



Wirral Local Plan

Preferred Option Modelling Report

February 2021

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Wirral Local Plan

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Executive summary

Wirral Council has appointed Mott MacDonald to conduct modelling assessments of the draft Wirral Local Plan. An updated version of Option 1A: Urban Intensification, has been recognised following previous modelling work undertaken by Mott MacDonald to be the Preferred Option. The Preferred Option is assessed by considering committed planning applications, Strategic Housing Land Availability Assessments (SHLAA), completions from 2015-present day, windfall housing allocations, demolition numbers, housing and employment supply sites, using data provided by Wirral Council. The output of this study is a determination of the effect of these forecasts on the existing highway network.

The scope of work comprises of developing four highway forecasts (Baseline and Preferred Option Local Plan for both 2025 and 2037) that will account for traffic changes associated with proposed housing and employment scenarios together with any committed network updates. A further assessment at the end of the Local Plan period to investigate the effects of several strategic highway schemes has also been undertaken.

The forecasts have been developed based on the 2015 calibrated/validated base year Wirral Traffic Model (WTM). The WTM has been developed using SATURN software, which allows the impact of changes in traffic volumes on junction performance to be assessed.

The model scenarios that have been assessed are defined below:

- Baseline 2025 and 2037
- Wirral Local Plan Preferred Option 2025 and 2037
- Wirral Local Plan Baseline and Preferred Option plus Strategic Schemes 2037

Model forecasts for the defined scenarios have been prepared for the following time periods:

- AM peak (08:00 - 09:00)
- Inter peak (IP) (average hour 10:00 - 16:00)
- PM peak (17:00 - 18:00)

Inputs

Table 1.1 presents a summary of the residential forecasts for each scenario and Table 1.2 presents a summary of the employment forecasts for each scenario.

The Wirral Local Plan Preferred Option comprises proposed urban housing allocations together with relevant allowances for net gains from conversions, changes of use, windfalls and empty homes. Several broad locations for growth are proposed in and around Birkenhead, New Brighton and West Kirby, covering years 6-10 and 11-15 of the plan period where further acceleration and intensification could deliver additional housing supply in the plan period. The option also includes proposed urban employment allocations totalling 55 hectares.

The Preferred Option also contains planning permissions, completions and demolitions in addition to the aforementioned developments.

Table 1.1: Housing Summary (Additional Housing)

Housing Type (Total Units)	Baseline 2025	Baseline 2037	Preferred 2025	Preferred 2037
2015 to 2020 housing completions	3,388	3,388	3,388	3,388
Planning permissions	2,357	2,628	2,357	2,628
Windfalls, demolitions, conversions, new builds and empty homes	1,000	3,210	1,000	3,210
Regeneration areas	0	0	0	4,425
Site trajectory	0	0	1,877	8,151
2020 SHLAA	955	4,788	0	0
Total Additional Housing	7,700	14,014	8,622	21,802

Table 1.2: Employment Summary (Additional Employment)

Employment Type (Jobs)	Baseline 2025	Baseline 2037	Preferred 2025	Preferred 2037
SHELMA (trend based)	1,933	1,933	1,933	1,933
Wirral Employment Land and Premises Study	1,136	2,033	1,136	2,033
Total Growth	3,069	3,966	3,069	3,966

Results

Table 1.3 summarises the number of junctions with a volume over capacity ratio (V/C) of over 85% in each scenario. A V/C of over 85% indicates that a junction will be experiencing congestion.

Table 1.4 shows the number of additional junctions with a V/C greater than 85% compared to the Base Year or Baseline scenario.

The modelling has not considered any onsite or offsite junction improvements or mitigation measures for any of the sites; it represents the situation on the current network plus committed highway schemes with the exception of the strategic schemes scenarios.

Table 1.3: Number of Junctions Over Capacity by Scenario

	Base Year	2025 Baseline	2025 Preferred Option	2037 Baseline	2037 Preferred Option	2037 Baseline plus Strategic Schemes	2037 Preferred Option plus Strategic Schemes
AM	71	148	149	167	174	168	180
IP	26	62	62	84	89	84	88
PM	78	121	121	143	148	151	152

Table 1.4: Additional Junctions Over Capacity Compared to the Base Year or Baseline

	Difference 2025 Baseline - Base Year	Difference 2025 Preferred Option - Baseline	Difference 2037 Baseline - Base Year	Difference 2037 Preferred Option - Baseline	Difference 2037 plus Strategic Schemes Baseline - Base Year	Difference 2037 plus Strategic Schemes Preferred Option - Baseline
AM	77	1	96	7	97	12
IP	36	0	58	5	58	4
PM	43	0	65	5	73	1

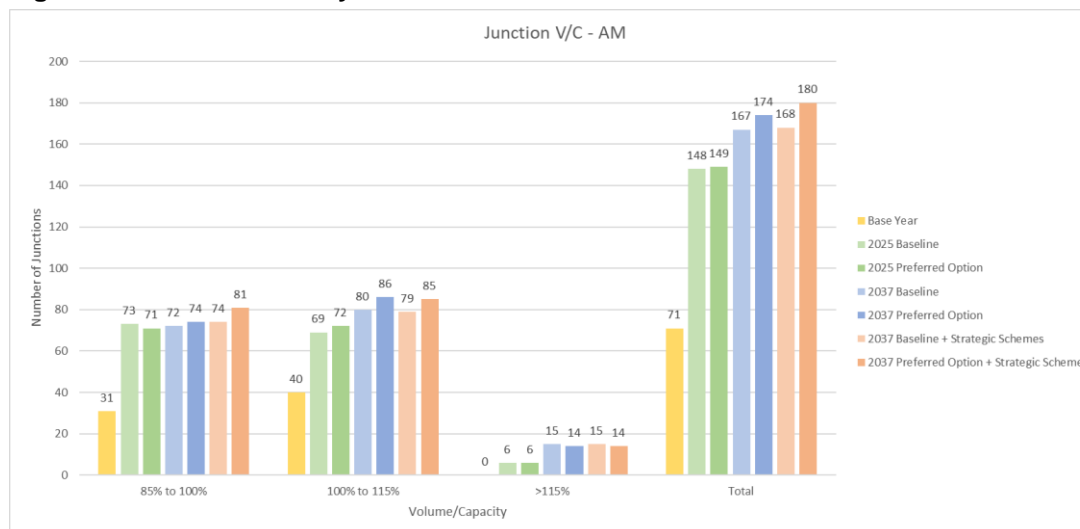
The results of the modelling assignments show that:

- In the 2025 Baseline there are 77 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 36 in the IP and 43 in the PM. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the borough, along the M53 and A41 corridors and within Birkenhead town centre. To the west, such junctions are forecast to be along West Kirby access corridors or within the Heswall area.
- In the 2037 Baseline there are 96 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 58 in the IP and 65 in the PM. Similar to the Base Year, the junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the borough, along the M53 and A41 corridors and within Birkenhead town centre. To the west, such junctions are forecast to be along West Kirby access corridors or within the Heswall area. There are two junctions in the AM period, within the Greasby area which are forecast to exceed 115% capacity: Mill Lane/Greasby Road and B5139/Pump Lane/Well Lane.
- In the 2037 Baseline plus Strategic Schemes there are 97 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 58 in the IP and 73 in the PM. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the borough, along the M53 and A41 corridors and within Birkenhead town centre. To the east, such junctions are forecast to be along West Kirby access corridors or within the Heswall area. There are three junctions in the AM period, one at Junction 5 M53 and two within the Greasby area which are forecast to exceed 115% capacity: Mill Lane/Greasby Road and B5139/Pump Lane/Well Lane.
- In the 2025 Preferred Option there is only one additional junction that is forecast to have a V/C ratio at or above 85% compared with the Baseline. There are two junctions that are forecast to experience significant reductions in capacity, within Birkenhead town centre on the approach to Queensway Tunnel in the AM period and Junction 4 M53 in the PM period.
- In the 2037 Preferred Option there are 7 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the Baseline scenario the AM, 5 in the IP and 5 in the PM. There are four junctions that are forecast to experience significant reductions in capacity with two in the AM and two in the PM periods. In the AM Budworth Road/Wexford Road and Allport Lane/Acre Lane have a forecast capacity greater than 85%, and Junction 1 M53 and Bebington Road/Old Chester Road are the two junctions in the PM period.
- In the 2037 Preferred Option plus Strategic Schemes there are 12 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the Baseline scenario the AM, 4 in the IP and 1 in the PM. The junctions that are forecast to experience significant

reductions in capacity are generally focussed to the east of the borough, along the M53 and A41 corridors and within Birkenhead town centre.

Across all future year scenarios, the AM has a higher number of junctions over capacity than the IP or PM. Therefore, the AM has been used as the basis of the following comparisons to consider the worst-case scenario. Figure 1.1 presents the number of junctions over capacity by scenario and V/C band.

Figure 1.1: Junction V/C by Band and Scenario – AM



The trend of increasing junctions that are over capacity, across all scenarios, is consistent with the increases in developments expected throughout the forecast years of 2025 and 2037. The additional demand throughout the borough, from Baseline developments introduced, drive the decrease in available capacity at a significant number of modelled junctions, with there being a 52% increase in AM peak junctions forecast to be operating over 85% capacity from the 2015 Base Year to 2025 Baseline, and a further 11% increase from the 2025 Baseline to the 2037 Baseline.

The impact of the Wirral Local Plan Preferred Option is relatively moderate when compared against the relevant Baseline scenario. The two forecast years of 2025 and 2037 illustrate this, where there is a total of only 1 additional junction which has a V/C ratio of greater than 85% between the 2025 Baseline and Preferred Option scenario. This increases to 17 additional junctions which are forecast to exceed the V/C threshold of 85% between the 2037 Baseline and Preferred Option scenarios.

The inclusion of the Strategic Schemes, specifically the Wirral Waters and A41/Green Corridor schemes, are forecast to have a positive effect on network performance and capacity along the corridors to which the schemes are local to. The highway assessment metrics for the Preferred Option plus Strategic Schemes scenario illustrate the impact of the schemes on the network, specifically in the comparison of traffic flows where there is a limited increase in flow on links surrounding the schemes, compared against the greater increases forecast for the without schemes scenario. However, the impact of the schemes across the whole Wirral borough network is forecast to increase the total number of junctions deemed to be over capacity. Across all periods, there are 7 junctions that have a V/C ratio greater than 85% for the Baseline with Strategic Schemes compared with the Baseline without Strategic Schemes. This number

increases to 9 junctions over the 85% V/C threshold when the Wirral Local Plan Preferred Option is modelled.

The core modelled area for the Wirral Traffic Model is Wirral borough. In this area the traffic model represents the highway network, traffic volumes and network performance in some detail. Outside of the core modelled area, there is a reduced level of model detail and so traffic volumes and network performance are not so well represented.

In carrying out the modelling assessment for the Wirral Local Plan strategic spatial options, the quantum of development and use of specific land allocations throughout the borough has been considered. For neighbouring authorities, the modelling assessment takes account of the Department for Transport's (DfT) forecasts of background traffic growth included in the National Trip End Model (NTEM) – traffic associated with specific future developments or land allocations are not explicitly represented. These points should be noted when interpreting outputs from the WTM, e.g. traffic volumes and network performance, in locations outside of the core modelled area.

The ensuing phases of this assessment would include potential modelling of the mitigation measures identified through transport feasibility studies and transport assessments of each of the site allocations. This would enable the impact on the network to be understood once these mitigation measures are in place and identify areas where further mitigation may be required.

1 Introduction

Wirral Council has appointed Mott MacDonald to conduct modelling assessments of the draft Wirral Local Plan. An updated version of Option 1A: Urban Intensification, has been recognised following previous modelling work undertaken by Mott MacDonald to be the Preferred Option. The Preferred Option is assessed by considering committed planning applications, Strategic Housing Land Availability Assessments (SHLAA), completions from 2015-present day, windfall housing allocations, demolition numbers, housing and employment supply sites, using data provided by Wirral Council. The output of this study is a determination of the effect of these forecasts on the existing highway network.

This report details the full set of modelling reports, providing details of the key inputs, methods and results.

1.1 Scope of Work

The scope of work comprises of developing four highway forecasts (Baseline and Preferred Option Local Plan for both 2025 and 2037) that will account for traffic changes associated with proposed housing and employment scenarios together with any committed network updates. A further assessment at the end of the Local Plan period to investigate the effects of several strategic highway schemes has also been undertaken.

The forecasts have been developed based on the 2015 calibrated/validated base year Wirral Traffic Model (WTM). The WTM has been developed using SATURN software, which allows the impact of changes in traffic volumes on junction performance to be assessed.

The model forecasts have been developed for the forecast years of 2025 and 2037, the latter to reflect the end of the Local Plan period.

The demand forecasting has been undertaken in the Liverpool City Region Transport Model (LCRTM) to make use of its detailed forecasting mechanisms¹, and the output matrices converted to WTM zones and assigned in WTM.

The model scenarios that have been assessed are defined below:

- Baseline 2025 and 2037
- Wirral Local Plan Preferred Option 2025 and 2037
- Wirral Local Plan Baseline and Preferred Option plus Strategic Schemes 2037

The Wirral Local Plan Preferred Option comprises proposed urban housing allocations together with relevant allowances for net gains from conversions, changes of use, windfalls and empty homes. Several broad locations for growth are proposed in and around Birkenhead, New Brighton and West Kirby, covering years 6-10 and 11-15 of the plan period where additional acceleration and intensification could deliver additional housing supply in the plan period. The option also includes proposed urban employment allocations totalling 55 hectares.

The Preferred Option also contains planning permissions, completions and demolitions in addition to the aforementioned developments.

¹LCRTM2012_v3b_TEMPRO7.2_ForecastingReport_RevA_v1

Model forecasts for the defined scenarios have been prepared for the following time periods:

- AM peak (08:00 - 09:00).
- Inter peak (IP) (average hour 10:00 - 16:00).
- PM peak (17:00 - 18:00).

1.2 Report Structure

The structure of this report is as follows:

- Section 2 – presents residential and employment developments identified for each scenario
- Section 3 – presents the demand forecasts for the model scenarios
- Section 4 – documents highway network and public transport schemes and assumptions
- Section 5 – presents the results of the highway assessments for each scenario
- Section 6 – presents the conclusions from the traffic modelling

This report is supported by the following appendices:

- Appendix A – presents the housing and employment numbers for each scenario by LCRTM zone
- Appendix B – presents a full list of the sites included in each scenario
- Appendix C – presents the trip generation methodology in LCRTM
- Appendix D – presents the methodology for the LCRTM demand model
- Appendix E – presents details of which junctions are over capacity in each time period
- Appendix F – presents model convergence statistics
- Appendix G – provides a glossary of modelling terms

2 Forecast Year Developments

This section of the report provides details of the residential and employment developments for each of the forecast year scenarios tested.

Developments have been split into residential and employment categories. Residential developments have been used to calculate the production of trips within model zones and employment has been used to calculate the attraction of trips to model zones.

2.1 Forecast Development Sources

Wirral Council have provided residential development information for those sites that are expected to be included within the Wirral Local Plan. This data has come from the following sources:

Table 2.1: Wirral Local Plan Residential Developments

Name	Description
2015 to 2020 housing completions	Combined housing completion data from the start of 2015 to the end of 2020
Planning permissions Baseline	Housing completions from 2020 to the end of 2037 for the baseline scenario
Planning permissions Preferred	Housing completions from 2020 to the end of 2037 for the preferred scenario
2020 Strategic Housing Land Availability Assessment (SHLAA)	The 2020 SHLAA has the expected housing developments in the Baseline scenario
New build windfalls, conversions, demolitions and empty homes (Windfalls)	The borough of Wirral has expected rates of new builds, conversions, demolitions and re-occupation of empty homes for each area from 2020 based on historical data. Note: Demolitions are a reduction in housing
Regeneration areas	Regeneration areas are additional housing sites to be delivered from 2020 to 2037 in the preferred scenario.
Site trajectory	The site trajectory replaces the 2020 SHLAA data for the future expected housing developments from 2020 to 2037 in the preferred scenario.

Outside of Wirral, residential growth has been forecast using the Strategic Housing and Employment Land Market Assessment 2017 (SHELMA)², within the Liverpool City Region (LCR) and the National Trip End Model (NTEM)³ for areas outside the LCR.

Provided by Wirral Council, the Wirral Employment Land and Premises Study (WELPS)⁴ provides predictions of the future Full Time Equivalent (FTE) jobs in Wirral District for business between 2020 and 2040. Change to business jobs between the base year 2015 to 2020 has been identified from SHELMA yearly rate data. Other and retail jobs have been predicted using SHELMA and NTEM data.

More information on the trip generation model is provided in Appendix C.

² SHELMA Consultation Copy, GL Hearn, January 2017

³ NTEM7.2 data, DfT, 01 March 2017

⁴ Wirral Employment Land and Premises Study Draft Final v3, Avison Young, November 2020

2.2 Forecast Scenarios and Development Data

The residential and employment development data supplied by Wirral Council includes build out rates and site locations. This data has allowed for Baseline and Preferred Option scenarios to be developed for the forecast years of 2025 and 2037.

Whilst the employment developments are expected to remain the same between the Baseline and Preferred Option scenarios, the residential developments differ. The residential developments forecast for use in the Baseline and Preferred Option scenarios are detailed below.

Baseline scenario residential developments:

- 2015 to 2020 housing completions
- Planning permissions
- New build windfalls, conversions, demolitions and empty homes (Windfalls)
- 2020 SHLAA

Preferred Option scenario residential developments:

- 2015 to 2020 housing completions
- Planning permissions
- New build windfalls, conversions, demolitions and empty homes (Windfalls)
- Site trajectory
- Regeneration areas

SHELMA and the WELPS provides estimates for the total business jobs in Wirral District. The WELPS was used to obtain the forecast changes in employment for the Wirral Local Plan between 2020 and 2037. The forecast SHELMA figures do not change between the model years of 2025 and 2037.

Baseline and Preferred Option scenario employment developments:

- SHELMA (2015-2020)
- WELPS (2020-2040)

The defined jobs have been allocated to model zones proportionally, using development sites provided by Wirral Council. Employment figures for the forecast years 2025 and 2037 were calculated using the site build out rate also provided by Wirral Council.

Figure 2.1 and Figure 2.2 show the locations of the residential and employment sites for both the Baseline and Preferred Option scenarios respectively.

Figure 2.1: Baseline Development Sites



Figure 2.2: Preferred Option Development Sites



The following sections of this report present the details of the developments included in each scenario. Appendix B provides a listing of all sites included in each scenario.

2.2.1 2025 Baseline

Table 2.2 and Table 2.3 summarise the residential and employment forecasts for the 2025 Baseline scenario. Appendix Table A.1 and Table A.5 details the residential and employment numbers by LCRTM zone respectively.

Table 2.2: 2025 Baseline residential developments and units

Data source	2025 Residential Units
2015 to 2020 housing completions	3,388
Planning permissions	2,357
Windfalls, demolitions, conversions, new builds and empty homes	1,000
2020 SHLAA	955
Total	7,700

Table 2.3: 2025 Baseline employment developments and jobs

Data source	2025 Jobs
SHELMA (trend based)	1,933
Wirral Employment Land and Premises Study	1,136
Total	3,069

2.2.2 2025 Preferred Option

Table 2.4 and Table 2.5 summarise the residential and employment forecasts for the 2025 Preferred Option scenario. Appendix Table A.3 and Table A.5 details the residential and employment numbers by LCRTM zone respectively.

Table 2.4: 2025 Preferred Option residential developments and units

Data source	2025 Residential Units
2015 to 2020 housing completions	3,388
Planning permissions	2,357
Windfalls, demolitions, conversions, new builds and empty homes	1,000
Regeneration areas	0
Site trajectory	1,877
Total	8,622

Table 2.5: 2025 Preferred Option employment developments and jobs

Data source	2025 Jobs
SHELMA (trend based)	1,933
Wirral Employment Land and Premises Study	1,136
Total	3,069

2.2.3 2037 Baseline

Table 2.6 and Table 2.7 summarise the residential and employment forecasts for the 2037 Baseline scenario. Appendix Table A.2 and Table A.6 details the residential and employment numbers by LCRTM zone respectively.

Table 2.6: 2037 Baseline residential developments and units

Data source	2037 Residential Units
2015 to 2020 housing completions	3,388
Planning permissions	2,628
Windfalls, demolitions, conversions, new builds and empty homes	3,210
2020 SHLAA	4,788
Total	14,014

Table 2.7: 2037 Baseline employment developments and jobs

Data source	2037 Jobs
SHELMA (trend based)	1,933
Wirral Employment Land and Premises Study	2,033
Total	3,966

2.2.4 2037 Preferred Option

Table 2.8 and Table 2.9 summarise the residential and employment forecasts for the 2037 Preferred Option scenario. Appendix Table A.4 and Table A.6 details the residential and employment numbers by LCRTM zone.

Table 2.8: 2037 Preferred Option residential developments and units

Data source	2037 Residential Units
2015 to 2020 housing completions	3,388
Planning permissions	2,628
Windfalls, demolitions, conversions, new builds and empty homes	3,210
Regeneration areas	4,425
Site trajectory	8,151
Total	21,802

Table 2.9: 2037 Preferred Option employment developments and jobs

Data source	2037 Jobs
SHELMA (trend based)	1,933
Wirral Employment Land and Premises Study	2,033
Total	3,966

2.3 Forecast Development Summary

Table 2.10 presents a summary of the residential forecasts for each scenario and Table 2.11 presents a summary of the employment forecasts for each scenario.

Table 2.10: Residential Summary

Housing Type (Total Units)	Baseline 2025	Baseline 2037	Preferred 2025	Preferred 2037
2015 to 2020 housing completions	3,388	3,388	3,388	3,388
Planning permissions	2,357	2,628	2,357	2,628
Windfalls, demolitions, conversions, new builds and empty homes	1,000	3,210	1,000	3,210
Regeneration areas	0	0	0	4,425
Site trajectory	0	0	1,877	8,151
2020 SHLAA	955	4,788	0	0
Total Additional Housing	7,700	14,014	8,622	21,802

Table 2.11: Employment Summary

Employment Type (Jobs)	Baseline 2025	Baseline 2037	Preferred 2025	Preferred 2037
SHELMA (trend based)	1,933	1,933	1,933	1,933
Wirral Employment Land and Premises Study	1,136	2,033	1,136	2,033
Total Growth	3,069	3,966	3,069	3,966

3 Forecast Year Demand Matrices

This section of the report presents the method used to develop the demand matrices to represent each of the land use scenarios. LCRTM has been used to produce the matrices, which have subsequently been converted to WTM zones.

Model forecasts have been developed for the forecast years of 2025 and 2037.

The forecasts have been developed for the time periods:

- AM peak (08:00-09:00)
- Inter peak (IP) (average hour 10:00 - 16:00)
- PM peak (17:00-18:00)

The forecasts have been created for all model user classes:

- Car Commute
- Car Other
- Car Employers Business (EB)
- LGV
- OGV

3.1 Methodology

The following process has been used to create the future year WTM matrices:

- The WTM base year matrices were converted to LCRTM zones. This process is described in section 3.1.1.
- The LCRTM demographic and land-use projections were updated for Wirral District using the residential and employment information discussed in Section 2.
- The LCRTM trip generation process was undertaken, pivoting off the WTM base year matrices at LCRTM zone level.
- The LCRTM variable demand model was run with the forecast year demand to incorporate variable demand impacts.
- The output matrices were converted to WTM zone to form the WTM forecast matrices (see section 3.4).

3.1.1 LCRTM – WTM Zone Conversion

For the purposes of transferring demand matrices between models, a correspondence has been created between the LCRTM and WTM model zoning systems. The LCRTM has 467 zones and the WTM has 668 zones, the latter of which are largely a disaggregation of the LCRTM zones.

When undertaking a conversion from WTM to LCRTM it is simply a case of aggregating the WTM matrices to the respective LCRTM zones. However, to convert from LCRTM to WTM a correspondence is required.

This correspondence is created by identifying a WTM zone and a subsequent corresponding LCRTM zone. This process is repeated until every WTM zone is assigned to a corresponding

LCRTM zone. Should a WTM zone crosses LCRTM zone boundaries the correspondence is made to include both instances of the model zones.

Trip end data from the WTM matrix is then used to create a correspondence to convert between LCRTM and WTM zones by user class and time period where:

- The user classes are Commute, Other, EB, LGV and OGV
- The time periods are AM, IP and PM

The final correspondence between both models is then created by:

- Aggregating the WTM base year matrix to trip ends at WTM zone level
- Aggregating WTM base year matrices to trip ends at LCRTM zone level
- Dividing the WTM trip ends by the LCRTM trip ends to calculate the proportion of each WTM trip end within the LCRTM zone, by origin and destination

3.2 Forecasting Process

The full LCRTM application includes components representing six travel responses comprising of: trip generation, mode choice, time period choice, trip distribution, departure time choice and highways assignment and public transport assignment.

The trip generation process takes land use and demographic forecasts to calculate trip growth. This growth is applied to the calibrated base year matrices to calculate forecast matrices.

The demand model focuses on mode choice (how people travel), time period choice (when people travel), trip distribution (where people travel) and departure time choice (the hour of the peak period in which people travel).

The assignment application within the LCRTM model provide details of the routes taken and network performance.

Appendix C describes the LCRTM trip generation process and Appendix D provides details of the LCRTM demand model.

3.3 Reference Case Forecast Matrices

The reference case represents trip growth due to demographic and land-use changes. Sections 3.3.1 to 3.3.4 present the reference case forecast year matrix totals for Wirral District for each scenario.

Commute, Other and Employer's Business (EB) matrices are in person trips. Freight matrices are in vehicles. All numbers have been rounded to the nearest hundred.

3.3.1 2025 Baseline

Reference case future year matrix totals for the 2025 Baseline scenario are shown in Table 3.1 to Table 3.3.

Table 3.1: 2025 Baseline Reference Case Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	21,800	25,300	3,500	16%
Other	41,100	45,800	4,700	11%
EB	2,900	3,200	300	10%
LGV	4,700	5,400	700	15%
OGV	2,300	2,300	0	0%

Table 3.2: 2025 Baseline Reference Case Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	5,000	5,700	700	14%
Other	44,300	50,900	6,600	15%
EB	2,500	2,900	400	16%
LGV	4,000	4,500	500	13%
OGV	2,500	2,500	0	0%

Table 3.3: 2025 Baseline Reference Case Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	17,500	20,000	2,500	14%
Other	48,600	55,700	7,100	15%
EB	3,900	4,400	500	13%
LGV	3,700	4,300	600	16%
OGV*	1,100	1,100	0	0%

3.3.2 2025 Preferred Option

Reference case future year matrix totals for the 2025 preferred scenario are shown in Table 3.4 to Table 3.6.

Table 3.4: 2025 Preferred Reference Case Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	21,800	25,500	3,700	17%
Other	41,100	45,900	4,800	12%
EB	2,900	3,200	300	10%
LGV	4,700	5,400	700	15%
OGV	2,300	2,300	0	0%

Table 3.5: 2025 Preferred Reference Case Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	5,000	5,700	700	14%
Other	44,300	51,000	6,700	15%
EB	2,500	2,900	400	16%
LGV	4,000	4,500	500	13%
OGV	2,500	2,500	0	0%

Table 3.6: 2025 Preferred Reference Case Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	17,500	20,100	2,600	15%
Other	48,600	56,000	7,400	15%
EB	3,900	4,400	500	13%
LGV	3,700	4,300	600	16%
OGV*	1,100	1,100	0	0%

3.3.3 2037 Baseline

Reference case future year matrix totals for the 2037 Baseline scenario are shown in Table 3.7 to Table 3.9.

Table 3.7: 2037 Baseline Reference Case Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	21,800	26,100	4,300	20%
Other	41,100	50,300	9,200	22%
EB	2,900	3,300	400	14%
LGV	4,700	6,200	1,500	32%
OGV	2,300	2,400	100	4%

Table 3.8: 2037 Baseline Reference Case Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	5,000	5,800	800	16%
Other	44,300	55,200	10,900	25%
EB	2,500	3,000	500	20%
LGV	4,000	5,200	1,200	30%
OGV	2,500	2,500	0	0%

Table 3.9: 2037 Baseline Reference Case Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	17,500	20,200	2,700	15%
Other	48,600	60,700	12,100	25%
EB	3,900	4,600	700	18%
LGV	3,700	4,900	1,200	32%
OGV*	1,100	1,200	100	9%

3.3.4 2037 Preferred Option

Reference case future year matrix totals for the 2037 preferred scenario are shown in Table 3.10 to Table 3.12.

Table 3.10: 2037 Preferred Reference Case Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	21,800	26,900	5,100	23%
Other	41,100	52,400	11,300	27%
EB	2,900	3,400	500	17%
LGV	4,700	6,200	1,500	32%
OGV	2,300	2,400	100	4%

Table 3.11: 2037 Preferred Reference Case Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	5,000	6,000	1,000	20%
Other	44,300	57,300	13,000	29%
EB	2,500	3,100	600	24%
LGV	4,000	5,200	1,200	30%
OGV	2,500	2,500	0	0%

Table 3.12: 2037 Preferred Reference Case Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Total 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	17,500	20,900	3,400	19%
Other	48,600	62,800	14,200	29%
EB	3,900	4,700	800	21%
LGV	3,700	4,900	1,200	32%
OGV*	1,100	1,200	100	9%

3.4 Variable Demand Matrices

Variable demand matrix forecast year totals for Wirral District are shown in this section. These matrices are the output of the LCRTM demand model. The demand model takes the reference case matrices and adjusts them to account for generalised cost changes as a result of network changes.

All matrices are in vehicle trips. All numbers have been rounded to the nearest hundred.

3.4.1 2025 Baseline

Variable demand matrix future year totals for the 2025 Baseline scenario are shown in Table 3.13 to Table 3.15.

Table 3.13: 2025 Baseline Variable Demand Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	18,800	20,700	1,900	10%
Other	26,000	28,600	2,600	10%
EB	2,400	2,500	100	4%
LGV	4,700	5,400	700	15%
OGV	2,300	2,300	0	0%

Table 3.14: 2025 Baseline Variable Demand Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	4,300	5,000	700	16%
Other	28,600	33,200	4,600	16%
EB	2,000	2,400	400	20%
LGV	4,000	4,500	500	13%
OGV	2,500	2,500	0	0%

Table 3.15: 2025 Baseline Variable Demand Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	15,400	17,100	1,700	11%
Other	30,300	34,200	3,900	13%
EB	3,100	3,400	300	10%
LGV	3,700	4,300	600	16%
OGV	1,100	1,100	0	0%

3.4.2 2025 Preferred Option

Variable demand matrix future year totals for the 2025 Preferred Option scenario are shown in Table 3.16 to Table 3.18.

Table 3.16: 2025 Preferred Option Variable Demand Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	18,800	20,800	2,000	11%
Other	26,000	28,600	2,600	10%
EB	2,400	2,500	100	4%
LGV	4,700	5,400	700	15%
OGV	2,300	2,300	0	0%

Table 3.17: 2025 Preferred Option Variable Demand Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	4,300	5,000	700	16%
Other	28,600	33,400	4,800	17%
EB	2,000	2,400	400	20%
LGV	4,000	4,500	500	13%
OGV	2,500	2,500	0	0%

Table 3.18: 2025 Preferred Option Variable Demand Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2025	Difference 2015 - 2025	Percentage Difference 2015 - 2025
Commute	15,400	17,200	1,800	12%
Other	30,300	34,400	4,100	14%
EB	3,100	3,400	300	10%
LGV	3,700	4,300	600	16%
OGV	1,100	1,100	0	0%

3.4.3 2037 Baseline

Variable demand matrix future year totals for the 2037 Baseline scenario are shown in Table 3.19 to Table 3.21.

Table 3.19: 2037 Baseline Variable Demand Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	18,800	20,600	1,800	10%
Other	26,000	31,100	5,100	20%
EB	2,400	2,400	0	0%
LGV	4,700	6,200	1,500	32%
OGV	2,300	2,400	100	4%

Table 3.20: 2037 Baseline Variable Demand Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	4,300	5,100	800	19%
Other	28,600	36,400	7,800	27%
EB	2,000	2,500	500	25%
LGV	4,000	5,200	1,200	30%
OGV	2,500	2,500	0	0%

Table 3.21: 2037 Baseline Variable Demand Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	15,400	17,100	1,700	11%
Other	30,300	37,100	6,800	22%
EB	3,100	3,400	300	10%
LGV	3,700	4,900	1,200	32%
OGV	1,100	1,200	100	9%

3.4.4 2037 Preferred Option

Variable demand matrix future year totals for the 2037 Preferred Option scenario are shown in Table 3.22 to Table 3.24.

