this report will refer to the two highway scenarios as either 'Do Minimum' or 'Do Minimum + STRMP'.

3.3 Public Transport Scenarios

Two public transport interventions were identified at the outset of the project for testing:

1) Bus improvements in the area; and

2) A preliminary assessment of a rail station at Nunthorpe, referred to as 'Nunthorpe Parkway'.

Bus improvements have been tested in the TVM by recoding the bus services in two future years, 2025 and 2035. Two 'Do Something' bus scenarios have been tested. Both include the rerouting of services to provide stops closer to STRMP and changes to service frequencies. However, two scenarios have been tested to review the impact of different shuttle bus service options to the STRMP. Further details are provided in **Table 8**.

Table 8 Bus Service Scenarios

	Service	Route	TT Change	Adjusted to STRMP Access		
		2020		South	Central	North
DS1 and DS2	X4	Middlesbrough to Whitby	2/hr to 4/hr	✓	✓	✓
	64	Middlesbrough to Eston	NA	✓	✓	✓
	64A	Middlesbrough to Eston	NA	✓	×	×
	X3A	Middlesbrough to Skelton	1/hr to 2/hr	×	×	×
	5	Middlesbrough to Easington	1/hr to 2/hr	×	×	×
	81	Marske to Stokesley	1/hr to 2/hr	×	×	×
	New Shuttle 1	Guisborough to Saltburn	1/hr	×	×	×
	New Shuttle 2	Guisborough to STRMP	1/hr	✓	✓	✓
DS2	New Shuttle 3	Guisborough to Redcar	1/hr	×	×	×
	New Shuttle 4	Saltburn to Easington	1/hr	×	×	×

The impact of a new station at Nunthorpe Parkway has been assessed using a demand forecasting model developed by Arup. The model forecasts potential rail demand based on the generalised cost of rail travel compared with the cost of driving.

3.4 Committed Infrastructure

Table 9 shows the highway infrastructure that is included within each modelled period and **Figure 5** shows the location of the interventions that affect the network within the study area (detailed plan shown in **Appendix A**). These highway interventions, and the timing of their opening, have been agreed with MC and RCBC.

Table 9: Committed Infrastructure Schemes

Junction No.	Scheme	Model Year			
		2020	2025	2030	2035
1	A174 Extension	Yes	Yes	Yes	Yes
2	A19/A174 Pinch Point Improvement	Yes	Yes	Yes	Yes

Junction No.	Scheme	Model Year			
		2020	2025	2030	2035
3	A19 Norton-Wynyard Widening	Yes	Yes	Yes	Yes
4	A66 Morton Palms: LNMS Scheme	Yes	Yes	Yes	Yes
5	A68 Faverdale Improvements	Yes	Yes	Yes	Yes
6	A689 Wynyard Traffic Signals	Yes	Yes	Yes	Yes
7	Cannon Park – Bus Priority	Yes	Yes	Yes	Yes
8	Central Park – Southern Access	Yes	Yes	Yes	Yes
9	A67 Crathorne Interchange	Yes	Yes	Yes	Yes
10	Ingleby Barwick Free School Access	Yes	Yes	Yes	Yes
11	Ingleby Way / Myton Way	Yes	Yes	Yes	Yes
12	Middlehaven Dock Bridge	Yes	Yes	Yes	Yes
13	Prissick Link Road	Yes	Yes	Yes	Yes
14	Quarry Farm Roundabout	Yes	Yes	Yes	Yes
15	A66 Cargo Fleet Through-about	Yes	Yes	Yes	Yes
16	Southern Cross Improvements	Yes	Yes	Yes	Yes
17	Stainton Way Western Extension	No	Yes	Yes	Yes
18	A19 Mandale Interchange Imps	No	Yes	Yes	Yes
19	Longlands to Ladgate Link	No	Yes	Yes	Yes

Figure 5: Committed Infrastructure within the Study Area

The inclusion of the committed infrastructure in the Do Minimum models means that any benefits associated with these schemes have been captured across all scenarios tested. This includes committed schemes that have not been implemented as yet, such as A66 Cargo Fleet Through-about and the Southern

Cross Improvements. Both of these schemes have had their benefits quantified by alternative, more detailed, modelling approaches.

4 Highway Scenario Appraisal

4.1 Introduction

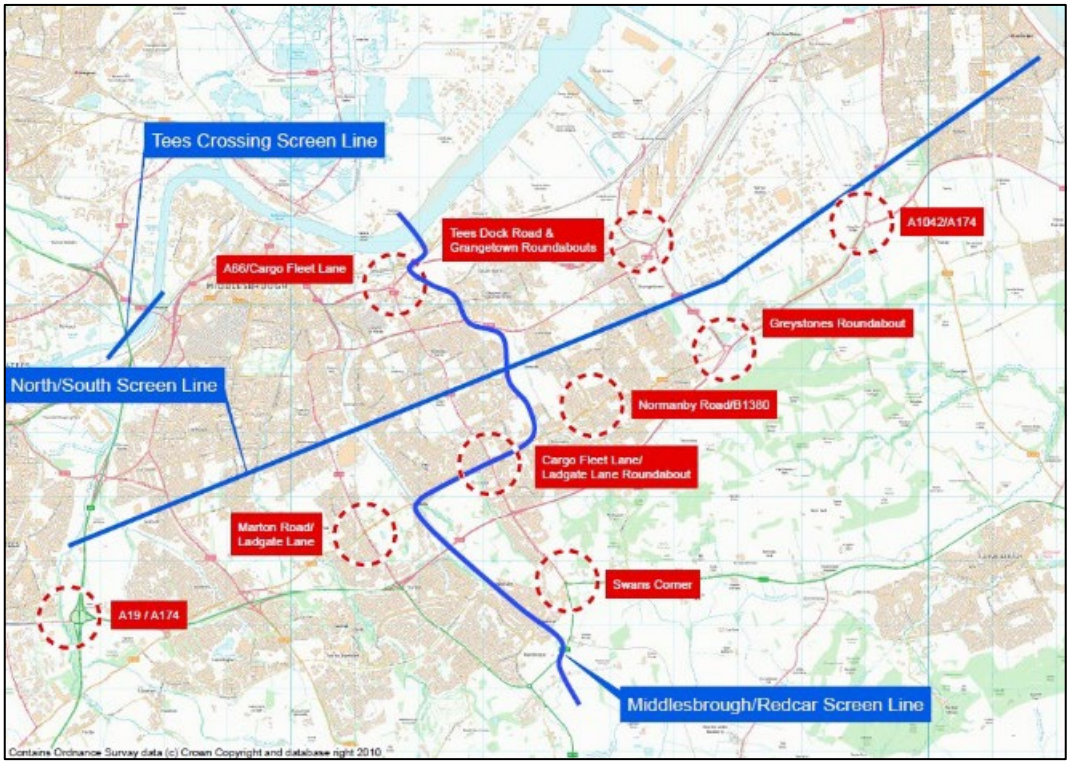
This section reports the results of the TVM outputs for the model scenarios for each of the future years. The results give an indication of how the network will perform in future years and the effect of the proposed highway mitigation.

This section presents a summary of the findings with more detailed outputs attached in **Appendix B to Appendix I**.

4.2 Traffic on Key Screen Lines

Screen lines have been identified within the model to determine the change in traffic patterns over the modelled years across the screen lines. The screen lines (detailed plan shown in **Appendix B**) are shown in **Figure 6**.

Figure 6 Model Screen Lines



To summarise, the screen lines capture any changes between the north and south of the study area and between the east and the west. They also capture changes at the junctions circled in **Figure 6**.

North / South Screen Line

A review of traffic flow changes across the north/south screen line show:

- In the 2025 scenario, without STRMP trips, traffic flows reduce on many north-south routes within south Middlesbrough, such as Marton Road and Ormesby Road, due to the introduction of new highway infrastructure; the Stainton Way West Extension and the Longlands to Ladgate Link Road. It is assumed that there is a redistribution of trips onto the new highway links as shown in **Figure 7** and **Figure 8**;
- With the addition of STRMP trips, north-south links in the east of the study area, such as the A1042, Greystone Road, Church Lane and Redcar Lane see substantial increases in flows across the screen lines between 2020 and 2035. For example, **Table 10** shows that on the A1042 flows are expected to increase by 121% northbound and 138% southbound by 2035 during the AM peak. Also, **Table 11** shows that southbound flows on Church Lane are expected to increase by 75% during the PM peak;
- With the addition of STRMP trips in 2035, **Table 12** shows that speeds decrease by a further 4mph on the A1042 northbound during the AM peak compared with the 2035 Do Minimum and similarly, speeds reduce an extra 5mph on Greystones Road (northbound) during the same time;
- Also, with the addition of STRMP trips in 2035, southbound traffic speeds decrease by an additional 13mph on Greystones Road and 8mph on the A1042 during the PM peak as shown in **Table 13**; and
- **Table 12** shows that A19 northbound speeds reduce by approximately 10mph during the AM peak in both 2035 scenarios. This suggests that the STRMP has minimal impact on this section of the A19 and the change in speeds shown is a result of future trips already included in the model.

Figure 7: Absolute Change in Traffic Flows – 2035 Do Minimum + STRMP (AM)

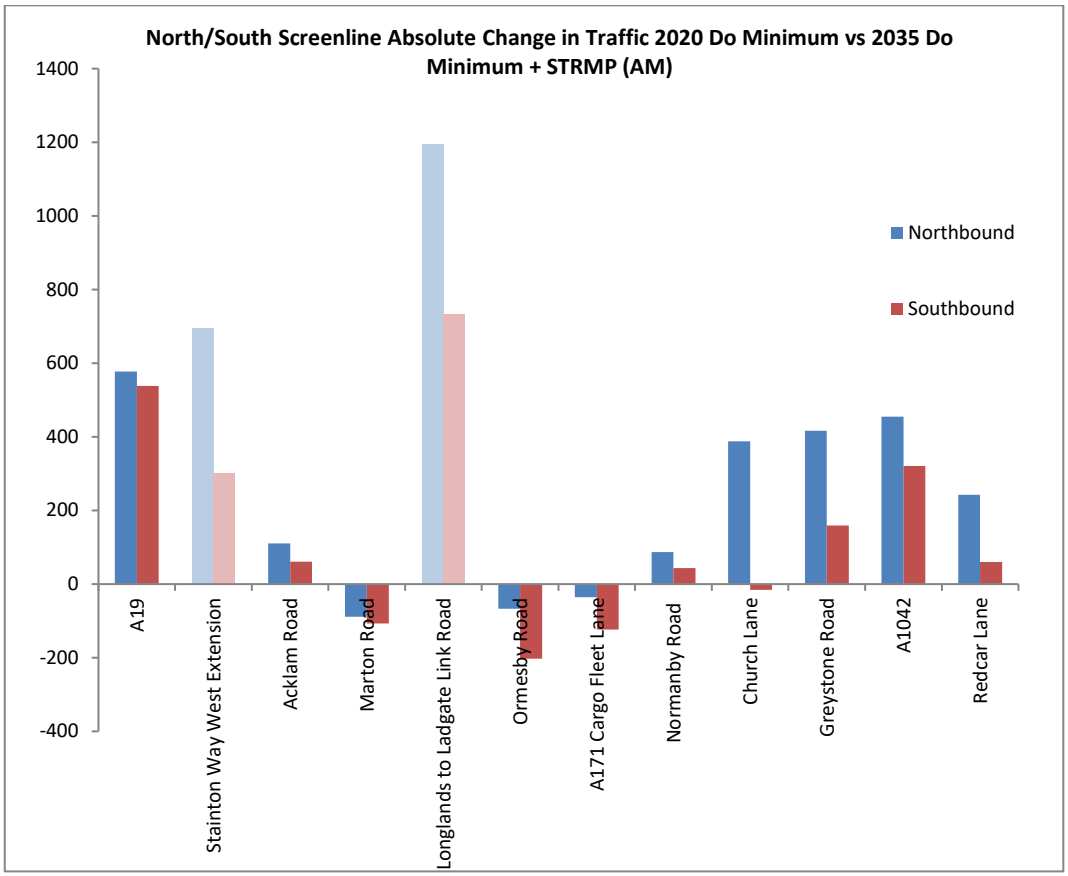


Figure 8: Absolute Change in Traffic Flows – 2035 Do Minimum + STRMP (PM)

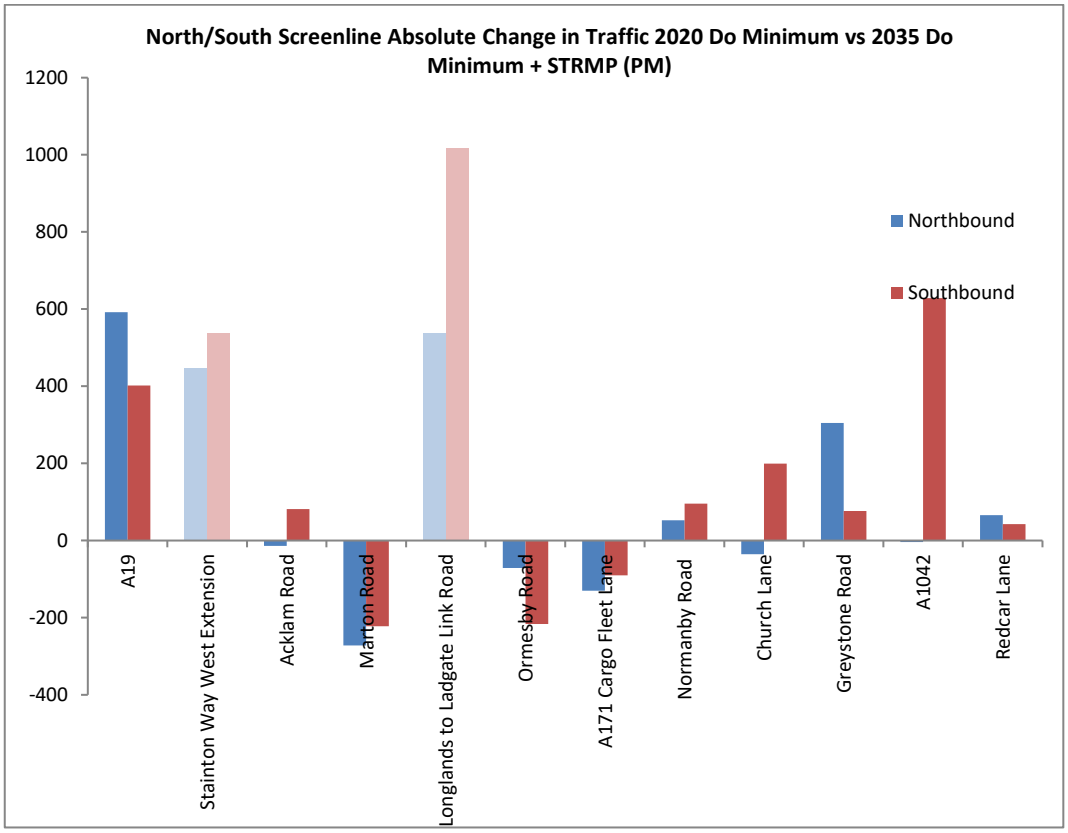


Table 10: Change in Flows from 2020 DM across North/South Screen Line - AM

Route	2035 Do Minimum		2035 Do Minimum + STRMP	
	NB Flow	SB Flow	NB Flow	SB Flow
A19	10%	13%	12%	17%
Acklam Road	-1%	13%	9%	11%
Marton Road	-11%	-16%	-7%	-13%
Ormesby Road	-14%	-50%	-11%	-62%
A171 Cargo Fleet Lane	-10%	-20%	-5%	-23%
Normanby Road	1%	16%	12%	18%
Church Lane	**39%**	**-20%**	**201%**	**-23%**
Greystone Road	**14%**	**18%**	**27%**	**34%**
A1042	**9%**	**6%**	**121%**	**138%**
Redcar Lane	**5%**	**0%**	**47%**	**15%**
All Routes	19%	18%	33%	25%

Table 11: Change Flows from 2020 DM across North/South Screen Line - PM

Route	2035 Do Minimum		2035 Do Minimum + STRMP	
	NB Flow	SB Flow	NB Flow	SB Flow
A19	14%	8%	18%	9%
Acklam Road	-2%	4%	-1%	11%
Marton Road	-39%	-30%	-33%	-25%
Ormesby Road	-21%	-34%	-16%	-36%
A171 Cargo Fleet Lane	-27%	-10%	-23%	-11%
Normanby Road	11%	-3%	16%	14%
Church Lane	**-56%**	**11%**	**-31%**	**75%**
Greystone Road	**34%**	**0%**	**55%**	**6%**
A1042	**-22%**	**42%**	**-2%**	**147%**
Redcar Lane	-4%	5%	14%	9%
All Routes	12%	13%	19%	24%

Table 12: Change in Speeds (mph) from 2020 DM across North/South Screen Line - AM

Route	2020 Do Minimum		Change			
			2035 Do Minimum		2035 Do Minimum + STRMP	
	NB Flow	SB Flow	NB Flow	SB Flow	NB Flow	SB Flow
A19	54	67	**-9**	**-2**	**-12**	**-3**
Acklam Road	23	11	0	-1	-1	-2
Marton Road	17	24	1	-1	0	-1
Ormesby Road	19	28	2	2	1	2
A171 Cargo Fleet Lane	28	29	1	0	0	0
Normanby Road	14	29	-1	0	-3	-1
Church Lane	30	24	0	0	-1	0
Greystone Road	44	57	**-3**	**-1**	**-8**	**-2**
A1042	39	28	**0**	**-1**	**-4**	**0**
Redcar Lane	30	27	0	0	-2	0
Average	30	32	0	1	-2	0

Table 13: Change in Speeds (mph) from 2020 DM across North/South Screen Line - PM

Route	2020 Do Minimum		Change			
			2035 Do Minimum		2035 Do Minimum + STRMP	
	NB Flow	SB Flow	NB Flow	SB Flow	NB Flow	SB Flow
A19	66	52	**-2**	**-7**	**-4**	**-8**
Acklam Road	25	11	0	-1	0	-1
Marton Road	15	24	-2	0	-1	-1
Ormesby Road	23	22	2	5	1	5
A171 Cargo Fleet Lane	29	27	1	1	0	1
Normanby Road	12	19	1	0	0	-2
Church Lane	30	26	0	0	0	0
Greystone Road	46	51	**0**	**-3**	**-1**	**-16**
A1042	39	31	**0**	**-1**	**0**	**-9**
Redcar Lane	30	26	0	0	0	0
Average	32	29	1	1	1	-2

East / West Screen Line

A review of traffic flow changes across the east/west screen line along the Middlesbrough/Redcar and Cleveland boundary show:

- Whereas the north/south screen line indicated that some routes would get relief from the introduction of new infrastructure, the effect on east/west links is not so beneficial, with most links seeing an increase in link flows from 2025 onwards. On Ladgate Lane for example, the flows are expected to increase by 46% eastbound and 42% westbound by 2035 (compared with 2020) as shown in **Table 14**. With the addition of STRMP trips this increases to 55%/56%. Similarly, **Table 15** shows that westbound movements on Dockside Road, Longlands Road, the A174 and Guisborough Road all show growth over 40% during the PM;
- Links which serve STRMP site access locations such as Dockside Road and the A66 near Cargo Fleet experience a significant increase in flow. Dockside Road which serves as the entrance to the New Gateway southern access shows a 273% increase in eastbound flow during the AM peak in 2035 (see **Table 14**). Further south, Longlands Road eastbound traffic also shows a significantly larger increase when including STRMP trips (+120% including STRMP vs. +24% without STRMP);
- **Table 18** to **Table 21** shows that total flow across the east-west screen line is almost always growing at a faster rate compared with other screen lines. This is most noticeable for eastbound traffic during the AM peak where total screen line flow in the 2020 Do Minimum scenario is 5304 compared with the 2035 Do Minimum + STRMP scenario where traffic reaches 8737 (65% increase). Without the STRMP, total screen line flow is significantly lower at 6682 (26% increase);
- Total traffic flow changes for all links on the east/west screen line are slightly lower during the PM peak. When taking into account STRMP trips in 2035, eastbound traffic (towards STRMP site) during the AM grows by 65% whilst westbound traffic (away from STRMP site) during the PM grows by 51% compared to the 2020 Do Minimum scenario;
- With the addition of STRMP trips in 2035, **Table 16** shows that speeds decrease by a further 30mph on Dockside Road (eastbound) during the AM peak compared with the 2035 Do Minimum and similarly, speeds reduce an extra 12mph on the A66 (eastbound) during the same time. Furthermore, speeds decrease by 6mph on the A1043 (Swans Corner approach); and
- When including the STRMP, **Table 17** shows that westbound speeds on Dockside Road and the A174 reduce by an additional 12mph and 6mph respectively in 2035 compared with the 2020 Do Minimum scenario. Speeds on Ladgate Lane show significant reductions in both directions for scenarios with and without the STRMP.

Figure 9: Absolute Change in Traffic Flows – 2035 Do Minimum + STRMP (AM)

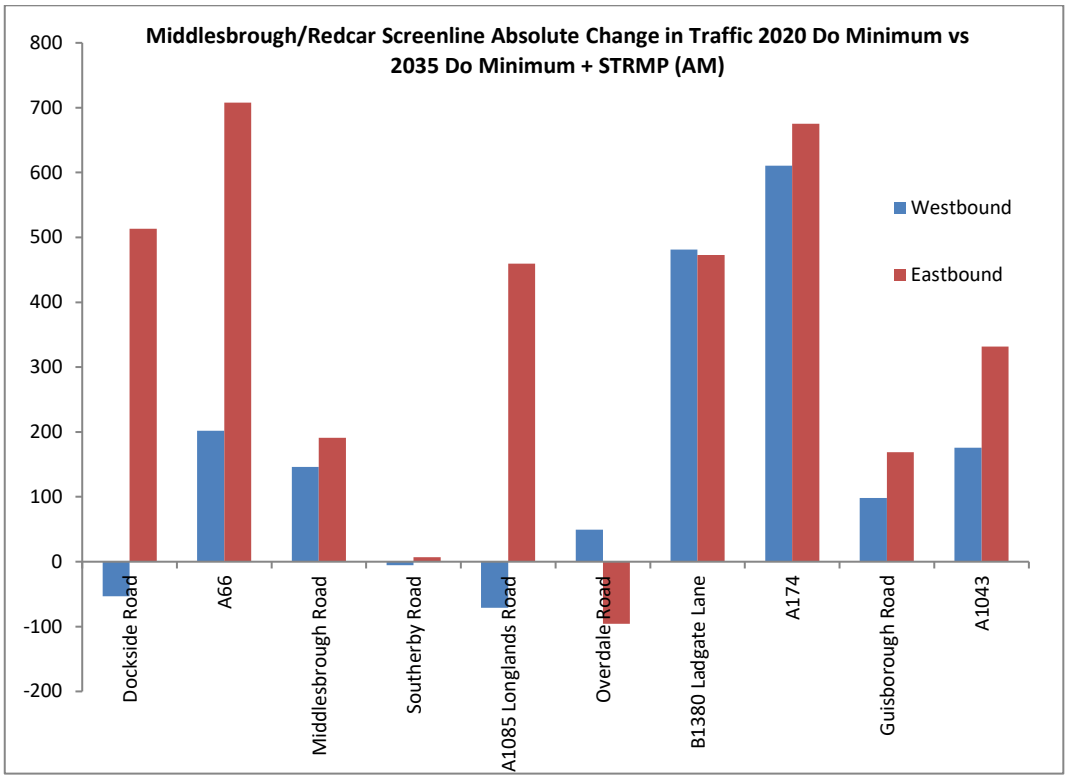


Figure 10: Absolute Change in Traffic Flows – 2035 Do Minimum + STRMP (PM)

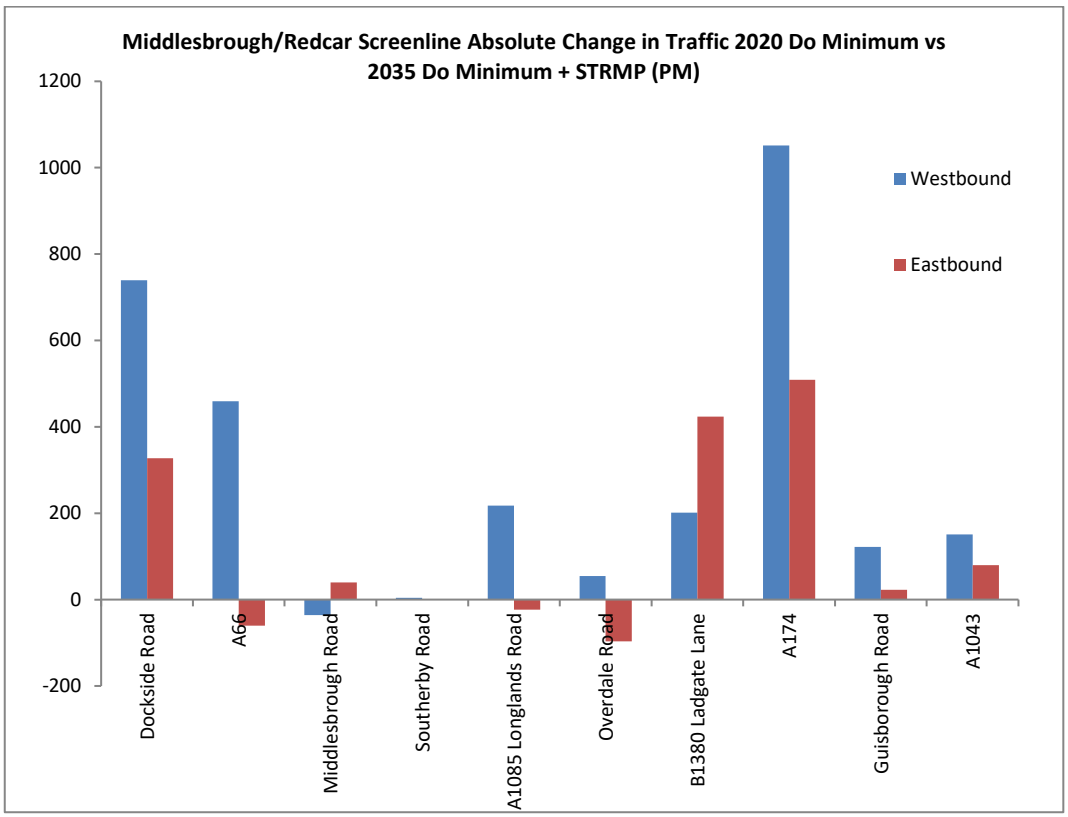


Table 14: Change in Flows across East/West Screen Line vs 2020 Do Min - AM

Route	2035 Do Minimum		2035 Do Minimum + STRMP	
	EB Flow	WB Flow	EB Flow	WB Flow
Dockside Road	**83%**	**49%**	**273%**	**-13%**
A66	9%	1%	64%	11%
Middlesbrough Road	**22%**	**13%**	**249%**	**37%**
Sotherby Road	13%	-5%	43%	-5%
Longlands Road	**24%**	**18%**	**120%**	**-17%**
Overdale Road	-48%	27%	-80%	30%
Ladgate Lane	**46%**	**42%**	**55%**	**56%**
A174	26%	31%	45%	49%
Guisborough Road	18%	4%	39%	29%
A1043	34%	16%	54%	22%
All Routes	26%	20%	65%	25%

Table 15: Change in Flows across East/West Screen Line vs 2020 Do Min - PM

Route	2035 Do Minimum		2035 Do Minimum + STRMP	
	EB Flow	WB Flow	EB Flow	WB Flow
Dockside Road	**49%**	**97%**	**75%**	**470%**
A66	6%	3%	-4%	34%
Middlesbrough Road	4%	2%	45%	-13%
Sotherby Road	4%	6%	1%	20%
Longlands Road	**-5%**	**22%**	**-3%**	**50%**
Overdale Road	-26%	36%	-58%	31%
Ladgate Lane	**36%**	**23%**	**45%**	**23%**
A174	**25%**	**37%**	**40%**	**72%**
Guisborough Road	**8%**	**22%**	**4%**	**45%**
A1043	13%	17%	10%	18%
All Routes	**16%**	22%	18%	51%

Table 16: Change in Speeds (mph) across East/West Screen Line vs 2020 Do Min - AM

Route	2020 Do Minimum		Change			
			2035 Do Minimum		2035 Do Minimum + STRMP	
	EB Flow	WB Flow	EB Flow	WB Flow	EB Flow	WB Flow
Dockside Road	45	48	**-1**	**-2**	**-31**	**0**
A66	49	51	**-1**	**0**	**-13**	**-1**
Middlesbrough Road	30	29	0	0	0	0
Sotherby Road	30	30	0	0	0	0
Longlands Road	39	15	0	1	0	-2
Overdale Road	30	30	0	0	0	0
Ladgate Lane	25	25	**-12**	**-11**	**-13**	**-13**
A174	59	60	-2	-1	-4	-2
Guisborough Road	23	25	-2	0	-4	-2
A1043	46	39	**-6**	**-6**	**-12**	**-8**
Average	38	35	-2	-2	-8	-3

Table 17: Change in Speeds (mph) across East/West Screen Line vs 2020 Do Min - PM

Route	2020 Do Minimum		Change			
			2035 Do Minimum		2035 Do Minimum + STRMP	
	EB Flow	WB Flow	EB Flow	WB Flow	EB Flow	WB Flow
Dockside Road	43	48	**-4**	**0**	**-9**	**-12**
A66	47	52	-1	0	0	-2
Middlesbrough Road	30	29	0	0	0	0
Sotherby Road	30	30	0	0	0	0
Longlands Road	39	13	0	2	0	3
Overdale Road	30	29	0	-1	0	0
Ladgate Lane	23	25	**-10**	**-6**	**-11**	**-6**
A174	60	59	**-1**	**-2**	**-1**	**-8**
Guisborough Road	20	26	-1	-1	-1	-2
A1043	40	38	-5	-7	-4	-7
Average	36	35	-2	-1	-2	-3

Tees Crossing Screen Line

The Tees Crossing Screen Line covers the A19 and Newport Bridge Approach as shown in **Figure 6** and **Appendix B**.

A review of traffic flow changes across the Tees Crossing screen line show:

- The STRMP has a greater percentage impact on southbound flows in the AM peak and northbound flows in the PM peak. When including the STRMP jobs, both peak periods reveal total screen line flow in the region of 6,800 in 2035, as shown in **Table 19** and **Table 21**. This is an increase from 6,000 in 2020 without STRMP during the AM and 5650 during the PM;
- Difference in speeds between the Do Minimum and Do Minimum + STRMP scenarios are minimal as shown in **Figure 12**. Average speeds are significantly lower on the southbound and northbound carriageway in the AM and PM peaks respectively;
- **Figure 11** shows a slight easing in traffic flow growth on the A19 northbound in 2035 during the AM peak. This is offset by an increase in flows on the Newport Bridge Approach. A breakdown of individual link flows is given in **Appendix C**; and
- Model outputs for future PM peak scenarios exhibit similar trends to **Figure 11** and **Figure 12**.

Figure 11: A19 Change in Flow - AM

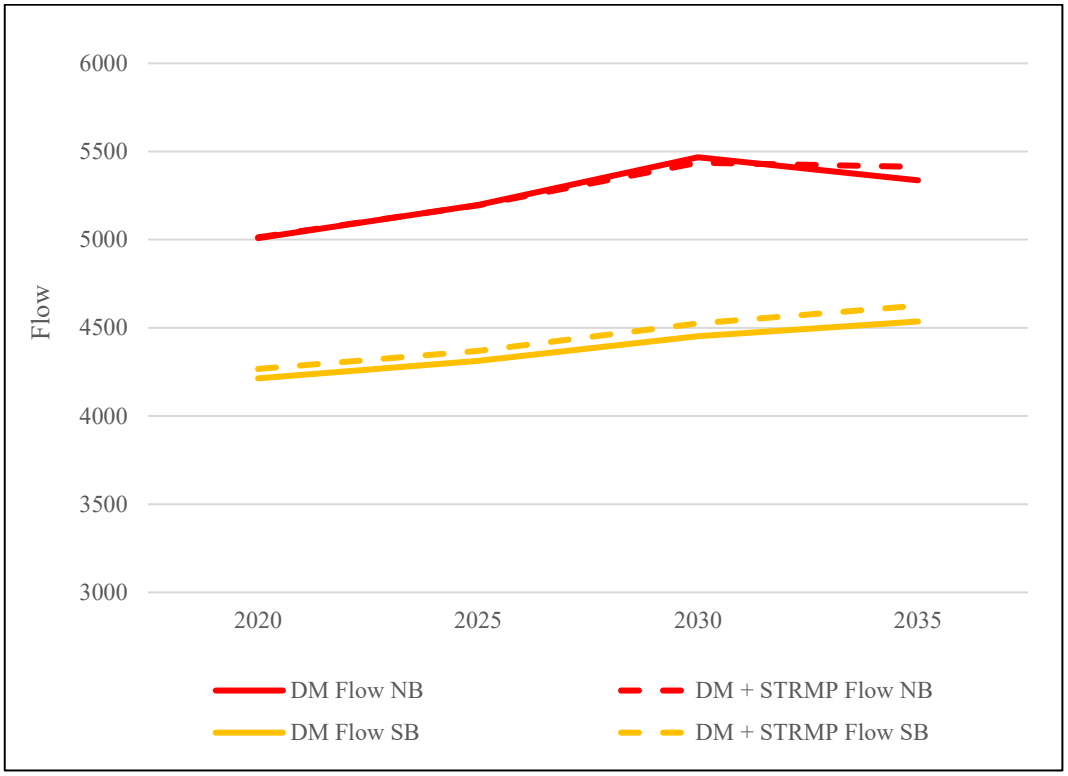


Figure 12: A19 Change in Speed - AM

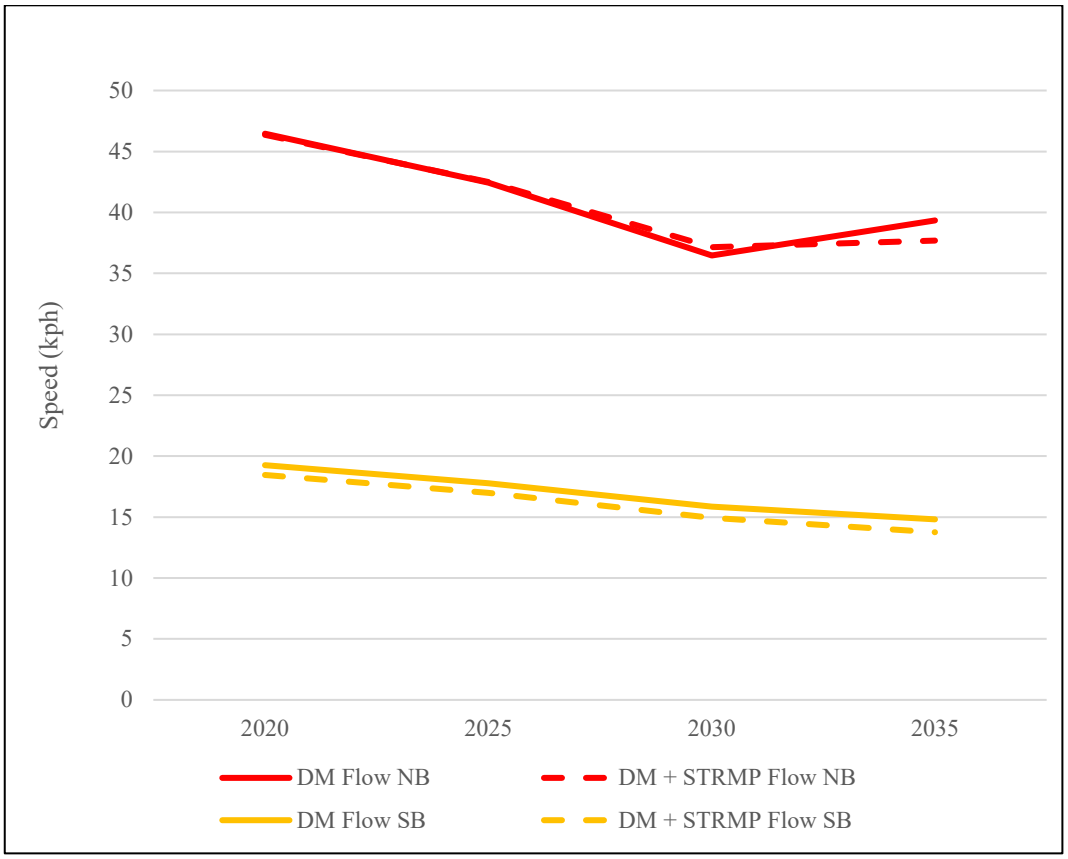


Table 18: Do Minimum Model - Summary of Screen Line Flows– AM Peak

Towards STRMP Development	2020 DM	2025 Do Minimum			2030 Do Minimum			2035 Do Minimum		
	Flow	Flow	Growth from 2020 DM		Flow	Growth from 2020 DM		Flow	Growth from 2020 DM	
			Actual	%		Actual	%		Actual	%
North – South Screen Line (NB)	11899	12786	887	**7%**	13550	1652	**14%**	14115	2216	**19%**
East - West Screen Line (EB)	5304	5923	619	**12%**	6358	1053	**20%**	6682	1377	**26%**
Tees Crossing Screen Line (SB)	5811	5961	150	**3%**	6213	402	**7%**	6375	565	**10%**
Away from STRMP Development										
North – South Screen Line (SB)	6970	7321	352	**5%**	7838	868	**12%**	8197	1227	**18%**
East - West Screen Line (WB)	6528	7046	518	**8%**	7537	1009	**15%**	7809	1281	**20%**
Tees Crossing Screen Line (NB)	5967	6227	260	**4%**	6580	613	**10%**	6671	704	**12%**

Table 19: Do Minimum + STRMP Model - Summary of Screen Line Flows – AM Peak

Towards STRMP	2020 DM	2020 Do Min + STRMP			2025 Do Min + STRMP			2030 Do Min + STRMP			2035 Do Min + STRMP		
	Flow	Flow	Growth - 2020 DM		Flow	Growth - 2020 DM		Flow	Growth - 2020 DM		Flow	Growth - 2020DM	
			Actual	%		Actual	%		Actual	%		Actual	%
North–South Screen Line (NB)	11899	12295	396	**3%**	13687	1789	**15%**	14930	3031	**25%**	15873	3975	**33%**
East - West Screen Line (EB)	5304	5897	592	**11%**	7079	1775	**33%**	8005	2701	**51%**	8737	3432	**65%**
Tees Crossing Screen Line (SB)	5811	5893	83	**1%**	6118	307	**5%**	6472	661	**11%**	6651	840	**14%**
Away from STRMP													
North – South Screen Line (SB)	6970	7011	41	**1%**	7439	469	**7%**	8088	1119	**16%**	8736	1766	**25%**
East - West Screen Line (WB)	6528	6624	95	**1%**	7259	731	**11%**	7799	1271	**19%**	8161	1633	**25%**
Tees Crossing Screen Line (NB)	5967	5954	-13	**0%**	6217	250	**4%**	6563	596	**10%**	6749	783	**13%**

Table 20: Do Minimum Model - Summary of Screen Line Flows – PM Peak

Towards STRMP Development	2020 DM	2025 Do Minimum			2030 Do Minimum			2035 Do Minimum		
	Flow	Flow	Growth from 2020 DM		Flow	Growth from 2020 DM		Flow	Growth from 2020 DM	
			Actual	%		Actual	%		Actual	%
North–South Screen Line (NB)	7952	8185	233	**3%**	8605	653	**8%**	8905	954	**12%**
East - West Screen Line (EB)	6642	7048	406	**6%**	7459	818	**12%**	7686	1044	**16%**
Tees Crossing Screen Line (SB)	5714	5893	179	**3%**	6168	454	**8%**	6271	557	**10%**
Away from STRMP Development										
North – South Screen Line (SB)	10863	11439	576	**5%**	11961	1098	**10%**	12322	1459	**13%**
East - West Screen Line (WB)	5851	6288	437	**7%**	6849	998	**17%**	7149	1298	**22%**
Tees Crossing Screen Line (NB)	5649	5826	177	**3%**	6258	609	**11%**	6406	757	**13%**

Table 21: Do Minimum + STRMP Model - Summary of Screen Line Flows – PM Peak

Towards STRMP	2020 DM	2020 Do Min + STRMP			2025 Do Min + STRMP			2030 Do Min + STRMP			2035 Do Min + STRMP		
	Flow	Flow	Growth - 2020 DM		Flow	Growth - 2020 DM		Flow	Growth - 2020 DM		Flow	Growth- 2020DM	
			Actual	%		Actual	%		Actual	%		Actual	%
North–South Screen Line (NB)	7952	8039	87	**1%**	8393	442	**6%**	8966	1014	**13%**	9426	1475	**19%**
East - West Screen Line (EB)	6642	6711	69	**1%**	7239	598	**9%**	7679	1037	**16%**	7864	1223	**18%**
Tees Crossing Screen Line (SB)	5714	5713	0	**0%**	5899	185	**3%**	6127	413	**7%**	6236	522	**9%**
Away from STRMP													
North – South Screen Line (SB)	10863	11176	313	**3%**	12043	1180	**11%**	12783	1920	**18%**	13417	2554	**24%**
East - West Screen Line (WB)	5851	6332	481	**8%**	7239	1388	**24%**	8210	2360	**40%**	8815	2964	**51%**
Tees Crossing Screen Line (NB)	5649	5755	106	**2%**	6026	378	**7%**	6559	911	**16%**	6810	1161	**21%**

Junction Screen Lines

Table 22 shows the change in approach speed (average across all approaches) at each junction in the 2035 Do Minimum and 2035 Do Minimum + STRMP compared with the 2020 Do Minimum. A column including 'Offset Impact' also indicates the effect of the masterplan in terms of years as a benchmark against the Do Minimum scenarios e.g. if the change in speed in the 2035 Do Minimum scenario was -5mph and the same in the 2030 Do Minimum + STRMP then the offset impact would be 5 years. Further details for each junction can be found in **Appendix C**.

Table 22:Change in Junction Approach Speed (mph) vs 2020 DM and STRMP Impact AM

Route	2020 Do Min	2035 Do Min	2035 Do Min+ STRMP	Change	Comparable Do Min Scenario	Offset Impact (Years)
Greystones Rbt	36	**-8**	**-14**	**-6**	**2025-30**	**5-10**
Swans Corner Rbt	33	**-5**	**-13**	**-8**	**2025-30**	**5-10**
A1053/A1085 Rbt	32	-1	-5	-4	2020-25	10-15
A19/A174 Parkway	34	-2	-3	-1	2030-35	0-5
A66/Cargo Fleet Lane	26	-1	-2	-1	2035	Negligible
Marton Rd/Ladgate Ln	11	0	0	0	2035	Negligible
Tees Dock Road Rbt	41	**-3**	**-13**	**-10**	**2020-25**	**10-15**
A1042/A174	31	-5	-4	+1	2035	Negligible
Cargo Fl. Ln/Ladgate Ln	18	-1	-2	-1	2025-30	5-10
Normanby Road/B1380	15	0	-2	-2	2020-25	10-15

Junctions which show the greatest difference between the two Do Minimum scenarios and the longest offset impacts in the AM peak include Tees Dock Road Roundabout, Swans Corner and Greystones Roundabout. Changes in junction speeds on individual approaches are given in **Appendix C**.

Table 23:Change in Junction Approach Speed (mph) vs 2020 DM and STRMP Impact PM

Route	2020 Do Min	2035 Do Min	2035 Do Min + STRMP	Change	Comparable Do Min Scenario	Offset Impact (Years)
Greystones Rbt	39	**-3**	**-11**	**-8**	**2025-30**	**5-10**
Swans Corner Rbt	31	-2	-2	0	2035	Negligible
A1053/A1085 Rbt	31	**-2**	**-9**	**-7**	**Before 2020**	**15+**
A19/A174 Parkway	32	-1	-1	0	2025-30	5-10
A66/Cargo Fleet Lane	25	**0**	**-5**	**-5**	**Before 2020**	**15+**
Marton Rd/Ladgate Ln	12	0	-1	-1	2030-35	0-5
Tees Dock Road Rbt	42	**-3**	**-10**	**-7**	**2020-25**	**10-15**
A1042/A174	25	-1	-3	-2	2025-30	5-10
Cargo Fl. Ln/Ladgate Ln	17	0	0	0	2035	Negligible
Normanby Road/B1380	14	0	-2	-2	2020-25	10-15

Junctions which show the greatest difference between the two Do Minimum scenarios and the longest offset impacts in the PM peak include Greystones Roundabout, A1053/A1085 Roundabout, A66/Cargo Fleet Lane and Tees Dock Road Roundabout.

When considering junction speeds in the AM peak, **Appendix C** shows that the following junction approaches experience a reduction in speed in excess of 10mph when comparing the Do Minimum and Do Minimum + STRMP scenarios:

- **Greystones** – A174 East (-17mph), A174 West (-22mph) and B1380/High Street (-16mph)
- **Swans Corner** – Middlesbrough Road (-26mph) and A1043 (-14mph)
- **A1053/A1085** – Broadway (-17mph)
- **A66/Cargo Fleet Lane** – A66 West (-10mph)
- **Tees Dock Road Roundabout** – A1053 (-19mph) and A66 (-17mph)
- **A1042/A174** – A174 East (-11mph)

When considering junction speeds in the PM peak, **Appendix C** shows that the following junction approaches experience a reduction in speed in excess of 10mph when comparing the Do Minimum and Do Minimum + STRMP scenarios:

- **Greystones** – A1053 (-16mph), A174 East (-11mph) and A174 West (-12mph)
- **A1053/A1085** – A1085 (-27mph) and A1053 (-12mph)
- **A66/Cargo Fleet Lane** – Works Road (-13mph)

- **Tees Dock Road Roundabout** – Tees Dock Road (-16mph)

Table 24 and **Table 25** show total junction traffic flow growth across all modelled years in both the Do Minimum and Do Minimum + STRMP scenarios. Percentage growth at Tees Dock Road Roundabout is the highest among any junction in both the AM and PM peak periods. In 2035 with the STRMP, an additional 1500 vehicles can be expected in both peaks compared with the 2020 Do Minimum, bringing total vehicle movements at the junction to over 4500.

Similarly, the A1053/A1085 junction experiences a significant increase in traffic flow due to its proximity to STRMP access locations. In 2035 with the STRMP, traffic at the junction rises to approximately 5500 vehicles in both the AM and PM peak whereas without the STRMP, traffic flows are just above 4500.

Traffic growth at Greystones between 2020 and 2035 is expected to be just over 30% in both peak periods when taking into account STRMP jobs. This results in a junction flow of 6800 and 6600 in the AM and PM peaks respectively. Without the STRMP, growth is expected to be 17% which results in junction flows just above 6000 in the AM peak and approximately 5800 during the PM peak.

Table 24: Junction Approach Flows for Do Minimum and Do Minimum + STRMP Development - AM

Jn No.	Towards STRMP Development	2020	2020			2025			2030			2035		
		Flow	Flow	Growth (2020 DM)		Flow	Growth (2020 DM)		Flow	Growth (2020 DM)		Flow	Growth (2020 DM)	
				Actual	%		Actual	%		Actual	%		Actual	%
1	Greystones	5156	NA			5340	183	**4%**	5830	673	**13%**	6055	899	**17%**
	(+ STRMP Development)		5379	223	**4%**	5725	568	**11%**	6409	1252	**24%**	6832	1675	**32%**
2	Swans Corner	3169	NA			3373	204	**6%**	3609	440	**14%**	3795	626	**20%**
	(+ STRMP Development)		3244	75	**2%**	3502	334	**11%**	3908	739	**23%**	4218	1049	**33%**
3	A1053/A1085	3938	NA			4055	117	**3%**	4364	426	**11%**	4571	633	**16%**
	(+ STRMP Development)		4395	457	**12%**	4919	981	**25%**	5275	1336	**34%**	5494	1556	**40%**
4	A19/A174 Parkway	6989	NA			6921	-68	**-1%**	7389	400	**6%**	7587	598	**9%**
	(+ STRMP Development)		7082	93	**1%**	7064	75	**1%**	7502	513	**7%**	7818	829	**12%**
5	A66/Cargo Fleet Lane	5169	NA			5033	-136	**-3%**	5220	51	**1%**	5405	236	**5%**
	(+ STRMP Development)		5439	270	**5%**	5465	296	**6%**	5739	570	**11%**	6015	846	**16%**
6	Marton Rd/Ladgate Ln	2949	NA			2878	-71	**-2%**	2976	27	**1%**	3073	124	**4%**
	(+ STRMP Development)		2977	28	**1%**	2954	5	**0%**	3063	114	**4%**	3183	234	**8%**
7	Tees Dock Road Rbt	2939	NA			2991	52	**2%**	3180	241	**8%**	3297	357	**12%**
	(+ STRMP Development)		3365	426	**14%**	3827	887	**30%**	4289	1350	**46%**	4537	1598	**54%**
8	A1042/A174	4565	NA			4729	163	**4%**	5053	488	**11%**	5239	674	**15%**
	(+ STRMP Development)		4728	163	**4%**	5036	470	**10%**	5737	1172	**26%**	6150	1585	**35%**
9	Cargo Fl. Ln/Ladgate Ln	3041	NA			3141	100	**3%**	3240	199	**7%**	3365	324	**11%**
	(+ STRMP Development)		3079	38	**1%**	3219	178	**6%**	3393	352	**12%**	3629	588	**19%**
10	Normanby Road/B1380	1368	NA			1336	-32	**-2%**	1413	45	**3%**	1494	126	**9%**
	(+ STRMP Development)		1432	64	**5%**	1518	150	**11%**	1641	273	**20%**	1864	496	**36%**

Table 25: Junction Approach Flows for Do Minimum and Do Minimum + STRMP Development - PM

Jn No.	Towards STRMP Development	2020	2020			2025			2030			2035		
		Flow	Flow	Growth (2020 DM)		Flow	Growth (2020 DM)		Flow	Growth (2020 DM)		Flow	Growth (2020 DM)	
				Actual	%		Actual	%		Actual	%		Actual	%
1	Greystones	4920	NA			5016	96	2%	5561	642	13%	5776	856	17%
	(+ STRMP Development)		5086	167	3%	5437	518	11%	6278	1359	28%	6606	1686	34%
2	Swans Corner	3325	NA			3433	108	3%	3585	260	8%	3673	348	10%
	(+ STRMP Development)		3341	16	0%	3469	144	4%	3622	296	9%	3621	296	9%
3	A1053/A1085	3967	NA			4111	144	4%	4456	489	12%	4604	637	16%
	(+ STRMP Development)		4316	348	9%	4683	715	18%	5191	1224	31%	5380	1413	36%
4	A19/A174 Parkway	7063	NA			6877	-186	-3%	7448	385	5%	7619	556	8%
	(+ STRMP Development)		7137	73	1%	7020	-43	-1%	7712	649	9%	7953	890	13%
5	A66/Cargo Fleet Lane	4882	NA			4682	-200	-4%	4824	-58	-1%	4940	59	1%
	(+ STRMP Development)		5188	307	6%	5316	434	9%	5635	753	15%	5906	1025	21%
6	Marton Rd/Ladgate Ln	2717	NA			2616	-101	-4%	2620	-96	-4%	2678	-38	-1%
	(+ STRMP Development)		2738	21	1%	2644	-73	-3%	2678	-39	-1%	2767	51	2%
7	Tees Dock Road Rbt	2890	NA			2991	101	3%	3207	317	11%	3303	413	14%
	(+ STRMP Development)		3273	383	13%	3733	843	29%	4154	1264	44%	4427	1537	53%
8	A1042/A174	4295	NA			4384	89	2%	4680	385	9%	4832	537	12%
	(+ STRMP Development)		4406	111	3%	4757	462	11%	5257	962	22%	5491	1196	28%
9	Cargo Fl. Ln/Ladgate Ln	3100	NA			3152	51	2%	3137	37	1%	3177	77	2%
	(+ STRMP Development)		3129	29	1%	3178	78	3%	3205	105	3%	3328	227	7%
10	Normanby Road/B1380	1590	NA			1547	-44	-3%	1492	-98	-6%	1543	-47	-3%
	(+ STRMP Development)		1667	77	5%	1688	97	6%	1674	83	5%	1800	210	13%

4.3 Network Link Plots

Appendices D to G contains plots showing the change in traffic flow, link volume/capacity, time delay and actual speed as a proportion of free flow speed for each of the future years compared with the base. The thickness of each line represents the level of change. The findings show:

- The 2020 AM peak base flow shows a high volume of traffic on the arterial routes around Middlesbrough including the A66, the A1053, the A174 and the A19. High flows are also recorded on the A174 to and from Redcar Lane and the A171 from Guisborough. The addition of STRMP trips increases volumes further on these links, particularly during later model years;
- Flows exceed 1,800 vehicles on almost all sections of the A19 and A66 west of the Major Gateway (northern STRMP access) with the STRMP;
- The addition of committed infrastructure (Stainton Way Western Extension, and Longlands to Ladgate Lane Link Road) provides relief for other north-south routes such as Marton Road and Ormesby Road with a significant proportion of traffic redistributing onto the new links;
- The introduction of the Longlands to Ladgate Lane Link Road in 2025 attracts increased traffic onto Ladgate Lane which shows high link volume/capacity percentages between its junction with Marton Road and Cargo Fleet Lane;
- Time delay exceeds three minutes in a number of locations during the 2035 Do Minimum + STRMP AM peak including; Longlands Road, Middlesbrough Road, A174 approach to Greystones, A1085 eastbound approach to the STRMP Major Gateway and the Kirkleatham Lane/A1085 junction; and
- Locations which show time delays in excess of three minutes during the 2035 Do Minimum + STRMP PM peak include Dockside Road, Middlesbrough Road, A1053/A1085 junction and the A174 eastbound on the approach to its junction with the A1042.

4.4 Journey Time Changes

Further analysis has been undertaken to establish the likely impact on journey times along two main east/west corridors as a result of the STRMP. Journey times for the following routes (both eastbound and westbound) have been extracted from the TVM outputs:

- The A66 between its junction with the A19 in the west and A1053/A1085 Roundabout in the east;
- The A174 between its junction with the A19 in the west and Greystones Roundabout in the east.

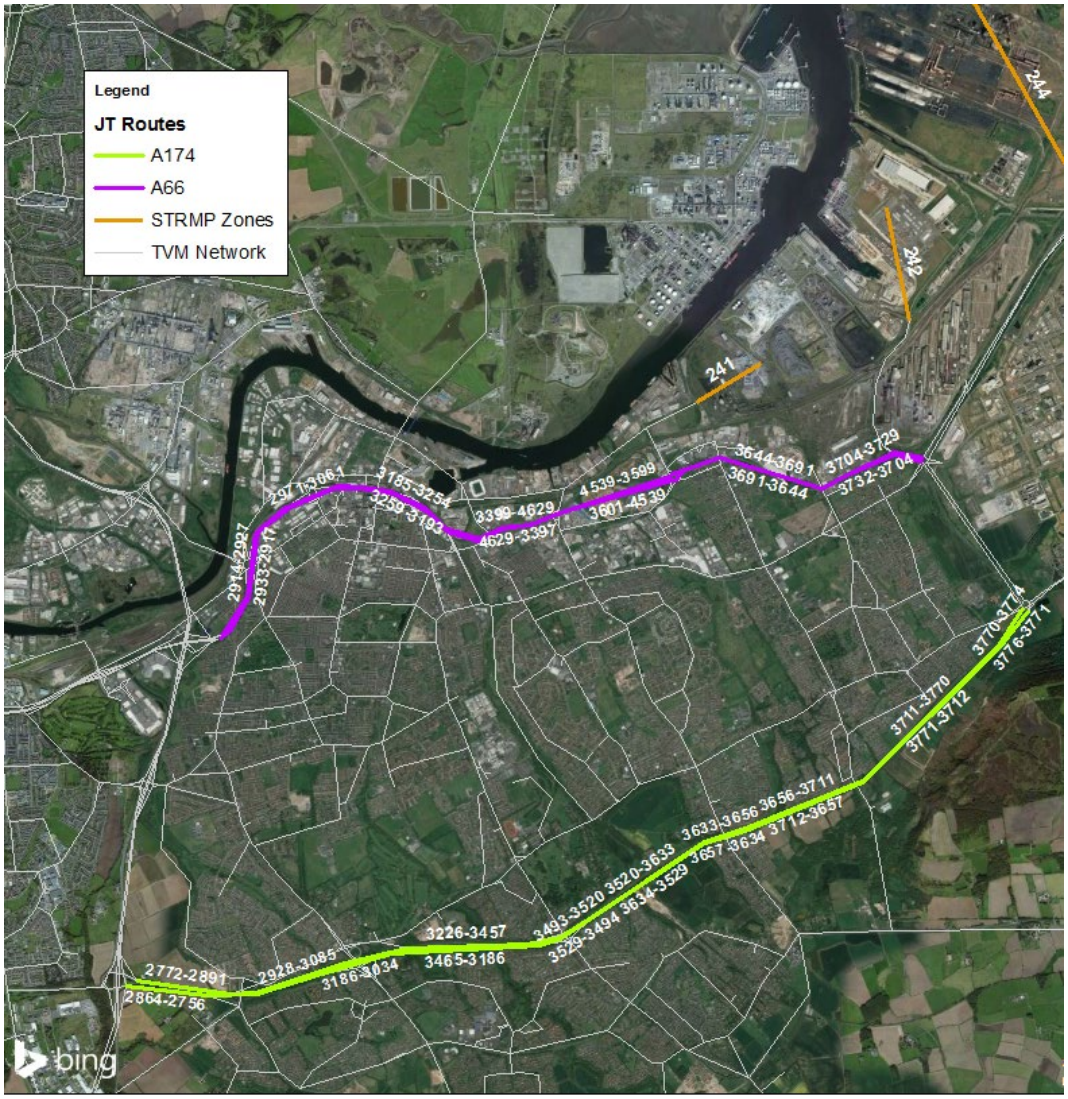
Figure 13 shows the extent of the journey time routes along with the location of the three STRMP access points. Both routes provide an important link between the proposed STRMP site and the A19 through Middlesbrough. These also

include a number of junctions which have been assessed separately within this report.

Table 26 and **Table 27** show the change in journey times across both the Do Minimum and Do Minimum + STRMP scenarios.

A small reduction in journey time can be seen along the A174 (westbound) during the AM peak in both 2025 scenarios. This is likely to be a result of the Stainton Way Western Extension which provides a link between the A174 and the A19 Mandale Interchange from 2025, allowing traffic to join further north along the A19 and bypass the A19/A174 junction. Most other scenarios show modest journey time increases between the modelled years for the A174 which suggests the route can cope with the additional traffic created by the STRMP. Despite this, there is an increase in journey time of over three and four minutes on the A174 (eastbound) for both 2030 and 2035 Do Minimum + STRMP scenarios respectively. Almost all of the additional journey time is caused by the approach to Greystones Roundabout. **Appendix H** provides further information on journey times including a breakdown of times on individual links for each route.

Figure 13: Journey Time Routes – A66 and A174



Journey times increase significantly on the A66 during the AM (eastbound) in both the 2030 (+03:37) and 2035 Do Minimum + STRMP (+05:12) scenarios. This is largely due to congestion between the A19 and Marton Road Junction as well as the approach to the junction with Cargo Fleet Lane. **Appendix H** shows the breakdown of journey times across individual links on the A66. It is likely that a large proportion of people commuting to the site would use this route during the morning peak, with the westbound carriageway similarly affected during the PM peak. Model outputs for the same scenarios show an increase in journey times for westbound traffic during the PM peak (+02:19 and +03:15) although changes shown are not as significant compared with the eastbound carriageway during the AM peak. Part of this increase (approximately 30 seconds) occurs on the approach to the Cargo Fleet Lane junction with most of the remaining increase in journey time happening between the Marton Road junction and the A19.

Table 26: Journey Time Changes from 2020 Do Minimum - AM

Jn No.	Towards STRMP Development	2020	2020		2025		2030		2035	
		JT	JT	Change (2020 DM)	JT	Change (2020 DM)	JT	Change (2020 DM)	JT	Change (2020 DM)
1	A66 EB	10:49	NA		11:10	00:21	11:46	00:57	12:27	01:37
	(+ STRMP Development)		11:28	00:38	12:53	02:04	14:26	03:37	16:02	05:12
2	A66 WB	09:56	NA		10:13	00:17	10:57	01:01	11:32	01:36
	(+ STRMP Development)		10:13	00:17	10:36	00:40	11:31	01:34	12:21	02:24
3	A174 EB	07:36	NA		07:43	00:07	08:22	00:45	08:51	01:15
	(+ STRMP Development)		07:51	00:14	08:28	00:52	10:43	03:06	12:00	04:23
4	A174 WB	07:54	NA		07:44	-00:10	08:05	00:11	08:20	00:26
	(+ STRMP Development)		07:57	00:03	07:49	-00:05	08:17	00:23	08:45	00:51

Table 27: Journey Time Changes from 2020 Do Minimum - PM

Jn No.	Towards STRMP Development	2020	2020		2025		2030		2035	
		JT	JT	Change (2020 DM)	JT	Change (2020 DM)	JT	Change (2020 DM)	JT	Change (2020 DM)
1	A66 EB	09:56	NA		09:55	-00:01	10:39	00:43	10:57	01:01
	(+ STRMP Development)		10:06	00:11	10:20	00:25	11:03	01:07	11:36	01:40
2	A66 WB	10:14	NA		10:30	00:17	11:07	00:54	11:21	01:07
	(+ STRMP Development)		10:51	00:37	11:33	01:19	12:33	02:19	13:28	03:15
3	A174 EB	07:33	NA		07:33	00:00	07:46	00:13	07:51	00:18
	(+ STRMP Development)		07:34	00:01	07:35	00:02	07:58	00:25	08:17	00:44
4	A174 WB	07:42	NA		07:43	00:01	08:06	00:24	08:11	00:28
	(+ STRMP Development)		07:48	00:06	07:56	00:14	08:32	00:50	08:57	01:15

4.5 Vehicle Kilometres Travelled

Table 28 and **Table 29** provide a summary of the change in vehicle kilometres, vehicle hours and average speeds across the road network in Middlesbrough and Redcar and Cleveland for each of the scenarios in both the AM and PM peak. In all cases, the 2020 Do Minimum scenario (with committed infrastructure but without trips associated with the proposed STRMP development) is used as a reference for other future years. **Table 28** compares all future Do Minimum scenarios for the road network in Middlesbrough.

Table 28: Middlesbrough Model Summary Statistics Do Minimum without STRMP

Scenario	AM			PM		
	Vehicle KM	Total Vehicle Hours	Average Speed (kph)	Vehicle KM	Total Vehicle Hours	Average Speed (kph)
2020 Do Min (Ref)	198,831	4,571	43.5	201,849	4,691	43.0
2025 Do Min	210,178	4,860	43.2	210,961	4,950	42.6
Difference from Ref	6%	6%	-1%	5%	6%	-1%
2030 Do Min	224,721	5,377	41.8	224,787	5,364	41.9
Difference from Ref	13%	18%	-4%	11%	14%	-3%
2035 Do Min	234,176	5,846	40.1	232,276	5,668	41.0
Difference from Ref	18%	28%	-8%	15%	21%	-5%

Table 29 compares all future Do Minimum + STRMP scenarios with the 2020 Do Minimum for the road network in Middlesbrough.

Table 29: Middlesbrough Model Summary Statistics Do Minimum with STRMP

Scenario	AM			PM		
	Vehicle KM	Total Vehicle Hours	Average Speed (kph)	Vehicle KM	Total Vehicle Hours	Average Speed (kph)
2020 Do Min + CI (Ref)	198,831	4,571	43.5	201,849	4,691	43.0
2020 Do Min + STRMP	202,090	4,724	42.8	204,628	4,816	42.5
Difference from Ref	2%	3%	-2%	1%	3%	-1%
2025 Do Min + STRMP	216,738	5,206	41.6	216,643	5,207	41.6
Difference from Ref	9%	14%	-4%	7%	11%	-3%
2030 Do Min + STRMP	234,499	5,993	39.1	232,535	5,718	40.7
Difference from Ref	18%	31%	-10%	15%	22%	-5%
2035 Do Min + STRMP	247,299	6,762	36.6	242,396	6,199	39.1
Difference from Ref	24%	48%	-16%	20%	32%	-9%

The results in **Table 28** and **Table 29** show that by 2035 in Middlesbrough, there would be an 18% increase and 15% increase in vehicle kilometres travelled in the

AM and PM peaks respectively without the STRMP development. Speeds would also decrease by between 8% and 5% over the same period. However, when taking into account jobs associated with the STRMP, the change is more significant across all statistics. The change in vehicle kilometres travelled increases to 24% and 20% respectively for the AM and PM peaks whilst speeds decrease by 16% and 9% over the same period. The effect of the masterplan appears to show that in 2030, assuming the level of jobs outlined in **Section 2** are created, the road network in Middlesbrough performs similar, if not slightly worse than the 2035 Do Minimum scenario where the development is not included. e.g. in 2035 the Do Minimum scenario results in an average vehicle speed of 40.1kph in the AM peak. In comparison, five years earlier (2030) the average speed in the Do Minimum + STRMP Development scenario is 39.1kph and decreases further to 36.6kph by 2035.

Table 30 compares all future Do Minimum scenarios for the road network in Redcar and Cleveland.

Table 30: Redcar and Cleveland – Model Summary Statistics Do Minimum without STRMP

Scenario	AM			PM		
	Vehicle KM	Total Vehicle Hours	Average Speed (kph)	Vehicle KM	Total Vehicle Hours	Average Speed (kph)
2020 Do Min (Ref)	181,656	3,165	57.4	190,214	3,413	55.7
2025 Do Min	189,959	3,374	56.3	196,598	3,589	54.8
Difference from Ref	5%	7%	-2%	3%	5%	-2%
2030 Do Min	204,958	3,722	55.1	212,521	3,930	54.1
Difference from Ref	13%	18%	-4%	12%	15%	-3%
2035 Do Min	214,184	4,018	53.3	220,427	4,163	53.0
Difference from Ref	18%	27%	-7%	16%	22%	-5%

Table 31 compares all future Do Minimum + STRMP scenarios with the 2020 Do Minimum for the road network in Redcar and Cleveland.

Table 31: Redcar and Cleveland – Model Summary Statistics Do Minimum with STRMP

Scenario	AM			PM		
	Vehicle KM	Total Vehicle Hours	Average Speed (kph)	Vehicle KM	Total Vehicle Hours	Average Speed (kph)
2020 Do Min (Ref)	181,656	3,165	57.4	190,214	3,413	55.7
2020 Do Min + STRMP	190,646	3,372	56.5	198,163	3,601	55.0
Difference from Ref	5%	7%	-1%	4%	6%	-1%
2025 Do Min + STRMP	207,722	3,855	53.9	212,307	4,027	52.7
Difference from Ref	14%	22%	-6%	12%	18%	-5%
2030 Do Min + STRMP	230,220	4,674	49.3	235,195	4,943	47.6
Difference from Ref	27%	48%	-14%	24%	45%	-15%
2035 Do Min + STRMP	245,978	5,523	44.5	248,255	6,003	41.4
Difference from Ref	35%	74%	-22%	31%	76%	-26%

The results in **Table 30** and **Table 31** for Redcar and Cleveland show that by 2035, without the planned STRMP, there would be very similar changes in vehicle kilometres, vehicle hours and average speeds compared with Middlesbrough.

The effect of the STRMP development is more significant for the road network in Redcar and Cleveland. By 2035 the increase in vehicle kilometres is 35% and 31% for AM and PM peaks respectively. In comparison, for the same year, the effect on vehicle kilometres in Middlesbrough is an increase of 24% and 20%. Increases in total vehicle hours during 2035 are even higher at approximately 75% for Redcar and Cleveland in both the AM and PM peaks.