Table 3.22: 2037 Preferred Option Variable Demand Matrix Totals, Wirral District – AM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	18,800	21,100	2,300	12%
Other	26,000	32,200	6,200	24%
EB	2,400	2,500	100	4%
LGV	4,700	6,200	1,500	32%
OGV	2,300	2,400	100	4%

Table 3.23: 2037 Preferred Option Variable Demand Matrix Totals, Wirral District – Average Inter Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	4,300	5,400	1,100	26%
Other	28,600	37,800	9,200	32%
EB	2,000	2,500	500	25%
LGV	4,000	5,200	1,200	30%
OGV	2,500	2,500	0	0%

Table 3.24: 2037 Preferred Option Variable Demand Matrix Totals, Wirral District – PM Peak Hour

User Class	Matrix Totals 2015	Matrix Totals 2037	Difference 2015 - 2037	Percentage Difference 2015 - 2037
Commute	15,400	17,600	2,200	14%
Other	30,300	38,200	7,900	26%
EB	3,100	3,500	400	13%
LGV	3,700	4,900	1,200	32%
OGV	1,100	1,200	100	9%

4 Forecast Year Highway Network

This section of the report documents the highway network assumptions that have been applied in the WTM for the Wirral Local Plan assessments.

4.1 Forecast Year Highway Improvement Schemes

Consultation has been undertaken with Wirral Council to identify whether there are any committed or 'most likely' highway improvement schemes to be included in the model.

The following improvement schemes have been included in the WTM for all scenarios:

- Introduction of a separate right lane and phase at Old Hall Road, Bromborough.
- Lane reduction at Leasowe Road, Leasowe.
- Introduction of an additional right turn lane at Liscard Road.
- Wirral Water Access Improvements – lane reductions at Duke Street, Park Road North, Cleveland Street and Price Street.
- Introduction of traffic signal control at the A554/M53 Interchange (M53 Junction 1).
- Introduction of traffic signal control at Greasby Road/Arrowe Road, Greasby.
- Lane reduction at New Chester Road, Rock Lane Road West and Bedford Road.
- Introduction of traffic signal control at New Chester Road, New Ferry Road and Grove Road.
- Change of signal phases at junctions: Balls Road East/Oxton Road, Borough Road/Prenton Road East, New Chester Road/Marine Drive, New Chester Road/Pool Lane, New Chester Road/Hesketh Way, New Chester Road/Old Hall Road Bromborough and Allport Road/Allport Lane.

4.1.1 Strategic Highway Schemes

Schemes relating to Wirral Waters, the A41 Corridor and the Green Corridor have been included as strategic highway schemes for the assessment of the Wirral Local Plan plus Strategic Schemes. A further two strategic schemes were also identified:

- Charing Cross Future High Streets Fund (FHSF) Proposal
- Conway Street Upgrade

The following tables contain a full breakdown of all the highway schemes that have been modelled for Wirral Waters, the A41 Corridor and the additional strategic schemes. Each table includes the phase, scheme and package name. For Wirral Waters and A41 Corridor, a drawing reference is also provided which are contained within the individual reports⁵. There are no drawing references for the other strategic schemes, however the names of the drawings provided have been included, alongside a description of the scheme and any assumptions that have been made for purposes of modelling.

Table 4.1 below contains a full breakdown of the highway schemes that have been modelled for the Wirral Waters project. For the purpose of the modelling, Phases 2 and 3 have been combined so the impacts of the combined schemes can be established.

⁵ Wirral Waters Preferred Options
A41 Corridor Preferred Options

Figure 4.1 shows the locations of the Wirral Waters Phase 1 and Phase 2/3 schemes. The junctions labelled as modelled junctions are those that have been changed as part of the scheme.

Table 4.1: Wirral Waters – Highway Schemes

Phase	Scheme	Package Name	Description/ Assumptions	Drawing Reference
Phase 1	A5139 Dock Road/A5088 Wallasey Bridge Road junction	Gateways to Wirral Waters	Roundabout changed to signalised junction.	392767-MMD-00-XX-DR-C-0001
	A5027 Dock Road/A554 Tower Road/A554 Birkenhead Road junction	Gateways to Wirral Waters	Improved signal junction.	392767-MMD-00-XX-DR-C-0002
	Duke Street/Corporation Road junction	Gateways to Wirral Waters	Roundabout changed to signalised junction.	392767-MMD-00-XX-DR-C-0006
	Wallasey Bridge Road Improvements	Gateways to Wirral Waters	Roundabout changed to signalised junction. Active travel scheme. Not modelled.	392767-MMD-00-XX-DR-C-0010
	A5027 Gorsey Lane/Kingsway tunnel junction improvements	Wirral Waters Supporting Highways	Roundabout has been signalised.	392767-MMD-00-XX-DR-C-0008
Phase 2/3	Replacement of Poulton Bridge with a fixed structure	Wirral Waters Cross-Dock Connectivity	No change in modelling terms.	392767-MMD-00-XX-DR-C-0006 392767-MMD-00-XX-DR-C-0006
	Replacement of Duke Street Bridge	Wirral Waters Cross-Dock Connectivity	No change in modelling terms.	392767-MMD-00-XX-DR-C-0002 392767-MMD-00-XX-DR-C-0008
	A5030 Beaufort Road/A5088 Wallasey Bridge Road junction improvements	Wirral Waters Supporting Highways	Improved roundabout. No change in modelling terms.	392767-MMD-00-XX-DR-C-0005
	Corporation Road/Cavendish Street/Cleveland Street junction improvements	Wirral Waters Supporting Highways	Improved roundabout. No change in modelling terms.	392767-MMD-00-XX-DR-C-0001 392767-MMD-00-XX-DR-C-0002 392767-MMD-00-XX-DR-C-0003 392767-MMD-00-XX-DR-C-0004 392767-MMD-00-XX-DR-C-0005

Figure 4.1: Wirral Waters – Highway Schemes

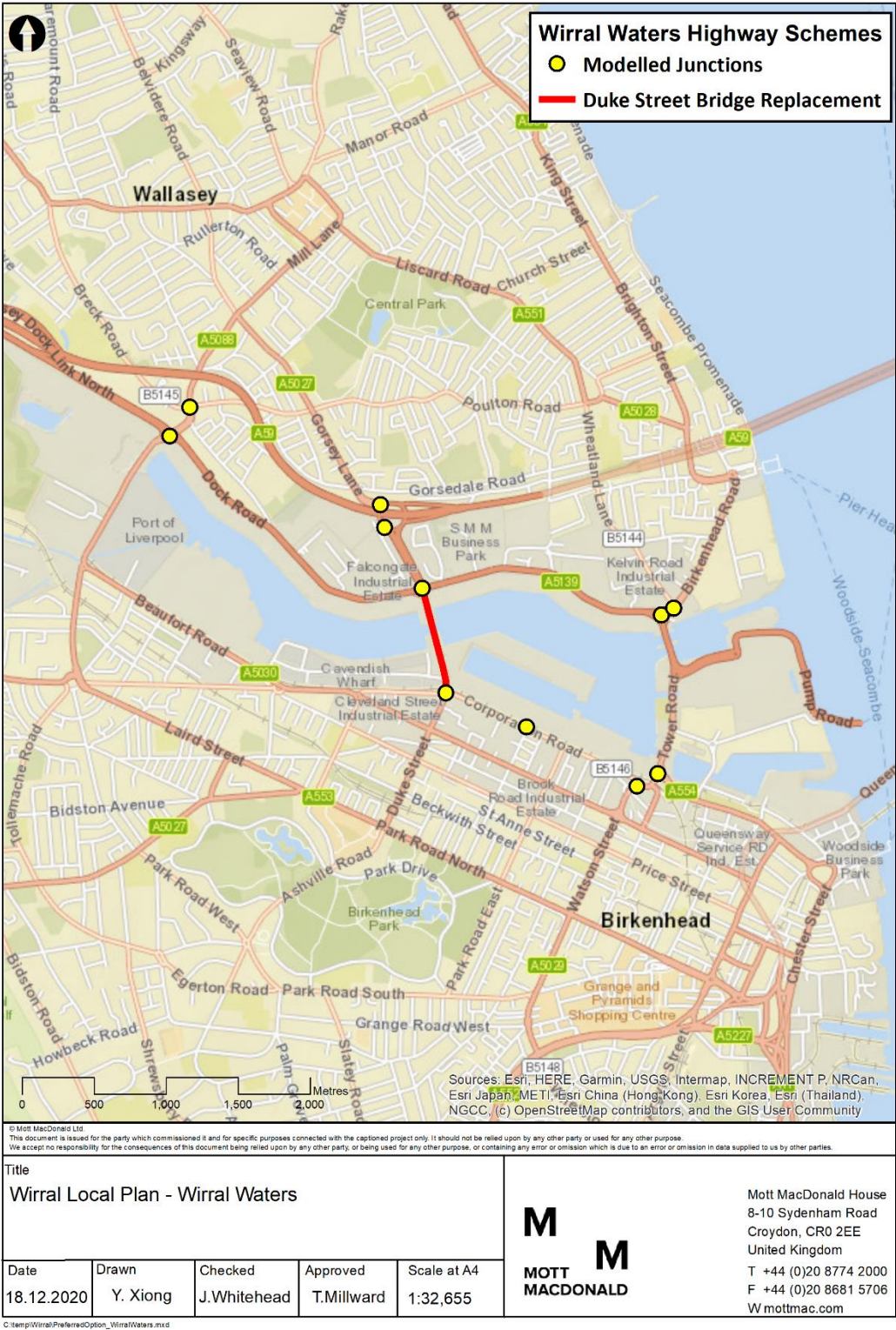


Table 4.2 below contains a full breakdown of the highway schemes that have been modelled for the A41 Corridor project.

Figure 4.2: A41/Green Corridor – Highway Schemes shows details of the A41 Corridor Phase 1 and 2 schemes. As Phase 1 is purely a construction phase it was decided not to model it independently. The junctions labelled as modelled junctions are those that have been changed as part of the scheme.

Table 4.2: A41/Green Corridor – Highway Schemes

Phase	Scheme	Package Name	Description/ Assumptions	Drawing Reference
Phase 1	A41 Chester Street highway alignment	Birkenhead town centre Gateways	Part of A41/A552/Flyover area remodelling.	392148-MMD-00-XX-DR-C-0005A
	Chester Street junction improvements	Birkenhead town centre Gateways	Part of A41/A552/Flyover area remodelling.	392148-MMD-00-XX-DR-C-0005A
	Birkenhead – local access road improvements	Birkenhead town centre Gateways	Reconnecting links in Birkenhead town centre to improve connectivity.	392148-MMD-00-XX-DR-C-0005A
	Improved public realm Argyle Street	Birkenhead town centre Streetscape	Downgraded to one lane in both directions.	392148-MMD-00-XX-DR-C-0003 392148-MMD-00-XX-DR-C-0004
	Public realm improvements: Conway Street	Birkenhead town centre Streetscape	Signal junctions replaced with priority junctions.	392148-MMD-00-XX-DR-C-0003
	Hamilton Street two-way outside station	Regenerating Woodside and Hamilton Square	Two-way road outside Hamilton Square Station closed to traffic and made bus only.	392148-MMD-00-XX-DR-C-0004
	Remove Hamilton Street/Duncan Street road closure	Regenerating Woodside and Hamilton Square	Hamilton Street/Duncan Street closure removed to allow traffic movements.	392148-MMD-00-XX-DR-C-0004
	Green Lane roundabout capacity improvements	A41 Site Access Improvements	Part of A41/A552/Flyover area remodelling.	392148-MMD-00-XX-DR-C-0007
	Ivy Street junction capacity improvements	A41 Site Access Improvements	3 arm signal junction.	392148-MMD-00-XX-DR-C-0006
	Campbeltown Road capacity improvements	A41 Site Access Improvements	Part of A41/A552/Flyover area remodelling.	392148-MMD-00-XX-DR-C-0007
Phase 2	A41/A552/Flyover area remodelling	A41 Site Access Improvements	Remodelling of links and roundabout junctions, with removal of flyovers to provide a series of roundabout junctions in phase 1.	392148-MMD-00-XX-DR-C-0004 392148-MMD-00-XX-DR-C-0005 392148-MMD-00-XX-DR-C-0006
	Reconfigure/ Redevelop Woodside Gyratory roundabout	Regenerating Woodside and Hamilton Square	Converted to signal junction.	392148-MMD-00-XX-DR-C-0002 392148-MMD-00-XX-DR-C-0004 392148-MMD-00-XX-DR-C-0004A
	Access to Hind Street – Mollington Link Road	A41 Site Access Improvements	New link from Mollington Link to redesigned Hind Street area.	392148-MMD-00-XX-DR-C-0005 392148-MMD-00-XX-DR-C-0005
	A41 Chester Road/ A552 Borough Road highway realignment (Phase 2)	A41 Site Access Improvements	New signalised junctions to replace flyovers and Phase 1.	392148-MMD-00-XX-DR-C-0005

Figure 4.2: A41/Green Corridor – Highway Schemes

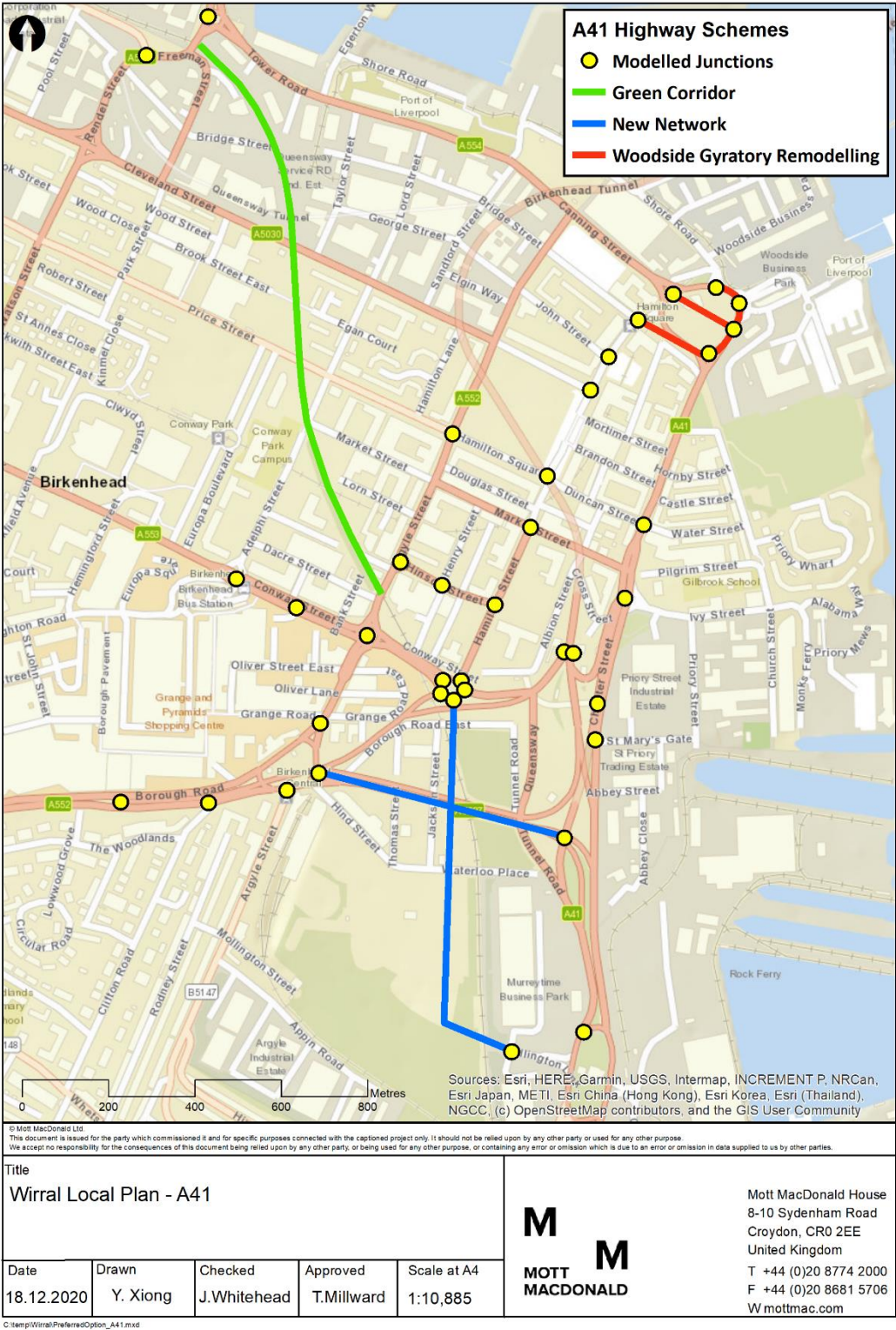
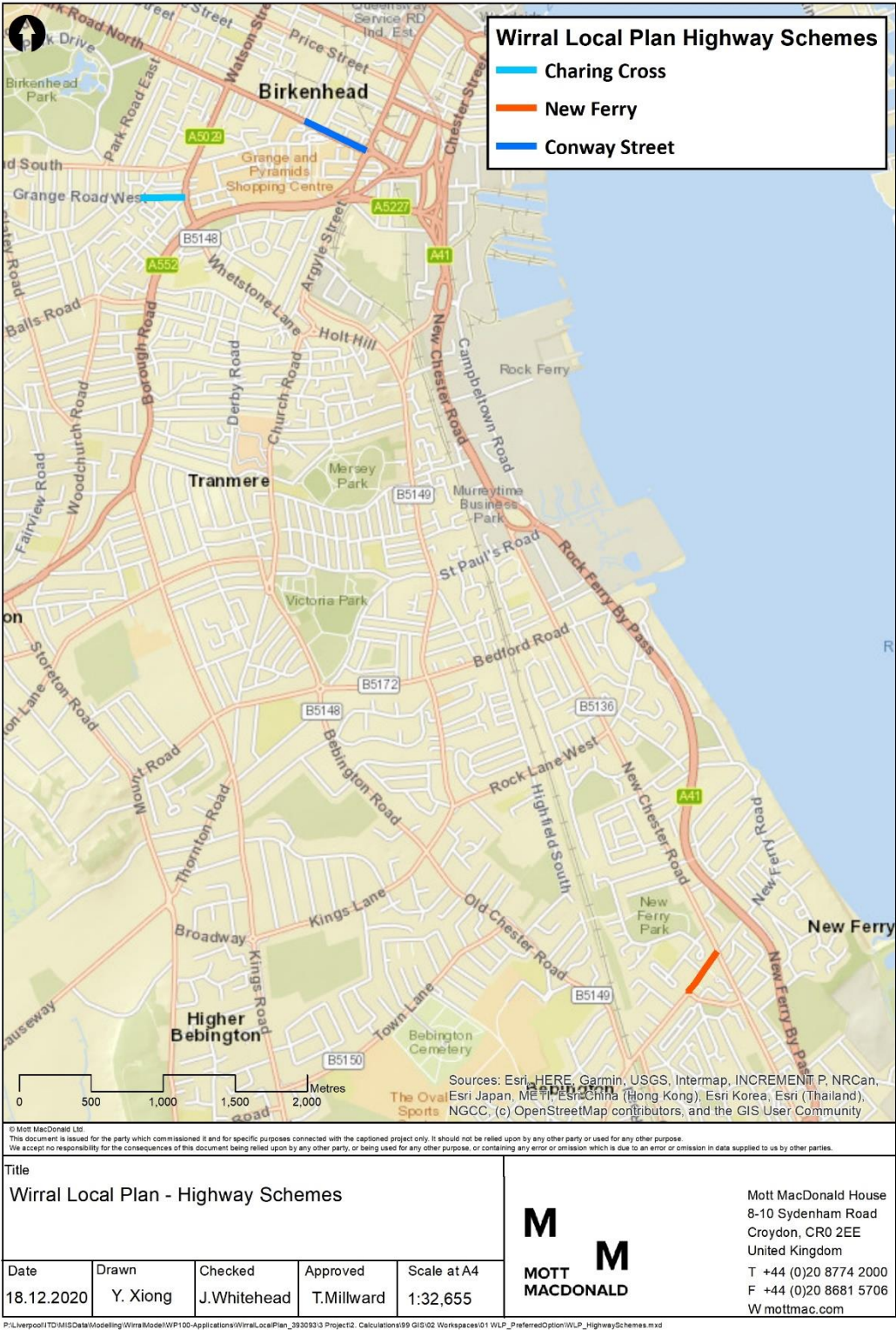


Table 4.3 below contains a full breakdown of the other strategic highway schemes that have been modelled. Figure 4.3 shows the locations of these schemes.

Table 4.3: Wirral Local Plan – Highway Schemes

Scheme	Description/Assumptions	Drawing Name
Conway Street	<p>Argyle Street / Conway Street junction roundabout changed to signalised junction.</p> <p>Number of lanes reduced to one in both directions and cycle lane incorporated</p> <p>Access to Adelphi Street from Conway Street removed</p> <p>Europa Boulevard reduced to single carriageway, one lane in each direction and improved pedestrian crossing facilities at junction with Conway Road</p>	Conway Street v6
Charing Cross	Removal of Grange Road West arm and implementation of single stage pedestrian crossings	Charing Cross FHSF Proposals

Figure 4.3: Wirral Local Plan – Highway Schemes



4.2 Model Zoning Network Access

Each site has been allocated to a model zone and the zone loading examined to determine whether the trips will enter the network in a suitable location. On inspection it was established that the zone loading was suitable for all sites, and so no changes were made to the zone access points within the WTM.

4.3 Public Transport Schemes

Bus service volumes and routes have been modelled within the LCRTM future year models and subsequently have been converted to SATURN compatible 'pre-loads' for use in the WTM. In doing so, this ensures that there is continuity for the highway based public transport systems in both models.

4.3.1 Strategic Public Transport Schemes

Alongside the strategic highway schemes, there are additional changes to bus services for the assessment of the Wirral Local Plan plus Strategic Schemes. Table 4.4 below contains a breakdown of all the public transport schemes that have been modelled for this assessment.

Table 4.4: Public Transport Schemes

Related Projects	Scheme	Assumptions
Wirral Waters	Bus routes diverted via Wirral Waters (410, 411, 413, 414) Reduced journey time on Queensway Tunnel exit	Adjusted bus journey time based on a bus speed of 20kph. Reduced journey time based on modelled time for this section of the network.
A41 Corridor	Bus routes diverted via Green Corridor (409, 411, 471, 472)	Adjusted bus journey time based on a bus speed of 20kph. Reduced journey time based on modelled time for this section of the network.

4.4 Forecast Year Tolls

The forecast increases in toll charges have been derived in line with GDP growth predicted between the model base year (2015) and forecast years (2025 and 2037) as contained in the TAG Databook – July 2020.

The toll charges have been applied to Mersey Tunnels and the Mersey Gateway as well as Silver Jubilee Bridge in the relevant assessment year. Table 4.5 shows the toll charges.

Table 4.5: Toll Charges

	Crossing	2015 Toll	2025 Toll	2037 Toll
Car	Tunnels	170	208	273
Light Goods Vehicles (LGV)	Tunnels	340	416	546
Heavy Goods Vehicles (HGV)	Tunnels	550	673	884
Car	Runcorn Crossings	200	208	273
Light Goods Vehicles (LGV)	Runcorn Crossings	400	416	546
Heavy Goods Vehicles (HGV)	Runcorn Crossings	600	673	884

4.5 Generalised Costs

Within the WTM, the assignment of vehicles is based on the lowest cost route that combines journey times, vehicle operating costs and toll charges, by means of a generalised cost.

The generalised cost coefficient values: pence per minute (PPM); and pence per kilometre (PPK) for model assignment are shown in Table 4.6. These values, which are representative of 2015 prices and are obtained from TAG Databook - July 2020, have been used to be consistent with the base model. It must be noted that the value of time for OGVs has been factored by a value of 2.4 to take account of the influence of owners on the routing of vehicles in line with TAG guidance that 'it may be considered to be more appropriate to use a value of time around twice the TAG Unit A1.3 values'.⁶

Table 4.6: Future Year Generalised cost coefficients (pence)

Year	Type	Car Commute	Car Other	Car EB	LGV	OGV (VOT uplift)
2025	PPM	22.42	16.07	40.15	28.23	71.28
2025	PPK	6.23	6.23	13.37	14.65	35.68
2037	PPM	27.89	19.99	49.95	35.12	88.69
2037	PPK	5.43	5.43	11.89	14.63	38.23

Source: Highway Model Assignment cost coefficients, TAG Databook July 2020

⁶ webtag-tag-unit-m3-1-highway-assignment-modelling.pdf, Section 2.8.8

5 Highway Assessment

This section presents the results of the highway assessment for each of the scenarios tested.

5.1 Assessment Metrics

For each modelled scenario, the assessment of the highway network is presented in terms of:

- Convergence statistics
- Network statistics
- Flow plots
- Junctions over capacity
- Link volumes over capacity
- Link Delay

The relevance of each of these metrics is described in further detail in the following sub-sections of this report.

5.1.1 Model Assignment Convergence

Model convergence checks have been carried out to ascertain the stability of the model assignment results and to ensure the model has reached the equilibrium point where flows and costs do not change significantly between assignment iterations. This has been done by observing the flow difference of subsequent iterations within the model assignment.

The stopping criteria for the assignment/simulation loops in SATURN, as specified in TAG⁷ Unit M3.1 is for the percentage of links where the flow changes by less than 1% (denoted as %FLOWS) to be greater than 98% on four consecutive iterations. Even though this guideline is used to show that the model is stable, a truer measure is the duality gap (delta, d, %GAP) which represents the percentage difference between the minimum cost routes and the chosen routes summed across the network. TAG Unit M3.1 recommends that delta and %GAP should be less than 0.1%. Table 5.1 presents the TAG convergence measures.

Table 5.1: Summary of Convergence Measures and Base Model Acceptable Values

Measure of Convergence	Base Model Acceptable Values
Delta and % Gap	Less than 0.1% or at least stable with convergence fully documented and all other criteria met
Percentage of links with flow change (P) <1%	Four consecutive iterations greater than 98%
Percentage of links with cost changed (P2) <1%	Four consecutive iterations greater than 98%

Source TAG M3.1

⁷ Department for Transport: Transport Analysis Guidance

5.1.2 Network Statistics

Network statistics provide details of the overall network performance and can be used to understand the overall impact of a scenario. The statistics are presented in passenger car units (pcu), where a pcu represents the space a vehicle takes up on the highway. Cars and LGVs are equivalent to one pcu and OGVs are equivalent to 2.4 pcus.

Network statistics cover:

- Transient Queues – queues that dissipate, for example queuing at a red light
- Over-Capacity Queues – ‘permanent’ queues at an over capacity junction
- Link Cruise Time – travel time in free-flow conditions (e.g., excluding impact of junction delay)
- Total Travel Time – total travel time across all pcus
- Travel Distance – total travel distance across all pcus
- Average Speed – average speed across the network
- Total Trips Loaded – total trips on the network

5.1.3 Comparison of Flows

Traffic flow volumes can be compared between base, future years, with scheme and without to illustrate changes in traffic flow volumes. For ease of comparison, traffic flow volume changes are represented using bandwidth plots in this report.

The bandwidth plots are based on actual flow volumes which represent the traffic flow that can load onto the highway network during the modelled time period.

5.1.4 Junctions over Capacity

The operational performance of the local highway network has been reviewed from reference to the volume over capacity (V/C) relationships for turning movements at junctions.

The junctions have been plotted on the network and colour classified according to the following capacity bands:

- **Yellow (85% V/C to 100% V/C):** This junction is operating with at least one turning movement that is approaching capacity and as a result there are increased queue lengths and delays
- **Orange (100% to 115% V/C):** This junction is operating over capacity for at least one turning movement. Queues and delays at this location are likely to grow exponentially
- **Red (> 115% V/C):** This junction is operating considerably over capacity for at least one turning movement and is likely to experience considerable congestion

Tabulations are provided of the number of junctions within each category.

5.1.5 Link Volumes over Capacity

The operational performance of the local highway network has been reviewed from reference to the volume over capacity relationships for the flows on model links.

The volume over capacity value for each link has been plotted on the network and colour classified according to the following capacity bands:

- **Yellow (85% V/C to 100% V/C):** This link is approaching capacity
- **Orange (100% V/C to 115% V/C):** This link is operating over capacity
- **Red (> 115% V/C):** This link is operating considerably over capacity

5.1.6 Link Delay

The delay along a network link can be plotted to show average delay per vehicle. For the purposes of this report such plots will highlight links which have a delay greater than 10 seconds. The links with the greatest delay, over 60 seconds, are highlighted in red and links with the lower delay, between 10 to 20 seconds, are highlighted in yellow.

5.2 Wirral Local Plan 2025 Results

5.2.1 Model Assignment Convergence

The convergence statistics show the Wirral Local Plan 2025 Baseline and Preferred Option models both reaches suitable convergence levels:

2025 Baseline

- The “%FLOWS” values are higher than 99% in the final four assignment loops for all models
- “%GAP” values for 2025 of 0.016, 0.010 and 0.022 have been achieved for the AM, IP and PM models respectively.

2025 Preferred Option

- The “%FLOWS” values are higher than 99% in the final four assignment loops for all models
- “%GAP” values for 2025 of 0.019, 0.011 and 0.016 have been achieved for the AM, IP and PM models respectively.

Appendix F contains full model convergence results.

5.2.2 Network Statistics

Table 5.2 presents the overall network statistics for the 2025 Baseline model. The modelling shows a 19-27% increase in traffic between 2015 and 2025 with corresponding increases in queues and travel time. The average speed across the network in the AM peak has decreased from 40 kph in 2015 to 38 kph in 2025, the equivalent figures for IP show an increase from 42kph to 43kph and the equivalent figures for PM show a decrease from 39 kph to 38 kph.

Table 5.3 presents the overall network statistics for the 2025 Preferred Option model. The modelling shows a negligible change in traffic between the 2025 Baseline and Preferred Option, with corresponding changes in queues and travel time. The average speed across the network in the AM peak has a negligible change in the Preferred Option, with similar changes for IP and PM.

Table 5.2: Summary of Network Statistics – 2025 Baseline

Statistics	Base Year			Baseline			Difference			Percentage Difference		
	AM	IP	PM	AM	IP	PM	AM	IP	PM	AM	IP	PM
Transient Queues (PCU HRS/HR)	1,600	1,000	1,600	2,100	1,400	2,000	500	400	400	31%	40%	25%
Over-Capacity Queues (PCU HRS/HR)	200	100	600	1,300	200	1,100	1,100	100	500	550%	100%	83%
Link Cruise Time (PCU HRS/HR)	10,100	6,700	9,600	12,100	8,700	11,200	2,000	2,000	1,600	20%	30%	17%
Total Travel Time (PCU HRS/HR)	11,800	7,800	11,700	15,500	10,400	14,300	3,700	2,600	2,600	31%	33%	22%
Travel Distance (PCU KMS/HR)	477,300	328,600	459,800	581,100	440,300	547,800	103,800	111,700	88,000	22%	34%	19%
Average Speed (KPH)	40	42	39	38	43	38	-3	1	-1	-7%	1%	-2%
Total Trips Loaded (PCU)	481,800	364,500	487,200	581,300	461,200	577,900	99,500	96,700	90,700	21%	27%	19%

Table 5.3: Summary of Network Statistics – 2025 Preferred Option

Statistics	Baseline			Preferred Option			Difference			Percentage Difference		
	AM	IP	PM	AM	IP	PM	AM	IP	PM	AM	IP	PM
Transient Queues (PCU HRS/HR)	2,100	1,400	2,000	2,100	1,400	2,000	0	0	0	0%	0%	0%
Over-Capacity Queues (PCU HRS/HR)	1,300	200	1,100	1,400	200	1,200	100	0	100	8%	0%	9%
Link Cruise Time (PCU HRS/HR)	12,100	8,700	11,200	12,100	8,700	11,200	0	0	0	0%	0%	0%
Total Travel Time (PCU HRS/HR)	15,500	10,400	14,300	15,500	10,400	14,400	0	0	100	0%	0%	1%
Travel Distance (PCU KMS/HR)	581,100	440,300	547,800	581,800	441,200	547,300	700	900	-500	0%	0%	0%
Average Speed (KPH)	38	43	38	37	43	38	0	0	0	0%	0%	-1%
Total Trips Loaded (PCU)	581,300	461,200	577,900	581,400	461,300	578,100	100	100	200	0%	0%	0%

5.2.3 Comparison of Flows

5.2.3.1 2025 Baseline vs 2015 Base Year

Figure 5.1 to Figure 5.3 present the flow difference plots between the 2025 Baseline and the 2015 Base Year scenarios for AM, IP and PM respectively.

The primary increase in traffic flow volume is on the M53 in both directions, which records increase in over 400 pcus for the AM, IP and PM. Both the Queensway and Kingsway Tunnels also record significant increases in pcus for all periods.

There is an increase in cross-boundary traffic to Cheshire West and Chester for all periods via the A550 and the A41 south of Bromborough.

The forecast increases in traffic flow volumes along the major corridors that pass through and/or connect Wirral to neighbouring boroughs are consistent with the natural growth in housing and residential that would be expected throughout Wirral between 2015 and 2025.

Figure 5.4 to Figure 5.6 present the traffic flows for the 2025 Baseline AM, IP and PM respectively.

The Wirral highway network is well defined within the three figures, where the M53 forms the primary spine of the network, supporting traffic flow volumes over 2,000 pcus in all periods.

The A-road trunk network accommodates large volumes of flow and support access to various destinations in Wirral such as the A41 for key employment sites along the A41 Corridor, A540 for access to West Kirby and A552 for access to Birkenhead.

The A540 and A550 also accommodate large volumes of traffic flow in all periods, recognising the importance of these routes alongside the M53 as the key routes in the south for connectivity to Cheshire West and Chester.

All of the A-road corridors accommodate flows of at least 750 pcu in all periods.

Figure 5.1: Difference in Actual Flow (pcu): 2025 Baseline vs 2015 Base Year AM

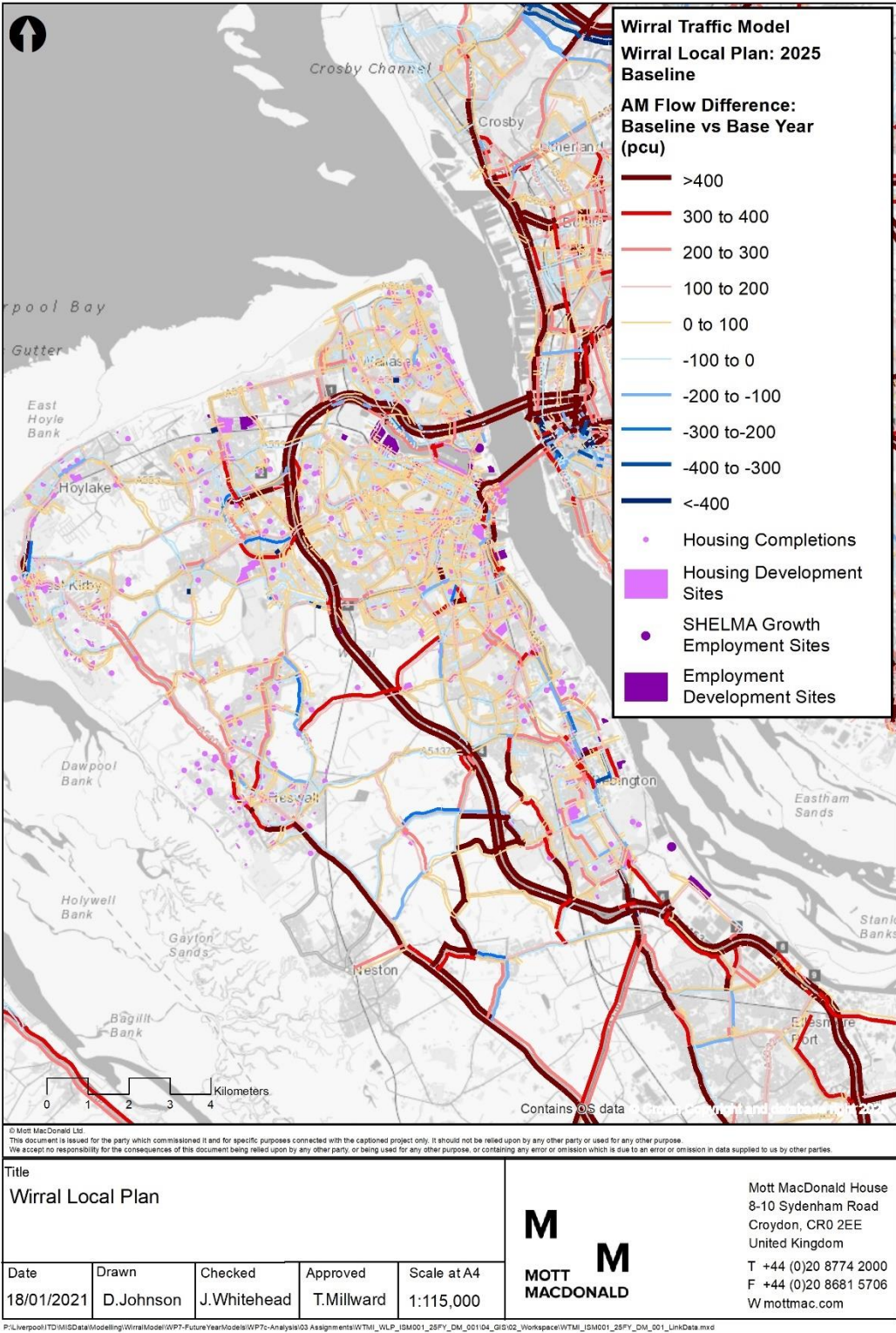


Figure 5.2: Difference in Actual Flow (pcu): 2025 Baseline vs 2015 Base Year IP

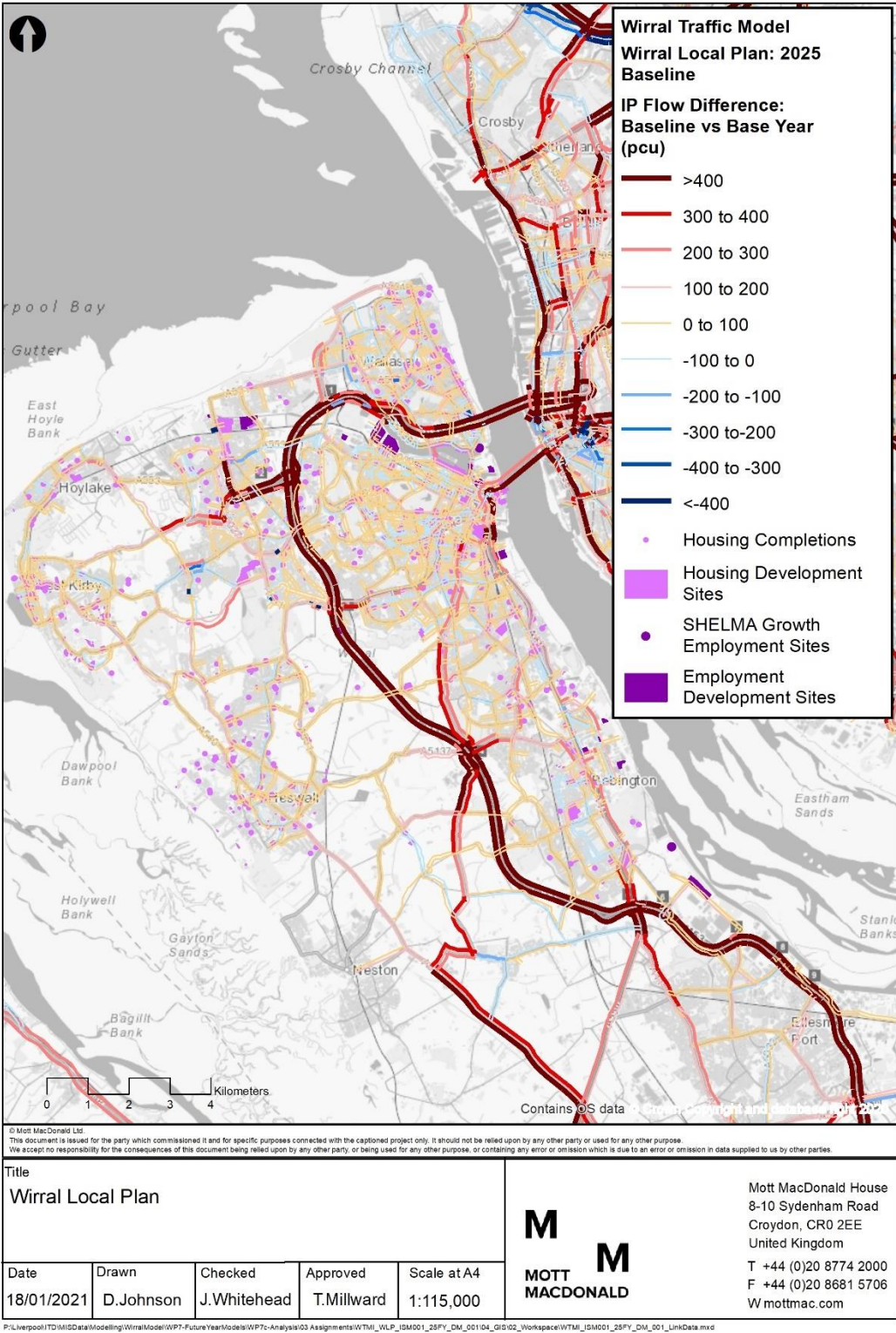


Figure 5.3: Difference in Actual Flow (pcu): 2025 Baseline vs 2015 Base Year PM

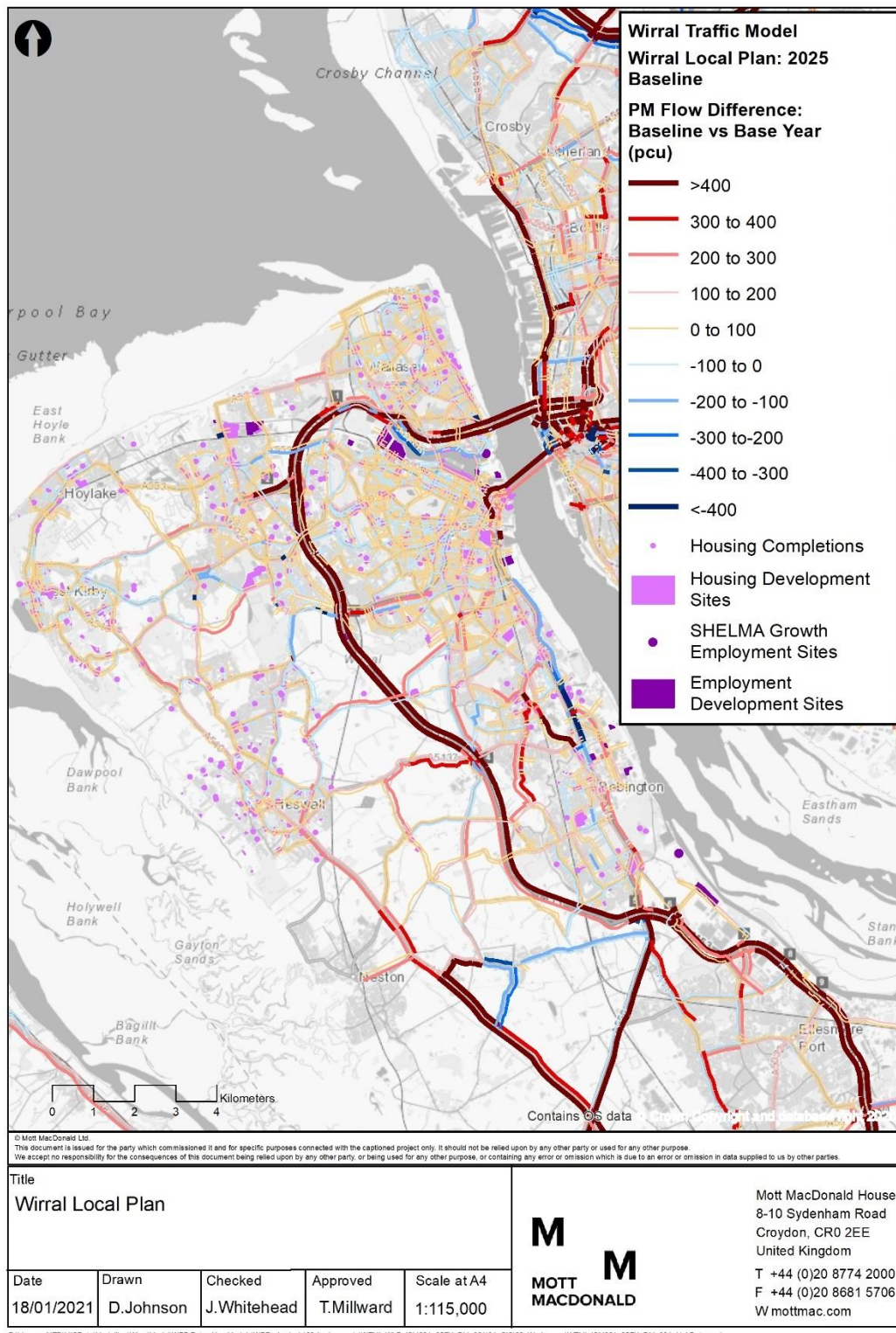


Figure 5.4: Actual Flow (pcu): 2025 Baseline AM

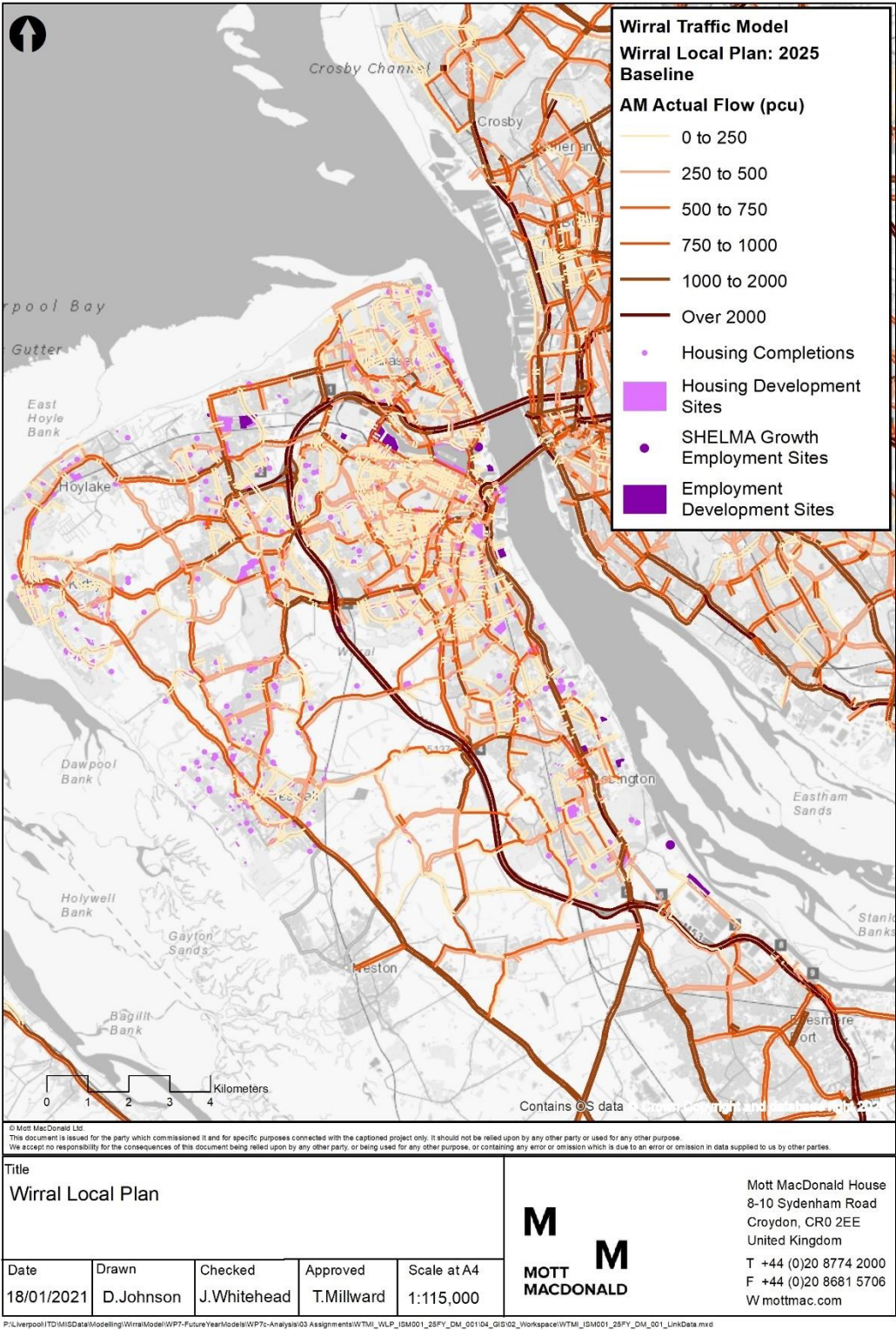


Figure 5.5: Actual Flow (pcu): 2025 Baseline IP

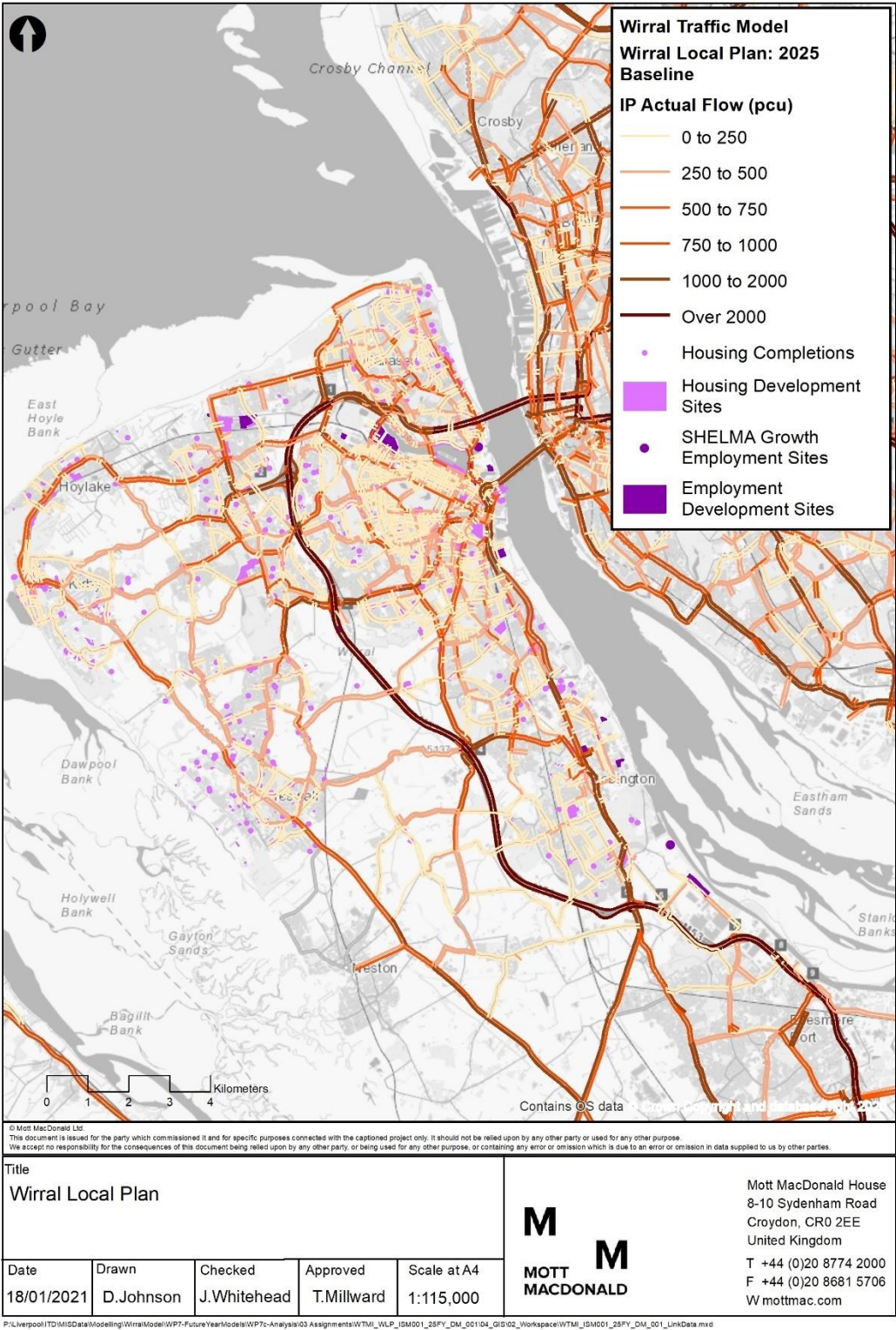
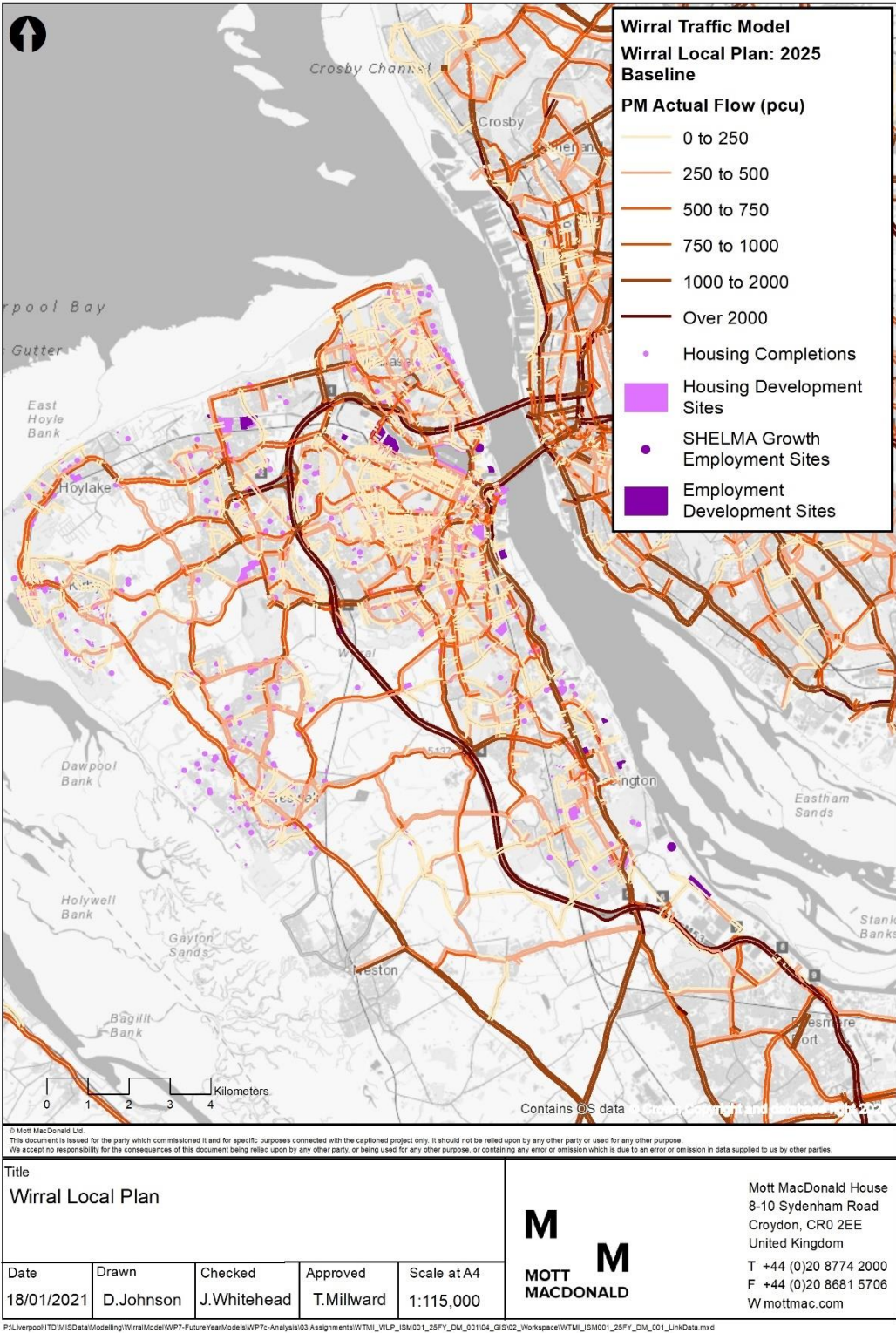


Figure 5.6: Actual Flow (pcu): 2025 Baseline PM



5.2.3.1 2025 Preferred Option vs Baseline

Figure 5.7 to Figure 5.9 present the flow difference plots between the 2025 Preferred Option and Baseline scenarios for AM, IP and PM respectively.

The figures illustrate the change in traffic flow volumes with the introduction of the Wirral Local Plan. The proposed increase in residential and employment developments due to the scheme are forecast to increase flows universally across the region by up to 100 pcus. Due to the geographical distribution of many of the developments the resultant increase in flow is well dispersed across the borough, with no specific corridor recording significant increases in traffic volumes.

Figure 5.10 to Figure 5.12 present the traffic flows for the 2025 Preferred Option AM, IP and PM respectively.

The Wirral highway network is well defined within the three figures, where it can be seen that the M53 forms the primary spine of the network, supporting traffic flow volumes over 2,000 pcus in all periods.

The A-road trunk network accommodates large volumes of flow and support access to various destinations in Wirral such as the A41 for key employment sites along the A41 Corridor, A540 for access to West Kirby and A552 for access to Birkenhead.

The A540 and A550 also accommodate large volumes of traffic flow in all periods, recognising the importance of these routes alongside the M53 as the key routes in the south for connectivity to Cheshire West and Chester.

All the A-road corridors accommodate flows of at least 750 pcu in all periods.

Figure 5.7: Difference in Actual Flow (pcu): 2025 Preferred Option vs Baseline AM

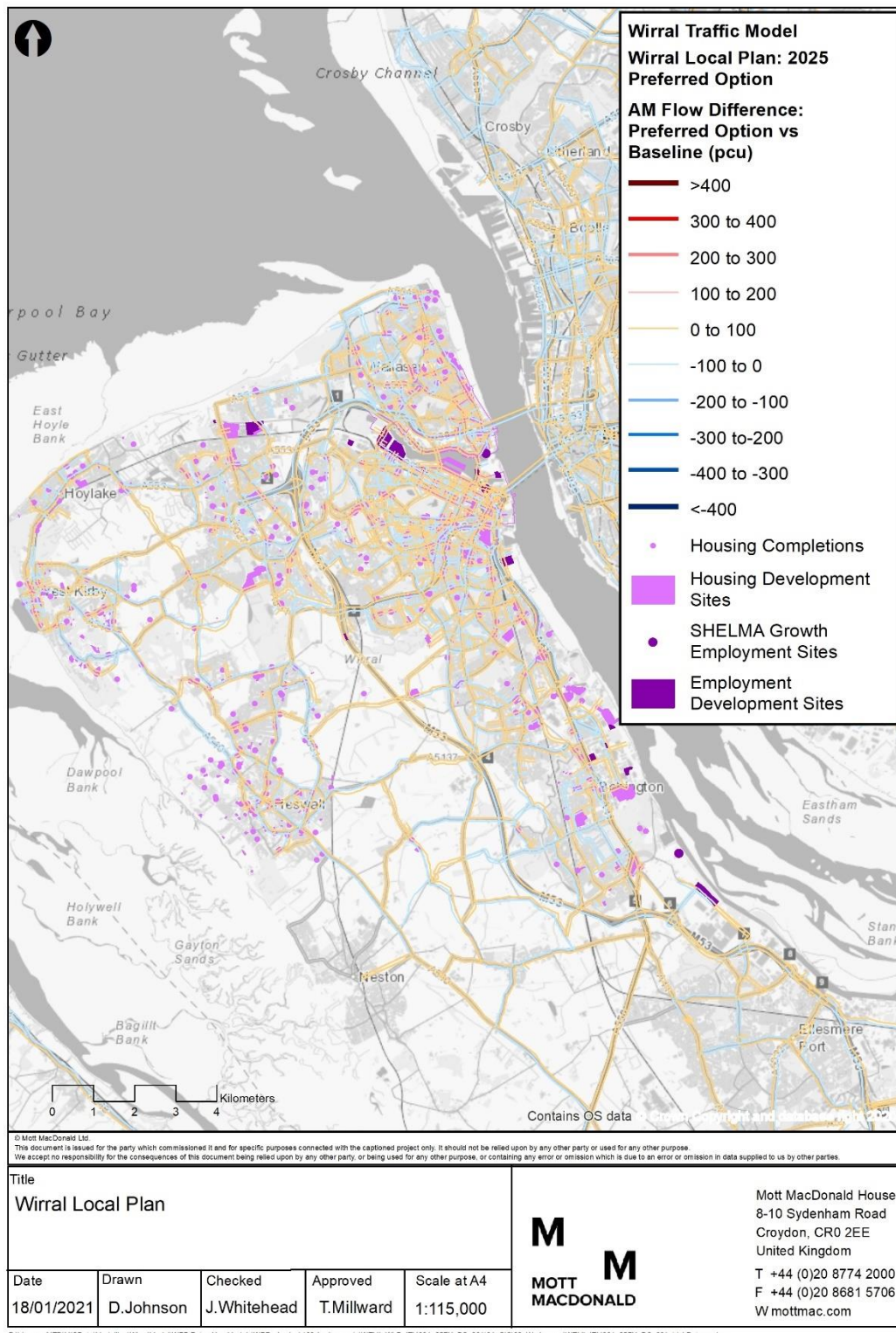


Figure 5.8: Difference in Actual Flow (pcu): 2025 Preferred Option vs Baseline IP

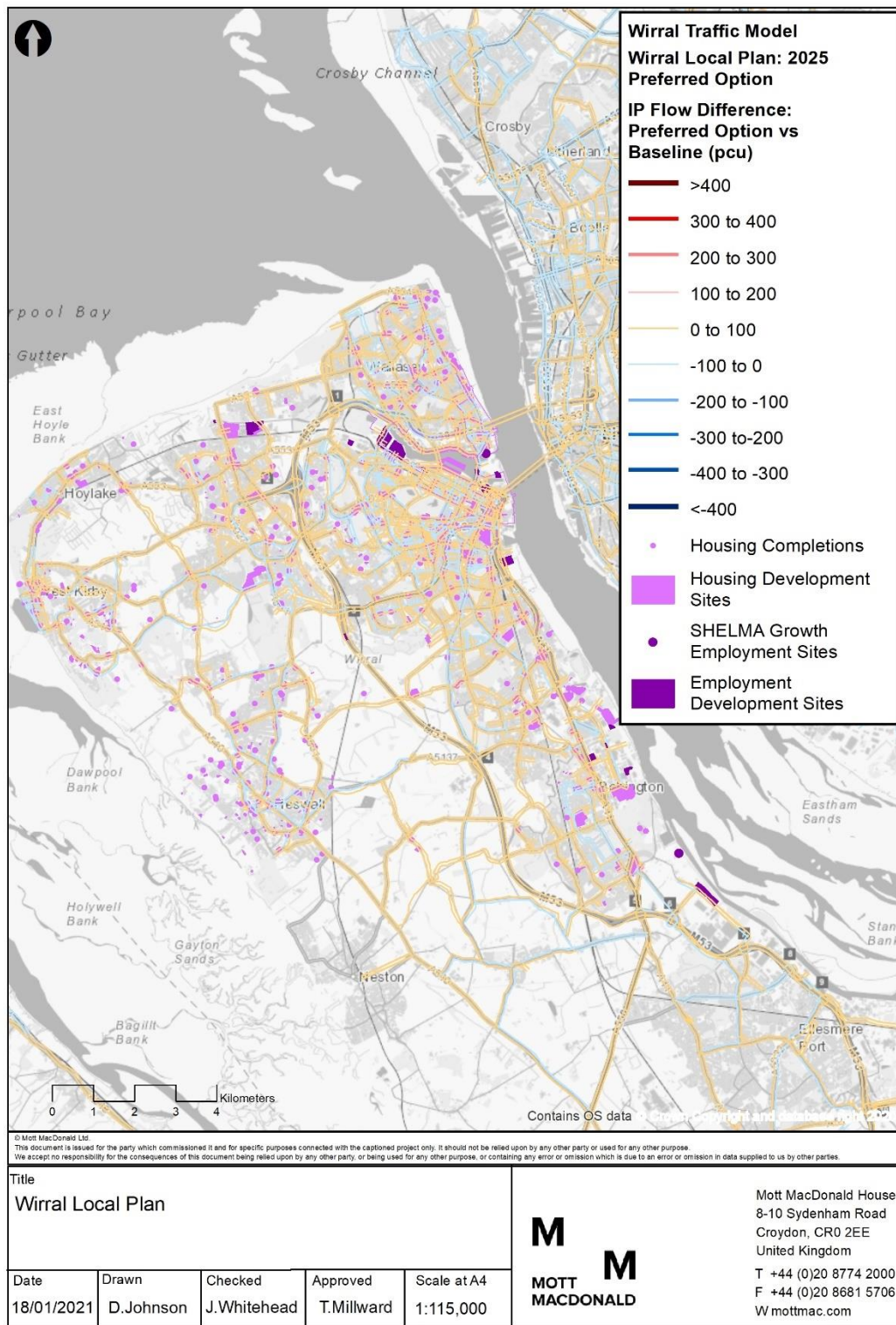


Figure 5.9: Difference in Actual Flow (pcu): 2025 Preferred Option vs Baseline PM