Average speeds also show a similar trend decreasing by 22% and 26% in Redcar and Cleveland and only 16% and 9% in Middlesbrough during the AM and PM peaks respectively. However, it should be noted that average speeds remain significantly greater in Redcar and Cleveland, despite the greater percentage decreases e.g. average speeds in the 2035 Do Minimum + STRMP AM scenario are 36.6kph in Middlesbrough and 44.5kph in Redcar and Cleveland. **Appendix I** gives a full breakdown of summary statistics for Middlesbrough, Redcar and Cleveland and all other areas included within the TVM.

5 Public Transport Scenario Appraisal

Bus service improvements have been tested using the TVM Cube model. Two new scenarios have been developed and tested which include a number of bus service improvements across the study. A spreadsheet model has been used to assess the impact of a proposed new rail station in Nunthorpe.

5.1 Bus Service Improvements

Figure 14 shows the bus routes which have either been changed or added onto the network in the TVM as part of the proposed bus service improvements.

Figure 14: Hourly Bus Service Improvements – TVM Network

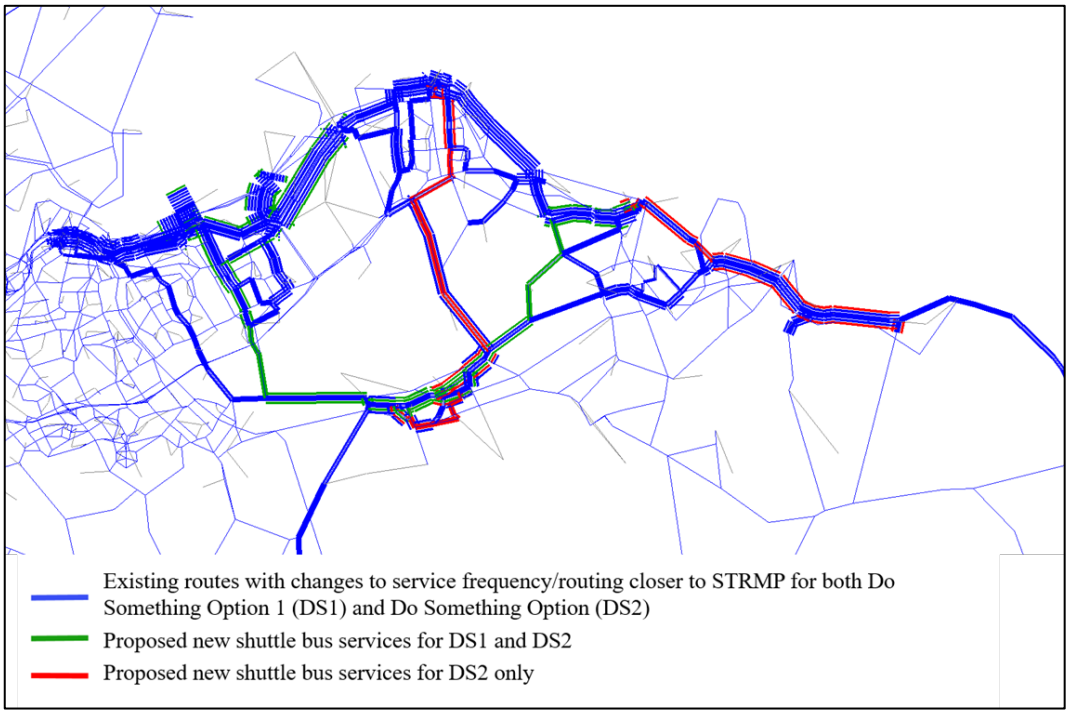


Table 32 provides a summary of the bus service improvements as previously agreed with Middlesbrough and Redcar and Cleveland Council.

Table 32: Summary of Bus Service Improvements

	Service	Route	Change in Frequency	Bus route adjusted to go via STRMP Zone		
				241 New Gateway (South Access)	242 Enhanced Gateway (Central Access)	244 Major Gateway (Northern Access)
DS1 & DS2	X4	Middlesbrough to Whitby	2/hr to 4/hr	✓	✓	✓
	64	Middlesbrough to Eston	NA	✓	✓	✓
	64A	Middlesbrough to Eston	NA	✓	×	×
	X3A	Middlesbrough to Skelton	1/hr to 2/hr	×	×	×
	5	Middlesbrough to Easington	1/hr to 2/hr	×	×	×
	81	Marske to Stokesley	1/hr to 2/hr	×	×	×
	New Shuttle 1	Guisborough to Saltburn	1/hr	×	×	×
	New Shuttle 2	Guisborough to STRMP	1/hr	✓	✓	✓
DS2	New Shuttle 3	Guisborough to Redcar	1/hr	×	×	×
	New Shuttle 4	Saltburn to Easington	1/hr	×	×	×

Figure 15 shows inbound and outbound flow across all three STRMP model zones during the AM peak.

Figure 15: Inbound/Outbound Flow for STRMP - AM

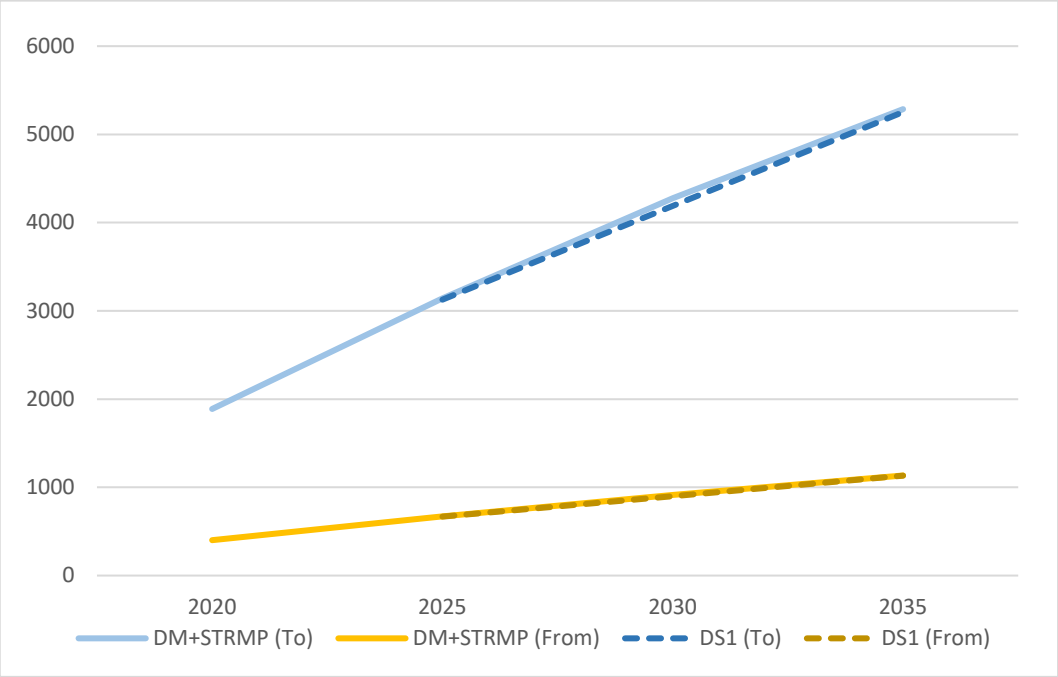
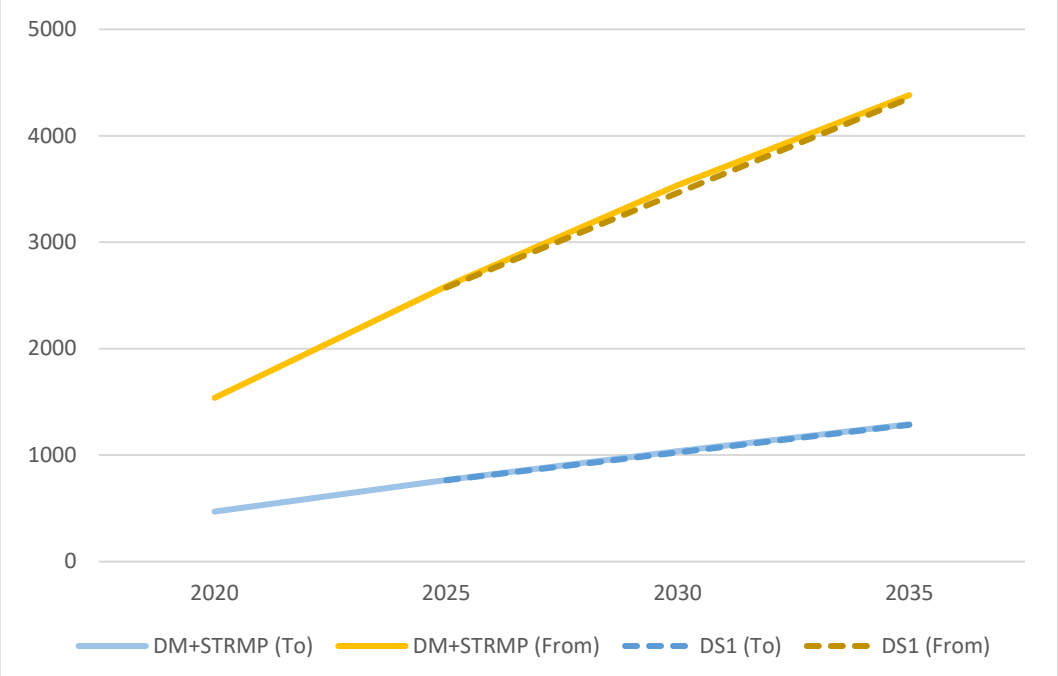


Figure 16Table 17 shows inbound and outbound flow across all three STRMP model zones during the PM peak.

Figure 16: Inbound/Outbound Flow for STRMP - PM



The data presented in the graphs above indicate that traffic flows are relatively unaffected by the alterations to the bus services in the future years tested (2025 and 2035).

Table 33 shows the impact of the agreed bus service improvements on junction approach speeds. The changes shown are relative to the 2020 Do Minimum scenario. It can be seen that on most of the routes the speeds reduce, as traffic flow increases, and the bus service changes have minimal effect on the expected level of speed reduction.

Table 33: Change in Junction Approach Speed (mph) vs 2020 DM and Impact of Bus Service Improvements - AM

Route	2025 Do Min+ STRMP	2025 DS1	2025 DS2	2035 Do min+ STRMP	2035 DS1	2035 DS2
Greystones Rbt	-5	-5	-5	-14	-14	-14
Swans Corner Rbt	-2	-2	-2	-13	-13	-13
A1053/A1085 Rbt	-2	-2	-2	-5	-5	-5
A19/A174 Parkway	1	1	1	-3	-3	-3
A66/Cargo Fleet Lane	-1	-1	-1	-2	-2	-2
Marton Rd/Ladgate Ln	1	1	1	0	0	0
Tees Dock Road Rbt	-6	-6	-6	-13	-13	-13
A1042/A174	-2	-2	-2	-4	-4	-4
Cargo Fl. Ln/Ladgate Ln	0	0	0	-2	-2	-2
Normanby Road/B1380	-1	-1	-1	-2	-2	-2

Table 34 shows journey time changes on the A174 (eastbound) during the AM peak. Journey times on other routes are provided in full in **Appendix H**. All other routes show a similar trend with very little difference between the Do Minimum + STRMP and Do Something bus options.

Table 34: Journey Time Changes from 2020 Do Minimum

Jn No.	Towards STRMP Development	2020	2025		2035	
		JT	JT	Change (2020 DM)	JT	Change (2020 DM)
A174 EB (AM)	DM	07:36	07:43	00:07	08:51	01:15
	DM + STRMP Development		08:28	00:52	12:00	04:23
	DS1 + STRMP Development		08:29	00:53	11:56	04:20
	DS2 + STRMP Development		08:28	00:52	11:56	04:20

5.2 Nunthorpe Parkway

The Nunthorpe Parkway scheme proposes a new parkway station built around 500 metres south-east of the existing Nunthorpe Station adjacent to the A1043. This would allow parking to be provided at the site. Modelling has been undertaken to examine the potential demand for park and ride trips using the new station.

A logit model was developed in Excel to examine likely interception rates for the new park and ride station. This examined the probability of people diverting from

making a full end-to-end car journey into Middlesbrough town centre, to instead park at the station and continue their journey by rail. This was based on the generalised journey cost (time and monetary costs) of both options (rail and car) and the existing number of in-scope drive to work trips informed by the 2011 Census, uplifted to an assumed opening year of 2022. All those currently travelling from within Middlesbrough, Redcar and Cleveland and relevant zones from North Yorkshire were considered as potential trips. Only one destination, Middlesbrough town centre, was considered as part of the modelling.

The generalised cost includes the following areas of cost for car journeys:

- In car time – informed by Google historic journey time data;
- Car operating costs – calculated using WebTAG methodology; and
- Parking costs – these were calculated based on the cost of all-day parking in Middlesbrough town centre and an average of £1.30 applied.

The generalised cost for rail includes:

- Rail fare – as per existing fares from Nunthorpe to Middlesbrough Station;
- On train time - as per existing journey time from Nunthorpe to Middlesbrough Station;
- In-car time to access the P&R – informed by Google historic journey time data;
- Car operating costs to access P&R – calculated using the WebTAG methodology;
- Transfer time from car to train – this is assumed to be 5 minutes;
- Walk time from the station to the destination – this is assumed to be 10 minutes;
- Service Frequency Penalty – this based on PDFH values for non-London urban trips. The existing hourly service frequency has been assumed; and
- Park and Ride parking cost at Nunthorpe – this is assumed to be £1 per day.

As per WebTAG guidance, walk and wait times are double weighted when calculating the generalised cost.

Based on the parameters listed above, the forecasting model indicates around 45,000 one-way trips per year would use the park and ride site, this is around a 30% uplift on the existing demand at Nunthorpe Station. This would attract about 31,000 car trips per year or approximately 123 trips per day (based on 253 weekdays per year). If the train service frequency was increased to half-hourly the number of annual trips would increase to 51,106 per year / 202 per day.

This indicates that the park and ride site could be viable and would remove some trips off the routes into Middlesbrough centre on a weekday morning and evening peak.

6 Conclusions and Next Steps

This stage of the Transport Needs Assessment Study has reviewed the existing highway network in the Tees Valley Model and provided details on how the highway network is expected to perform in future years, with and without the addition of trips associated with the STRMP. The key findings from this stage of the study are:

- Ladgate Lane suffers increased congestion as a result of introducing the Longlands to Ladgate Lane Link in 2025. Whilst the link provides relief for other north-south routes, it attracts a significant amount of traffic onto Ladgate Lane;
- Combined traffic flow growth on the east-west screen line is highest in almost all modelled years, particularly during the AM peak;
- Junctions experiencing the greatest impacts across Middlesbrough and Redcar and Cleveland include Greystones Roundabout, A1053/A1085 Roundabout, Tees Dock Roundabout and Swans Corner Roundabout (including Middlesbrough/Flatts Lane);
- Other areas of the road network experiencing delay and reduced speeds include links near to the three site access points including Dockside Road, the Major Gateway Junction (northern access) and the Kirkleatham Lane/A1085 junction;
- Journey times on the A66 increase in future years as a result of congestion between Marton Road and the A19 with some delay experienced on the approach to the A66/Cargo Fleet Lane junction;
- Journey times on the A174 eastbound are significantly affected by congestion on the approach to Greystones Roundabout with some lesser impacts for westbound traffic in the PM peak on the approach to the A19/A174 junction;
- Network statistics show that changes in vehicle kilometres, vehicle hours and average speeds is greatest in Redcar and Cleveland as a result of the STRMP;
- The model outputs indicate that increases to bus service frequencies or the introduction of shuttle bus services to the STRMP would have negligible effect on traffic conditions if introduced without additional measures to prioritise bus travel; and
- Initial outputs from a demand forecasting model indicate that Nunthorpe Parkway station would attract some car drivers onto the rail network based on the generalised cost of car versus rail travel.

Following a presentation of the modelling outputs and findings to MC and RCBC on 14th August 2018 it was agreed that the following interventions should be investigated.

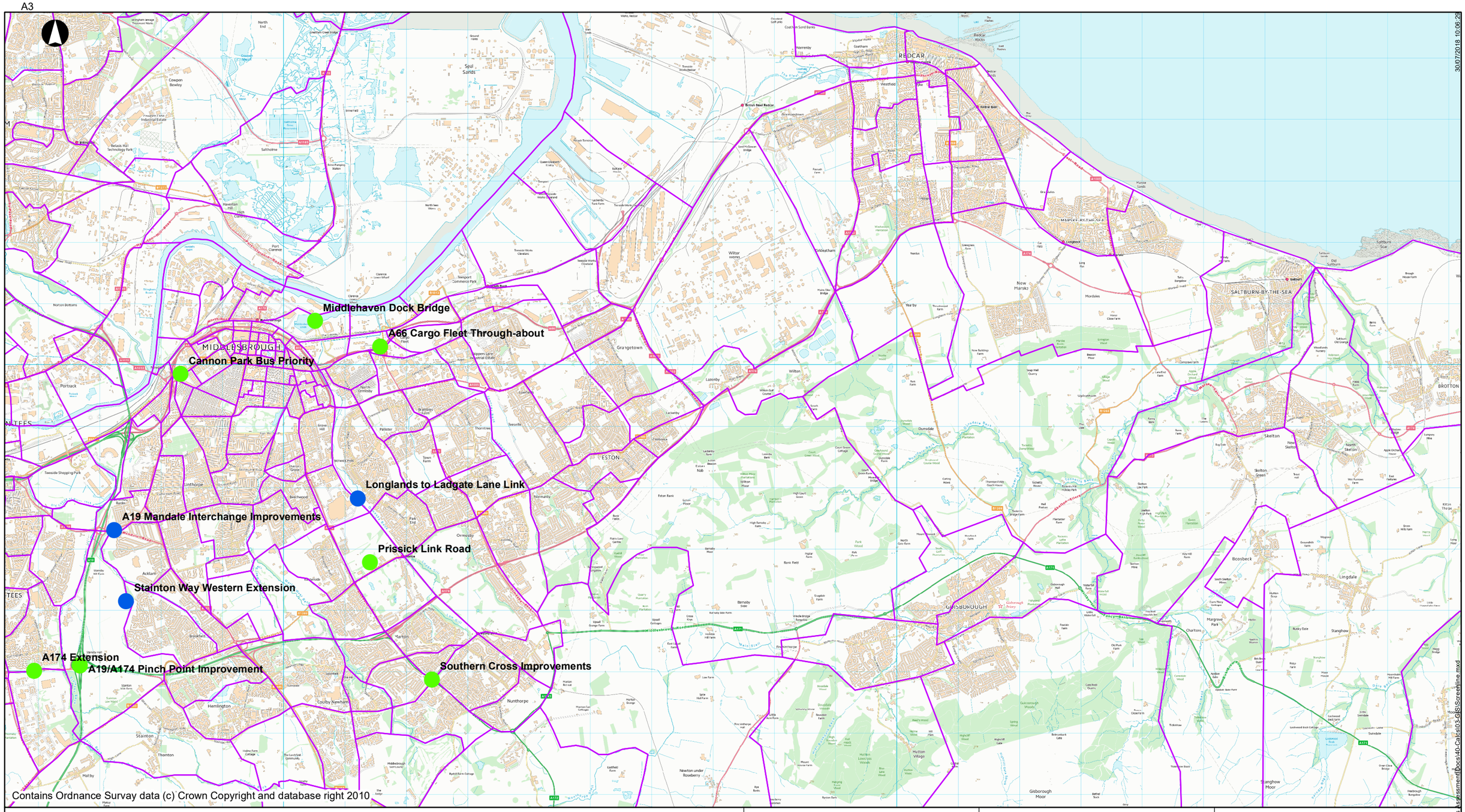
- Junction improvements at:
  - Greystones Roundabout;
  - A1053/A1085 Roundabout;
  - Tees Dock Roundabout; and

  - A171 Swans Corner.
- Eastern Tees Crossing to relieve the A66; and
- South facing A19 sliproads at Low Lane to relieve longer term impacts on A19 / A174 Interchange.

Appendix A

Committed Infrastructure Map

A3



Legend

First Year Introduced - Modelled Year

- 2020
- 2025
- Tees Valley Model (TVM) Zones

Client

Middlesbrough and Redcar & Cleveland Councils

Metres

0 750 1,500 3,000

Issue	Date	By	Chkd	Appd
P0	2018-07-27	AY	MS	SW

Job Title

Joint Strategic Transport Needs Assessment

Drawing Title

Committed Infrastructure

ARUP
Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Scale at A3

1:60,000

Drawing Status

Preliminary

Job No	Drawing No	Issue
249510-08	001	P0

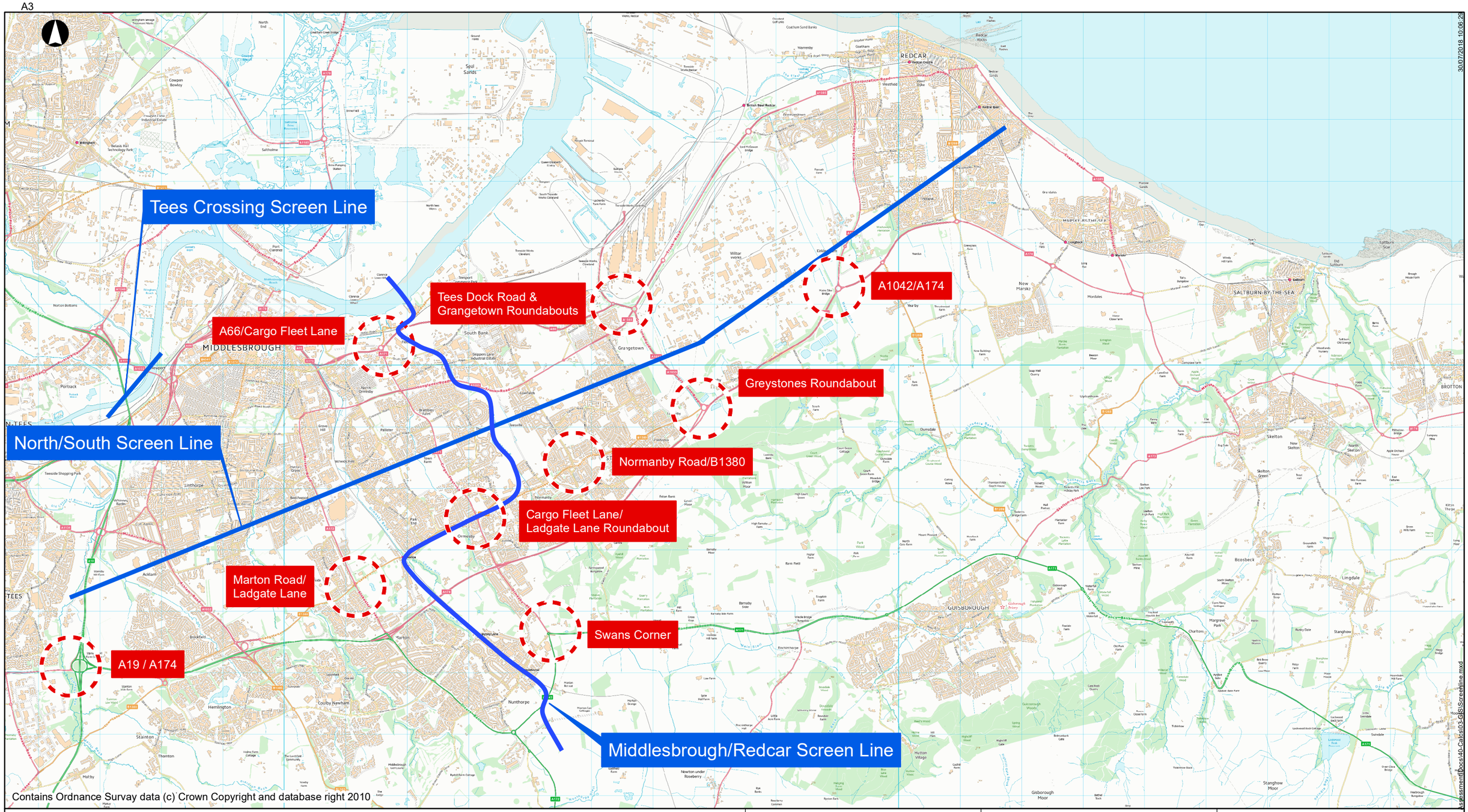
30/07/2018 10:06:25

\\global\europe\Newcastle\Jobs\249000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\Screenline.mxd

Appendix B

Screen Lines

A3



30/07/2018 10:06:25

Client
Middlesbrough and Redcar & Cleveland Councils

Metres
0 750 1,500 3,000

Issue	Date	By	Chkd	Appd
P0	2018-07-27	AY	MS	SW

Job Title
Joint Strategic Transport Needs Assessment

Drawing Title
Screen Line Analysis

ARUP
Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Scale at A3
1:60,000

Drawing Status
Preliminary

Job No	Drawing No	Issue
249510-08	001	P0

\\global\europe\Newcastle\Jobs\249000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\Screenline.mxd

Template A3: Version 2

Appendix C

Screen Line Data

Screen Line Data - Change In AM Traffic Flow - Do Minimum and Do Minimum + STRMP

AM					2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
East/West Screenline																										
Westbound	Dockside Road	3573	3502	3573-3502	403	429	27	7%	516	113	28%	598	195	49%	425	22	6%	494	91	23%	513	111	27%	349	-53	-13%
	A66	3601	4539	3601-4539	1777	1756	-21	-1%	1806	30	2%	1795	18	1%	1790	13	1%	1734	-43	-2%	1774	-2	0%	1978	202	11%
	Middlesbrough Road	3574	3495	3574-3495	394	349	-45	-11%	400	6	1%	445	51	13%	416	22	5%	397	3	1%	468	75	19%	540	146	37%
	Sotherby Road	3591	3575	3591-3575	108	112	4	3%	111	3	3%	103	-5	-5%	110	2	2%	115	7	6%	99	-9	-8%	103	-5	-5%
	A1085 Longlands Road	3580	3513	3580-3513	426	528	103	24%	486	60	14%	504	79	18%	378	-47	-11%	452	26	6%	387	-39	-9%	355	-71	-17%
	Overdale Road	3547	3514	3547-3514	167	208	41	25%	208	41	25%	212	46	27%	177	11	6%	208	42	25%	206	39	23%	216	49	30%
	B1380 Ladgate Lane	3548	3526	3548-3526	865	1177	311	36%	1198	333	38%	1232	367	42%	868	3	0%	1226	361	42%	1283	418	48%	1347	481	56%
	A174	3634	3529	3634-3529	1236	1303	67	5%	1536	300	24%	1624	388	31%	1270	34	3%	1393	156	13%	1692	455	37%	1847	611	49%
	Guisborough Road	3670	3666	3670-3666	340	354	14	4%	353	13	4%	355	14	4%	368	28	8%	386	46	13%	417	77	23%	439	98	29%
	A1043	3688	3659	3688-3659	812	830	18	2%	922	110	14%	941	129	16%	821	9	1%	855	43	5%	960	147	18%	988	176	22%
				Total	**6528**	**7046**	518	8%	**7537**	1009	15%	**7809**	1281	20%	**6624**	95	1%	**7259**	731	11%	**7799**	1271	19%	**8161**	1633	25%
Eastbound	Dockside Road	3502	3573	3502-3573	188	243	55	30%	288	101	54%	344	156	83%	368	181	96%	661	473	252%	777	589	314%	701	513	273%
	A66	4539	3599	4539-3599	1104	1141	37	3%	1172	68	6%	1200	96	9%	1228	124	11%	1385	281	25%	1686	582	53%	1812	708	64%
	Middlesbrough Road	3495	3574	3495-3574	77	87	10	13%	90	13	17%	94	17	22%	78	1	1%	88	11	14%	99	22	29%	268	191	249%
	Sotherby Road	3575	3591	3575-3591	16	18	1	9%	18	1	8%	19	2	13%	17	1	6%	20	3	21%	21	4	27%	24	7	43%
	A1085 Longlands Road	3513	3580	3513-3580	384	405	22	6%	444	61	16%	477	93	24%	484	100	26%	599	216	56%	692	308	80%	843	460	120%
	Overdale Road	3514	3547	3514-3547	120	77	-43	-36%	75	-45	-38%	62	-58	-48%	124	5	4%	63	-56	-47%	46	-74	-61%	24	-96	-80%
	B1380 Ladgate Lane	3526	3548	3526-3548	859	1217	359	42%	1217	358	42%	1254	396	46%	881	22	3%	1245	386	45%	1274	416	48%	1332	473	55%
	A174	3520	3633	3520-3633	1515	1641	126	8%	1839	324	21%	1906	391	26%	1649	134	9%	1861	346	23%	2048	533	35%	2191	675	45%
	Guisborough Road	3666	3670	3666-3670	429	450	21	5%	453	24	5%	506	77	18%	439	10	2%	472	43	10%	523	94	22%	598	169	39%
	A1043	3659	3688	3659-3688	613	643	29	5%	762	149	24%	821	207	34%	628	15	2%	686	72	12%	839	225	37%	945	332	54%
				Total	**5304**	**5923**	619	12%	**6358**	1053	20%	**6682**	1377	26%	**5897**	592	11%	**7079**	1775	33%	**8005**	2701	51%	**8737**	3432	65%
North/South Screenline																										
Northbound	A19	2735	2771	2735-2771	4629	4657	28	1%	4928	299	6%	5076	447	10%	4652	23	0%	4703	74	2%	5024	394	9%	5206	577	12%
	Stainton Way West Extension	4600	5644	4600-5644		404	404	-	592	592	-	668	668	-				451	451	-	633	633	-	695	695	-
	Acklam Road	2919	2910	2919-2910	1300	1174	-126	-10%	1213	-87	-7%	1284	-16	-1%	1325	25	2%	1192	-108	-8%	1268	-32	-2%	1411	111	9%
	Marton Road	3326	3314	3326-3314	1276	1068	-208	-16%	1097	-179	-14%	1139	-137	-11%	1287	10	1%	1093	-184	-14%	1134	-142	-11%	1188	-87	-7%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		949	949	-	1002	1002	-	1060	1060	-				1011	1011	-	1102	1102	-	1195	1195	-
	Ormesby Road	3512	3499	3512-3499	629	513	-116	-19%	524	-105	-17%	541	-88	-14%	644	15	2%	524	-105	-17%	528	-101	-16%	562	-67	-11%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	737	625	-112	-15%	628	-109	-15%	665	-72	-10%	733	4	-1%	621	-116	-16%	654	-84	-11%	701	-36	-5%
	Normanby Road	3675	3669	3675-3669	725	709	-16	-2%	729	4	1%	733	9	1%	749	24	3%	771	46	6%	788	64	9%	811	87	12%
	Church Lane	3707	3708	3707-3708	193	205	12	6%	228	36	18%	268	75	39%	232	39	20%	344	151	78%	437	244	127%	580	387	201%
	Greystone Road	3773	3748	3773-3748	1517	1550	33	2%	1663	146	10%	1726	209	14%	1644	127	8%	1811	294	19%	1862	345	23%	1933	416	27%
	A1042	3843	3837	3843-3837	377	393	16	4%	397	20	5%	412	35	9%	488	112	30%	592	216	57%	879	503	133%	832	455	121%
	Redcar Lane	3930	3927	3930-3927	516	540	24	5%	548	32	6%	543	27	5%	540	24	5%	575	60	12%	622	106	21%	758	242	47%
				Total	**11899**	**12786**	887	7%	**13550**	1652	14%	**14115**	2216	19%	**12295**	396	3%	**13687**	1789	15%	**14930**	3031	25%	**15873**	3975	33%
Southbound	A19	2770	2750	2770-2750	3261	3138	-124	-4%	3481	220	7%	3673	412	13%	3299	37	1%	3168	-93	-3%	3500	239	7%	3800	538	17%
	Stainton Way West Extension	5644	4600	5644-4600		258	258	-	270	270	-	294	294	-				260	260	-	279	279	-	300	300	-
	Acklam Road	2910	2919	2910-2919	579	552	-27	-5%	623	44	8%	653	73	13%	583	4	1%	560	-19	-3%	637	58	10%	640	61	11%
	Marton Road	3314	3326	3314-3326	832	671	-161	-19%	680	-151	-18%	698	-133	-16%	833	1	0%	684	-148	-18%	702	-129	-16%	725	-107	-13%
	Longlands to Ladgate	5639	5638	5639-5638		739	739	-	707	707	-	730	730	-				733	733	-	702	702	-	733	733	-
	Otmeasby Road	3499	3512	3499-3512	330	121	-209	-63%	166	-164	-50%	164	-166	-50%	321	-9	-3%	126	-204	-62%	157	-173	-52%	127	-203	-62%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	538	415	-123	-23%	418	-121	-22%	433	-105	-20%	526	-11	-2%	387	-151	-28%	393	-145	-27%	415	-123	-23%
	Normanby Road	3669	3675	3669-3675	247	244	-3	-1%	272	25	10%	286	39	16%	261	14	6%	265	18	7%	277	30	12%	290	44	18%
	Church Lane	3708	3707	3708-3707	69	65	-4	-5%	49	-20	-29%	55	-14	-20%	51	-18	-26%	40	-29	-42%	45	-24	-34%	53	-16	-23%
	Greystone Road	3751	3775	3751-3775	468	469	1	0%	522	54	12%	553	85	18%	446	-22	-5%	421	-47	-10%	513	44	9%	627	159	34%
	A1042	3837	3843	3837-3843	233	241	8	3%	240	7	3%	247	14	6%	283	51	22%	347	114	49%	390	157	67%	553	321	138%
	Redcar Lane	3927	3930	3927-3930	412	408	-4	-1%	409	-3	-1%	410	-2	0%	408	-4	-1%	448	36	9%	493	81	20%	472	60	15%
				Total	**6970**	**7321**	352	5%	**7838**	868	12%	**8197**	1227	18%	**7011**	41	1%	**7439**	469	7%	**8088**	1119	16%	**8736**	1766	25%
Tees Crossing Screenline																										
NB	A19	2849	2829	2849-2829	5009	5196	187	4%	5467	459	9%	5337	328	7%	5013	4	0%	5194	185	4%	5436	428	9%	5412	404	8%
	Newport Bridge Approach	2882	2850	2882-2850	958	1031	73	8%	1113	155	16%	1334	376	39%	941	-17	-2%	1022	64	7%	1127	169	18%	1337	379	40%
				Total	**5967**	**6227**	260	4%	**6580**	613	10%	**6671**	704	12%	**5954**	-13	0%	**6217**	250	4%	**6563**	596	10%	**6749**	783	13%
SB	A19	2827	2848	2827-2848	4214	4313	100	2%	4453	239	6%	4536	322	8%	4267	53	1%	4368	155	4%	4526	312	7%	4626	412	10%
	Newport Bridge Approach	2850	2882	2850-2882	1597	1648	51	3%	1760	163	10%	1839	242	15%	1626	29	2%	1749	152	10%	1946	349	22%	2025	428	27%
				Total	**5811**	**5961**	150	3%	**6213**	402	7%	**6375**	565	10%	**5893**	83	1%	**6118**	307	5%	**6472**	661	11%	**6651**	840	14%

Screen Line Data - Change In AM Traffic Flow - Do Minimum and Do Minimum + STRMP

	AM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
	Junction Screenlines																									
	Greystones Roundabout																									
1	A1053	3751	3775	3751-3775	468	469	1	0%	522	54	12%	553	85	18%	446	-21	-5%	421	-47	-10%	513	44	9%	627	159	34%
	A174 East	3785	3779	3785-3779	2505	2580	75	3%	2803	297	12%	2924	419	17%	2570	65	3%	2787	282	11%	3148	642	26%	3403	897	36%
	A174 West	3770	3774	3770-3774	1784	1881	97	5%	2065	280	16%	2123	339	19%	1948	163	9%	2087	303	17%	2276	492	28%	2361	577	32%
	High Street	3772	3773	3772-3773	399	409	11	3%	440	42	10%	455	56	14%	416	17	4%	429	30	8%	472	73	18%	441	42	11%
				Total	**5156**	**5340**	183	4%	**5830**	673	13%	**6055**	899	17%	**5379**	223	4%	**5725**	568	11%	**6409**	1252	24%	**6832**	1675	32%
	Swans Corner																									
2	A171	3653	3684	3653-3684	718	755	37	5%	809	91	13%	839	120	17%	721	3	0%	764	46	6%	830	112	16%	872	154	21%
	Middlesbrough Road	3730	3684	3730-3684	1363	1472	109	8%	1533	170	12%	1575	212	16%	1407	44	3%	1522	159	12%	1654	291	21%	1736	373	27%
	A1043	3688	3684	3688-3684	613	643	29	5%	762	149	24%	821	207	34%	628	15	2%	686	72	12%	839	225	37%	945	332	54%
	Guisborough Road	3676	3684	3676-3684	474	503	29	6%	505	31	6%	560	86	18%	487	13	3%	531	57	12%	585	111	23%	665	191	40%
				Total	**3169**	**3373**	204	6%	**3609**	440	14%	**3795**	626	20%	**3244**	75	2%	**3502**	334	11%	**3908**	739	23%	**4218**	1049	33%
	A1053/A1085 Roundabout																									
3	A1085	3765	3753	3765-3753	1033	1065	32	3%	1142	109	11%	1203	170	16%	1079	46	4%	1099	66	6%	1103	70	7%	1114	81	8%
	Industrial Estate	3757	3751	3757-3751	71	80	9	12%	89	17	25%	104	33	47%	72	1	1%	82	11	16%	109	38	53%	120	48	68%
	Greystones Road/A1053 South	3773	3748	3773-3748	1517	1550	33	2%	1663	146	10%	1726	209	14%	1644	127	8%	1811	294	19%	1862	345	23%	1933	416	27%
	Broadway	3740	3745	3740-3745	417	451	33	8%	487	70	17%	526	108	26%	528	111	27%	696	279	67%	781	363	87%	887	470	113%
	A1053 North	3731	3746	3731-3746	899	910	11	1%	983	83	9%	1012	113	13%	1071	172	19%	1231	332	37%	1420	521	58%	1440	541	60%
				Total	**3938**	**4055**	117	3%	**4364**	426	11%	**4571**	633	16%	**4395**	457	12%	**4919**	981	25%	**5275**	1336	34%	**5494**	1556	40%
	A19/A174 Parkway Interchange																									
4	A19 North SB Slip	2743	2738	2743-2738	2147	1990	-156	-7%	2156	9	0%	2243	96	4%	2188	42	2%	2038	-108	-5%	2185	38	2%	2379	232	11%
	A174 East WB Slip	2864	2756	2864-2756	2659	2659	0	0%	2895	236	9%	2971	312	12%	2673	14	1%	2701	41	2%	2936	277	10%	3040	380	14%
	A19 South NB Slip	2732	2720	2732-2720	237	286	49	21%	319	81	34%	326	89	38%	259	22	9%	319	82	35%	355	117	49%	349	112	47%
	A174 West EB Slip	2633	2706	2633-2706	1946	1986	40	2%	2020	74	4%	2046	100	5%	1962	16	1%	2006	59	3%	2026	80	4%	2051	105	5%
				Total	**6989**	**6921**	-68	-1%	**7389**	400	6%	**7587**	598	9%	**7082**	93	1%	**7064**	75	1%	**7502**	513	7%	**7818**	829	12%
	Cargo Fleet Lane Throughabout																									
5	Works Road	3502	3489	3502-3489	238	270	32	13%	287	49	21%	324	86	36%	305	67	28%	383	145	61%	497	259	109%	575	337	141%
	A66 East	4539	3488	4539-3488	1777	1756	-21	-1%	1806	30	2%	1795	18	1%	1790	13	1%	1734	-43	-2%	1774	-2	0%	1978	202	11%
	Cargo Fleet Lane	3495	3492	3495-3492	1221	1146	-75	-6%	1207	-14	-1%	1277	56	5%	1280	59	5%	1220	0	0%	1306	85	7%	1261	40	3%
	A66 West	4629	3478	4629-3478	1934	1861	-73	-4%	1919	-14	-1%	2010	76	4%	2064	130	7%	2128	194	10%	2162	228	12%	2202	268	14%
				Total	**5169**	**5033**	-136	-3%	**5220**	51	1%	**5405**	236	5%	**5439**	270	5%	**5465**	296	6%	**5739**	570	11%	**6015**	846	16%
	Marton Road/Ladgate Lane Crossroads																									
6	Marton Road	3394	4283	3394-4283	851	747	-104	-12%	755	-96	-11%	767	-84	-10%	864	13	2%	779	-72	-8%	772	-79	-9%	778	-73	-9%
	Ladgate Lane East	4284	3443	4284-3443	608	484	-124	-20%	514	-94	-15%	539	-68	-11%	604	-3	-1%	489	-118	-19%	529	-78	-13%	576	-31	-5%
	Stokesley Road	3464	3443	3464-3443	879	856	-23	-3%	838	-41	-5%	836	-43	-5%	896	17	2%	873	-6	-1%	837	-41	-5%	809	-70	-8%
	Ladgate Lane West	3388	3443	3388-3443	611	790	179	29%	869	258	42%	931	319	52%	612	1	0%	812	201	33%	925	313	51%	1020	409	67%
				Total	**2949**	**2878**	-71	-2%	**2976**	27	1%	**3073**	124	4%	**2977**	28	1%	**2954**	5	0%	**3063**	114	4%	**3183**	234	8%
	Tees Dock Road Roundabout																									
7	Tees Dock Road	3724	3731	3724-3731	41	46	5	11%	49	8	19%	53	11	28%	90	49	118%	167	125	302%	240	199	480%	313	272	656%
	A1053	3745	3732	3745-3732	1974	2006	32	2%	2117	144	7%	2181	207	10%	2096	122	6%	2206	232	12%	2260	286	14%	2273	299	15%
	A66	3704	3729	3704-3729	924	939	15	2%	1014	90	10%	1063	139	15%	1179	255	28%	1454	530	57%	1789	865	94%	1951	1027	111%
				Total	**2939**	**2991**	52	2%	**3180**	241	8%	**3297**	357	12%	**3365**	426	14%	**3827**	887	30%	**4289**	1350	46%	**4537**	1598	54%
	A1042/A174 Roundabout																									
8	A1042	3822	3825	3822-3825	652	687	34	5%	716	64	10%	738	85	13%	708	56	9%	818	165	25%	956	304	47%	1083	431	66%
	A174 East	3866	3827	3866-3827	2183	2242	59	3%	2432	249	11%	2546	364	17%	2245	62	3%	2417	234	11%	2693	510	23%	2825	643	29%
	A174 West	3807	3818	3807-3818	1709	1777	68	4%	1882	174	10%	1930	221	13%	1753	45	3%	1779	70	4%	2065	356	21%	2217	508	30%
	Industrial Estate	3817	3820	3817-3820	21	23	2	8%	23	2	9%	25	3	16%	21	1	1%	22	1	5%	23	2	7%	25	4	17%
				Total	**4565**	**4729**	163	4%	**5053**	488	11%	**5239**	674	15%	**4728**	163	4%	**5036**	470	10%	**5737**	1172	26%	**6150**	1585	35%
	Cargo Fleet Lane/Ladgate Lane Roundabout																									
9	Cargo Fleet Lane	3610	3625	3610-3625	683	525	-158	-23%	559	-124	-18%	585	-98	-14%	682	-1	0%	535	-148	-22%	557	-126	-18%	607	-76	-11%
	Normanby Road East	3661	3625	3661-3625	635	688	52	8%	723	88	14%	760	125	20%	649	13	2%	711	75	12%	788	152	24%	880	245	39%
	Sunnyfield	3639	3625	3639-3625	1055	1127	72	7%	1122	67	6%	1159	104	10%	1054	1	0%	1140	85	8%	1157	102	10%	1224	169	16%
	Ladgate Lane	3600	3625	3600-3625	668	801	133	20%	836	168	25%	861	193	29%	694	26	4%	834	166	25%	891	223	33%	917	250	37%
				Total	**3041**	**3141**	100	3%	**3240**	199	7%	**3365**	324	11%	**3079**	38	1%	**3219**	178	6%	**3393**	352	12%	**3629**	588	19%
	Normanby Road/B1380																									
10	Normanby Road	3685	3698	3685-3698	251	244	-7	-3%	269	18	7%	285	34	14%	264	12	5%	262	11	4%	277	26	10%	316	64	26%
	B1380 East	3720	3698	3720-3698	401	403	2	0%	399	-2	-1%	414	13	3%	403	2	0%	408	7	2%	419	18	4%	459	58	14%
	Cleveland Street	3697	3698	3697-3698	397	406	9	2%	422	26	6%	447	50	13%	418	21	5%	466	69	17%	517	120	30%	621	224	56%
	B1380 West	3694	3698	3694-3698	319	282	-37	-12%	323	4	1%	347	28	9%	348	29	9%	382	63	20%	428	109	34%	468	149	47%
				Total	**1368**	**1336**	-32	-2%	**1413**	45	3%	**1494**	126	9%	**1432**	64	5%	**1518**	150	11%	**1641**	273	20%	**1864**	496	36%

Screen Line Data - Change In PM Traffic Flow - Do Minimum and Do Minimum + STRMP

PM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
						Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
				Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
East/West Screenline																									
Westbound	Dockside Road	3573	3502 3573-3502	157	210	53	33%	254	96	61%	310	153	97%	306	149	95%	528	371	236%	726	569	362%	896	739	470%
	A66	3601	4539 3601-4539	1336	1333	-3	0%	1373	37	3%	1373	37	3%	1457	122	9%	1589	253	19%	1736	400	30%	1795	459	34%
	Middlesbrough Road	3574	3495 3574-3495	283	223	-60	-21%	268	-15	-5%	289	5	2%	301	17	6%	231	-53	-19%	238	-45	-16%	248	-37	-13%
	Sotherby Road	3591	3575 3591-3575	22	23	1	4%	23	1	2%	24	1	6%	22	1	1%	25	3	11%	25	3	13%	27	4	20%
	A1085 Longlands Road	3580	3513 3580-3513	435	558	123	28%	516	81	19%	530	96	22%	460	26	6%	627	193	44%	600	165	38%	652	217	50%
	Overdale Road	3547	3514 3547-3514	178	225	47	26%	232	54	30%	242	64	36%	181	3	2%	228	50	28%	228	51	28%	232	54	31%
	B1380 Ladgate Lane	3548	3526 3548-3526	862	1029	167	19%	1048	187	22%	1062	201	23%	870	9	1%	1035	173	20%	1062	200	23%	1063	201	23%
	A174	3634	3529 3634-3529	1470	1536	66	4%	1876	405	28%	2009	539	37%	1620	150	10%	1798	327	22%	2295	825	56%	2522	1052	72%
	Guisborough Road	3670	3666 3670-3666	271	279	8	3%	306	35	13%	332	60	22%	269	-1	-1%	293	22	8%	330	59	22%	393	122	45%
	A1043	3688	3659 3688-3659	837	872	35	4%	954	117	14%	978	142	17%	846	9	1%	885	49	6%	969	133	16%	988	151	18%
			Total	**5851**	**6288**	437	7%	**6849**	998	17%	**7149**	1298	22%	**6332**	481	8%	**7239**	1388	24%	**8210**	2360	40%	**8815**	2964	51%
Eastbound	Dockside Road	3502	3573 3502-3573	437	496	59	14%	576	139	32%	650	213	49%	484	47	11%	583	146	33%	675	237	54%	764	327	75%
	A66	4539	3599 4539-3599	1560	1617	57	4%	1652	92	6%	1655	95	6%	1554	0	0%	1600	40	3%	1566	6	0%	1500	-60	-4%
	Middlesbrough Road	3495	3574 3495-3574	89	80	-9	-10%	86	-3	-3%	92	4	4%	104	16	18%	89	1	1%	111	23	26%	128	40	45%
	Sotherby Road	3575	3591 3575-3591	90	88	-3	-3%	90	0	0%	94	4	4%	93	3	3%	90	-1	-1%	90	-1	-1%	91	1	1%
	A1085 Longlands Road	3513	3580 3513-3580	725	681	-43	-6%	685	-39	-5%	692	-33	-5%	707	-17	-2%	682	-43	-6%	685	-39	-5%	701	-23	-3%
	Overdale Road	3514	3547 3514-3547	167	119	-48	-28%	123	-44	-27%	124	-43	-26%	168	1	1%	109	-58	-35%	76	-91	-55%	70	-97	-58%
	B1380 Ladgate Lane	3526	3548 3526-3548	940	1297	357	38%	1276	336	36%	1280	340	36%	944	4	0%	1322	382	41%	1315	375	40%	1364	424	45%
	A174	3520	3633 3520-3633	1260	1266	6	0%	1495	234	19%	1577	317	25%	1278	18	1%	1331	71	6%	1665	404	32%	1770	509	40%
	Guisborough Road	3666	3670 3666-3670	549	566	16	3%	575	25	5%	592	43	8%	553	4	1%	581	31	6%	583	34	6%	572	23	4%
	A1043	3659	3688 3659-3688	824	839	14	2%	902	78	9%	930	105	13%	826	1	0%	853	28	3%	913	88	11%	904	80	10%
			Total	**6642**	**7048**	406	6%	**7459**	818	12%	**7686**	1044	16%	**6711**	69	1%	**7239**	598	9%	**7679**	1037	16%	**7864**	1223	18%
North/South Screenline																									
Northbound	A19	2735	2771 2735-2771	3347	3304	-43	-1%	3644	297	9%	3813	466	14%	3377	30	1%	3353	6	0%	3729	382	11%	3939	592	18%
	Stainton Way West Extension	4600	5644 4600-5644		254	254	-	371	371	-	421	421	-				270	270	-	393	393	-	448	448	-
	Acklam Road	2919	2910 2919-2910	1078	1042	-36	-3%	1046	-31	-3%	1056	-22	-2%	1086	8	1%	1057	-20	-2%	1059	-18	-2%	1063	-14	-1%
	Marton Road	3326	3314 3326-3314	824	602	-222	-27%	496	-328	-40%	504	-320	-39%	853	28	3%	627	-199	-24%	536	-288	-35%	552	-277	-33%
	Longlands to Ladgate Link Road	5638	5639 5638-5639		500	500	-	544	544	-	554	554	-				495	495	-	531	531	-	537	537	-
	Ormesby Road	3512	3499 3512-3499	443	376	-67	-15%	346	-97	-22%	350	-93	-21%	446	3	1%	388	-56	-13%	362	-82	-18%	373	-73	-16%
	A171 Cargo Fleet Lane	3569	3555 3569-3555	561	390	-171	-31%	399	-162	-29%	410	-150	-27%	566	5	1%	387	-174	-31%	408	-153	-27%	431	-130	-23%
	Normanby Road	3675	3669 3675-3669	333	343	10	3%	352	19	6%	371	38	11%	365	33	10%	387	55	16%	366	34	10%	385	53	16%
	Church Lane	3707	3708 3707-3708	114	102	-12	-11%	59	-56	-49%	51	-64	-56%	88	-27	-23%	74	-41	-35%	56	-59	-51%	79	-35	-31%
	Greystone Road	3773	3748 3773-3748	558	573	15	3%	710	152	27%	746	188	34%	533	-25	-5%	598	40	7%	832	274	49%	863	305	55%
	A1042	3843	3837 3843-3837	212	216	4	2%	170	-42	-20%	166	-47	-22%	232	19	9%	224	12	6%	172	-40	-19%	209	-23	-2%
	Redcar Lane	3930	3927 3930-3927	481	483	2	0%	467	-14	-3%	463	-18	-4%	494	12	3%	533	52	11%	522	41	9%	547	66	14%
			Total	**7952**	**8185**	233	3%	**8605**	653	8%	**8905**	954	12%	**8039**	87	1%	**8393**	442	6%	**8966**	1014	13%	**9426**	1475	19%
Southbound	A19	2770	2750 2770-2750	4712	4603	-109	-2%	4955	242	5%	5075	362	8%	4729	17	0%	4652	-59	-1%	5005	292	6%	5114	402	9%
	Stainton Way West Extension	5644	4600 5644-4600		380	380	-	396	396	-	484	484	-				390	390	-	435	435	-	539	539	-
	Acklam Road	2910	2919 2910-2919	761	716	-45	-6%	766	5	1%	790	29	4%	769	8	1%	725	-36	-5%	804	43	6%	842	82	11%
	Marton Road	3314	3326 3314-3326	885	633	-251	-28%	607	-277	-31%	621	-264	-30%	896	11	1%	658	-227	-26%	632	-253	-29%	663	-222	-25%
	Longlands to Ladgate	5639	5638 5639-5638		884	884	-	892	892	-	919	919	-				920	920	-	948	948	-	1017	1017	-
	Otmeasby Road	3499	3512 3499-3512	608	408	-199	-33%	401	-206	-34%	401	-207	-34%	613	5	1%	402	-206	-34%	393	-214	-35%	391	-217	-36%
	A171 Cargo Fleet Lane	3555	3569 3555-3569	786	691	-95	-12%	700	-87	-11%	709	-77	-10%	789	3	0%	676	-110	-14%	681	-105	-13%	696	-89	-11%
	Normanby Road	3669	3675 3669-3675	703	671	-32	-5%	677	-26	-4%	685	-18	-3%	724	21	3%	710	6	1%	744	41	6%	799	96	14%
	Church Lane	3708	3707 3708-3707	265	253	-11	-4%	264	-1	0%	293	29	11%	307	43	16%	323	59	22%	369	104	39%	464	199	75%
	Greystone Road	3751	3775 3751-3775	1252	1276	24	2%	1271	19	2%	1252	0	0%	1322	70	6%	1342	90	7%	1353	101	8%	1328	77	6%
	A1042	3837	3843 3837-3843	428	449	21	5%	545	117	27%	606	178	42%	560	132	31%	760	332	78%	913	485	113%	1057	629	147%
	Redcar Lane	3927	3930 3927-3930	464	474	10	2%	486	22	5%	487	24	5%	467	3	1%	485	21	5%	506	43	9%	506	43	9%
			Total	**10863**	**11439**	576	5%	**11961**	1098	10%	**12322**	1459	13%	**11176**	313	3%	**12043**	1180	11%	**12783**	1920	18%	**13417**	2554	24%
Tees Crossing Screenline																									
NB	A19	2849	2829 2849-2829	4630	4757	127	3%	5070	440	9%	4913	283	6%	4703	73	2%	4859	229	5%	4988	358	8%	5149	519	11%
	Newport Bridge Approach	2882	2850 2882-2850	1019	1069	50	5%	1188	169	17%	1492	474	46%	1053	34	3%	1167	149	15%	1571	552	54%	1661	642	63%
			Total	**5649**	**5826**	177	3%	**6258**	609	11%	**6406**	757	13%	**5755**	106	2%	**6026**	378	7%	**6559**	911	16%	**6810**	1161	21%
SB	A19	2827	2848 2827-2848	4263	4374	111	3%	4582	319	7%	4632	369	9%	4262	0	0%	4378	115	3%	4538	275	6%	4621	358	8%
	Newport Bridge Approach	2850	2882 2850-2882	1451	1519	68	5%	1586	135	9%	1639	188	13%	1452	1	0%	1521	70	5%	1589	138	10%	1615	164	11%
			Total	**5714**	**5893**	179	3%	**6168**	454	8%	**6271**	557	10%	**5713**	0	0%	**5899**	185	3%	**6127**	413	7%	**6236**	522	9%

Screen Line Data - Change In PM Traffic Flow - Do Minimum and Do Minimum + STRMP

	PM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
	Junction Screenlines																									
	Greystones Roundabout																									
1	A1053	3751	3775	3751-3775	1252	1276	24	2%	1271	19	2%	1252	0	0%	1322	70	6%	1342	90	7%	1353	101	8%	1328	77	6%
	A174 East	3785	3779	3785-3779	1837	1895	58	3%	2158	321	17%	2269	432	24%	1907	69	4%	2153	316	17%	2571	734	40%	2733	896	49%
	A174 West	3770	3774	3770-3774	1450	1442	-8	-1%	1701	250	17%	1795	345	24%	1468	17	1%	1521	71	5%	1873	423	29%	2002	552	38%
	High Street	3772	3773	3772-3773	381	403	23	6%	432	52	14%	459	78	21%	391	10	3%	421	41	11%	481	100	26%	543	162	43%
				Total	**4920**	**5016**	96	2%	**5561**	642	13%	**5776**	856	17%	**5086**	167	3%	**5437**	518	11%	**6278**	1359	28%	**6606**	1686	34%
	Swans Corner																									
2	A171	3653	3684	3653-3684	798	822	24	3%	801	3	0%	803	5	1%	793	-5	-1%	799	1	0%	778	-70	-3%	736	-67	-8%
	Middlesbrough Road	3730	3684	3730-3684	1164	1222	58	5%	1320	156	13%	1361	197	17%	1181	16	1%	1251	86	7%	1366	202	17%	1426	262	22%
	A1043	3688	3684	3688-3684	824	839	14	2%	902	78	9%	930	105	13%	826	1	0%	853	28	3%	913	88	11%	904	80	10%
	Guisborough Road	3676	3684	3676-3684	538	551	12	2%	562	24	4%	580	42	8%	541	3	1%	566	28	5%	565	26	5%	555	17	3%
				Total	**3325**	**3433**	108	3%	**3585**	260	8%	**3673**	348	10%	**3341**	16	0%	**3469**	144	4%	**3622**	296	9%	**3621**	296	9%
	A1053/A1085 Roundabout																									
3	A1085	3765	3753	3765-3753	1079	1106	27	3%	1162	83	8%	1176	97	9%	1338	259	24%	1443	364	34%	1555	476	44%	1637	558	52%
	Industrial Estate	3757	3751	3757-3751	139	150	11	8%	159	21	15%	173	34	25%	137	-2	-1%	147	9	6%	158	20	14%	170	31	22%
	Greystones Road/A1053 South	3773	3748	3773-3748	558	573	15	3%	710	152	27%	746	188	34%	533	-25	-5%	598	40	7%	832	274	49%	863	305	55%
	Broadway	3740	3745	3740-3745	557	579	22	4%	595	38	7%	623	66	12%	562	4	1%	608	51	9%	627	70	13%	624	66	12%
	A1053 North	3731	3746	3731-3746	1634	1702	68	4%	1831	196	12%	1887	252	15%	1746	112	7%	1887	252	15%	2019	384	24%	2087	452	28%
				Total	**3967**	**4111**	144	4%	**4456**	489	12%	**4604**	637	16%	**4316**	348	9%	**4683**	715	18%	**5191**	1224	31%	**5380**	1413	36%
	A19/A174 Parkway Interchange																									
4	A19 North SB Slip	2743	2738	2743-2738	3238	3055	-183	-6%	3286	48	1%	3328	90	3%	3248	10	0%	3087	-151	-5%	3333	95	3%	3374	136	4%
	A174 East WB Slip	2864	2756	2864-2756	2043	2053	10	0%	2324	280	14%	2428	384	19%	2119	76	4%	2195	152	7%	2564	520	25%	2752	709	35%
	A19 South NB Slip	2732	2720	2732-2720	372	373	1	0%	406	34	9%	398	26	7%	358	-14	-4%	345	-27	-7%	395	22	6%	369	-3	-1%
	A174 West EB Slip	2633	2706	2633-2706	1410	1396	-14	-1%	1433	23	2%	1466	56	4%	1412	2	0%	1392	-18	-1%	1421	11	1%	1459	48	3%
				Total	**7063**	**6877**	-186	-3%	**7448**	385	5%	**7619**	556	8%	**7137**	73	1%	**7020**	-43	-1%	**7712**	649	9%	**7953**	890	13%
	Cargo Fleet Lane Throughabout																									
5	Works Road	3502	3489	3502-3489	491	512	22	4%	540	50	10%	610	119	24%	639	148	30%	829	339	69%	1000	510	104%	1173	683	139%
	A66 East	4539	3488	4539-3488	1336	1333	-2	0%	1373	37	3%	1373	37	3%	1457	122	9%	1589	253	19%	1736	400	30%	1795	459	34%
	Cargo Fleet Lane	3495	3492	3495-3492	982	817	-164	-17%	847	-134	-14%	879	-103	-11%	1002	20	2%	832	-150	-15%	818	-163	-17%	845	-134	-14%
	A66 West	4629	3478	4629-3478	2074	2019	-55	-3%	2063	-11	-1%	2079	5	0%	2090	17	1%	2066	-8	0%	2080	7	0%	2093	20	1%
				Total	**4882**	**4682**	-200	-4%	**4824**	-58	-1%	**4940**	59	1%	**5188**	307	6%	**5316**	434	9%	**5635**	753	15%	**5906**	1025	21%
	Marton Road/Ladgate Lane Crossroads																									
6	Marton Road	3394	4283	3394-4283	888	807	-81	-9%	804	-84	-9%	827	-61	-7%	895	7	1%	838	-50	-6%	838	-50	-6%	884	-4	-1%
	Ladgate Lane East	4284	3443	4284-3443	1007	991	-16	-2%	992	-14	-1%	1006	-1	0%	1018	11	1%	997	-9	-1%	1014	7	1%	1028	21	2%
	Stokesley Road	3464	3443	3464-3443	313	307	-6	-2%	279	-33	-11%	272	-41	-13%	312	-1	0%	300	-13	-4%	283	-30	-10%	278	-35	-11%
	Ladgate Lane West	3388	3443	3388-3443	509	510	1	0%	544	35	7%	574	65	13%	512	3	1%	508	-1	0%	543	35	7%	578	69	14%
				Total	**2717**	**2616**	-101	-4%	**2620**	-96	-4%	**2678**	-38	-1%	**2738**	21	1%	**2644**	-73	-3%	**2678**	-39	-1%	**2767**	51	2%
	Tees Dock Road Roundabout																									
7	Tees Dock Road	3724	3731	3724-3731	100	111	11	11%	118	18	18%	126	26	26%	271	171	171%	509	409	409%	739	639	638%	963	863	862%
	A1053	3745	3732	3745-3732	1182	1206	24	2%	1291	109	9%	1324	143	12%	1326	144	12%	1465	284	24%	1584	402	34%	1605	423	36%
	A66	3704	3729	3704-3729	1608	1674	66	4%	1798	190	12%	1852	244	15%	1676	68	4%	1758	150	9%	1832	224	14%	1860	252	16%
				Total	**2890**	**2991**	101	3%	**3207**	317	11%	**3303**	413	14%	**3273**	383	13%	**3733**	843	29%	**4154**	1264	44%	**4427**	1537	53%
	A1042/A174 Roundabout																									
8	A1042	3822	3825	3822-3825	643	681	38	6%	748	105	16%	790	147	23%	750	107	17%	1015	372	58%	1131	488	76%	1216	573	89%
	A174 East	3866	3827	3866-3827	1431	1464	33	2%	1650	219	15%	1728	296	21%	1427	-4	0%	1470	39	3%	1779	348	24%	1865	434	30%
	A174 West	3807	3818	3807-3818	2109	2121	12	1%	2163	54	3%	2189	81	4%	2116	8	0%	2151	43	2%	2223	114	5%	2277	168	8%
	Industrial Estate	3817	3820	3817-3820	112	118	6	5%	119	7	7%	125	13	11%	113	1	1%	120	8	7%	124	12	11%	133	21	19%
				Total	**4295**	**4384**	89	2%	**4680**	385	9%	**4832**	537	12%	**4406**	111	3%	**4757**	462	11%	**5257**	962	22%	**5491**	1196	28%
	Cargo Fleet Lane/Ladgate Lane Roundabout																									
9	Cargo Fleet Lane	3610	3625	3610-3625	873	730	-143	-16%	758	-115	-13%	779	-94	-11%	880	7	1%	719	-154	-18%	755	-118	-13%	781	-92	-11%
	Normanby Road East	3661	3625	3661-3625	566	576	10	2%	566	0	0%	590	23	4%	582	15	3%	605	39	7%	623	57	10%	664	97	17%
	Sunnyfield	3639	3625	3639-3625	791	795	4	1%	800	9	1%	806	15	2%	791	0	0%	794	4	0%	798	8	1%	818	27	3%
	Ladgate Lane	3600	3625	3600-3625	870	1050	180	21%	1014	143	16%	1003	132	15%	876	6	1%	1060	189	22%	1028	158	18%	1065	195	22%
				Total	**3100**	**3152**	51	2%	**3137**	37	1%	**3177**	77	2%	**3129**	29	1%	**3178**	78	3%	**3205**	105	3%	**3328**	227	7%
	Normanby Road/B1380																									
10	Normanby Road	3685	3698	3685-3698	599	548	-51	-9%	551	-48	-8%	555	-44	-7%	604	5	1%	562	-37	-6%	576	-23	-4%	622	22	4%
	B1380 East	3720	3698	3720-3698	441	456	16	4%	440	-1	0%	465	25	6%	504	63	14%	566	125	28%	562	122	28%	603	163	37%
	Cleveland Street	3697	3698	3697-3698	193	197	5	2%	200	7	4%	212	19	10%	194	1	1%	200	8	4%	209	16	8%	227	34	18%
	B1380 West	3694	3698	3694-3698	358	345	-13	-4%	302	-57	-16%	311	-47	-13%	365	7	2%	360	2	1%	326	-31	-9%	348	-10	-3%
				Total	**1590**	**1547**	-44	-3%	**1492**	-98	-6%	**1543**	-47	-3%	**1667**	77	5%	**1688**	97	6%	**1674**	83	5%	**1800**	210	13%