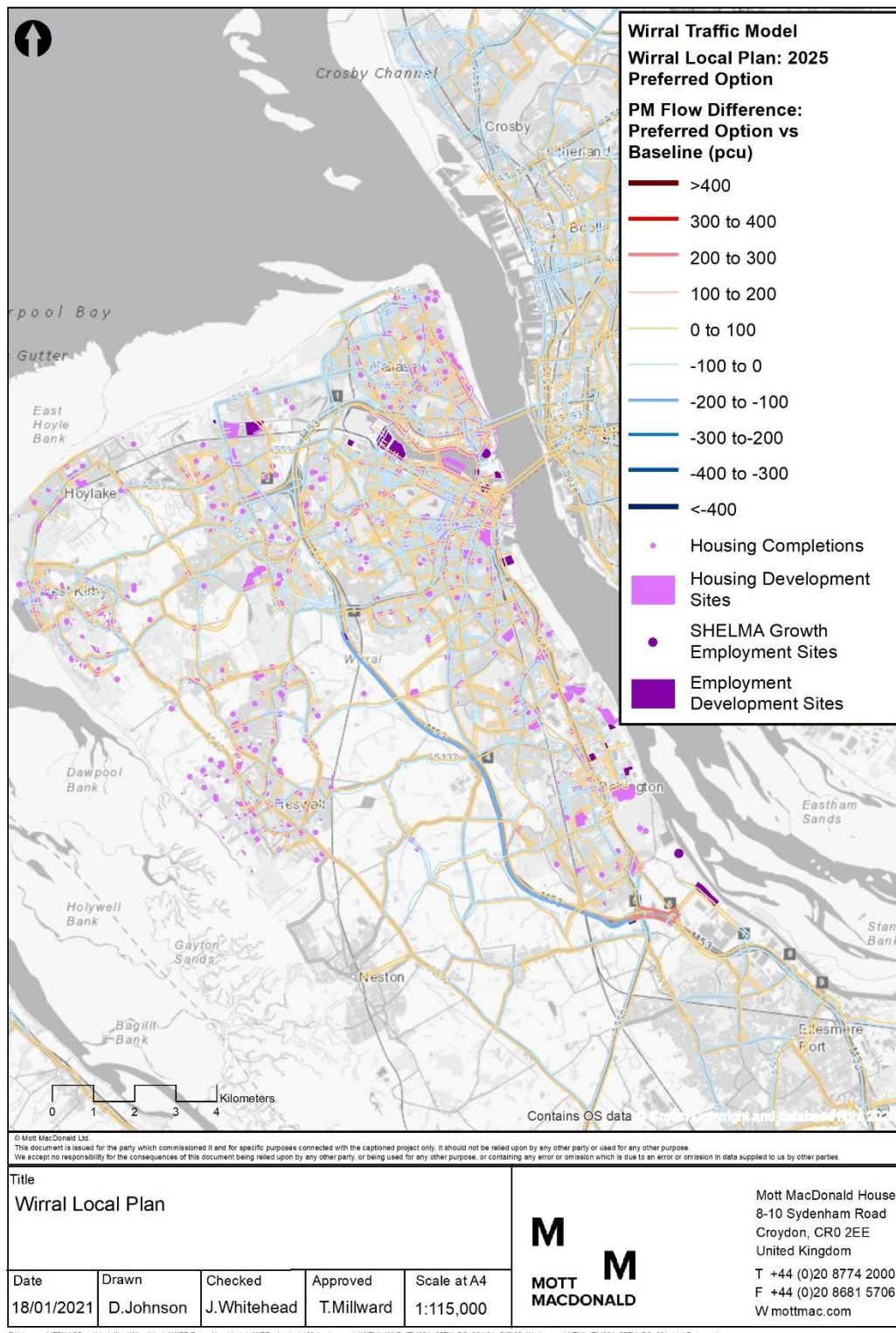


Figure 5.10: Actual Flow (pcu): 2025 Preferred Option AM

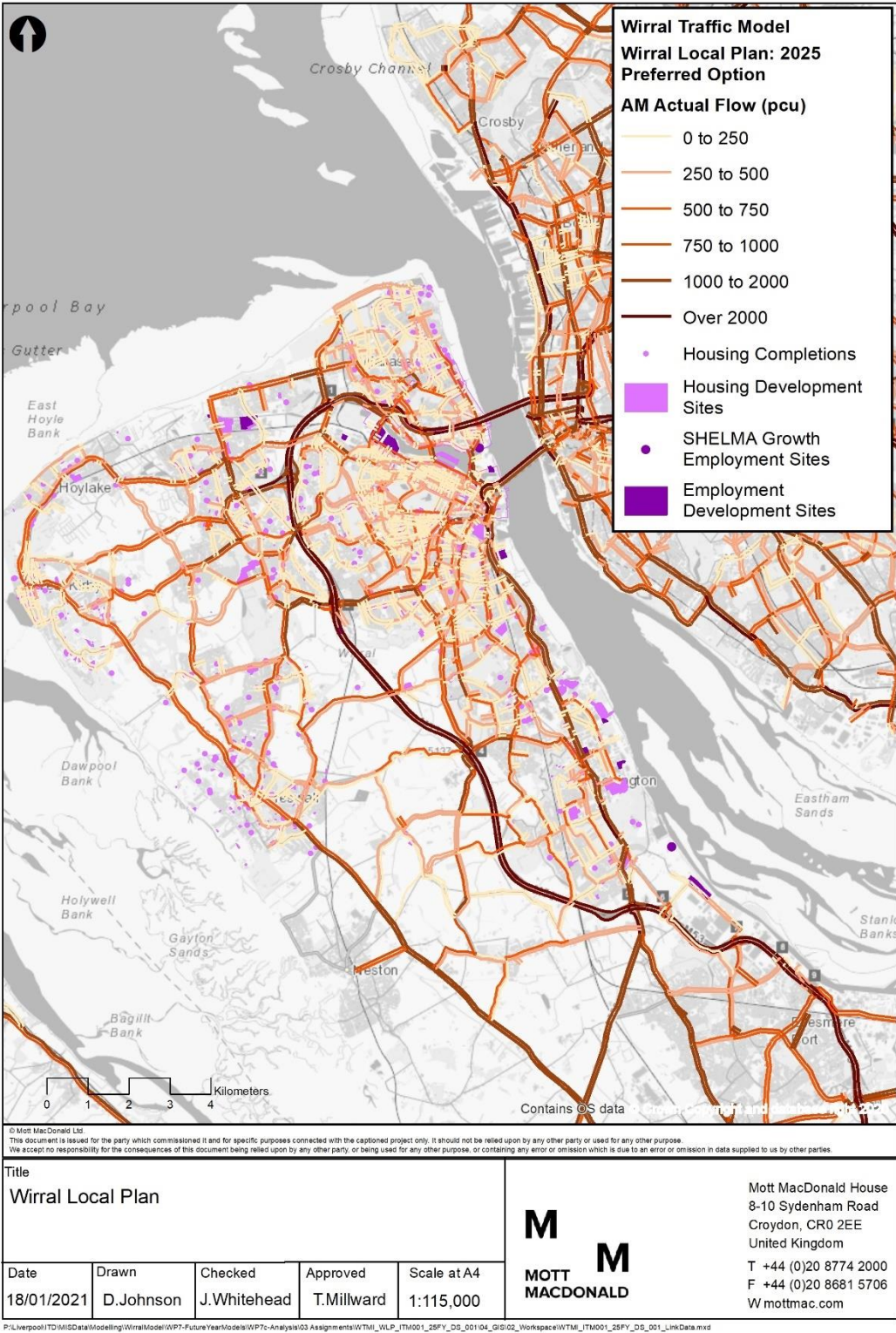


Figure 5.11: Actual Flow (pcu): 2025 Preferred Option IP

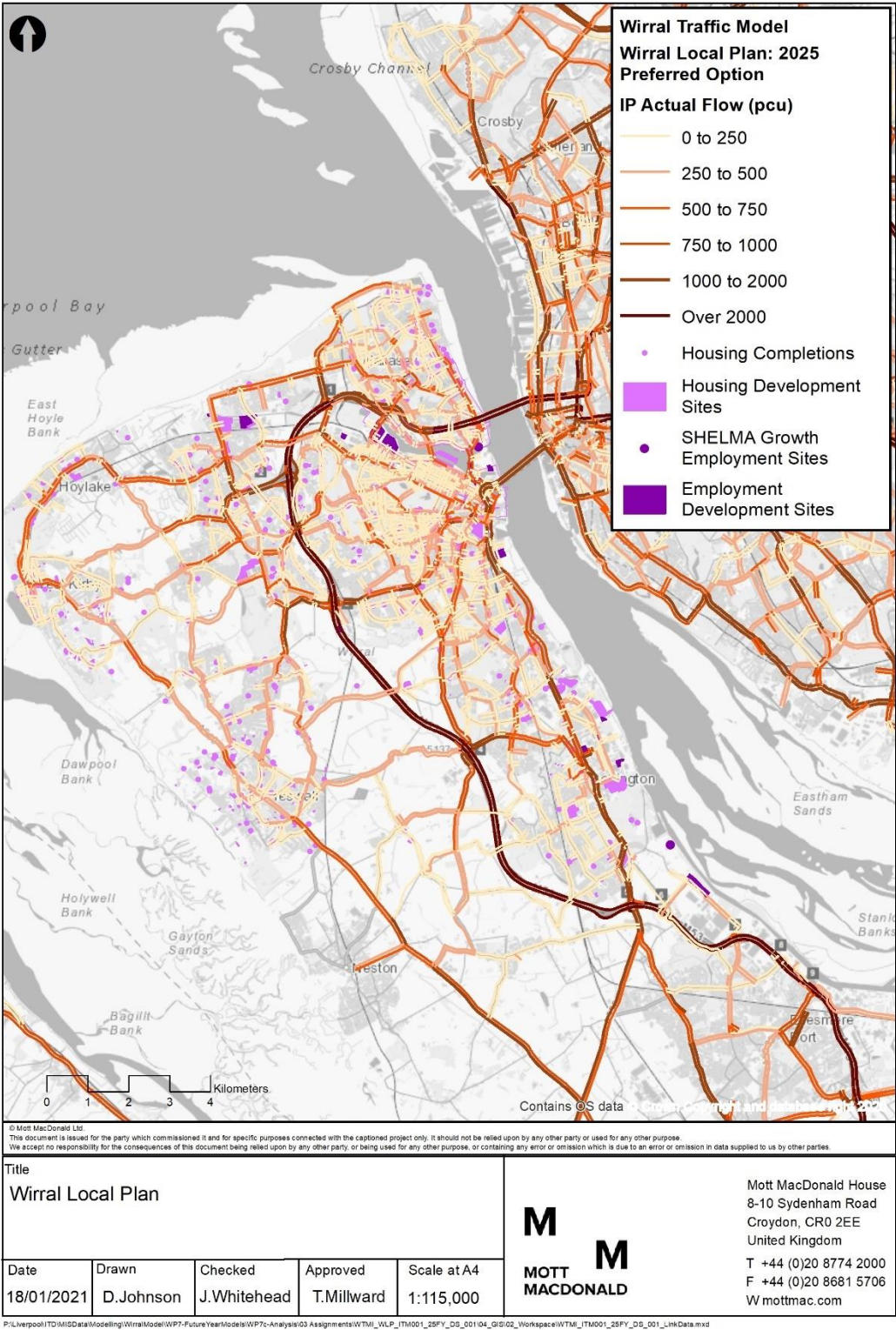
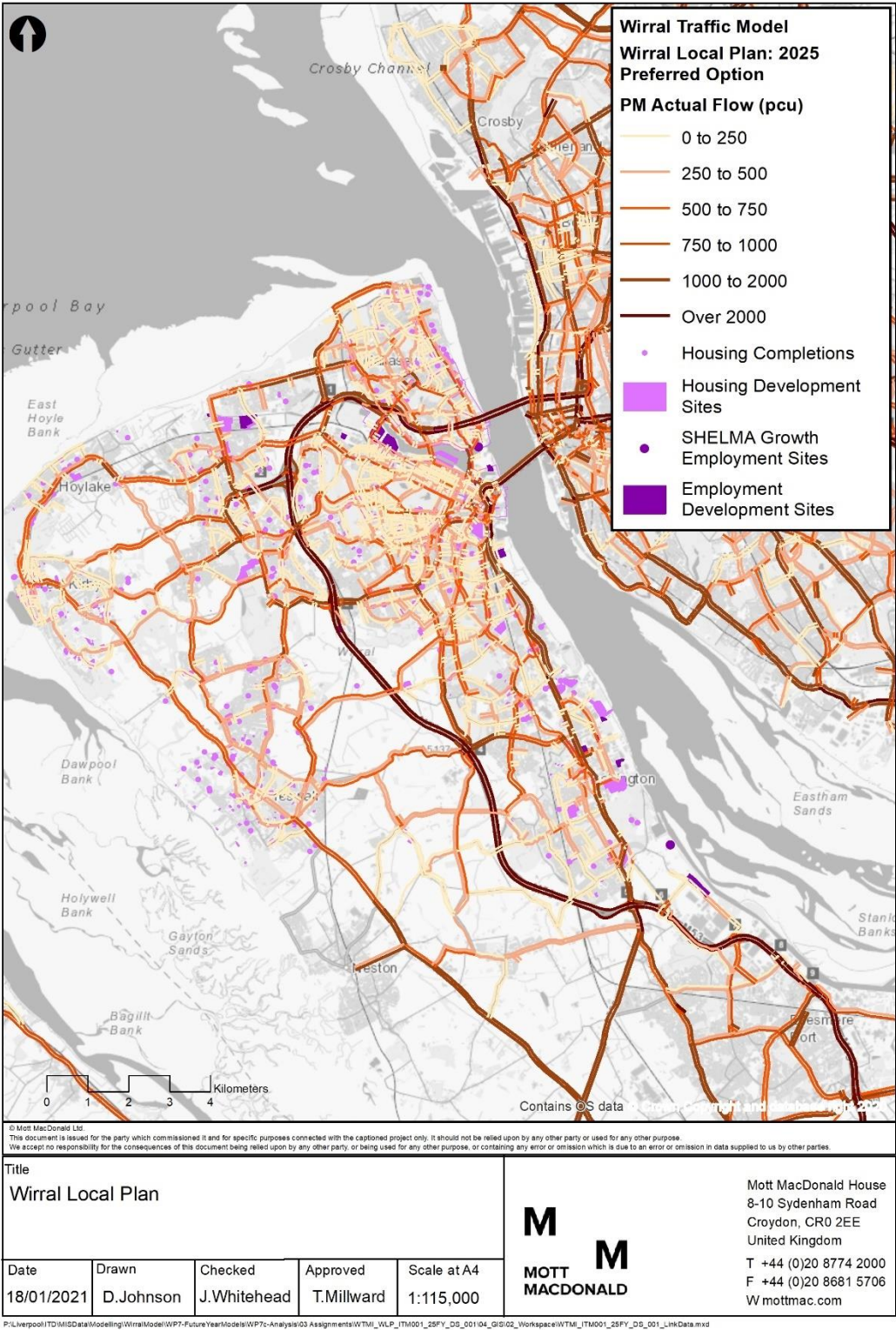


Figure 5.12: Actual Flow (pcu): 2025 Preferred Option PM



5.2.4 Junctions over Capacity

5.2.4.1 2025 Baseline vs 2015 Base Year

Figure 5.13 to Figure 5.15 present the junctions approaching or over capacity in the 2025 Baseline scenario in the AM, IP and PM respectively.

There are several junctions forecast to be over capacity across the borough, with the majority of these occurring in the AM period. The most significant of these, where the junction is operating over 115% capacity, include the A41/Old Hall Road in Bromborough, Junctions 4 and 5 of the M53, A552/Arrowe Park Road and junctions within Birkenhead town centre on the approach to Queensway Tunnel; with the latter two junctions forecast to be over 115% capacity in the both AM and PM periods.

In all time periods there are noticeable clusters of junctions that are forecast to operate over 100% capacity. The A41 corridor between Port Sunlight and the M53, multiple junctions within Birkenhead town centre and junctions along the A-road corridors to the west of the M53 which provide access to West Kirby all operate between 85-115% capacity.

Table 5.4 summarises the number of junctions over capacity.

Table 5.4: Wirral Local Plan 2025 Baseline Junctions Over Capacity

Time Period	2015 Base Year				2025 Baseline				Difference
	85% to 100%	100% to 115%	> 115%	Total	85% to 100%	100% to 115%	> 115%	Total	
AM	31	40	0	71	73	69	6	148	77
IP	14	12	0	26	28	33	1	62	36
PM	36	40	2	78	48	71	2	121	43

Appendix E contains a list of all junctions over capacity and within which time period each junction is over capacity.

Figure 5.16 to Figure 5.18 present junctions that are approaching or over capacity in the 2025 Baseline scenario that were under 85% V/C in the 2015 Base Year. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the borough, along the M53 and A41 corridors and within Birkenhead town centre. To the west, such junctions are forecast to be along West Kirby access corridors or within the Heswall area.

In the Baseline there are 77 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 36 in the IP and 43 in the PM.

Figure 5.13: Junctions Over Capacity: 2025 Baseline AM

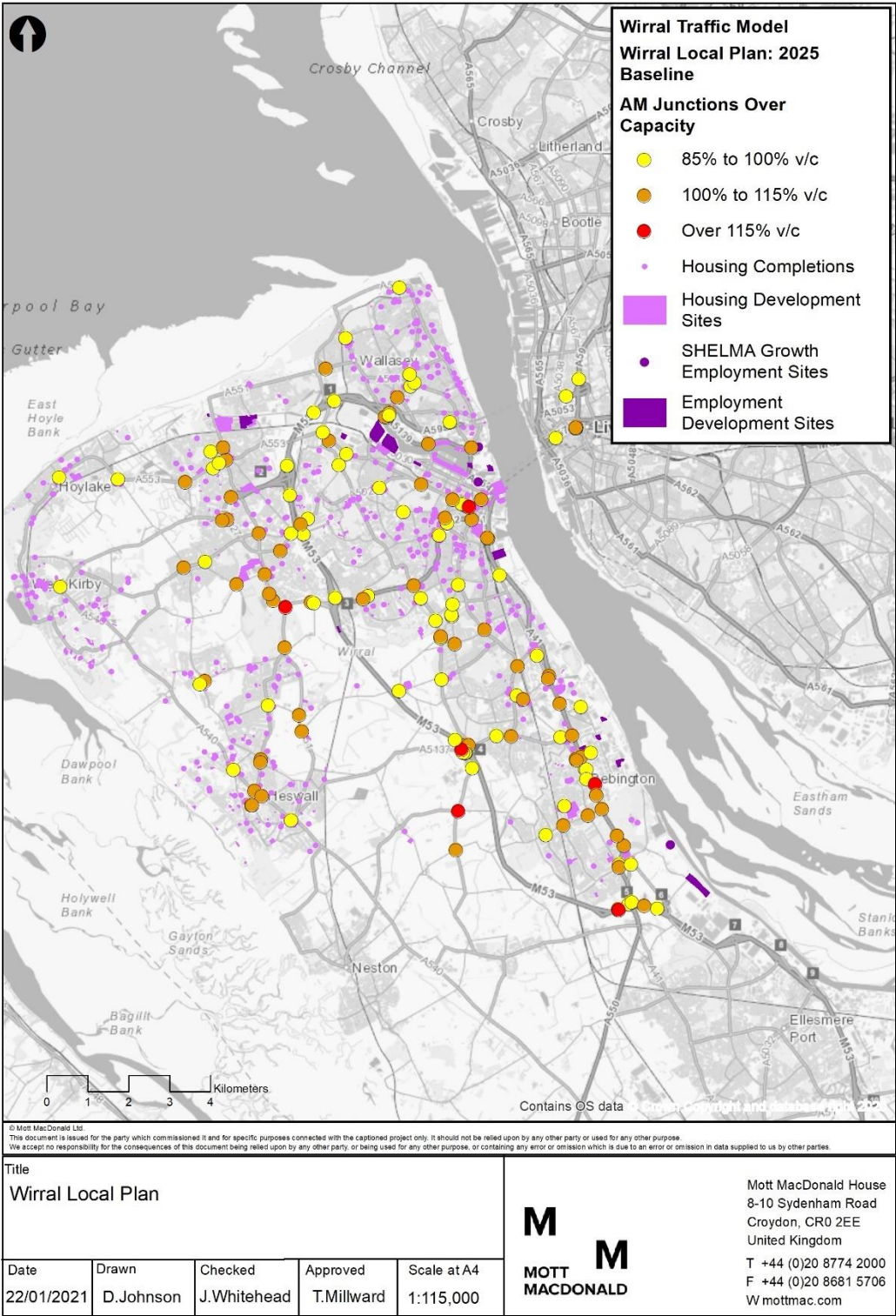


Figure 5.14: Junctions Over Capacity: 2025 Baseline IP

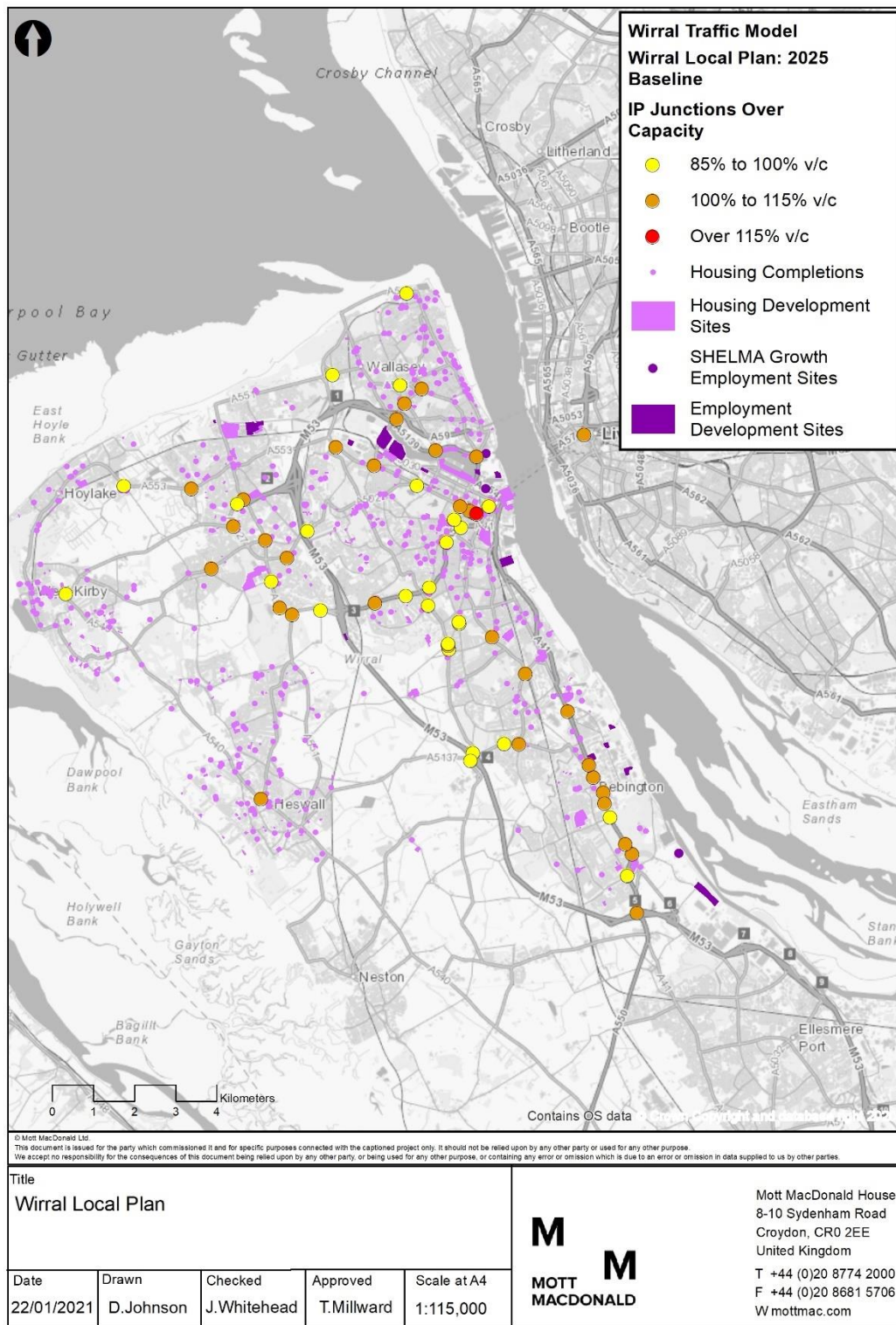


Figure 5.15: Junctions Over Capacity: 2025 Baseline PM

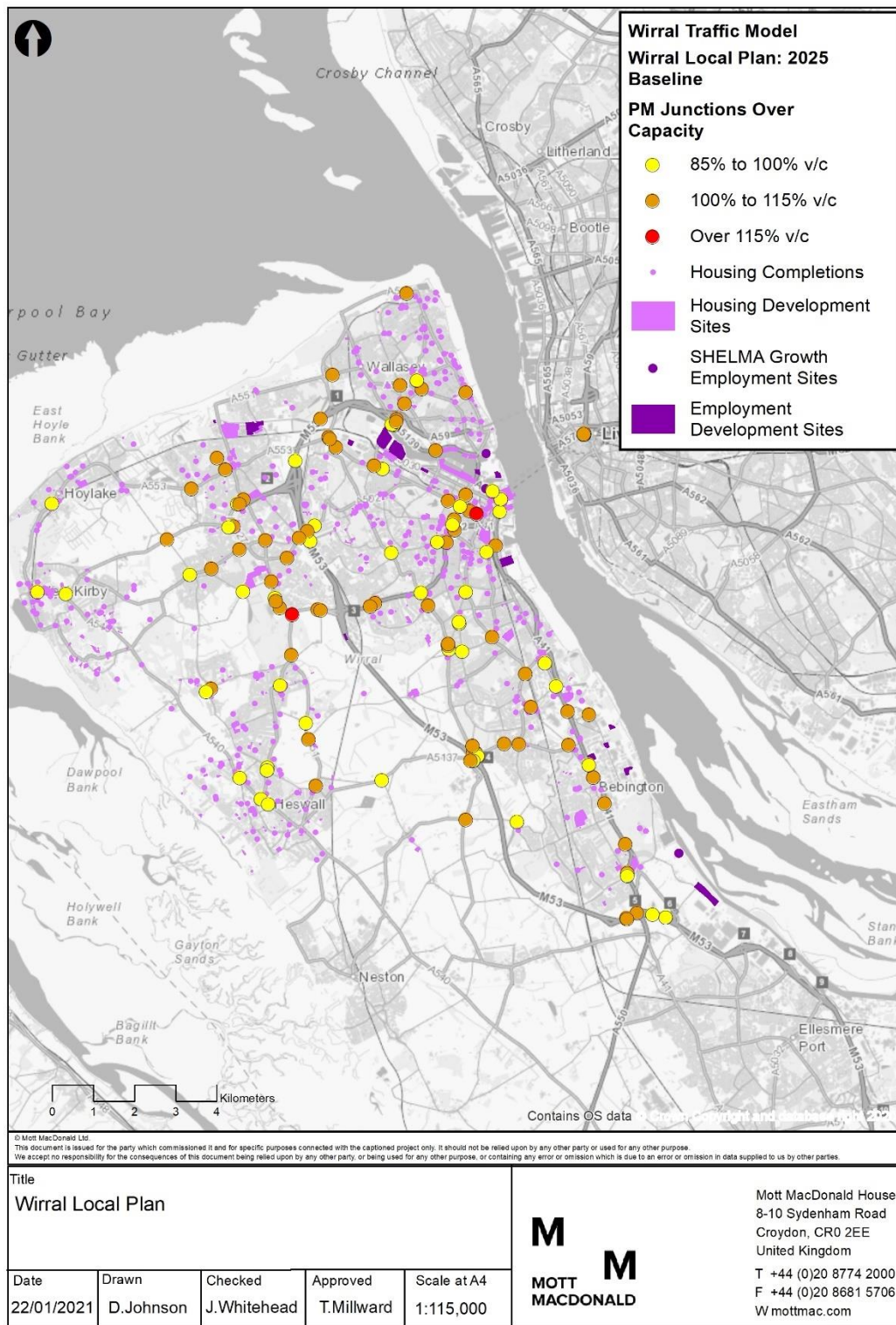


Figure 5.16: Junctions that become Over Capacity: 2025 Baseline AM

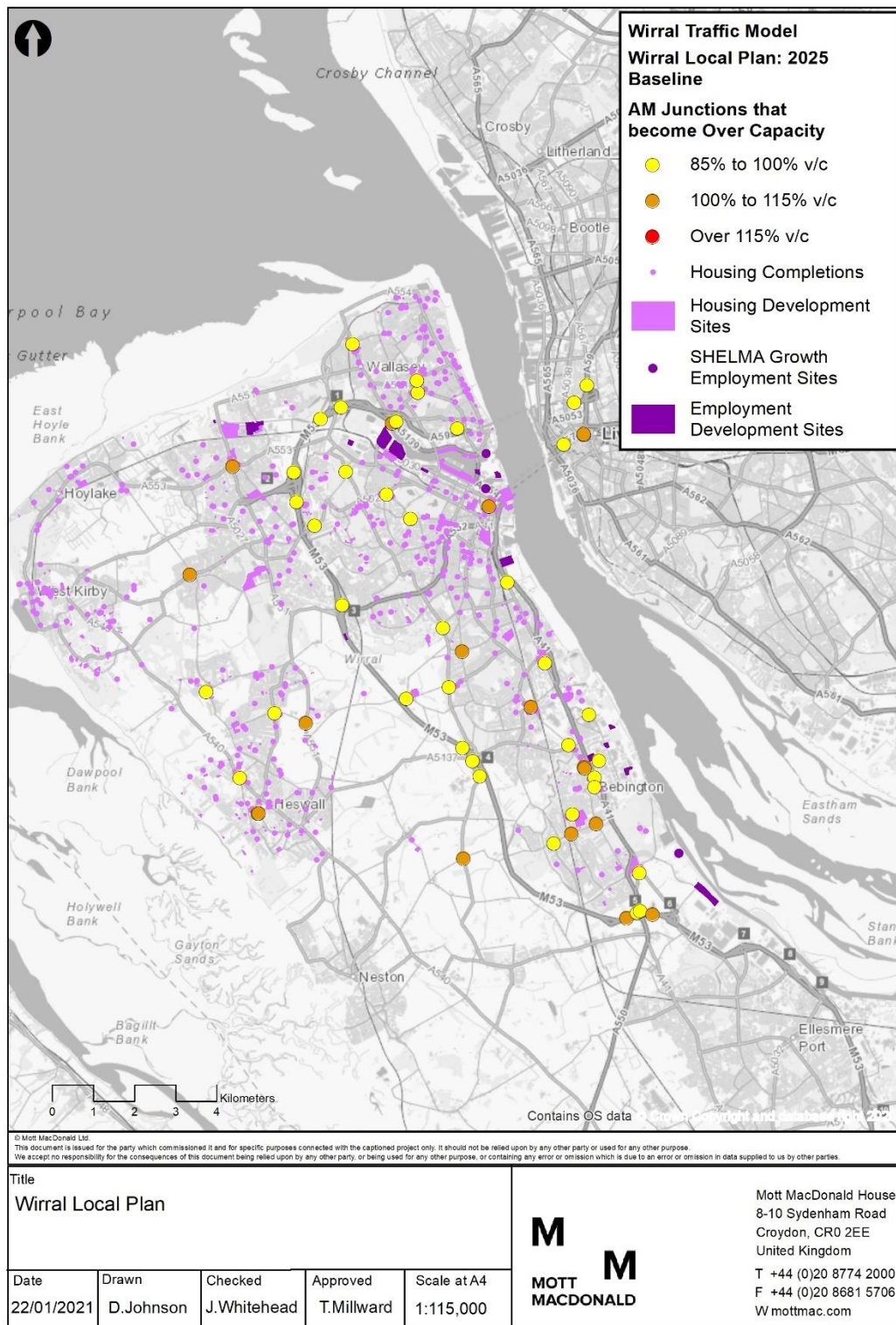


Figure 5.17: Junctions that become Over Capacity: 2025 Baseline IP

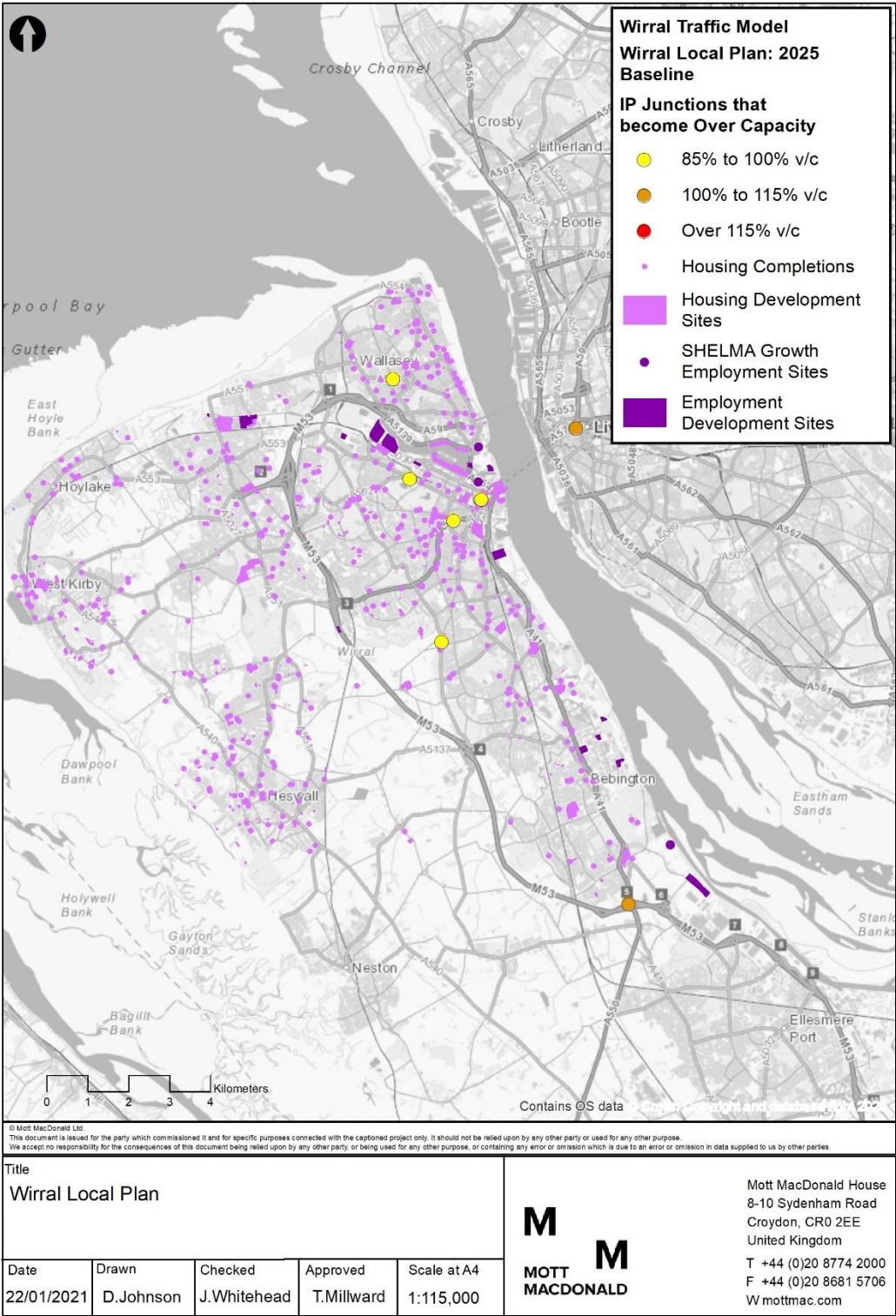
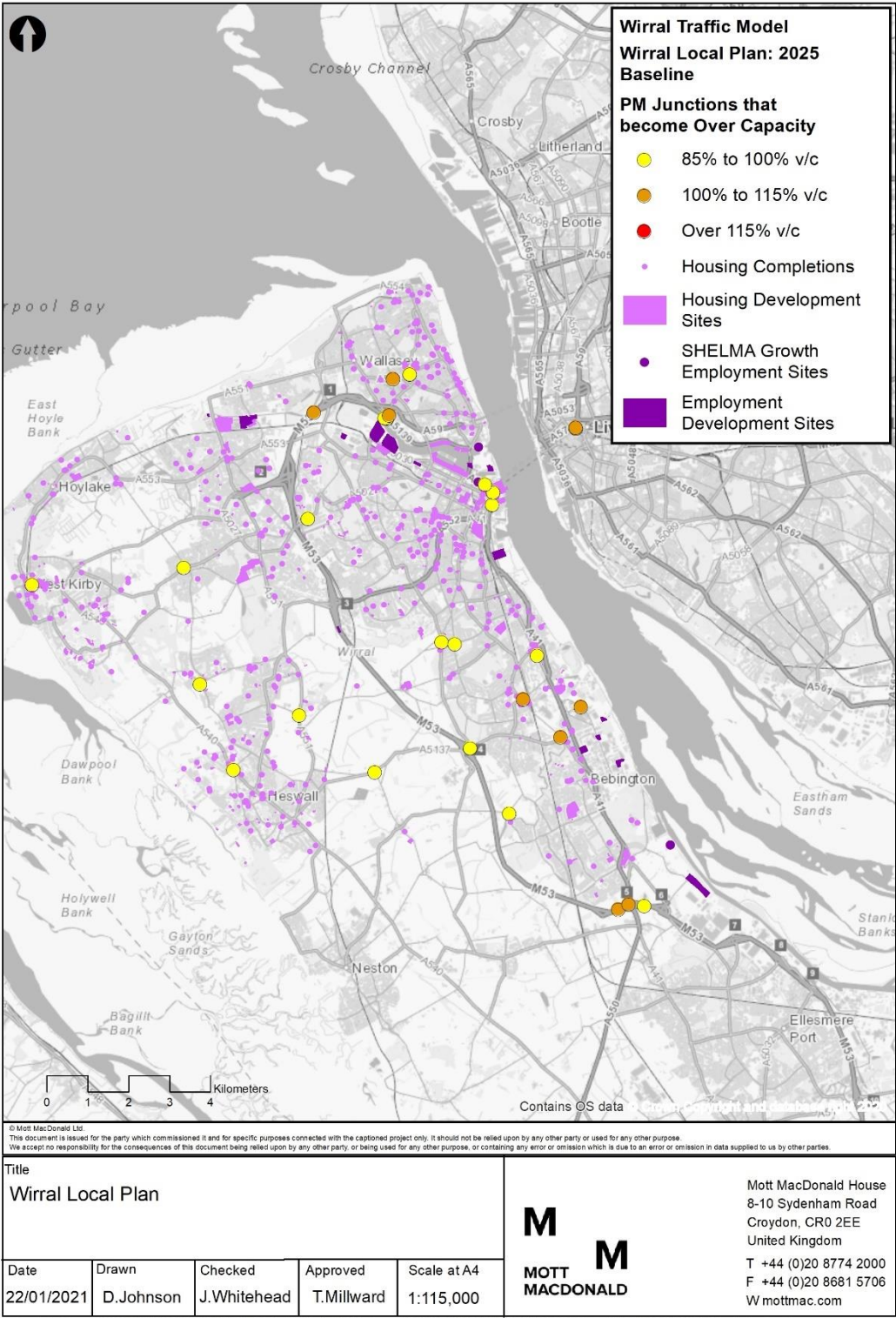


Figure 5.18: Junctions that become Over Capacity: 2025 Baseline PM



5.2.4.1 2025 Preferred Option vs Baseline

Figure 5.19 to Figure 5.21 present the junctions approaching or over capacity in the 2025 Preferred Option scenario in the AM, IP and PM respectively.

There are several junctions forecast to be over capacity across the borough, with the majority of these occurring in the AM period. The most significant of these, where the junction is operating over 115% capacity, include the A41/Old Hall Road in Bromborough, Junctions 4 and 5 of the M53, A552/Arrowe Park Road and junctions within Birkenhead town centre on the approach to Queensway Tunnel; with the latter two junctions forecast to be over 115% capacity in the both AM and PM peaks.

In all time periods there are noticeable clusters of junctions that are forecast to operate at over 100% capacity. The A41 corridor between Port Sunlight and the M53, multiple junctions within Birkenhead town centre and junctions along the A-road corridors to the west of the M53 which provide access to West Kirby all operate between 85-115% capacity.

Table 5.5 summarises the number of junctions over capacity.

Table 5.5: Wirral Local Plan 2025 Preferred Option Junctions Over Capacity

Time Period	2025 Baseline				2025 Preferred Option				Difference
	85% to 100%	100% to 115%	> 115%	Total	85% to 100%	100% to 115%	> 115%	Total	
AM	73	69	6	148	71	72	6	149	1
IP	28	33	1	62	28	33	1	62	0
PM	48	71	2	121	49	69	3	121	0

Appendix E contains a list of all junctions over capacity and within which time period each junction is over capacity.

Figure 5.22 to Figure 5.24 present junctions that are approaching or over capacity in the 2025 Preferred Option scenario that were under 85% V/C in the Baseline scenario. The two junctions that are forecast to experience significant reductions in capacity are within Birkenhead town centre on the approach to Queensway Tunnel in the AM period and Junction 4 M53 in the PM period.

In the Preferred Option there is only one additional junction that is forecast to have a V/C ratio at or above 85% compared with the Baseline; this junction is in the AM period.

Figure 5.19: Junctions Over Capacity: 2025 Preferred Option AM

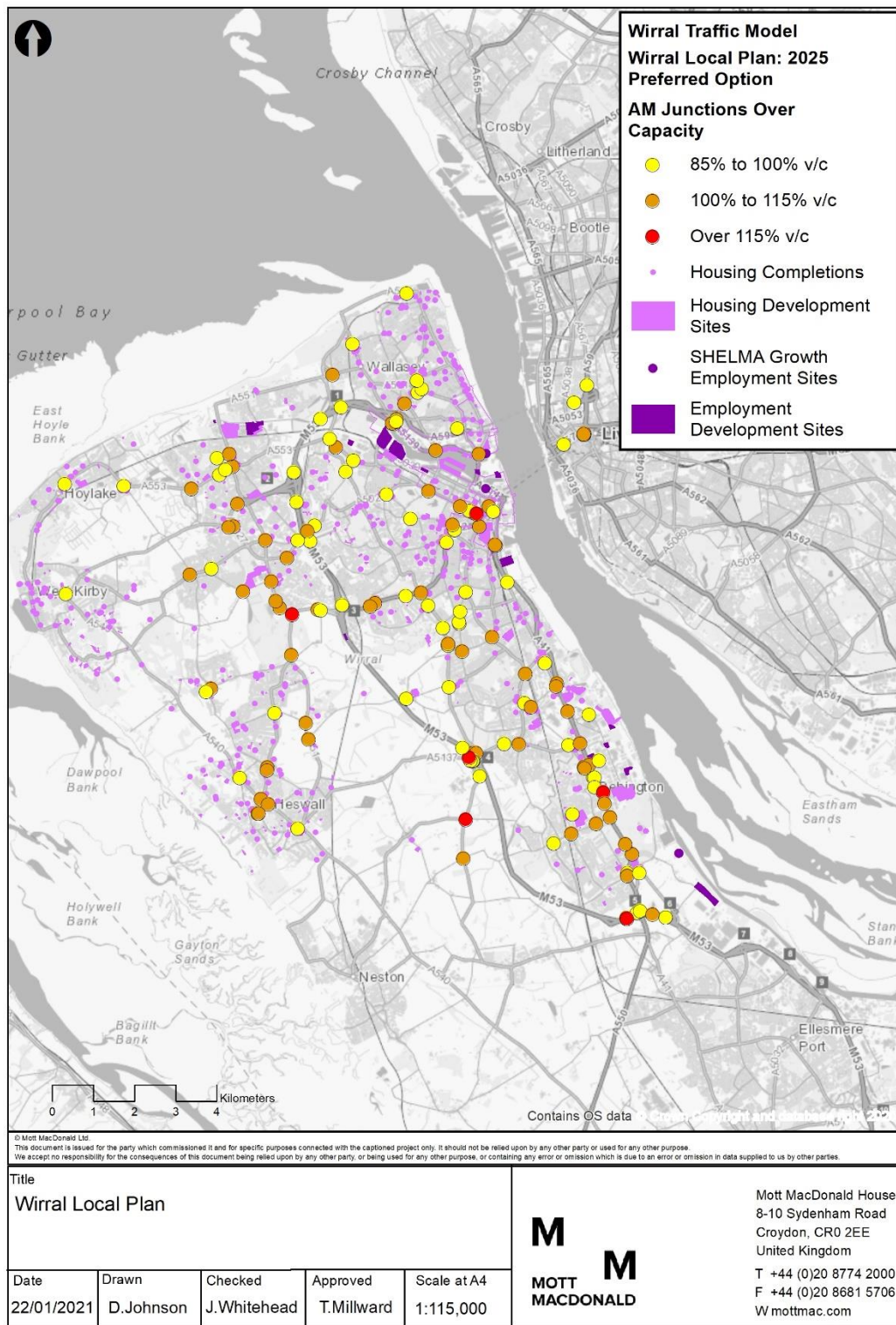


Figure 5.20: Junctions Over Capacity: 2025 Preferred Option IP

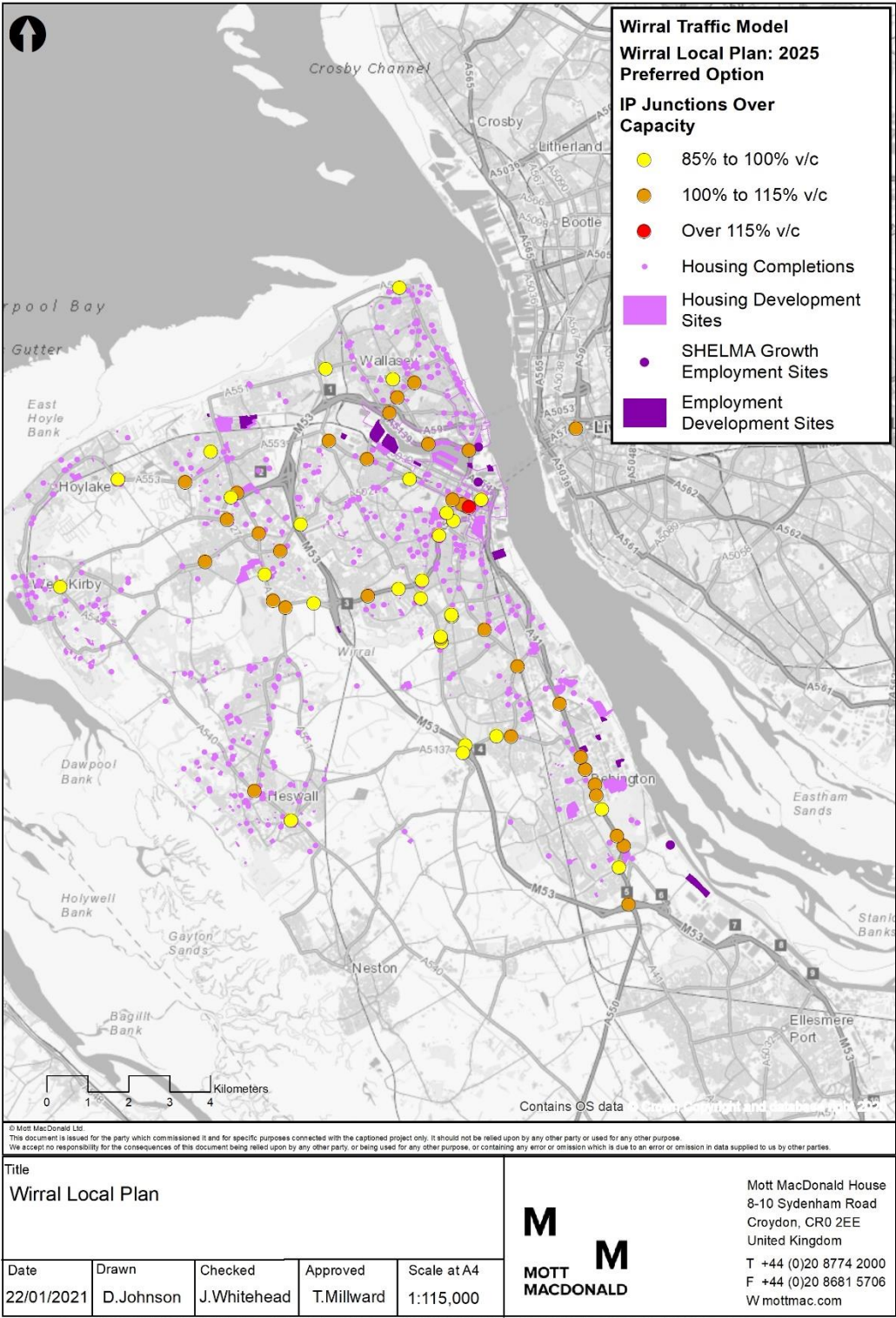


Figure 5.21: Junctions Over Capacity: 2025 Preferred Option PM

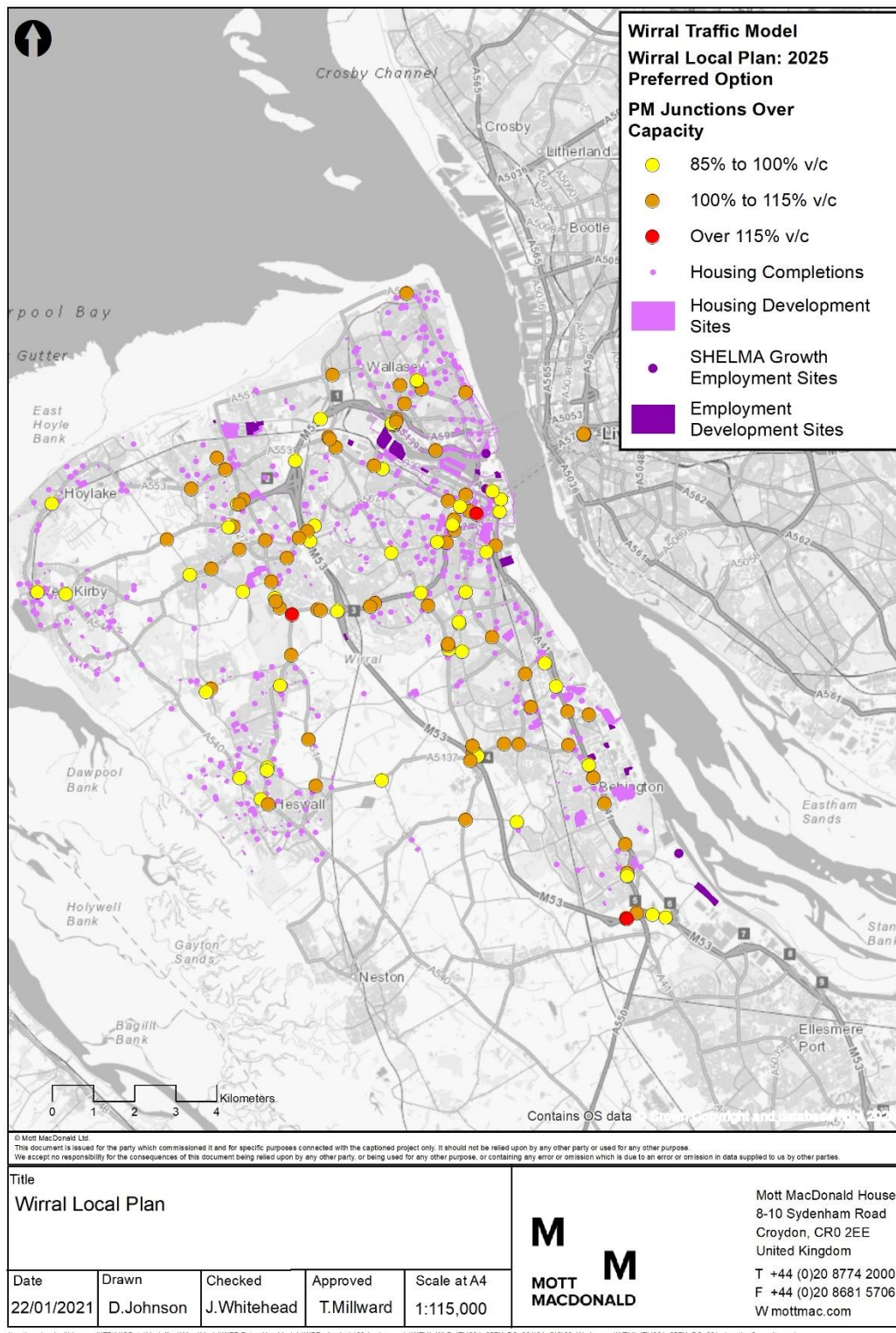


Figure 5.22: Junctions that become Over Capacity: 2025 Preferred Option AM

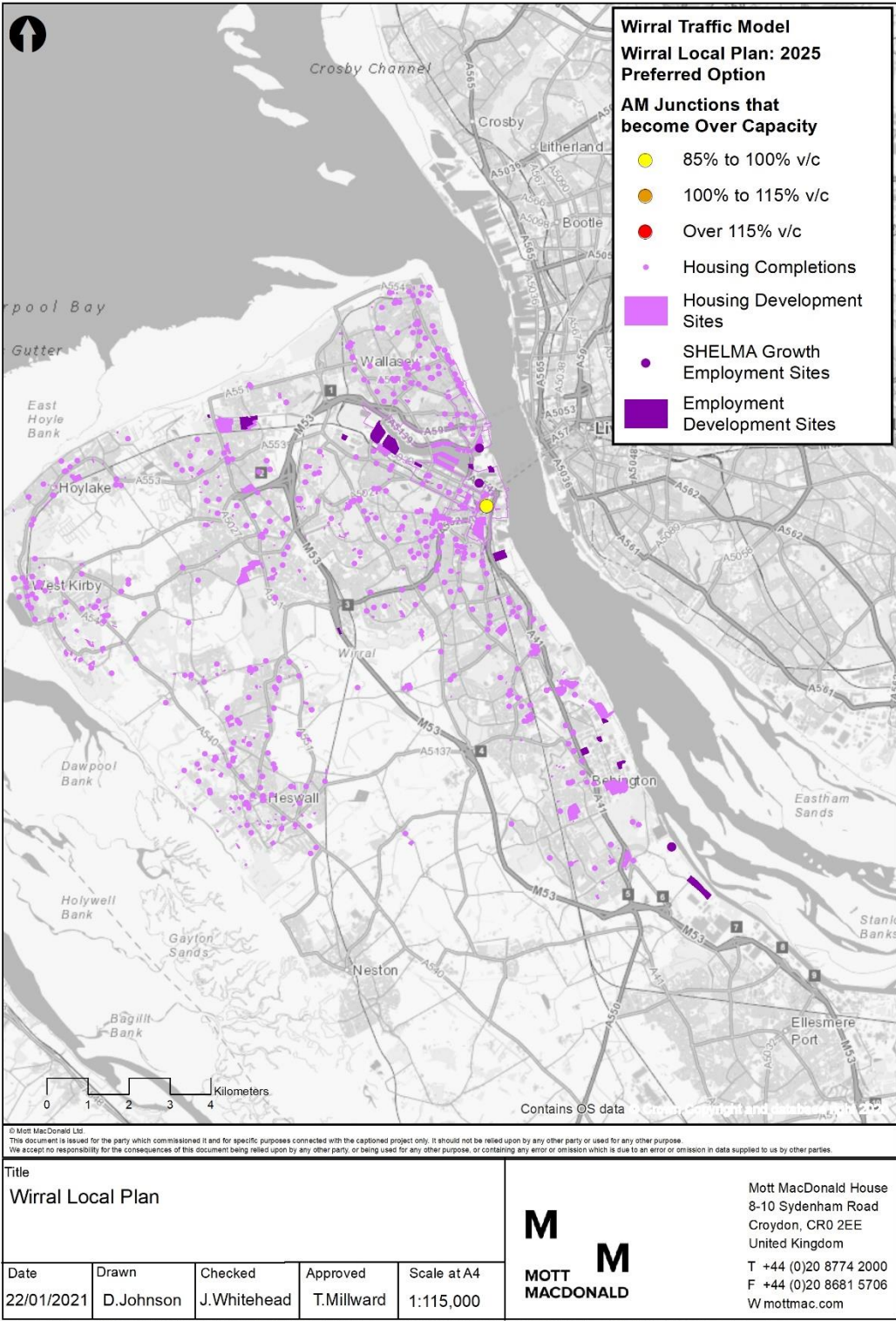


Figure 5.23: Junctions that become Over Capacity: 2025 Preferred Option IP

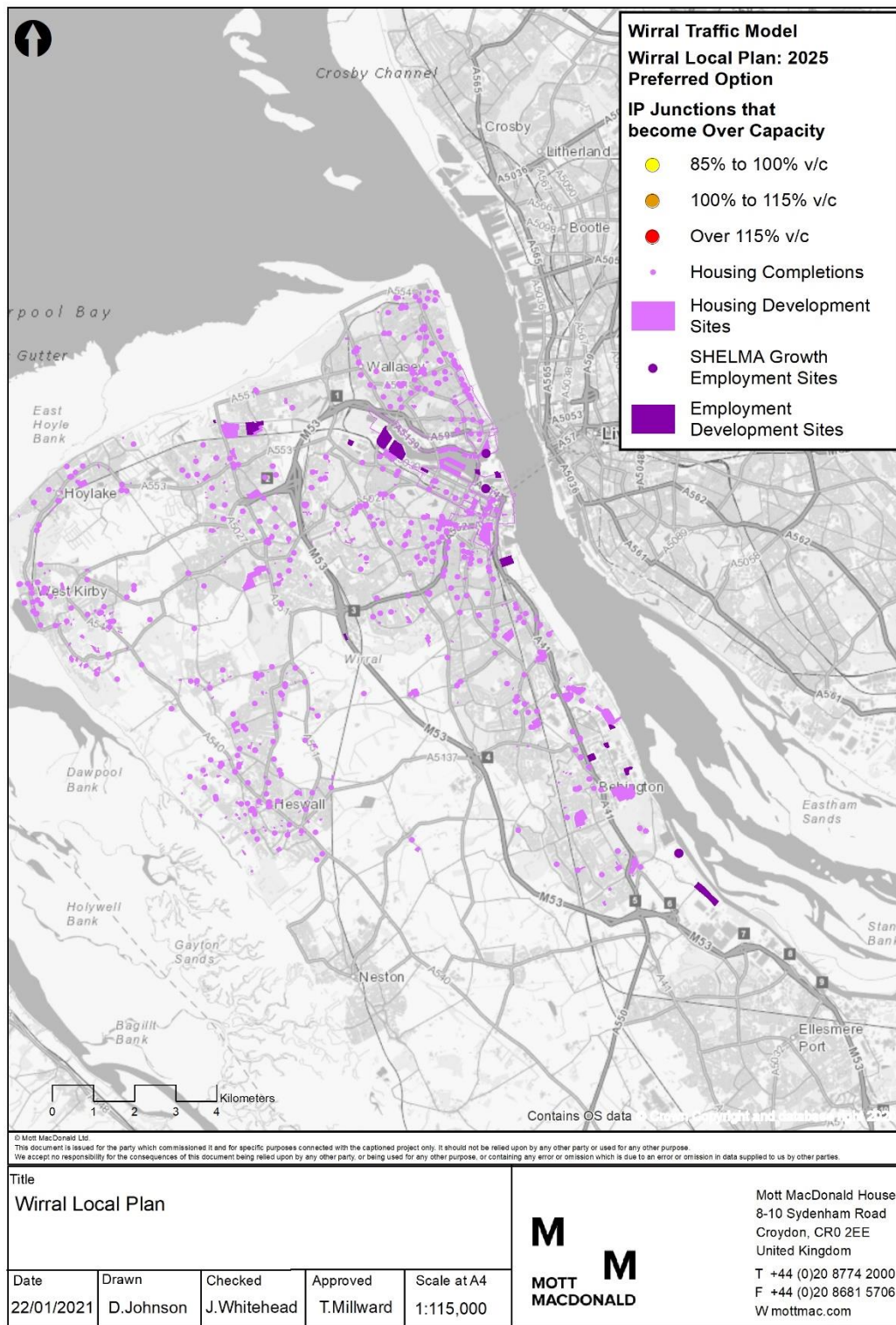
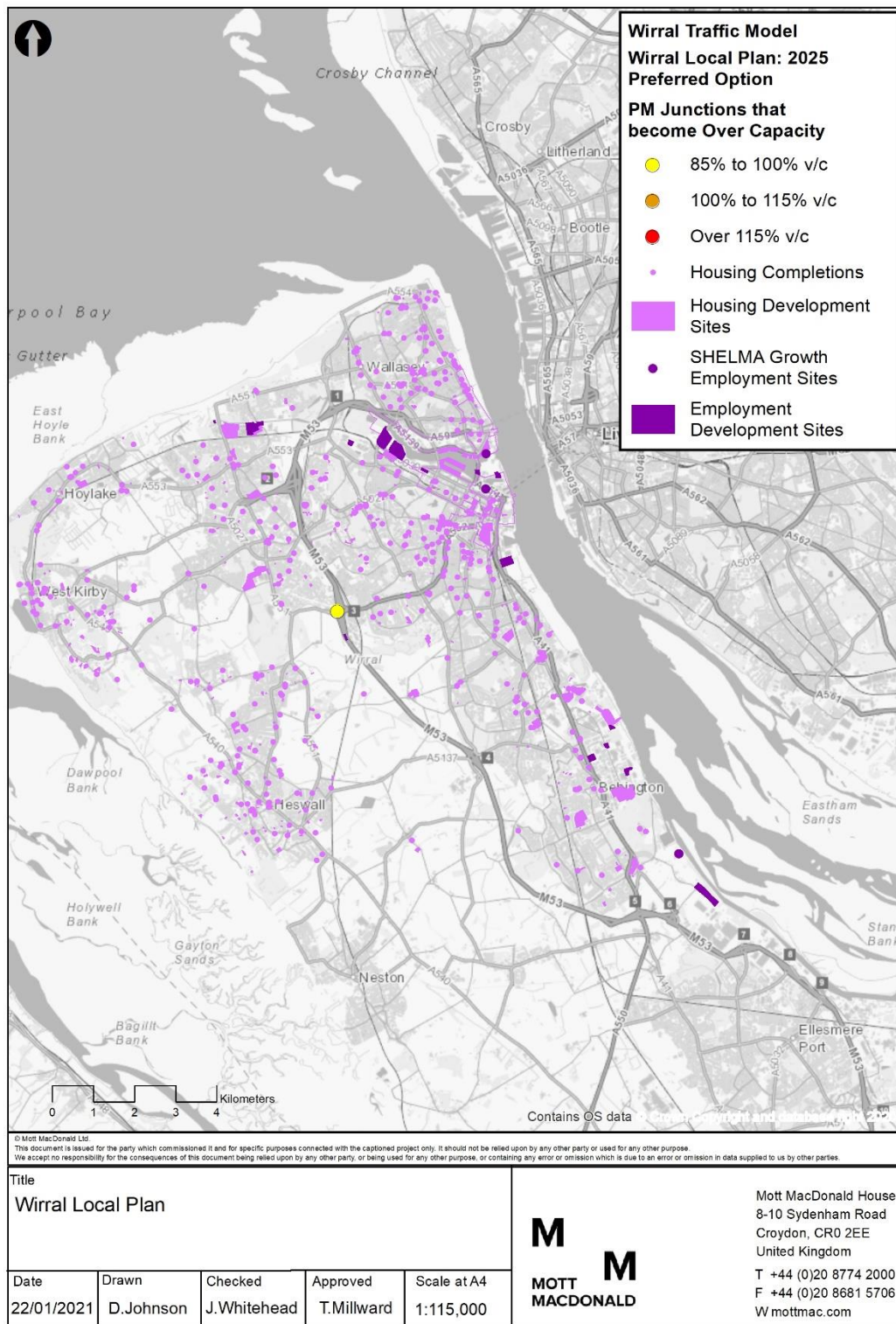


Figure 5.24: Junctions that become Over Capacity: 2025 Preferred Option PM



5.2.5 Link Volumes over Capacity

5.2.5.1 2025 Baseline

Figure 5.25 to Figure 5.27 show the volume over capacity relationship of links in the 2025 Baseline scenario. The figures illustrate that a small section of the B5151 northbound is forecast to be operating at over 115% capacity within the AM period, and that there are a small number of links operating at over 100% capacity within all periods. These links are spread across the network, with the most significant centred around the A41, the proposed Wirral Waters site south of Wallasey and west of the M53 local to Arrowe Park. Several links distributed across the network also operate over 85% capacity in all periods, with sections of the M53 and the eastbound Kingsway Tunnel being most noticeable in select periods.