Screen Line Data - Change In AM Speed (mph) - Do Minimum and Do Minimum + STRMP

AM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
						Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM	
				Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
East/West Screenline																									
Westbound	Dockside Road	3573	3502	3573-3502	48	48	0	0%	47	-1	-1%	46	-2	-3%	48	0	0%	47	0	-1%	47	-1	-1%	48	0	0%
	A66	3601	4539	3601-4539	51	51	0	0%	51	0	0%	51	0	0%	51	0	0%	51	0	0%	51	0	0%	50	-1	-3%
	Middlesbrough Road	3574	3495	3574-3495	29	29	0	1%	29	0	0%	29	0	0%	29	0	0%	29	0	1%	29	0	0%	28	0	-1%
	Sotherby Road	3591	3575	3591-3575	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3580	3513	3580-3513	15	17	2	11%	17	2	12%	16	1	8%	14	-1	-4%	15	0	2%	14	-1	-5%	13	-2	-17%
	Overdale Road	3547	3514	3547-3514	30	29	0	-1%	29	0	-1%	29	0	-1%	29	0	0%	29	0	-1%	29	0	-1%	29	0	-1%
	B1380 Ladgate Lane	3548	3526	3548-3526	25	16	-9	-36%	16	-10	-39%	14	-11	-43%	25	0	0%	15	-11	-42%	13	-12	-49%	12	-13	-51%
	A174	3634	3529	3634-3529	60	60	0	0%	59	-1	-1%	59	-1	-1%	60	0	0%	59	0	0%	59	-1	-2%	58	-2	-3%
	Guisborough Road	3670	3666	3670-3666	25	25	0	-1%	25	0	-1%	25	0	-1%	24	-1	-2%	24	-1	-4%	23	-2	-7%	23	-2	-9%
	A1043	3688	3659	3688-3659	39	38	-1	-2%	34	-5	-13%	33	-6	-15%	39	0	-1%	37	-2	-4%	32	-7	-17%	31	-8	-21%
				Average*	**35**	**34**	-1	-2%	**34**	-1	-4%	**33**	-2	-5%	**35**	0	-1%	**34**	-1	-4%	**33**	-2	-7%	**32**	-3	-8%
Eastbound	Dockside Road	3502	3573	3502-3573	45	44	0	-1%	44	0	-1%	44	-1	-2%	43	-1	-3%	36	-8	-18%	26	-19	-43%	14	-31	-70%
	A66	4539	3599	4539-3599	49	49	0	0%	49	0	0%	48	-1	-1%	48	-1	-1%	47	-2	-4%	42	-7	-14%	36	-13	-26%
	Middlesbrough Road	3495	3574	3495-3574	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	Sotherby Road	3575	3591	3575-3591	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3513	3580	3513-3580	39	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%
	Overdale Road	3514	3547	3514-3547	30	30	0	0%	30	0	1%	30	0	1%	30	0	0%	30	0	1%	30	0	1%	30	0	1%
	B1380 Ladgate Lane	3526	3548	3526-3548	25	15	-10	-41%	15	-10	-41%	14	-12	-46%	25	-1	-2%	14	-11	-45%	13	-12	-48%	12	-13	-51%
	A174	3520	3633	3520-3633	59	59	0	-1%	58	-1	-2%	58	-2	-3%	59	0	-1%	58	-1	-2%	57	-3	-4%	55	-4	-6%
	Guisborough Road	3666	3670	3666-3670	23	23	0	-2%	22	-1	-2%	21	-2	-8%	23	0	-1%	22	-1	-4%	21	-2	-10%	19	-4	-18%
	A1043	3659	3688	3659-3688	46	45	-1	-1%	42	-4	-8%	40	-6	-13%	46	0	-1%	44	-1	-3%	39	-7	-15%	34	-12	-26%
				Average*	**38**	**36**	-1	-3%	**36**	-2	-4%	**35**	-2	-6%	**37**	0	-1%	**35**	-3	-7%	**33**	-5	-13%	**30**	-8	-20%
North/South Screenline																									
Northbound	A19	2735	2771	2735-2771	54	53	0	-1%	48	-6	-11%	45	-9	-16%	53	0	-1%	52	-1	-2%	46	-8	-14%	42	-12	-21%
	Stainton Way West Extension	4600	5644	4600-5644		39	39	-	38	38	-	37	37	-				39	39	-	37	37	-	37	37	-
	Acklam Road	2919	2910	2919-2910	23	24	1	3%	24	0	2%	23	0	0%	23	0	-1%	24	1	2%	24	0	1%	23	-1	-3%
	Marton Road	3326	3314	3326-3314	17	18	1	3%	18	1	4%	18	1	4%	17	0	0%	17	0	1%	18	0	2%	17	0	1%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		32	32	-	31	31	-	29	29	-				30	30	-	28	28	-	25	25	-
	Ormesby Road	3512	3499	3512-3499	19	21	2	12%	21	2	10%	21	2	9%	19	-1	-3%	21	2	10%	21	2	10%	21	1	7%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	28	29	1	5%	29	1	4%	29	1	3%	28	0	0%	29	1	5%	29	1	4%	28	0	2%
	Normanby Road	3675	3669	3675-3669	14	15	0	2%	14	0	-2%	14	-1	-6%	14	-1	-7%	13	-2	-11%	12	-2	-14%	12	-3	-19%
	Church Lane	3707	3708	3707-3708	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	-1%	29	-1	-3%
	Greystone Road	3773	3748	3773-3748	44	43	0	-1%	42	-2	-5%	41	-3	-7%	42	-2	-4%	39	-5	-10%	38	-6	-13%	36	-8	-18%
	A1042	3843	3837	3843-3837	39	39	0	0%	39	0	0%	39	0	0%	38	0	-1%	38	-1	-3%	34	-5	-13%	35	-4	-11%
	Redcar Lane	3930	3927	3930-3927	30	29	0	0%	29	0	-1%	29	0	0%	29	0	0%	29	0	-1%	29	-1	-2%	27	-2	-8%
				Average*	**30**	**31**	1	4%	**30**	0	1%	**30**	0	-1%	**29**	0	-1%	**30**	0	1%	**29**	-1	-3%	**28**	-2	-7%
Southbound	A19	2770	2750	2770-2750	67	67	0	1%	66	-1	-1%	65	-2	-3%	66	0	0%	67	0	0%	66	-1	-1%	64	-3	-4%
	Stainton Way West Extension	5644	4600	4600-5644		39	39	-	39	39	-	39	39	-				39	39	-	39	39	-	39	39	-
	Acklam Road	2910	2919	2910-2919	11	11	0	1%	11	0	-4%	10	-1	-8%	11	0	0%	11	0	-2%	10	-1	-8%	9	-2	-14%
	Marton Road	3314	3326	3314-3326	24	23	-1	-3%	23	0	-2%	23	-1	-4%	24	0	0%	23	-1	-3%	23	-1	-4%	23	-1	-4%
	Longlands to Ladgate	5639	5638	5639-5638		36	36	-	37	37	-	36	36	-				36	36	-	37	37	-	36	36	-
	Otmeasby Road	3499	3512	3499-3512	28	30	2	8%	30	2	7%	30	2	7%	28	0	0%	30	2	8%	30	2	7%	30	2	8%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	29	30	0	1%	30	0	1%	30	0	1%	30	0	0%	30	0	1%	30	0	1%	30	0	1%
	Normanby Road	3669	3675	3669-3675	29	29	0	0%	28	0	-1%	28	0	-2%	29	0	-1%	29	0	-1%	28	0	-1%	28	-1	-2%
	Church Lane	3708	3707	3708-3707	24	25	0	1%	25	0	1%	25	0	1%	25	0	1%	25	0	1%	25	0	1%	24	0	0%
	Greystone Road	3751	3775	3751-3775	57	57	0	0%	57	-1	-1%	56	-1	-2%	57	0	0%	57	0	0%	56	-1	-2%	56	-2	-3%
	A1042	3837	3843	3837-3843	28	28	0	0%	28	0	-1%	28	-1	-3%	29	0	1%	28	-1	-3%	26	-2	-7%	28	0	0%
	Redcar Lane	3927	3930	3927-3930	27	27	0	0%	27	0	0%	27	0	0%	27	0	0%	26	0	0%	26	0	-2%	26	0	-2%
				Average*	**32**	**33**	1	3%	**33**	1	3%	**33**	1	2%	**32**	0	0%	**33**	1	3%	**33**	1	2%	**33**	0	1%
Tees Crossing Screenline																									
NB	A19	2849	2829	2849-2829	46	42	-4	-9%	36	-10	-22%	39	-7	-15%	46	0	0%	42	-4	-9%	37	-9	-20%	38	-9	-19%
	Newport Bridge Approach	2882	2850	2882-2850	39	39	0	0%	39	0	0%	38	-1	-2%	39	0	0%	39	0	0%	39	0	0%	38	-1	-2%
				Average*	**43**	**41**	-2	-5%	**38**	-5	-12%	**39**	-4	-9%	**43**	0	0%	**41**	-2	-5%	**38**	-5	-11%	**38**	-5	-11%
SB	A19	2827	2848	2827-2848	19	18	-1	-8%	16	-3	-18%	15	-4	-23%	18	-1	-4%	17	-2	-12%	15	-4	-22%	14	-6	-29%
	Newport Bridge Approach	2850	2882	2850-2882	14	13	-1	-8%	12	-2	-12%	12	-2	-12%	13	-1	-5%	12	-2	-12%	12	-2	-12%	12	-2	-12%
				Average*	**17**	**15**	-1	-8%	**14**	-3	-15%	**14**	-3	-18%	**16**	-1	-4%	**15**	-2	-12%	**14**	-3	-18%	**13**	-4	-21%

*Average speeds not weighted for flow

Screen Line Data - Change In AM Speed (mph) - Do Minimum and Do Minimum + STRMP

	AM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
							Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	Junction Screenlines																									
	Greystones Roundabout																									
1	A1053	3751	3775	3751-3775	57	57	0	0%	57	-1	-1%	56	-1	-2%	57	0	0%	57	0	0%	56	-1	-2%	56	-2	-3%
	A174 East	3785	3779	3785-3779	43	42	-1	-3%	38	-5	-12%	36	-8	-18%	42	-1	-2%	38	-5	-11%	31	-12	-28%	26	-17	-40%
	A174 West	3770	3774	3770-3774	26	24	-2	-9%	15	-11	-42%	12	-15	-56%	22	-5	-18%	14	-13	-48%	6	-21	-78%	4	-22	-83%
	High Street	3772	3773	3772-3773	19	18	-1	-5%	15	-4	-22%	13	-7	-34%	18	-1	-8%	15	-4	-23%	6	-13	-67%	3	-16	-84%
				Average*	**36**	**35**	**-1**	**-3%**	**31**	**-5**	**-14%**	**29**	**-8**	**-21%**	**35**	**-2**	**-5%**	**31**	**-5**	**-15%**	**25**	**-12**	**-32%**	**22**	**-14**	**-39%**
	Swans Corner																									
2	A171	3653	3684	3653-3684	27	26	-1	-2%	25	-2	-6%	24	-2	-9%	27	0	0%	26	-1	-3%	24	-2	-9%	22	-4	-16%
	Middlesbrough Road	3730	3684	3730-3684	44	41	-3	-7%	38	-6	-13%	35	-9	-20%	43	-1	-2%	39	-5	-12%	29	-15	-34%	18	-26	-59%
	A1043	3688	3684	3688-3684	40	39	-1	-3%	36	-4	-11%	33	-7	-17%	40	0	0%	38	-2	-6%	32	-8	-21%	26	-14	-36%
	Guisborough Road	3676	3684	3676-3684	21	20	-1	-4%	19	-1	-7%	17	-3	-17%	21	0	-1%	19	-2	-9%	17	-4	-21%	12	-9	-43%
				Average*	**33**	**31**	**-1**	**-4%**	**29**	**-3**	**-10%**	**27**	**-5**	**-16%**	**32**	**0**	**-1%**	**30**	**-2**	**-8%**	**25**	**-7**	**-23%**	**19**	**-13**	**-41%**
	A1053/A1085 Roundabout																									
3	A1085	3765	3753	3765-3753	36	36	0	0%	36	0	0%	36	0	-1%	36	0	0%	36	0	0%	36	0	0%	36	0	0%
	Industrial Estate	3757	3751	3757-3751	25	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%
	Greystones Road/A1053 South	3773	3748	3773-3748	44	43	0	-1%	42	-2	-5%	41	-3	-7%	42	-2	-4%	39	-5	-10%	38	-6	-13%	36	-8	-18%
	Broadway	3740	3745	3740-3745	31	30	-1	-3%	30	-2	-5%	29	-2	-8%	30	-2	-5%	24	-7	-22%	21	-10	-32%	14	-17	-55%
	A1053 North	3731	3746	3731-3746	24	24	0	0%	23	0	-2%	23	0	-2%	23	0	-2%	23	-1	-4%	23	-1	-6%	23	-1	-6%
				Average*	**32**	**32**	**0**	**-1%**	**31**	**-1**	**-3%**	**31**	**-1**	**-4%**	**31**	**-1**	**-2%**	**30**	**-2**	**-8%**	**29**	**-3**	**-11%**	**27**	**-5**	**-17%**
	A19/A174 Parkway Interchange																									
4	A19 North SB Slip	2743	2738	2743-2738	46	49	2	5%	46	0	0%	45	-2	-3%	45	-1	-1%	48	2	4%	46	-1	-1%	42	-4	-8%
	A174 East WB Slip	2864	2756	2864-2756	28	32	5	17%	27	-1	-4%	23	-5	-18%	27	-1	-3%	31	3	11%	24	-4	-13%	19	-9	-31%
	A19 South NB Slip	2732	2720	2732-2720	13	13	0	1%	13	0	2%	13	0	-1%	13	0	-1%	13	0	2%	13	0	-2%	13	0	-3%
	A174 West EB Slip	2633	2706	2633-2706	50	50	0	-1%	49	-1	-1%	49	-1	-2%	50	0	0%	49	0	-1%	49	-1	-1%	49	-1	-2%
				Average*	**34**	**36**	**2**	**5%**	**34**	**0**	**-1%**	**32**	**-2**	**-5%**	**34**	**0**	**-1%**	**35**	**1**	**3%**	**33**	**-1**	**-4%**	**31**	**-3**	**-10%**
	Cargo Fleet Lane Throughabout																									
5	Works Road	3502	3489	3502-3489	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	-1%	29	-1	-2%
	A66 East	4539	3488	4539-3488	31	33	2	6%	33	2	6%	32	1	3%	32	1	3%	35	4	13%	35	4	13%	32	1	4%
	Cargo Fleet Lane	3495	3492	3495-3492	27	27	0	2%	27	0	0%	26	0	-1%	26	0	-1%	27	0	0%	26	-1	-2%	27	0	-1%
	A66 West	4629	3478	4629-3478	14	16	2	13%	15	0	3%	12	-3	-18%	9	-5	-34%	7	-8	-53%	6	-9	-61%	5	-10	-68%
				Average*	**26**	**27**	**1**	**4%**	**26**	**1**	**2%**	**25**	**-1**	**-2%**	**24**	**-1**	**-4%**	**25**	**-1**	**-4%**	**24**	**-1**	**-6%**	**23**	**-2**	**-9%**
	Marton Road/Ladgate Lane Crossroads																									
6	Marton Road	3394	4283	3394-4283	26	27	2	7%	27	2	7%	27	2	6%	25	0	-1%	27	1	5%	27	2	6%	27	1	6%
	Ladgate Lane East	4284	3443	4284-3443	1	1	0	34%	1	0	32%	1	0	29%	1	0	-4%	1	0	29%	1	0	29%	1	0	24%
	Stokesley Road	3464	3443	3464-3443	9	11	2	16%	10	0	5%	8	-1	-9%	9	0	-4%	10	1	10%	8	-1	-8%	7	-3	-28%
	Ladgate Lane West	3388	3443	3388-3443	7	9	2	34%	9	2	26%	8	1	12%	7	0	-3%	9	2	29%	8	1	15%	7	0	0%
				Average*	**11**	**12**	**1**	**14%**	**12**	**1**	**10%**	**11**	**0**	**4%**	**10**	**0**	**-2%**	**12**	**1**	**11%**	**11**	**0**	**5%**	**10**	**0**	**-2%**
	Tees Dock Road Roundabout																									
7	Tees Dock Road	3724	3731	3724-3731	42	42	0	0%	42	0	0%	42	0	0%	42	0	0%	39	-3	-7%	39	-3	-8%	39	-3	-8%
	A1053	3745	3732	3745-3732	33	32	-1	-3%	27	-5	-17%	24	-8	-26%	28	-5	-15%	21	-11	-35%	16	-16	-50%	14	-19	-57%
	A66	3704	3729	3704-3729	48	48	0	0%	48	0	0%	47	-1	-2%	47	-1	-3%	44	-4	-8%	38	-10	-21%	31	-17	-36%
				Average*	**41**	**40**	**0**	**-1%**	**39**	**-2**	**-5%**	**38**	**-3**	**-8%**	**39**	**-2**	**-5%**	**35**	**-6**	**-15%**	**31**	**-10**	**-24%**	**28**	**-13**	**-32%**
	A1042/A174 Roundabout																									
8	A1042	3822	3825	3822-3825	10	10	0	-3%	9	-1	-11%	9	-1	-13%	10	0	-1%	10	0	-3%	9	-2	-15%	8	-2	-24%
	A174 East	3866	3827	3866-3827	46	45	-1	-2%	41	-4	-9%	40	-6	-13%	45	-1	-2%	42	-4	-8%	37	-8	-19%	35	-11	-23%
	A174 West	3807	3818	3807-3818	39	36	-2	-6%	31	-8	-21%	27	-12	-31%	37	-1	-4%	36	-2	-6%	40	2	4%	38	0	-1%
	Industrial Estate	3817	3820	3817-3820	27	27	0	0%	27	-1	-2%	27	-1	-2%	27	-1	-2%	27	-1	-2%	27	-1	-2%	26	-1	-4%
				Average*	**31**	**30**	**-1**	**-3%**	**27**	**-4**	**-12%**	**26**	**-5**	**-16%**	**30**	**-1**	**-3%**	**29**	**-2**	**-6%**	**28**	**-2**	**-7%**	**27**	**-4**	**-12%**
	Cargo Fleet Lane/Ladgate Lane Roundabout																									
9	Cargo Fleet Lane	3610	3625	3610-3625	18	22	3	19%	21	2	13%	20	2	11%	18	0	0%	21	3	18%	21	2	13%	19	1	7%
	Normanby Road East	3661	3625	3661-3625	27	26	-1	-3%	25	-1	-5%	25	-2	-7%	26	0	0%	26	-1	-4%	24	-2	-9%	22	-4	-17%
	Sunnyfield	3639	3625	3639-3625	11	11	0	-2%	11	0	-2%	11	0	-4%	11	0	0%	11	0	-3%	11	-1	-5%	10	-1	-12%
	Ladgate Lane	3600	3625	3600-3625	15	13	-3	-17%	12	-3	-21%	12	-4	-25%	15	-1	-3%	12	-3	-21%	11	-4	-27%	11	-4	-28%
				Average*	**18**	**18**	**0**	**0%**	**17**	**-1**	**-3%**	**17**	**-1**	**-6%**	**18**	**0**	**-1%**	**18**	**0**	**-2%**	**17**	**-1**	**-6%**	**16**	**-2**	**-12%**
	Normanby Road/B1380																									
10	Normanby Road	3685	3698	3685-3698	21	21	0	1%	21	0	0%	21	0	-2%	21	0	0%	21	0	-2%	20	-1	-5%	19	-2	-9%
	B1380 East	3720	3698	3720-3698	20	20	0	0%	20	0	-1%	19	-1	-3%	20	0	-2%	20	0	-2%	19	-1	-3%	18	-2	-9%
	Cleveland Street	3697	3698	3697-3698	11	11	0	0%	11	0	-1%	11	0	-3%	11	0	-1%	10	-1	-8%	10	-1	-12%	8	-2	-23%
	B1380 West	3694	3698	3694-3698	9	9	0	4%	8	0	-3%	8	-1	-6%	8	-1	-6%	8	-1	-9%	7	-1	-15%	6	-2	-25%
				Average*	**15**	**15**	**0**	**1%**	**15**	**0**	**-1%**	**15**	**-0.46**	**-3%**	**15**	**-0.27**	**-2%**	**15**	**-0.59**	**-4%**	**14**	**-1**	**-7%**	**13**	**-2**	**-14%**

Screen Line Data - Change In PM Speed (mph) - Do Minimum and Do Minimum + STRMP

	PM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
							Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	East/West Screenline																									
Westbound	Dockside Road	3573	3502	3573-3502	48	48	0	0%	48	0	0%	48	0	0%	48	0	0%	47	-1	-2%	43	-5	-10%	36	-12	-24%
	A66	3601	4539	3601-4539	52	52	0	0%	52	0	0%	52	0	0%	52	0	-1%	52	-1	-1%	51	-1	-3%	51	-2	-3%
	Middlesbrough Road	3574	3495	3574-3495	29	29	0	0%	29	0	0%	29	0	0%	29	0	-1%	29	0	0%	29	0	0%	29	0	0%
	Sotherby Road	3591	3575	3591-3575	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3580	3513	3580-3513	13	16	3	23%	16	3	21%	16	2	18%	13	0	1%	17	3	24%	16	3	20%	16	3	21%
	Overdale Road	3547	3514	3547-3514	29	29	0	-1%	29	0	-2%	29	-1	-2%	29	0	0%	29	0	-2%	29	0	-2%	29	0	-2%
	B1380 Ladgate Lane	3548	3526	3548-3526	25	21	-5	-18%	20	-5	-20%	20	-6	-22%	25	0	-1%	21	-5	-19%	20	-6	-22%	20	-6	-22%
	A174	3634	3529	3634-3529	59	59	0	0%	58	-2	-3%	57	-2	-4%	59	0	-1%	58	-1	-2%	54	-5	-8%	51	-8	-13%
	Guisborough Road	3670	3666	3670-3666	26	26	0	0%	26	-1	-2%	25	-1	-4%	26	0	0%	26	0	-1%	25	-1	-4%	24	-2	-9%
	A1043	3688	3659	3688-3659	38	36	-2	-4%	32	-6	-15%	31	-7	-18%	38	0	-1%	36	-2	-6%	32	-6	-17%	31	-7	-19%
				Average*	**35**	**35**	**0**	**-1%**	**34**	**-1**	**-3%**	**34**	**-1**	**-4%**	**35**	**0**	**0%**	**34**	**-1**	**-2%**	**33**	**-2**	**-6%**	**32**	**-3**	**-10%**
Eastbound	Dockside Road	3502	3573	3502-3573	43	43	-1	-2%	41	-2	-5%	40	-4	-9%	43	-1	-1%	41	-3	-6%	38	-5	-11%	35	-9	-20%
	A66	4539	3599	4539-3599	47	47	0	0%	46	-1	-2%	46	-1	-2%	47	0	0%	47	0	0%	47	-1	-1%	47	0	0%
	Middlesbrough Road	3495	3574	3495-3574	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	Sotherby Road	3575	3591	3575-3591	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3513	3580	3513-3580	39	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%
	Overdale Road	3514	3547	3514-3547	30	30	0	1%	30	0	1%	30	0	1%	30	0	0%	30	0	1%	30	0	1%	30	0	1%
	B1380 Ladgate Lane	3526	3548	3526-3548	23	13	-11	-46%	13	-10	-44%	13	-10	-44%	23	0	0%	12	-11	-47%	12	-11	-47%	12	-11	-47%
	A174	3520	3633	3520-3633	60	60	0	0%	59	0	-1%	59	-1	-1%	60	0	0%	60	0	0%	59	-1	-2%	58	-1	-2%
	Guisborough Road	3666	3670	3666-3670	20	20	0	-2%	19	-1	-3%	19	-1	-5%	20	0	0%	19	-1	-4%	19	-1	-4%	20	-1	-3%
	A1043	3659	3688	3659-3688	40	39	-1	-2%	36	-4	-9%	35	-5	-13%	40	0	0%	39	-1	-3%	36	-4	-11%	36	-4	-9%
				Average*	**36**	**35**	**-1**	**-3%**	**34**	**-2**	**-5%**	**34**	**-2**	**-6%**	**36**	**0**	**0%**	**35**	**-2**	**-4%**	**34**	**-2**	**-6%**	**34**	**-2**	**-7%**
	North/South Screenline																									
Northbound	A19	2735	2771	2735-2771	66	66	0	0%	65	-1	-2%	64	-2	-4%	66	0	0%	66	0	0%	64	-2	-3%	63	-4	-5%
	Stainton Way West Extension	4600	5644	4600-5644		39	39	-	39	39	-	39	39	-				39	39	-	39	39	-	39	39	-
	Acklam Road	2919	2910	2919-2910	25	26	1	5%	25	0	1%	25	0	0%	24	0	0%	25	0	0%	25	0	0%	25	0	0%
	Marton Road	3326	3314	3326-3314	15	14	-2	-10%	13	-2	-11%	13	-2	-11%	15	0	1%	14	-1	-8%	14	-2	-10%	14	-1	-9%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		38	38	-	38	38	-	38	38	-				38	38	-	38	38	-	38	38	-
	Ormesby Road	3512	3499	3512-3499	23	25	1	5%	25	2	9%	25	2	8%	23	0	0%	24	1	4%	25	1	6%	25	1	5%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	29	30	1	2%	30	1	2%	30	1	2%	29	0	0%	30	1	2%	30	1	2%	30	0	2%
	Normanby Road	3675	3669	3675-3669	12	13	1	7%	13	1	4%	13	1	6%	13	0	2%	13	1	5%	13	1	7%	12	0	0%
	Church Lane	3707	3708	3707-3708	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	Greystone Road	3773	3748	3773-3748	46	46	0	0%	46	0	0%	46	0	0%	45	-1	-1%	45	-1	-1%	45	-1	-1%	45	-1	-2%
	A1042	3843	3837	3843-3837	39	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%
	Redcar Lane	3930	3927	3930-3927	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	29	0	-1%	30	0	-1%	29	0	-1%
				Average*	**32**	**33**	**1**	**4%**	**33**	**1**	**4%**	**33**	**1**	**3%**	**31**	**0**	**0%**	**33**	**1**	**4%**	**33**	**1**	**3%**	**32**	**1**	**3%**
Southbound	A19	2770	2750	2770-2750	52	54	2	4%	48	-5	-9%	45	-7	-14%	52	0	-1%	53	1	2%	47	-6	-11%	44	-8	-15%
	Stainton Way West Extension	5644	4600	5644-4600		39	39	-	39	39	-	38	38	-				39	39	-	39	39	-	38	38	-
	Acklam Road	2910	2919	2910-2919	11	11	-1	-6%	11	0	-4%	11	-1	-7%	12	0	0%	11	-1	-9%	11	-1	-7%	11	-1	-5%
	Marton Road	3314	3326	3314-3326	24	23	-1	-2%	24	0	0%	24	0	-1%	23	-1	-3%	23	-1	-4%	23	0	-2%	23	-1	-3%
	Longlands to Ladgate	5639	5638	5639-5638		34	34	-	33	33	-	33	33	-				33	33	-	32	32	-	30	30	-
	Otmeasby Road	3499	3512	3499-3512	22	26	4	21%	26	5	21%	26	5	21%	22	0	-1%	26	5	21%	27	5	22%	27	5	22%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	27	28	1	5%	28	1	5%	28	1	4%	27	0	0%	28	2	6%	28	2	6%	28	1	5%
	Normanby Road	3669	3675	3669-3675	19	20	1	4%	20	1	3%	20	0	2%	19	0	-2%	19	0	-1%	19	-1	-5%	17	-2	-11%
	Church Lane	3708	3707	3708-3707	26	26	0	0%	26	0	-1%	26	0	-1%	26	0	0%	26	0	0%	26	0	0%	26	0	-1%
	Greystone Road	3751	3775	3751-3775	51	50	0	-1%	49	-2	-4%	48	-3	-6%	49	-2	-4%	48	-3	-5%	42	-9	-18%	34	-16	-32%
	A1042	3837	3843	3837-3843	31	31	0	0%	30	-1	-3%	30	-1	-3%	29	-1	-4%	26	-4	-14%	25	-6	-20%	22	-9	-29%
	Redcar Lane	3927	3930	3927-3930	26	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%
				Average*	**29**	**31**	**2**	**6%**	**30**	**1**	**3%**	**30**	**1**	**2%**	**28**	**0**	**-2%**	**30**	**1**	**3%**	**29**	**0**	**-1%**	**27**	**-2**	**-6%**
	Tees Crossing Screenline																									
NB	A19	2849	2829	2849-2829	54	51	-2	-4%	45	-9	-16%	48	-5	-10%	52	-1	-2%	50	-4	-8%	47	-7	-13%	43	-10	-19%
	Newport Bridge Approach	2882	2850	2882-2850	39	39	0	0%	39	0	-1%	38	-1	-3%	39	0	0%	39	0	-1%	37	-1	-4%	37	-2	-5%
				Average*	**46**	**45**	**-1**	**-3%**	**42**	**-4**	**-10%**	**43**	**-3**	**-7%**	**46**	**-1**	**-1%**	**44**	**-2**	**-5%**	**42**	**-4**	**-9%**	**40**	**-6**	**-13%**
SB	A19	2827	2848	2827-2848	19	17	-2	-9%	14	-4	-23%	14	-5	-26%	19	0	0%	17	-2	-9%	15	-4	-20%	14	-5	-25%
	Newport Bridge Approach	2850	2882	2850-2882	18	16	-2	-10%	14	-3	-19%	13	-5	-26%	18	0	0%	16	-2	-10%	14	-3	-19%	14	-4	-23%
				Average*	**18**	**16**	**-2**	**-9%**	**14**	**-4**	**-21%**	**13**	**-5**	**-26%**	**18**	**0**	**0%**	**16**	**-2**	**-10%**	**15**	**-4**	**-20%**	**14**	**-4**	**-24%**

*Average speeds not weighted for flow

Screen Line Data - Change In PM Speed (mph) - Do Minimum and Do Minimum + STRMP

	PM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
							Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	Junction Screenlines																									
	Greystones Roundabout																									
1	A1053	3751	3775	3751-3775	51	50	0	-1%	49	-2	-4%	48	-3	-6%	49	-2	-4%	48	-3	-5%	42	-9	-18%	34	-16	-32%
	A174 East	3785	3779	3785-3779	51	50	0	-1%	48	-3	-5%	47	-4	-8%	50	0	-1%	48	-3	-5%	42	-8	-17%	39	-11	-22%
	A174 West	3770	3774	3770-3774	31	31	0	0%	28	-3	-9%	26	-4	-14%	30	0	-2%	30	0	-2%	24	-6	-20%	19	-12	-38%
	High Street	3772	3773	3772-3773	25	25	0	0%	24	-1	-4%	23	-2	-7%	25	0	0%	25	0	0%	22	-2	-10%	21	-3	-13%
				Average*	**39**	**39**	**0**	**-1%**	**37**	**-2**	**-5%**	**36**	**-3**	**-8%**	**38**	**-1**	**-2%**	**38**	**-1**	**-4%**	**33**	**-7**	**-17%**	**29**	**-11**	**-27%**
	Swans Corner																									
2	A171	3653	3684	3653-3684	25	24	0	-2%	25	0	-1%	24	0	-1%	25	0	0%	25	0	0%	25	0	1%	26	1	4%
	Middlesbrough Road	3730	3684	3730-3684	46	46	-1	-1%	44	-2	-5%	43	-3	-7%	46	-1	-1%	45	-1	-3%	43	-3	-7%	41	-5	-11%
	A1043	3688	3684	3688-3684	35	34	0	-1%	32	-3	-9%	30	-5	-14%	35	0	0%	34	-1	-3%	31	-4	-12%	31	-4	-12%
	Guisborough Road	3676	3684	3676-3684	19	19	0	-1%	19	-1	-4%	18	-1	-7%	19	0	0%	19	-1	-4%	18	-1	-5%	19	-1	-3%
				Average*	**31**	**31**	**0**	**-1%**	**30**	**-2**	**-5%**	**29**	**-2**	**-8%**	**31**	**0**	**0%**	**31**	**-1**	**-2%**	**29**	**-2**	**-7%**	**29**	**-2**	**-7%**
	A1053/A1085 Roundabout																									
3	A1085	3765	3753	3765-3753	32	32	-1	-2%	30	-2	-6%	30	-2	-7%	22	-10	-33%	13	-19	-61%	7	-25	-78%	5	-27	-84%
	Industrial Estate	3757	3751	3757-3751	24	24	0	0%	23	-1	-4%	23	-1	-4%	23	-1	-4%	23	-2	-7%	23	-2	-7%	22	-3	-10%
	Greystones Road/A1053 South	3773	3748	3773-3748	46	46	0	0%	46	0	0%	46	0	0%	45	-1	-1%	45	-1	-1%	45	-1	-1%	45	-1	-2%
	Broadway	3740	3745	3740-3745	33	33	0	0%	32	-1	-3%	32	-1	-3%	32	-1	-3%	31	-2	-6%	30	-3	-8%	30	-3	-8%
	A1053 North	3731	3746	3731-3746	21	20	-1	-3%	18	-3	-14%	17	-4	-20%	20	-1	-7%	17	-4	-20%	12	-8	-40%	9	-12	-56%
				Average*	**31**	**31**	**0**	**-1%**	**30**	**-1**	**-4%**	**30**	**-2**	**-5%**	**28**	**-3**	**-9%**	**26**	**-6**	**-18%**	**23**	**-8**	**-25%**	**22**	**-9**	**-28%**
	A19/A174 Parkway Interchange																									
4	A19 North SB Slip	2743	2738	2743-2738	28	31	3	10%	28	-1	-2%	27	-1	-5%	28	0	-1%	31	2	8%	27	-1	-5%	26	-2	-7%
	A174 East WB Slip	2864	2756	2864-2756	34	35	0	1%	30	-5	-13%	31	-3	-10%	33	-1	-4%	32	-2	-7%	31	-3	-10%	32	-3	-7%
	A19 South NB Slip	2732	2720	2732-2720	14	14	0	-1%	14	-1	-6%	14	-1	-6%	14	0	-2%	14	-1	-5%	13	-1	-7%	13	-1	-7%
	A174 West EB Slip	2633	2706	2633-2706	52	52	0	0%	52	0	0%	52	0	0%	52	0	0%	52	0	0%	52	0	0%	52	0	0%
				Average*	**32**	**33**	**1**	**2%**	**31**	**-2**	**-5%**	**31**	**-1**	**-4%**	**32**	**0**	**-1%**	**32**	**0**	**-1%**	**31**	**-1.4**	**-4%**	**31**	**-1**	**-4%**
	Cargo Fleet Lane Throughabout																									
5	Works Road	3502	3489	3502-3489	30	30	0	0%	29	0	-1%	29	-1	-2%	29	-1	-3%	26	-4	-12%	22	-8	-27%	16	-13	-45%
	A66 East	4539	3488	4539-3488	35	36	1	3%	36	1	3%	35	0	0%	32	-2	-6%	31	-3	-9%	30	-5	-15%	27	-8	-23%
	Cargo Fleet Lane	3495	3492	3495-3492	28	29	1	2%	29	1	2%	29	0	2%	28	0	0%	29	1	2%	29	1	2%	29	1	2%
	A66 West	4629	3478	4629-3478	9	11	2	27%	9	0	5%	9	0	-2%	8	-1	-8%	9	0	3%	9	0	-3%	8	-1	-9%
				Average*	**25**	**26**	**1**	**4%**	**26**	**0**	**2%**	**25**	**0**	**0%**	**24**	**-1**	**-4%**	**24**	**-1**	**-6%**	**22**	**-3**	**-12%**	**20**	**-5**	**-21%**
	Marton Road/Ladgate Lane Crossroads																									
6	Marton Road	3394	4283	3394-4283	25	26	2	7%	27	2	7%	26	1	5%	25	0	-1%	26	1	5%	26	1	5%	25	0	0%
	Ladgate Lane East	4284	3443	4284-3443	1	1	0	-15%	1	0	-22%	1	0	-32%	1	0	-1%	1	0	-22%	1	0	-34%	1	0	-43%
	Stokesley Road	3464	3443	3464-3443	8	7	-1	-9%	7	-1	-13%	6	-2	-22%	8	0	-2%	7	-1	-12%	7	-1	-15%	6	-2	-25%
	Ladgate Lane West	3388	3443	3388-3443	14	14	-1	-6%	14	0	-2%	14	0	-2%	14	-1	-4%	12	-2	-17%	14	-1	-4%	14	0	-1%
				Average*	**12**	**12**	**0**	**0%**	**12**	**0**	**1%**	**12**	**0**	**-2%**	**12**	**0**	**-2%**	**11**	**-1**	**-5%**	**12**	**0**	**-2%**	**11**	**-1**	**-5%**
	Tees Dock Road Roundabout																									
7	Tees Dock Road	3724	3731	3724-3731	39	39	0	0%	36	-3	-7%	36	-3	-7%	36	-3	-7%	33	-5	-14%	29	-10	-26%	23	-16	-41%
	A1053	3745	3732	3745-3732	43	43	0	0%	43	0	0%	42	-2	-4%	42	-2	-4%	40	-3	-7%	36	-7	-16%	34	-9	-21%
	A66	3704	3729	3704-3729	44	43	-1	-3%	41	-3	-7%	40	-4	-10%	43	-1	-3%	41	-3	-7%	40	-4	-9%	38	-6	-13%
				Average*	**42**	**42**	**0**	**-1%**	**40**	**-2**	**-5%**	**39**	**-3**	**-7%**	**40**	**-2**	**-4%**	**38**	**-4**	**-9%**	**35**	**-7**	**-17%**	**32**	**-10**	**-24%**
	A1042/A174 Roundabout																									
8	A1042	3822	3825	3822-3825	6	6	0	0%	9	2	36%	9	2	35%	6	0	-4%	8	2	30%	7	1	11%	7	0	0%
	A174 East	3866	3827	3866-3827	55	55	0	-1%	53	-2	-4%	52	-3	-6%	55	0	0%	55	0	-1%	52	-4	-7%	50	-5	-9%
	A174 West	3807	3818	3807-3818	13	13	-1	-4%	11	-2	-17%	10	-3	-24%	13	0	-3%	11	-2	-14%	9	-4	-30%	8	-5	-40%
	Industrial Estate	3817	3820	3817-3820	26	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%
				Average*	**25**	**25**	**0**	**-1%**	**25**	**-1**	**-2%**	**24**	**-1**	**-4%**	**25**	**0**	**-1%**	**25**	**0**	**0%**	**23**	**-2**	**-7%**	**23**	**-3**	**-10%**
	Cargo Fleet Lane/Ladgate Lane Roundabout																									
9	Cargo Fleet Lane	3610	3625	3610-3625	14	17	3	18%	16	2	14%	16	1	11%	14	0	-2%	17	3	19%	16	2	15%	16	1	10%
	Normanby Road East	3661	3625	3661-3625	26	26	0	0%	26	0	0%	26	0	-1%	26	0	0%	26	0	-1%	26	-1	-2%	25	-1	-3%
	Sunnyfield	3639	3625	3639-3625	16	16	0	-1%	16	0	-1%	16	0	-2%	16	0	0%	16	0	0%	16	0	-1%	15	-1	-4%
	Ladgate Lane	3600	3625	3600-3625	12	11	0	-3%	11	0	-3%	11	0	-3%	12	0	-1%	11	0	-3%	11	0	-3%	11	0	-4%
				Average*	**17**	**18**	**1**	**3%**	**17**	**0**	**2%**	**17**	**0**	**1%**	**17**	**0**	**-1%**	**18**	**1**	**3%**	**17**	**0**	**1%**	**17**	**0**	**-1%**
	Normanby Road/B1380																									
10	Normanby Road	3685	3698	3685-3698	16	17	1	5%	17	1	6%	17	1	5%	16	0	-2%	16	0	2%	16	0	1%	15	-1	-5%
	B1380 East	3720	3698	3720-3698	19	19	0	-1%	19	0	-1%	19	-1	-3%	18	-1	-5%	17	-2	-11%	17	-2	-11%	16	-3	-17%
	Cleveland Street	3697	3698	3697-3698	12	11	0	-1%	12	0	3%	11	0	-2%	11	-1	-5%	10	-1	-11%	10	-1	-10%	10	-2	-17%
	B1380 West	3694	3698	3694-3698	8	8	0	0%	9	0	4%	9	0	4%	8	0	3%	8	0	3%	9	0	4%	8	0	-2%
				Average*	**14**	**14**	**0**	**1%**	**14**	**0**	**3%**	**14**	**0**	**1%**	**13**	**0**	**-3%**	**13**	**-1**	**-5%**	**13**	**-1**	**-5%**	**12**	**-2**	**-11%**

*Average speeds not weighted for flow

Screen Line Data - Change In AM Traffic Flow - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	AM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
	East/West Screenline																						
Westbound	Dockside Road	3573	3502	3573-3502	403	494	91	23%	349	-53	-13%	494	91	23%	346	-57	-14%	493	90	22%	345	-58	-14%
	A66	3601	4539	3601-4539	1777	1734	-43	-2%	1978	202	11%	1730	-46	-3%	1983	206	12%	1732	-45	-3%	1982	205	12%
	Middlesbrough Road	3574	3495	3574-3495	394	397	3	1%	540	146	37%	392	-2	0%	539	145	37%	394	0	0%	540	146	37%
	Sotherby Road	3591	3575	3591-3575	108	115	7	6%	103	-5	-5%	115	7	6%	102	-6	-5%	115	7	6%	102	-6	-6%
	A1085 Longlands Road	3580	3513	3580-3513	426	452	26	6%	355	-71	-17%	464	38	9%	353	-73	-17%	460	34	8%	358	-68	-16%
	Overdale Road	3547	3514	3547-3514	167	208	42	25%	216	49	30%	208	42	25%	214	47	28%	208	41	25%	215	48	29%
	B1380 Ladgate Lane	3548	3526	3548-3526	865	1226	361	42%	1347	481	56%	1225	359	42%	1342	476	55%	1224	359	41%	1345	480	55%
	A174	3634	3529	3634-3529	1236	1393	156	13%	1847	611	49%	1390	154	12%	1852	616	50%	1390	154	12%	1848	611	49%
	Guisborough Road	3670	3666	3670-3666	340	386	46	13%	439	98	29%	387	47	14%	443	103	30%	386	45	13%	438	97	29%
	A1043	3688	3659	3688-3659	812	855	43	5%	988	176	22%	852	39	5%	987	175	21%	854	42	5%	987	174	21%
				Total	**6528**	**7259**	731	**11%**	**8161**	1633	**25%**	**7257**	729	**11%**	**8161**	1633	**25%**	**7255**	727	**11%**	**8158**	1630	**25%**
Eastbound	Dockside Road	3502	3573	3502-3573	188	661	473	252%	701	513	273%	658	471	251%	696	509	271%	659	472	251%	698	510	272%
	A66	4539	3599	4539-3599	1104	1385	281	25%	1812	708	64%	1383	279	25%	1815	711	64%	1385	281	25%	1813	709	64%
	Middlesbrough Road	3495	3574	3495-3574	77	88	11	14%	268	191	249%	88	11	14%	269	192	249%	88	11	14%	270	193	251%
	Sotherby Road	3575	3591	3575-3591	16	20	3	21%	24	7	43%	20	3	21%	23	7	43%	20	3	21%	23	7	43%
	A1085 Longlands Road	3513	3580	3513-3580	384	599	216	56%	843	460	120%	596	212	55%	846	463	121%	594	211	55%	845	462	120%
	Overdale Road	3514	3547	3514-3547	120	63	-56	-47%	24	-96	-80%	63	-57	-48%	24	-96	-80%	63	-57	-47%	24	-96	-80%
	B1380 Ladgate Lane	3526	3548	3526-3548	859	1245	386	45%	1332	473	55%	1247	389	45%	1324	465	54%	1246	387	45%	1330	472	55%
	A174	3520	3633	3520-3633	1515	1861	346	23%	2191	675	45%	1861	346	23%	2186	670	44%	1862	347	23%	2186	670	44%
	Guisborough Road	3666	3670	3666-3670	429	472	43	10%	598	169	39%	473	44	10%	599	170	40%	473	44	10%	598	169	39%
	A1043	3659	3688	3659-3688	613	686	72	12%	945	332	54%	685	72	12%	942	329	54%	683	70	11%	941	328	53%
				Total	**5304**	**7079**	1775	**33%**	**8737**	3432	**65%**	**7074**	1770	**33%**	**8724**	3420	**64%**	**7073**	1768	**33%**	**8728**	3424	**65%**
	North/South Screenline																						
Northbound	A19	2735	2771	2735-2771	4629	4703	74	2%	5206	577	12%	4700	71	2%	5197	568	12%	4702	73	2%	5200	570	12%
	Stainton Way West Extension	4600	5644	4600-5644		451	451	-	695	695	-	447	447	-	703	703	-	451	451	-	698	698	-
	Acklam Road	2919	2910	2919-2910	1300	1192	-108	-8%	1411	111	9%	1196	-104	-8%	1408	109	8%	1191	-109	-8%	1407	107	8%
	Marton Road	3326	3314	3326-3314	1276	1093	-184	-14%	1188	-88	-7%	1091	-186	-15%	1183	-93	-7%	1094	-183	-14%	1186	-90	-7%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		1011	1011	-	1195	1195	-	1010	1010	-	1194	1194	-	1010	1010	-	1192	1192	-
	Ormesby Road	3512	3499	3512-3499	629	524	-105	-17%	562	-67	-11%	524	-105	-17%	560	-69	-11%	523	-106	-17%	562	-67	-11%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	737	621	-116	-16%	701	-36	-5%	618	-119	-16%	699	-38	-5%	619	-119	-16%	698	-39	-5%
	Normanby Road	3675	3669	3675-3669	725	771	46	6%	811	87	12%	772	48	7%	811	87	12%	772	47	7%	813	89	12%
	Church Lane	3707	3708	3707-3708	193	344	151	78%	580	387	201%	341	148	77%	579	386	200%	337	145	75%	579	386	200%
	Greystone Road	3773	3748	3773-3748	1517	1811	294	19%	1933	416	27%	1810	293	19%	1929	412	27%	1810	293	19%	1931	414	27%
	A1042	3843	3837	3843-3837	377	592	216	57%	832	455	121%	591	214	57%	830	453	120%	590	213	57%	829	452	120%
	Redcar Lane	3930	3927	3930-3927	516	575	60	12%	758	242	47%	574	58	11%	745	229	44%	574	58	11%	748	232	45%
				Total	**11899**	**13687**	1789	15%	**15873**	3975	33%	**13673**	1775	15%	**15839**	3941	33%	**13672**	1773	15%	**15842**	3943	33%
Southbound	A19	2770	2750	2770-2750	3261	3168	-93	-3%	3800	538	17%	3173	-88	-3%	3795	533	16%	3170	-92	-3%	3784	523	16%
	Stainton Way West Extension	5644	4600	5644-4600		260	260	-	300	300	-	260	260	-	304	304	-	260	260	-	302	302	-
	Acklam Road	2910	2919	2910-2919	579	560	-19	-3%	640	61	11%	560	-19	-3%	643	64	11%	559	-21	-4%	647	68	12%
	Marton Road	3314	3326	3314-3326	832	684	-148	-18%	725	-107	-13%	686	-146	-18%	723	-109	-13%	680	-152	-18%	723	-109	-13%
	Longlands to Ladgate	5639	5638	5639-5638		733	733	-	733	733	-	735	735	-	726	726	-	735	735	-	727	727	-
	Otmeasby Road	3499	3512	3499-3512	330	126	-204	-62%	127	-203	-62%	124	-206	-62%	127	-203	-62%	125	-204	-62%	130	-200	-61%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	538	387	-151	-28%	415	-123	-23%	383	-155	-29%	418	-120	-22%	383	-155	-29%	415	-123	-23%
	Normanby Road	3669	3675	3669-3675	247	265	18	7%	290	44	18%	263	16	6%	293	46	19%	262	15	6%	290	43	18%
	Church Lane	3708	3707	3708-3707	69	40	-29	-42%	53	-16	-23%	42	-27	-40%	53	-16	-23%	43	-26	-37%	55	-14	-21%
	Greystone Road	3751	3775	3751-3775	468	421	-47	-10%	627	159	34%	420	-48	-10%	626	158	34%	421	-47	-10%	629	161	34%
	A1042	3837	3843	3837-3843	233	347	114	49%	553	321	138%	347	115	49%	530	298	128%	347	114	49%	538	305	131%
	Redcar Lane	3927	3930	3927-3930	412	448	36	9%	472	60	15%	446	34	8%	475	63	15%	445	33	8%	476	63	15%
				Total	**6970**	**7439**	469	7%	**8736**	1766	25%	**7439**	470	7%	**8712**	1743	25%	**7431**	461	7%	**8716**	1747	25%
	Tees Crossing Screenline																						
NB	A19	2849	2829	2849-2829	5009	5194	185	4%	5412	404	8%	5195	187	4%	5412	404	8%	5195	187	4%	5412	404	8%
	Newport Bridge Approach	2882	2850	2882-2850	958	1022	64	7%	1337	379	40%	1023	65	7%	1337	379	40%	1023	65	7%	1337	379	40%
				Total	**5967**	**6217**	250	4%	**6749**	783	13%	**6218**	251	4%	**6749**	783	13%	**6218**	251	4%	**6749**	783	13%
SB	A19	2827	2848	2827-2848	4214	4368	155	4%	4626	412	10%	4366	153	4%	4626	412	10%	4366	153	4%	4626	412	10%
	Newport Bridge Approach	2850	2882	2850-2882	1597	1749	152	10%	2025	428	27%	1749	152	10%	2025	428	27%	1749	152	10%	2025	428	27%
				Total	**5811**	**6118**	307	5%	**6651**	840	14%	**6115**	304	5%	**6651**	840	14%	**6115**	304	5%	**6651**	840	14%

Screen Line Data - Change In AM Traffic Flow - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	AM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
	Junction Screenlines																						
	Greystones Roundabout																						
1	A1053	3751	3775	3751-3775	468	421	-47	-10%	627	159	34%	420	-48	-10%	626	158	34%	421	-47	-10%	629	161	34%
	A174 East	3785	3779	3785-3779	2505	2787	282	11%	3403	897	36%	2784	279	11%	3395	890	36%	2782	277	11%	3393	888	35%
	A174 West	3770	3774	3770-3774	1784	2087	303	17%	2361	577	32%	2089	305	17%	2356	572	32%	2088	304	17%	2357	572	32%
	High Street	3772	3773	3772-3773	399	429	30	8%	441	42	11%	428	30	7%	449	50	13%	427	29	7%	446	48	12%
				Total	**5156**	**5725**	568	**11%**	**6832**	1675	**32%**	**5721**	565	**11%**	**6826**	1670	**32%**	**5718**	562	**11%**	**6825**	1669	**32%**
	Swans Corner																						
2	A171	3653	3684	3653-3684	718	764	46	6%	872	154	21%	760	42	6%	875	156	22%	763	45	6%	874	156	22%
	Middlesbrough Road	3730	3684	3730-3684	1363	1522	159	12%	1736	373	27%	1520	157	11%	1731	368	27%	1520	156	11%	1732	369	27%
	A1043	3688	3684	3688-3684	613	686	72	12%	945	332	54%	685	72	12%	942	329	54%	683	70	11%	941	328	53%
	Guisborough Road	3676	3684	3676-3684	474	531	57	12%	665	191	40%	532	58	12%	666	192	40%	531	57	12%	665	191	40%
				Total	**3169**	**3502**	334	**11%**	**4218**	1049	**33%**	**3497**	328	**10%**	**4213**	1045	**33%**	**3497**	328	**10%**	**4212**	1044	**33%**
	A1053/A1085 Roundabout																						
3	A1085	3765	3753	3765-3753	1033	1099	66	6%	1114	81	8%	1100	67	7%	1123	90	9%	1102	68	7%	1122	89	9%
	Industrial Estate	3757	3751	3757-3751	71	82	11	16%	120	48	68%	82	11	16%	120	49	68%	82	11	16%	120	49	68%
	Greystones Road/A1053 South	3773	3748	3773-3748	1517	1811	294	19%	1933	416	27%	1810	293	19%	1929	412	27%	1810	293	19%	1931	414	27%
	Broadway	3740	3745	3740-3745	417	696	279	67%	887	470	113%	697	280	67%	884	466	112%	698	281	67%	883	466	112%
	A1053 North	3731	3746	3731-3746	899	1231	332	37%	1440	541	60%	1228	328	37%	1439	540	60%	1228	329	37%	1440	541	60%
				Total	**3938**	**4919**	981	25%	**5494**	1556	40%	**4917**	979	25%	**5495**	1557	40%	**4921**	983	25%	**5496**	1558	40%
	A19/A174 Parkway Interchange																						
4	A19 North SB Slip	2743	2738	2743-2738	2147	2038	-108	-5%	2379	232	11%	2040	-107	-5%	2374	228	11%	2039	-108	-5%	2363	217	10%
	A174 East WB Slip	2864	2756	2864-2756	2659	2701	41	2%	3040	380	14%	2701	42	2%	3039	379	14%	2702	42	2%	3037	378	14%
	A19 South NB Slip	2732	2720	2732-2720	237	319	82	35%	349	112	47%	317	79	33%	353	116	49%	318	81	34%	350	112	47%
	A174 West EB Slip	2633	2706	2633-2706	1946	2006	59	3%	2051	105	5%	2003	57	3%	2054	107	6%	2004	58	3%	2056	110	6%
				Total	**6989**	**7064**	75	1%	**7818**	829	12%	**7060**	71	1%	**7819**	830	12%	**7062**	73	1%	**7806**	817	12%
	Cargo Fleet Lane Throughabout																						
5	Works Road	3502	3489	3502-3489	238	383	145	61%	575	337	141%	384	146	61%	576	338	142%	381	144	60%	577	339	142%
	A66 East	4539	3488	4539-3488	1777	1734	-43	-2%	1978	202	11%	1730	-46	-3%	1983	206	12%	1732	-45	-3%	1982	205	12%
	Cargo Fleet Lane	3495	3492	3495-3492	1221	1220	0	0%	1261	40	3%	1205	-16	-1%	1259	38	3%	1210	-11	-1%	1254	34	3%
	A66 West	4629	3478	4629-3478	1934	2128	194	10%	2202	268	14%	2130	197	10%	2204	270	14%	2128	194	10%	2201	267	14%
				Total	**5169**	**5465**	296	6%	**6015**	846	16%	**5450**	281	5%	**6021**	852	16%	**5451**	282	5%	**6014**	845	16%
	Marton Road/Ladgate Lane Crossroads																						
6	Marton Road	3394	4283	3394-4283	851	779	-72	-8%	778	-73	-9%	780	-71	-8%	793	-58	-7%	780	-71	-8%	798	-54	-6%
	Ladgate Lane East	4284	3443	4284-3443	608	489	-118	-19%	576	-31	-5%	489	-118	-19%	562	-46	-8%	490	-118	-19%	553	-54	-9%
	Stokesley Road	3464	3443	3464-3443	879	873	-6	-1%	809	-70	-8%	869	-10	-1%	846	-33	-4%	868	-10	-1%	859	-19	-2%
	Ladgate Lane West	3388	3443	3388-3443	611	812	201	33%	1020	409	67%	814	203	33%	982	371	61%	814	202	33%	967	356	58%
				Total	**2949**	**2954**	5	0%	**3183**	234	8%	**2952**	3	0%	**3182**	234	8%	**2952**	4	0%	**3178**	229	8%
	Tees Dock Road Roundabout																						
7	Tees Dock Road	3724	3731	3724-3731	41	167	125	302%	313	272	656%	167	125	302%	313	272	656%	167	125	302%	313	272	656%
	A1053	3745	3732	3745-3732	1974	2206	232	12%	2273	299	15%	2209	235	12%	2277	303	15%	2210	236	12%	2274	300	15%
	A66	3704	3729	3704-3729	924	1454	530	57%	1951	1027	111%	1451	527	57%	1947	1023	111%	1451	527	57%	1950	1026	111%
				Total	**2939**	**3827**	887	30%	**4537**	1598	54%	**3826**	887	30%	**4537**	1598	54%	**3828**	889	30%	**4537**	1598	54%
	A1042/A174 Roundabout																						
8	A1042	3822	3825	3822-3825	652	818	165	25%	1083	431	66%	817	165	25%	1080	428	66%	817	165	25%	1079	426	65%
	A174 East	3866	3827	3866-3827	2183	2417	234	11%	2825	643	29%	2414	231	11%	2820	637	29%	2413	230	11%	2822	639	29%
	A174 West	3807	3818	3807-3818	1709	1779	70	4%	2217	508	30%	1777	68	4%	2207	498	29%	1776	67	4%	2212	504	29%
	Industrial Estate	3817	3820	3817-3820	21	22	1	5%	25	4	17%	22	1	4%	25	4	17%	22	1	4%	25	4	18%
				Total	**4565**	**5036**	470	10%	**6150**	1585	35%	**5030**	465	10%	**6132**	1567	34%	**5028**	463	10%	**6138**	1573	34%
	Cargo Fleet Lane/Ladgate Lane Roundabout																						
9	Cargo Fleet Lane	3610	3625	3610-3625	683	535	-148	-22%	607	-76	-11%	532	-151	-22%	611	-72	-11%	529	-154	-23%	607	-76	-11%
	Normanby Road East	3661	3625	3661-3625	635	711	75	12%	880	245	39%	708	73	11%	876	241	38%	711	75	12%	876	240	38%
	Sunnyfield	3639	3625	3639-3625	1055	1140	85	8%	1224	169	16%	1138	83	8%	1221	166	16%	1139	84	8%	1224	169	16%
	Ladgate Lane	3600	3625	3600-3625	668	834	166	25%	917	250	37%	834	166	25%	912	244	37%	835	167	25%	920	252	38%
				Total	**3041**	**3219**	178	6%	**3629**	588	19%	**3212**	171	6%	**3620**	579	19%	**3214**	173	6%	**3626**	585	19%
	Normanby Road/B1380																						
10	Normanby Road	3685	3698	3685-3698	251	262	11	4%	316	64	26%	261	10	4%	317	66	26%	262	10	4%	313	62	25%
	B1380 East	3720	3698	3720-3698	401	408	7	2%	459	58	14%	408	7	2%	456	55	14%	408	7	2%	457	56	14%
	Cleveland Street	3697	3698	3697-3698	397	466	69	17%	621	224	56%	466	69	17%	621	225	57%	467	70	18%	622	225	57%
	B1380 West	3694	3698	3694-3698	319	382	63	20%	468	149	47%	381	62	19%	467	148	46%	381	62	20%	469	150	47%
				Total	**1368**	**1518**	150	11%	**1864**	496	36%	**1516**	148	11%	**1861**	493	36%	**1517**	149	11%	**1861**	493	36%

Screen Line Data - Change In PM Traffic Flow - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	PM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
	East/West Screenline																						
Westbound	Dockside Road	3573	3502	3573-3502	157	528	371	236%	896	739	470%	528	371	236%	896	739	471%	528	370	236%	897	740	471%
	A66	3601	4539	3601-4539	1336	1589	253	19%	1795	459	34%	1591	255	19%	1791	455	34%	1594	259	19%	1798	462	35%
	Middlesbrough Road	3574	3495	3574-3495	283	231	-53	-19%	248	-36	-13%	231	-53	-19%	245	-38	-13%	229	-55	-19%	250	-34	-12%
	Sotherby Road	3591	3575	3591-3575	22	25	2	11%	27	4	20%	25	2	11%	27	4	20%	25	2	11%	27	4	20%
	A1085 Longlands Road	3580	3513	3580-3513	435	627	193	44%	652	217	50%	624	189	44%	655	220	51%	620	186	43%	644	209	48%
	Overdale Road	3547	3514	3547-3514	178	228	50	28%	232	54	31%	227	49	27%	236	58	33%	228	50	28%	232	54	30%
	B1380 Ladgate Lane	3548	3526	3548-3526	862	1035	173	20%	1063	201	23%	1035	173	20%	1060	198	23%	1035	173	20%	1059	198	23%
	A174	3634	3529	3634-3529	1470	1798	327	22%	2522	1051	72%	1795	325	22%	2518	1048	71%	1797	326	22%	2520	1049	71%
	Guisborough Road	3670	3666	3670-3666	271	293	22	8%	393	122	45%	291	20	7%	397	126	47%	294	23	8%	400	129	47%
	A1043	3688	3659	3688-3659	837	885	49	6%	988	151	18%	887	50	6%	987	150	18%	883	47	6%	986	150	18%
				Total	**5851**	**7239**	1388	**24%**	**8815**	2964	**51%**	**7232**	1382	**24%**	**8813**	2962	**51%**	**7232**	1382	**24%**	**8812**	2961	**51%**
Eastbound	Dockside Road	3502	3573	3502-3573	437	583	146	33%	764	327	75%	582	145	33%	766	328	75%	583	145	33%	761	324	74%
	A66	4539	3599	4539-3599	1560	1600	40	3%	1500	-60	-4%	1601	41	3%	1502	-58	-4%	1599	39	3%	1507	-53	-3%
	Middlesbrough Road	3495	3574	3495-3574	89	89	1	1%	128	40	45%	89	1	1%	125	36	41%	89	1	1%	128	39	44%
	Sotherby Road	3575	3591	3575-3591	90	90	-1	-1%	91	1	1%	90	-1	-1%	91	1	1%	90	-1	-1%	91	1	1%
	A1085 Longlands Road	3513	3580	3513-3580	725	682	-43	-6%	701	-23	-3%	682	-43	-6%	703	-22	-3%	683	-41	-6%	704	-21	-3%
	Overdale Road	3514	3547	3514-3547	167	109	-58	-35%	70	-97	-58%	115	-52	-31%	72	-95	-57%	114	-53	-32%	72	-96	-57%
	B1380 Ladgate Lane	3526	3548	3526-3548	940	1322	382	41%	1364	424	45%	1320	380	40%	1360	421	45%	1318	378	40%	1361	421	45%
	A174	3520	3633	3520-3633	1260	1331	71	6%	1770	509	40%	1329	69	5%	1771	510	40%	1331	70	6%	1768	507	40%
	Guisborough Road	3666	3670	3666-3670	549	581	31	6%	572	23	4%	580	30	6%	574	25	4%	580	30	5%	571	22	4%
	A1043	3659	3688	3659-3688	824	853	28	3%	904	80	10%	854	30	4%	904	79	10%	853	29	4%	904	80	10%
				Total	**6642**	**7239**	598	**9%**	**7864**	1223	**18%**	**7242**	600	**9%**	**7868**	1226	**18%**	**7239**	598	**9%**	**7867**	1226	**18%**
	North/South Screenline																						
Northbound	A19	2735	2771	2735-2771	3347	3353	6	0%	3939	592	18%	3346	-1	0%	3923	576	17%	3350	3	0%	3917	570	17%
	Stainton Way West Extension	4600	5644	4600-5644		270	270	-	448	448	-	270	270	-	443	443	-	271	271	-	444	444	-
	Acklam Road	2919	2910	2919-2910	1078	1057	-20	-2%	1063	-14	-1%	1056	-22	-2%	1069	-8	-1%	1057	-20	-2%	1066	-12	-1%
	Marton Road	3326	3314	3326-3314	824	627	-198	-24%	552	-272	-33%	629	-195	-24%	558	-266	-32%	626	-198	-24%	557	-269	-32%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		495	495	-	537	537	-	496	496	-	531	531	-	495	495	-	533	533	-
	Ormesby Road	3512	3499	3512-3499	443	388	-56	-13%	373	-71	-16%	387	-57	-13%	375	-68	-15%	389	-54	-12%	378	-66	-15%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	561	387	-174	-31%	431	-130	-23%	388	-173	-31%	429	-132	-24%	385	-175	-31%	425	-136	-24%
	Normanby Road	3675	3669	3675-3669	333	387	55	16%	385	53	16%	386	54	16%	386	54	16%	386	53	16%	385	53	16%
	Church Lane	3707	3708	3707-3708	114	74	-41	-35%	79	-35	-31%	75	-39	-34%	79	-36	-31%	75	-39	-34%	79	-36	-31%
	Greystone Road	3773	3748	3773-3748	558	598	40	7%	863	305	55%	596	38	7%	859	301	54%	596	38	7%	859	301	54%
	A1042	3843	3837	3843-3837	212	224	12	6%	209	-4	-2%	225	13	6%	206	-6	-3%	225	12	6%	207	-7	-2%
	Redcar Lane	3930	3927	3930-3927	481	533	52	11%	547	66	14%	532	51	11%	547	66	14%	532	50	10%	548	67	14%
				Total	**7952**	**8393**	442	6%	**9426**	1475	19%	**8386**	434	5%	**9406**	1454	18%	**8388**	436	5%	**9399**	1447	18%
Southbound	A19	2770	2750	2770-2750	4712	4652	-60	-1%	5114	402	9%	4652	-61	-1%	5124	412	9%	4655	-58	-1%	5130	418	9%
	Stainton Way West Extension	5644	4600	5644-4600		390	390	-	539	539	-	390	390	-	540	540	-	390	390	-	536	536	-
	Acklam Road	2910	2919	2910-2919	761	725	-36	-5%	842	82	11%	725	-36	-5%	841	80	11%	724	-37	-5%	844	83	11%
	Marton Road	3314	3326	3314-3326	885	658	-227	-26%	663	-222	-25%	656	-229	-26%	672	-213	-24%	658	-227	-26%	661	-224	-25%
	Longlands to Ladgate	5639	5638	5639-5638		920	920	-	1017	1017	-	918	918	-	1016	1016	-	915	915	-	1014	1014	-
	Otmeasby Road	3499	3512	3499-3512	608	402	-206	-34%	391	-217	-36%	402	-205	-34%	393	-215	-35%	404	-204	-34%	392	-216	-35%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	786	676	-110	-14%	696	-90	-11%	680	-107	-14%	696	-90	-12%	679	-107	-14%	695	-91	-12%
	Normanby Road	3669	3675	3669-3675	703	710	6	1%	799	96	14%	708	5	1%	799	96	14%	710	7	1%	800	96	14%
	Church Lane	3708	3707	3708-3707	265	323	59	22%	464	199	75%	324	60	23%	464	199	75%	324	59	22%	466	201	76%
	Greystone Road	3751	3775	3751-3775	1252	1342	90	7%	1328	77	6%	1343	91	7%	1327	75	6%	1344	92	7%	1329	77	6%
	A1042	3837	3843	3837-3843	428	760	332	78%	1057	629	147%	754	326	76%	1054	625	146%	756	328	77%	1055	627	146%
	Redcar Lane	3927	3930	3927-3930	464	485	21	5%	506	43	9%	484	20	4%	506	43	9%	483	20	4%	506	42	9%
				Total	**10863**	**12043**	1180	11%	**13417**	2554	24%	**12036**	1173	11%	**13431**	2568	24%	**12040**	1177	11%	**13427**	2564	24%
	Tees Crossing Screenline																						
NB	A19	2849	2829	2849-2829	4630	4859	229	5%	5149	519	11%	4860	230	5%	5149	519	11%	4860	230	5%	5149	519	11%
	Newport Bridge Approach	2882	2850	2882-2850	1019	1167	149	15%	1661	642	63%	1165	146	14%	1661	642	63%	1165	146	14%	1661	642	63%
				Total	**5649**	**6026**	378	7%	**6810**	1161	21%	**6026**	377	7%	**6810**	1161	21%	**6026**	377	7%	**6810**	1161	21%
SB	A19	2827	2848	2827-2848	4263	4378	115	3%	4621	358	8%	4380	118	3%	4621	358	8%	4380	118	3%	4621	358	8%
	Newport Bridge Approach	2850	2882	2850-2882	1451	1521	70	5%	1615	164	11%	1518	68	5%	1615	164	11%	1518	68	5%	1615	164	11%
				Total	**5714**	**5899**	185	3%	**6236**	522	9%	**5899**	185	3%	**6236**	522	9%	**5899**	185	3%	**6236**	522	9%

Screen Line Data - Change In PM Traffic Flow - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	PM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Flow	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%	Flow	Act	%
	Junction Screenlines																						
	Greystones Roundabout																						
1	A1053	3751	3775	3751-3775	1252	1342	90	7%	1328	77	6%	1343	91	7%	1327	75	6%	1344	92	7%	1329	77	6%
	A174 East	3785	3779	3785-3779	1837	2153	316	17%	2733	896	49%	2148	310	17%	2725	888	48%	2148	311	17%	2728	891	48%
	A174 West	3770	3774	3770-3774	1450	1521	71	5%	2002	552	38%	1519	69	5%	2000	550	38%	1520	70	5%	1998	548	38%
	High Street	3772	3773	3772-3773	381	421	41	11%	543	162	43%	422	41	11%	548	167	44%	422	41	11%	547	166	44%
				Total	**4920**	**5437**	518	**11%**	**6606**	1686	**34%**	**5432**	512	**10%**	**6600**	1681	**34%**	**5434**	515	**10%**	**6601**	1682	**34%**
	Swans Corner																						
2	A171	3653	3684	3653-3684	798	799	1	0%	736	-62	-8%	799	1	0%	741	-57	-7%	799	1	0%	743	-56	-7%
	Middlesbrough Road	3730	3684	3730-3684	1164	1251	86	7%	1426	262	22%	1249	85	7%	1425	261	22%	1248	84	7%	1425	260	22%
	A1043	3688	3684	3688-3684	824	853	28	3%	904	80	10%	854	30	4%	904	79	10%	853	29	4%	904	80	10%
	Guisborough Road	3676	3684	3676-3684	538	566	28	5%	555	17	3%	565	27	5%	556	18	3%	564	26	5%	552	14	3%
				Total	**3325**	**3469**	144	**4%**	**3621**	296	**9%**	**3467**	142	**4%**	**3626**	301	**9%**	**3465**	140	**4%**	**3625**	300	**9%**
	A1053/A1085 Roundabout																						
3	A1085	3765	3753	3765-3753	1079	1443	364	34%	1637	558	52%	1441	362	34%	1631	552	51%	1441	362	34%	1633	554	51%
	Industrial Estate	3757	3751	3757-3751	139	147	9	6%	170	31	22%	148	9	7%	170	32	23%	148	9	7%	171	32	23%
	Greystones Road/A1053 South	3773	3748	3773-3748	558	598	40	7%	863	305	55%	596	38	7%	859	301	54%	596	38	7%	859	301	54%
	Broadway	3740	3745	3740-3745	557	608	51	9%	624	66	12%	609	51	9%	627	70	13%	609	52	9%	628	70	13%
	A1053 North	3731	3746	3731-3746	1634	1887	252	15%	2087	452	28%	1887	253	15%	2085	451	28%	1886	252	15%	2089	455	28%
				Total	**3967**	**4683**	715	18%	**5380**	1413	36%	**4681**	714	18%	**5372**	1405	35%	**4681**	714	18%	**5379**	1412	36%
	A19/A174 Parkway Interchange																						
4	A19 North SB Slip	2743	2738	2743-2738	3238	3087	-151	-5%	3374	136	4%	3087	-151	-5%	3384	146	5%	3090	-148	-5%	3387	149	5%
	A174 East WB Slip	2864	2756	2864-2756	2043	2195	152	7%	2752	709	35%	2192	149	7%	2732	689	34%	2190	147	7%	2725	682	33%
	A19 South NB Slip	2732	2720	2732-2720	372	345	-27	-7%	369	-3	-1%	346	-26	-7%	372	0	0%	346	-26	-7%	372	-3	0%
	A174 West EB Slip	2633	2706	2633-2706	1410	1392	-18	-1%	1459	48	3%	1391	-19	-1%	1457	47	3%	1393	-17	-1%	1457	47	3%
				Total	**7063**	**7020**	-43	**-1%**	**7953**	890	**13%**	**7016**	-47	**-1%**	**7945**	881	**12%**	**7018**	-45	**-1%**	**7942**	878	**12%**
	Cargo Fleet Lane Throughabout																						
5	Works Road	3502	3489	3502-3489	491	829	339	69%	1173	683	139%	830	340	69%	1178	687	140%	828	337	69%	1169	679	138%
	A66 East	4539	3488	4539-3488	1336	1589	253	19%	1795	459	34%	1591	255	19%	1791	455	34%	1594	259	19%	1798	462	35%
	Cargo Fleet Lane	3495	3492	3495-3492	982	832	-150	-15%	845	-136	-14%	830	-152	-15%	841	-140	-14%	828	-154	-16%	848	-134	-14%
	A66 West	4629	3478	4629-3478	2074	2066	-8	0%	2093	20	1%	2064	-9	0%	2094	20	1%	2063	-10	0%	2092	18	1%
				Total	**4882**	**5316**	434	**9%**	**5906**	1025	**21%**	**5315**	434	**9%**	**5903**	1022	**21%**	**5314**	432	**9%**	**5908**	1026	**21%**
	Marton Road/Ladgate Lane Crossroads																						
6	Marton Road	3394	4283	3394-4283	888	838	-50	-6%	884	-5	-1%	841	-47	-5%	913	25	3%	842	-46	-5%	882	-6	-1%
	Ladgate Lane East	4284	3443	4284-3443	1007	997	-9	-1%	1028	21	2%	993	-13	-1%	1003	-4	0%	991	-16	-2%	1029	22	2%
	Stokesley Road	3464	3443	3464-3443	313	300	-13	-4%	278	-35	-11%	299	-14	-5%	283	-30	-10%	303	-10	-3%	284	-29	-9%
	Ladgate Lane West	3388	3443	3388-3443	509	508	-1	0%	578	69	14%	514	5	1%	572	63	12%	507	-2	0%	573	64	13%
				Total	**2717**	**2644**	-73	**-3%**	**2767**	51	**2%**	**2647**	-70	**-3%**	**2771**	54	**2%**	**2643**	-74	**-3%**	**2769**	52	**2%**
	Tees Dock Road Roundabout																						
7	Tees Dock Road	3724	3731	3724-3731	100	509	409	409%	963	863	862%	509	409	409%	963	863	862%	509	409	409%	963	863	863%
	A1053	3745	3732	3745-3732	1182	1465	284	24%	1605	423	36%	1463	282	24%	1593	412	35%	1464	282	24%	1600	418	35%
	A66	3704	3729	3704-3729	1608	1758	150	9%	1860	252	16%	1759	151	9%	1857	249	15%	1759	150	9%	1861	253	16%
				Total	**2890**	**3733**	843	29%	**4427**	1537	53%	**3732**	842	29%	**4414**	1524	53%	**3731**	841	29%	**4424**	1534	53%
	A1042/A174 Roundabout																						
8	A1042	3822	3825	3822-3825	643	1015	372	58%	1216	573	89%	1012	369	57%	1211	568	88%	1011	368	57%	1213	570	89%
	A174 East	3866	3827	3866-3827	1431	1470	39	3%	1865	434	30%	1467	36	2%	1859	428	30%	1467	36	3%	1861	429	30%
	A174 West	3807	3818	3807-3818	2109	2151	43	2%	2277	168	8%	2151	42	2%	2276	167	8%	2151	43	2%	2275	166	8%
	Industrial Estate	3817	3820	3817-3820	112	120	8	7%	133	21	19%	121	9	8%	134	22	19%	121	9	8%	133	21	19%
				Total	**4295**	**4757**	462	**11%**	**5491**	1196	**28%**	**4750**	455	**11%**	**5480**	1185	**28%**	**4751**	456	**11%**	**5482**	1187	**28%**
	Cargo Fleet Lane/Ladgate Lane Roundabout																						
9	Cargo Fleet Lane	3610	3625	3610-3625	873	719	-154	-18%	781	-92	-11%	723	-150	-17%	780	-93	-11%	722	-151	-17%	781	-97	-11%
	Normanby Road East	3661	3625	3661-3625	566	605	39	7%	664	97	17%	606	39	7%	662	96	17%	605	39	7%	666	100	18%
	Sunnyfield	3639	3625	3639-3625	791	794	4	0%	818	27	3%	794	4	0%	815	25	3%	794	3	0%	814	23	3%
	Ladgate Lane	3600	3625	3600-3625	870	1060	189	22%	1065	195	22%	1057	186	21%	1064	194	22%	1057	187	21%	1066	195	22%
				Total	**3100**	**3178**	78	3%	**3328**	227	7%	**3180**	80	3%	**3322**	221	7%	**3179**	78	3%	**3327**	226	7%
	Normanby Road/B1380																						
10	Normanby Road	3685	3698	3685-3698	599	562	-37	-6%	622	22	4%	559	-40	-7%	620	21	3%	561	-38	-6%	622	23	4%
	B1380 East	3720	3698	3720-3698	441	566	125	28%	603	163	37%	565	124	28%	603	162	37%	565	124	28%	602	162	37%
	Cleveland Street	3697	3698	3697-3698	193	200	8	4%	227	34	18%	200	8	4%	228	36	19%	200	8	4%	228	36	19%
	B1380 West	3694	3698	3694-3698	358	360	2	1%	348	-10	-3%	360	2	1%	348	-10	-3%	360	2	1%	347	-11	-3%
				Total	**1590**	**1688**	97	6%	**1800**	210	13%	**1685**	95	6%	**1799**	208	13%	**1687**	96	6%	**1799**	209	13%

Screen Line Data - Change In AM Speed (mph) - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	AM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Change from 2020 DM			Change from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	East/West Screenline																						
Westbound	Dockside Road	3573	3502	3573-3502	48	47	0	-1%	48	0	0%	47	0	-1%	48	0	0%	47	0	-1%	48	0	0%
	A66	3601	4539	3601-4539	51	51	0	0%	50	-1	-3%	51	0	0%	50	-1	-3%	51	0	0%	50	-1	-3%
	Middlesbrough Road	3574	3495	3574-3495	29	29	0	1%	28	0	-1%	29	0	1%	28	0	-1%	29	0	1%	28	0	-1%
	Sotherby Road	3591	3575	3591-3575	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3580	3513	3580-3513	15	15	0	2%	13	-2	-17%	15	0	2%	13	-2	-15%	15	0	-2%	13	-2	-15%
	Overdale Road	3547	3514	3547-3514	30	29	0	-1%	29	0	-1%	29	0	-1%	29	0	-1%	29	0	-1%	29	0	-1%
	B1380 Ladgate Lane	3548	3526	3548-3526	25	15	-11	-42%	12	-13	-51%	15	-11	-42%	12	-13	-51%	15	-11	-42%	12	-13	-51%
	A174	3634	3529	3634-3529	60	59	0	0%	58	-2	-3%	59	0	0%	58	-2	-3%	59	0	0%	58	-2	-3%
	Guisborough Road	3670	3666	3670-3666	25	24	-1	-4%	23	-2	-9%	24	-1	-4%	23	-2	-9%	24	-1	-4%	23	-2	-9%
	A1043	3688	3659	3688-3659	39	37	-2	-4%	31	-8	-21%	37	-2	-4%	31	-8	-21%	37	-2	-4%	31	-8	-21%
				Average*	**35**	**34**	**-1**	**-4%**	**32**	**-3**	**-8%**	**34**	**-1**	**-4%**	**32**	**-3**	**-8%**	**34**	**-1**	**-4%**	**32**	**-3**	**-8%**
Eastbound	Dockside Road	3502	3573	3502-3573	45	36	-8	-18%	14	-31	-70%	36	-8	-18%	14	-31	-69%	36	-8	-18%	14	-31	-69%
	A66	4539	3599	4539-3599	49	47	-2	-4%	36	-13	-26%	47	-2	-4%	36	-13	-26%	47	-2	-4%	36	-13	-26%
	Middlesbrough Road	3495	3574	3495-3574	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	Sotherby Road	3575	3591	3575-3591	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3513	3580	3513-3580	39	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%
	Overdale Road	3514	3547	3514-3547	30	30	0	1%	30	0	1%	30	0	1%	30	0	1%	30	0	1%	30	0	1%
	B1380 Ladgate Lane	3526	3548	3526-3548	25	14	-11	-45%	12	-13	-51%	14	-11	-45%	12	-13	-51%	14	-11	-45%	12	-13	-51%
	A174	3520	3633	3520-3633	59	58	-1	-2%	55	-4	-6%	58	-1	-2%	55	-4	-6%	58	-1	-2%	55	-4	-6%
	Guisborough Road	3666	3670	3666-3670	23	22	-1	-4%	19	-4	-18%	22	-1	-5%	19	-4	-18%	22	-1	-4%	19	-4	-18%
	A1043	3659	3688	3659-3688	46	44	-1	-3%	34	-12	-26%	44	-1	-3%	34	-12	-26%	45	-1	-3%	34	-12	-26%
				Average*	**38**	**35**	**-3**	**-7%**	**30**	**-8**	**-20%**	**35**	**-3**	**-7%**	**30**	**-8**	**-20%**	**35**	**-3**	**-7%**	**30**	**-8**	**-20%**
	North/South Screenline																						
Northbound	A19	2735	2771	2735-2771	54	52	-1	-2%	42	-12	-21%	53	-1	-2%	42	-11	-21%	52	-1	-2%	42	-11	-21%
	Stainton Way West Extension	4600	5644	4600-5644		39	39	-	37	37	-	39	39	-	37	37	-	39	39	-	37	37	-
	Acklam Road	2919	2910	2919-2910	23	24	1	2%	23	-1	-3%	24	1	2%	23	-1	-3%	24	1	2%	23	-1	-3%
	Marton Road	3326	3314	3326-3314	17	17	0	1%	17	0	1%	17	0	1%	17	0	2%	17	0	1%	17	0	2%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		30	30	-	25	25	-	31	31	-	25	25	-	30	30	-	25	25	-
	Ormesby Road	3512	3499	3512-3499	19	21	2	10%	21	1	7%	21	2	10%	21	1	7%	21	2	11%	21	1	7%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	28	29	1	5%	28	0	2%	29	1	5%	28	1	2%	29	1	5%	28	1	2%
	Normanby Road	3675	3669	3675-3669	14	13	-2	-11%	12	-3	-19%	13	-2	-11%	12	-3	-19%	13	-2	-11%	12	-3	-19%
	Church Lane	3707	3708	3707-3708	30	30	0	0%	29	-1	-3%	30	0	0%	29	-1	-3%	30	0	0%	29	-1	-3%
	Greystone Road	3773	3748	3773-3748	44	39	-5	-10%	36	-8	-18%	39	-5	-10%	36	-8	-18%	39	-5	-10%	36	-8	-18%
	A1042	3843	3837	3843-3837	39	38	-1	-3%	35	-4	-11%	38	-1	-3%	35	-4	-11%	38	-1	-3%	35	-4	-11%
	Redcar Lane	3930	3927	3930-3927	30	29	0	-1%	27	-2	-8%	29	0	-1%	28	-2	-7%	29	0	-1%	28	-2	-7%
				Average*	**30**	**30**	**0**	**1%**	**28**	**-2**	**-7%**	**30**	**0**	**1%**	**28**	**-2**	**-7%**	**30**	**0**	**1%**	**28**	**-2**	**-7%**
Southbound	A19	2770	2750	2770-2750	67	67	0	0%	64	-3	-4%	67	0	0%	64	-3	-4%	67	0	0%	64	-3	-4%
	Stainton Way West Extension	5644	4600	5644-4600		39	39	-	39	39	-	39	39	-	39	39	-	39	39	-	39	39	-
	Acklam Road	2910	2919	2910-2919	11	11	0	-2%	9	-2	-14%	11	0	-1%	9	-2	-14%	11	0	-2%	9	-2	-14%
	Marton Road	3314	3326	3314-3326	24	23	-1	-3%	23	-1	-4%	23	-1	-3%	23	-1	-4%	23	-1	-2%	23	-1	-4%
	Longlands to Ladgate	5639	5638	5639-5638		36	36	-	36	36	-	36	36	-	36	36	-	36	36	-	36	36	-
	Otmeasby Road	3499	3512	3499-3512	28	30	2	8%	30	2	8%	30	2	8%	30	2	8%	30	2	8%	30	2	8%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	29	30	0	1%	30	0	1%	30	0	1%	30	0	1%	30	0	1%	30	0	1%
	Normanby Road	3669	3675	3669-3675	29	29	0	-1%	28	-1	-2%	29	0	-1%	28	-1	-2%	29	0	-1%	28	-1	-2%
	Church Lane	3708	3707	3708-3707	24	25	0	1%	24	0	0%	25	0	1%	24	0	0%	25	1	3%	24	0	0%
	Greystone Road	3751	3775	3751-3775	57	57	0	0%	56	-2	-3%	57	0	0%	56	-2	-3%	57	0	0%	56	-2	-3%
	A1042	3837	3843	3837-3843	28	28	-1	-3%	28	0	0%	28	-1	-3%	28	0	-1%	28	0	-2%	28	0	-1%
	Redcar Lane	3927	3930	3927-3930	27	26	0	0%	26	0	-2%	27	0	0%	26	0	-2%	27	0	0%	26	0	-2%
				Average*	**32**	**33**	**1**	**3%**	**33**	**0**	**1%**	**33**	**1**	**3%**	**33**	**0**	**1%**	**33**	**1**	**3%**	**33**	**0**	**1%**
	Tees Crossing Screenline																						
NB	A19	2849	2829	2849-2829	46	42	-4	-9%	38	-9	-19%	42	-4	-9%	39	-7	-16%	42	-4	-9%	39	-7	-16%
	Newport Bridge Approach	2882	2850	2882-2850	39	39	0	0%	38	-1	-2%	39	0	0%	38	-1	-1%	39	0	0%	38	-1	-1%
				Average*	**43**	**41**	**-2**	**-5%**	**38**	**-5**	**-11%**	**41**	**-2**	**-5%**	**39**	**-4**	**-9%**	**41**	**-2**	**-5%**	**39**	**-4**	**-9%**
SB	A19	2827	2848	2827-2848	19	17	-2	-12%	14	-6	-29%	17	-2	-12%	14	-6	-30%	17	-2	-12%	14	-6	-30%
	Newport Bridge Approach	2850	2882	2850-2882	14	12	-2	-12%	12	-2	-12%	12	-2	-12%	12	-2	-12%	12	-2	-12%	12	-2	-12%
				Average*	**17**	**15**	**-2**	**-12%**	**13**	**-4**	**-21%**	**15**	**-2**	**-12%**	**13**	**-4**	**-22%**	**15**	**-2**	**-12%**	**13**	**-4**	**-22%**

*Average speeds not weighted for flow

Screen Line Data - Change In AM Speed (mph) - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	AM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Change from 2020 DM			Change from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	Junction Screenlines																						
	Greystones Roundabout																						
1	A1053	3751	3775	3751-3775	57	57	0	0%	56	-2	-3%	57	0	0%	56	-2	-3%	57	0	0%	56	-2	-3%
	A174 East	3785	3779	3785-3779	43	38	-5	-11%	26	-17	-40%	38	-5	-11%	26	-17	-40%	38	-5	-11%	26	-17	-40%
	A174 West	3770	3774	3770-3774	26	14	-13	-48%	4	-22	-83%	14	-13	-48%	4	-22	-83%	14	-13	-48%	4	-22	-83%
	High Street	3772	3773	3772-3773	19	15	-4	-23%	3	-16	-84%	15	-4	-23%	3	-16	-84%	15	-4	-23%	3	-16	-84%
				Average*	**36**	**31**	**-5**	**-15%**	**22**	**-14**	**-39%**	**31**	**-5**	**-15%**	**22**	**-14**	**-39%**	**31**	**-5**	**-15%**	**22**	**-14**	**-39%**
	Swans Corner																						
2	A171	3653	3684	3653-3684	27	26	-1	-3%	22	-4	-16%	26	-1	-3%	22	-4	-16%	26	-1	-3%	22	-4	-16%
	Middlesbrough Road	3730	3684	3730-3684	44	39	-5	-12%	18	-26	-59%	39	-5	-11%	18	-25	-58%	39	-5	-12%	18	-25	-58%
	A1043	3688	3684	3688-3684	40	38	-2	-6%	26	-14	-36%	38	-2	-6%	26	-14	-36%	38	-2	-6%	26	-14	-36%
	Guisborough Road	3676	3684	3676-3684	21	19	-2	-9%	12	-9	-43%	19	-2	-9%	12	-9	-42%	19	-2	-9%	12	-9	-42%
				Average*	**33**	**30**	**-2**	**-8%**	**19**	**-13**	**-41%**	**30**	**-2**	**-7%**	**20**	**-13**	**-40%**	**30**	**-2**	**-8%**	**20**	**-13**	**-40%**
	A1053/A1085 Roundabout																						
3	A1085	3765	3753	3765-3753	36	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	0%
	Industrial Estate	3757	3751	3757-3751	25	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%
	Greystones Road/A1053 South	3773	3748	3773-3748	44	39	-5	-10%	36	-8	-18%	39	-5	-10%	36	-8	-18%	39	-5	-10%	36	-8	-18%
	Broadway	3740	3745	3740-3745	31	24	-7	-22%	14	-17	-55%	24	-7	-22%	14	-17	-55%	24	-7	-22%	14	-17	-55%
	A1053 North	3731	3746	3731-3746	24	23	-1	-4%	23	-1	-6%	23	-1	-4%	23	-1	-6%	23	-1	-4%	23	-1	-6%
				Average*	**32**	**30**	**-2**	**-8%**	**27**	**-5**	**-17%**	**30**	**-2**	**-8%**	**27**	**-5**	**-16%**	**30**	**-2**	**-8%**	**27**	**-5**	**-16%**
	A19/A174 Parkway Interchange																						
4	A19 North SB Slip	2743	2738	2743-2738	46	48	2	4%	42	-4	-8%	48	2	4%	42	-4	-8%	48	2	4%	42	-4	-8%
	A174 East WB Slip	2864	2756	2864-2756	28	31	3	11%	19	-9	-31%	31	3	11%	19	-9	-31%	31	3	11%	19	-9	-31%
	A19 South NB Slip	2732	2720	2732-2720	13	13	0	2%	13	0	-3%	13	0	2%	13	0	-3%	13	0	2%	13	0	-3%
	A174 West EB Slip	2633	2706	2633-2706	50	49	0	-1%	49	-1	-2%	49	0	-1%	49	-1	-2%	49	0	-1%	49	-1	-2%
				Average*	**34**	**35**	**1**	**3%**	**31**	**-3**	**-10%**	**35**	**1**	**3%**	**31**	**-3**	**-10%**	**35**	**1**	**3%**	**31**	**-3**	**-10%**
	Cargo Fleet Lane Throughabout																						
5	Works Road	3502	3489	3502-3489	30	30	0	0%	29	-1	-2%	30	0	0%	29	-1	-2%	30	0	0%	29	-1	-2%
	A66 East	4539	3488	4539-3488	31	35	4	13%	32	1	4%	35	4	13%	33	2	7%	35	4	13%	33	2	7%
	Cargo Fleet Lane	3495	3492	3495-3492	27	27	0	0%	27	0	-1%	27	0	0%	27	0	-1%	27	0	0%	27	0	-1%
	A66 West	4629	3478	4629-3478	14	7	-8	-53%	5	-10	-68%	7	-8	-53%	5	-10	-68%	7	-8	-53%	5	-10	-68%
				Average*	**26**	**25**	**-1**	**-4%**	**23**	**-2**	**-9%**	**25**	**-1**	**-4%**	**23**	**-2**	**-8%**	**25**	**-1**	**-3%**	**23**	**-2**	**-8%**
	Marton Road/Ladgate Lane Crossroads																						
6	Marton Road	3394	4283	3394-4283	26	27	1	5%	27	1	6%	27	1	5%	27	1	5%	27	1	5%	27	1	5%
	Ladgate Lane East	4284	3443	4284-3443	1	1	0	29%	1	0	24%	1	0	29%	1	0	19%	1	0	30%	1	0	19%
	Stokesley Road	3464	3443	3464-3443	9	10	1	10%	7	-3	-28%	10	1	11%	7	-2	-25%	10	1	11%	7	-2	-25%
	Ladgate Lane West	3388	3443	3388-3443	7	9	2	29%	7	0	0%	9	2	29%	6	0	-5%	9	2	29%	6	0	-5%
				Average*	**11**	**12**	**1**	**11%**	**10**	**0**	**-2%**	**12**	**1**	**11%**	**10**	**0**	**-3%**	**12**	**1**	**11%**	**10**	**0**	**-3%**
	Tees Dock Road Roundabout																						
7	Tees Dock Road	3724	3731	3724-3731	42	39	-3	-7%	39	-3	-8%	39	-3	-7%	39	-3	-8%	39	-3	-7%	39	-3	-8%
	A1053	3745	3732	3745-3732	33	21	-11	-35%	14	-19	-57%	21	-11	-35%	14	-19	-58%	21	-12	-36%	14	-19	-58%
	A66	3704	3729	3704-3729	48	44	-4	-8%	31	-17	-36%	44	-4	-7%	31	-17	-36%	44	-4	-7%	31	-17	-36%
				Average*	**41**	**35**	**-6**	**-15%**	**28**	**-13**	**-32%**	**35**	**-6**	**-15%**	**28**	**-13**	**-32%**	**35**	**-6**	**-15%**	**28**	**-13**	**-32%**
	A1042/A174 Roundabout																						
8	A1042	3822	3825	3822-3825	10	10	0	-3%	8	-2	-24%	10	0	-3%	8	-2	-24%	10	0	-3%	8	-2	-24%
	A174 East	3866	3827	3866-3827	46	42	-4	-8%	35	-11	-23%	42	-4	-8%	35	-11	-23%	42	-4	-8%	35	-11	-23%
	A174 West	3807	3818	3807-3818	39	36	-2	-6%	38	0	-1%	36	-2	-6%	39	0	-1%	37	-2	-6%	39	0	-1%
	Industrial Estate	3817	3820	3817-3820	27	27	-1	-2%	26	-1	-4%	27	-1	-2%	26	-1	-4%	27	-1	-2%	26	-1	-4%
				Average*	**31**	**29**	**-2**	**-6%**	**27**	**-4**	**-12%**	**29**	**-2**	**-6%**	**27**	**-4**	**-12%**	**29**	**-2**	**-6%**	**27**	**-4**	**-12%**
	Cargo Fleet Lane/Ladgate Lane Roundabout																						
9	Cargo Fleet Lane	3610	3625	3610-3625	18	21	3	18%	19	1	7%	22	3	18%	19	1	6%	22	3	18%	19	1	6%
	Normanby Road East	3661	3625	3661-3625	27	26	-1	-4%	22	-4	-17%	26	-1	-3%	22	-4	-17%	26	-1	-4%	22	-4	-17%
	Sunnyfield	3639	3625	3639-3625	11	11	0	-3%	10	-1	-12%	11	0	-3%	10	-1	-11%	11	0	-3%	10	-1	-11%
	Ladgate Lane	3600	3625	3600-3625	15	12	-3	-21%	11	-4	-28%	12	-3	-21%	11	-4	-28%	12	-3	-21%	11	-4	-28%
				Average*	**18**	**18**	**0**	**-2%**	**16**	**-2**	**-12%**	**18**	**0**	**-2%**	**16**	**-2**	**-12%**	**18**	**0**	**-2%**	**16**	**-2**	**-12%**
	Normanby Road/B1380																						
10	Normanby Road	3685	3698	3685-3698	21	21	0	-2%	19	-2	-9%	21	0	-2%	19	-2	-8%	21	0	-2%	19	-2	-8%
	B1380 East	3720	3698	3720-3698	20	20	0	-2%	18	-2	-9%	20	0	-2%	18	-2	-9%	20	0	-2%	18	-2	-9%
	Cleveland Street	3697	3698	3697-3698	11	10	-1	-8%	8	-2	-23%	10	-1	-8%	8	-2	-23%	10	-1	-6%	8	-2	-23%
	B1380 West	3694	3698	3694-3698	9	8	-1	-9%	6	-2	-25%	8	-1	-9%	6	-2	-25%	8	-1	-9%	6	-2	-25%
	*Average speeds not weighted for flow			**Average***	**15**	**15**	**-0.59**	**-4%**	**13**	**-2**	**-14%**	**15**	**-1**	**-4%**	**13**	**-2**	**-13%**	**15**	**-1**	**-4%**	**13**	**-2**	**-13%**

Screen Line Data - Change In PM Speed (mph) - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	PM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Change from 2020 DM			Change from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	East/West Screenline																						
Westbound	Dockside Road	3573	3502	3573-3502	48	47	-1	-2%	36	-12	-24%	47	-1	-2%	36	-12	-24%	47	-1	-2%	36	-12	-24%
	A66	3601	4539	3601-4539	52	52	-1	-1%	51	-2	-3%	52	-1	-1%	51	-2	-3%	52	-1	-1%	51	-2	-3%
	Middlesbrough Road	3574	3495	3574-3495	29	29	0	0%	29	0	0%	29	0	0%	29	0	0%	29	0	0%	29	0	0%
	Sotherby Road	3591	3575	3591-3575	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3580	3513	3580-3513	13	17	3	24%	16	3	21%	17	3	25%	16	3	19%	17	3	25%	16	3	19%
	Overdale Road	3547	3514	3547-3514	29	29	0	-2%	29	0	-2%	29	0	-1%	29	-1	-2%	29	0	-2%	29	-1	-2%
	B1380 Ladgate Lane	3548	3526	3548-3526	25	21	-5	-19%	20	-6	-22%	21	-5	-19%	20	-5	-22%	21	-5	-19%	20	-5	-22%
	A174	3634	3529	3634-3529	59	58	-1	-2%	51	-8	-13%	58	-1	-2%	52	-8	-13%	58	-1	-2%	52	-8	-13%
	Guisborough Road	3670	3666	3670-3666	26	26	0	-1%	24	-2	-9%	26	0	-1%	24	-2	-9%	26	0	-1%	24	-2	-9%
	A1043	3688	3659	3688-3659	38	36	-2	-6%	31	-7	-19%	36	-2	-6%	31	-7	-19%	36	-2	-5%	31	-7	-19%
				Average*	**35**	**34**	**-1**	**-2%**	**32**	**-3**	**-10%**	**34**	**-1**	**-2%**	**32**	**-3**	**-10%**	**34**	**-1**	**-2%**	**32**	**-3**	**-10%**
Eastbound	Dockside Road	3502	3573	3502-3573	43	41	-3	-6%	35	-9	-20%	41	-3	-6%	35	-9	-20%	41	-3	-6%	35	-9	-20%
	A66	4539	3599	4539-3599	47	47	0	0%	47	0	0%	47	0	0%	47	0	0%	47	0	0%	47	0	0%
	Middlesbrough Road	3495	3574	3495-3574	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	Sotherby Road	3575	3591	3575-3591	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	A1085 Longlands Road	3513	3580	3513-3580	39	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%
	Overdale Road	3514	3547	3514-3547	30	30	0	1%	30	0	1%	30	0	1%	30	0	1%	30	0	1%	30	0	1%
	B1380 Ladgate Lane	3526	3548	3526-3548	23	12	-11	-47%	12	-11	-47%	12	-11	-47%	12	-11	-47%	12	-11	-47%	12	-11	-47%
	A174	3520	3633	3520-3633	60	60	0	0%	58	-1	-2%	60	0	0%	58	-1	-2%	60	0	0%	58	-1	-2%
	Guisborough Road	3666	3670	3666-3670	20	19	-1	-4%	20	-1	-3%	19	-1	-4%	19	-1	-3%	19	-1	-4%	19	-1	-3%
	A1043	3659	3688	3659-3688	40	39	-1	-3%	36	-4	-9%	38	-1	-3%	36	-4	-9%	38	-1	-3%	36	-4	-9%
				Average*	**36**	**35**	**-2**	**-4%**	**34**	**-2**	**-7%**	**35**	**-2**	**-4%**	**34**	**-2**	**-7%**	**35**	**-2**	**-4%**	**34**	**-2**	**-7%**
	North/South Screenline																						
Northbound	A19	2735	2771	2735-2771	66	66	0	0%	63	-4	-5%	66	0	0%	63	-3	-5%	66	0	0%	63	-3	-5%
	Stainton Way West Extension	4600	5644	4600-5644		39	39	-	39	39	-	39	39	-	39	39	-	39	39	-	39	39	-
	Acklam Road	2919	2910	2919-2910	25	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%	25	0	0%
	Marton Road	3326	3314	3326-3314	15	14	-1	-8%	14	-1	-9%	14	-1	-8%	14	-1	-8%	14	-1	-8%	14	-1	-8%
	Longlands to Ladgate Link Road	5638	5639	5638-5639		38	38	-	38	38	-	38	38	-	38	38	-	38	38	-	38	38	-
	Ormesby Road	3512	3499	3512-3499	23	24	1	4%	25	1	5%	24	1	4%	25	1	5%	24	1	4%	25	1	5%
	A171 Cargo Fleet Lane	3569	3555	3569-3555	29	30	1	2%	30	0	2%	30	1	2%	30	0	2%	30	1	2%	30	0	2%
	Normanby Road	3675	3669	3675-3669	12	13	1	5%	12	0	0%	13	0	4%	13	1	5%	13	0	4%	13	1	5%
	Church Lane	3707	3708	3707-3708	30	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%	30	0	0%
	Greystone Road	3773	3748	3773-3748	46	45	-1	-1%	45	-1	-2%	45	-1	-1%	45	-1	-2%	45	-1	-1%	45	-1	-2%
	A1042	3843	3837	3843-3837	39	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%	39	0	0%
	Redcar Lane	3930	3927	3930-3927	30	29	0	-1%	29	0	-1%	29	0	-1%	29	0	-1%	29	0	-1%	29	0	-1%
				Average*	**32**	**33**	**1**	**4%**	**32**	**1**	**3%**	**33**	**1**	**4%**	**32**	**1**	**3%**	**33**	**1**	**4%**	**32**	**1**	**3%**
Southbound	A19	2770	2750	2770-2750	52	53	1	2%	44	-8	-15%	53	1	2%	44	-8	-16%	53	1	2%	44	-8	-16%
	Stainton Way West Extension	5644	4600	5644-4600		39	39	-	38	38	-	39	39	-	38	38	-	39	39	-	38	38	-
	Acklam Road	2910	2919	2910-2919	11	11	-1	-9%	11	-1	-5%	11	-1	-9%	11	-1	-6%	11	-1	-8%	11	-1	-6%
	Marton Road	3314	3326	3314-3326	24	23	-1	-4%	23	-1	-3%	23	-1	-3%	23	-1	-3%	23	-1	-3%	23	-1	-3%
	Longlands to Ladgate	5639	5638	5639-5638		33	33	-	30	30	-	33	33	-	30	30	-	33	33	-	30	30	-
	Otmeasby Road	3499	3512	3499-3512	22	26	5	21%	27	5	22%	26	5	21%	27	5	22%	26	5	21%	27	5	22%
	A171 Cargo Fleet Lane	3555	3569	3555-3569	27	28	2	6%	28	1	5%	28	2	6%	28	1	5%	28	2	6%	28	1	5%
	Normanby Road	3669	3675	3669-3675	19	19	0	-1%	17	-2	-11%	19	0	-1%	17	-2	-11%	19	0	-1%	17	-2	-11%
	Church Lane	3708	3707	3708-3707	26	26	0	0%	26	0	-1%	26	0	0%	26	0	-1%	26	0	0%	26	0	-1%
	Greystone Road	3751	3775	3751-3775	51	48	-3	-5%	34	-16	-32%	48	-3	-5%	34	-16	-32%	48	-3	-6%	34	-16	-32%
	A1042	3837	3843	3837-3843	31	26	-4	-14%	22	-9	-29%	26	-4	-14%	22	-9	-28%	26	-4	-14%	22	-9	-28%
	Redcar Lane	3927	3930	3927-3930	26	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%
				Average*	**29**	**30**	**1**	**3%**	**27**	**-2**	**-6%**	**30**	**1**	**3%**	**27**	**-2**	**-6%**	**30**	**1**	**3%**	**27**	**-2**	**-6%**
	Tees Crossing Screenline																						
NB	A19	2849	2829	2849-2829	54	50	-4	-8%	43	-10	-19%	49	-4	-8%	45	-9	-17%	50	-4	-8%	45	-9	-17%
	Newport Bridge Approach	2882	2850	2882-2850	39	39	0	-1%	37	-2	-5%	39	0	0%	37	-2	-4%	39	0	-1%	37	-2	-4%
				Average*	**46**	**44**	**-2**	**-5%**	**40**	**-6**	**-13%**	**44**	**-2**	**-5%**	**41**	**-5**	**-11%**	**44**	**-2**	**-5%**	**41**	**-5**	**-11%**
SB	A19	2827	2848	2827-2848	19	17	-2	-9%	14	-5	-25%	17	-2	-9%	14	-5	-26%	17	-2	-9%	14	-5	-26%
	Newport Bridge Approach	2850	2882	2850-2882	18	16	-2	-10%	14	-4	-23%	16	-2	-10%	13	-4	-24%	16	-2	-10%	13	-4	-24%
				Average*	**18**	**16**	**-2**	**-10%**	**14**	**-4**	**-24%**	**16**	**-2**	**-9%**	**14**	**-5**	**-25%**	**16**	**-2**	**-10%**	**14**	**-5**	**-25%**

*Average speeds not weighted for flow

Screen Line Data - Change In PM Speed (mph) - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	PM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
							Change from 2020 DM			Change from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
					Speed	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%	Speed	Act	%
	Junction Screenlines																						
	Greystones Roundabout																						
1	A1053	3751	3775	3751-3775	51	48	-3	-5%	34	-16	-32%	48	-3	-5%	34	-16	-32%	48	-3	-6%	34	-16	-32%
	A174 East	3785	3779	3785-3779	51	48	-3	-5%	39	-11	-22%	48	-3	-5%	39	-11	-22%	48	-3	-5%	39	-11	-22%
	A174 West	3770	3774	3770-3774	31	30	0	-2%	19	-12	-38%	30	0	-2%	19	-11	-37%	30	0	-2%	19	-11	-37%
	High Street	3772	3773	3772-3773	25	25	0	0%	21	-3	-13%	25	0	0%	21	-3	-13%	25	0	0%	21	-3	-13%
				Average*	**39**	**38**	**-1**	**-4%**	**29**	**-11**	**-27%**	**38**	**-1**	**-4%**	**29**	**-11**	**-27%**	**38**	**-2**	**-4%**	**29**	**-11**	**-27%**
	Swans Corner																						
2	A171	3653	3684	3653-3684	25	25	0	0%	26	1	4%	25	0	0%	26	1	4%	25	0	0%	26	1	4%
	Middlesbrough Road	3730	3684	3730-3684	46	45	-1	-3%	41	-5	-11%	45	-1	-3%	41	-5	-11%	45	-1	-3%	41	-5	-11%
	A1043	3688	3684	3688-3684	35	34	-1	-3%	31	-4	-12%	34	-1	-3%	31	-4	-12%	34	-1	-3%	31	-4	-12%
	Guisborough Road	3676	3684	3676-3684	19	19	-1	-4%	19	-1	-3%	19	-1	-4%	19	-1	-3%	19	-1	-4%	19	-1	-3%
				Average*	**31**	**31**	**-1**	**-2%**	**29**	**-2**	**-7%**	**31**	**-1**	**-2%**	**29**	**-2**	**-7%**	**31**	**-1**	**-2%**	**29**	**-2**	**-7%**
	A1053/A1085 Roundabout																						
3	A1085	3765	3753	3765-3753	32	13	-19	-61%	5	-27	-84%	13	-19	-60%	5	-27	-83%	13	-19	-60%	5	-27	-83%
	Industrial Estate	3757	3751	3757-3751	24	23	-2	-7%	22	-3	-10%	23	-2	-7%	22	-3	-10%	23	-2	-7%	22	-3	-10%
	Greystones Road/A1053 South	3773	3748	3773-3748	46	45	-1	-1%	45	-1	-2%	45	-1	-1%	45	-1	-2%	45	-1	-1%	45	-1	-2%
	Broadway	3740	3745	3740-3745	33	31	-2	-6%	30	-3	-8%	31	-2	-6%	30	-3	-8%	31	-2	-6%	30	-3	-8%
	A1053 North	3731	3746	3731-3746	21	17	-4	-20%	9	-12	-56%	17	-4	-20%	9	-12	-55%	17	-4	-20%	9	-12	-55%
				Average*	**31**	**26**	**-6**	**-18%**	**22**	**-9**	**-28%**	**26**	**-6**	**-18%**	**22**	**-9**	**-28%**	**26**	**-6**	**-18%**	**22**	**-9**	**-28%**
	A19/A174 Parkway Interchange																						
4	A19 North SB Slip	2743	2738	2743-2738	28	31	2	8%	26	-2	-7%	31	2	8%	26	-2	-7%	31	2	8%	26	-2	-7%
	A174 East WB Slip	2864	2756	2864-2756	34	32	-2	-7%	32	-3	-7%	32	-2	-6%	31	-3	-9%	32	-2	-6%	31	-3	-9%
	A19 South NB Slip	2732	2720	2732-2720	14	14	-1	-5%	13	-1	-7%	14	-1	-5%	13	-1	-8%	14	-1	-5%	13	-1	-8%
	A174 West EB Slip	2633	2706	2633-2706	52	52	0	0%	52	0	0%	52	0	0%	52	0	0%	52	0	0%	52	0	0%
				Average*	**32**	**32**	**0**	**-1%**	**31**	**-1**	**-4%**	**32**	**0**	**0%**	**31**	**-2**	**-5%**	**32**	**0**	**0%**	**31**	**-2**	**-5%**
	Cargo Fleet Lane Throughabout																						
5	Works Road	3502	3489	3502-3489	30	26	-4	-12%	16	-13	-45%	26	-4	-12%	16	-14	-46%	26	-4	-12%	16	-14	-46%
	A66 East	4539	3488	4539-3488	35	31	-3	-9%	27	-8	-23%	31	-3	-9%	27	-8	-23%	31	-3	-9%	27	-8	-23%
	Cargo Fleet Lane	3495	3492	3495-3492	28	29	1	2%	29	1	2%	29	1	2%	29	1	2%	29	1	2%	29	1	2%
	A66 West	4629	3478	4629-3478	9	9	0	3%	8	-1	-9%	9	0	4%	8	-1	-9%	9	0	5%	8	-1	-9%
				Average*	**25**	**24**	**-1**	**-6%**	**20**	**-5**	**-21%**	**24**	**-1**	**-6%**	**20**	**-5**	**-21%**	**24**	**-1**	**-6%**	**20**	**-5**	**-21%**
	Marton Road/Ladgate Lane Crossroads																						
6	Marton Road	3394	4283	3394-4283	25	26	1	5%	25	0	0%	26	1	4%	24	-1	-3%	26	1	4%	24	-1	-3%
	Ladgate Lane East	4284	3443	4284-3443	1	1	0	-22%	1	0	-43%	1	0	-19%	1	0	-43%	1	0	-20%	1	0	-43%
	Stokesley Road	3464	3443	3464-3443	8	7	-1	-12%	6	-2	-25%	7	-1	-11%	6	-2	-24%	7	-1	-10%	6	-2	-24%
	Ladgate Lane West	3388	3443	3388-3443	14	12	-2	-17%	14	0	-1%	13	-2	-12%	14	-1	-6%	12	-2	-15%	14	-1	-6%
				Average*	**12**	**11**	**-1**	**-5%**	**11**	**-1**	**-5%**	**12**	**0**	**-4%**	**11**	**-1**	**-8%**	**12**	**-1**	**-4%**	**11**	**-1**	**-8%**
	Tees Dock Road Roundabout																						
7	Tees Dock Road	3724	3731	3724-3731	39	33	-5	-14%	23	-16	-41%	33	-5	-14%	23	-16	-41%	33	-5	-14%	23	-16	-41%
	A1053	3745	3732	3745-3732	43	40	-3	-7%	34	-9	-21%	40	-3	-7%	35	-8	-18%	40	-3	-7%	35	-8	-18%
	A66	3704	3729	3704-3729	44	41	-3	-7%	38	-6	-13%	41	-3	-7%	38	-6	-13%	41	-3	-7%	38	-6	-13%
				Average*	**42**	**38**	**-4**	**-9%**	**32**	**-10**	**-24%**	**38**	**-4**	**-9%**	**32**	**-10**	**-24%**	**38**	**-4**	**-9%**	**32**	**-10**	**-24%**
	A1042/A174 Roundabout																						
8	A1042	3822	3825	3822-3825	6	8	2	30%	7	0	0%	8	2	30%	7	0	1%	8	2	30%	7	0	1%
	A174 East	3866	3827	3866-3827	55	55	0	-1%	50	-5	-9%	55	0	-1%	50	-5	-9%	55	0	-1%	50	-5	-9%
	A174 West	3807	3818	3807-3818	13	11	-2	-14%	8	-5	-40%	11	-2	-14%	8	-5	-40%	11	-2	-14%	8	-5	-40%
	Industrial Estate	3817	3820	3817-3820	26	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%	26	0	0%
				Average*	**25**	**25**	**0**	**0%**	**23**	**-3**	**-10%**	**25**	**0**	**0%**	**23**	**-3**	**-10%**	**25**	**0**	**0%**	**23**	**-3**	**-10%**
	Cargo Fleet Lane/Ladgate Lane Roundabout																						
9	Cargo Fleet Lane	3610	3625	3610-3625	14	17	3	19%	16	1	10%	17	3	19%	16	1	10%	17	3	19%	16	1	10%
	Normanby Road East	3661	3625	3661-3625	26	26	0	-1%	25	-1	-3%	26	0	-1%	25	-1	-3%	26	0	-1%	25	-1	-3%
	Sunnyfield	3639	3625	3639-3625	16	16	0	0%	15	-1	-4%	16	0	0%	15	-1	-4%	16	0	0%	15	-1	-4%
	Ladgate Lane	3600	3625	3600-3625	12	11	0	-3%	11	0	-4%	11	0	-3%	11	0	-4%	11	0	-3%	11	0	-4%
				Average*	**17**	**18**	**1**	**3%**	**17**	**0**	**-1%**	**18**	**1**	**3%**	**17**	**0**	**-1%**	**18**	**1**	**3%**	**17**	**0**	**-1%**
	Normanby Road/B1380																						
10	Normanby Road	3685	3698	3685-3698	16	16	0	2%	15	-1	-5%	16	0	2%	15	-1	-5%	16	0	2%	15	-1	-5%
	B1380 East	3720	3698	3720-3698	19	17	-2	-11%	16	-3	-17%	17	-2	-11%	16	-3	-17%	17	-2	-11%	16	-3	-17%
	Cleveland Street	3697	3698	3697-3698	12	10	-1	-11%	10	-2	-17%	10	-1	-13%	10	-2	-17%	10	-1	-12%	10	-2	-17%
	B1380 West	3694	3698	3694-3698	8	8	0	3%	8	0	-2%	8	0	3%	8	0	-2%	8	0	3%	8	0	-2%
	*Average speeds not weighted for flow			**Average***	**14**	**13**	**-1**	**-5%**	**12**	**-2**	**-11%**	**13**	**-1**	**-5%**	**12**	**-2**	**-11%**	**13**	**-1**	**-5%**	**12**	**-2**	**-11%**

Appendix D

Flow Plots

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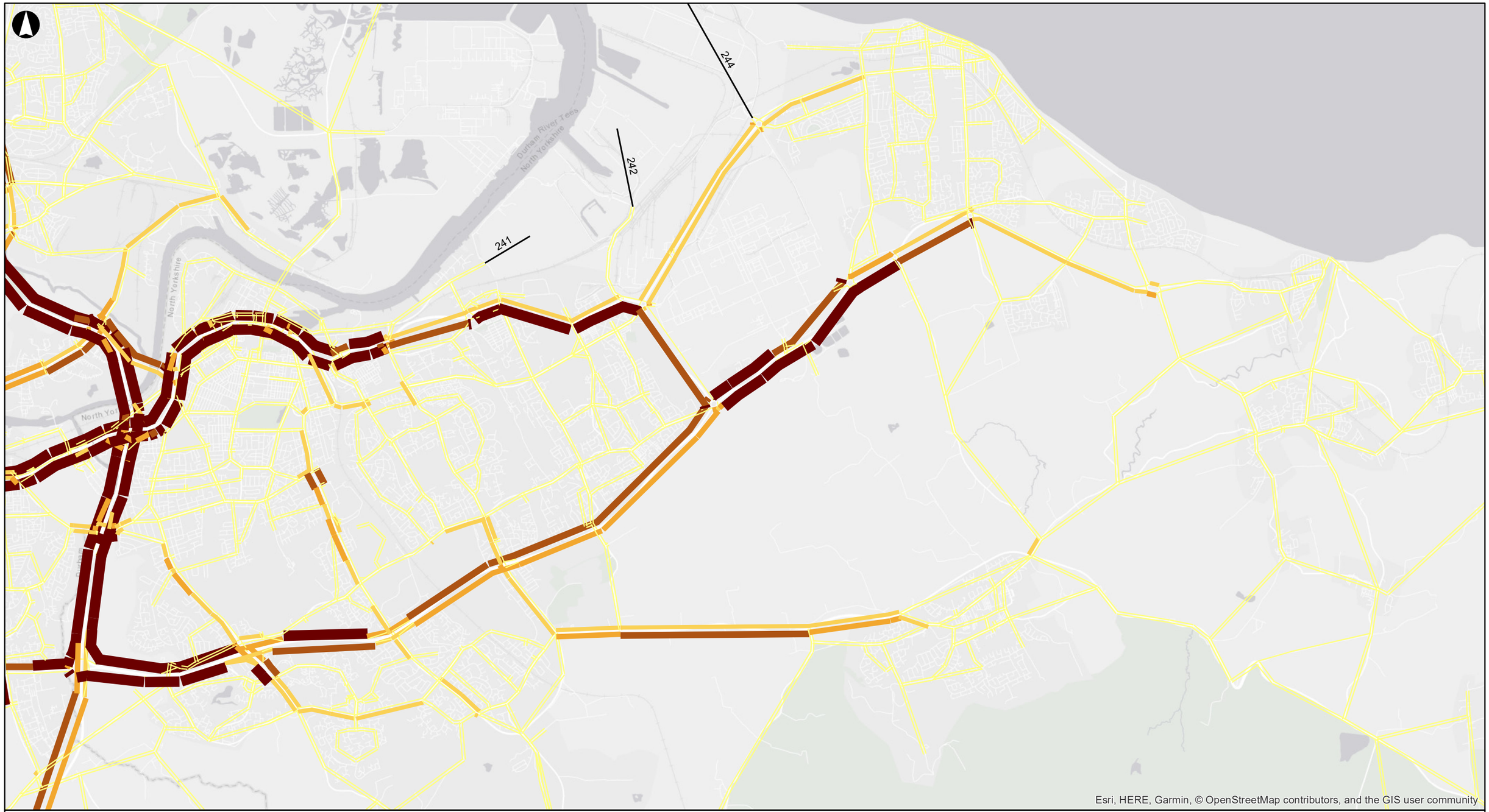

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SSI Zones

Flow AM

- 0 - 900
- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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www.arup.com

Metres
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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 AM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
001	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

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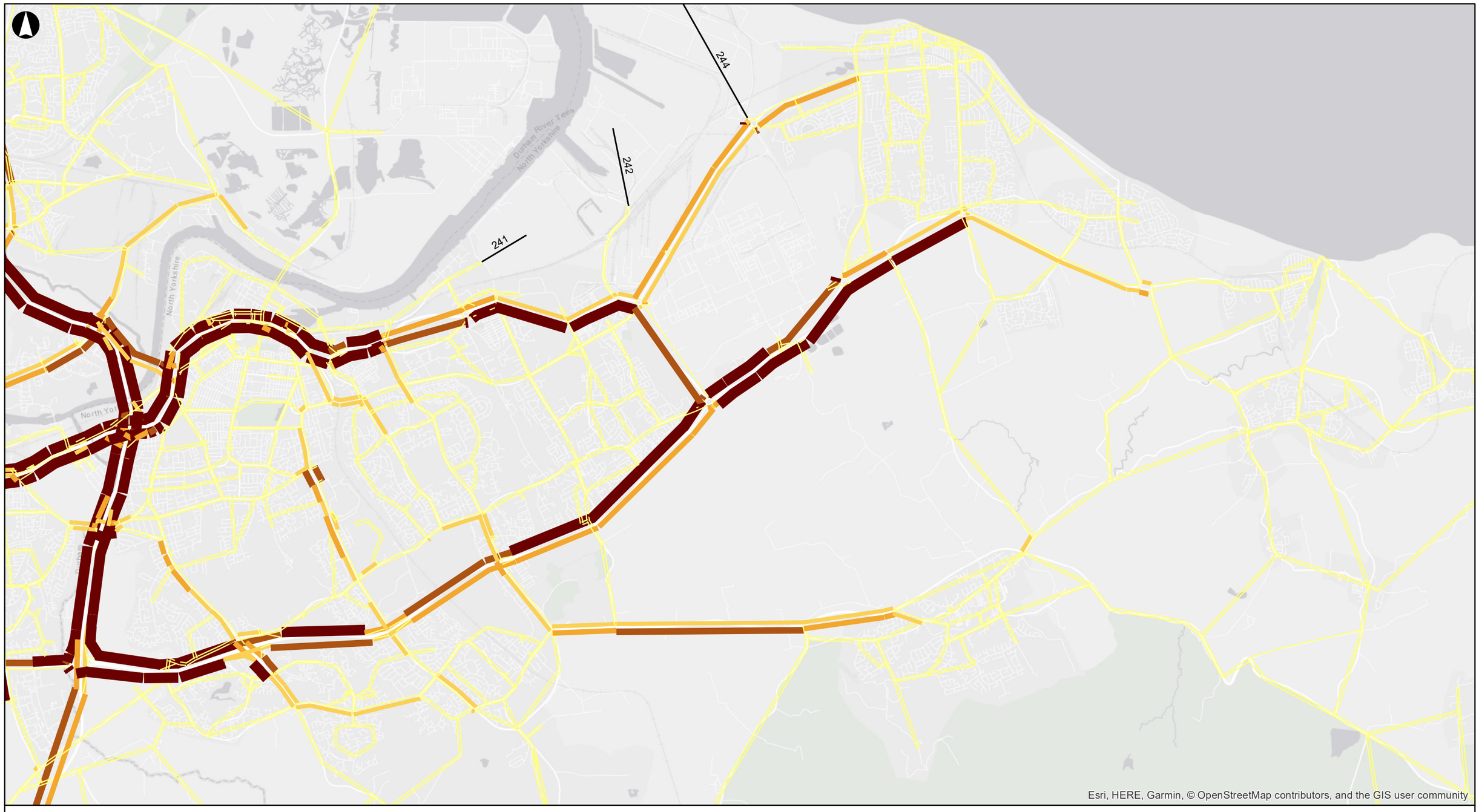

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- 0 - 900
- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

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Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
001	**P0**

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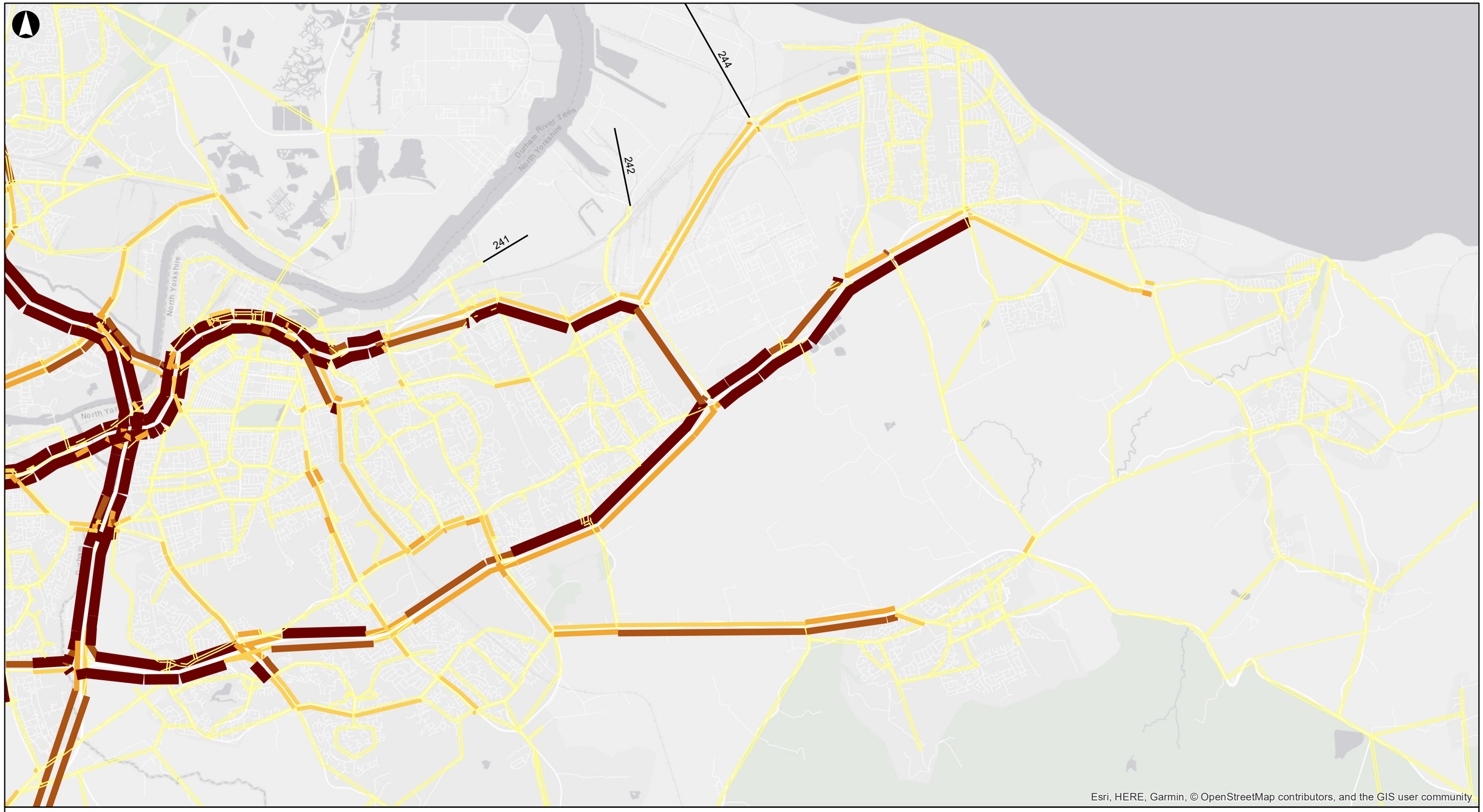

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SSI Zones

Flow AM

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- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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Job Title

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Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
002	**P0**

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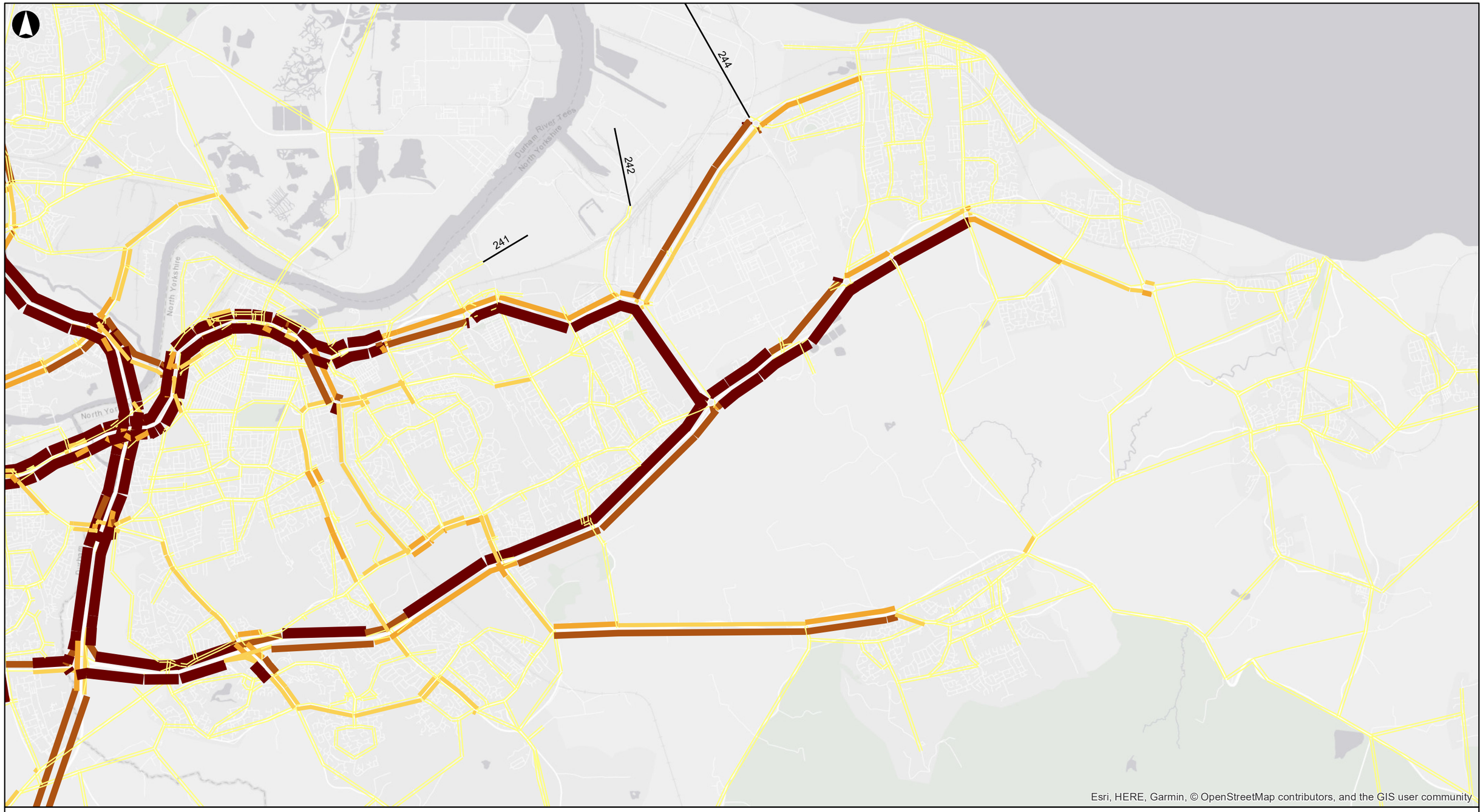
A3



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- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

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Do Minimum with Committed Infrastructure and SSI Development Site 2025 AM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
002	**P0**

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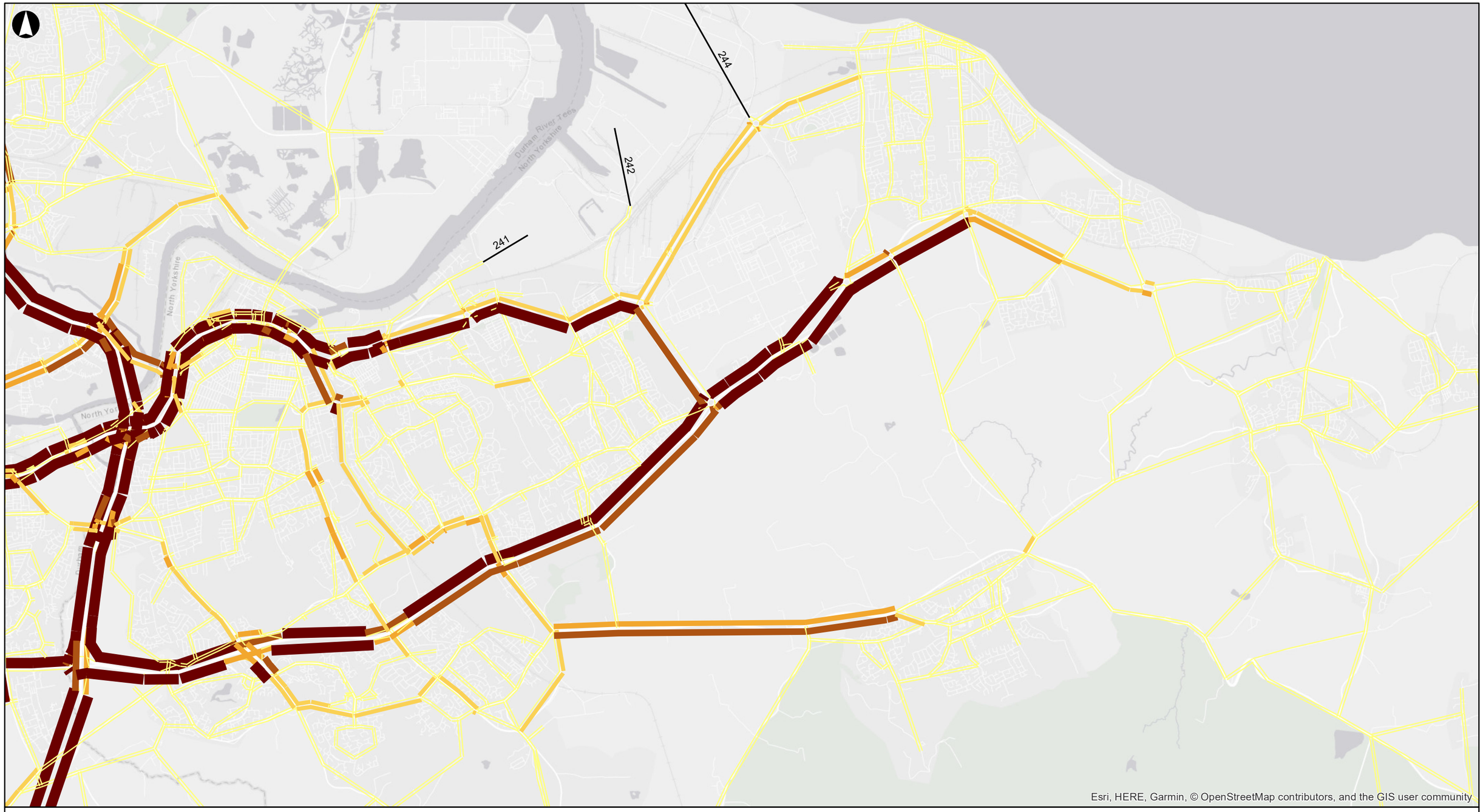

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SSI Zones

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- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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Do Minimum with Committed Infrastructure 2030 AM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
003	**P0**

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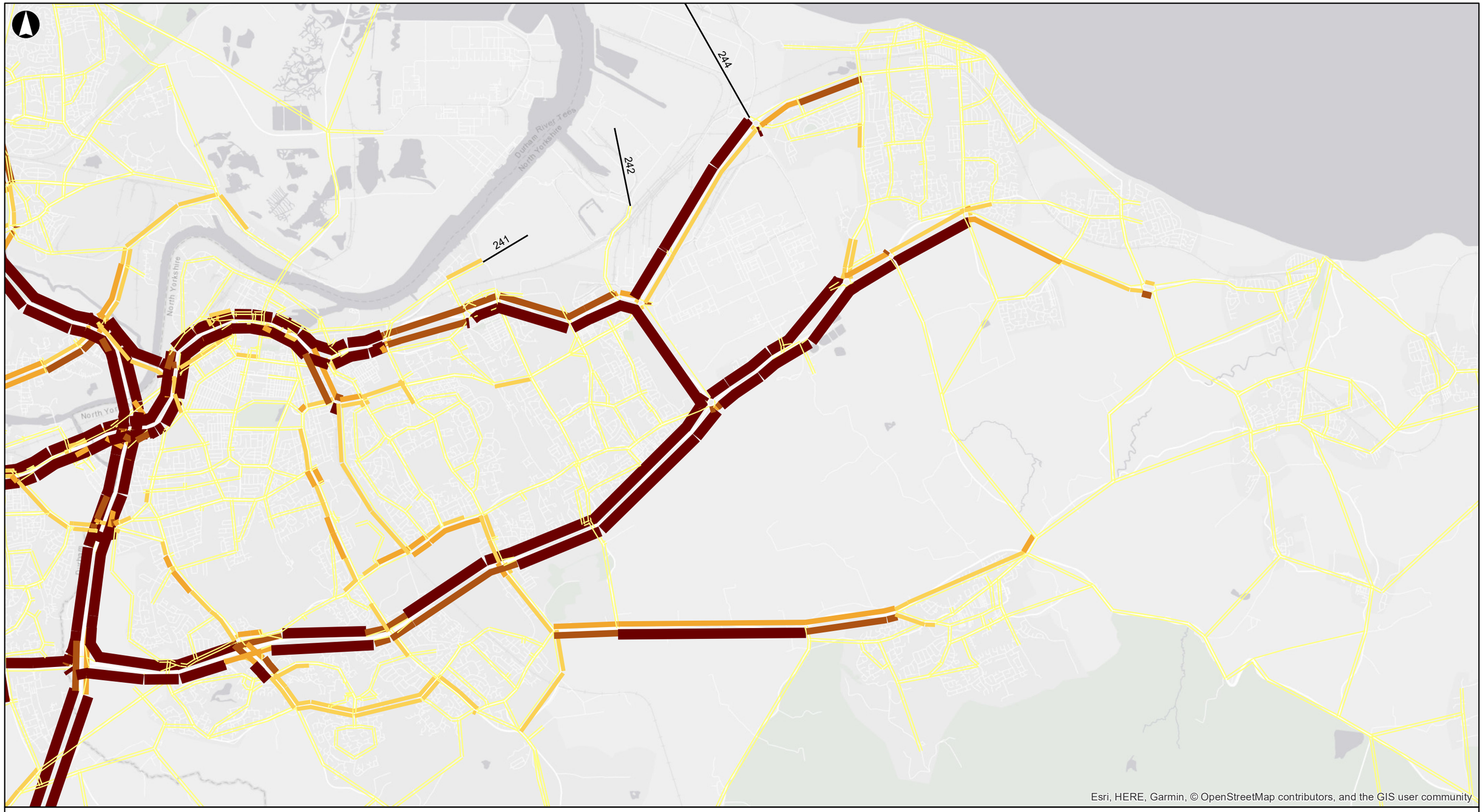