Both the AM and PM peaks show a greater number of links over capacity than the IP, with the primary cluster of links over 100% capacity located along a small section of the B5151 northbound in the AM, multiple sections of the A41 and at Gorsey Lane roundabout at the entrance/exit to Kingsway tunnel. There are also several links to the west of the M53 operating at over 85% and 100%. These links are located on key routes which provide accessibility to several destinations in West Wirral such as West Kirby, Heswall, and Arrowe Park.

Figure 5.25: Links Over Capacity: 2025 Baseline AM

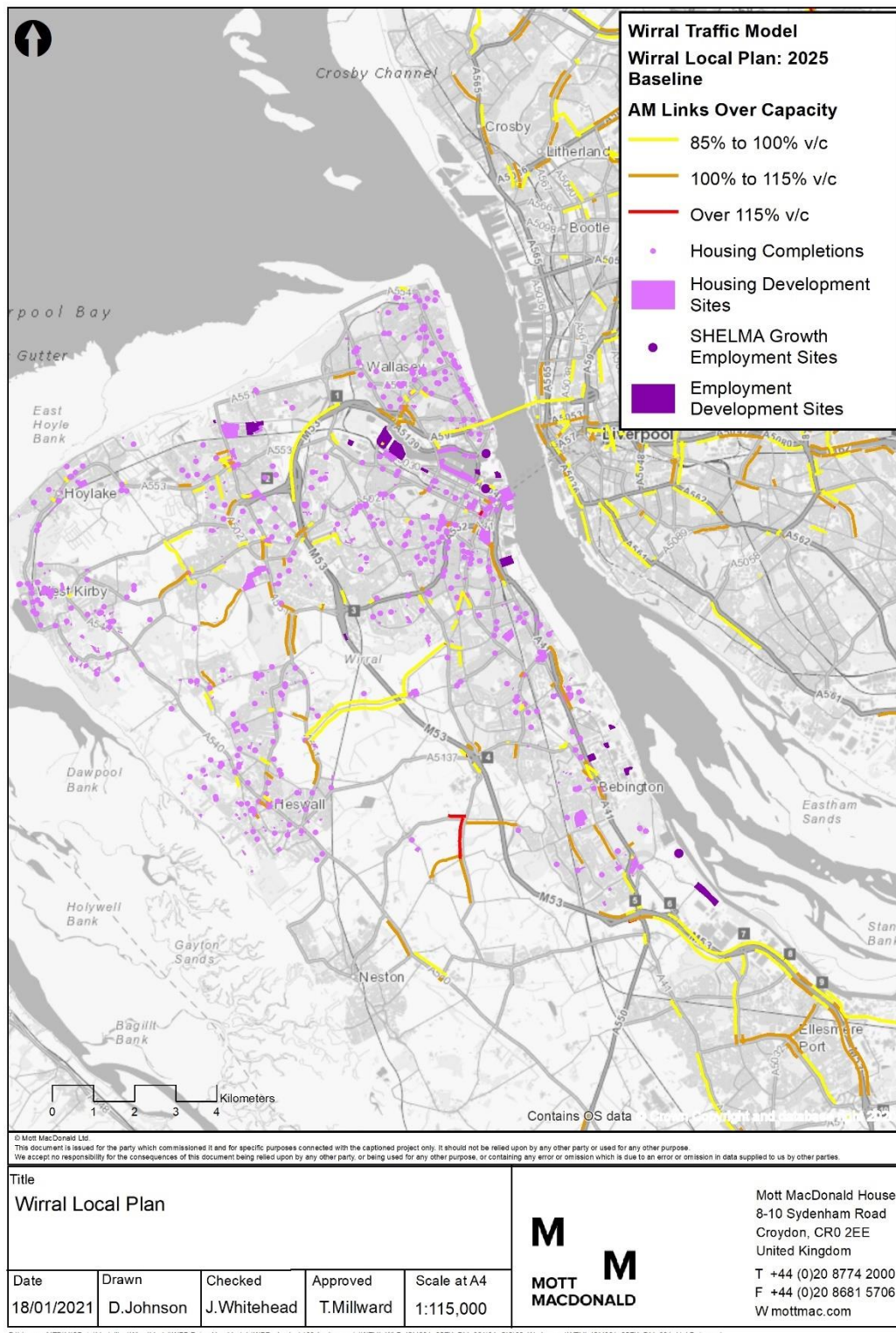


Figure 5.26: Links Over Capacity: 2025 Baseline IP

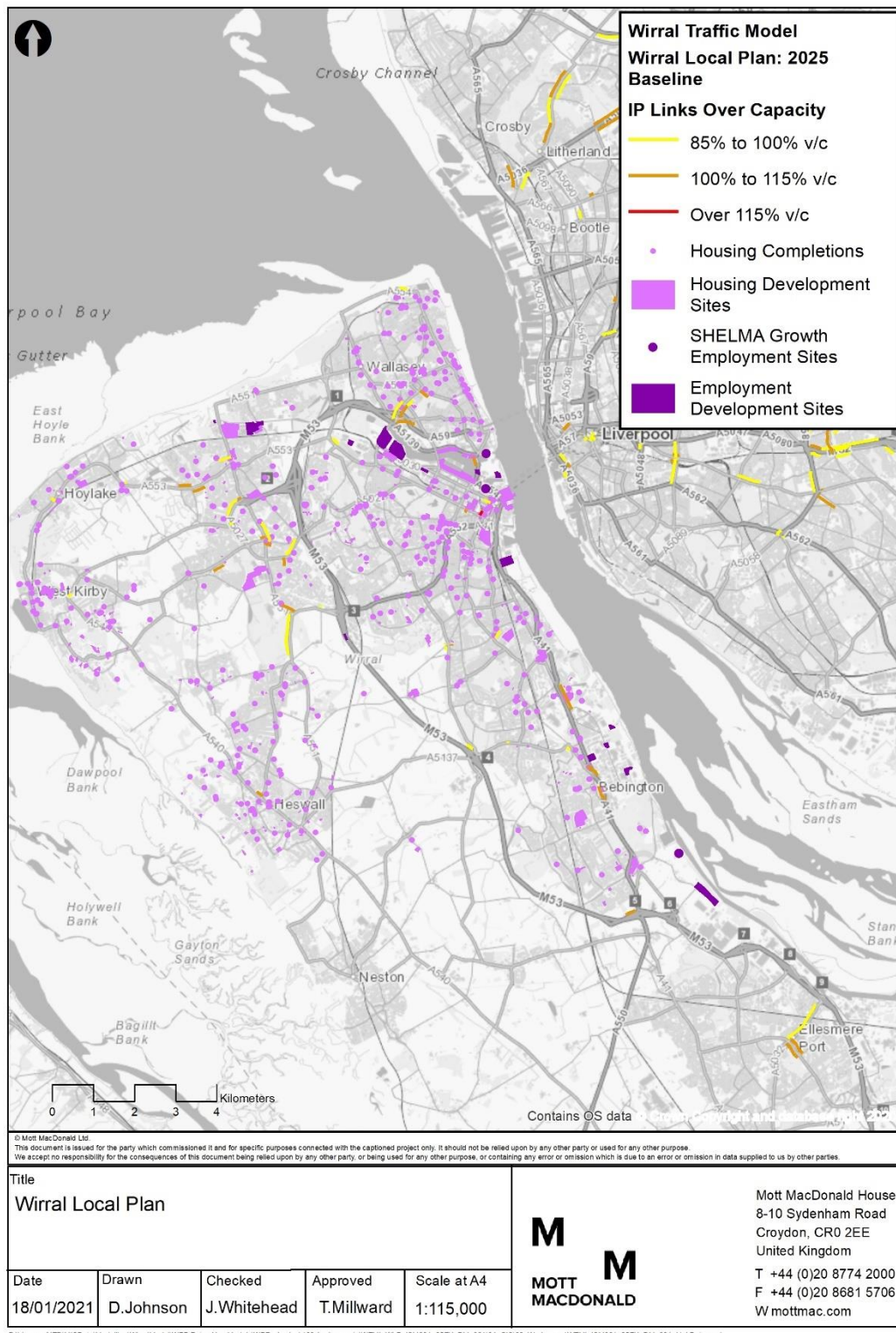
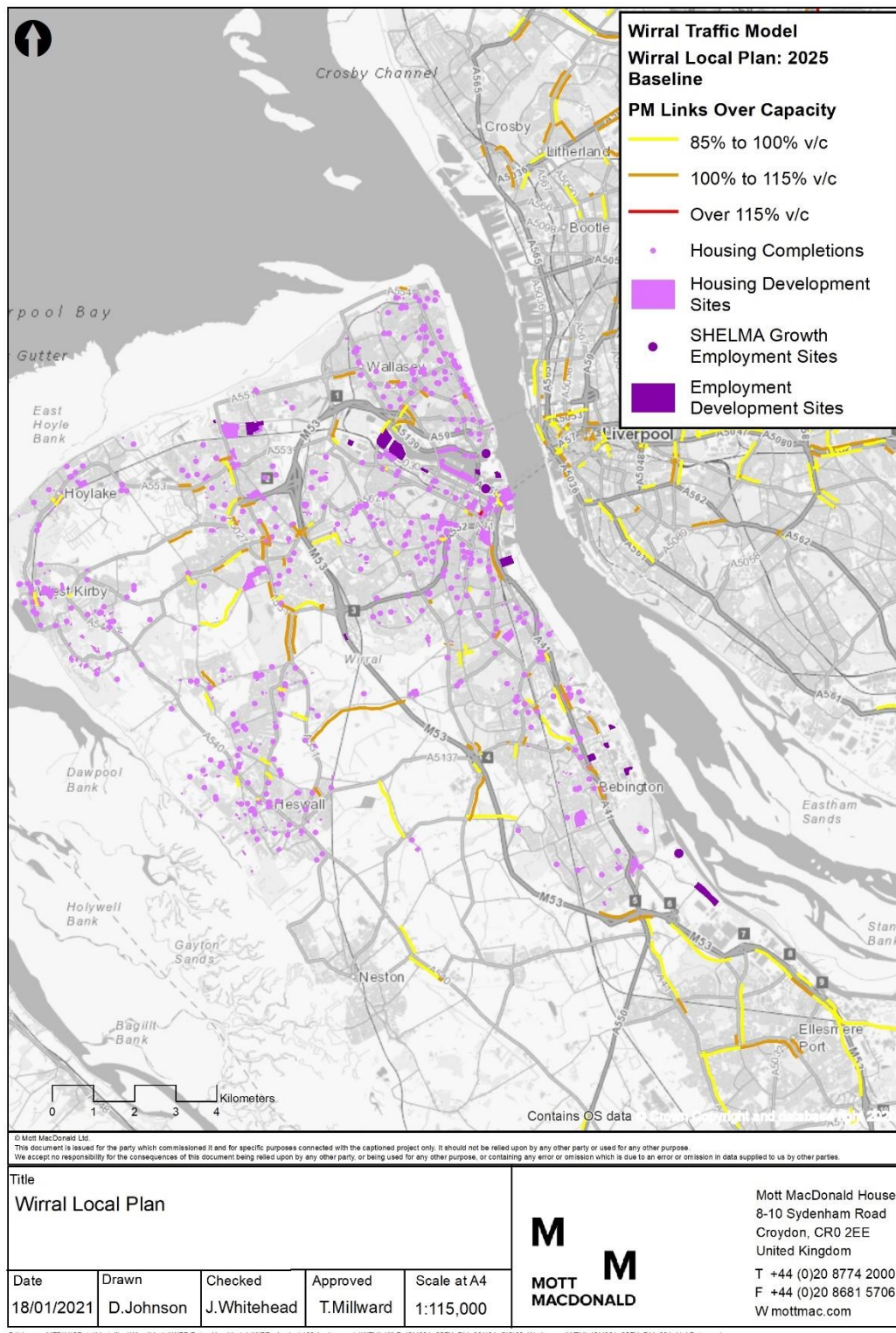


Figure 5.27: Links Over Capacity: 2025 Baseline PM



5.2.5.2 2025 Preferred Option

Figure 5.28 to Figure 5.30 show the volume over capacity relationship of links in the 2025 Preferred Option scenario. The figures illustrate that a small section of the B5151 northbound is forecast to be operating at over 115% capacity within the AM period, and that there are a small number of links operating at over 100% capacity within all periods. These links are spread across the network, with the most significant centred around the A41, the proposed Wirral Waters site south of Wallasey and west of the M53 local to Arrowe Park. Several links distributed across the network also operate over 85% capacity in all periods, with sections of the M53 and the eastbound Kingsway Tunnel in select periods.

Both the AM and PM peaks show a greater number of links over capacity than the IP, with the primary cluster of links over 100% capacity located along a small section of the B5151 northbound in the AM, multiple sections of the A41 and the Gorsey Lane roundabout at the entrance/exit to Kingsway tunnel. There are also several links to the west of the M53 operating at over 85% and 100%. These links are located on key routes which provide accessibility to several destinations in West Wirral such as West Kirby, Heswall, and Arrowe Park.

Figure 5.28: Links Over Capacity: 2025 Preferred Option AM

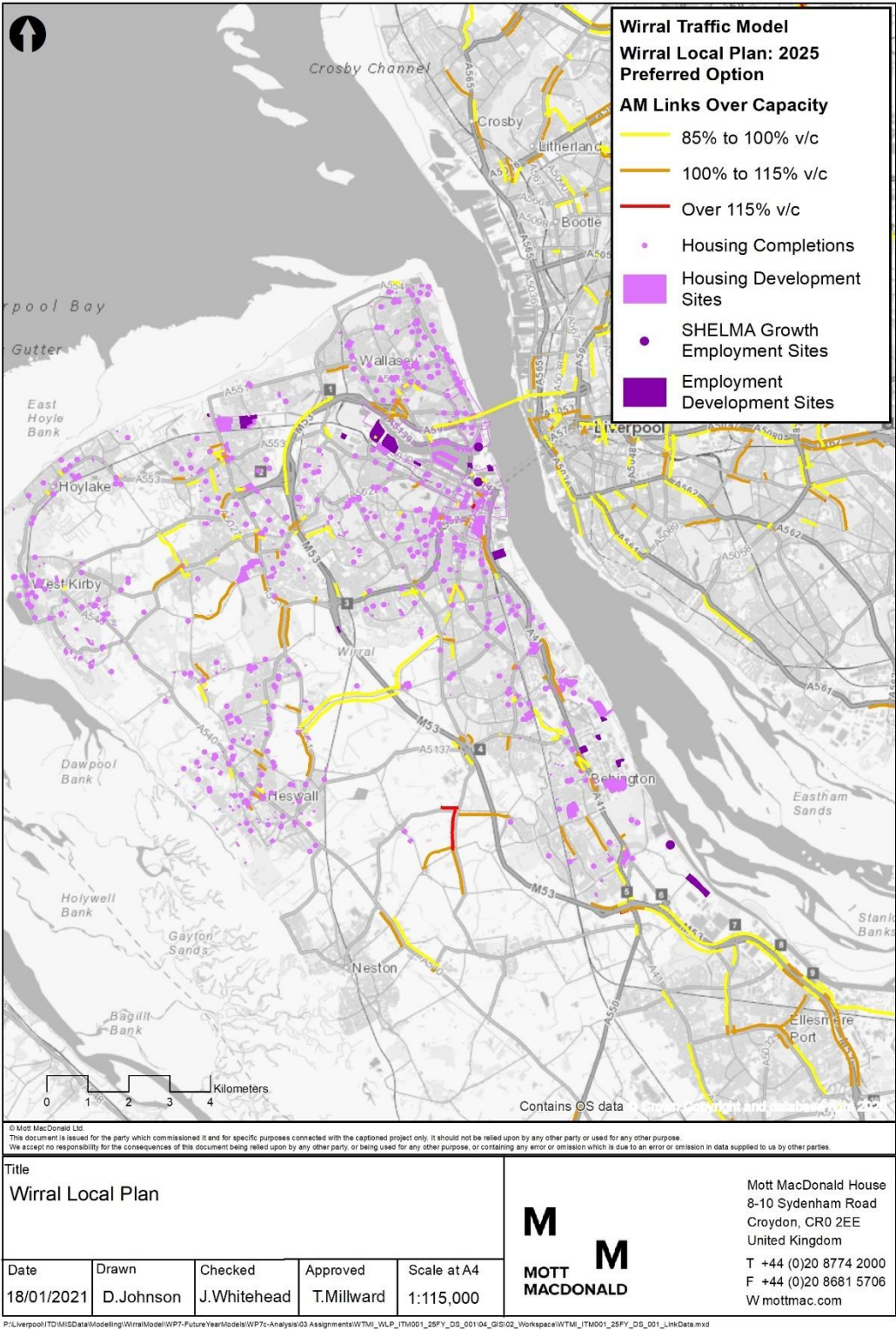


Figure 5.29: Links Over Capacity: 2025 Preferred Option IP

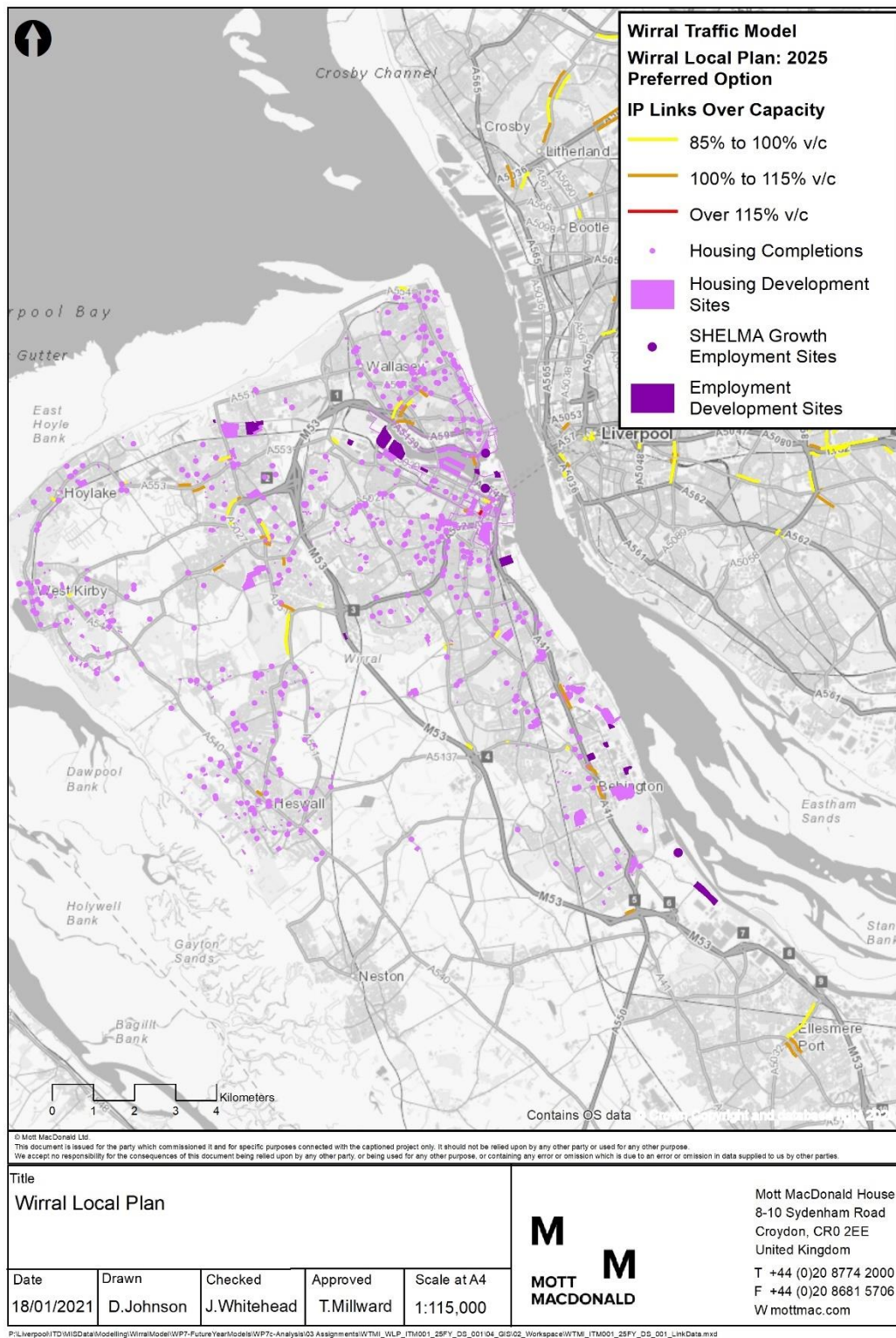
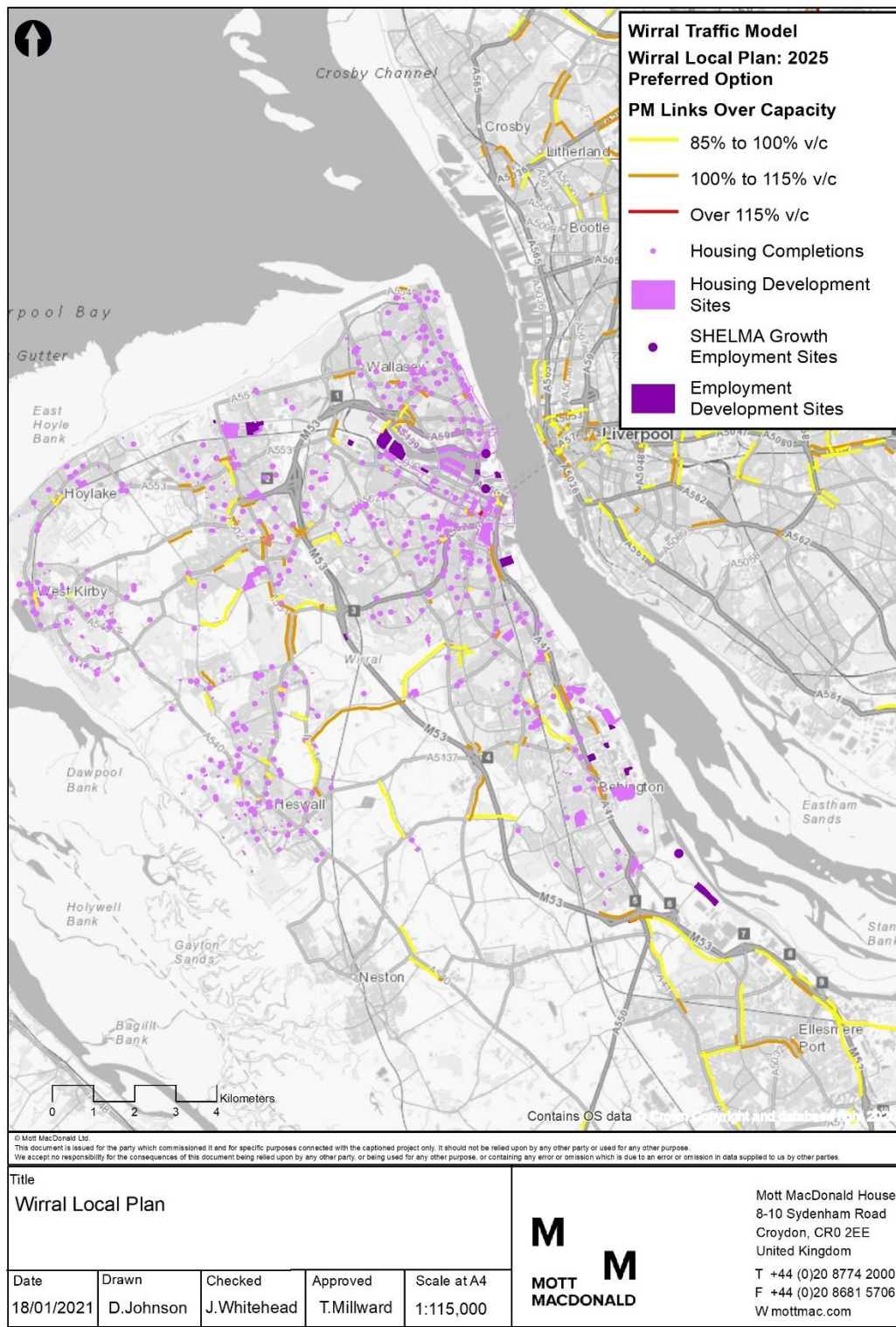


Figure 5.30: Links Over Capacity: 2025 Preferred Option PM



5.2.6 Link Delay

5.2.6.1 2025 Baseline

Figure 5.31 to Figure 5.33 present the link delay in the 2025 Baseline scenario for AM, IP and PM respectively. To the north east of Wirral, the primary link delay is forecast to be within the Kingsway and Queensway Tunnels for both the AM and PM periods, where delay is expected to be over 60 seconds. Delay is also forecast on the A41, most notably in the AM period and to a lesser degree in the PM. Link delay in the AM period exceeds 60 seconds along several significant sections of the regional network, such as on the approaches to the Queensway Tunnel and around Junction 5 M53. The PM period also displays 60 second delay on the approach to Queensway Tunnel but in contrast to the AM it contains less delay on the A41.

The IP period forecasts delays of over 60 seconds within the Kingsway Tunnel and along a cluster of links around Arrowe Park.

Link delay is much more prominent in both the AM and PM than the IP, with several links west of the M53 in areas such as Arrowe Park, Clatterbridge and Upton forecast to experience delays of over 60 seconds, with surrounding links less affected with delays varying from 10 to 50 seconds.

Residential areas around Birkenhead, namely Prenton, Oxton, Wallasey and Bidston, all experience delays of at least 30 seconds on local network links. This is the case for both the AM and PM peaks, with a reduced spread of delay occurring in the same areas during the IP.

In the west of Wirral, delay occurs along the A540 with over 50 seconds forecast across all periods, particularly around Heswall. Within West Kirby and Hoylake, forecast delay is significantly less.