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SSI Zones

Flow AM

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- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 AM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
003	**P0**

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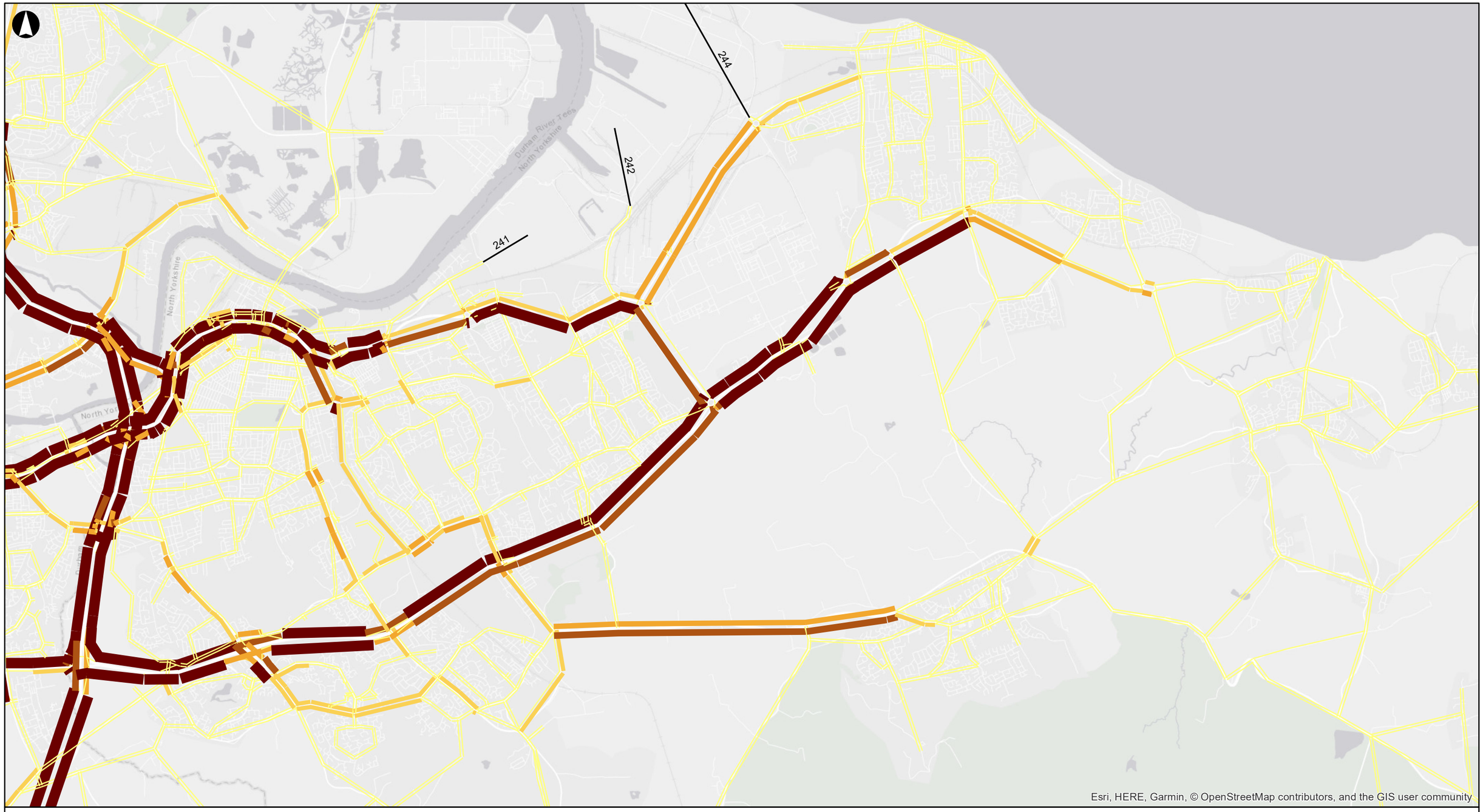

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- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-25	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 AM Flow

Scale at A3

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Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
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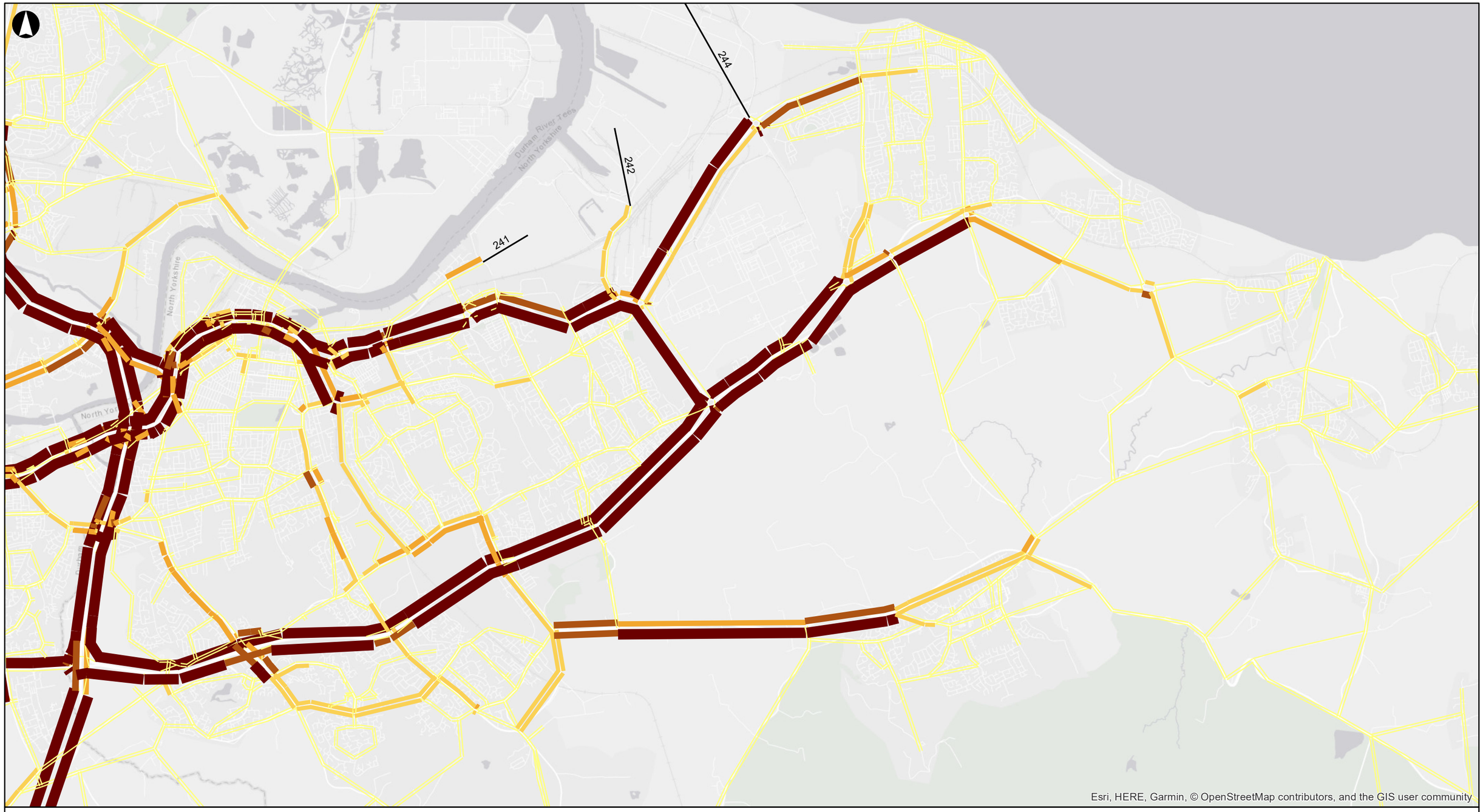
A3



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SSI Zones

Flow AM

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- 901 - 1200
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- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 AM Flow

Scale at A3

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Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
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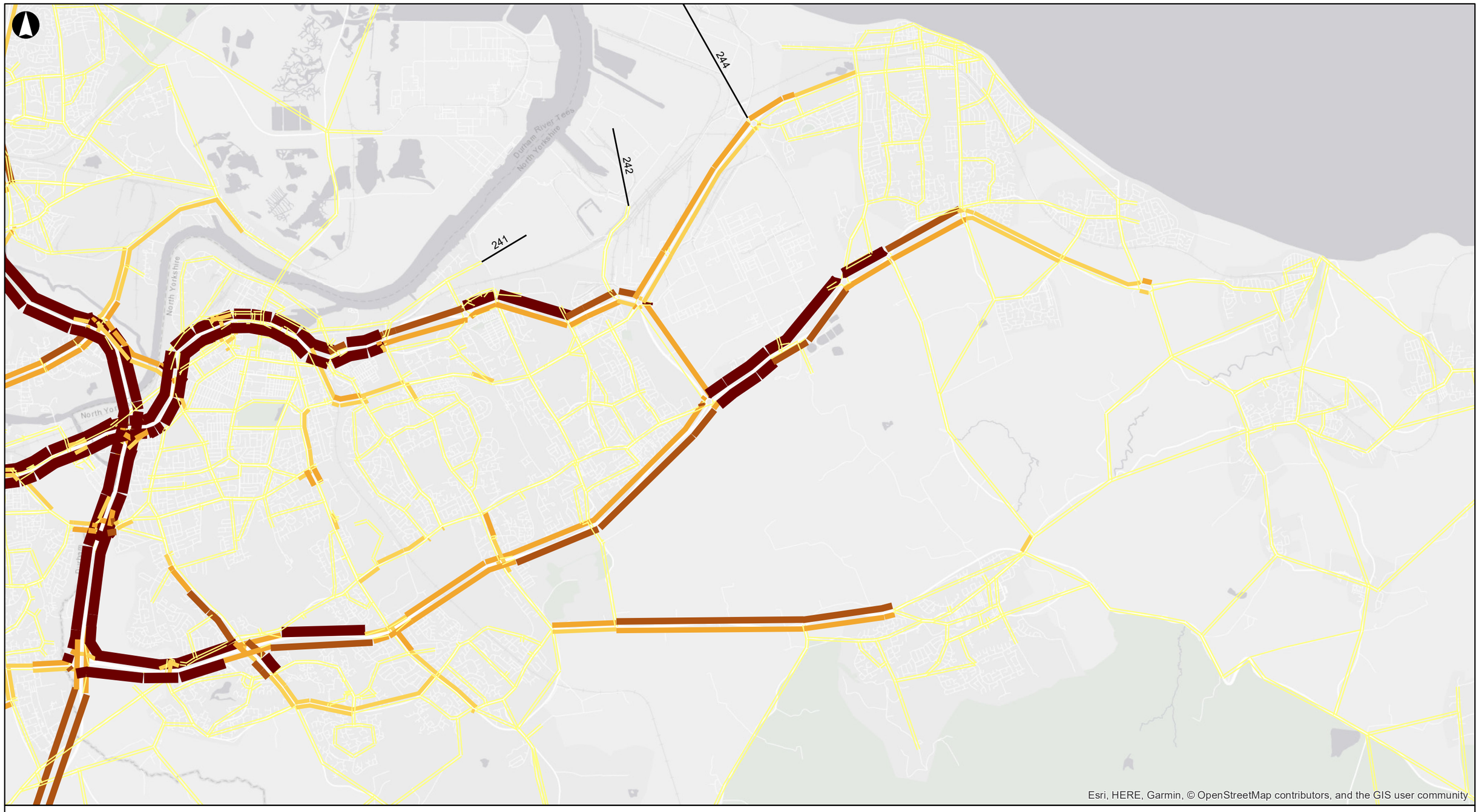

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SSI Zones

Flow PM

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- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 PM Flow

Scale at A3

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Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
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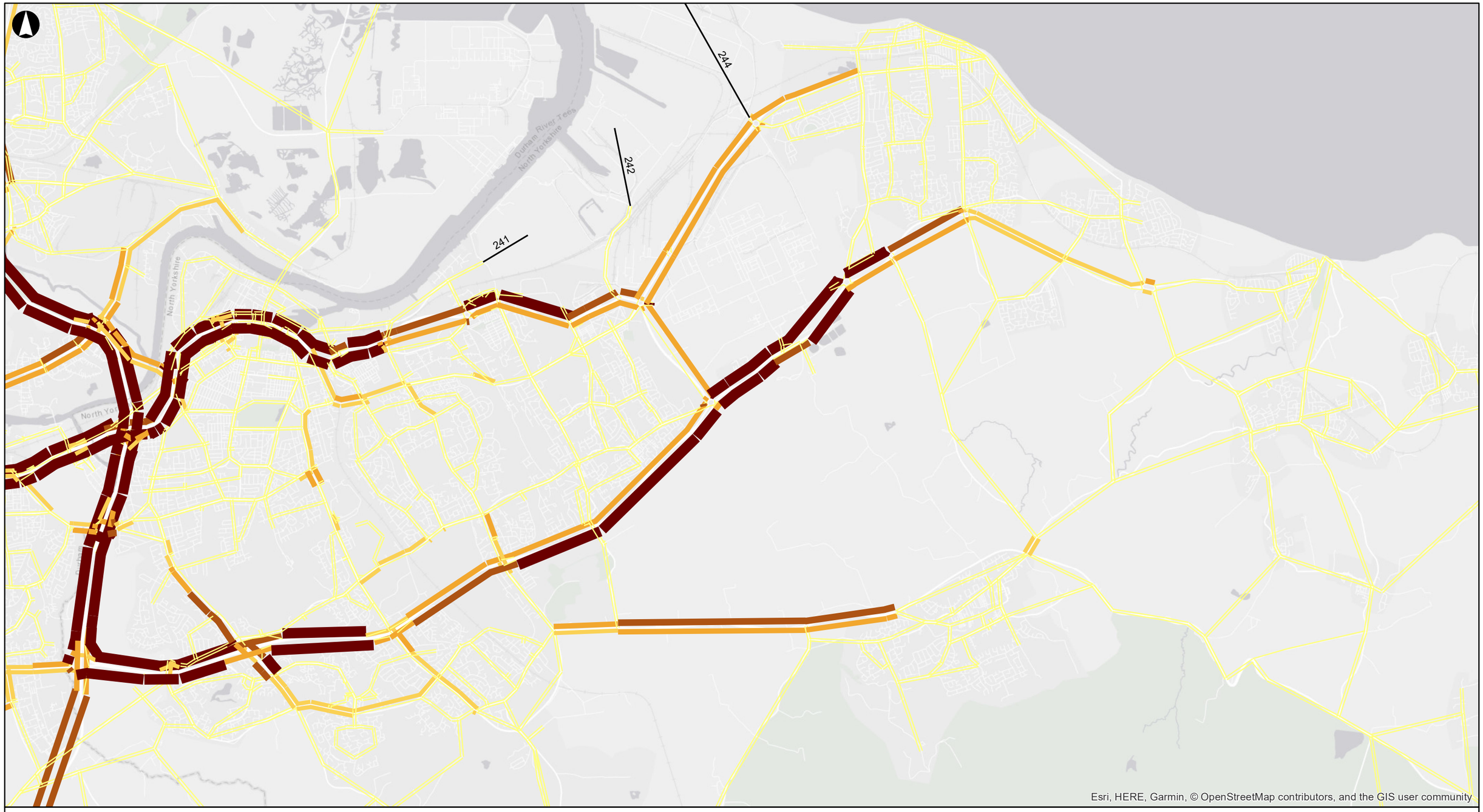

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SSI Zones

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- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

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Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
001	**P0**

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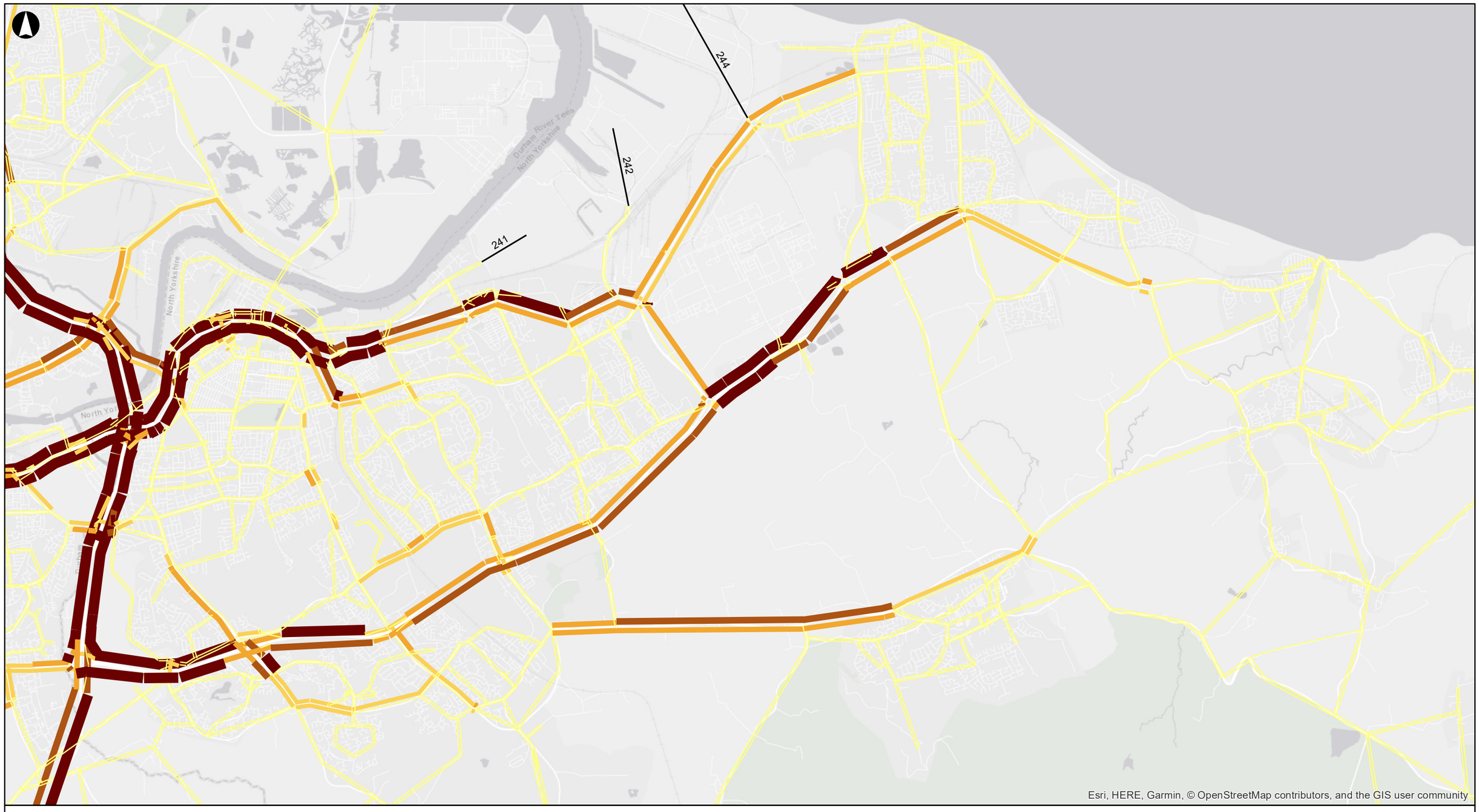

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SSI Zones

Flow PM

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- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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Metres

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Client

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 PM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
002	**P0**

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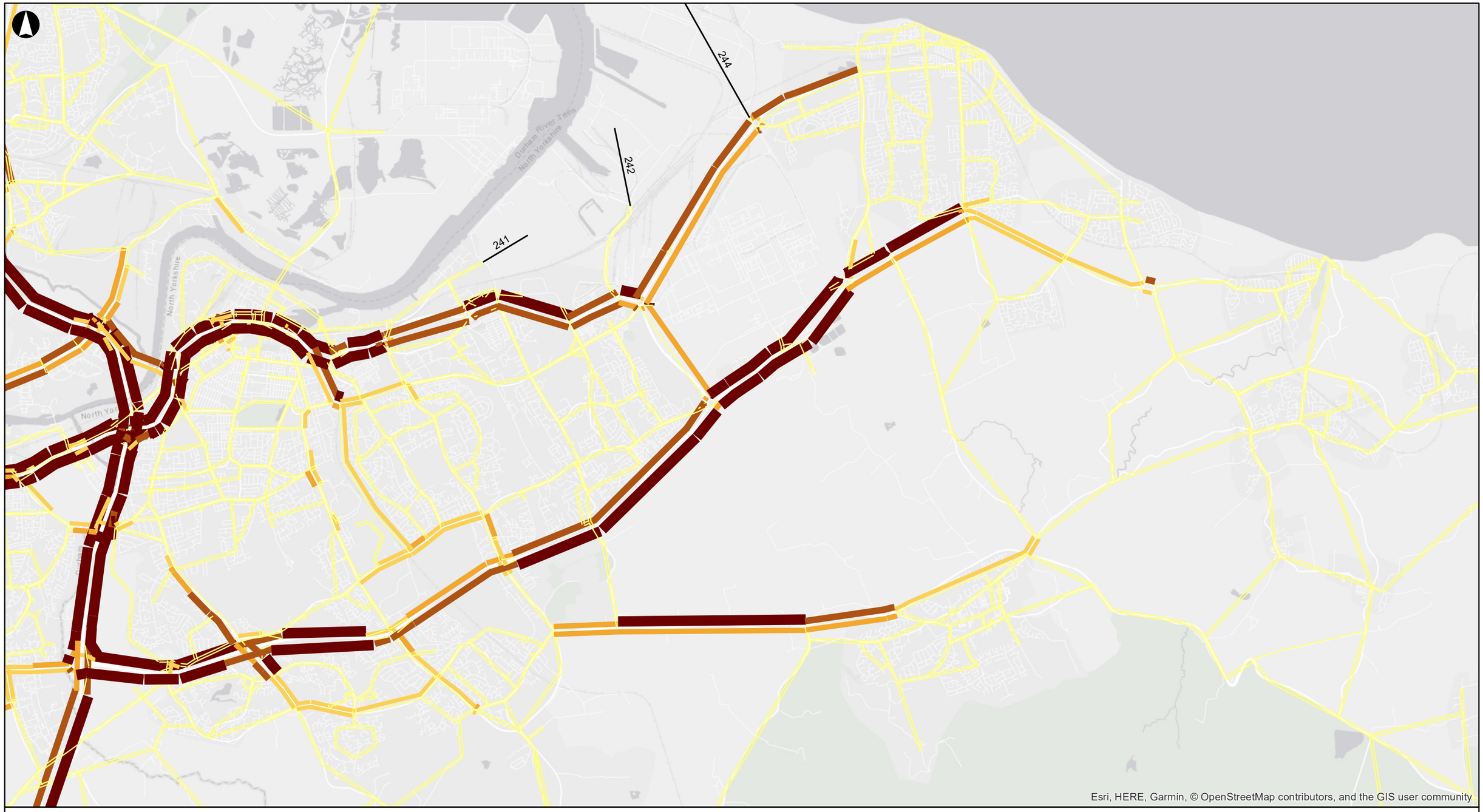

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SSI Zones

Flow PM

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- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 PM Flow

Scale at A3

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Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
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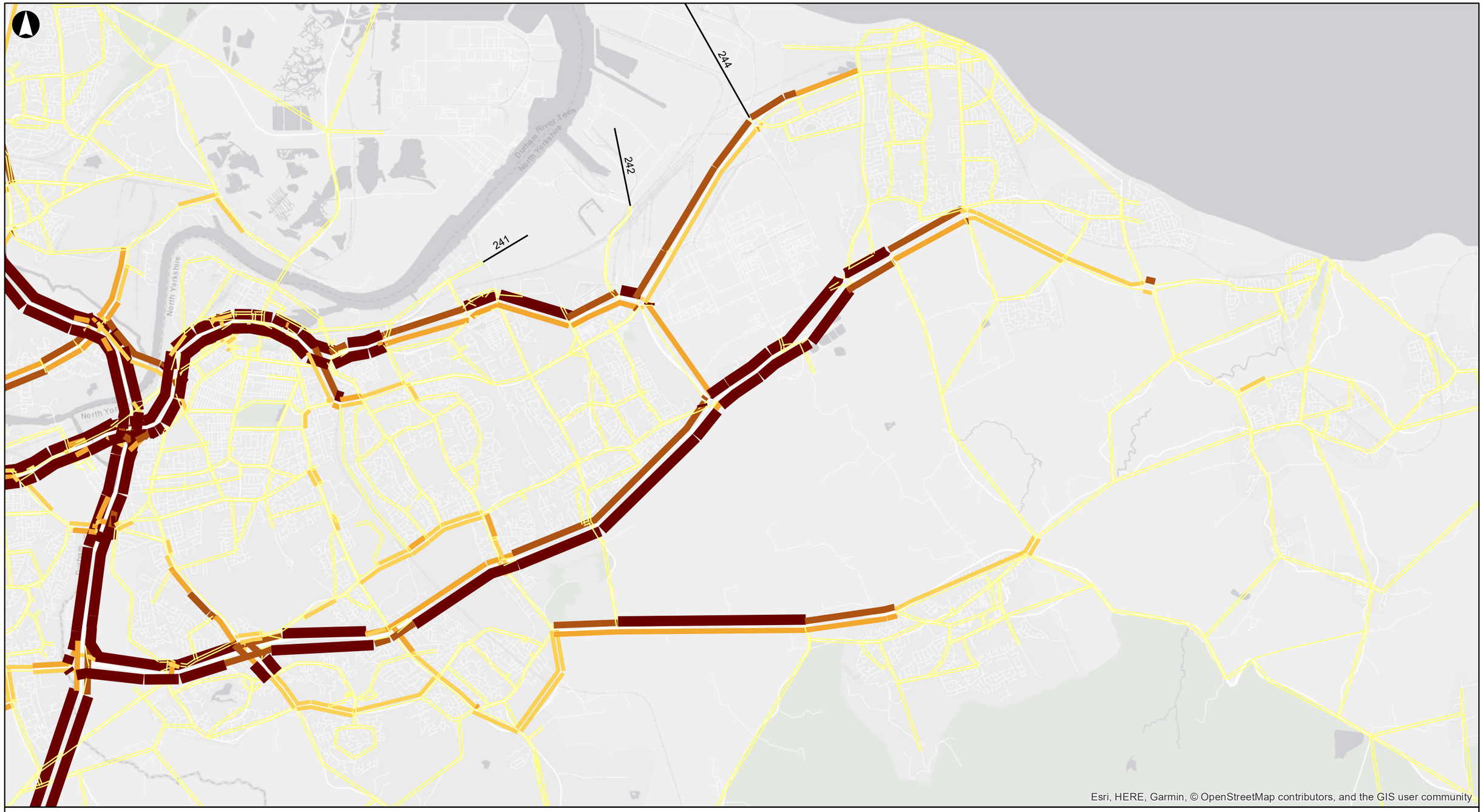

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- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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www.arup.com

Metres
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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 PM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
003	**P0**

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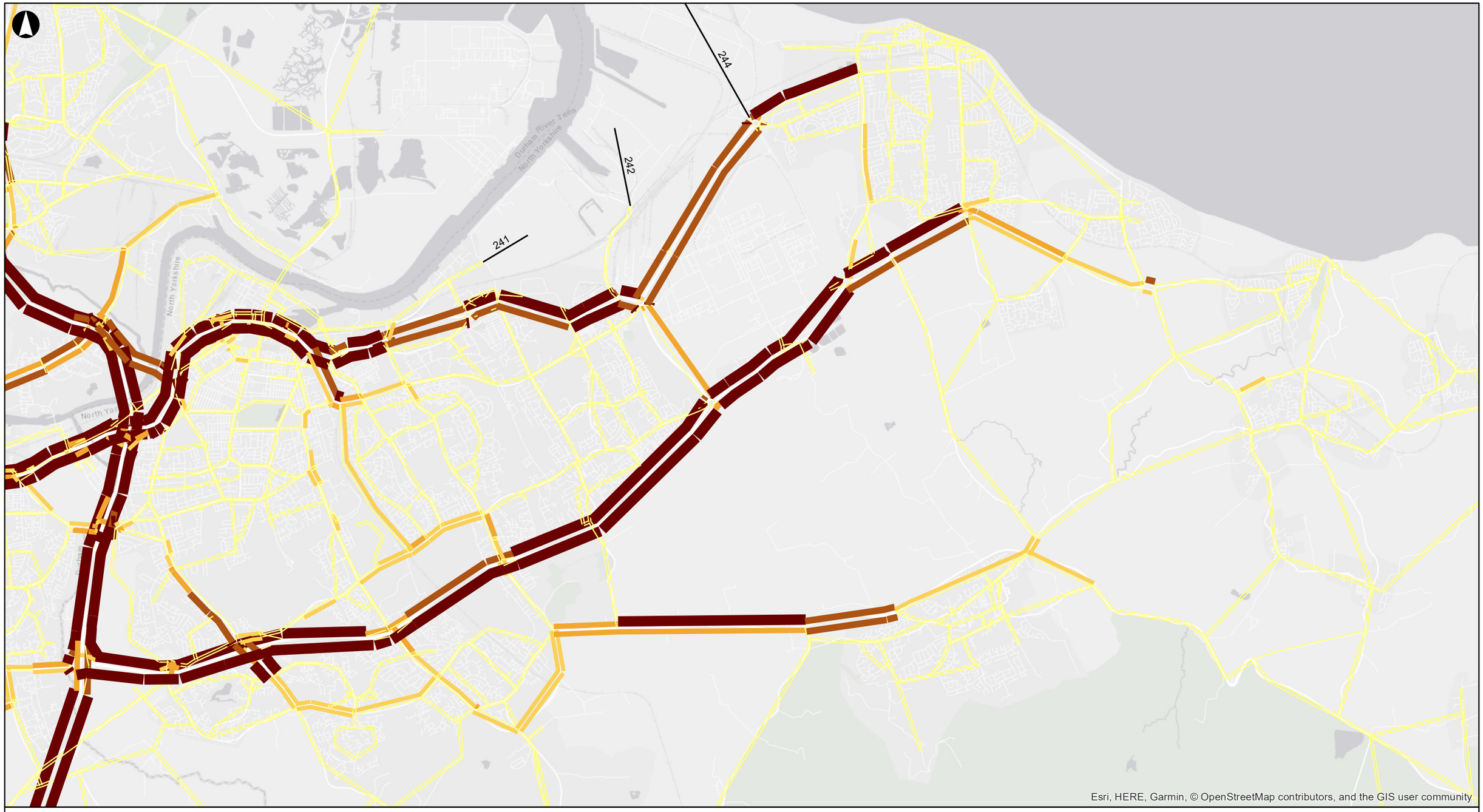

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- 0 - 900
- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

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Do Minimum with Committed Infrastructure and SSI Development Site 2030 PM Flow

Scale at A3

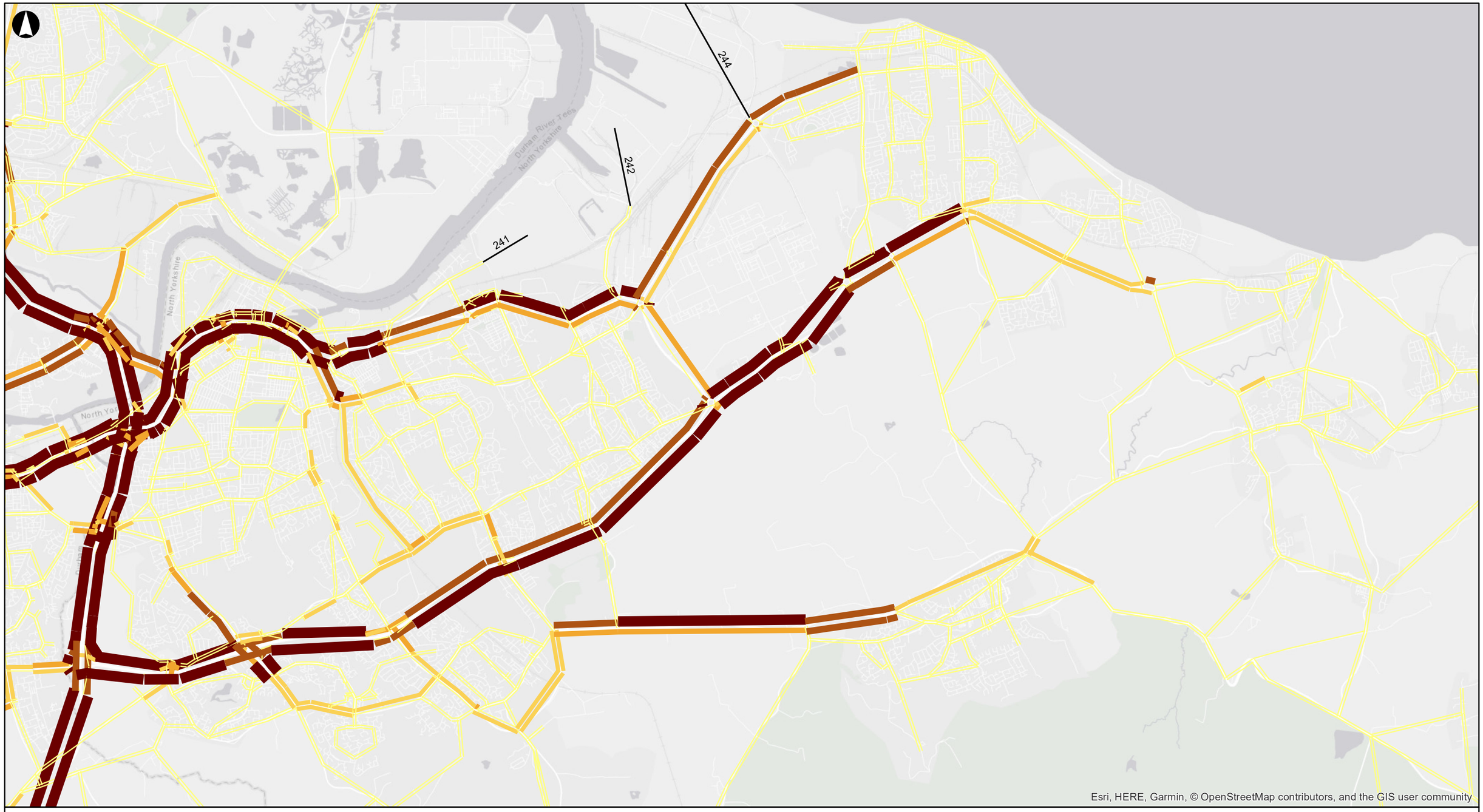
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
003	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3



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SSI Zones

Flow PM

- 0 - 900
- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 PM Flow

Scale at A3

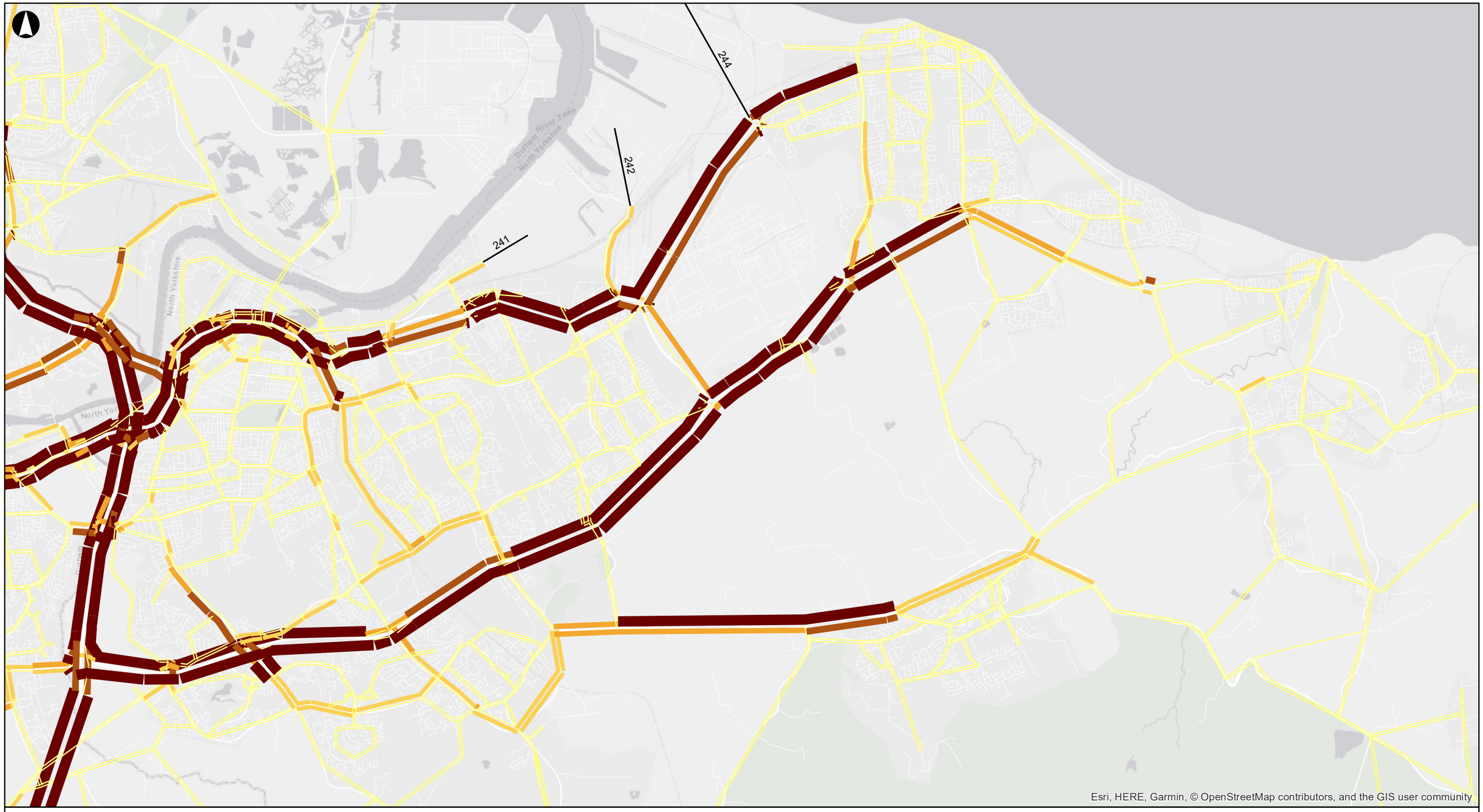
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
004	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3



11/08/2018 18:34:36

Legend

SSI Zones

Flow PM

- 0 - 900
- 901 - 1200
- 1201 - 1500
- 1501 - 1800
- > 1800

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 PM Flow

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
004	**P0**

\\globa\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

Appendix E

Link Volume/Capacity Plots

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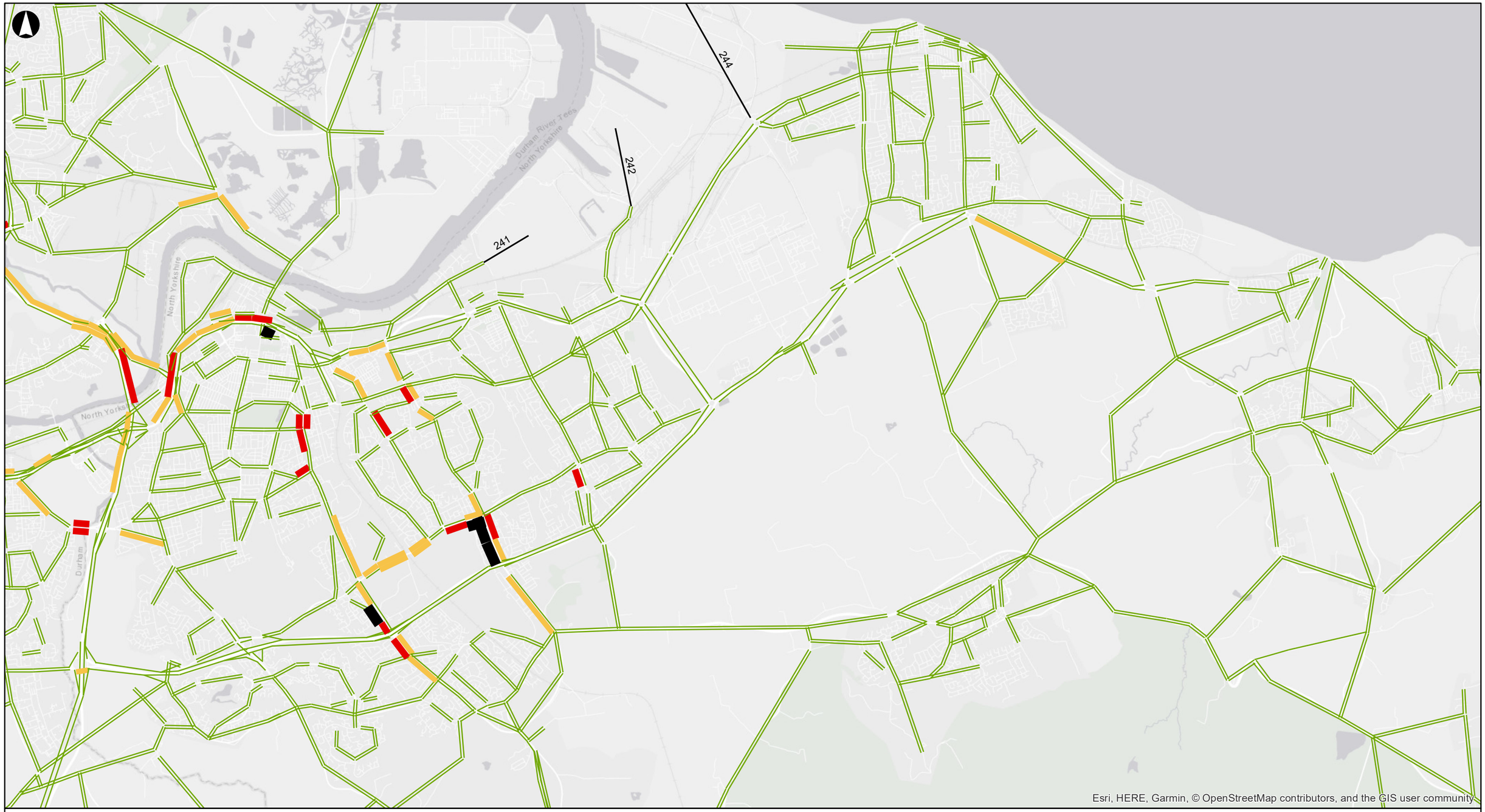

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SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 AM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
005	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

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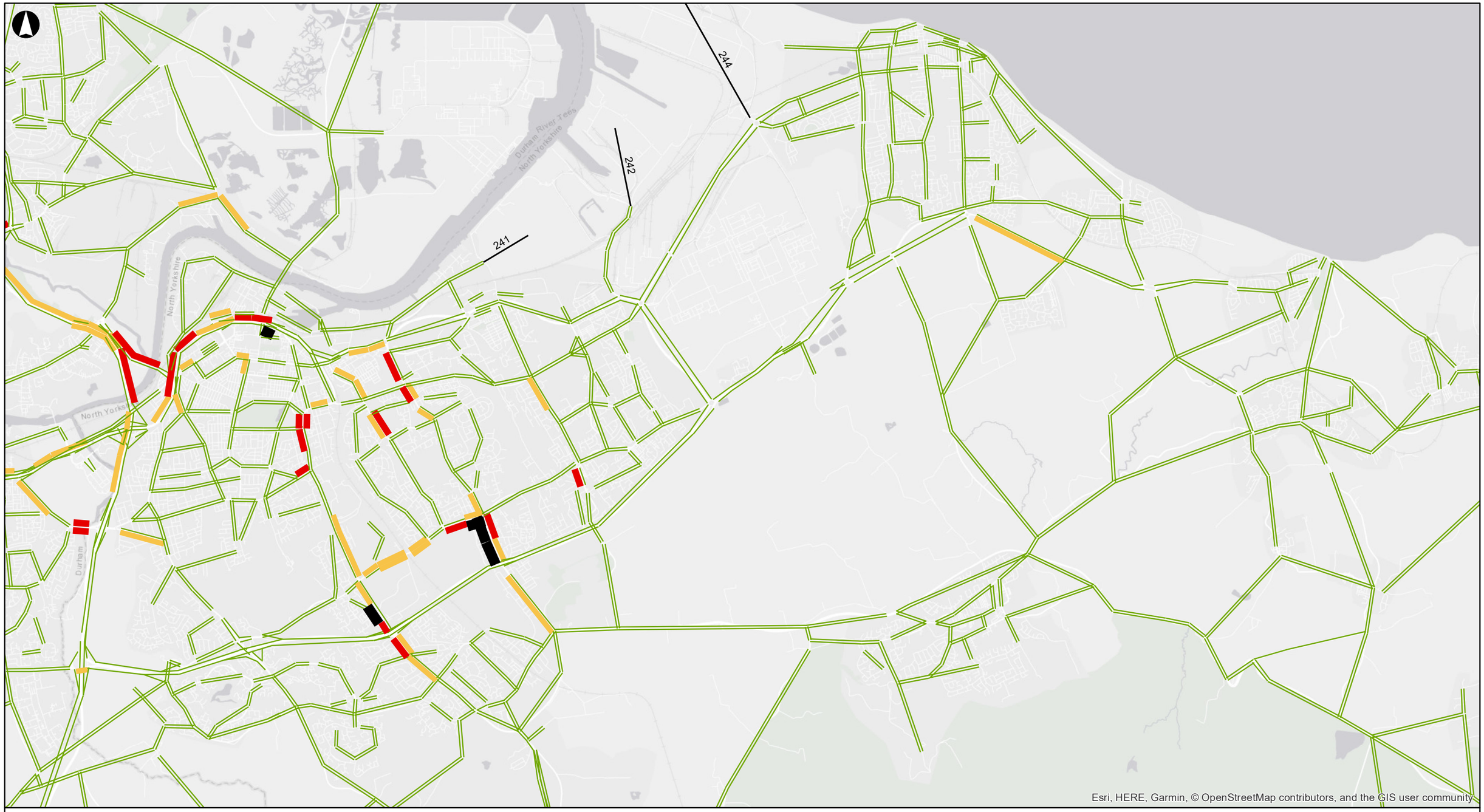

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SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2020 AM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
005	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

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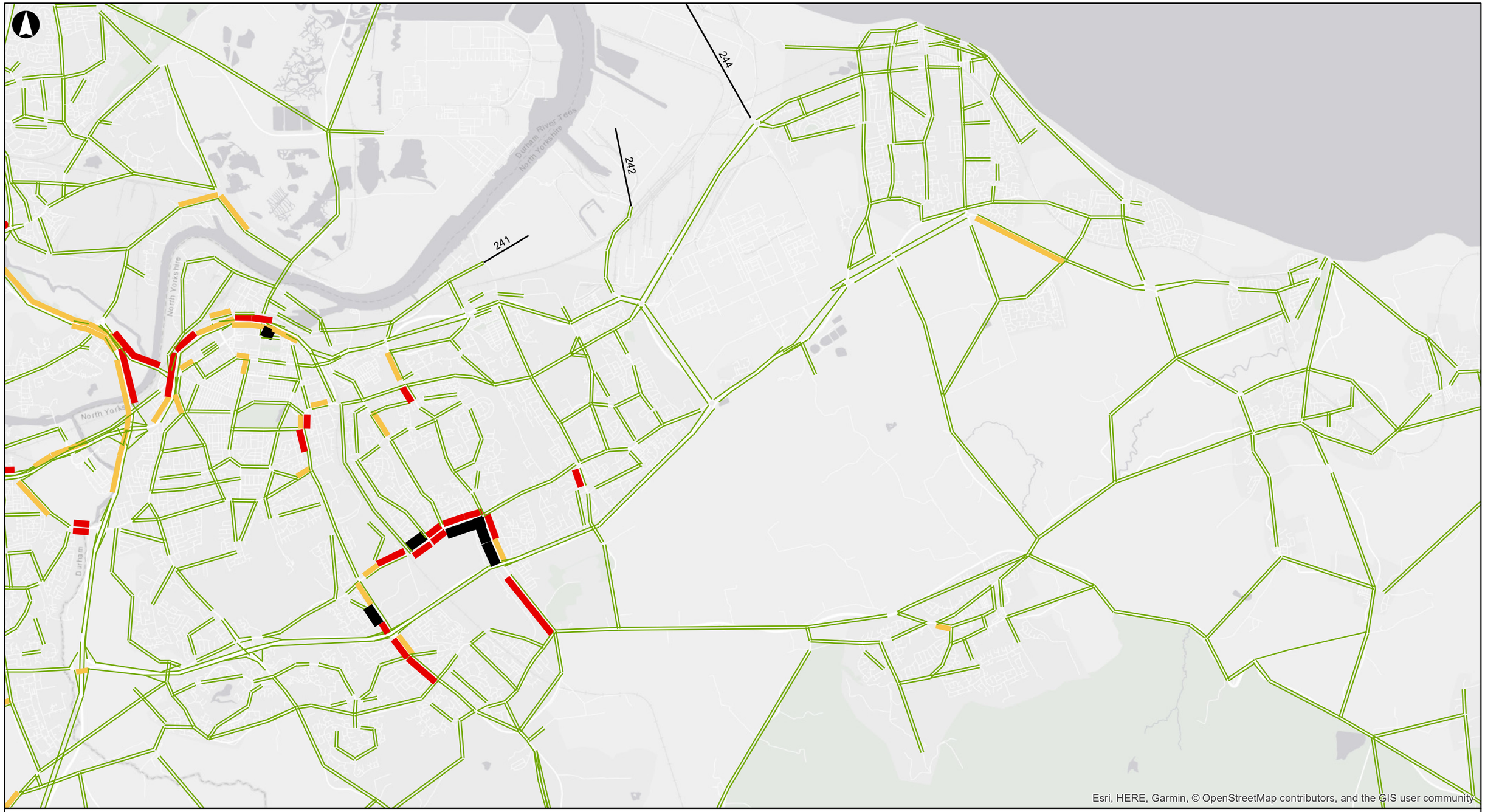

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SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 AM Link Volume/Capacity

Scale at A3

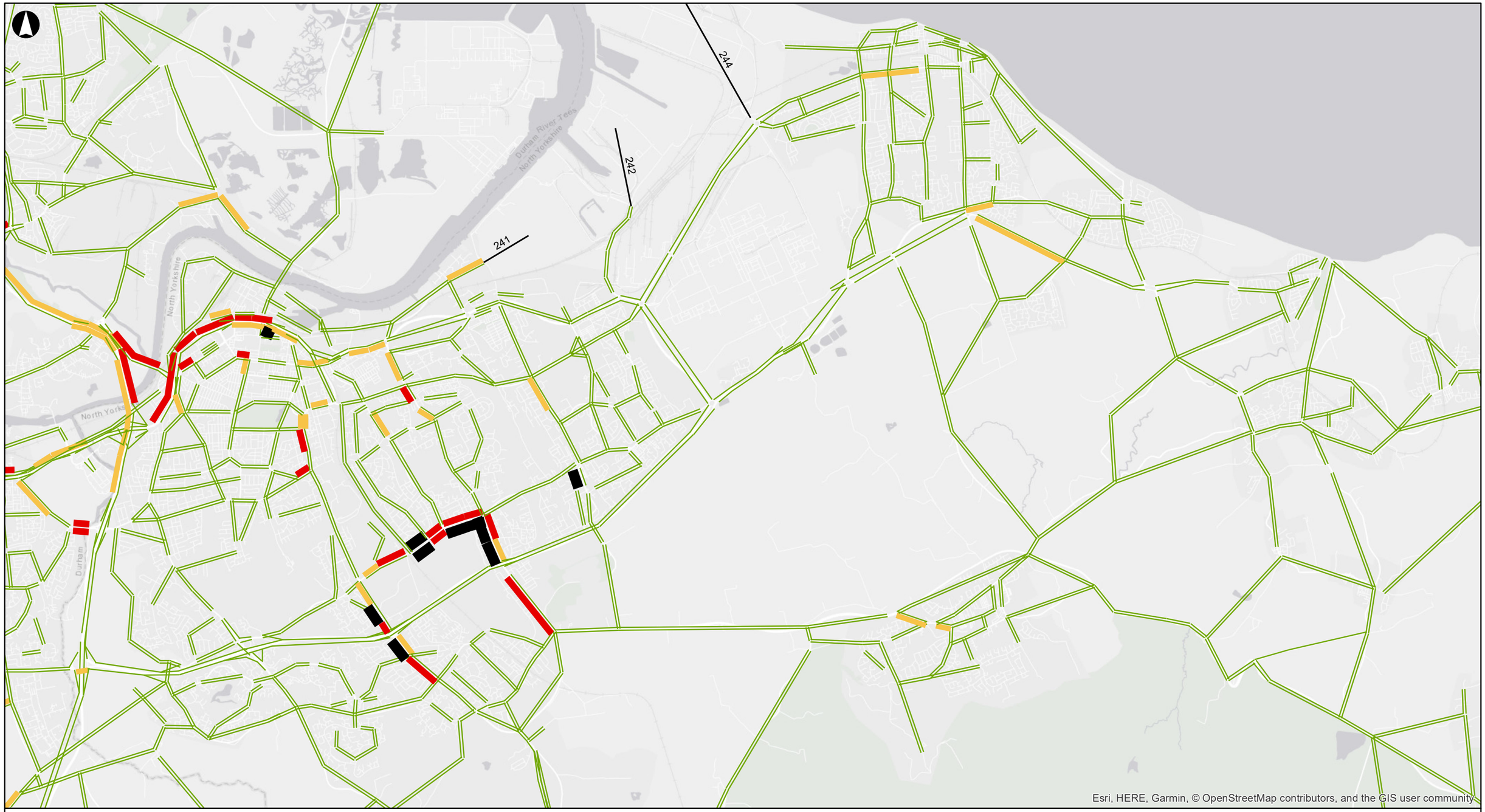
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
006	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



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Legend

SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 AM Link Volume/Capacity

Scale at A3

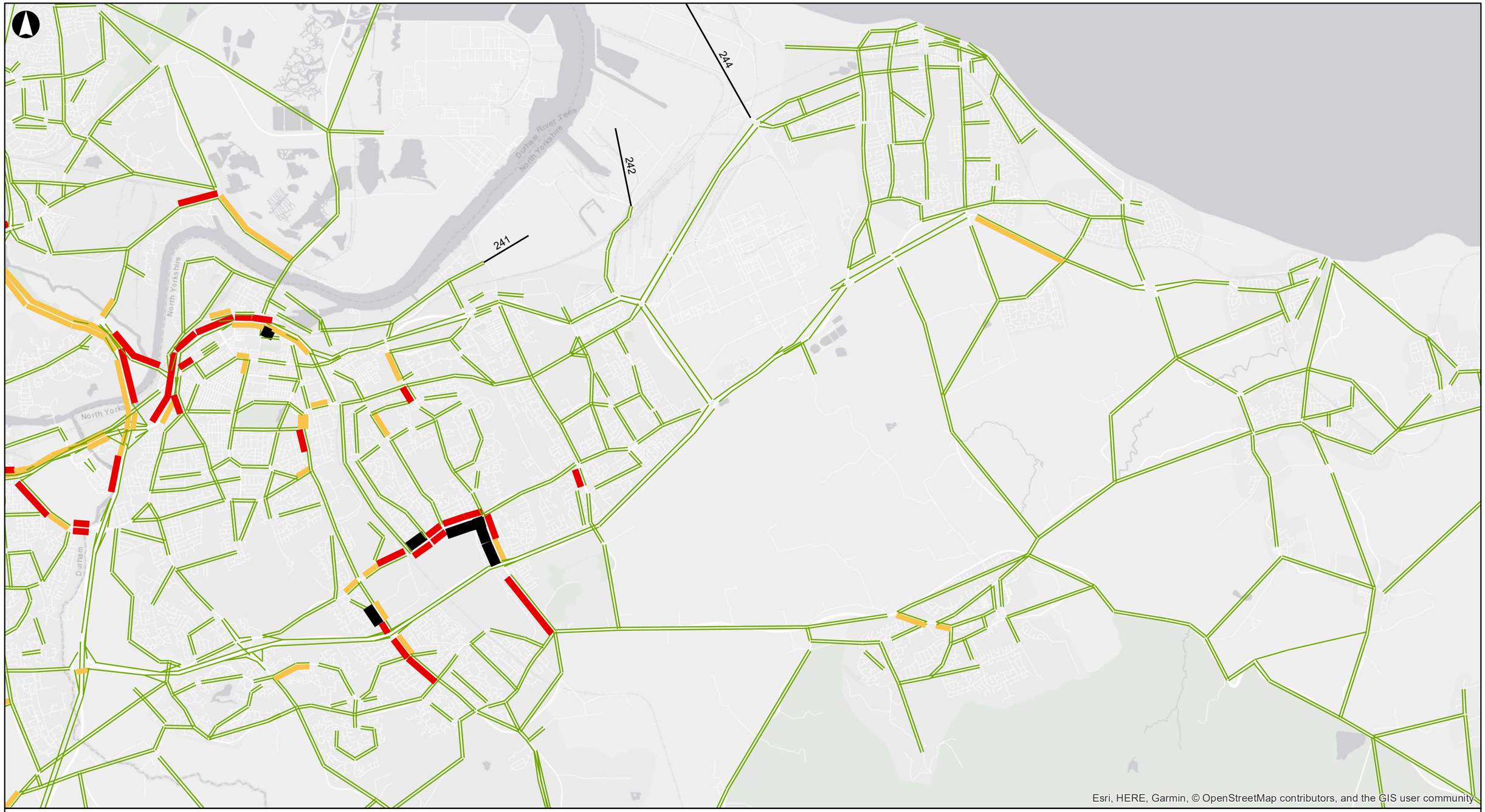
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
006	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



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Legend

SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 AM Link Volume/Capacity

Scale at A3

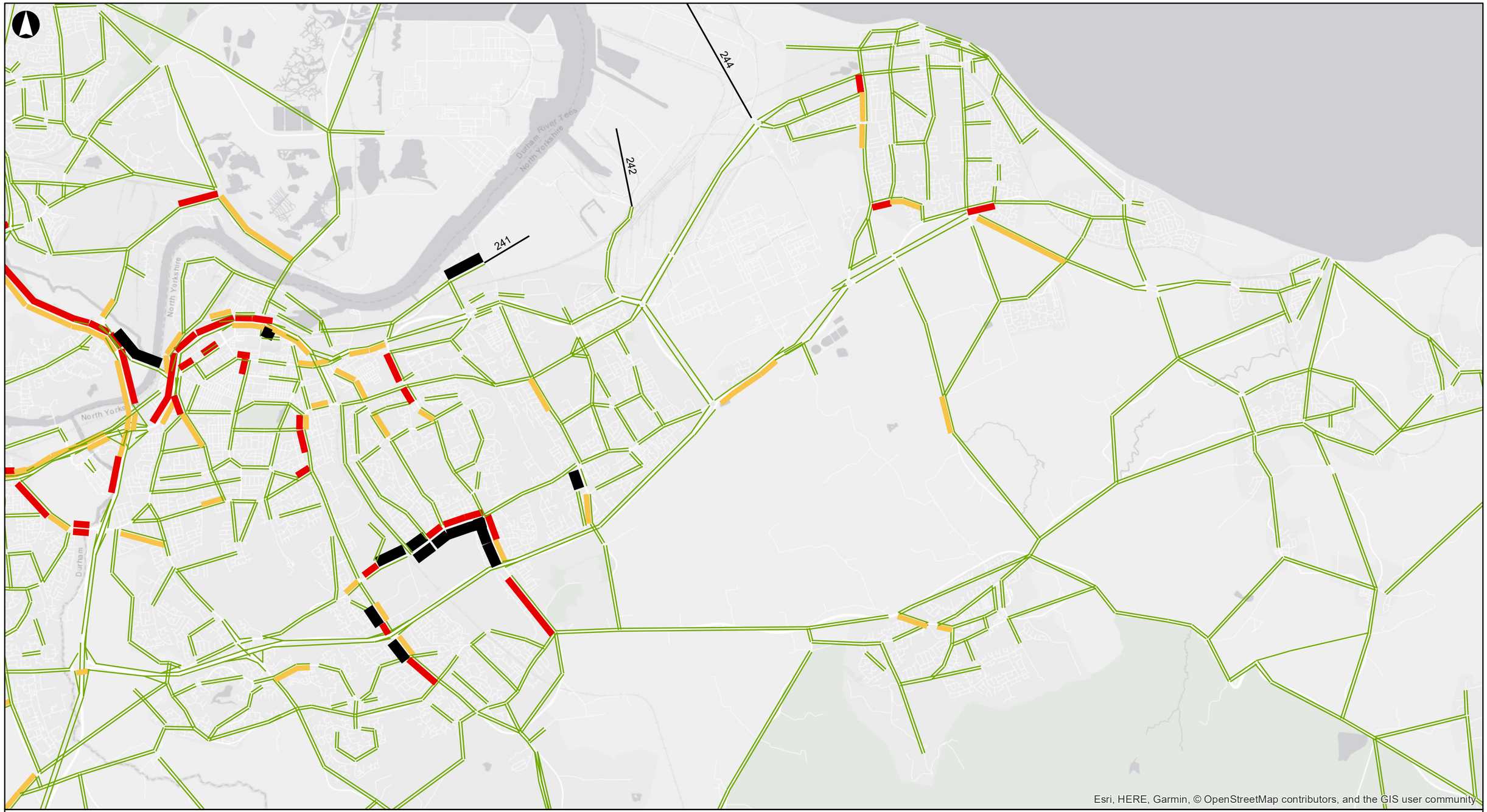
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
007	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



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Legend

SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 AM Link Volume/Capacity

Scale at A3

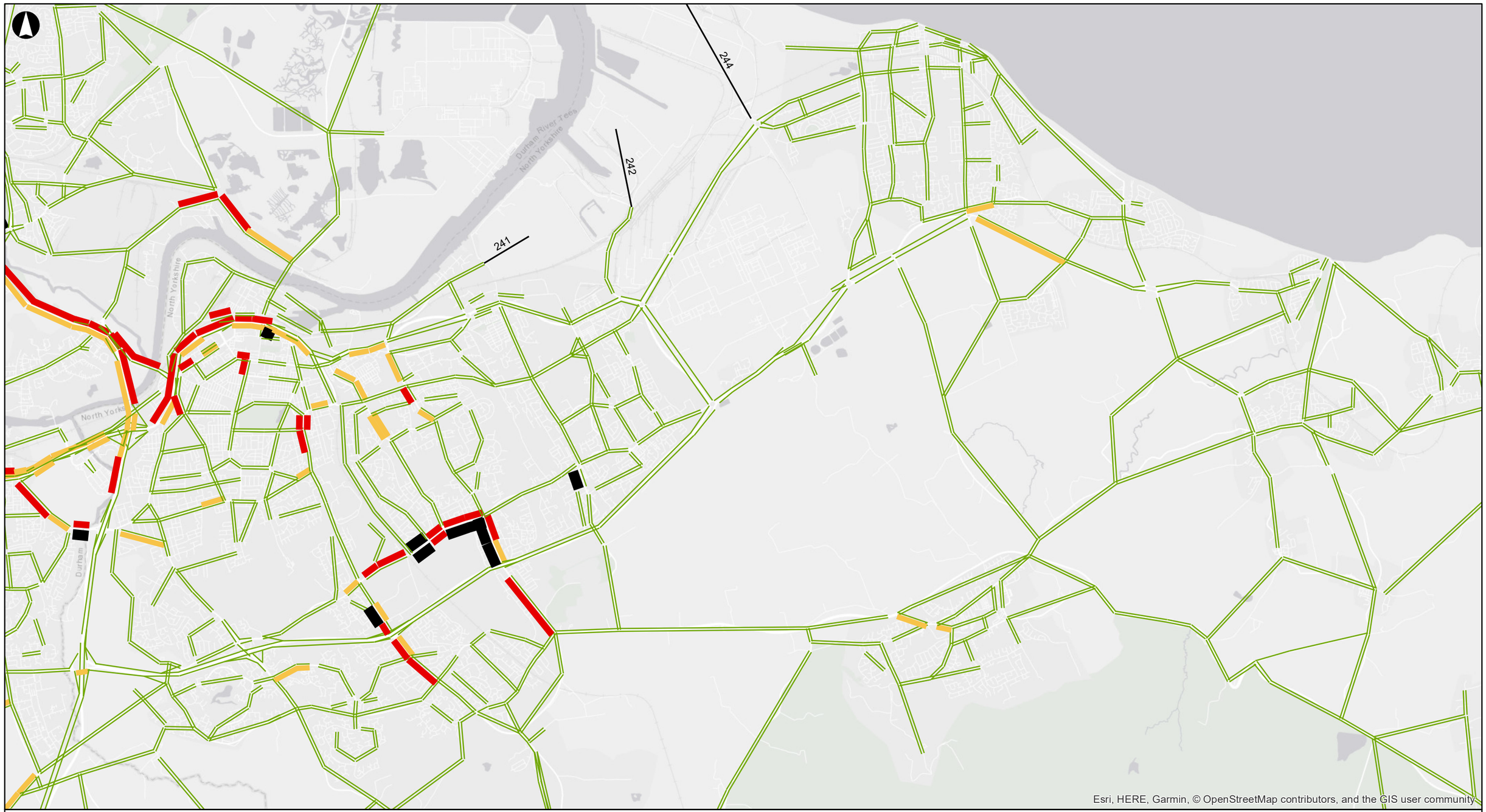
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
007	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



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SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 AM Link Volume/Capacity

Scale at A3

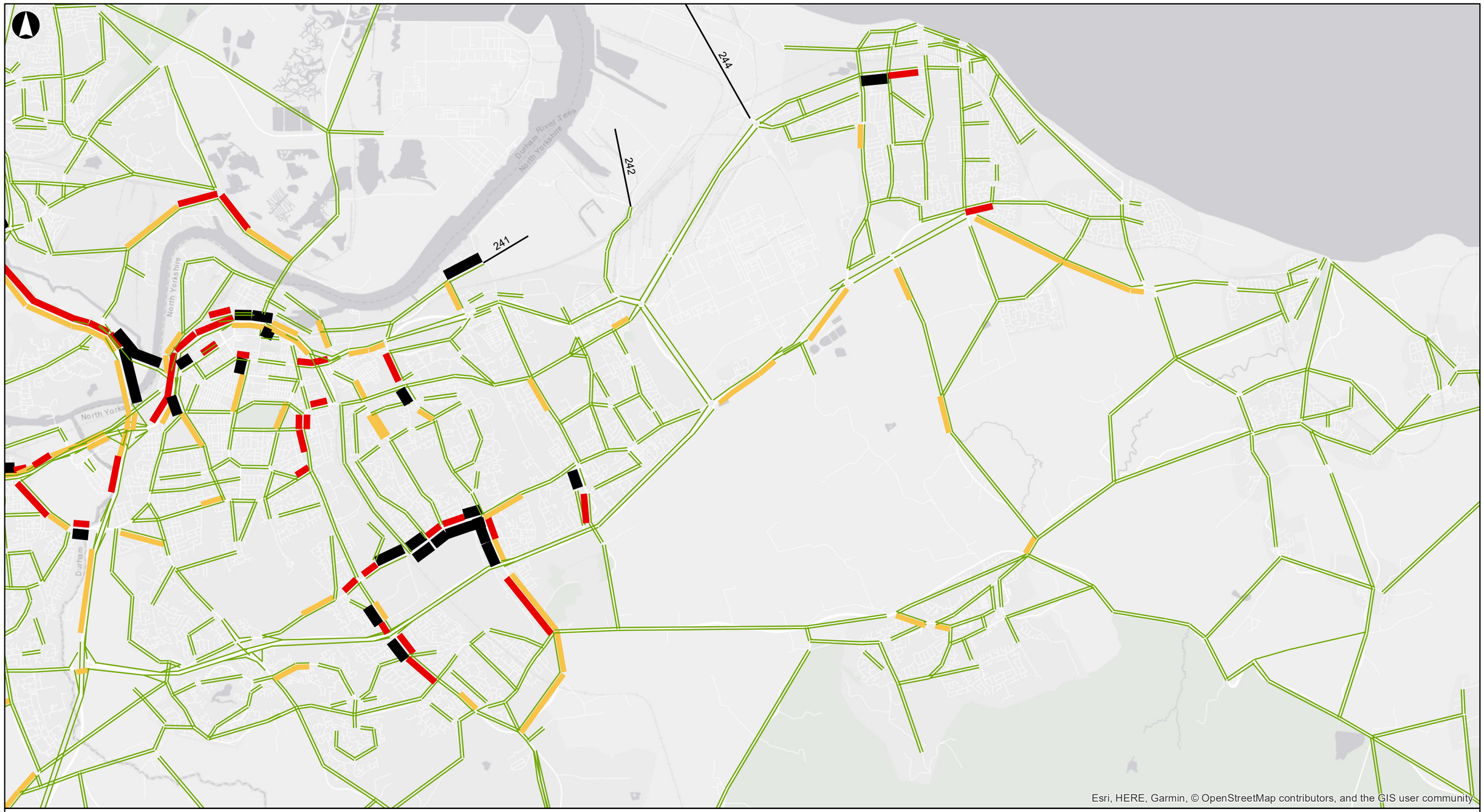
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
008	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



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SSI Zones

VC AM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 AM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
008	**P0**

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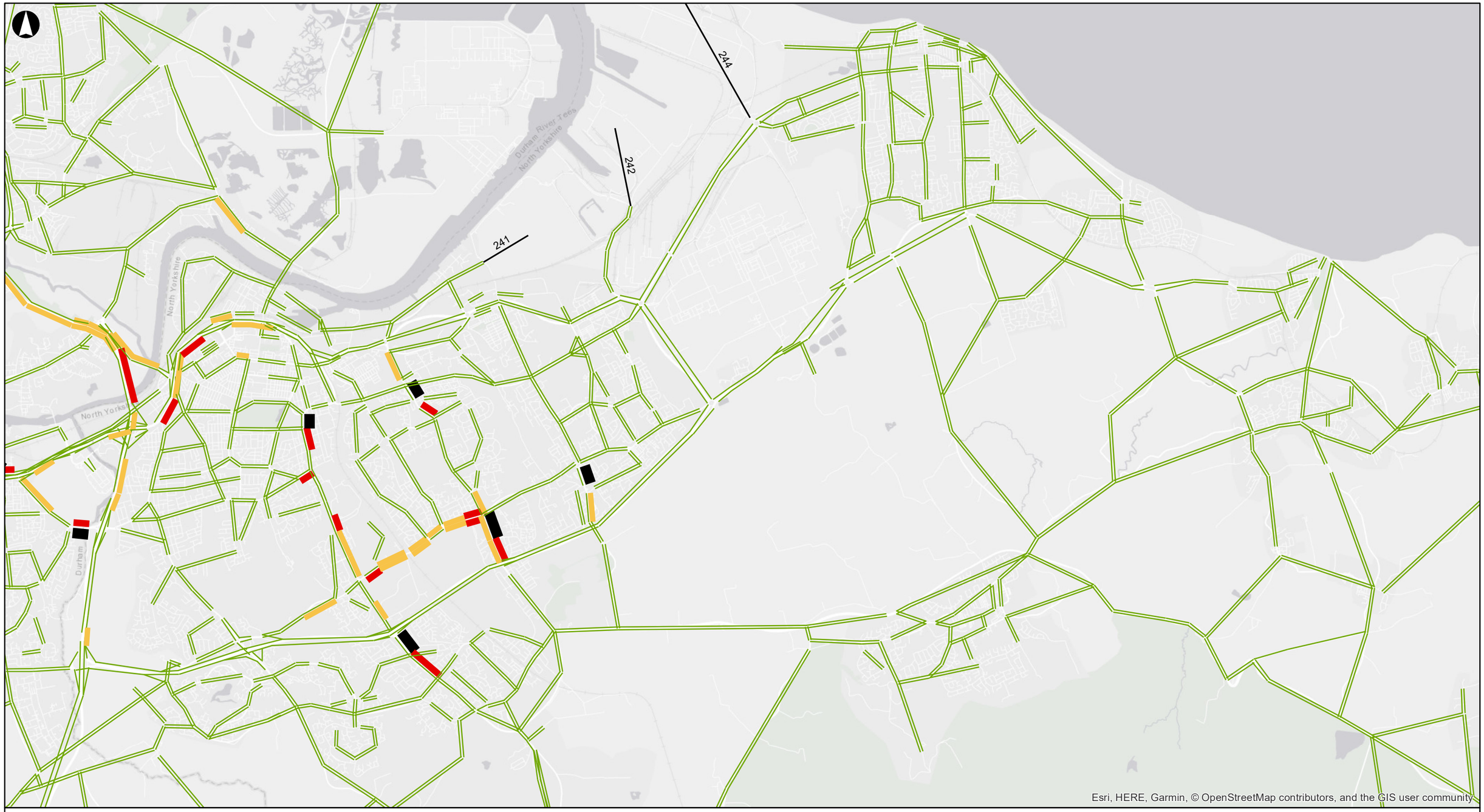
A3



11/08/2018 18:46:40

Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
005	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

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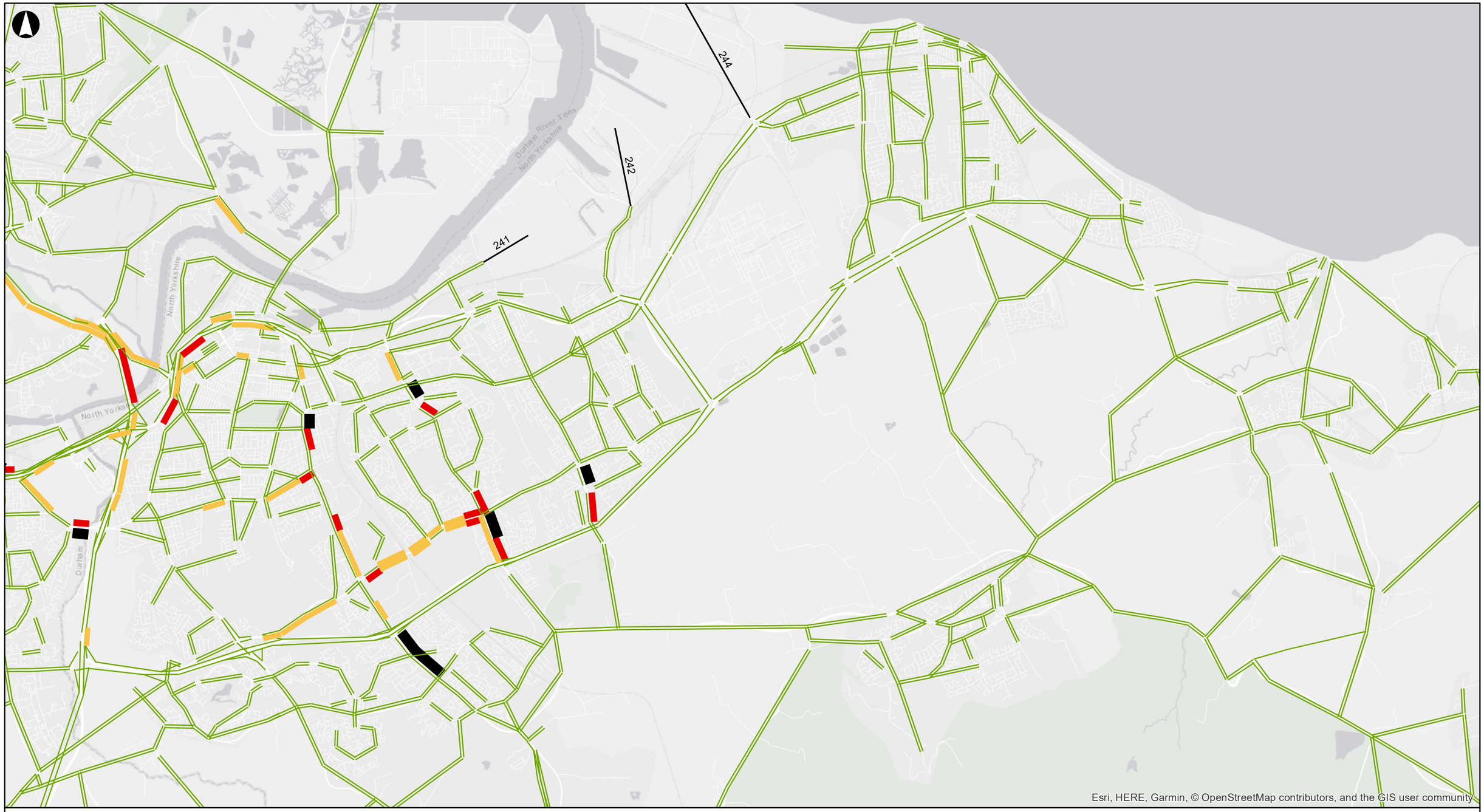

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Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2020 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
005	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3

11/08/2018 18:46:45

Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
006	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3

02/08/2018 10:52:08

Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
006	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3

11/08/2018 18:46:52

Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-25	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
007	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

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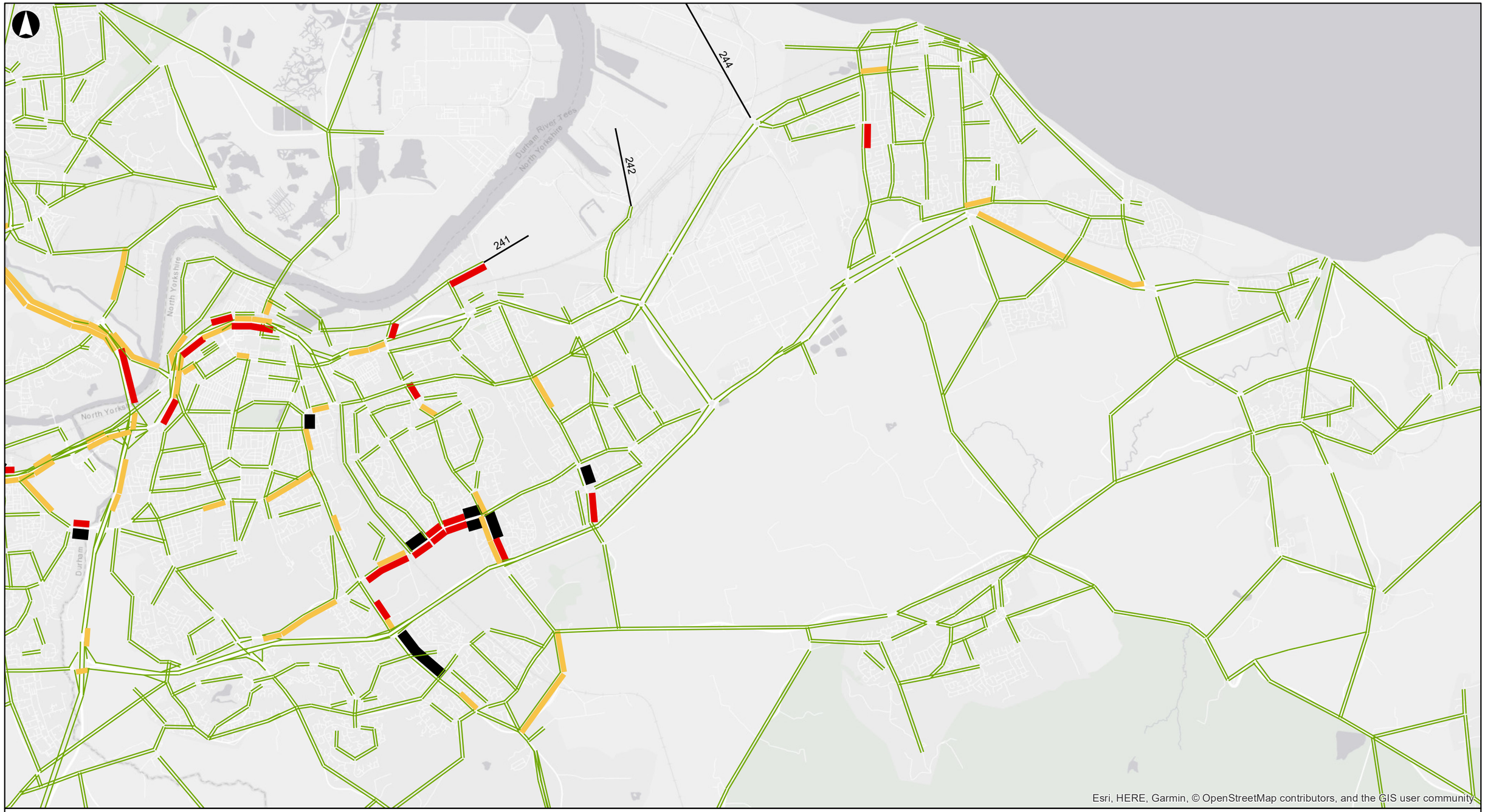

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Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
007	**P0**

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11/08/2018 18:46:58

Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-25	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 PM Link Volume/Capacity

Scale at A3

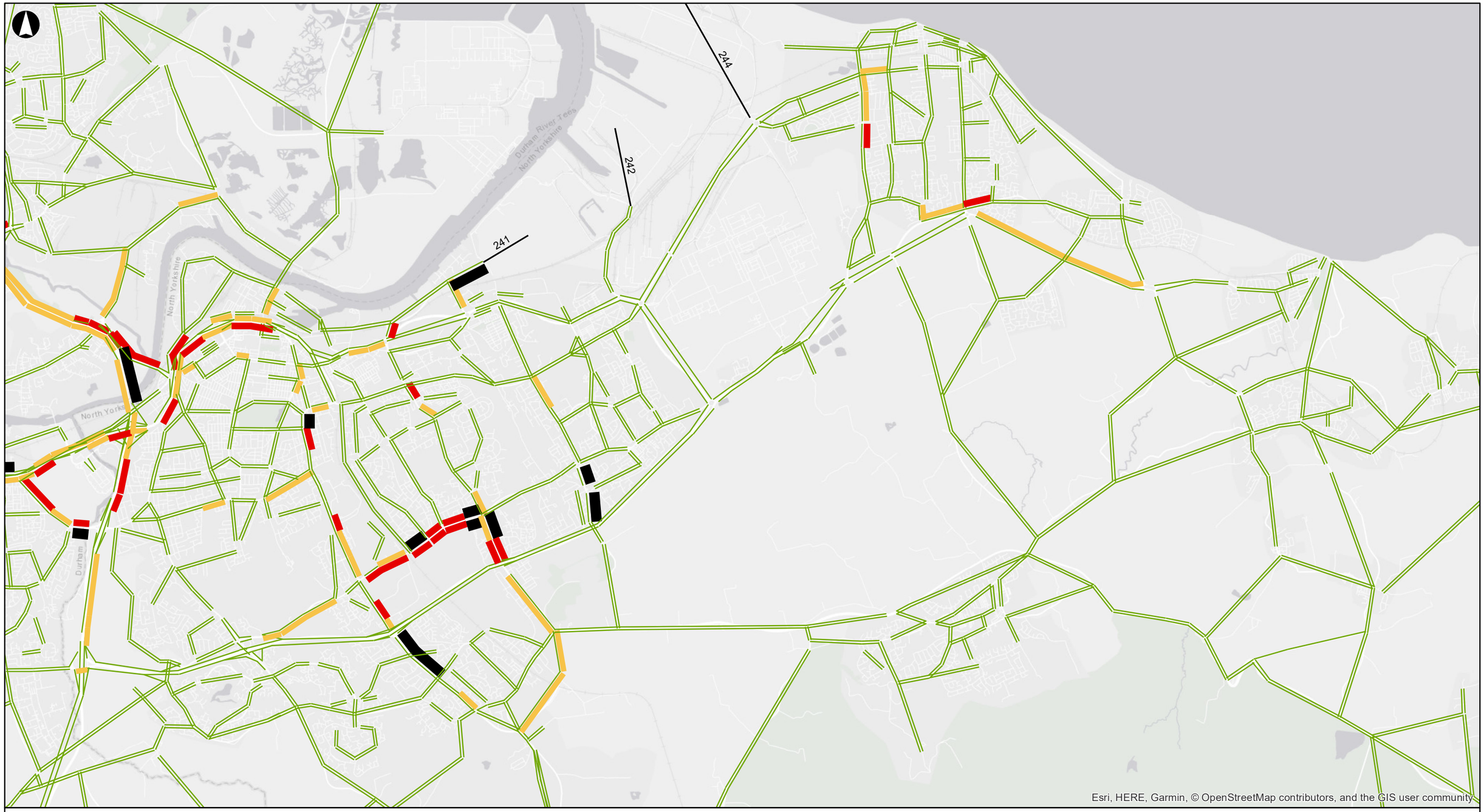
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
008	**P0**

\\globaf\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3



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Legend

SSI Zones

VC PM

- < 85%
- 85% - 100%
- 100% - 120%
- > 120%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Central Square
Forth Street
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NE1 3PL
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Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 PM Link Volume/Capacity

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
008	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

Appendix F

Time Delay Plots

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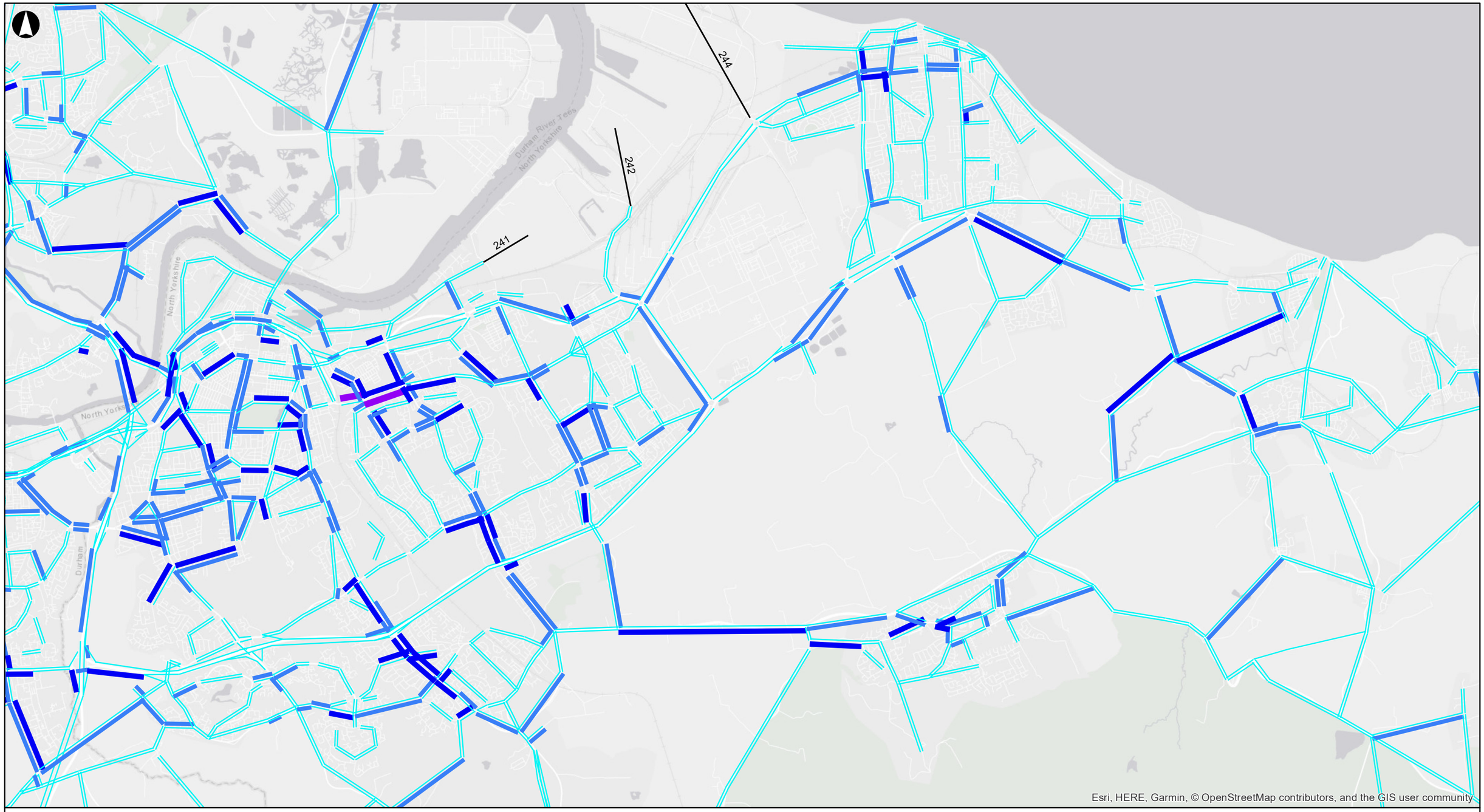

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Legend

SSI Zones

Total Time Delay AM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 AM Time Delay (mins)

Scale at A3

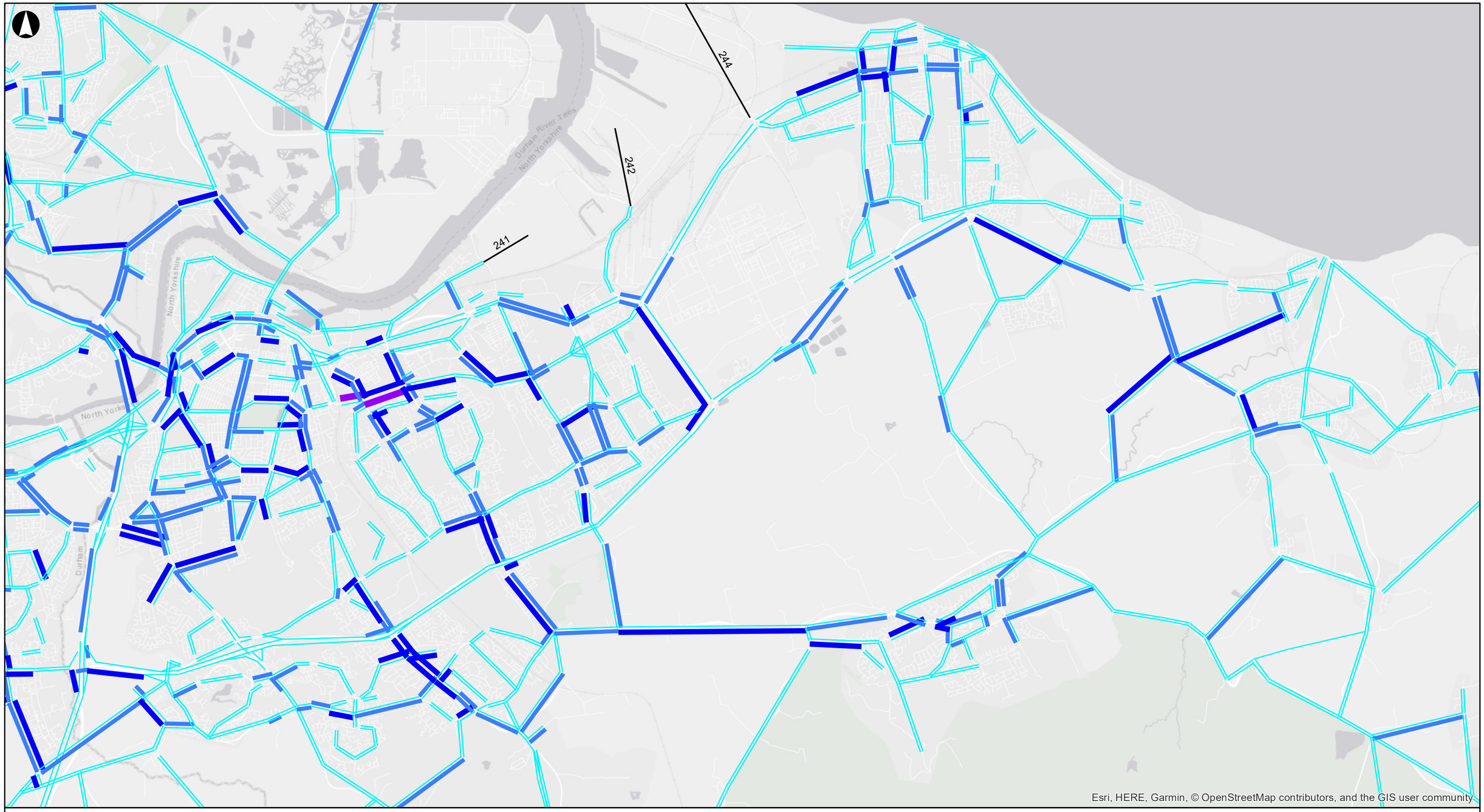
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
009	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



02/08/2018 10:50:14

Legend

SSI Zones

Total Time Delay AM (mins)

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- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2020 AM Time Delay (mins)

Scale at A3

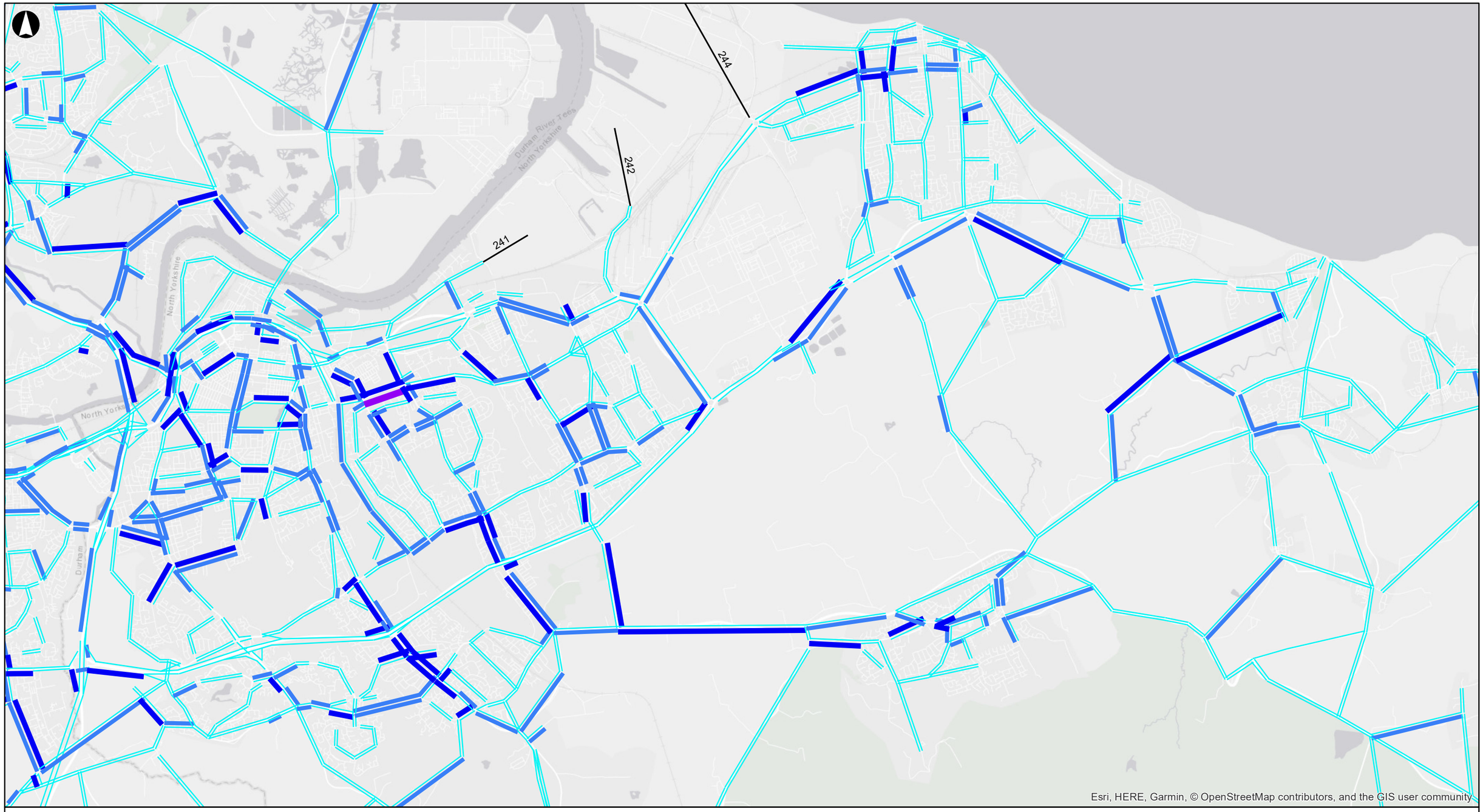
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
009	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



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SSI Zones

Total Time Delay AM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 AM Time Delay (mins)

Scale at A3

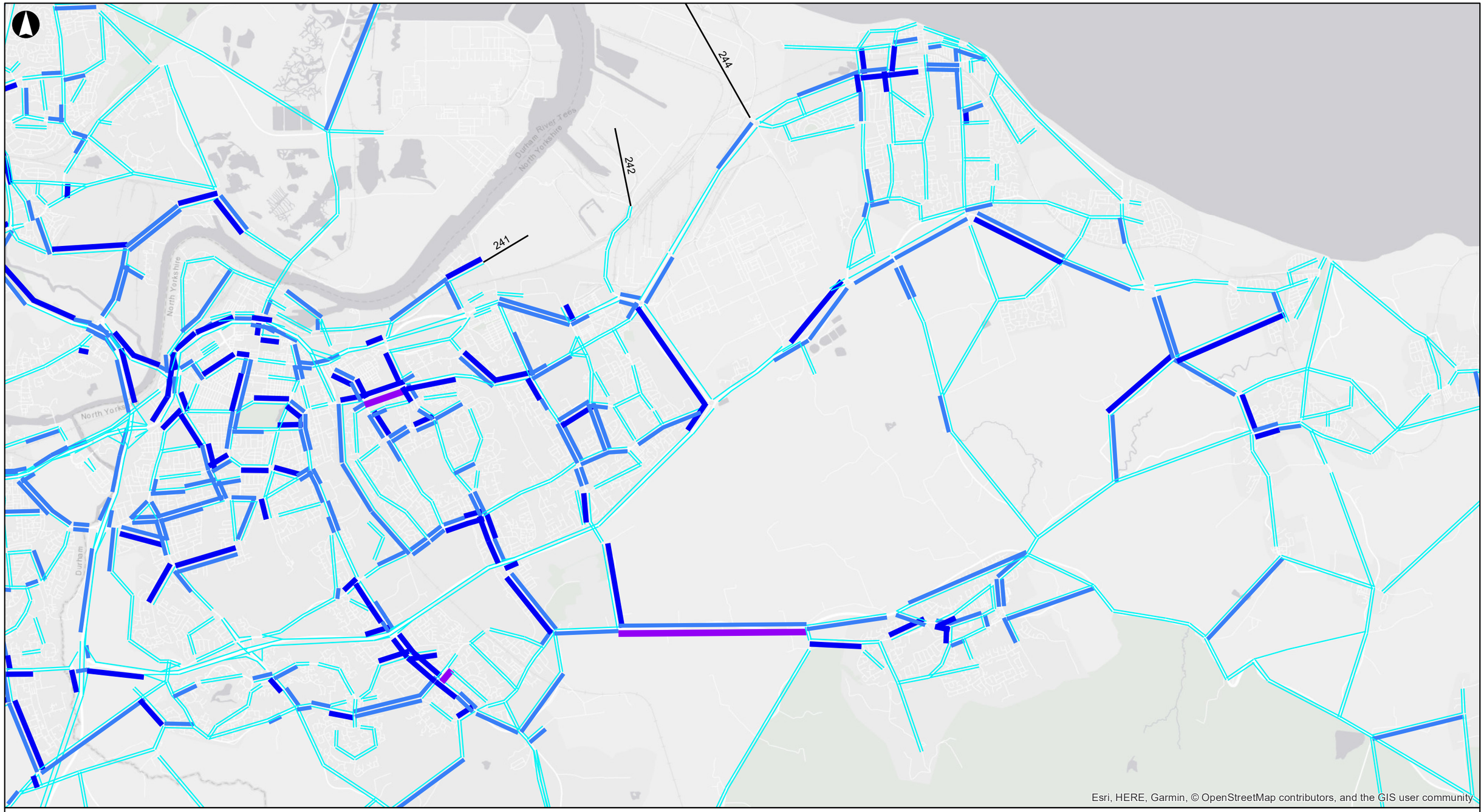
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
010	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



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Legend

SSI Zones

Total Time Delay AM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 AM Time Delay (mins)

Scale at A3

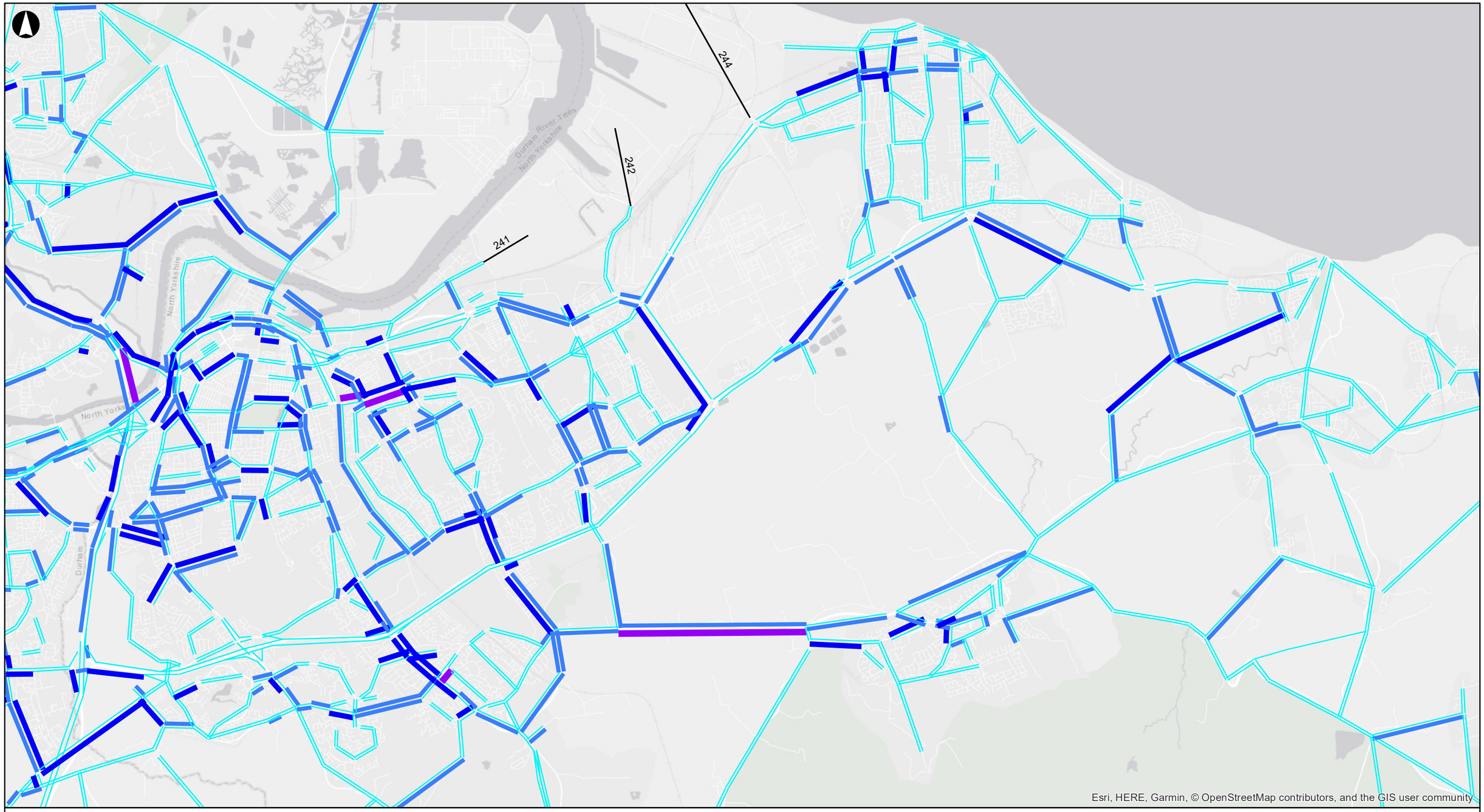
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
010	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



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SSI Zones

Total Time Delay AM (mins)

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- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 AM Time Delay (mins)

Scale at A3

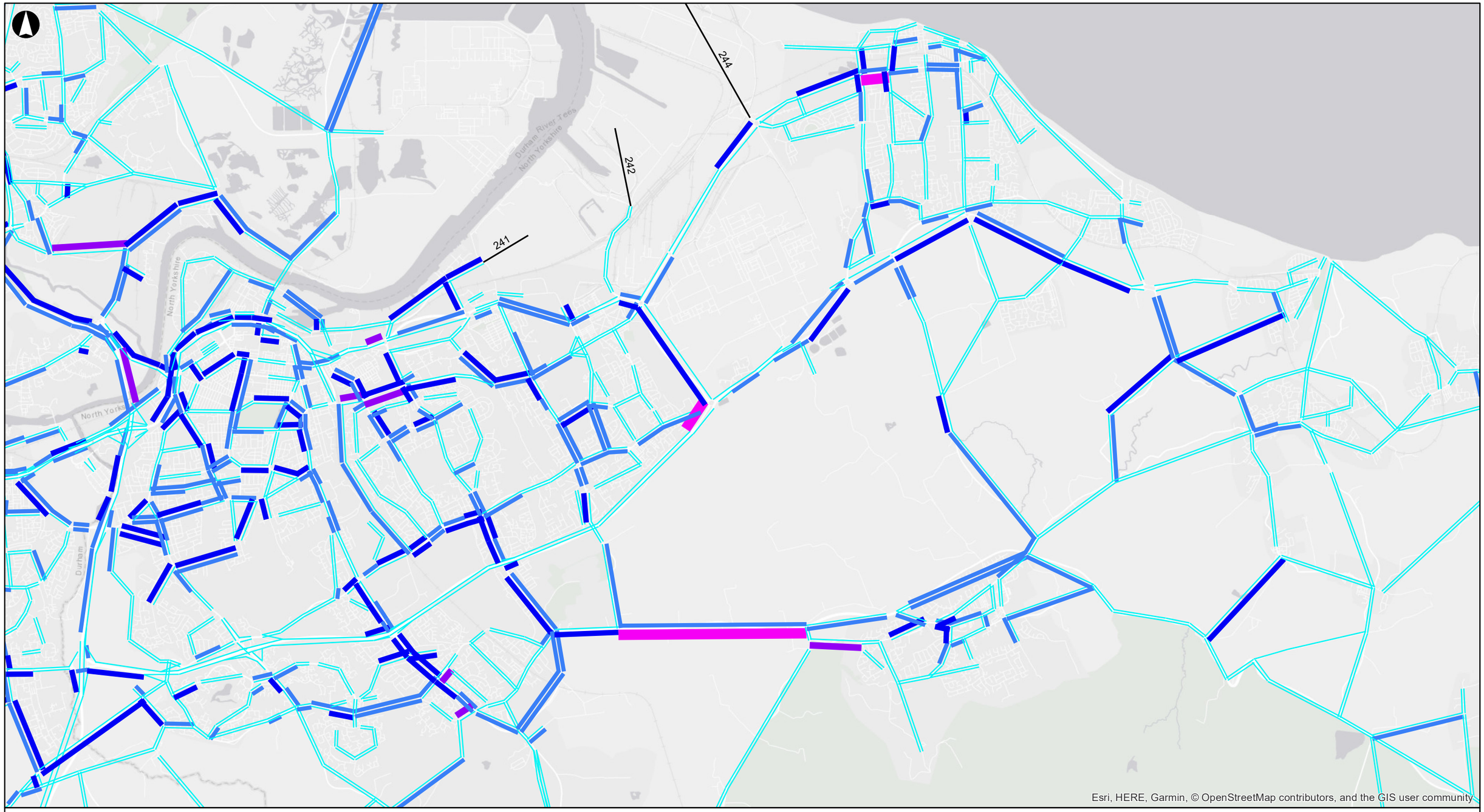
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
011	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



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Legend

SSI Zones

Total Time Delay AM (mins)

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- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Central Square
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NE1 3PL
Tel +44 191 261 6080
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Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 AM Time Delay (mins)

Scale at A3

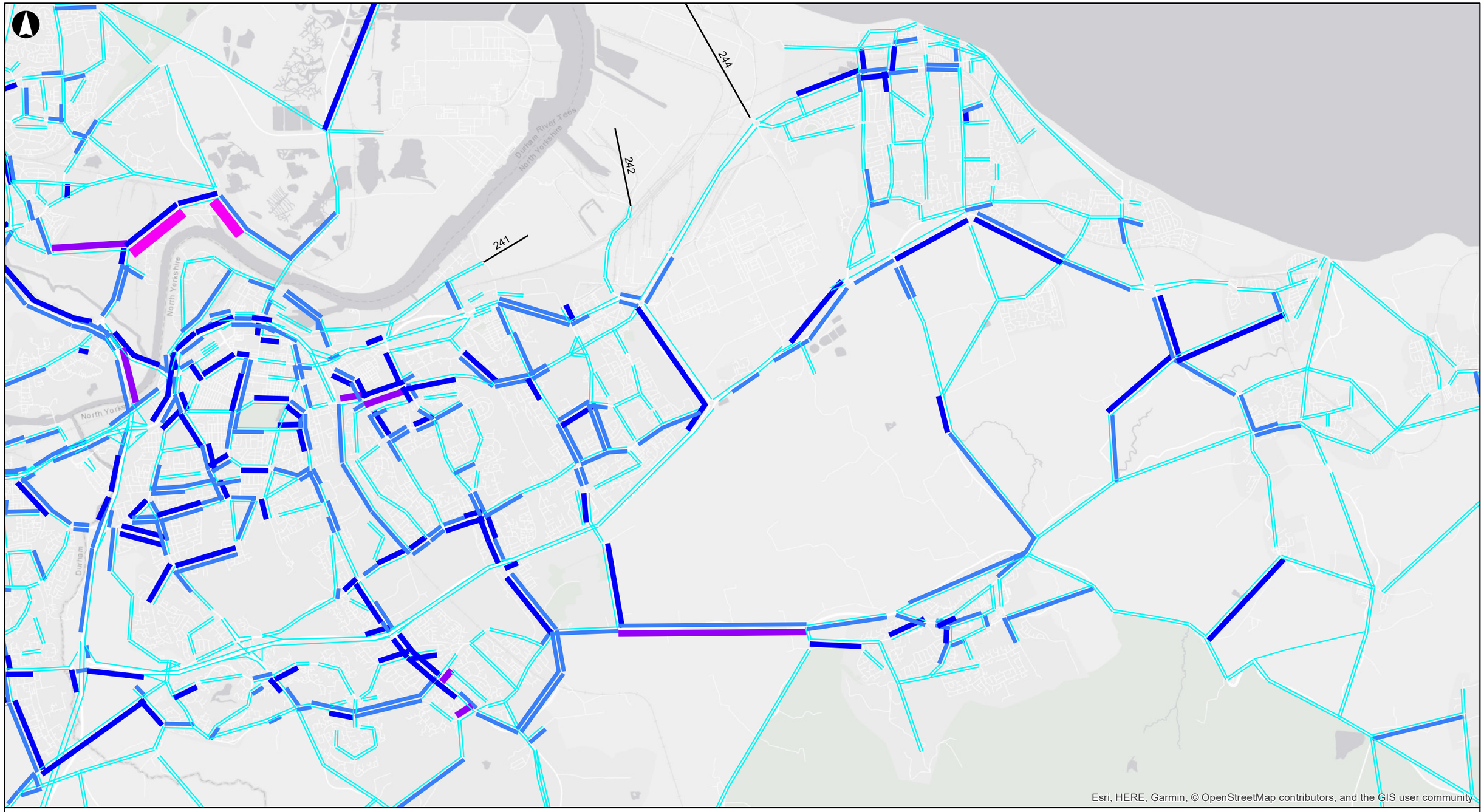
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
011	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



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SSI Zones

Total Time Delay AM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 AM Time Delay (mins)

Scale at A3

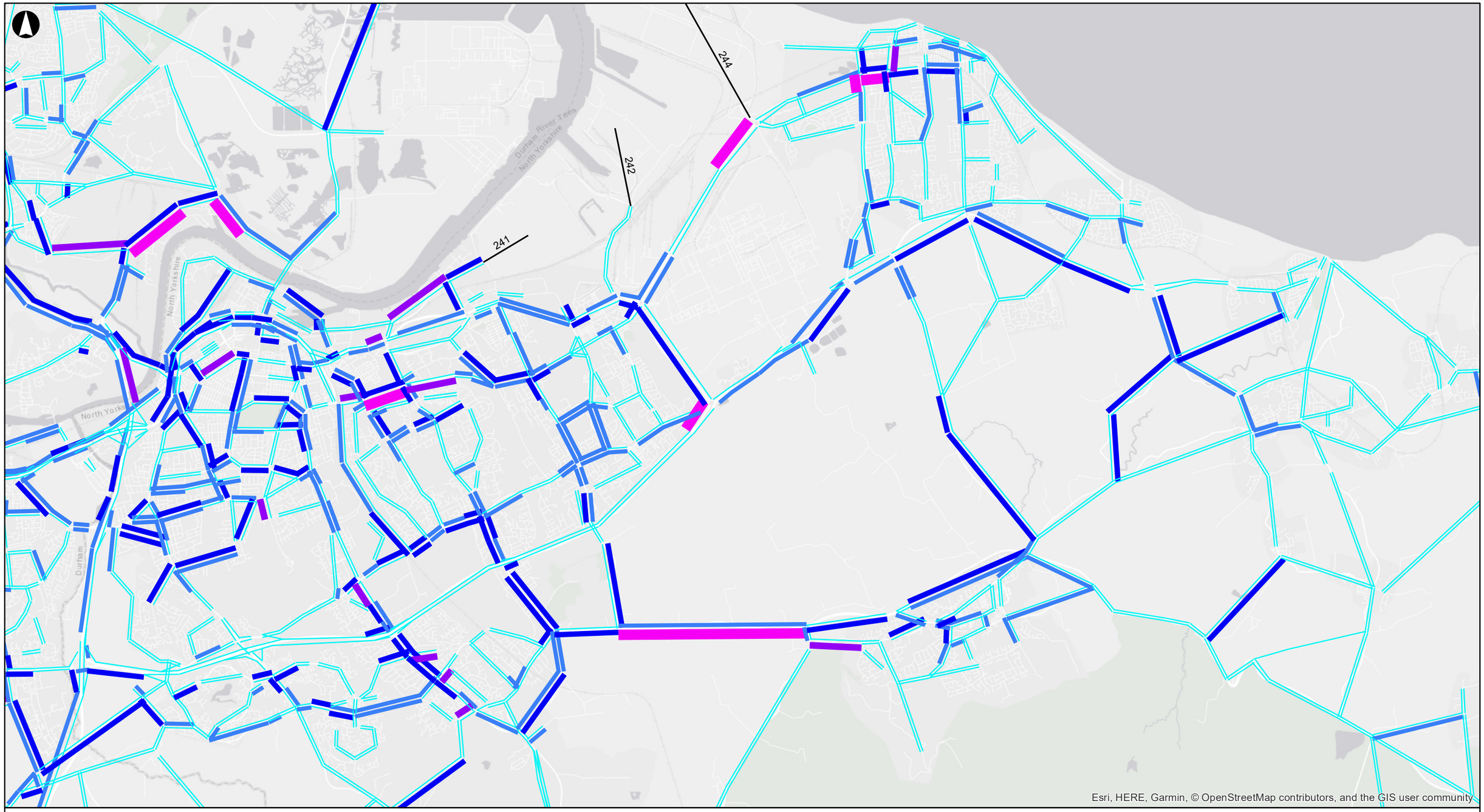
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
012	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



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Legend

SSI Zones

Total Time Delay AM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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NE1 3PL
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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 AM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
012	**P0**

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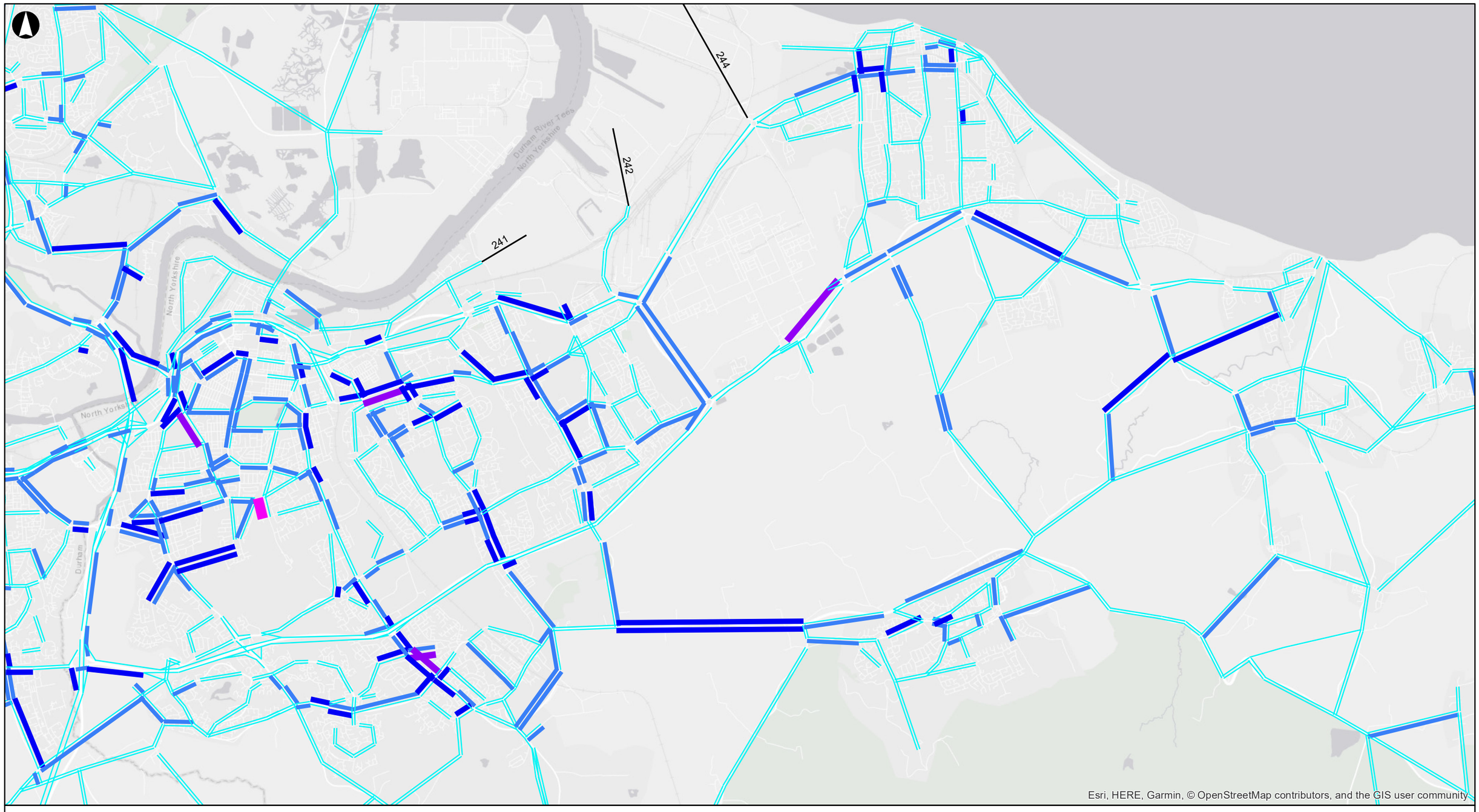
A3



11/08/2018 18:47:04

Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Newcastle upon Tyne
NE1 3PL
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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
009	**P0**

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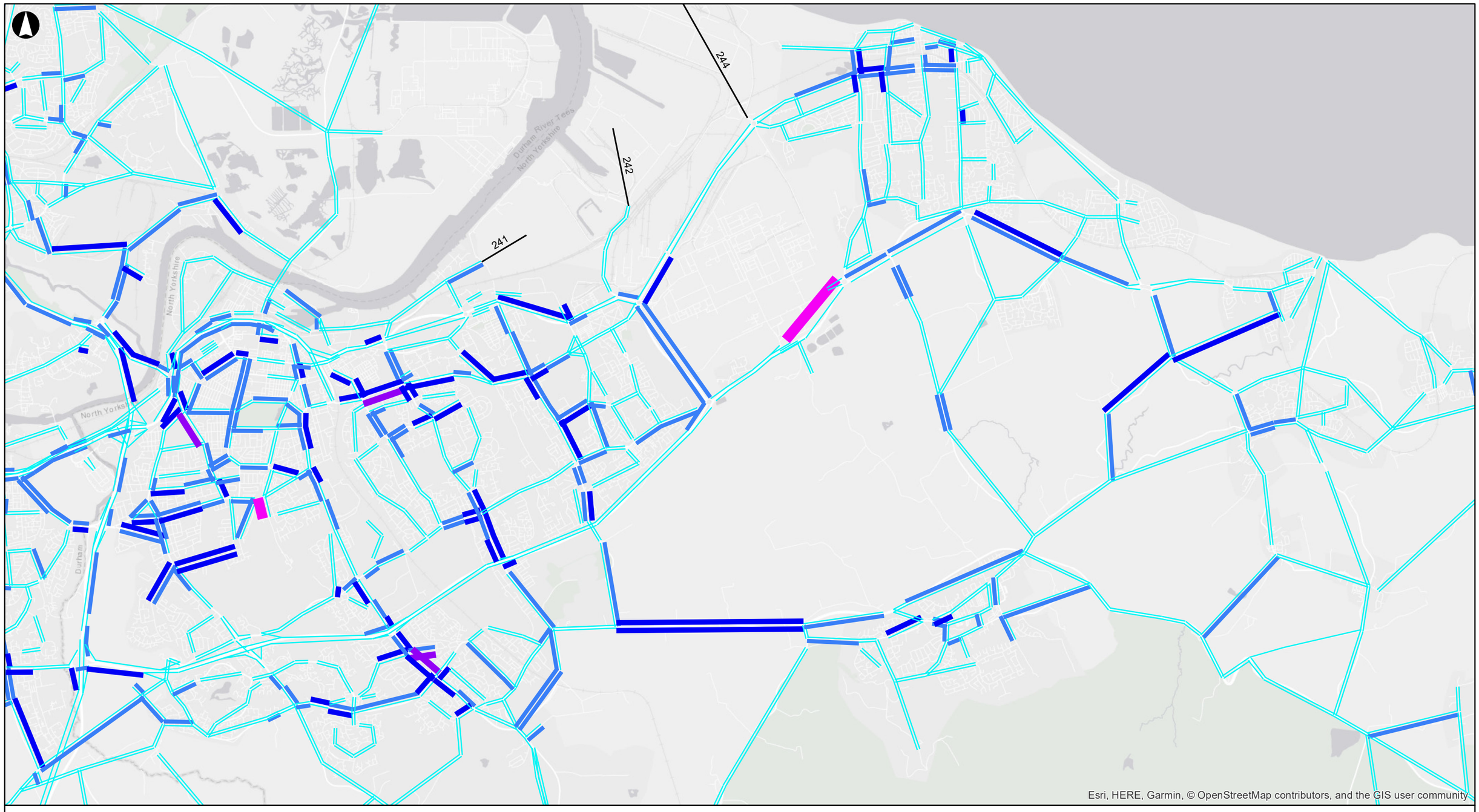
A3



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Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2020 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
009	**P0**

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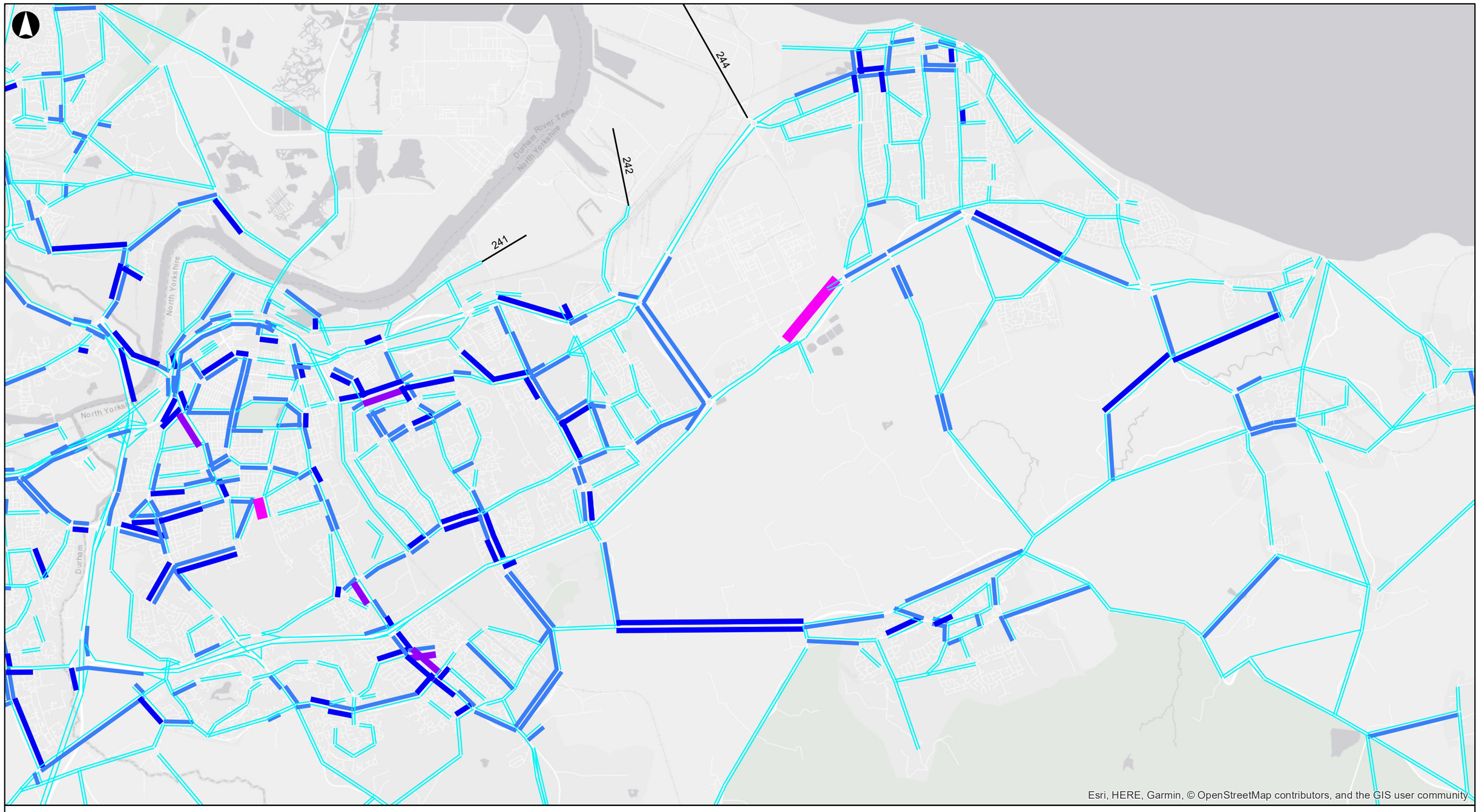
A3



11/08/2018 18:47:09

Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
010	**P0**

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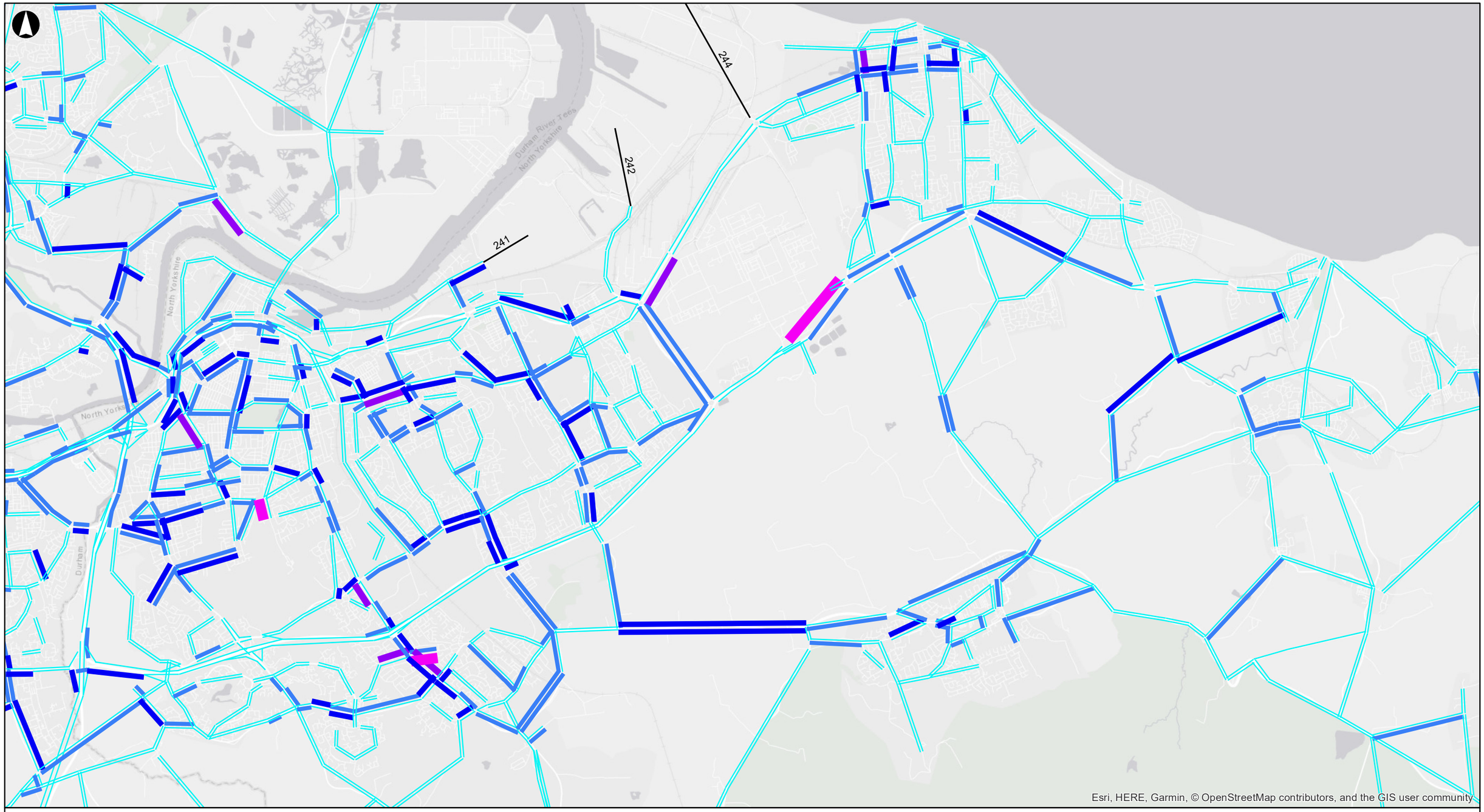
A3



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SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
010	**P0**

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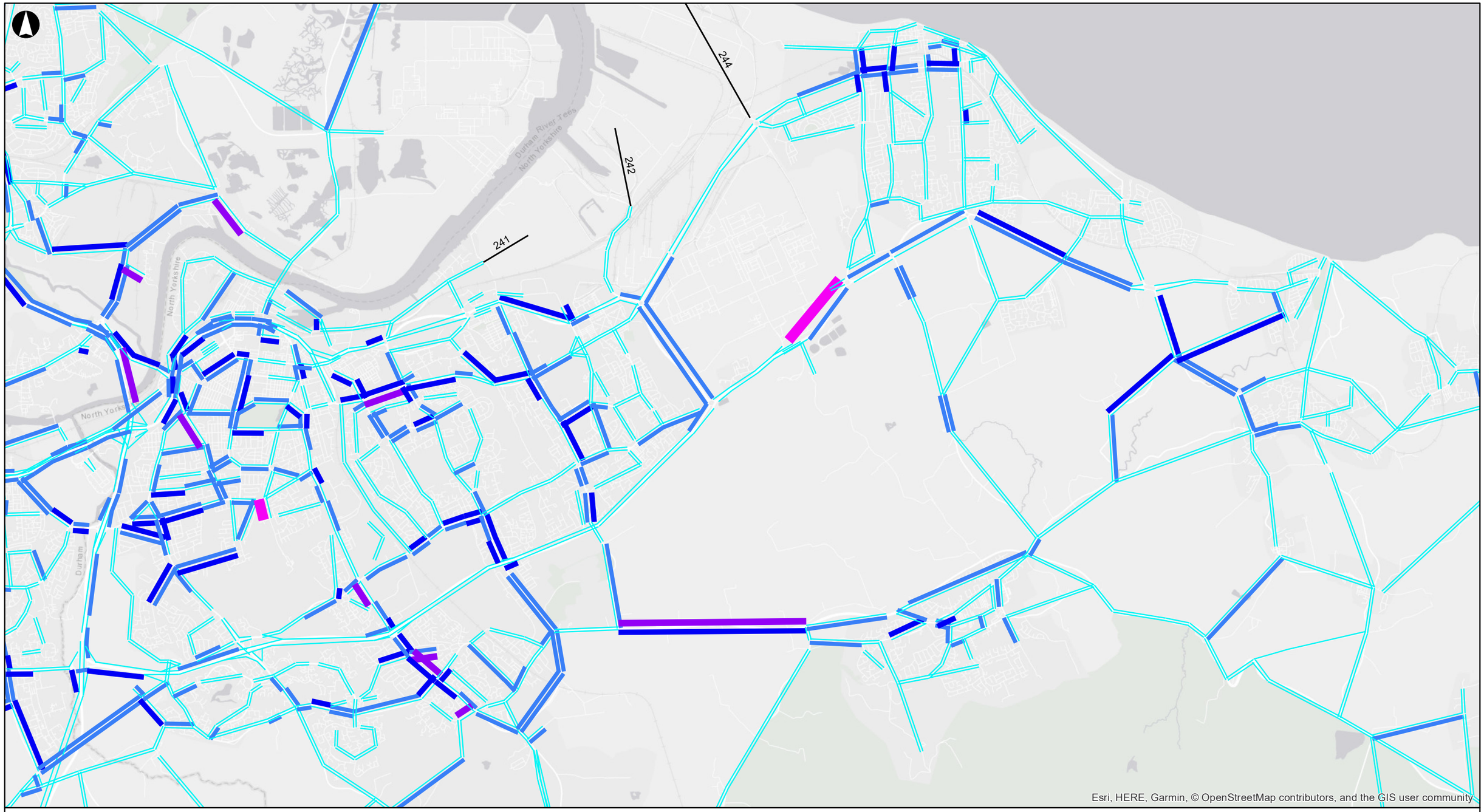
A3