Figure 5.31: Link Delay (s): 2025 Baseline AM

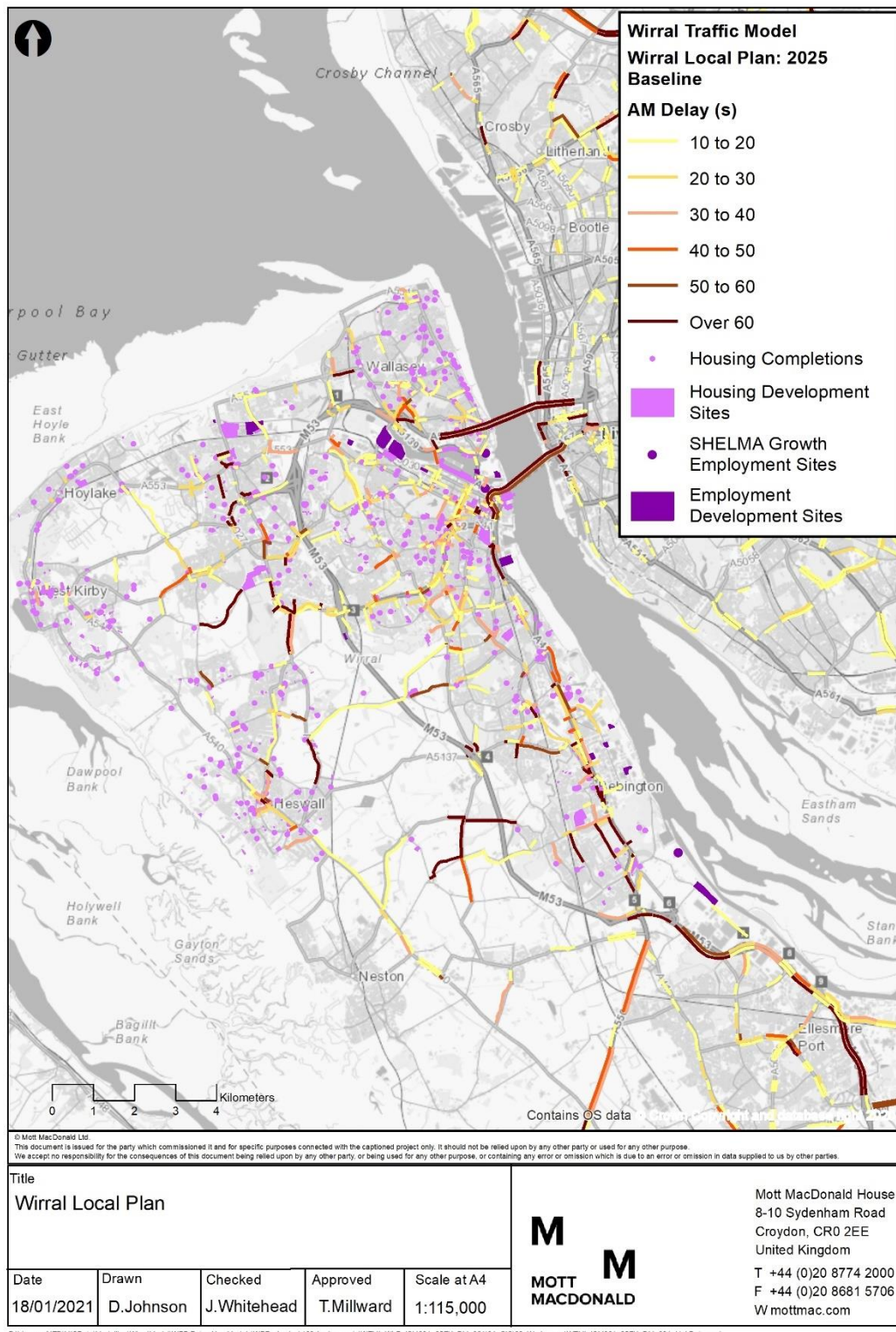


Figure 5.32: Link Delay (s): 2025 Baseline IP

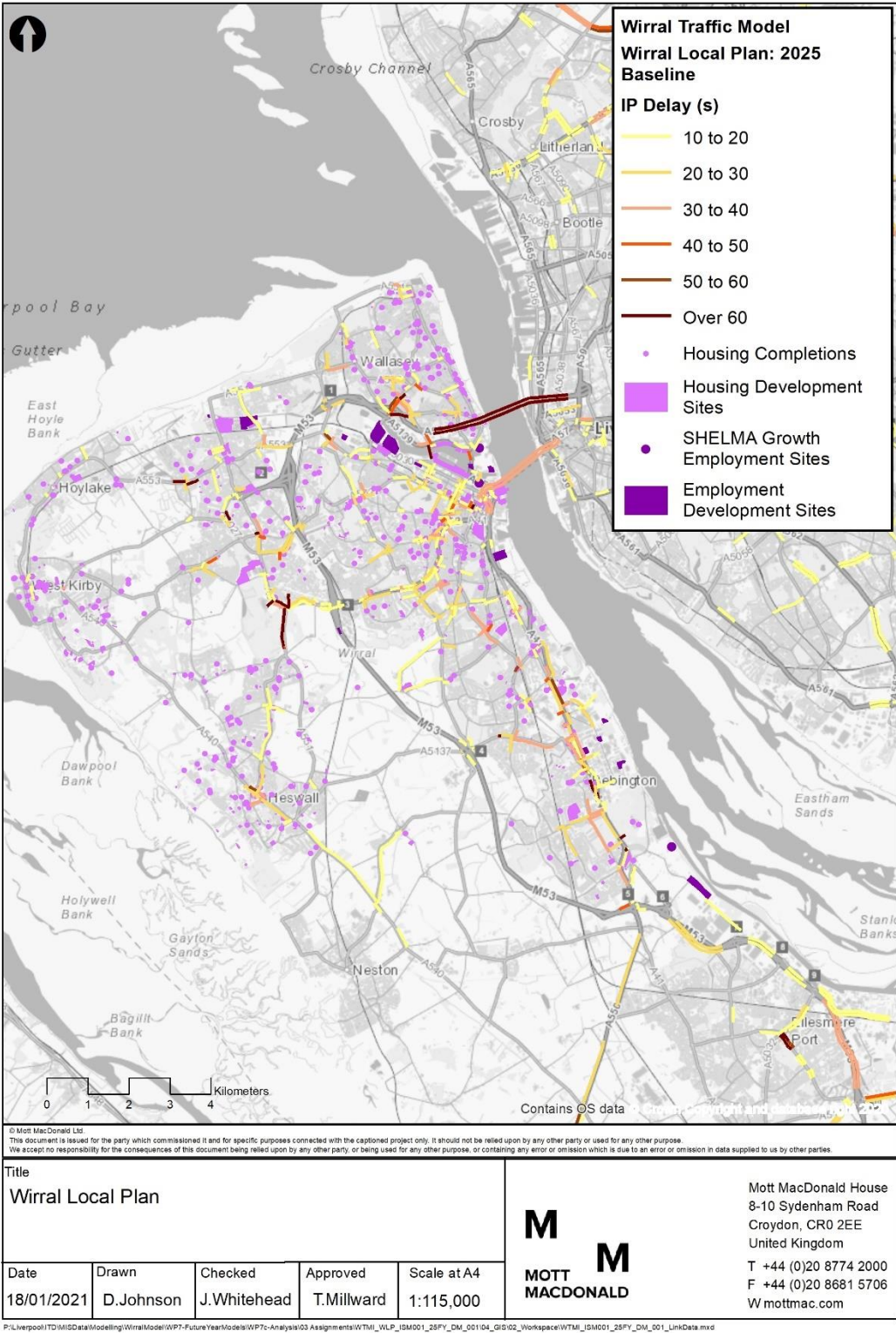
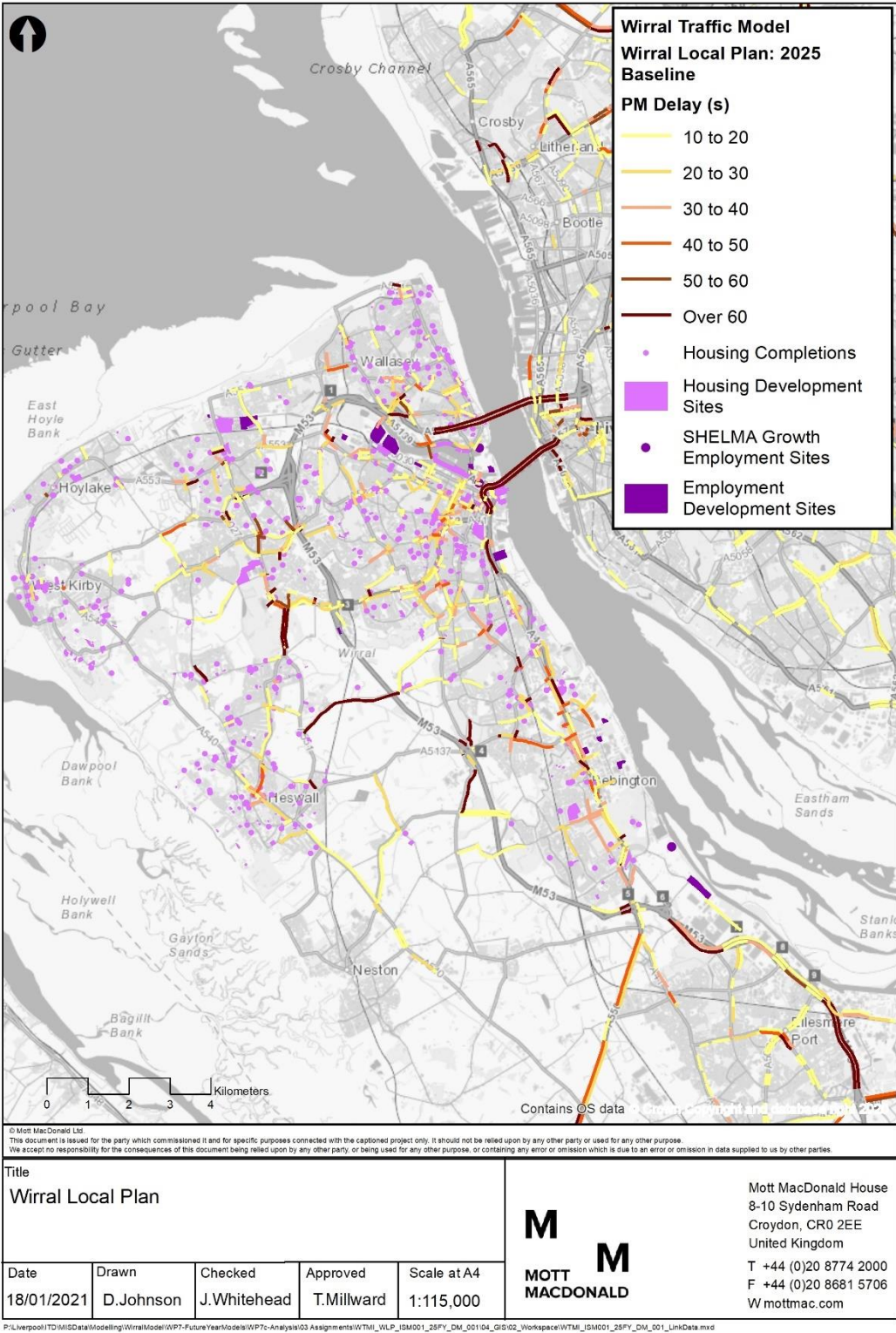


Figure 5.33: Link Delay (s): 2025 Baseline PM



5.2.6.2 2025 Preferred Option

Figure 5.34 to Figure 5.36 present the link delay in the 2025 Preferred Option scenario for AM, IP and PM respectively. To the north east of Wirral, the primary link delay is forecast to be within the Kingsway and Queensway Tunnels for both the AM and PM periods, where delay is expected to be over 60 seconds. Delay is also forecast on the A41, most notably in the AM period and to a lesser degree in the PM. Link delay in the AM period exceeds 60 seconds along several significant sections of the regional network, such as on the approaches to the Queensway Tunnel and around Junction 5 M53. The PM period also displays 60 second delay on the approach to Queensway Tunnel but in contrast to the AM it contains less delay on sections of the A41.

The IP period forecasts delays of over 60 seconds within the Kingsway Tunnel and along a cluster of links around Arrowe Park.

Link delay is much more prominent in both the AM and PM than the IP, with several links west of the M53 in areas such as Arrowe Park, Clatterbridge and Upton forecast to experience delays of over 60 seconds, with surrounding links less affected with delays varying from 10 to 50 seconds.

Residential areas around Birkenhead, namely Prenton, Oxton, Wallasey and Bidston, all experience delays of at least 30 seconds on local network links. This is the case for both the AM and PM peaks, with a reduced spread of delay occurring in the same areas during the IP.

In the west of Wirral, delay occurs along the A540 with over 50 seconds forecast across all periods, particularly around Heswall. Within West Kirby and Hoylake, forecast delay is significantly less.

Figure 5.34: Link Delay (s): 2025 Preferred Option AM

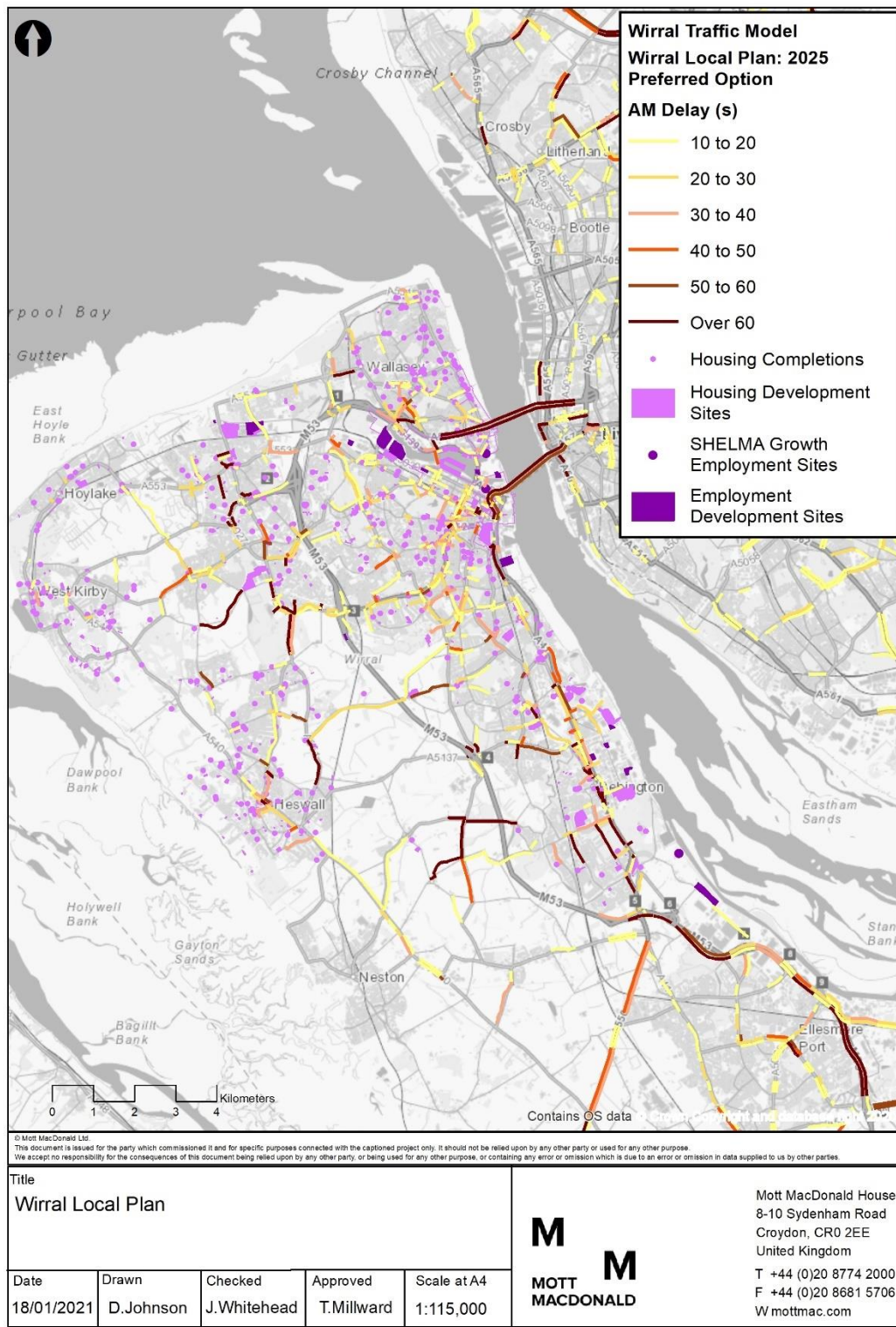


Figure 5.35: Link Delay (s): 2025 Preferred Option IP

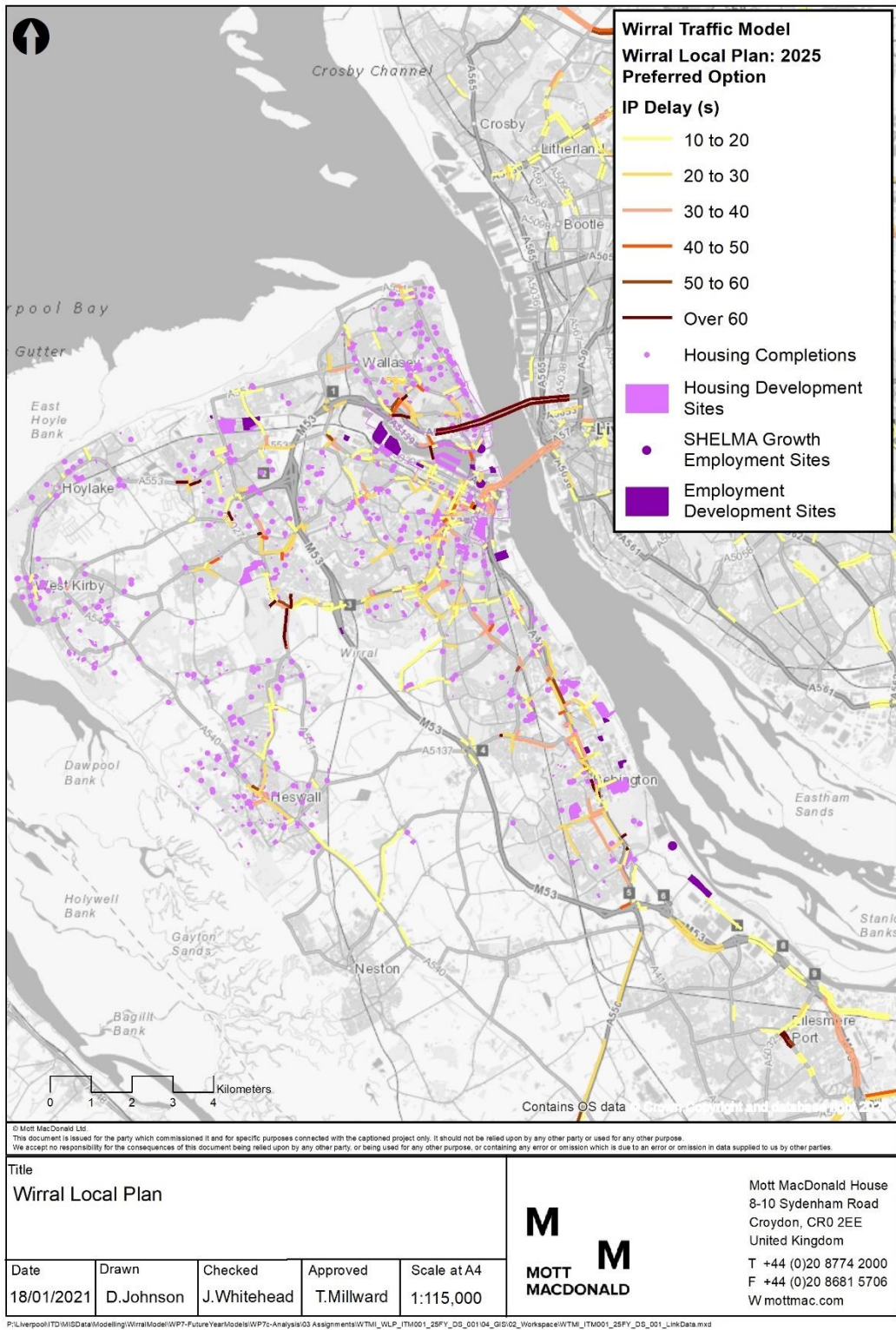
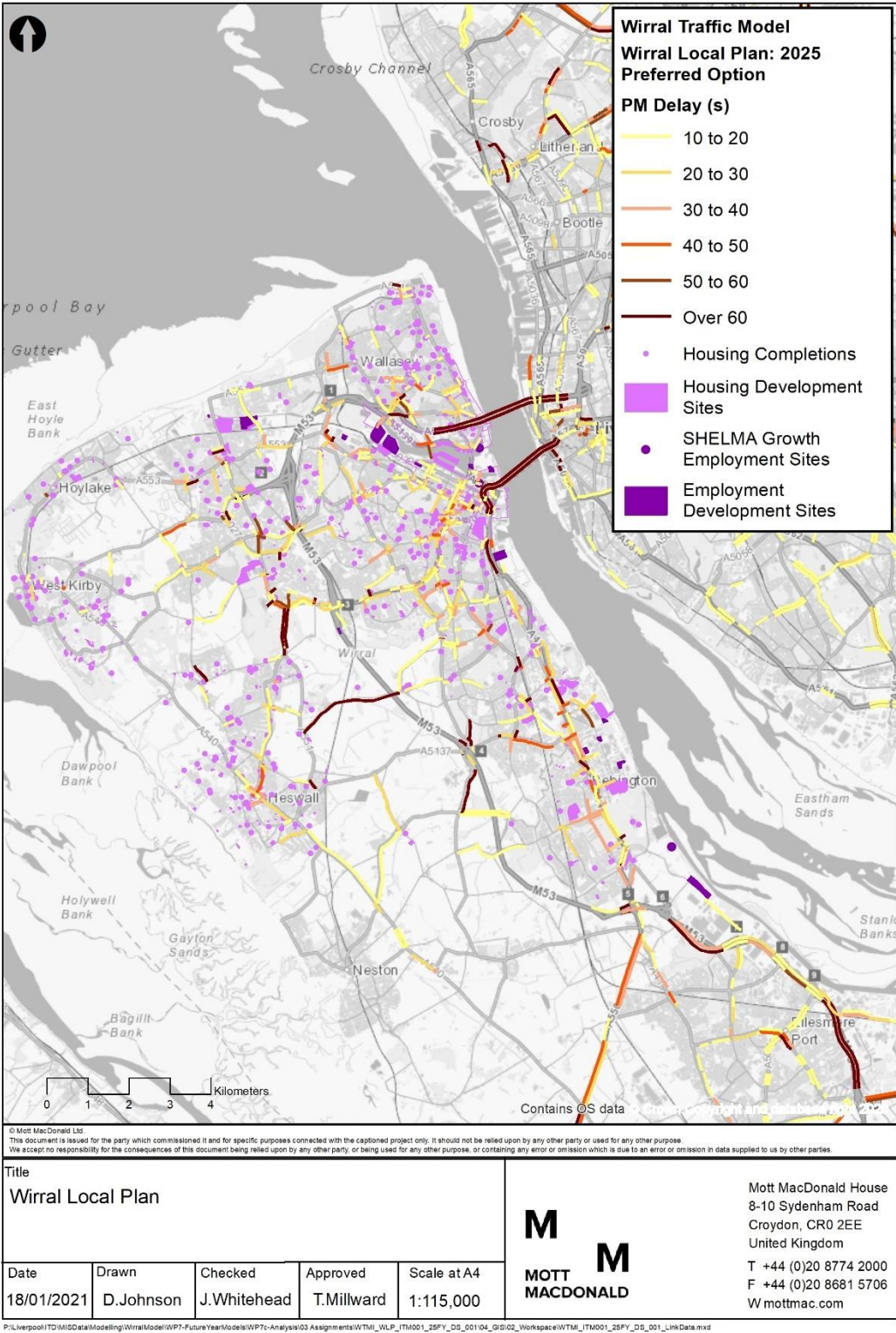


Figure 5.36: Link Delay (s): 2025 Preferred Option PM



5.3 Wirral Local Plan 2037 Results

5.3.1 Model Assignment Convergence

The convergence statistics show the Wirral Local Plan 2037 Baseline and Preferred Option models both reaches suitable convergence levels:

2025 Baseline

- The “%FLOWS” values are higher than 99% in the final four assignment loops for all models
- “%GAP” values for 2037 of 0.017, 0.010 and 0.016 have been achieved for the AM, IP and PM models respectively.

2025 Preferred Option

- The “%FLOWS” values are higher than 99% in the final four assignment loops for all models
- “%GAP” values for 2037 of 0.020, 0.001 and 0.015 have been achieved for the AM, IP and PM models respectively.

Appendix F contains full model convergence results.

5.3.2 Network Statistics

Table 5.6 presents the overall network statistics for the 2037 Baseline model. The modelling shows a 27-36% increase in traffic between 2015 and 2037 with corresponding increases in queues and travel time. The average speed across the network in the AM peak has decreased from 40 kph in 2015 to 35 kph in 2037, the equivalent figures for IP remain unchanged at 42kph and the equivalent figures for PM show a decrease from 39 kph to 37 kph.

Table 5.7 presents the overall network statistics for the 2037 Preferred Option model. The modelling shows a negligible change in traffic between the 2037 Baseline and Preferred Option, with corresponding changes in queues and travel time. The average speed across the network in the AM peak has decreased by 1kph in the Preferred Option, with similar changes for IP and PM.

Table 5.6: Summary of Network Statistics – 2037 Baseline

Statistics	Base Year			Baseline			Difference			Percentage Difference		
	AM	IP	PM	AM	IP	PM	AM	IP	PM	AM	IP	PM
Transient Queues (PCU HRS/HR)	1,600	1,000	1,600	2,200	1,600	2,100	600	600	500	38%	60%	31%
Over-Capacity Queues (PCU HRS/HR)	200	100	600	2,700	400	1,700	2,500	300	1,100	1250%	300%	183%
Link Cruise Time (PCU HRS/HR)	10,100	6,700	9,600	12,600	9,500	11,900	2,500	2,800	2,300	25%	42%	24%
Total Travel Time (PCU HRS/HR)	11,800	7,800	11,700	17,500	11,500	15,800	5,700	3,700	4,100	48%	47%	35%
Travel Distance (PCU KMS/HR)	477,300	328,600	459,800	606,800	482,200	583,100	129,500	153,600	123,300	27%	47%	27%
Average Speed (KPH)	40	42	39	35	42	37	-6	0	-2	-14%	0%	-6%
Total Trips Loaded (PCU)	481,800	364,500	487,200	616,300	495,600	617,000	134,500	131,100	129,800	28%	36%	27%

Table 5.7: Summary of Network Statistics – 2037 Preferred Option

Statistics	Baseline			Preferred Option			Difference			Percentage Difference		
	AM	IP	PM	AM	IP	PM	AM	IP	PM	AM	IP	PM
Transient Queues (PCU HRS/HR)	2,200	1,600	2,100	2,300	1,600	2,200	100	0	100	5%	0%	5%
Over-Capacity Queues (PCU HRS/HR)	2,700	400	1,700	2,900	400	1,900	200	0	200	7%	0%	12%
Link Cruise Time (PCU HRS/HR)	12,600	9,500	11,900	12,800	9,700	12,100	200	200	200	2%	2%	2%
Total Travel Time (PCU HRS/HR)	17,500	11,500	15,800	18,000	11,800	16,200	500	300	400	3%	3%	3%
Travel Distance (PCU KMS/HR)	606,800	482,200	583,100	613,300	489,700	590,100	6,500	7,500	7,000	1%	2%	1%
Average Speed (KPH)	35	42	37	34	42	36	0	0	-1	-1%	-1%	-1%
Total Trips Loaded (PCU)	616,300	495,600	617,000	618,000	497,300	618,700	1,700	1,700	1,700	0%	0%	0%

5.3.3 Comparison of Flows

5.3.3.1 2037 Baseline vs 2015 Base Year

Figure 5.37 to Figure 5.39 present the flow difference plots between the 2037 Baseline and the 2015 Base Year scenarios for AM, IP and PM respectively.

As with the 2025 Baseline comparison against 2015 Base Year, the primary increases in traffic flow volumes are forecast to be along the M53 in both directions, in addition to both the Queensway and Kingsway Tunnels. Similarly, there is a forecast increase in cross-boundary traffic to Cheshire West and Chester for all periods via the A550 and the A41 south of Bromborough.

The modelled increases in traffic flow volumes are seen as extending to parallel routes to those corridors that experience increases in the 2025 Baseline. The growth in traffic up to 2025 will reduce the capacity available for the expected growth to 2037, which subsequently assigns along parallel routes which have available capacity.

Figure 5.40 to Figure 5.42 present the traffic flows for the 2037 Baseline AM, IP and PM respectively.

As with the 2025 Baseline the Wirral highway network, and subsequent hierarchy, is well defined within the three figures, with the M53 forming the primary spine of the network and is supported by the A-road network linking the northern and southern areas of Wirral.

The further increase in residential and employment growth from proposed 2025 developments results in the majority of the A-road corridors accommodate flows of at least 1,000 pcu in all periods.