11/08/2018 18:47:14

Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
011	**P0**

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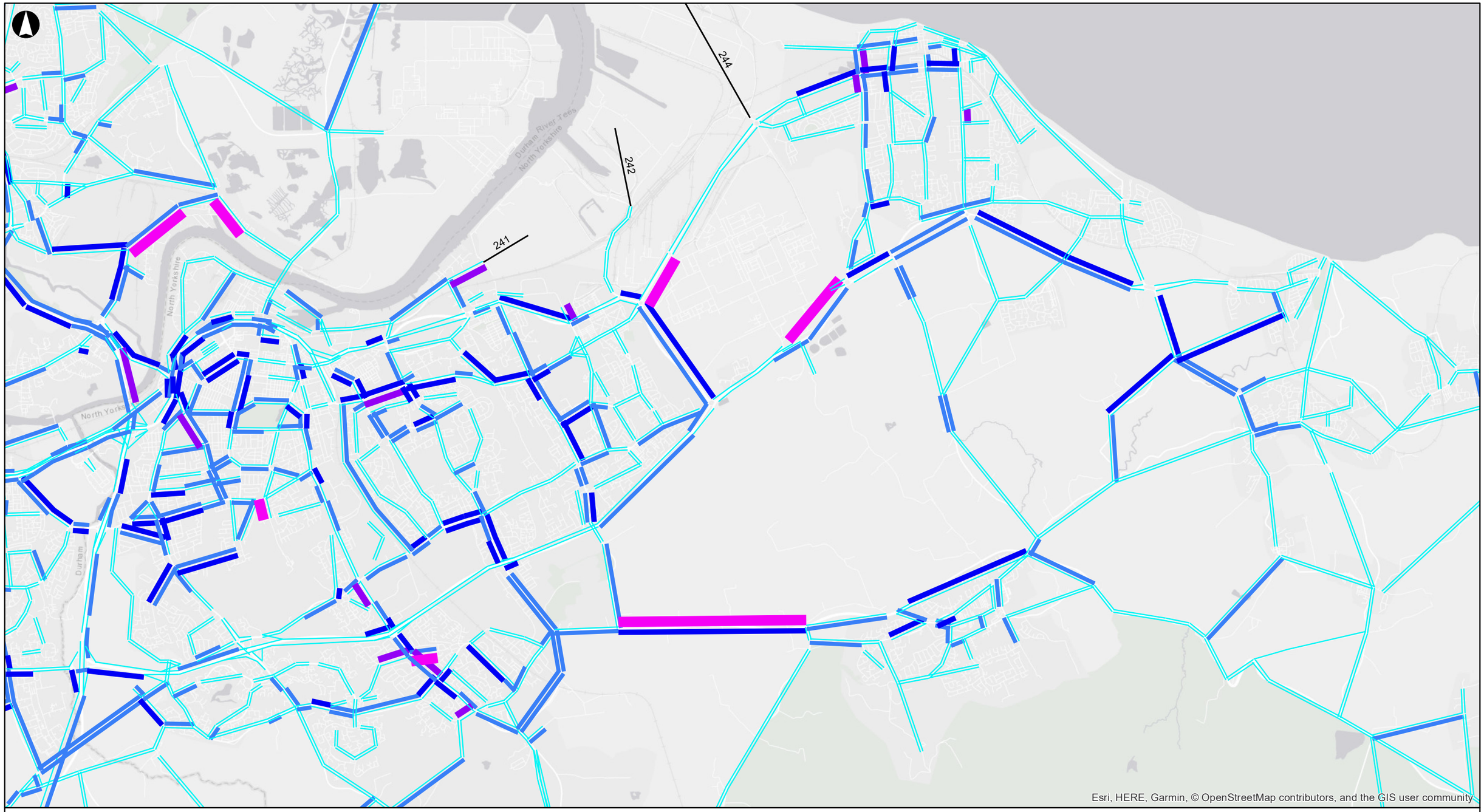
A3



02/08/2018 10:52:39

Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 PM Time Delay (mins)

Scale at A3

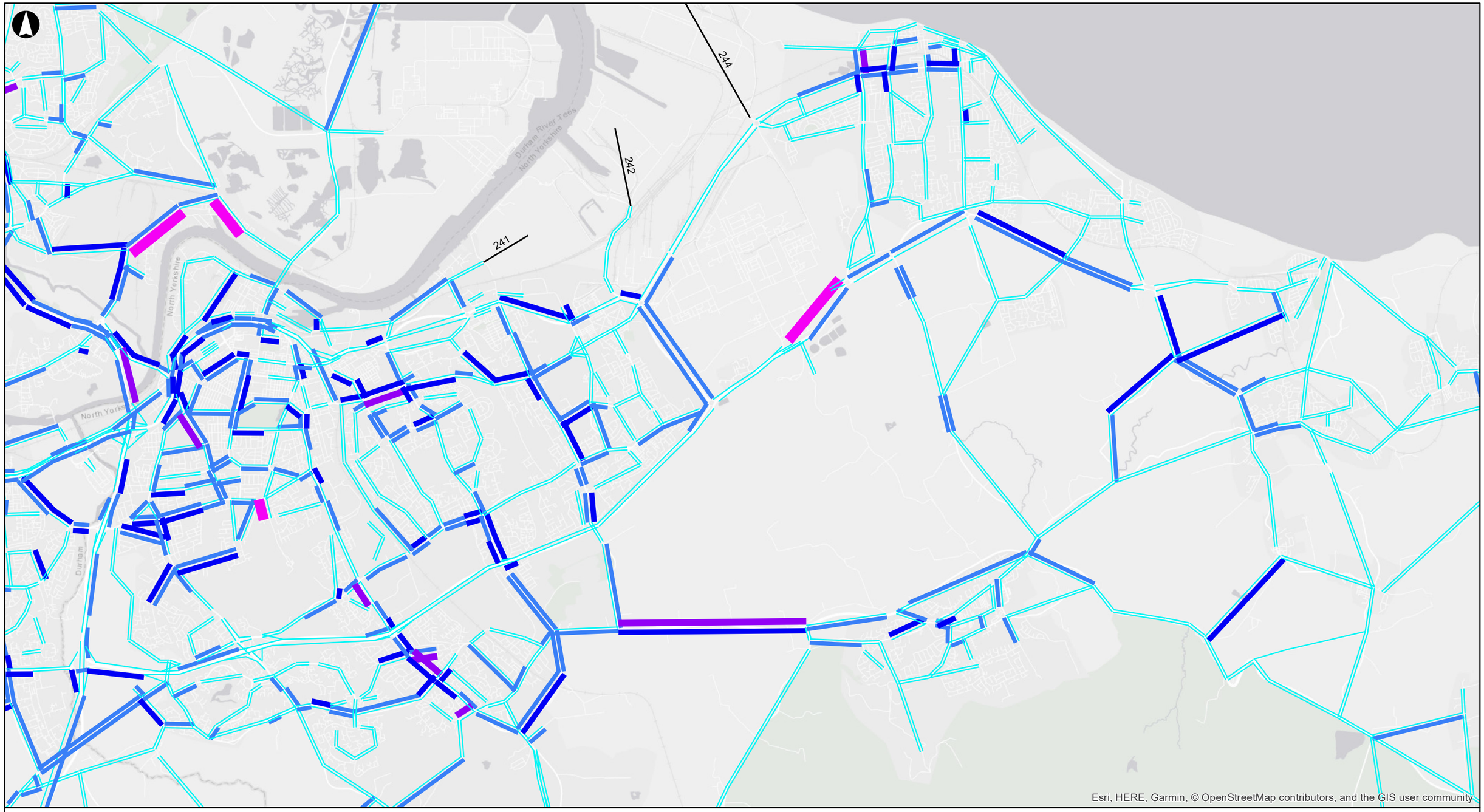
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
011	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3



11/08/2018 18:47:20

Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
012	**P0**

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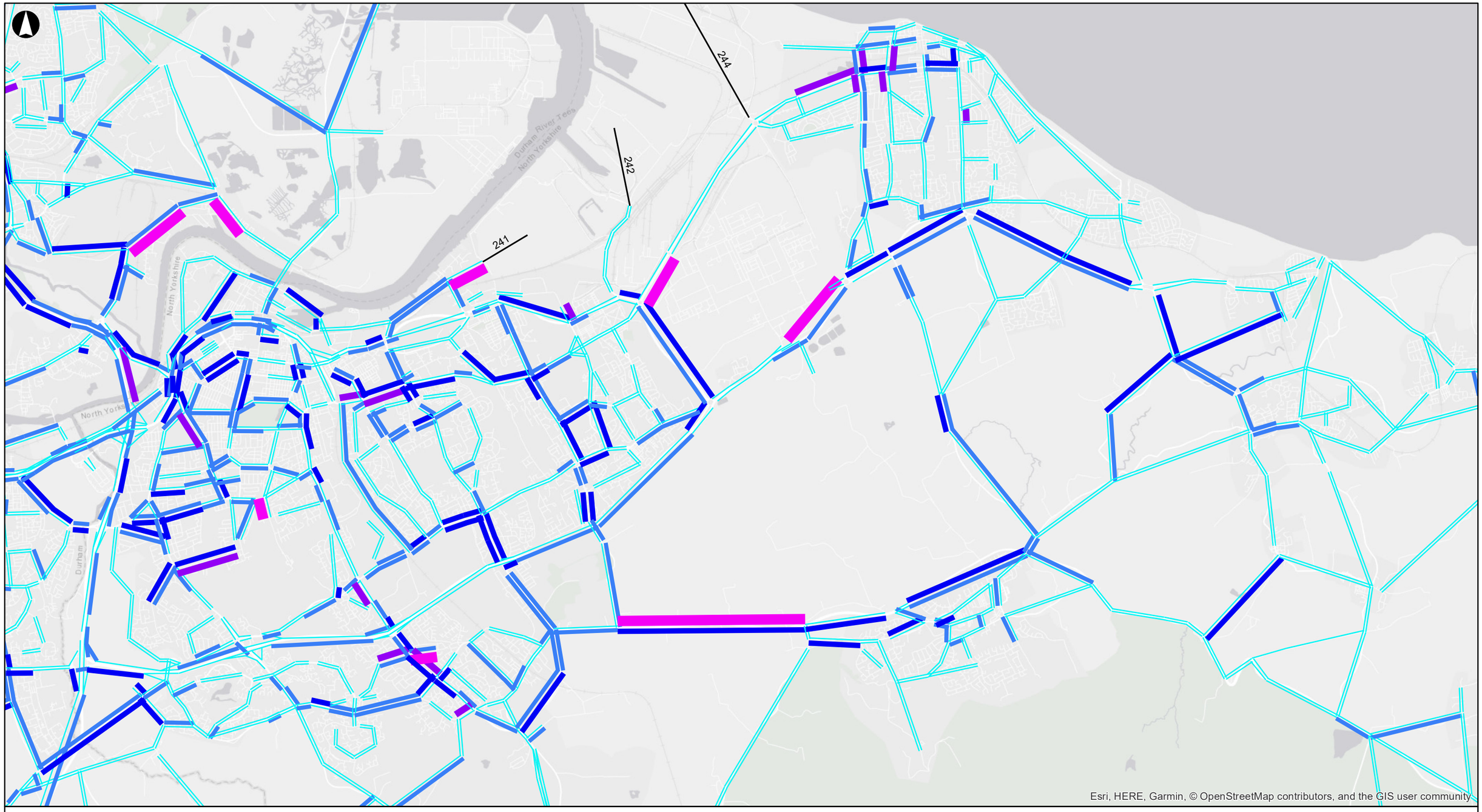
A3



11/08/2018 18:34:46

Legend

SSI Zones

Total Time Delay PM (mins)

- 0.00 - 0.17
- 0.18 - 0.50
- 0.51 - 1.50
- 1.51 - 3.00
- > 3.00

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 PM Time Delay (mins)

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
012	**P0**

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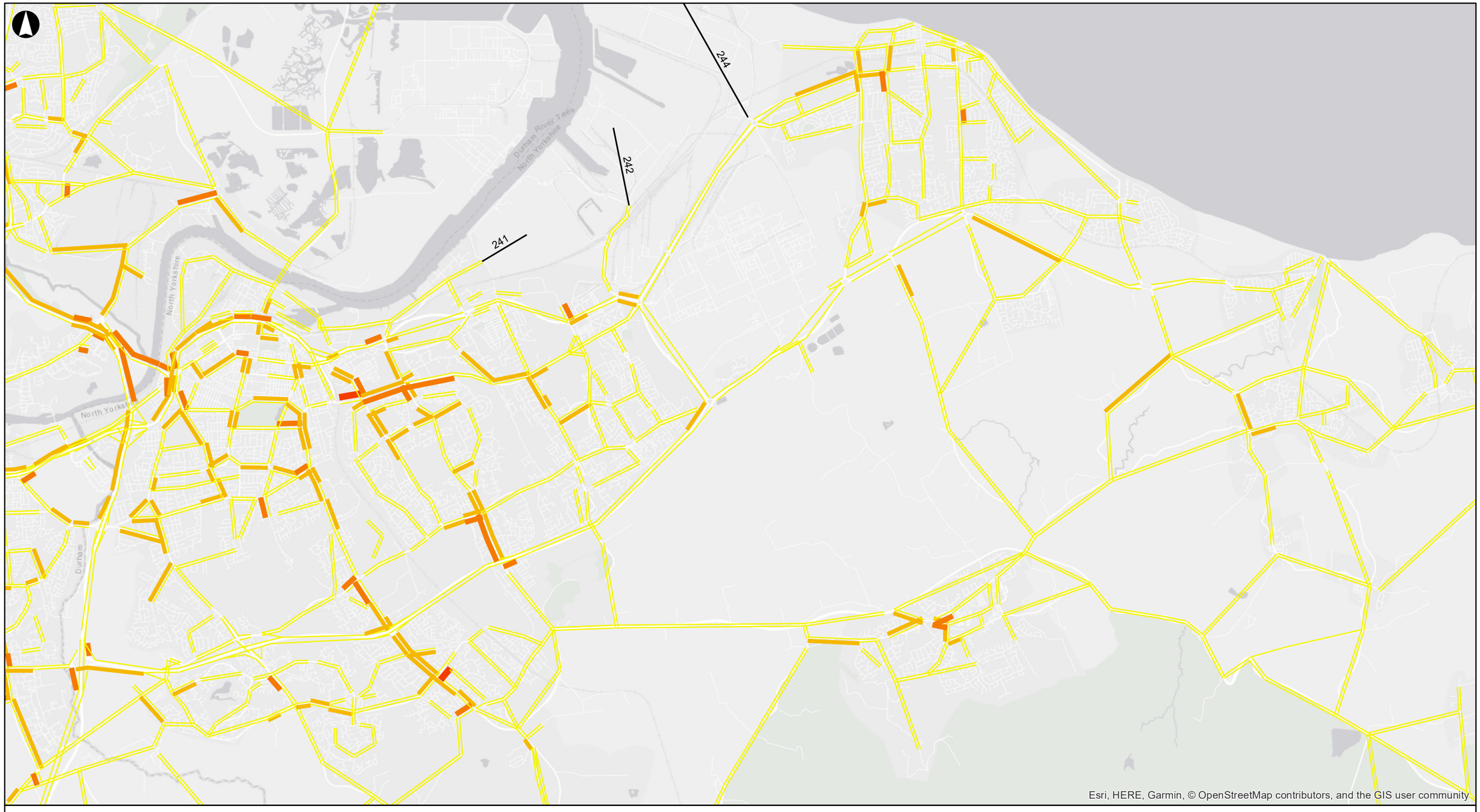
Appendix G

Speed Plots

A3



01/08/2018 15:11:29

Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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Metres
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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 AM % Free Flow Speed

Scale at A3

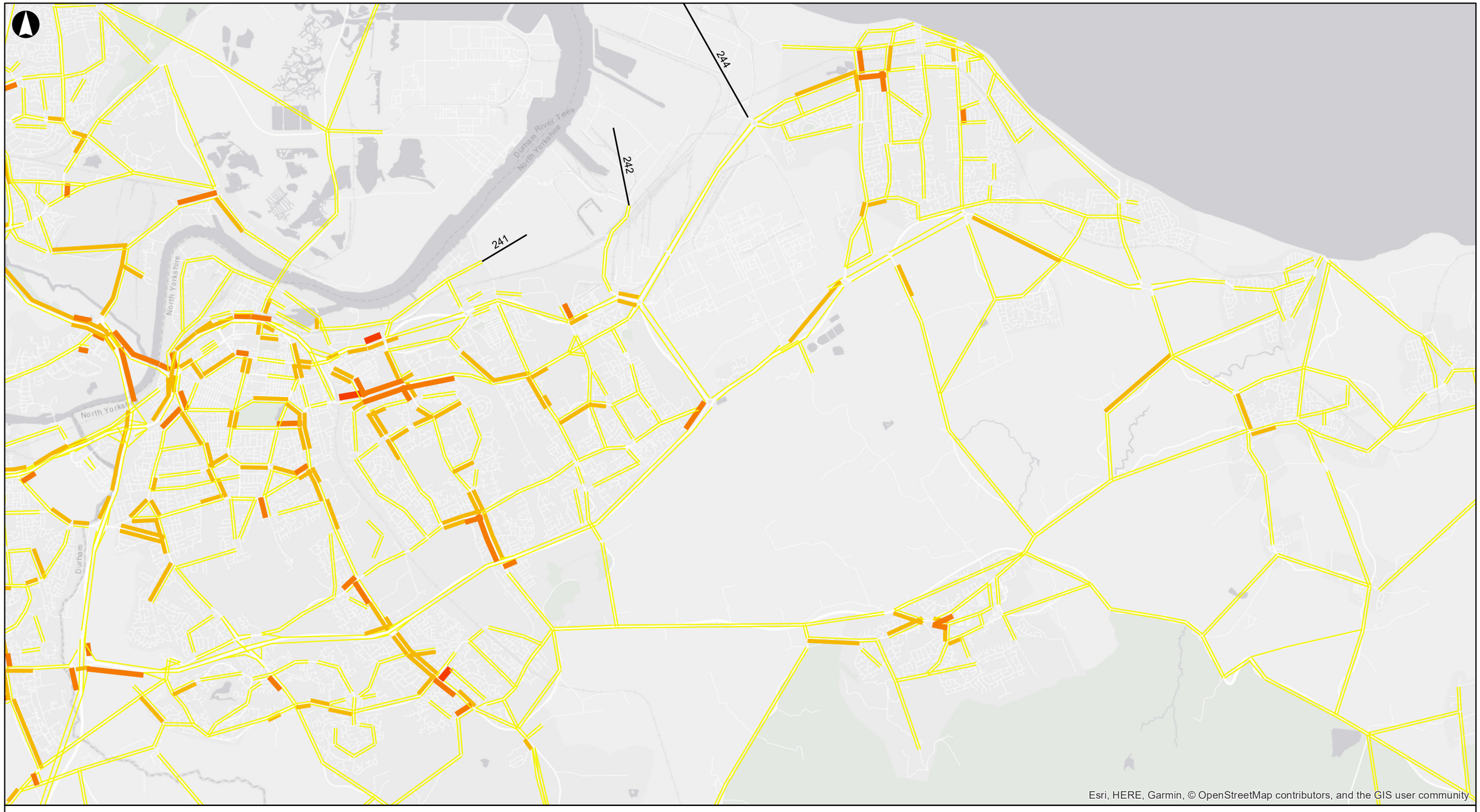
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
013	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



02/08/2018 10:50:38

Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2020 AM % Free Flow Speed

Scale at A3

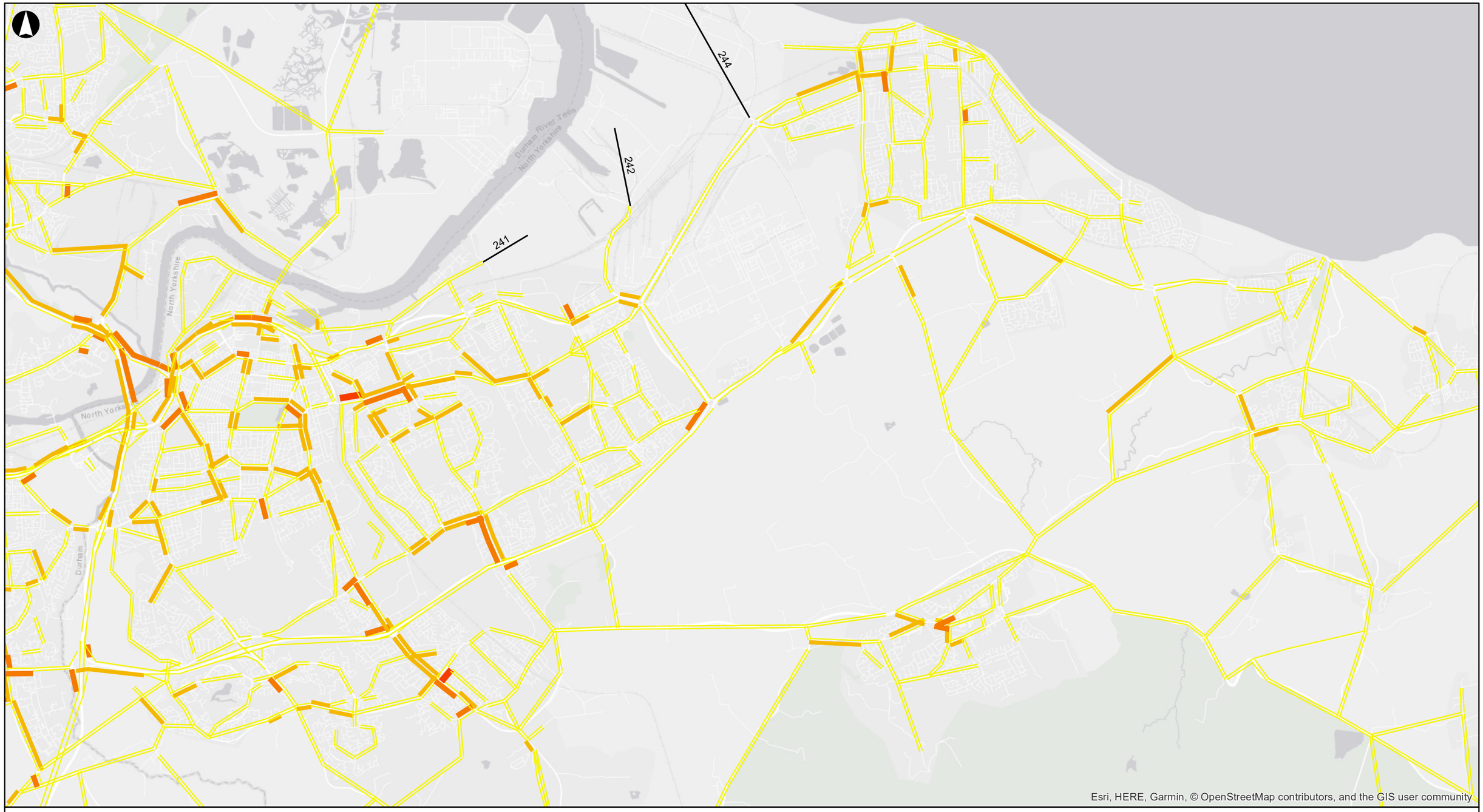
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
013	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



01/08/2018 15:11:34

Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

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Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 AM % Free Flow Speed

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
014	**P0**

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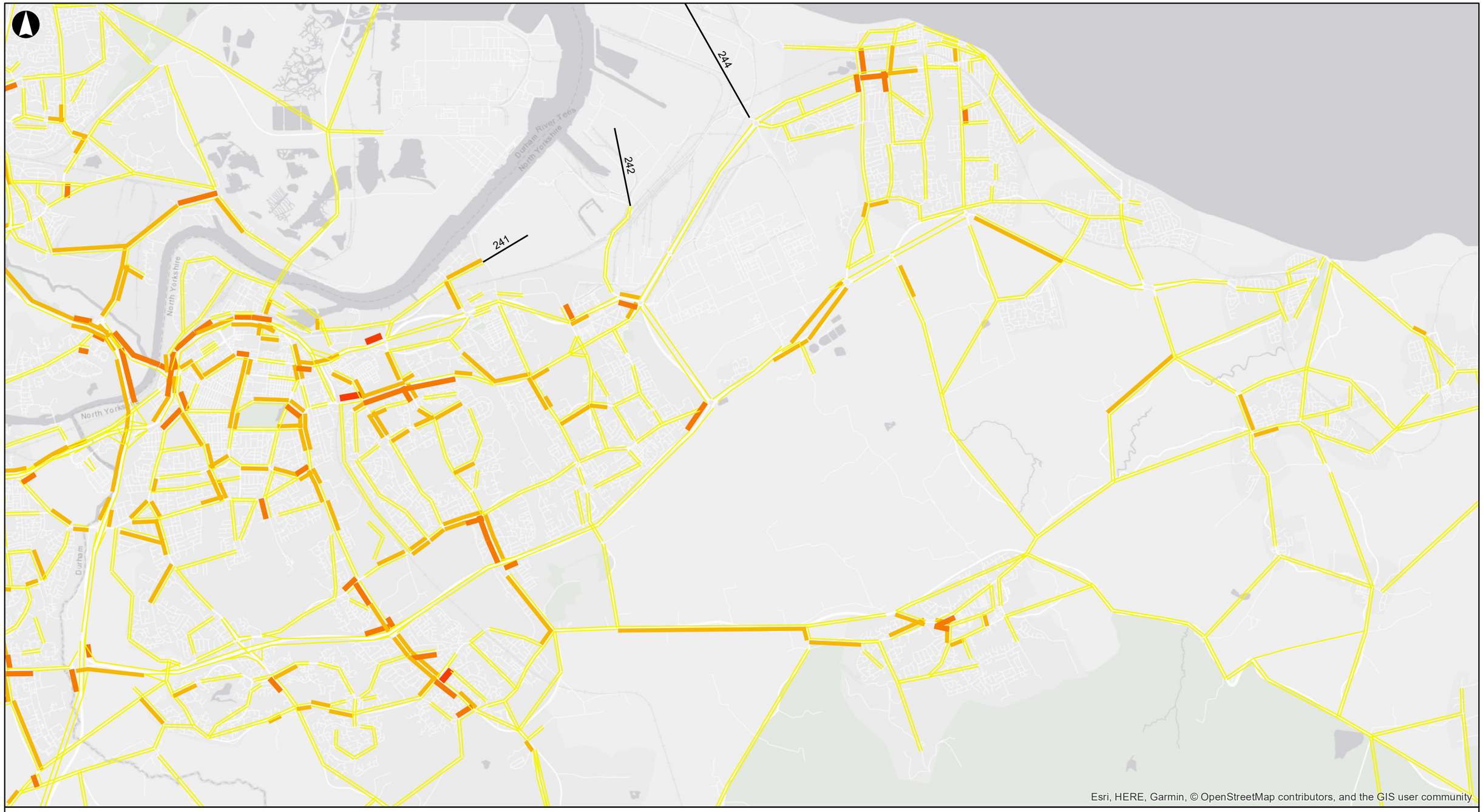
A3



02/08/2018 10:50:45

Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

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Metres
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Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 AM % Free Flow Speed

Scale at A3

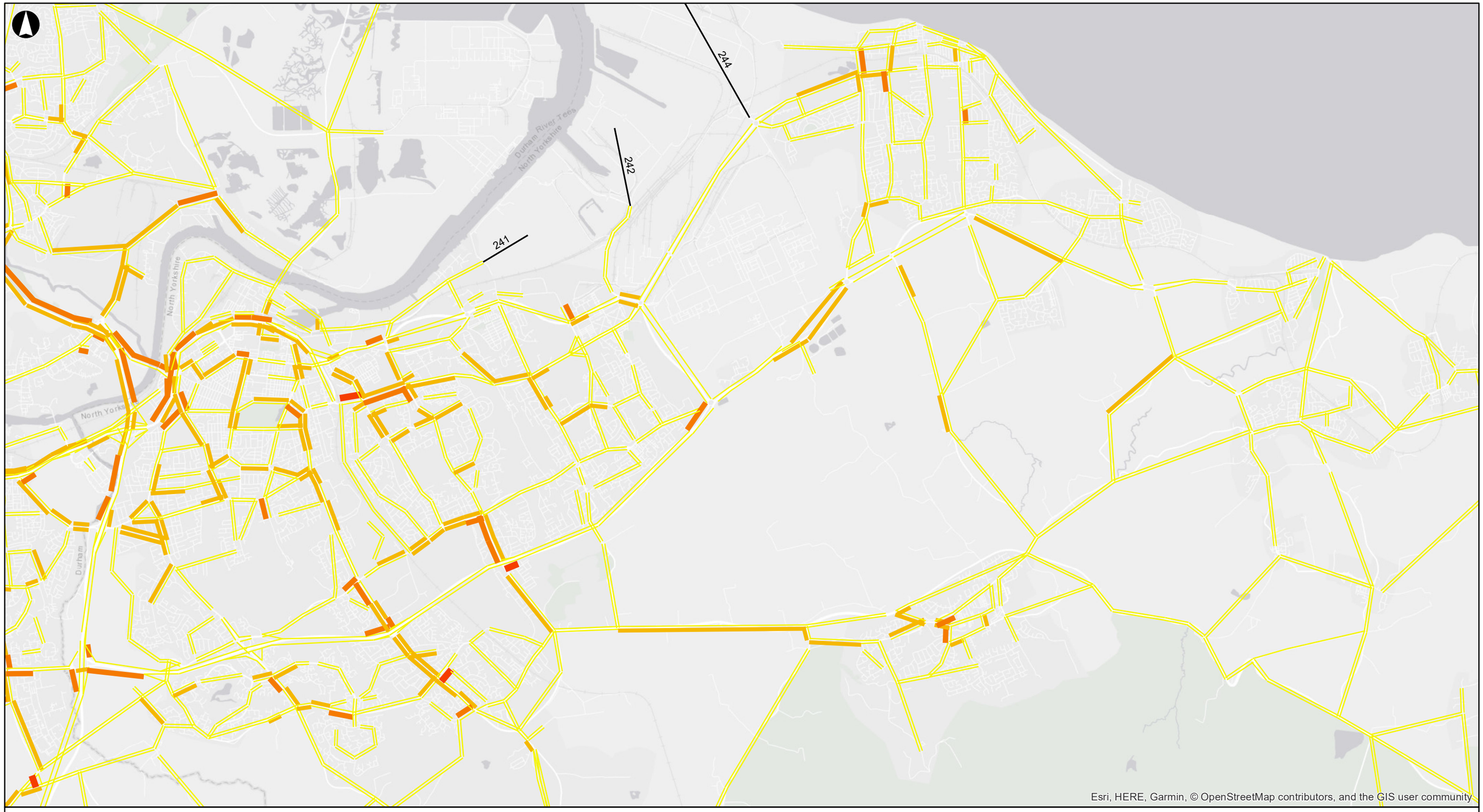
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
014	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



01/08/2018 15:11:40

Legend

SSI Zones

% Free Flow Speed AM

- 1.1% - 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-20	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 AM % Free Flow Speed

Scale at A3

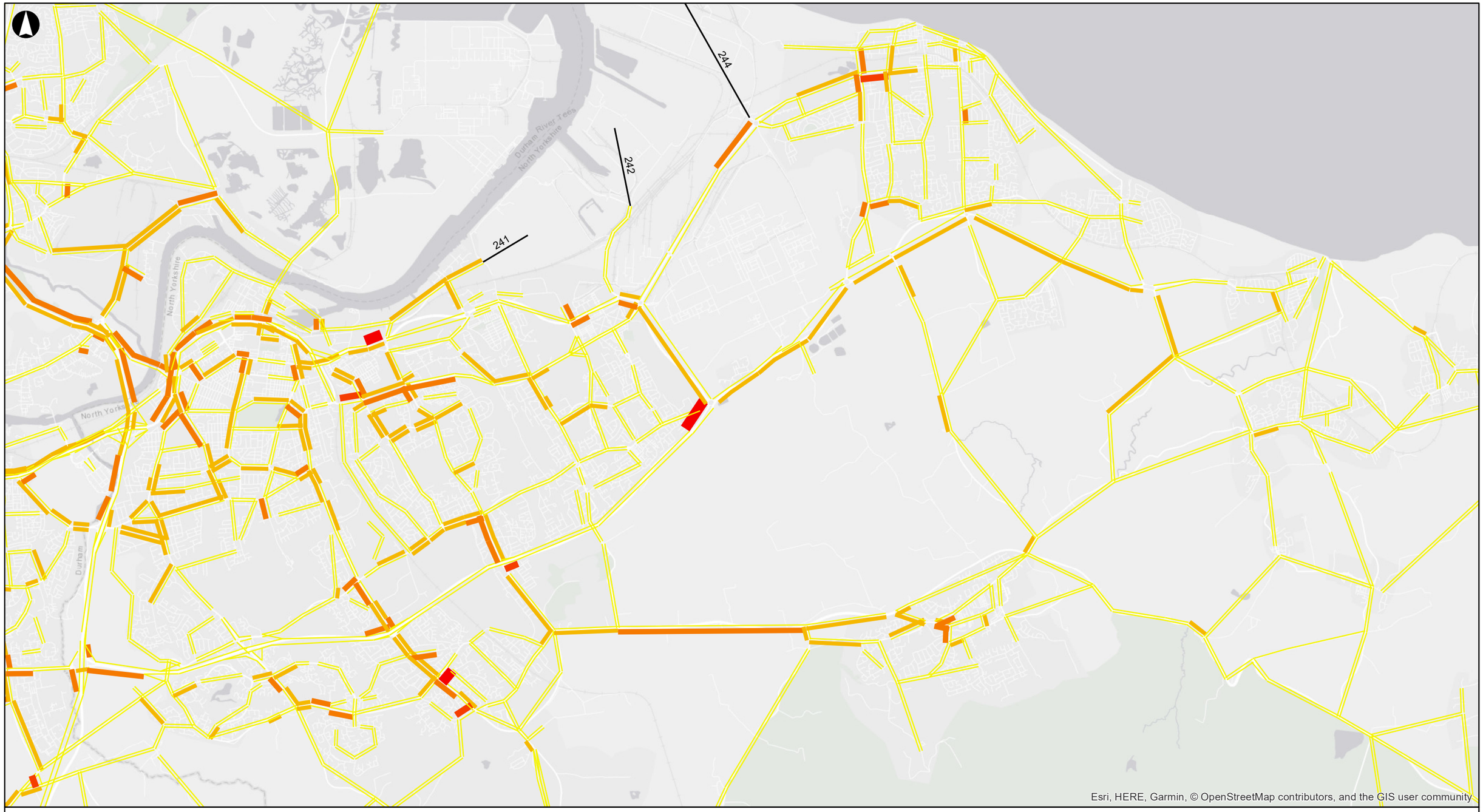
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
015	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3



02/08/2018 10:50:51

Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 AM % Free Flow Speed

Scale at A3

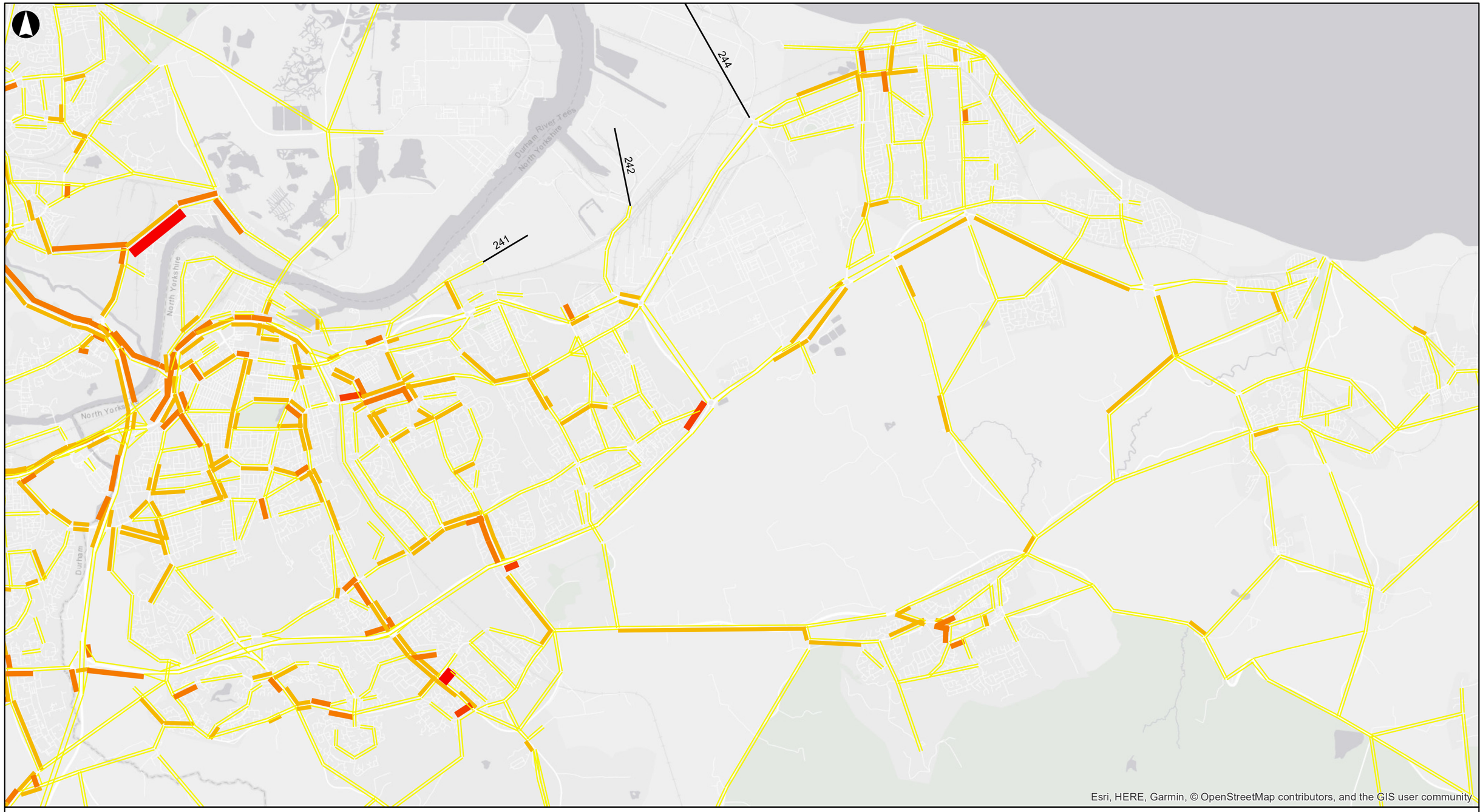
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
015	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3



01/08/2018 15:11:46

Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-25	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 AM % Free Flow Speed

Scale at A3

1:60,000

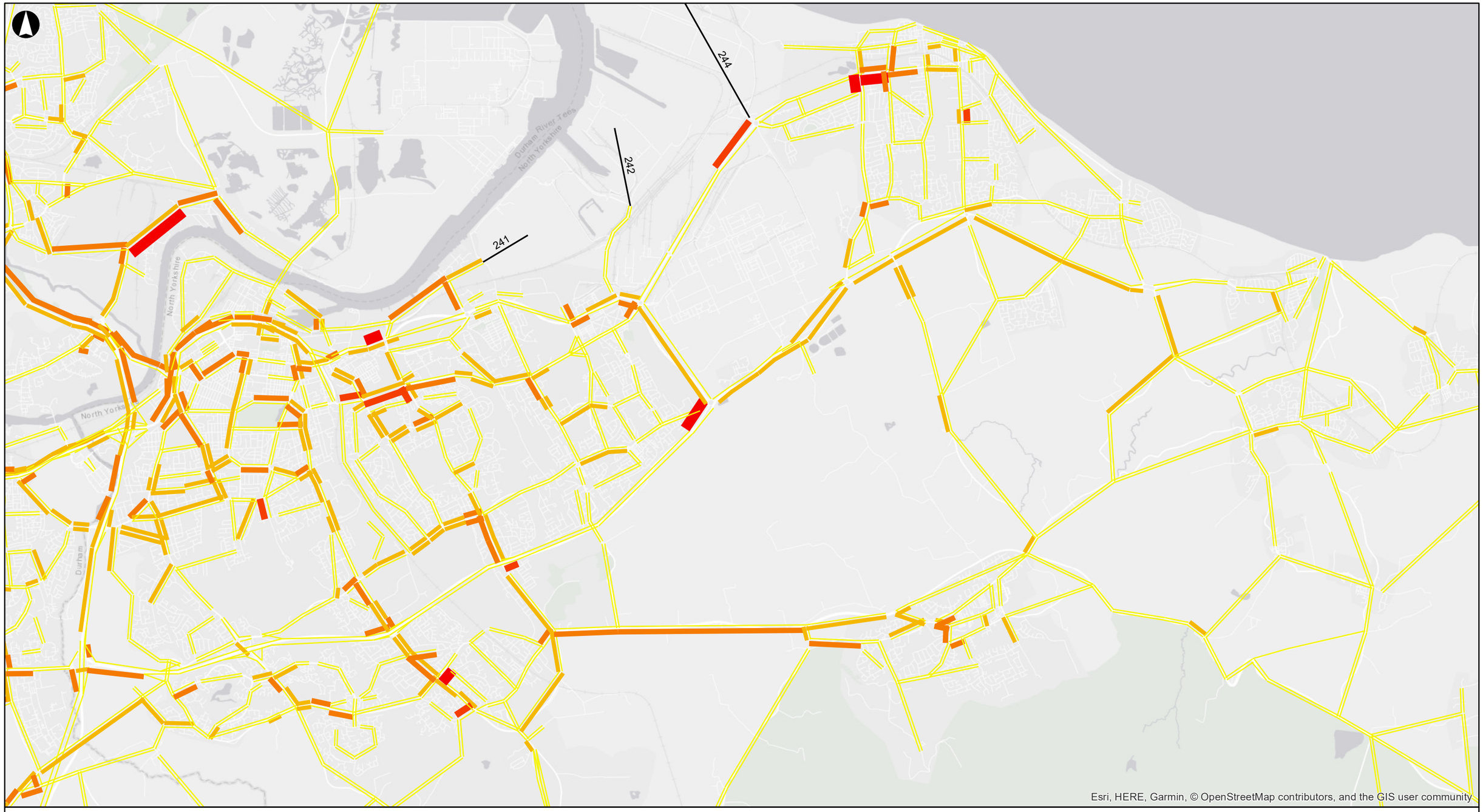
Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
016	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterAMCom Infras.mxd

A3

11/08/2018 18:33:02



Legend

SSI Zones

% Free Flow Speed AM

- < 7%
- 7.1% - 13%
- 13.1% - 25%
- 25.1% - 40%
- 40.1% - 63.7%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 AM % Free Flow Speed

Scale at A3

1:60,000

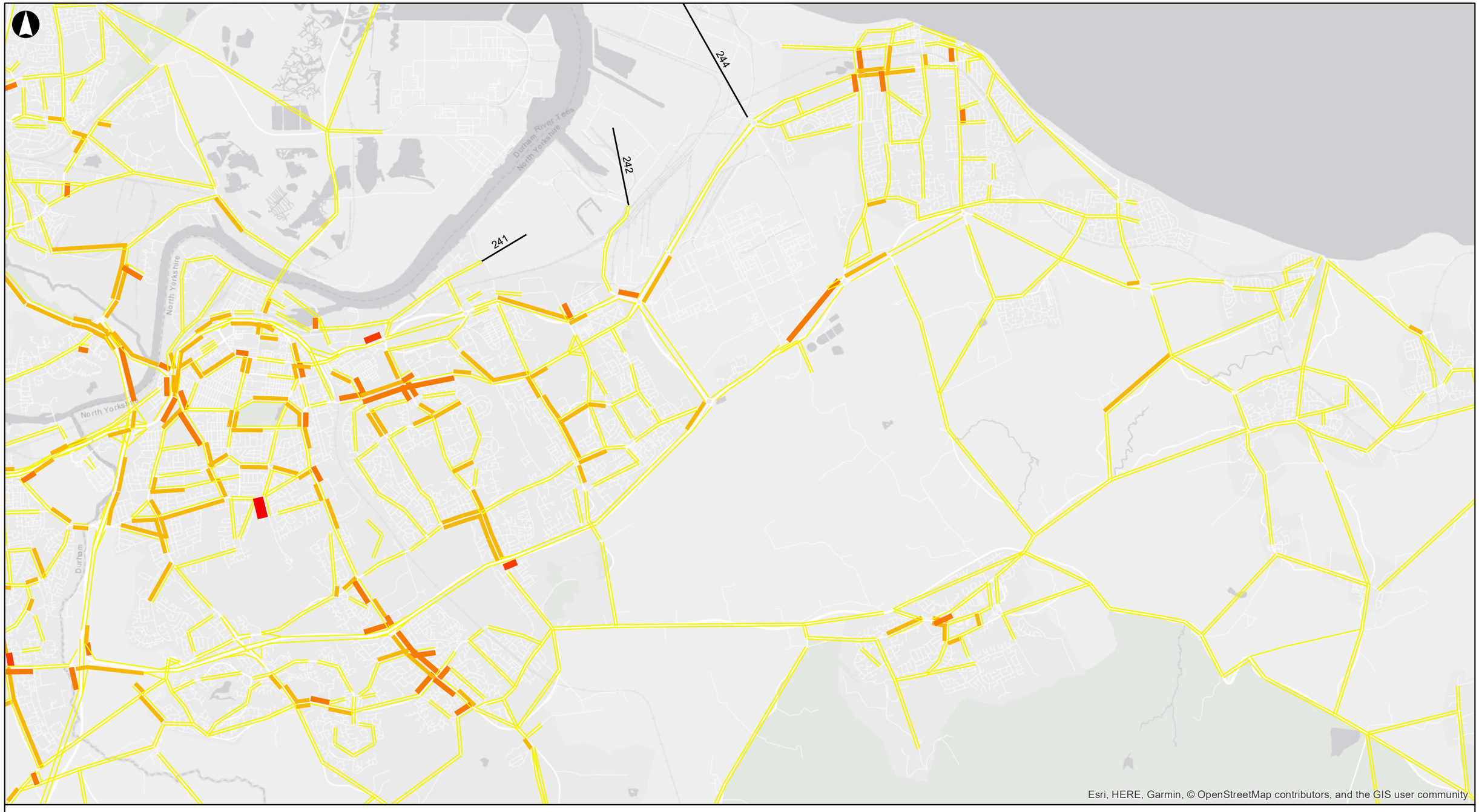
Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
016	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterAMSSI.mxd

A3

11/08/2018 18:47:25



Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres

0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2020 PM % Free Flow Speed

Scale at A3

1:60,000

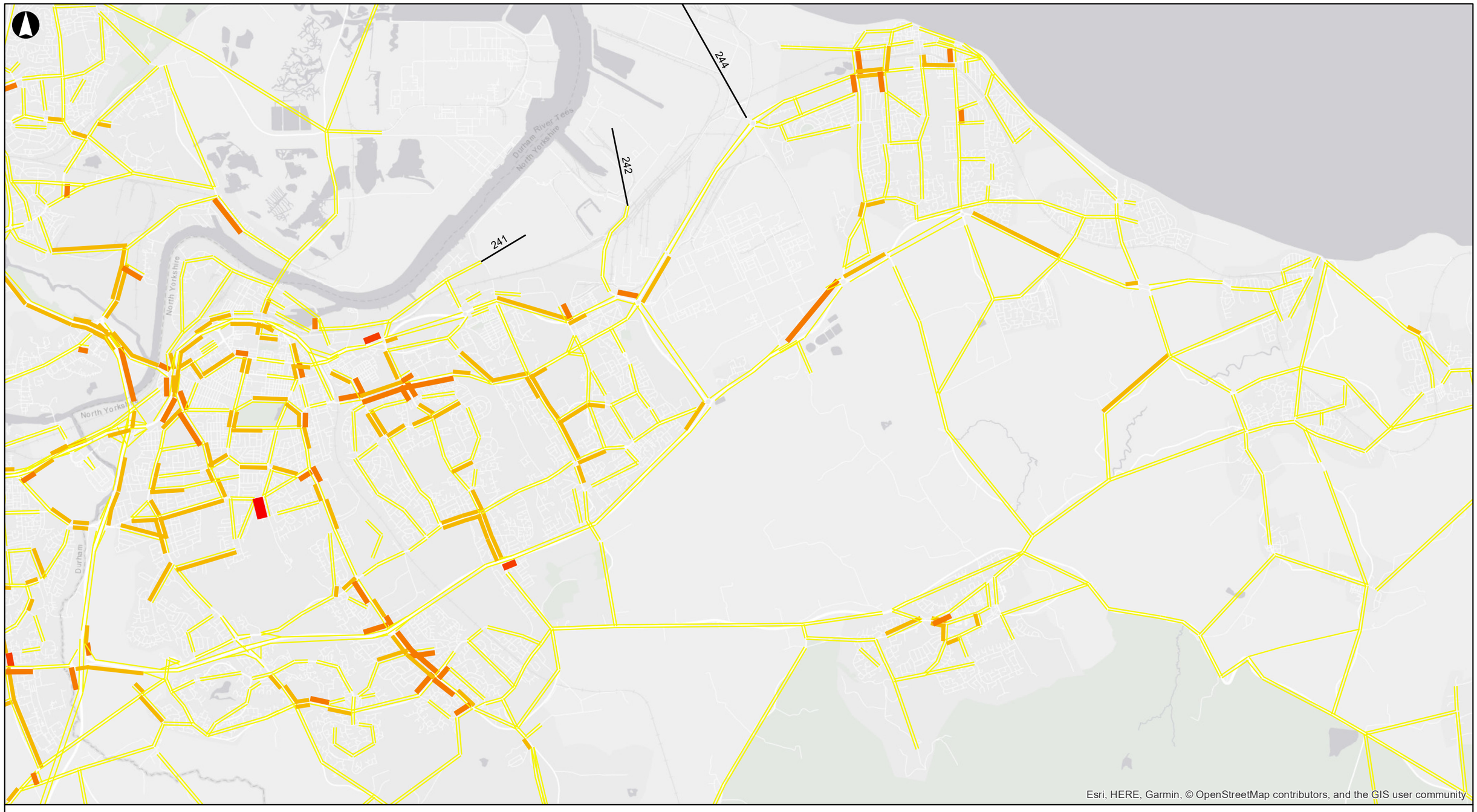
Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
013	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3

02/08/2018 10:52:51



Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres

0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2020 PM % Free Flow Speed

Scale at A3

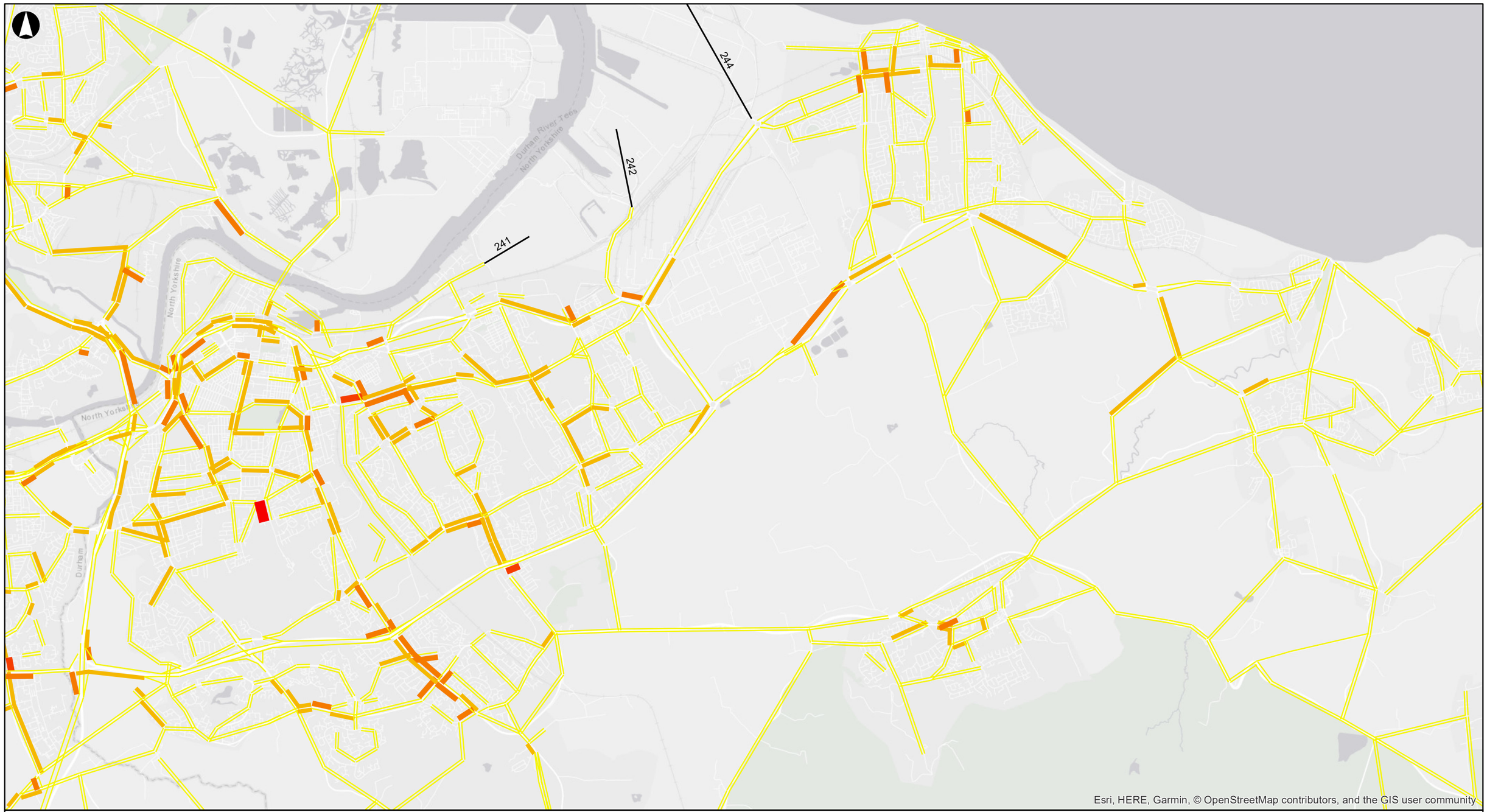
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
013	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3



11/08/2018 18:47:31

Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres

0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2025 PM % Free Flow Speed

Scale at A3

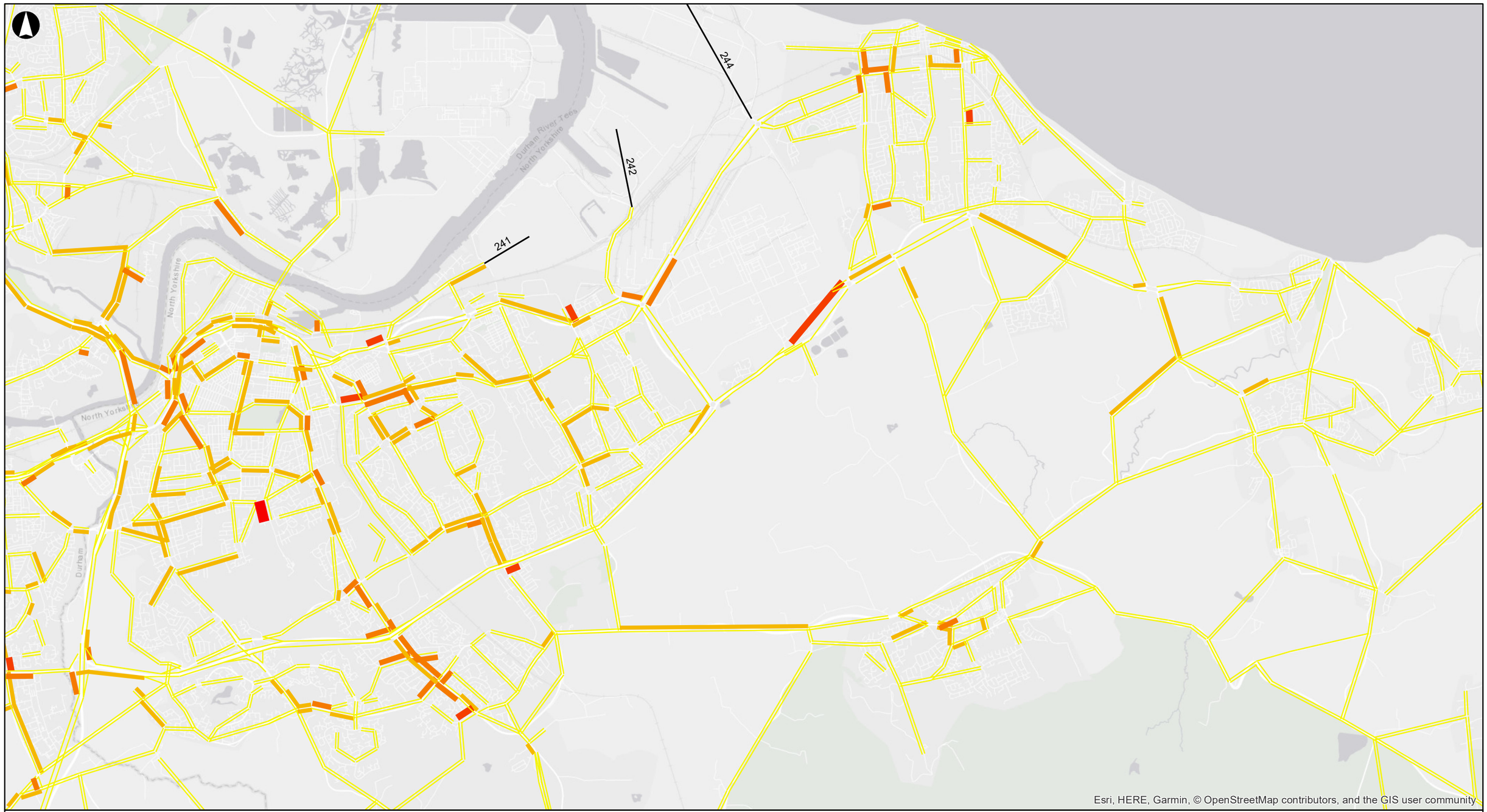
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
014	**P0**

\\globaf\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3



02/08/2018 10:52:57

Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2025 PM % Free Flow Speed

Scale at A3

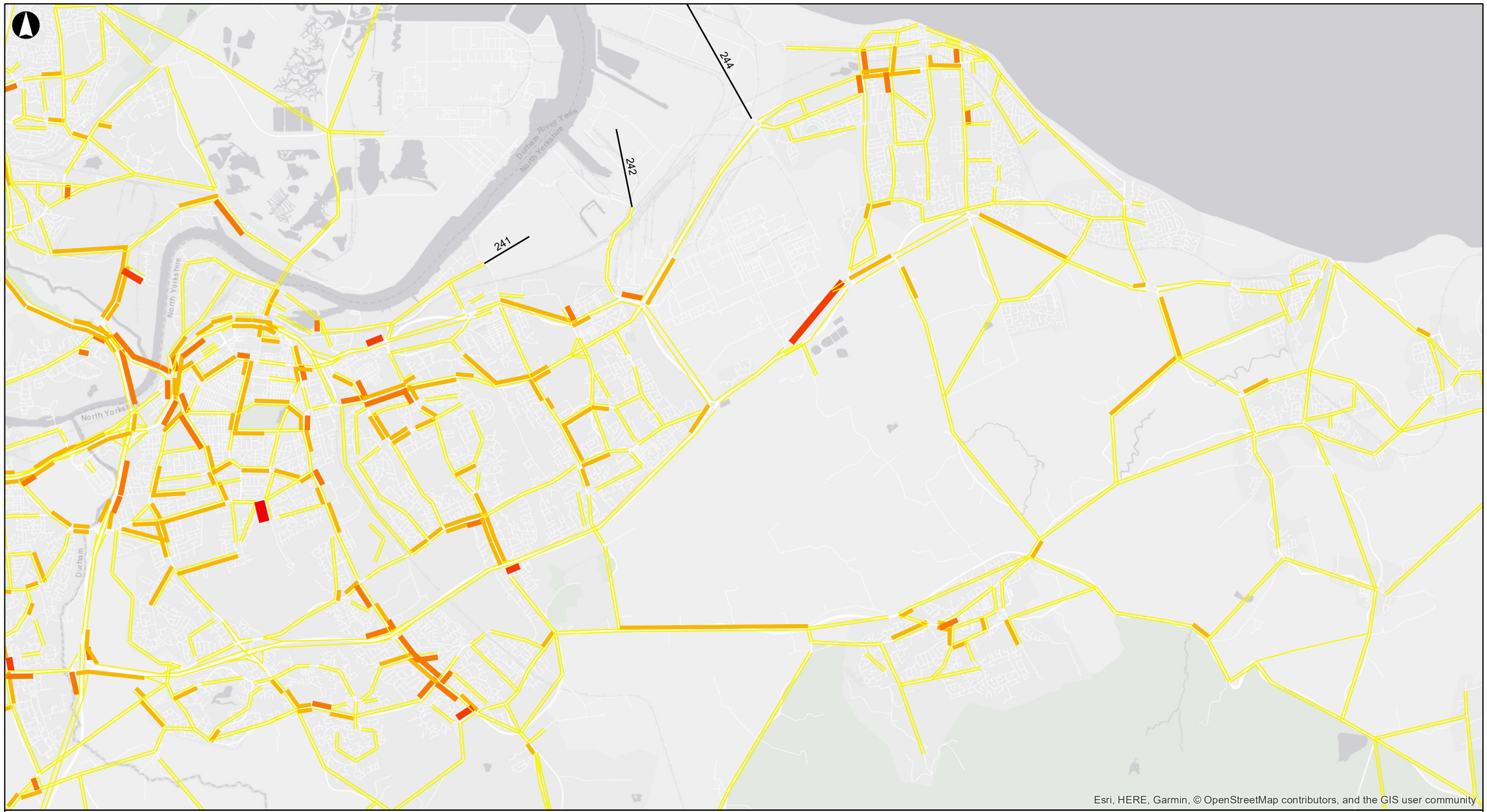
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
014	**P0**

\\globalfs\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3



11/08/2018 18:47:38

Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2030 PM % Free Flow Speed

Scale at A3

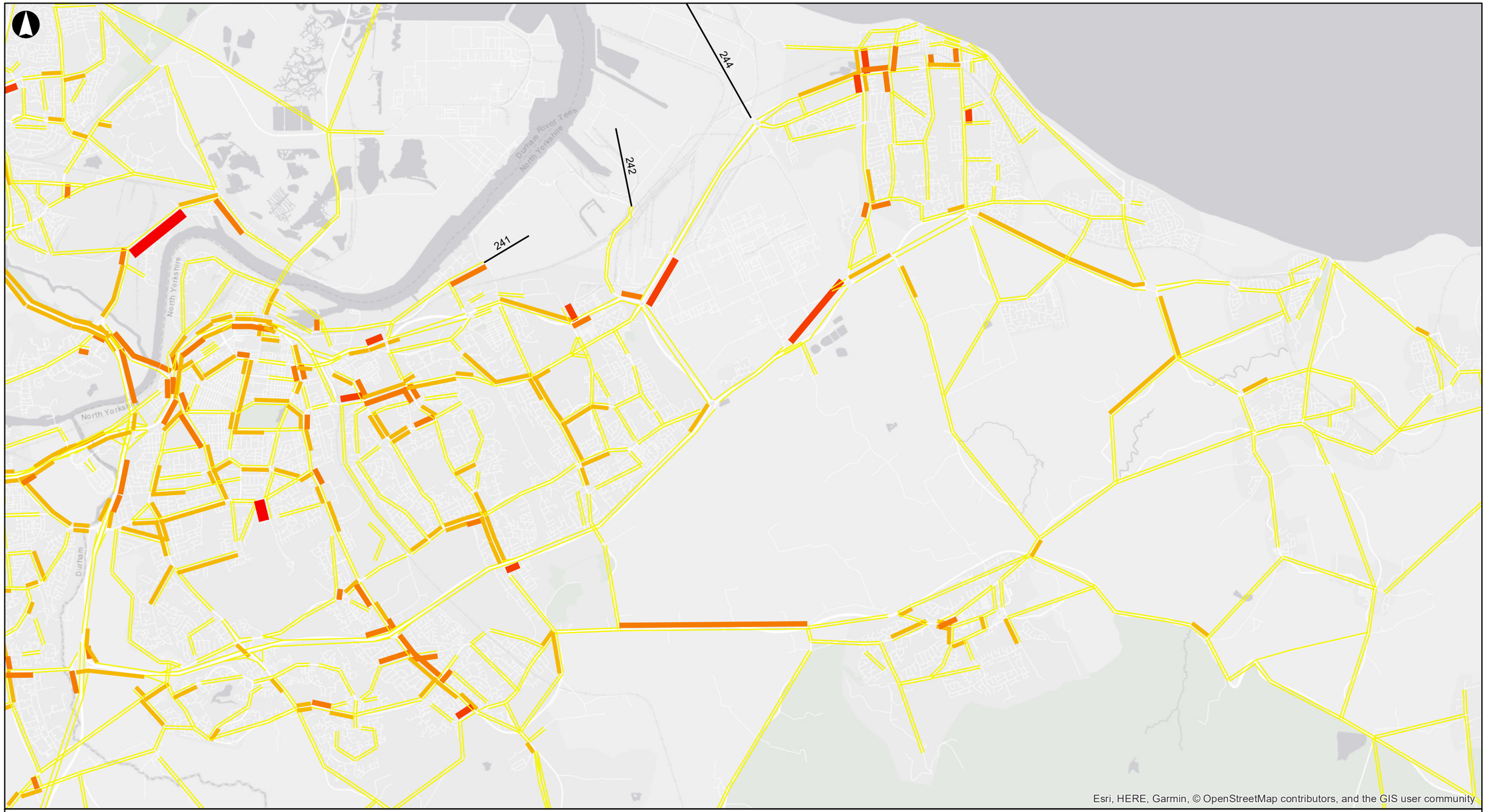
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
015	**P0**

\\globalfs\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3



02/08/2018 10:53:03

Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2030 PM % Free Flow Speed

Scale at A3

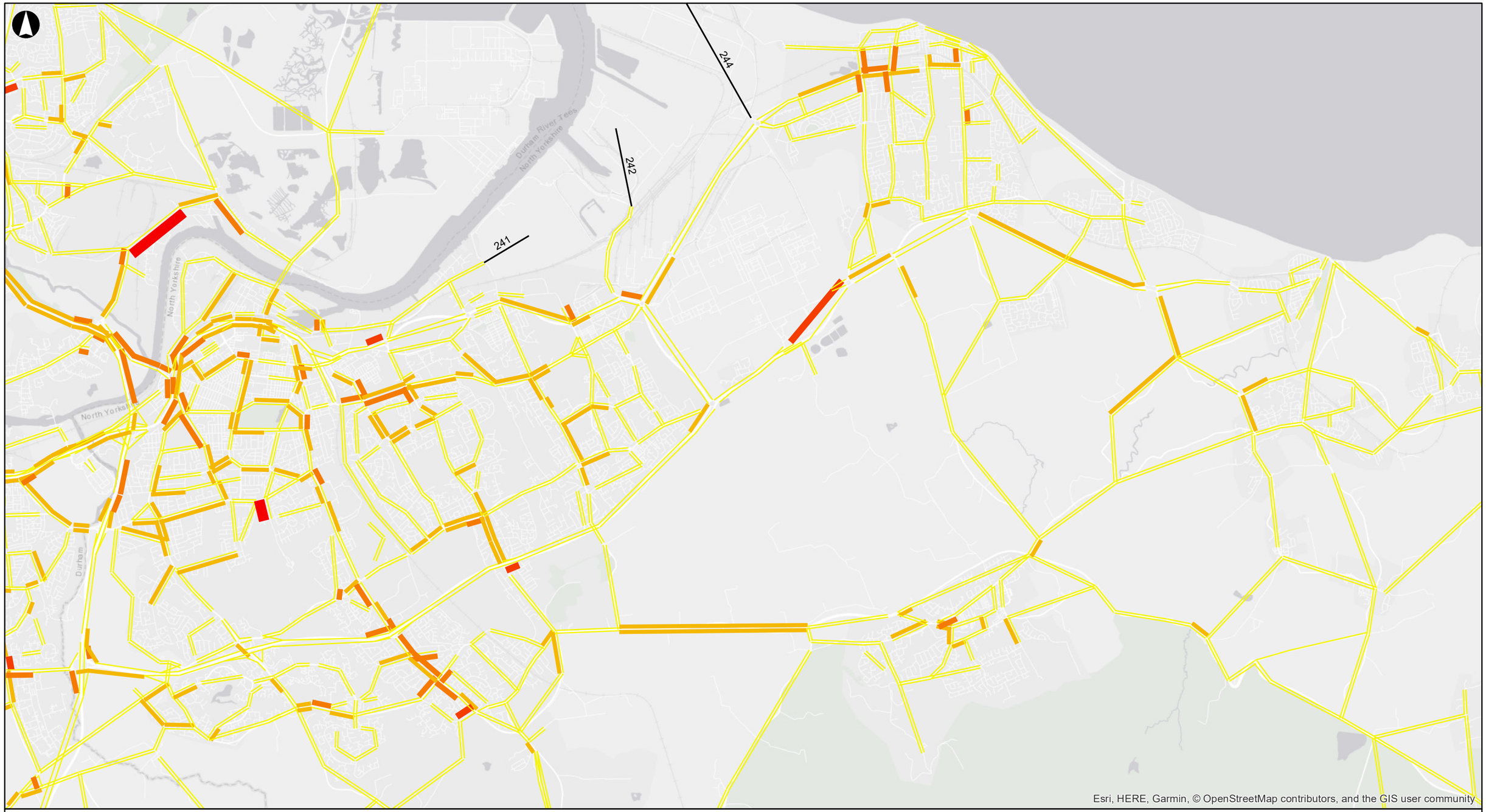
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
015	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

A3



11/08/2018 18:47:43

Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure 2035 PM % Free Flow Speed

Scale at A3

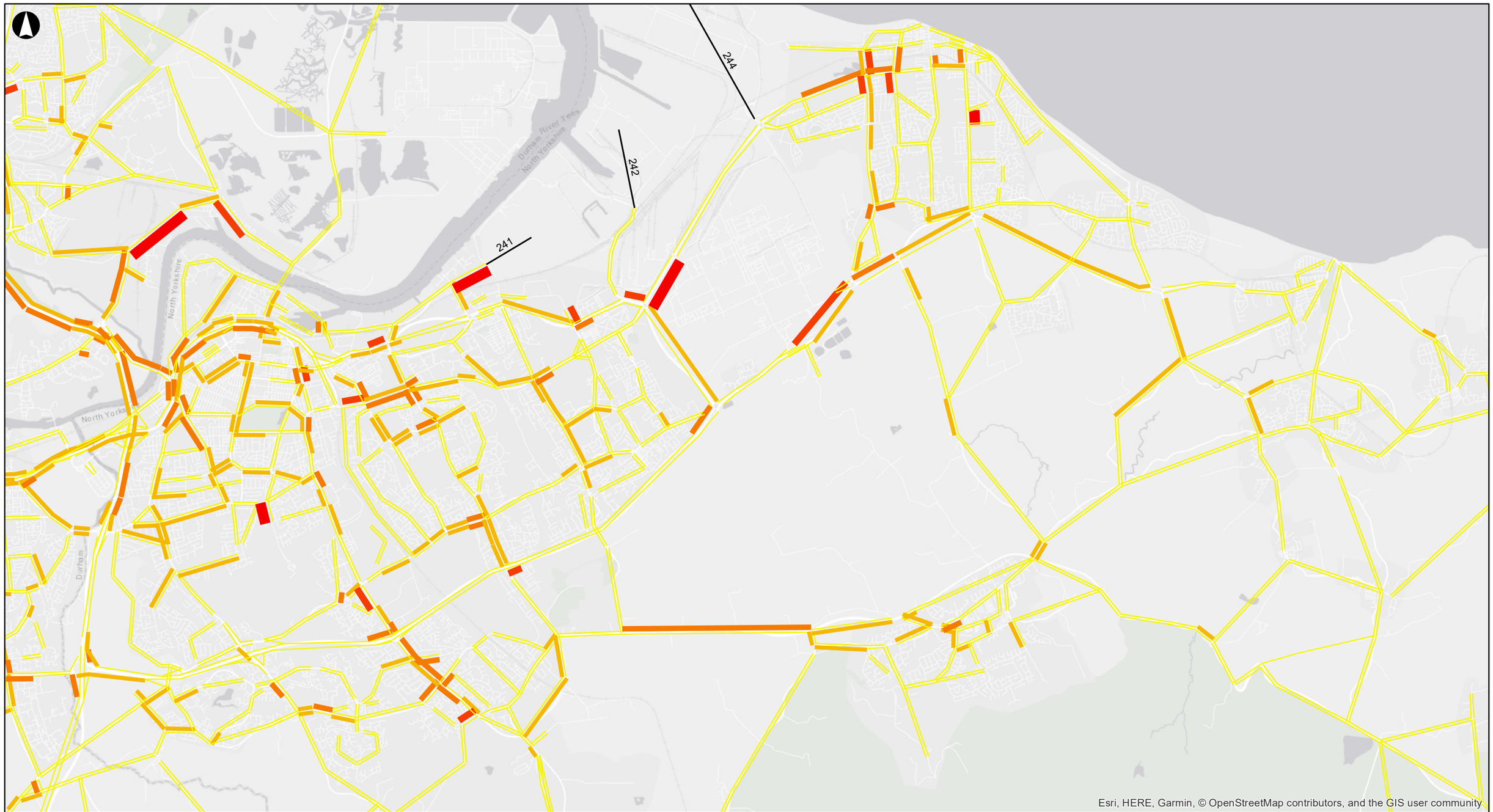
1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
016	**P0**

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T2 - Mboro&RecarMasterPMComInfras.mxd

A3



11/08/2018 18:35:01

Legend

SSI Zones

% Free Flow Speed PM

- < 7%
- 7.01% - 13%
- 13.01% - 25%
- 25.01% - 40%
- 40.01% - 62.14%

Issue	Date	By	Chkd	Appd
P0	2018-07-30	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Do Minimum with Committed Infrastructure and SSI Development Site 2035 PM % Free Flow Speed

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

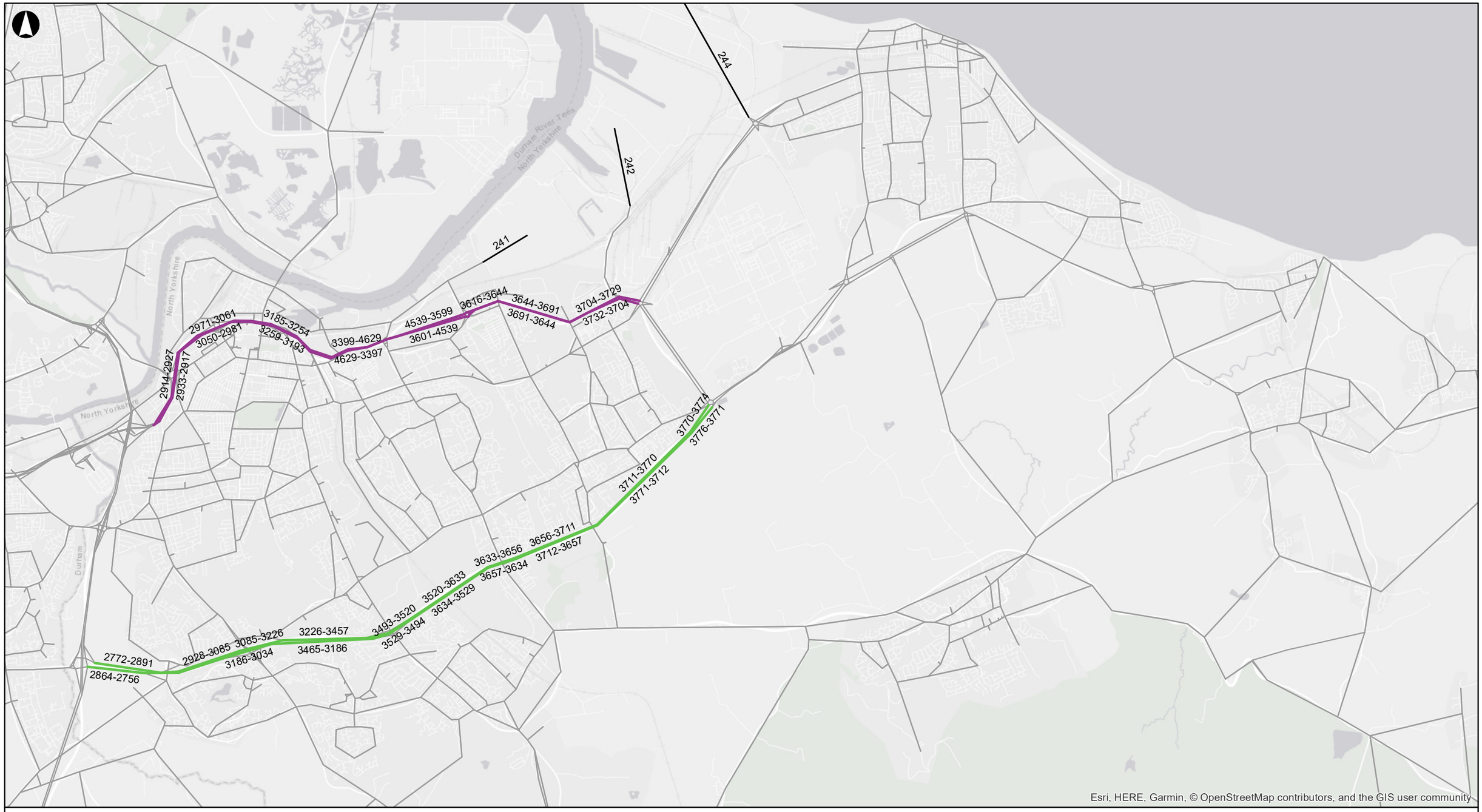
Drawing No	Issue
016	**P0**

\\globa\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\T1 - Mboro&RecarMasterPMSSI.mxd

Appendix H

Journey Times

A3



Legend

JT Routes

- A174
- A66
- SSI Zones
- TVM Network

Issue	Date	By	Chkd	Appd
P0	2018-08-07	AY	MS	SW

ARUP

Central Square
Forth Street
Newcastle upon Tyne
NE1 3PL
Tel +44 191 261 6080
www.arup.com

Metres
0 750 1,500 3,000

Client

Middlesbrough and Redcar & Cleveland Councils

Job Title

Joint Strategic Transport Needs Assessment

Journey Time Routes

Scale at A3

1:60,000

Job No	Drawing Status
249510-08	**Preliminary**

Drawing No	Issue
017	**P0**

07.08.2018 14:37:10

\\global\europe\Newcastle\Jobs\240000\249510\08 Transport Needs Assessment\Docs\40-Calcs\03-GIS\RoughLinkFind.mxd

Change in AM Journey Time - Do Minimum and Do Minimum + STRMP

AM			2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP			2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
					Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM	
			JT	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%
A66 (A19 - A1053/A1085 Rbt)																								
Eastbound	2880	2914	2880-2914	39	46	7	18%	53	14	37%	59	20	51%	41	2	6%	52	13	34%	63	24	62%	71	32	82%
	2914	2927	2914-2927	69	74	5	8%	82	13	19%	88	19	27%	70	1	1%	81	12	17%	94	24	35%	101	32	47%
	2927	2971	2927-2971	40	43	3	8%	49	9	22%	54	14	35%	41	1	3%	49	9	23%	58	18	46%	69	29	73%
	2971	3061	2971-3061	57	59	2	4%	62	5	9%	66	9	15%	58	1	2%	62	5	9%	68	11	19%	76	19	33%
	3061	3127	3061-3127	29	33	4	15%	35	7	23%	38	10	33%	32	3	10%	40	11	39%	45	16	57%	49	20	69%
	3127	3185	3127-3185	35	40	5	15%	43	8	23%	47	12	33%	39	4	10%	49	14	39%	55	20	57%	59	24	69%
	3185	3254	3185-3254	25	26	1	5%	26	2	7%	27	2	8%	26	1	4%	27	2	8%	28	3	14%	30	5	19%
	3254	3296	3254-3296	15	15	0	3%	16	1	8%	16	1	10%	15	0	3%	17	2	13%	18	3	23%	19	4	30%
	3296	3349	3296-3349	20	19	-1	-4%	20	0	-1%	21	0	1%	21	0	2%	20	0	-2%	21	1	5%	22	1	7%
	3349	3399	3349-3399	13	13	0	-1%	13	0	0%	13	0	1%	13	0	1%	13	0	1%	14	1	5%	14	1	7%
	3399	4629	3399-4629	13	13	0	-1%	13	0	0%	14	0	1%	14	0	2%	14	0	4%	14	1	4%	14	1	6%
	4629	3478	4629-3478	47	42	-6	-12%	46	-1	-3%	57	10	22%	71	24	52%	100	53	112%	120	73	154%	146	99	211%
	3478	3488	3478-3488	11	10	-1	-11%	11	-1	-5%	11	0	0%	11	0	0%	10	-1	-11%	12	1	11%	14	2	22%
	3488	4539	3488-4539	13	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	1%	13	0	3%	13	1	4%
	4539	3599	4539-3599	51	51	0	0%	51	0	0%	51	1	1%	51	1	1%	53	2	4%	59	8	17%	68	18	35%
	3599	3602	3599-3602	4	4	0	1%	4	0	1%	4	0	2%	4	0	2%	4	0	6%	5	1	13%	5	1	15%
	3602	3616	3602-3616	6	6	0	0%	6	0	0%	6	0	0%	6	0	0%	6	0	1%	7	0	3%	7	0	4%
	3616	3644	3616-3644	20	20	0	0%	20	0	1%	20	0	1%	20	0	0%	20	0	2%	21	1	6%	21	1	6%
	3644	3691	3644-3691	68	68	0	0%	67	-1	-2%	66	-2	-2%	66	-3	-4%	66	-2	-2%	68	0	0%	72	4	6%
	3691	3704	3691-3704	14	14	0	0%	14	0	0%	14	0	0%	14	0	0%	14	0	1%	14	1	4%	14	1	6%
	3704	3729	3704-3729	26	26	0	0%	26	0	0%	27	1	2%	27	1	3%	28	2	8%	33	7	27%	41	15	56%
	3729	3731	3729-3731	3	3	0	0%	3	0	1%	3	0	1%	3	0	2%	3	0	3%	3	0	6%	3	0	6%
	3731	3746	3731-3746	32	32	0	0%	32	1	2%	32	1	2%	32	1	2%	33	1	4%	34	2	6%	34	2	6%
			Total (s)	**649**	**670**	21	3%	**706**	57	9%	**747**	97	15%	**688**	38	6%	**773**	124	19%	**866**	217	33%	**962**	312	48%
			Time mm:ss	10:49	11:10	00:21		11:46	00:57		12:27	01:37		11:28	00:38		12:53	02:04		14:26	03:37		16:02	05:12	
Westbound	3745	3732	3745-3732	23	23	1	3%	27	5	20%	30	8	34%	27	4	17%	35	12	53%	45	23	99%	53	30	134%
	3732	3704	3732-3704	26	26	0	0%	27	1	2%	27	1	4%	26	0	1%	26	0	1%	26	0	1%	26	0	1%
	3704	3691	3704-3691	28	29	1	3%	30	2	7%	31	3	10%	29	0	1%	31	3	11%	37	8	30%	46	17	61%
	3691	3644	3691-3644	62	63	0	1%	65	3	5%	67	5	7%	63	1	1%	65	2	4%	66	4	6%	67	5	7%
	3644	3616	3644-3616	18	18	0	0%	19	1	3%	19	1	4%	19	0	1%	19	1	3%	19	1	4%	19	1	5%
	3616	3607	3616-3607	19	21	2	10%	32	13	67%	44	25	130%	22	2	13%	26	7	35%	34	15	80%	40	21	108%
	3607	3605	3607-3605	4	4	0	1%	4	0	6%	5	0	8%	4	0	3%	4	0	5%	5	0	8%	5	0	10%
	3605	3601	3605-3601	4	4	0	0%	5	0	5%	5	0	9%	5	0	4%	5	0	7%	5	1	12%	5	1	16%
	3601	4539	3601-4539	49	49	0	0%	49	0	0%	49	0	0%	49	0	0%	49	0	0%	49	0	0%	51	1	3%
	4539	3488	4539-3488	22	20	-1	-6%	20	-1	-5%	21	-1	-3%	21	-1	-3%	19	-2	-11%	19	-2	-11%	21	-1	-4%
	3488	3478	3488-3478	58	60	2	3%	57	-1	-2%	63	5	8%	65	7	12%	62	4	6%	65	7	11%	74	16	28%
	3478	4629	3478-4629	20	18	-1	-7%	19	0	-2%	20	0	1%	20	1	3%	20	0	1%	21	2	10%	25	6	30%
	4629	3397	4629-3397	20	19	-1	-7%	20	0	-2%	20	0	1%	21	1	3%	20	0	0%	22	2	10%	27	6	32%
	3397	3345	3397-3345	16	15	-1	-5%	15	-1	-4%	15	0	-3%	16	0	1%	15	-1	-7%	15	-1	-8%	14	-1	-9%
	3345	3297	3345-3297	22	21	-1	-7%	21	-1	-5%	22	-1	-4%	23	0	1%	21	-2	-8%	20	-2	-10%	20	-3	-11%
	3297	3259	3297-3259	16	18	2	15%	20	4	26%	21	5	34%	16	0	0%	18	2	15%	19	4	25%	20	5	30%
	3259	3193	3259-3193	28	30	2	8%	31	3	12%	32	4	15%	27	0	-1%	30	2	8%	31	3	12%	32	4	16%
	3193	3126	3193-3126	24	27	3	13%	31	7	30%	32	8	35%	24	0	0%	27	3	11%	30	7	27%	31	7	30%
	3126	3050	3126-3050	21	23	3	13%	27	6	30%	28	7	35%	21	0	0%	23	2	11%	26	6	27%	27	6	30%
	3050	2981	3050-2981	27	29	2	7%	31	4	14%	31	4	15%	27	0	0%	28	1	5%	30	3	11%	31	4	14%
	2981	2933	2981-2933	24	26	2	8%	29	5	21%	30	6	26%	24	0	0%	26	2	7%	28	4	18%	29	5	20%
	2933	2917	2933-2917	35	36	1	4%	38	4	11%	39	4	12%	35	0	0%	36	1	3%	38	3	9%	38	4	11%
	2917	2888	2917-2888	24	26	2	9%	31	7	29%	32	8	32%	24	0	0%	26	2	9%	30	6	25%	31	7	29%
	2888	2878	2888-2878	7	7	1	9%	8	2	29%	9	2	32%	7	0	0%	7	1	9%	8	2	25%	8	2	29%
			Total (s)	**596**	**613**	17	3%	**657**	61	10%	**692**	96	16%	**613**	17	3%	**636**	40	7%	**691**	94	16%	**741**	144	24%
			Time mm:ss	09:56	10:13	00:17		10:57	01:01		11:32	01:36		10:13	00:17		10:36	00:40		11:31	01:34		12:21	02:24	
A174 (A19 - Greystones)																								
Eastbound	2772	2891	2772-2891	36	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	0%	36	0	1%
	2891	2928	2891-2928	12	12	0	1%	12	1	6%	13	1	7%	12	0	1%	12	0	4%	13	1	8%	13	1	12%
	2928	3085	2928-3085	42	42	1	1%	44	2	6%	45	3	7%	42	1	1%	43	2	4%	45	3	8%	47	5	12%
	3085	3226	3085-3226	27	27	0	0%	27	0	1%	28	0	1%	27	0	0%	27	0	0%	28	0	2%	28	1	3%
	3226	3457	3226-3457	53	53	0	0%	55	2	4%	56	3	6%	54	1	2%	54	1	2%	57	4	8%	59	6	12%
	3457	3493	3457-3493	14	14	0	0%	14	0	1%	14	0	2%	14	0	0%	14	0	1%	14	0	2%	14	0	3%
	3493	3520	3493-3520	15	15	0	0%	15	0	1%	15	0	2%	15	0	0%	15	0	1%	15	0	2%	16	1	3%
	3520	3633	3520-3633	58	59	0	1%	59	1	2%	60	2	3%	59	0	1%	60	1	2%	61	3	5%	62	4	7%
	3633	3656	3633-3656	17	17	0	1%	17	0	2%	17	0	3%	17	0	1%	17	0	2%	18	1	5%	18	1	7%
	3656	3711	3656-3711	56	56	0	1%	57	2	3%	58	2	4%	57	1	2%	58	2	3%	59	4	7%	61	5	9%
	3711	3770	3711-3770	82	82	1	1%	84	3	3%	85	3	4%	83	1	2%	85	3	3%	87	6	7%	89	7	9%
	3770	3774	3770-3774	46	50	4	10%	80	34	73%	105	59	128%	56	10	22%	88	42	92%	210	164	357%	278	232	504%
			Total (s)	**456**	**463**	7	2%	**502**	45	10%	**531**	75	16%	**471**	14	3%	**508**	52	11%	**643**	186	41%	**720**	263	58%
			Time mm:ss	07:36	07:43	00:07		08:22	00:45		08:51	01:15		07:51	00:14		08:28	00:52		10:43	03:06		12:00	04:23	
Westbound	3776	3771	3776-3771	20	20	0	0%	21	0	1%	21	0	2%	20	0	0%	20	0	1%	21	1	2%	21	1	4%
	3771	3712	3771-3712	80	80	0	0%	81	1	1%	82	1	2%	80	0	0%	81	0	1%	82	2	2%	83	3	4%
	3712	3657	3712-3657	54	54	0	0%	54	1	1%	55	1	2%	54	0	0%	54	0	1%	55	1	2%	56	2	4%
	3657	3634	3657-3634	18	18	0	0%	18	0	1%	18	0	1%	18	0	0%	18	0	0%	18	0	2%	18	1	3%
	3634	3529	3634-3529	56	56	0	0%	57	1	1%	57	1	1%	56	0	0%	56	0	0%	57	1	2%	58	2	3%
	3529	3494	3529-3494	16	16	0	0%	17	0	1%	17	0	1%	16	0	0%	16	0	0%	17	0	1%	17	0	2%
	3494	3465	3494-3465	10	10	0	0%	10	0	1%	10	0	1%	10	0	0%	10	0	0%	10	0	1%	10	0	2%
	3465	3186	3465-3186	63	63	0	0%	64	1	2%	65	2	3%	63	0	0%	63	0	0%	65	2	3%	66	4	6%
	3186	3034	3186-3034	30	30	0	0%	30	0	1%	30	0	1%	30	0	0%	30	0	0%	30	0	1%	31	0	2%
	3034	2929	3034-2929	30	30	0	1%	32	2	7%	32	2	7%	30	0	0%	30	1	2%	32	2	8%	32	3	9%
	2929	2864	2929-2864	22	22	0	1%	23	1	7%	24	2	7%	22	0	0%	22	0	2%	24	2	8%	24	2	9%
	2864	2756	2864-2756	75	64	-11	-15%	78	3	4%	91	16	21%	78	3	3%	67	-8	-10%	87	12	15%	109	34	45%
			Total (s)	**474**	**464**	-10	-2%	**485**	11	2%	**500**	26	5%	**477**	3	1%	**469**	-5	-1%	**497**	23	5%	**525**	51	11%
			Time mm:ss	07:54	07:44	-10		08:05	00:11		08:20	00:26		07:57	00:03		07:49	-5		08:17	00:23		08:45	00:51	

Change in PM Journey Time - Do Minimum and Do Minimum + STRMP

PM				2020 DM	2025 DM			2030 DM			2035 DM			2020 DM + STRMP	2025 DM + STRMP			2030 DM + STRMP			2035 DM + STRMP		
						Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM			Change from 2020 DM		
				JT	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%
A66 (A19 - A1053/A1085 Rbt)																							
Eastbound	2880	2914	2880-2914	24	25	1	5%	27	3	14%	28	4	16%	24	0	0%	25	1	4%	26	2	8%	27	3	12%
	2914	2927	2914-2927	37	40	2	6%	46	9	23%	47	10	26%	37	0	0%	39	2	5%	43	5	14%	44	7	18%
	2927	2971	2927-2971	21	22	1	4%	24	3	15%	25	4	21%	21	0	0%	22	1	4%	24	3	13%	25	4	17%
	2971	3061	2971-3061	35	36	2	5%	41	6	19%	42	7	20%	35	0	0%	36	1	3%	39	4	12%	39	4	13%
	3061	3127	3061-3127	17	19	2	9%	22	4	26%	22	5	29%	17	0	0%	19	1	8%	21	3	20%	20	3	18%
	3127	3185	3127-3185	21	23	2	9%	27	5	26%	27	6	29%	21	0	0%	23	2	8%	25	4	20%	25	4	18%
	3185	3254	3185-3254	24	25	1	5%	25	1	5%	25	1	6%	24	0	0%	25	1	4%	25	1	5%	25	1	6%
	3254	3296	3254-3296	15	16	1	8%	17	2	14%	18	2	16%	15	0	0%	16	1	8%	17	2	14%	18	2	16%
	3296	3349	3296-3349	19	19	0	-1%	19	0	0%	19	0	-1%	19	0	0%	19	0	-1%	19	0	0%	19	0	0%
	3349	3399	3349-3399	13	13	0	-1%	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	0%
	3399	4629	3399-4629	14	14	0	-1%	14	0	0%	14	0	0%	14	0	0%	14	0	0%	14	0	0%	14	0	0%
	4629	3478	4629-3478	75	59	-16	-21%	71	-4	-5%	77	2	2%	82	7	9%	73	-2	-3%	77	2	3%	83	8	10%
	3478	3488	3478-3488	14	12	-1	-9%	13	-1	-4%	14	1	5%	15	2	13%	17	3	22%	19	5	40%	22	8	62%
	3488	4539	3488-4539	13	13	0	0%	13	0	1%	13	0	1%	13	0	0%	13	0	0%	13	0	0%	13	0	0%
	4539	3599	4539-3599	53	53	0	0%	54	1	2%	54	1	2%	53	0	0%	53	0	0%	53	1	1%	52	0	0%
	3599	3602	3599-3602	5	5	0	1%	5	0	3%	5	0	3%	5	0	0%	5	0	1%	5	0	1%	4	0	-1%
	3602	3616	3602-3616	7	7	0	1%	7	0	3%	7	0	4%	7	0	1%	7	0	3%	7	0	4%	7	0	5%
	3616	3644	3616-3644	22	22	0	1%	23	1	5%	23	1	6%	22	0	1%	22	0	2%	23	1	6%	23	1	7%
	3644	3691	3644-3691	86	88	2	3%	88	2	2%	89	4	4%	84	-1	-2%	88	2	3%	89	4	4%	90	4	5%
	3691	3704	3691-3704	14	14	0	1%	14	0	2%	14	0	2%	14	0	1%	14	0	1%	14	0	2%	14	0	3%
	3704	3729	3704-3729	28	29	1	3%	31	2	8%	31	3	11%	29	1	3%	31	2	7%	31	3	10%	33	4	15%
	3729	3731	3729-3731	4	4	0	2%	4	0	5%	4	0	7%	4	0	1%	4	0	2%	4	0	3%	4	0	3%
	3731	3746	3731-3746	36	38	1	4%	42	6	16%	45	9	24%	39	3	7%	45	9	24%	61	25	68%	82	45	125%
			Total (s)	**596**	**595**	-1	0%	**639**	43	7%	**657**	61	10%	**606**	11	2%	**620**	25	4%	**663**	67	11%	**696**	100	17%
			Time mm:ss	09:56	09:55	-1		10:39	00:43		10:57	01:01		10:06	00:11		10:20	00:25		11:03	01:07		11:36	01:40	
Westbound	3745	3732	3745-3732	17	17	0	0%	17	0	0%	18	1	4%	18	1	4%	18	1	8%	20	3	19%	21	4	26%
	3732	3704	3732-3704	25	25	0	0%	25	0	0%	25	0	0%	25	0	1%	25	1	2%	26	1	5%	26	2	6%
	3704	3691	3704-3691	28	28	0	0%	26	-2	-6%	26	-2	-6%	29	1	2%	32	4	14%	36	8	28%	38	10	35%
	3691	3644	3691-3644	56	56	0	0%	56	0	0%	56	0	0%	56	0	1%	58	1	3%	59	2	4%	59	3	5%
	3644	3616	3644-3616	17	17	0	0%	17	0	0%	17	0	0%	17	0	0%	17	0	1%	17	0	3%	18	1	4%
	3616	3607	3616-3607	9	9	1	7%	9	1	7%	9	1	7%	9	1	7%	10	2	22%	12	4	44%	14	6	66%
	3607	3605	3607-3605	3	3	0	0%	3	0	2%	3	0	2%	4	0	3%	4	0	7%	4	0	13%	4	1	16%
	3605	3601	3605-3601	3	3	0	0%	4	0	2%	4	0	2%	4	0	3%	4	0	8%	4	0	14%	4	1	17%
	3601	4539	3601-4539	48	48	0	0%	48	0	0%	48	0	0%	48	0	1%	48	1	1%	49	1	3%	49	2	3%
	4539	3488	4539-3488	19	19	-1	-3%	19	-1	-3%	19	0	0%	21	1	7%	21	2	10%	23	3	17%	25	6	30%
	3488	3478	3488-3478	37	38	1	3%	45	8	23%	47	10	26%	53	16	44%	52	15	41%	58	21	57%	65	28	76%
	3478	4629	3478-4629	16	15	-1	-4%	15	0	-1%	16	0	1%	17	2	11%	18	3	17%	21	5	35%	23	7	48%
	4629	3397	4629-3397	16	15	-1	-4%	16	0	-1%	16	0	1%	18	2	11%	19	3	17%	22	6	35%	24	8	48%
	3397	3345	3397-3345	14	13	0	-3%	14	0	-2%	14	0	-1%	14	1	4%	14	1	4%	15	1	11%	16	2	15%
	3345	3297	3345-3297	20	19	-1	-4%	19	-1	-3%	19	0	-2%	21	1	6%	21	1	7%	22	3	15%	24	4	21%
	3297	3259	3297-3259	13	14	0	3%	14	1	7%	14	1	8%	14	0	3%	15	2	12%	16	3	22%	17	4	27%
	3259	3193	3259-3193	25	25	1	4%	27	3	10%	27	3	11%	26	2	7%	27	3	12%	28	3	14%	28	4	15%
	3193	3126	3193-3126	27	28	2	6%	32	5	20%	33	6	22%	29	2	6%	33	6	22%	39	13	47%	43	16	60%
	3126	3050	3126-3050	23	24	1	6%	28	5	20%	28	5	22%	25	1	6%	28	5	22%	34	11	47%	37	14	60%
	3050	2981	3050-2981	33	33	1	2%	34	2	5%	35	3	8%	33	0	1%	35	2	6%	36	4	11%	38	5	17%
	2981	2933	2981-2933	44	49	5	11%	54	10	23%	61	17	38%	46	2	5%	54	9	21%	64	20	44%	71	27	62%
	2933	2917	2933-2917	51	54	3	5%	57	6	12%	62	11	21%	52	1	2%	57	6	11%	64	13	25%	70	18	36%
	2917	2888	2917-2888	56	60	5	8%	68	13	23%	65	10	17%	58	2	4%	65	9	17%	66	10	18%	74	18	32%
	2888	2878	2888-2878	15	16	1	8%	19	4	23%	18	3	17%	16	1	4%	18	3	17%	18	3	18%	20	5	32%
			Total (s)	**614**	**630**	17	3%	**667**	54	9%	**681**	67	11%	**651**	37	6%	**693**	79	13%	**753**	139	23%	**808**	195	32%
			Time mm:ss	10:14	10:30	00:17		11:07	00:54		11:21	01:07		10:51	00:37		11:33	01:19		12:33	02:19		13:28	03:15	
A174 (A19 - Greystones)																							
Eastbound	2772	2891	2772-2891	37	36	0	-1%	37	0	1%	38	1	2%	37	0	0%	37	0	-1%	38	1	3%	39	2	4%
	2891	2928	2891-2928	13	13	0	0%	14	1	7%	14	1	7%	13	0	0%	13	0	1%	14	1	9%	14	1	9%
	2928	3085	2928-3085	46	46	0	0%	50	3	7%	50	3	7%	46	0	0%	47	0	1%	51	4	9%	51	4	9%
	3085	3226	3085-3226	27	27	0	0%	27	0	1%	28	0	2%	27	0	0%	27	0	0%	28	1	2%	28	1	3%
	3226	3457	3226-3457	52	52	0	0%	54	2	3%	55	3	5%	52	0	0%	52	0	0%	55	3	6%	56	4	8%
	3457	3493	3457-3493	13	13	0	0%	13	0	0%	14	0	0%	13	0	0%	13	0	0%	14	0	1%	14	0	1%
	3493	3520	3493-3520	15	15	0	0%	15	0	0%	15	0	0%	15	0	0%	15	0	0%	15	0	1%	15	0	1%
	3520	3633	3520-3633	58	58	0	0%	58	0	1%	58	1	1%	58	0	0%	58	0	0%	59	1	2%	59	1	2%
	3633	3656	3633-3656	17	17	0	0%	17	0	1%	17	0	1%	17	0	0%	17	0	0%	17	0	2%	17	0	2%
	3656	3711	3656-3711	55	55	0	0%	55	1	1%	56	1	2%	55	0	0%	55	0	0%	56	1	3%	57	2	4%
	3711	3770	3711-3770	80	80	0	0%	81	1	1%	82	2	2%	80	0	0%	80	0	0%	82	2	3%	84	3	4%
	3770	3774	3770-3774	40	40	0	0%	43	4	10%	46	6	16%	40	1	2%	40	1	2%	50	10	26%	64	24	61%
			Total (s)	**453**	**453**	-1	0%	**466**	13	3%	**471**	18	4%	**454**	1	0%	**455**	2	0%	**478**	25	5%	**497**	44	10%
			Time mm:ss	07:33	07:33	-1		07:46	00:13		07:51	00:18		07:34	00:01		07:35	00:02		07:58	00:25		08:17	00:44	
Westbound	3776	3771	3776-3771	21	21	0	0%	21	1	4%	22	1	6%	21	0	1%	21	1	3%	23	3	14%	25	5	23%
	3771	3712	3771-3712	81	81	0	0%	84	3	4%	86	5	6%	82	1	1%	84	3	3%	93	11	14%	100	18	23%
	3712	3657	3712-3657	54	55	0	0%	57	2	4%	58	3	6%	55	1	1%	56	2	3%	62	8	14%	67	12	23%
	3657	3634	3657-3634	18	18	0	0%	18	0	3%	18	1	4%	18	0	1%	18	0	2%	19	2	9%	20	3	15%
	3634	3529	3634-3529	57	57	0	0%	58	1	3%	59	2	4%	57	0	1%	58	1	2%	62	5	9%	65	9	15%
	3529	3494	3529-3494	16	17	0	0%	17	0	1%	17	0	2%	17	0	0%	17	0	1%	17	1	5%	18	1	8%
	3494	3465	3494-3465	10	10	0	0%	10	0	1%	10	0	2%	10	0	0%	10	0	1%	10	0	5%	10	1	8%
	3465	3186	3465-3186	63	64	0	0%	66	3	5%	68	4	7%	64	1	1%	65	2	2%	71	7	11%	75	12	18%
	3186	3034	3186-3034	30	30	0	0%	31	0	1%	31	1	2%	30	0	0%	31	0	1%	31	1	3%	32	2	6%
	3034	2929	3034-2929	29	29	0	0%	30	1	4%	31	2	6%	29	0	1%	30	1	2%	32	3	9%	34	4	15%
	2929	2864	2929-2864	22	22	0	0%	22	1	4%	23	1	6%	22	0	1%	22	0	2%	24	2	9%	25	3	15%
	2864	2756	2864-2756	61	60	-1	-1%	70	9	15%	68	7	11%	63	2	4%	65	5	7%	68	7	11%	66	5	8%
			Total (s)	**462**	**463**	1	0%	**486**	24	5%	**491**	28	6%	**468**	6	1%	**476**	14	3%	**512**	50	11%	**537**	75	16%
			Time mm:ss	07:42	07:43	00:01		08:06	00:24		08:11	00:28		07:48	00:06		07:56	00:14		08:32	00:50		08:57	01:15	

Change in AM Journey Time - Do Minimum + STRMP/ Do Something 1 /Do Something 2

AM				2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
						Change from 2020 DM			Change from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
				JT	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%
A66 (A19 - A1053/A1085 Rbt)																						
Eastbound	2880	2914	2880-2914	39	52	13	34%	71	32	82%	51	13	33%	71	32	82%	52	13	33%	70	32	82%
	2914	2927	2914-2927	69	81	12	17%	101	32	47%	81	12	17%	101	32	46%	80	11	16%	103	34	48%
	2927	2971	2927-2971	40	49	9	23%	69	29	73%	49	9	23%	69	30	74%	49	9	23%	68	29	72%
	2971	3061	2971-3061	57	62	5	9%	76	19	33%	62	5	9%	76	19	34%	61	4	8%	75	18	32%
	3061	3127	3061-3127	29	40	11	39%	49	20	69%	39	11	37%	49	20	69%	40	11	38%	49	20	69%
	3127	3185	3127-3185	35	49	14	39%	59	24	69%	48	13	37%	59	24	69%	49	13	38%	59	24	69%
	3185	3254	3185-3254	25	27	2	8%	30	5	19%	27	2	9%	30	5	19%	27	2	8%	30	5	20%
	3254	3296	3254-3296	15	17	2	13%	19	4	30%	17	2	13%	19	4	30%	17	2	13%	19	5	30%
	3296	3349	3296-3349	20	20	0	-2%	22	1	7%	20	0	-2%	22	1	7%	20	0	-2%	22	1	7%
	3349	3399	3349-3399	13	13	0	1%	14	1	7%	13	0	2%	14	1	7%	13	0	2%	14	1	7%
	3399	4629	3399-4629	13	14	0	4%	14	1	6%	14	0	4%	14	1	6%	14	0	4%	14	1	6%
	4629	3478	4629-3478	47	100	53	112%	146	99	211%	101	54	115%	148	101	215%	100	53	112%	146	99	209%
	3478	3488	3478-3488	11	10	-1	-11%	14	2	22%	10	-1	-11%	14	2	22%	10	-1	-11%	14	2	22%
	3488	4539	3488-4539	13	13	0	1%	13	1	4%	13	0	1%	13	1	4%	13	0	1%	13	1	4%
	4539	3599	4539-3599	51	53	2	4%	68	18	35%	53	2	4%	69	18	36%	53	2	4%	68	18	35%
	3599	3602	3599-3602	4	4	0	6%	5	1	15%	4	0	5%	5	1	15%	4	0	6%	5	1	15%
	3602	3616	3602-3616	6	6	0	1%	7	0	4%	6	0	1%	7	0	4%	6	0	1%	7	0	4%
	3616	3644	3616-3644	20	20	0	2%	21	1	6%	20	0	2%	21	1	6%	20	0	2%	21	1	6%
	3644	3691	3644-3691	68	66	-2	-2%	72	4	6%	67	-2	-2%	71	3	5%	67	-2	-2%	71	3	5%
	3691	3704	3691-3704	14	14	0	1%	14	1	6%	14	0	1%	14	1	6%	14	0	1%	14	1	6%
	3704	3729	3704-3729	26	28	2	8%	41	15	56%	28	2	8%	41	15	56%	28	2	8%	41	15	56%
	3729	3731	3729-3731	3	3	0	3%	3	0	6%	3	0	3%	3	0	6%	3	0	3%	3	0	6%
	3731	3746	3731-3746	32	33	1	4%	34	2	6%	33	1	4%	34	2	6%	33	1	4%	34	2	6%
			Total (s)	**649**	**773**	124	19%	**962**	312	48%	**774**	125	19%	**963**	314	48%	**772**	123	19%	**960**	311	48%
			Time mm:ss	10:49	12:53	02:04		16:02	05:12		12:54	02:05		16:03	05:14		12:52	02:03		16:00	05:11	
Westbound	3745	3732	3745-3732	23	35	12	53%	53	30	134%	35	12	53%	54	32	139%	35	13	56%	54	31	137%
	3732	3704	3732-3704	26	26	0	1%	26	0	1%	26	0	1%	26	0	1%	26	0	1%	26	0	1%
	3704	3691	3704-3691	28	31	3	11%	46	17	61%	31	3	10%	45	17	59%	31	3	10%	43	15	53%
	3691	3644	3691-3644	62	65	2	4%	67	5	7%	65	2	4%	67	5	7%	65	2	4%	67	5	7%
	3644	3616	3644-3616	18	19	1	3%	19	1	5%	19	1	3%	19	1	5%	19	0	3%	19	1	5%
	3616	3607	3616-3607	19	26	7	35%	40	21	108%	26	7	35%	40	21	108%	26	7	35%	40	21	108%
	3607	3605	3607-3605	4	4	0	5%	5	0	10%	4	0	5%	5	0	10%	4	0	5%	5	0	10%
	3605	3601	3605-3601	4	5	0	7%	5	1	16%	5	0	7%	5	1	17%	5	0	7%	5	1	16%
	3601	4539	3601-4539	49	49	0	0%	51	1	3%	49	0	0%	51	1	3%	49	0	0%	51	1	3%
	4539	3488	4539-3488	22	19	-2	-11%	21	-1	-4%	19	-2	-11%	20	-1	-7%	19	-2	-11%	21	-1	-4%
	3488	3478	3488-3478	58	62	4	6%	74	16	28%	63	5	8%	75	17	30%	61	3	5%	75	17	29%
	3478	4629	3478-4629	20	20	0	1%	25	6	30%	20	0	0%	25	6	30%	19	0	0%	25	6	30%
	4629	3397	4629-3397	20	20	0	0%	27	6	32%	20	0	0%	27	6	32%	20	0	0%	27	6	32%
	3397	3345	3397-3345	16	15	-1	-7%	14	-1	-9%	15	-1	-7%	14	-1	-9%	15	-1	-7%	14	-1	-9%
	3345	3297	3345-3297	22	21	-2	-8%	20	-3	-11%	21	-2	-8%	20	-3	-11%	21	-2	-8%	20	-3	-11%
	3297	3259	3297-3259	16	18	2	15%	20	5	30%	18	2	16%	20	5	29%	18	2	15%	20	5	29%
	3259	3193	3259-3193	28	30	2	8%	32	4	16%	30	2	8%	32	4	15%	30	2	7%	32	4	15%
	3193	3126	3193-3126	24	27	3	11%	31	7	30%	27	3	12%	31	7	30%	27	3	11%	31	7	30%
	3126	3050	3126-3050	21	23	2	11%	27	6	30%	23	2	12%	27	6	30%	23	2	11%	27	6	30%
	3050	2981	3050-2981	27	28	1	5%	31	4	14%	28	1	5%	31	4	14%	28	1	5%	31	4	14%
	2981	2933	2981-2933	24	26	2	7%	29	5	20%	26	2	8%	29	5	20%	26	2	7%	29	5	22%
	2933	2917	2933-2917	35	36	1	3%	38	4	11%	36	1	3%	38	4	11%	36	1	3%	38	4	11%
	2917	2888	2917-2888	24	26	2	9%	31	7	29%	26	2	9%	31	7	29%	26	2	9%	31	7	29%
	2888	2878	2888-2878	7	7	1	9%	8	2	29%	7	1	9%	8	2	29%	7	1	9%	8	2	29%
			Total (s)	**596**	**636**	40	7%	**741**	144	24%	**638**	42	7%	**741**	145	24%	**636**	40	7%	**740**	143	24%
			Time mm:ss	09:56	10:36	00:40		12:21	02:24		10:38	00:42		12:21	02:25		10:36	00:40		12:20	02:23	
A174 (A19 - Greystones)																						
Eastbound	2772	2891	2772-2891	36	36	0	0%	36	0	1%	36	0	0%	36	0	0%	36	0	0%	36	0	0%
	2891	2928	2891-2928	12	12	0	4%	13	1	12%	12	0	4%	13	1	12%	12	0	4%	13	1	12%
	2928	3085	2928-3085	42	43	2	4%	47	5	12%	43	1	4%	47	5	12%	43	1	4%	47	5	12%
	3085	3226	3085-3226	27	27	0	0%	28	1	3%	27	0	0%	28	1	3%	27	0	0%	28	1	3%
	3226	3457	3226-3457	53	54	1	2%	59	6	12%	54	1	2%	59	6	12%	54	1	2%	59	7	12%
	3457	3493	3457-3493	14	14	0	1%	14	0	3%	14	0	1%	14	0	3%	14	0	1%	14	0	3%
	3493	3520	3493-3520	15	15	0	1%	16	1	3%	15	0	1%	16	0	3%	15	0	1%	16	1	3%
	3520	3633	3520-3633	58	60	1	2%	62	4	7%	60	1	2%	62	4	7%	60	1	2%	62	4	7%
	3633	3656	3633-3656	17	17	0	2%	18	1	7%	17	0	2%	18	1	7%	17	0	2%	18	1	7%
	3656	3711	3656-3711	56	58	2	3%	61	5	9%	58	2	3%	60	5	9%	58	2	3%	60	5	9%
	3711	3770	3711-3770	82	85	3	3%	89	7	9%	85	3	3%	89	7	9%	85	3	3%	89	7	9%
	3770	3774	3770-3774	46	88	42	92%	278	232	504%	89	43	93%	274	228	496%	88	42	92%	274	228	496%
			Total (s)	**456**	**508**	52	11%	**720**	263	58%	**509**	53	12%	**716**	260	57%	**508**	52	11%	**716**	260	57%
			Time mm:ss	07:36	08:28	00:52		12:00	04:23		08:29	00:53		11:56	04:20		08:28	00:52		11:56	04:20	
Westbound	3776	3771	3776-3771	20	20	0	1%	21	1	4%	20	0	1%	21	1	4%	20	0	1%	21	1	4%
	3771	3712	3771-3712	80	81	0	1%	83	3	4%	81	0	1%	83	3	4%	81	0	1%	83	3	4%
	3712	3657	3712-3657	54	54	0	1%	56	2	4%	54	0	1%	56	2	4%	54	0	1%	56	2	4%
	3657	3634	3657-3634	18	18	0	0%	18	1	3%	18	0	0%	18	1	3%	18	0	0%	18	1	3%
	3634	3529	3634-3529	56	56	0	0%	58	2	3%	56	0	0%	58	2	3%	56	0	0%	58	2	3%
	3529	3494	3529-3494	16	16	0	0%	17	0	2%	16	0	0%	17	0	2%	16	0	0%	17	0	2%
	3494	3465	3494-3465	10	10	0	0%	10	0	2%	10	0	0%	10	0	2%	10	0	0%	10	0	2%
	3465	3186	3465-3186	63	63	0	0%	66	4	6%	63	0	0%	66	4	6%	63	0	0%	66	3	6%
	3186	3034	3186-3034	30	30	0	0%	31	0	2%	30	0	0%	31	0	2%	30	0	0%	31	0	2%
	3034	2929	3034-2929	30	30	1	2%	32	3	9%	30	0	2%	32	3	8%	30	0	2%	32	3	8%
	2929	2864	2929-2864	22	22	0	2%	24	2	9%	22	0	2%	24	2	8%	22	0	2%	24	2	8%
	2864	2756	2864-2756	75	67	-8	-10%	109	34	45%	67	-8	-10%	108	33	44%	67	-8	-10%	108	33	44%
			Total (s)	**474**	**469**	-5	-1%	**525**	51	11%	**469**	-5	-1%	**525**	51	11%	**469**	-5	-1%	**525**	51	11%
			Time mm:ss	07:54	07:49	-5		08:45	00:51		07:49	-5		08:45	00:51		07:49	-5		08:45	00:51	

Change in PM Journey Time - Do Minimum + STRMP/ Do Something 1 /Do Something 2

	PM			2020 DM	2025 DM + STRMP			2035 DM + STRMP			2025 DS1 + STRMP			2035 DS1 + STRMP			2025 DS2 + STRMP			2035 DS2 + STRMP		
						Change from 2020 DM			Change from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM			Growth from 2020 DM	
				JT	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%	JT	Act	%
A66 (A19 - A1053/A1085 Rbt)																						
Eastbound	2880	2914	2880-2914	24	25	1	4%	27	3	12%	25	1	4%	27	3	12%	25	1	4%	27	3	12%
	2914	2927	2914-2927	37	39	2	5%	44	7	18%	39	2	5%	44	7	18%	39	2	5%	44	7	18%
	2927	2971	2927-2971	21	22	1	4%	25	4	17%	22	1	4%	25	4	17%	22	1	4%	25	4	17%
	2971	3061	2971-3061	35	36	1	3%	39	4	13%	36	1	3%	39	4	13%	36	1	4%	39	5	13%
	3061	3127	3061-3127	17	19	1	8%	20	3	18%	19	1	7%	21	3	19%	19	1	8%	21	3	18%
	3127	3185	3127-3185	21	23	2	8%	25	4	18%	23	2	7%	25	4	19%	23	2	8%	25	4	18%
	3185	3254	3185-3254	24	25	1	4%	25	1	6%	25	1	5%	25	1	6%	25	1	4%	25	1	6%
	3254	3296	3254-3296	15	16	1	8%	18	2	16%	16	1	7%	18	2	16%	16	1	8%	18	2	16%
	3296	3349	3296-3349	19	19	0	-1%	19	0	0%	19	0	-1%	19	0	0%	19	0	-1%	19	0	0%
	3349	3399	3349-3399	13	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	0%
	3399	4629	3399-4629	14	14	0	0%	14	0	0%	14	0	0%	14	0	0%	14	0	0%	14	0	0%
	4629	3478	4629-3478	75	73	-2	-3%	83	8	10%	72	-3	-4%	83	8	10%	71	-4	-5%	82	7	10%
	3478	3488	3478-3488	14	17	3	22%	22	8	62%	17	3	22%	22	8	62%	17	3	22%	22	8	62%
	3488	4539	3488-4539	13	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	0%	13	0	0%
	4539	3599	4539-3599	53	53	0	0%	52	0	0%	53	0	0%	52	0	0%	53	0	0%	52	0	0%
	3599	3602	3599-3602	5	5	0	1%	4	0	-1%	5	0	1%	4	0	-1%	5	0	1%	4	0	-1%
	3602	3616	3602-3616	7	7	0	3%	7	0	5%	7	0	3%	7	0	5%	7	0	3%	7	0	5%
	3616	3644	3616-3644	22	22	0	2%	23	1	7%	22	0	2%	23	2	7%	22	0	2%	24	2	7%
	3644	3691	3644-3691	86	88	2	3%	90	4	5%	88	2	3%	90	4	5%	89	3	4%	90	5	5%
	3691	3704	3691-3704	14	14	0	1%	14	0	3%	14	0	1%	14	0	3%	14	0	1%	14	0	3%
	3704	3729	3704-3729	28	31	2	7%	33	4	15%	31	2	7%	33	4	15%	31	2	7%	33	4	15%
	3729	3731	3729-3731	4	4	0	2%	4	0	3%	4	0	2%	4	0	3%	4	0	2%	4	0	3%
	3731	3746	3731-3746	36	45	9	24%	82	45	125%	45	9	24%	81	45	123%	45	9	24%	83	47	128%
			Total (s)	**596**	**620**	25	4%	**696**	100	17%	**620**	24	4%	**696**	100	17%	**621**	25	4%	**697**	102	17%
			Time mm:ss	09:56	10:20	00:25		11:36	01:40		10:20	00:24		11:36	01:40		10:21	00:25		11:37	01:42	
Westbound	3745	3732	3745-3732	17	18	1	8%	21	4	26%	18	1	8%	21	4	23%	18	1	8%	21	4	26%
	3732	3704	3732-3704	25	25	1	2%	26	2	6%	25	1	2%	26	2	6%	25	1	2%	26	2	6%
	3704	3691	3704-3691	28	32	4	14%	38	10	35%	32	4	14%	38	10	37%	32	4	14%	38	10	35%
	3691	3644	3691-3644	56	58	1	3%	59	3	5%	58	1	3%	59	3	5%	58	1	3%	59	3	5%
	3644	3616	3644-3616	17	17	0	1%	18	1	4%	17	0	1%	18	1	4%	17	0	1%	18	1	4%
	3616	3607	3616-3607	9	10	2	22%	14	6	66%	10	2	22%	14	6	66%	10	2	22%	14	6	66%
	3607	3605	3607-3605	3	4	0	7%	4	1	16%	4	0	7%	4	1	16%	4	0	7%	4	1	16%
	3605	3601	3605-3601	3	4	0	8%	4	1	17%	4	0	8%	4	1	17%	4	0	8%	4	1	17%
	3601	4539	3601-4539	48	48	1	1%	49	2	3%	48	1	1%	49	2	3%	48	1	1%	49	2	3%
	4539	3488	4539-3488	19	21	2	10%	25	6	30%	21	2	10%	25	6	30%	21	2	10%	25	6	30%
	3488	3478	3488-3478	37	52	15	41%	65	28	76%	52	15	41%	66	29	78%	53	16	44%	66	29	78%
	3478	4629	3478-4629	16	18	3	17%	23	7	48%	18	3	17%	23	7	48%	18	3	17%	23	8	49%
	4629	3397	4629-3397	16	19	3	17%	24	8	48%	19	3	17%	24	8	48%	19	3	17%	24	8	49%
	3397	3345	3397-3345	14	14	1	4%	16	2	15%	14	1	4%	16	2	15%	14	1	4%	16	2	15%
	3345	3297	3345-3297	20	21	1	7%	24	4	21%	21	1	6%	24	4	21%	21	1	6%	24	4	21%
	3297	3259	3297-3259	13	15	2	12%	17	4	27%	15	2	12%	17	4	27%	15	2	12%	17	4	28%
	3259	3193	3259-3193	25	27	3	12%	28	4	15%	27	3	12%	28	4	15%	27	3	12%	28	4	15%
	3193	3126	3193-3126	27	33	6	22%	43	16	60%	33	6	22%	43	16	60%	33	6	23%	43	16	60%
	3126	3050	3126-3050	23	28	5	22%	37	14	60%	28	5	22%	37	14	60%	28	5	23%	37	14	60%
	3050	2981	3050-2981	33	35	2	6%	38	5	17%	35	2	6%	38	5	17%	34	2	5%	38	6	17%
	2981	2933	2981-2933	44	54	9	21%	71	27	62%	53	9	21%	73	29	65%	54	9	21%	72	28	62%
	2933	2917	2933-2917	51	57	6	11%	70	18	36%	57	6	11%	70	19	37%	57	6	11%	70	19	37%
	2917	2888	2917-2888	56	65	9	17%	74	18	32%	65	9	17%	73	18	32%	65	9	17%	74	18	33%
	2888	2878	2888-2878	15	18	3	17%	20	5	32%	18	3	17%	20	5	32%	18	3	17%	20	5	33%
			Total (s)	**614**	**693**	79	13%	**808**	195	32%	**693**	79	13%	**810**	197	32%	**694**	81	13%	**810**	196	32%
			Time mm:ss	10:14	11:33	01:19		13:28	03:15		11:33	01:19		13:30	03:17		11:34	01:21		13:30	03:16	
A174 (A19 - Greystones)																						
Eastbound	2772	2891	2772-2891	37	37	0	-1%	39	2	4%	37	0	-1%	39	2	4%	37	0	-1%	39	2	4%
	2891	2928	2891-2928	13	13	0	1%	14	1	9%	13	0	1%	14	1	9%	13	0	1%	14	1	9%
	2928	3085	2928-3085	46	47	0	1%	51	4	9%	47	0	1%	51	4	9%	47	0	1%	51	4	9%
	3085	3226	3085-3226	27	27	0	0%	28	1	3%	27	0	0%	28	1	3%	27	0	0%	28	1	3%
	3226	3457	3226-3457	52	52	0	0%	56	4	8%	52	0	0%	56	4	8%	52	0	0%	56	4	8%
	3457	3493	3457-3493	13	13	0	0%	14	0	1%	13	0	0%	14	0	1%	13	0	0%	14	0	1%
	3493	3520	3493-3520	15	15	0	0%	15	0	1%	15	0	0%	15	0	1%	15	0	0%	15	0	1%
	3520	3633	3520-3633	58	58	0	0%	59	1	2%	58	0	0%	59	1	2%	58	0	0%	59	1	2%
	3633	3656	3633-3656	17	17	0	0%	17	0	2%	17	0	0%	17	0	2%	17	0	0%	17	0	2%
	3656	3711	3656-3711	55	55	0	0%	57	2	4%	55	0	0%	57	2	4%	55	0	0%	57	2	4%
	3711	3770	3711-3770	80	80	0	0%	84	3	4%	80	0	0%	84	3	4%	80	0	0%	84	3	4%
	3770	3774	3770-3774	40	40	1	2%	64	24	61%	40	1	2%	63	24	60%	40	1	2%	63	24	60%
			Total (s)	**453**	**455**	2	0%	**497**	44	10%	**455**	2	0%	**496**	43	10%	**455**	2	0%	**496**	43	10%
			Time mm:ss	07:33	07:35	00:02		08:17	00:44		07:35	00:02		08:16	00:43		07:35	00:02		08:16	00:43	
Westbound	3776	3771	3776-3771	21	21	1	3%	25	5	23%	21	1	3%	25	5	23%	21	1	3%	25	5	23%
	3771	3712	3771-3712	81	84	3	3%	100	18	23%	84	3	3%	100	18	23%	84	3	3%	100	18	23%
	3712	3657	3712-3657	54	56	2	3%	67	12	23%	56	2	3%	67	12	23%	56	2	3%	67	12	23%
	3657	3634	3657-3634	18	18	0	2%	20	3	15%	18	0	2%	20	3	15%	18	0	2%	20	3	15%
	3634	3529	3634-3529	57	58	1	2%	65	9	15%	58	1	2%	65	9	15%	58	1	2%	65	9	15%
	3529	3494	3529-3494	16	17	0	1%	18	1	8%	17	0	1%	18	1	8%	17	0	1%	18	1	8%
	3494	3465	3494-3465	10	10	0	1%	10	1	8%	10	0	1%	10	1	8%	10	0	1%	10	1	8%
	3465	3186	3465-3186	63	65	2	2%	75	12	18%	65	2	2%	75	12	18%	65	2	2%	75	11	18%
	3186	3034	3186-3034	30	31	0	1%	32	2	6%	31	0	1%	32	2	5%	31	0	1%	32	2	5%
	3034	2929	3034-2929	29	30	1	2%	34	4	15%	30	1	2%	34	4	15%	30	1	2%	33	4	14%
	2929	2864	2929-2864	22	22	0	2%	25	3	15%	22	0	2%	25	3	15%	22	0	2%	25	3	14%
	2864	2756	2864-2756	61	65	5	7%	66	5	8%	65	4	7%	67	6	10%	65	4	7%	67	6	10%
			Total (s)	**462**	**476**	14	3%	**537**	75	16%	**476**	13	3%	**537**	75	16%	**476**	13	3%	**538**	76	16%
			Time mm:ss	07:42	07:56	00:14		08:57	01:15		07:56	00:13		08:57	01:15		07:56	00:13		08:58	01:16	

Appendix I

Network Summary Statistics

Summary Statistics - Do Minimum + Do Minimum + STRMP

Sector	AM Vehicle KM	AM Vehicle Hours	AM Average Speed (kph)	PM Vehicle KM	PM Vehicle Hours	PM Average Speed (kph)
2020 Do Minimum						
All Other Areas	2,294,995	30,899	74.3	2,382,041	31,830	74.8
Middlesbrough	198,831	4,571	43.5	201,849	4,691	43.0
Redcar and Cleveland	181,656	3,165	57.4	190,214	3,413	55.7
Total	**2,675,482**	**38,635**		**2,774,104**	**39,934**	
% Change from 2020 T2 (Middlesbrough)	**NA**	**NA**		**NA**	**NA**	
% Change from 2020 T2 (R&C)	**NA**	**NA**		**NA**	**NA**	
% Change from 2020 T2 (Total)	**NA**	**NA**		**NA**	**NA**	
2025 Do Minimum						
All Other Areas	2,433,775	33,248	73.2	2,493,703	33,682	74.0
Middlesbrough	210,178	4,860	43.2	210,961	4,950	42.6
Redcar and Cleveland	189,959	3,374	56.3	196,598	3,589	54.8
Total	**2,833,911**	**41,482**		**2,901,261**	**42,221**	
% Change from 2020 T2 (Middlesbrough)	**6%**	**6%**	**-1%**	**5%**	**6%**	**-1%**
% Change from 2020 T2 (R&C)	**5%**	**7%**	**-2%**	**3%**	**5%**	**-2%**
% Change from 2020 T2 (Total)	**6%**	**7%**		**5%**	**6%**	
2030 Do Minimum						
All Other Areas	2,694,569	37,344	72.2	2,778,260	37,925	73.3
Middlesbrough	224,721	5,377	41.8	224,787	5,364	41.9
Redcar and Cleveland	204,958	3,722	55.1	212,521	3,930	54.1
Total	**3,124,249**	**46,443**		**3,215,568**	**47,219**	
% Change from 2020 T2 (Middlesbrough)	**13%**	**18%**	**-4%**	**11%**	**14%**	**-3%**
% Change from 2020 T2 (R&C)	**13%**	**18%**	**-4%**	**12%**	**15%**	**-3%**
% Change from 2020 T2 (Total)	**17%**	**20%**		**16%**	**18%**	
2035 Do Minimum						
All Other Areas	2,854,597	40,459	70.6	2,921,034	40,561	72.0
Middlesbrough	234,176	5,846	40.1	232,276	5,668	41.0
Redcar and Cleveland	214,184	4,018	53.3	220,427	4,163	53.0
Total	**3,302,957**	**50,323**		**3,373,737**	**50,392**	
% Change from 2020 T2 (Middlesbrough)	**18%**	**28%**	**-8%**	**15%**	**21%**	**-5%**
% Change from 2020 T2 (R&C)	**18%**	**27%**	**-7%**	**16%**	**22%**	**-5%**
% Change from 2020 T2 (Total)	**23%**	**30%**		**22%**	**26%**	

Sector	AM Vehicle KM	AM Vehicle Hours	AM Average Speed (kph)	PM Vehicle KM	PM Vehicle Hours	PM Average Speed (kph)
2020 Do Minimum + STRMP						
All Other Areas	2,308,752	31,132	74.2	2,393,546	32,026	74.7
Middlesbrough	202,090	4,724	42.8	204,628	4,816	42.5
Redcar and Cleveland	190,646	3,372	56.5	198,163	3,601	55.0
Total	**2,701,487**	**39,228**		**2,796,337**	**40,444**	
% Change from 2020 T2 (Middlesbrough)	**2%**	**3%**	**-2%**	**1%**	**3%**	**-1%**
% Change from 2020 T2 (R&C)	**5%**	**7%**	**-1%**	**4%**	**6%**	**-1%**
% Change from 2020 T2 (Total)	**1%**	**2%**		**1%**	**1%**	
2025 Do Minimum + STRMP						
All Other Areas	2,462,248	33,750	73.0	2,518,583	34,113	73.8
Middlesbrough	216,738	5,206	41.6	216,643	5,207	41.6
Redcar and Cleveland	207,722	3,855	53.9	212,307	4,027	52.7
Total	**2,886,709**	**42,811**		**2,947,534**	**43,347**	
% Change from 2020 T2 (Middlesbrough)	**9%**	**14%**	**-4%**	**7%**	**11%**	**-3%**
% Change from 2020 T2 (R&C)	**14%**	**22%**	**-6%**	**12%**	**18%**	**-5%**
% Change from 2020 T2 (Total)	**8%**	**11%**		**6%**	**9%**	
2030 Do Minimum + STRMP						
All Other Areas	2,740,426	38,219	71.7	2,824,324	38,831	72.7
Middlesbrough	234,499	5,993	39.1	232,535	5,718	40.7
Redcar and Cleveland	230,220	4,674	49.3	235,195	4,943	47.6
Total	**3,205,145**	**48,886**		**3,292,054**	**49,491**	
% Change from 2020 T2 (Middlesbrough)	**18%**	**31%**	**-10%**	**15%**	**22%**	**-5%**
% Change from 2020 T2 (R&C)	**27%**	**48%**	**-14%**	**24%**	**45%**	**-15%**
% Change from 2020 T2 (Total)	**20%**	**27%**		**19%**	**24%**	
2035 Do Minimum + STRMP						
All Other Areas	2,921,177	41,754	70.0	2,982,623	41,671	71.6
Middlesbrough	247,299	6,762	36.6	242,396	6,199	39.1
Redcar and Cleveland	245,978	5,523	44.5	248,255	6,003	41.4
Total	**3,414,453**	**54,039**		**3,473,274**	**53,872**	
% Change from 2020 T2 (Middlesbrough)	**24%**	**48%**	**-16%**	**20%**	**32%**	**-9%**
% Change from 2020 T2 (R&C)	**35%**	**74%**	**-22%**	**31%**	**76%**	**-26%**
% Change from 2020 T2 (Total)	**28%**	**40%**		**25%**	**35%**	

Report Tables	AM			PM		
Middlesbrough	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**
2020 Do Minimum (Ref)	198,831	4,571	43.5	201,849	4,691	43.0
2025 Do Minimum	210,178	4,860	43.2	210,961	4,950	42.6
Growth from Ref	6%	6%	-1%	5%	6%	-1%
2030 Do Minimum	224,721	5,377	41.8	224,787	5,364	41.9
Growth from Ref	13%	18%	-4%	11%	14%	-3%
2035 Do Minimum	234,176	5,846	40.1	232,276	5,668	41.0
Growth from Ref	18%	28%	-8%	15%	21%	-5%

Report Tables	AM			PM		
Middlesbrough	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**
2020 Do Minimum (Ref)	198,831	4,571	43.5	201,849	4,691	43.0
2020 Do Minimum + STRMP	202,090	4,724	42.8	204,628	4,816	42.5
Growth from Ref	2%	3%	-2%	1%	3%	-1%
2025 Do Minimum + STRMP	216,738	5,206	41.6	216,643	5,207	41.6
Growth from Ref	9%	14%	-4%	7%	11%	-3%
2030 Do Minimum + STRMP	234,499	5,993	39.1	232,535	5,718	40.7
Growth from Ref	18%	31%	-10%	15%	22%	-5%
2035 Do Minimum + STRMP	247,299	6,762	36.6	242,396	6,199	39.1
Growth from Ref	24%	48%	-16%	20%	32%	-9%

Report Tables	AM			PM		
Redcar and Cleveland	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**
2020 Do Minimum (Ref)	181,656	3,165	57.4	190,214	3,413	55.7
2025 Do Minimum	189,959	3,374	56.3	196,598	3,589	54.8
Growth from Ref	5%	7%	-2%	3%	5%	-2%
2030 Do Minimum	204,958	3,722	55.1	212,521	3,930	54.1
Growth from Ref	13%	18%	-4%	12%	15%	-3%
2035 Do Minimum	214,184	4,018	53.3	220,427	4,163	53.0
Growth from Ref	18%	27%	-7%	16%	22%	-5%

Report Tables	AM			PM		
Redcar and Cleveland	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**	**Vehicle KM**	**Total Vehicle Hours**	**Average Speed (kph)**
2020 Do Minimum (Ref)	181,656	3,165	57.4	190,214	3,413	55.7
2020 Do Minimum + STRMP	190,646	3,372	56.5	198,163	3,601	55.0
Growth from Ref	5%	7%	-1%	4%	6%	-1%
2025 Do Minimum + STRMP	207,722	3,855	53.9	212,307	4,027	52.7
Growth from Ref	14%	22%	-6%	12%	18%	-5%
2030 Do Minimum + STRMP	230,220	4,674	49.3	235,195	4,943	47.6
Growth from Ref	27%	48%	-14%	24%	45%	-15%
2035 Do Minimum + STRMP	245,978	5,523	44.5	248,255	6,003	41.4
Growth from Ref	35%	74%	-22%	31%	76%	-26%