Figure 5.37: Difference in Actual Flow (pcu): 2037 Baseline vs 2015 Base Year AM

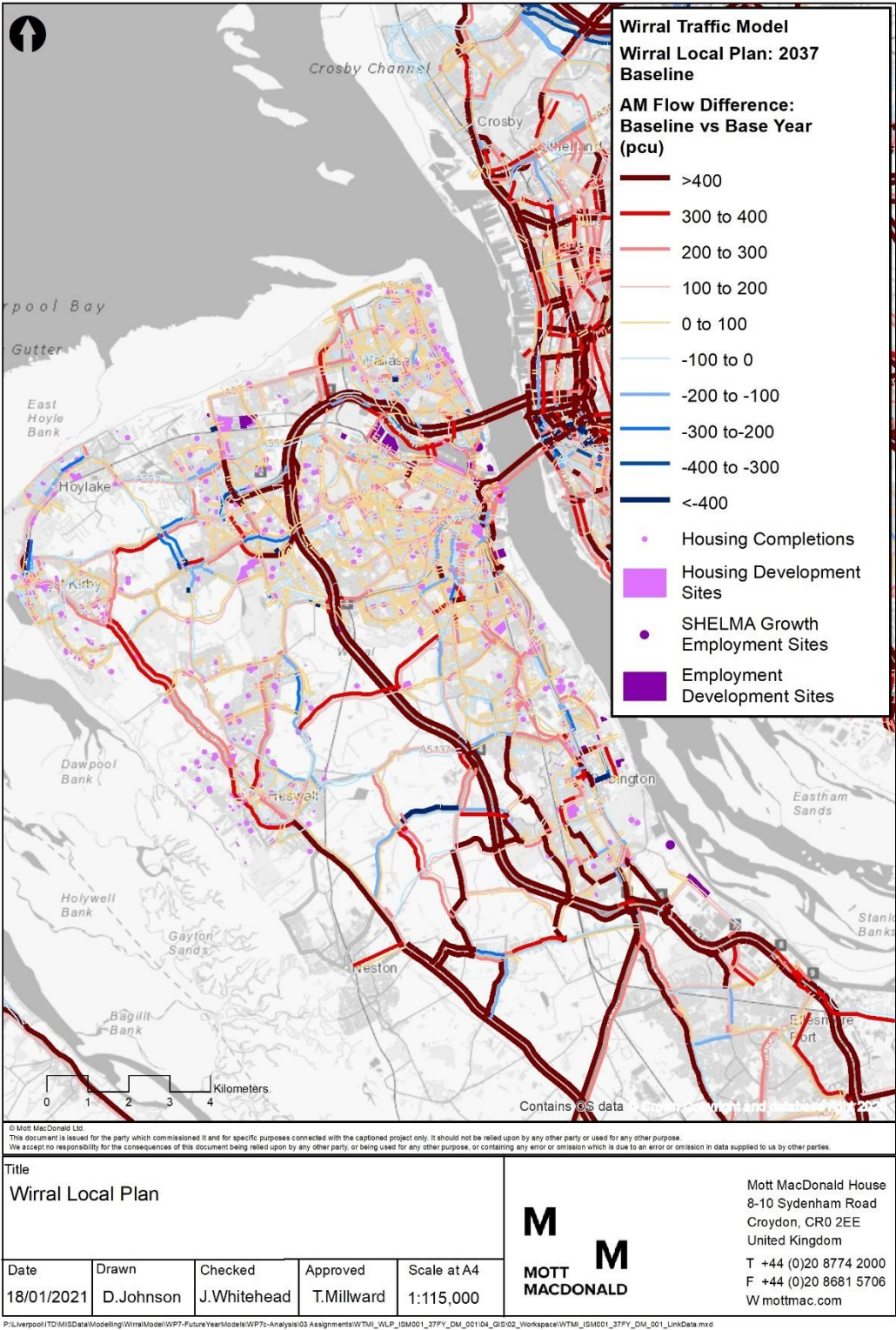


Figure 5.38: Difference in Actual Flow (pcu): 2037 Baseline vs 2015 Base Year IP

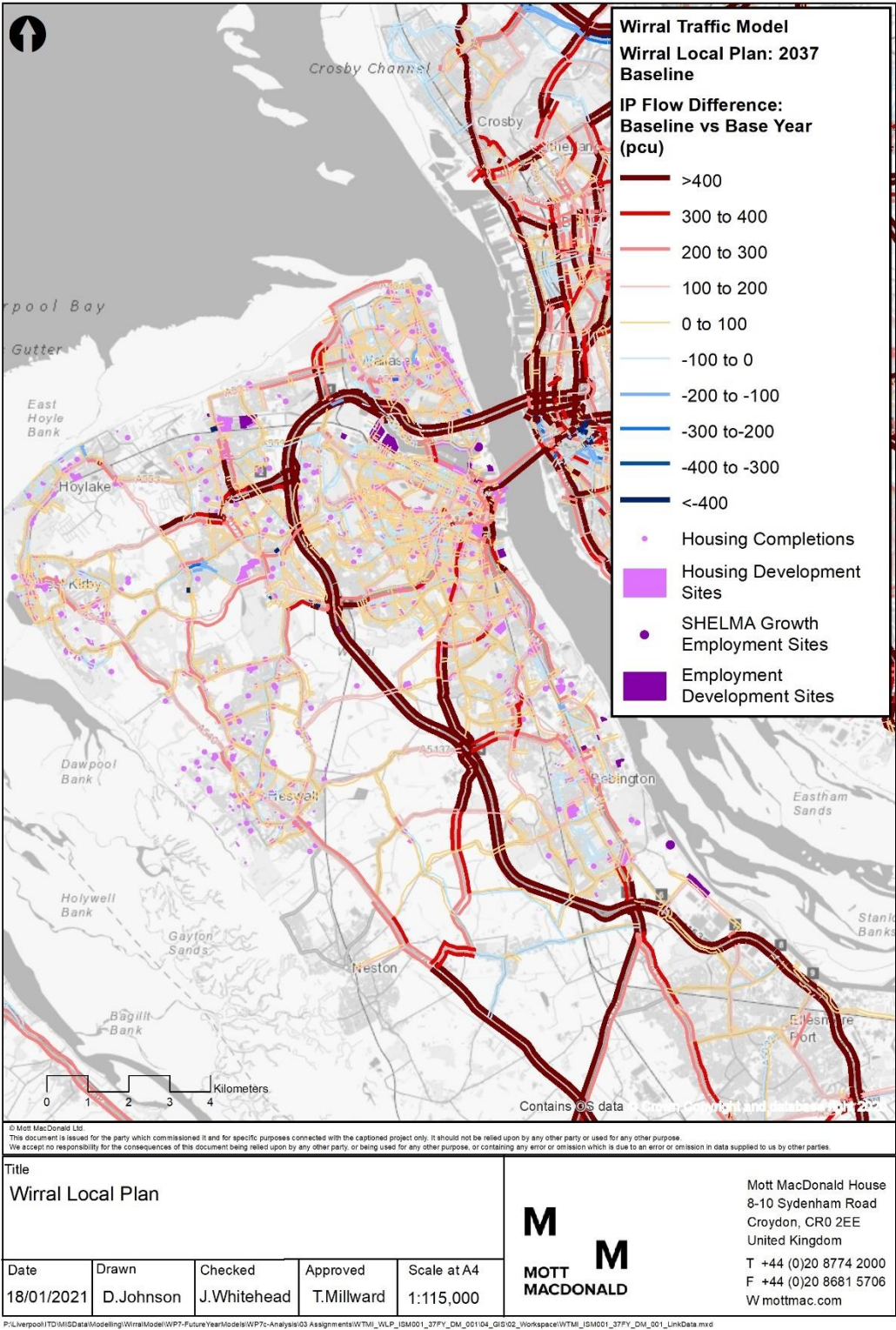


Figure 5.39: Difference in Actual Flow (pcu): 2037 Baseline vs 2015 Base Year PM

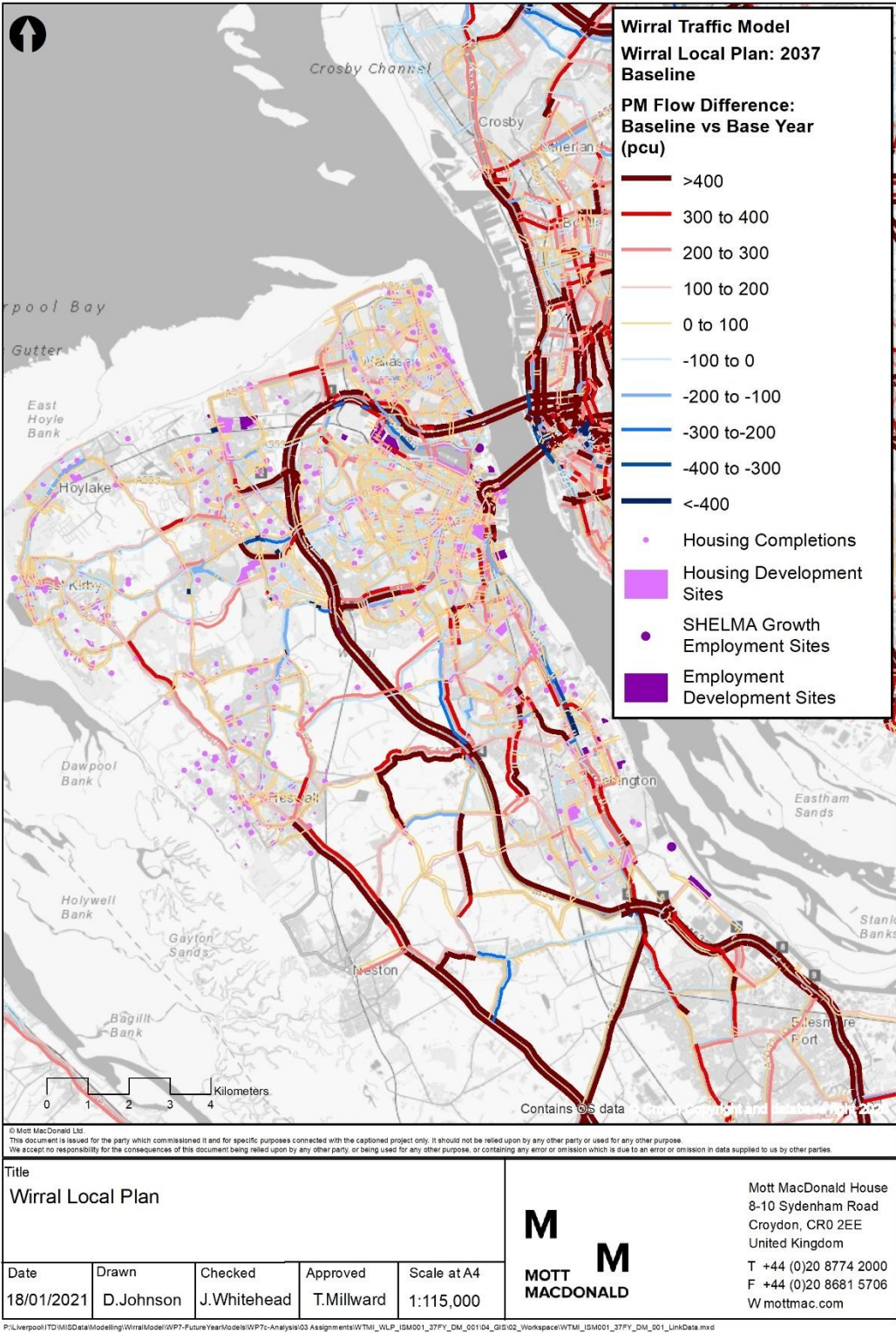


Figure 5.40: Actual Flow (pcu): 2037 Baseline AM

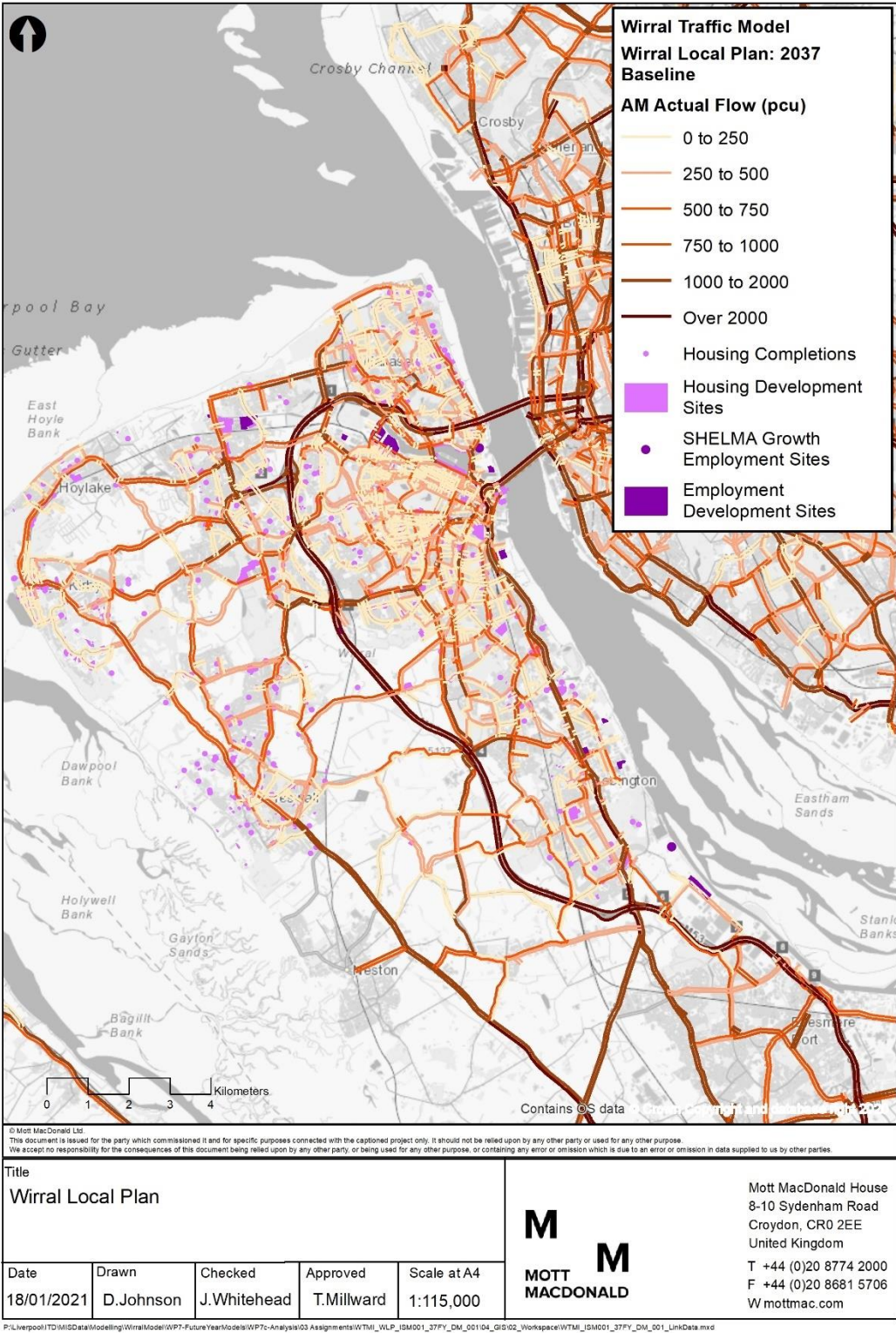


Figure 5.41: Actual Flow (pcu): 2037 Baseline IP

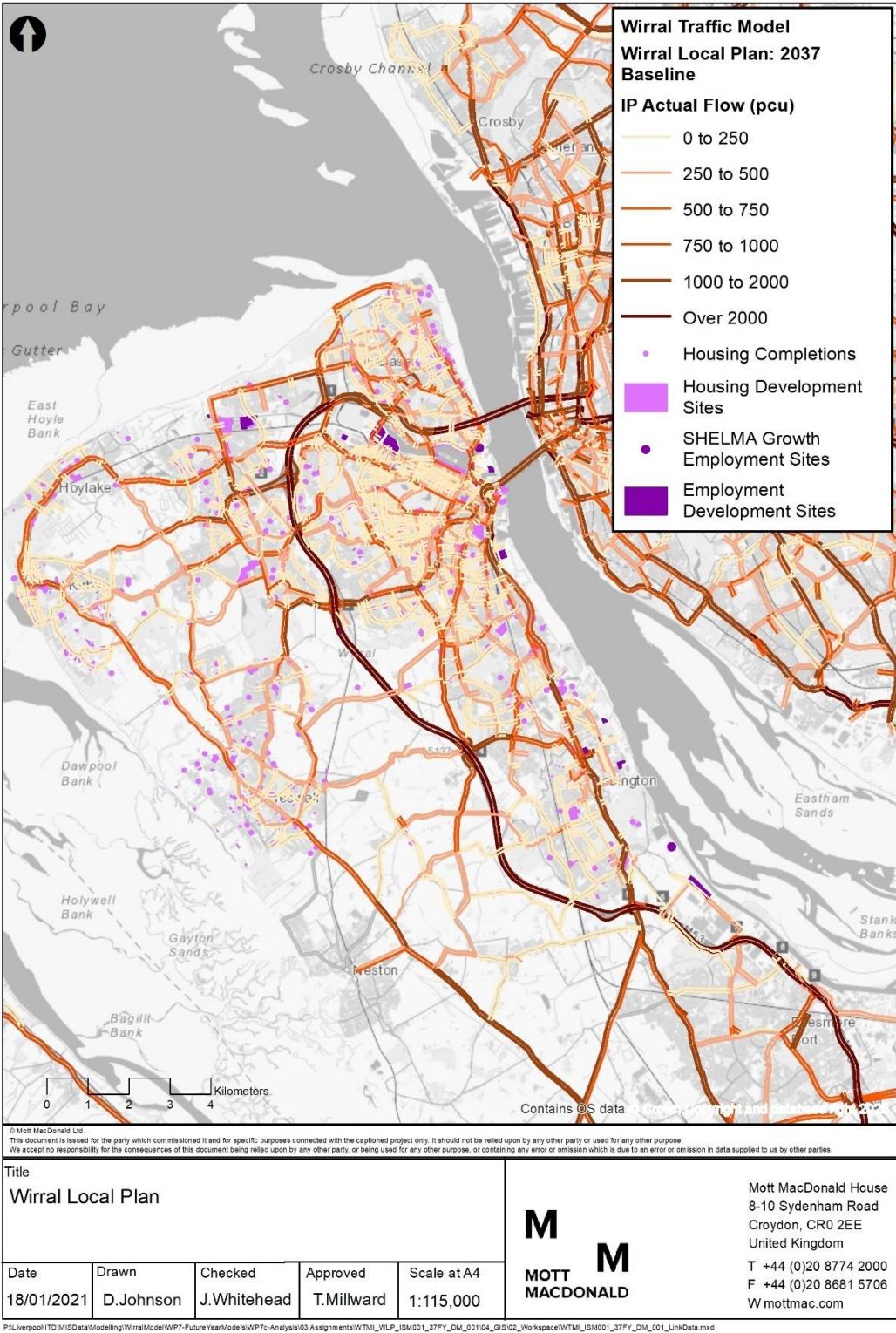
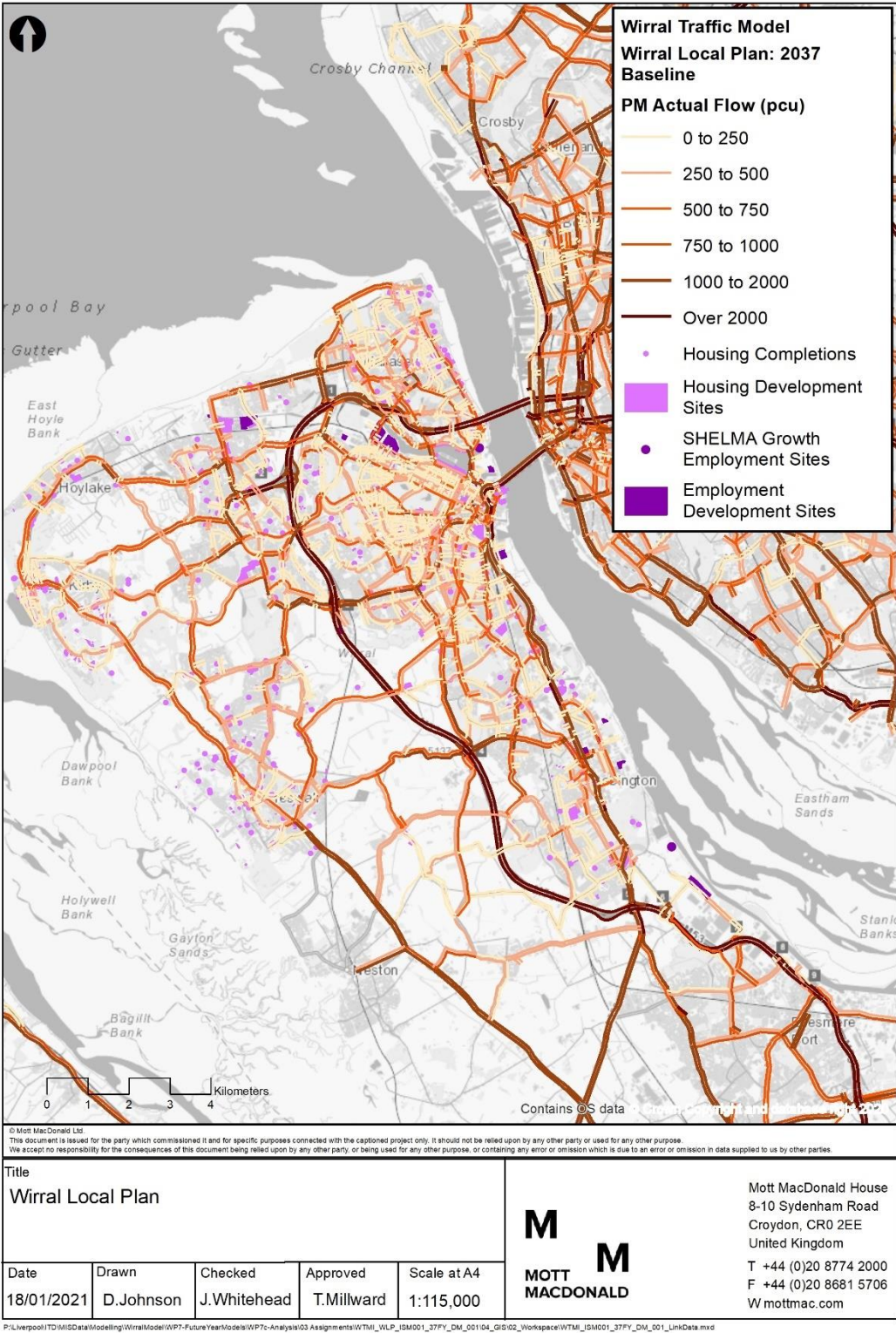


Figure 5.42: Actual Flow (pcu): 2037 Baseline PM



5.3.3.1 2037 Preferred Option vs Baseline

Figure 5.43 to Figure 5.45 present the flow difference plots between the 2037 Preferred Option and Baseline scenarios for AM, IP and PM respectively.

As with the 2025 Baseline comparison against 2015 Base Year, the primary increases in traffic flow volumes are driven by the proposed increase in residential and employment developments due to the Wirral Local Plan. The forecast growth in flow is seen across the borough, with links experiencing increases by up to 100 pcus. Due to the geographical distribution of the developments the resultant increase in flow is well dispersed across the borough, with no specific corridor recording significant increases in traffic volumes.

Figure 5.46 to Figure 5.48 present the traffic flows for the 2037 Preferred Option AM, IP and PM respectively.

As with the 2025 Baseline the Wirral highway network, and subsequent hierarchy, is well defined within the three figures, with the M53 forming the primary spine of the network and is supported by the A-road network linking the northern and southern areas of Wirral.

The further increase in residential and employment growth from proposed 2025 developments results in the majority of the A-road corridors accommodate flows of at least 1,000 pcu in all periods.

Figure 5.43: Difference in Actual Flow (pcu): 2037 Preferred Option vs Baseline AM

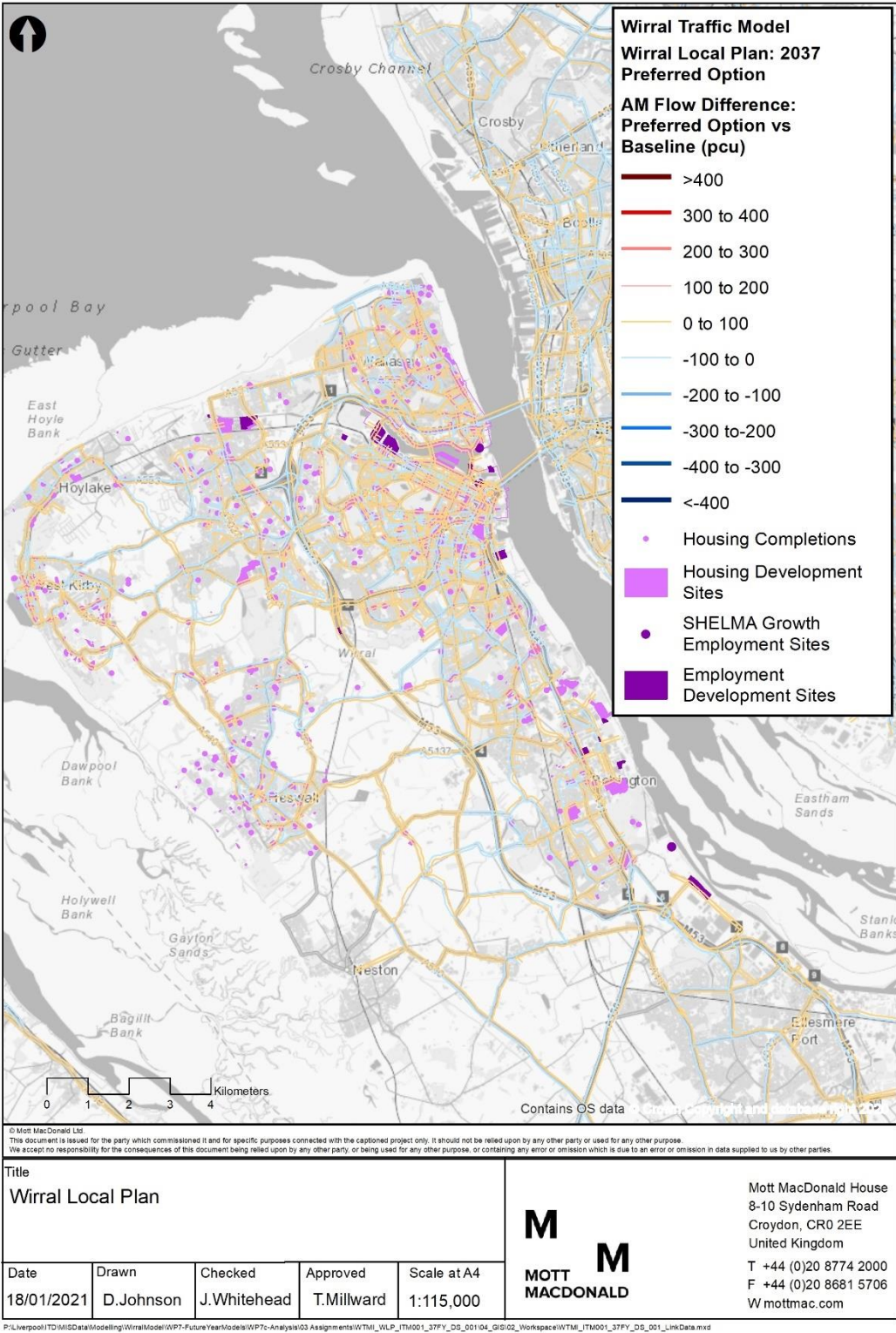


Figure 5.44: Difference in Actual Flow (pcu): 2037 Preferred Option vs Baseline IP

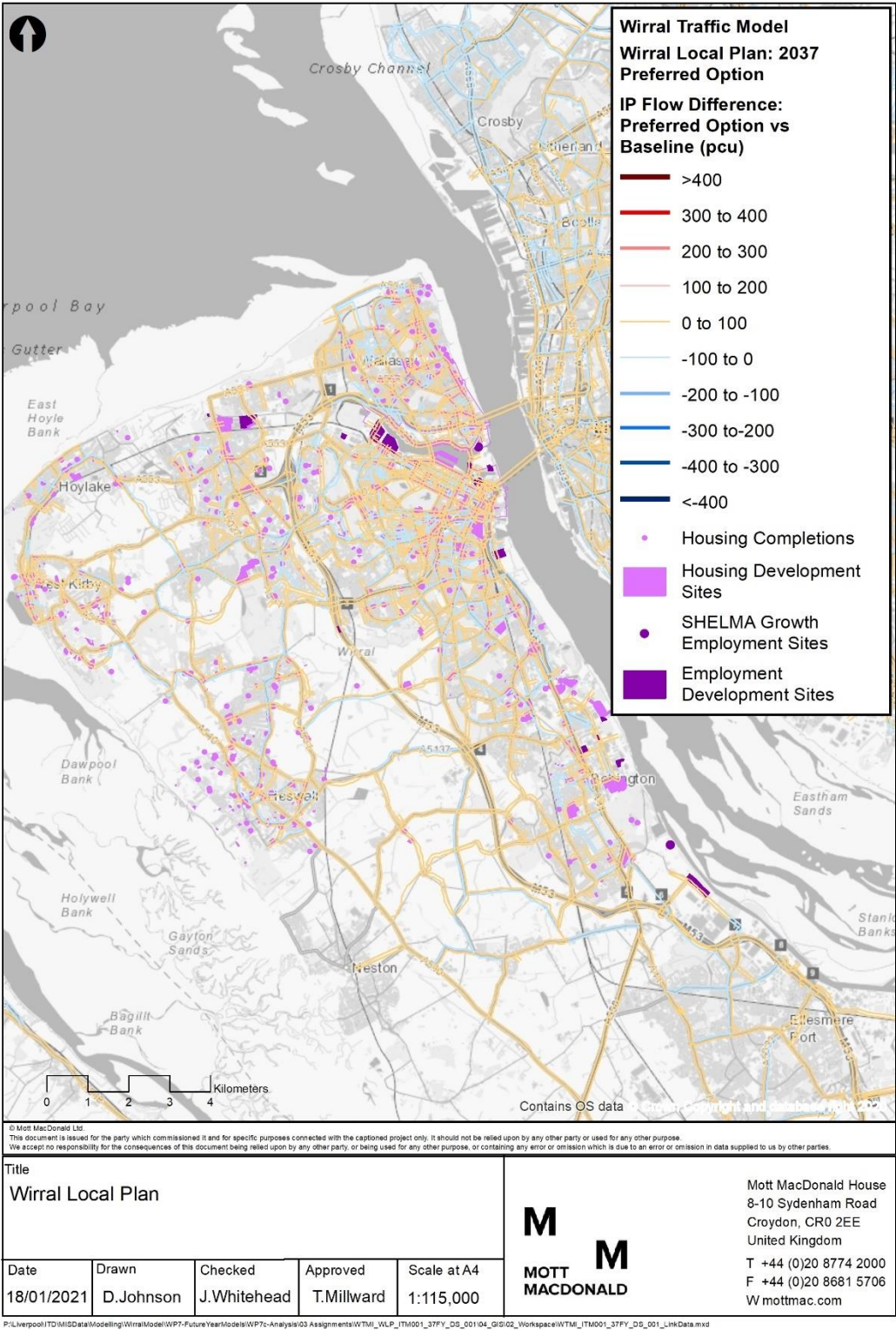


Figure 5.45: Difference in Actual Flow (pcu): 2037 Preferred Option vs Baseline PM

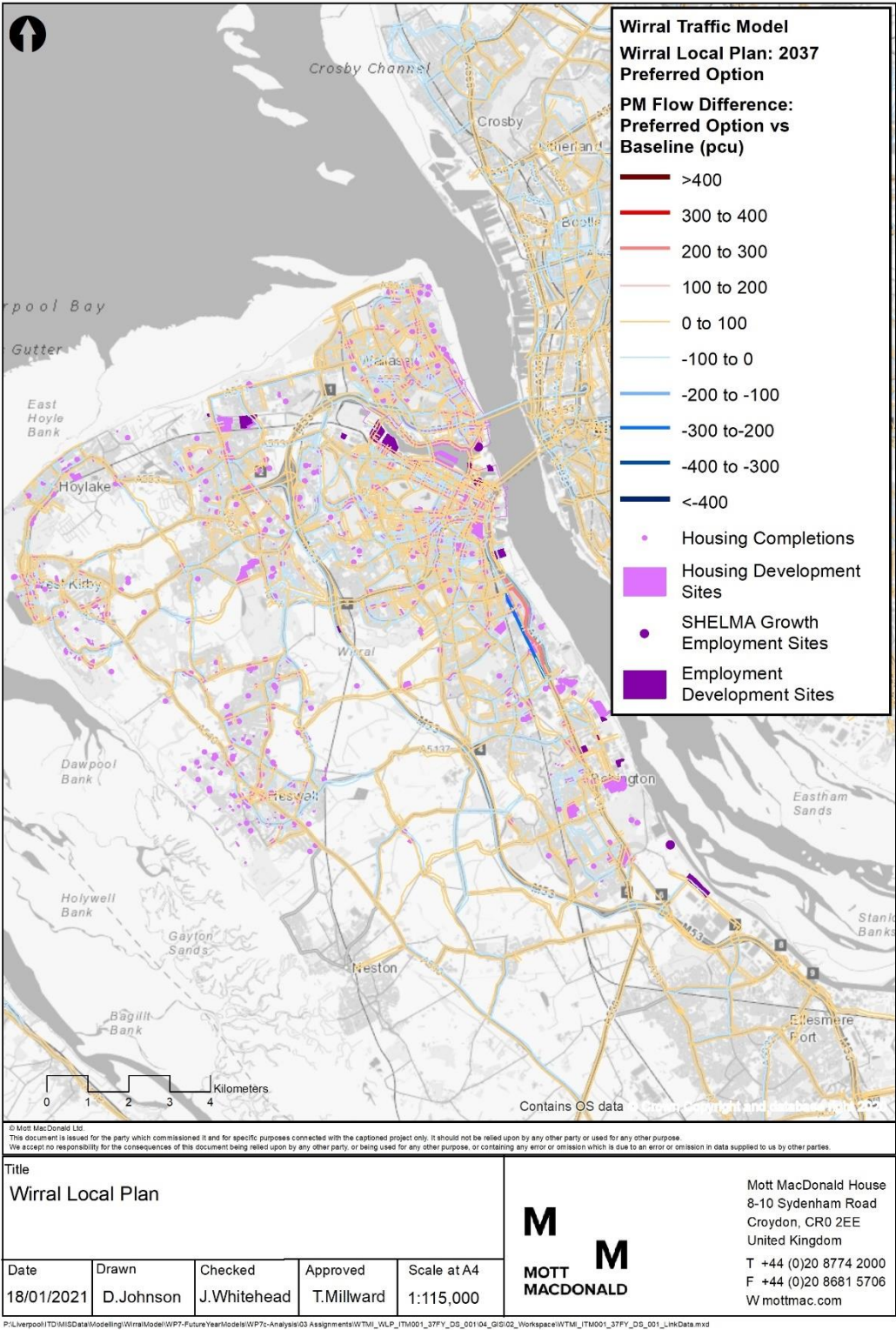


Figure 5.46: Actual Flow (pcu): 2037 Preferred Option AM

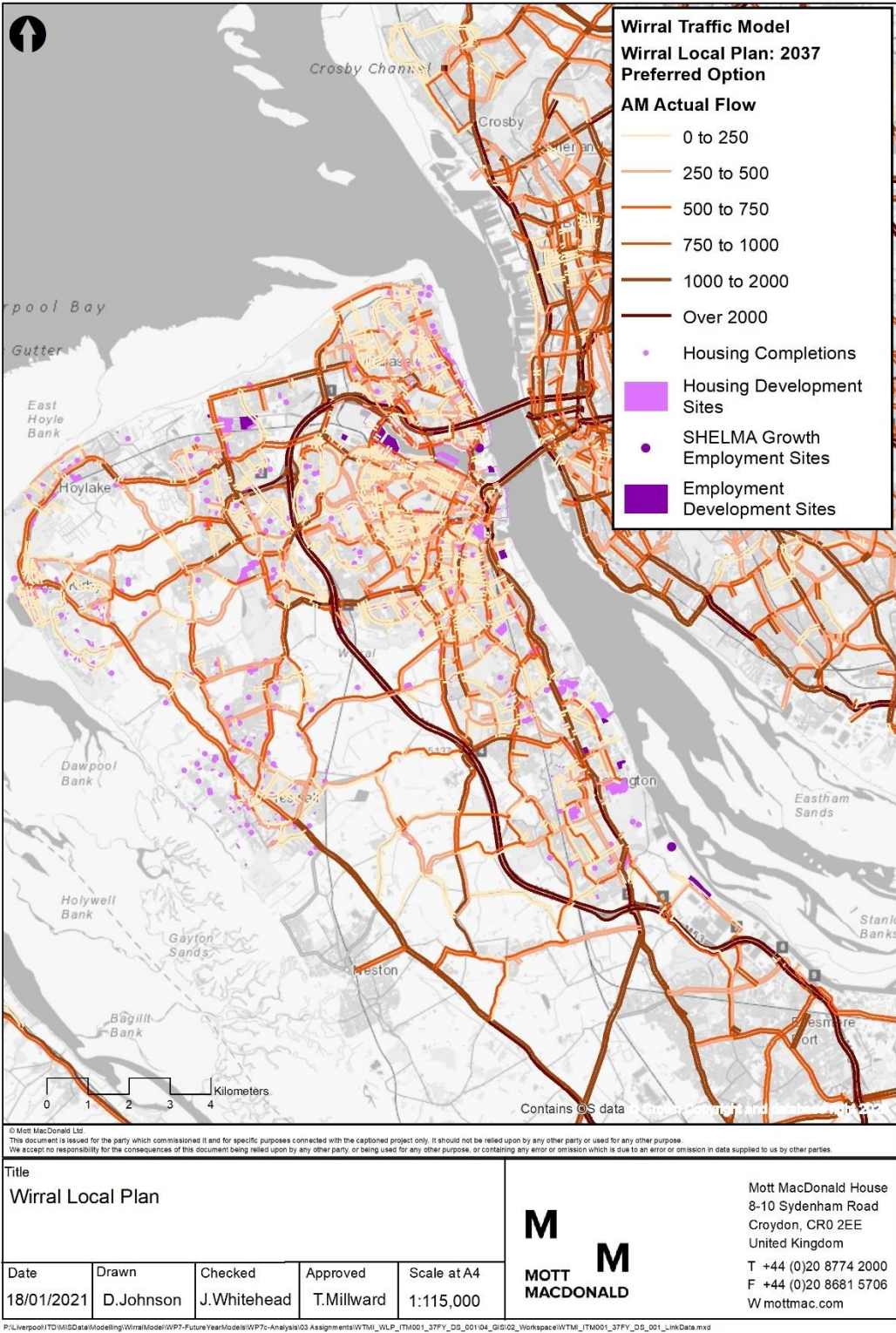


Figure 5.47: Actual Flow (pcu): 2037 Preferred Option IP

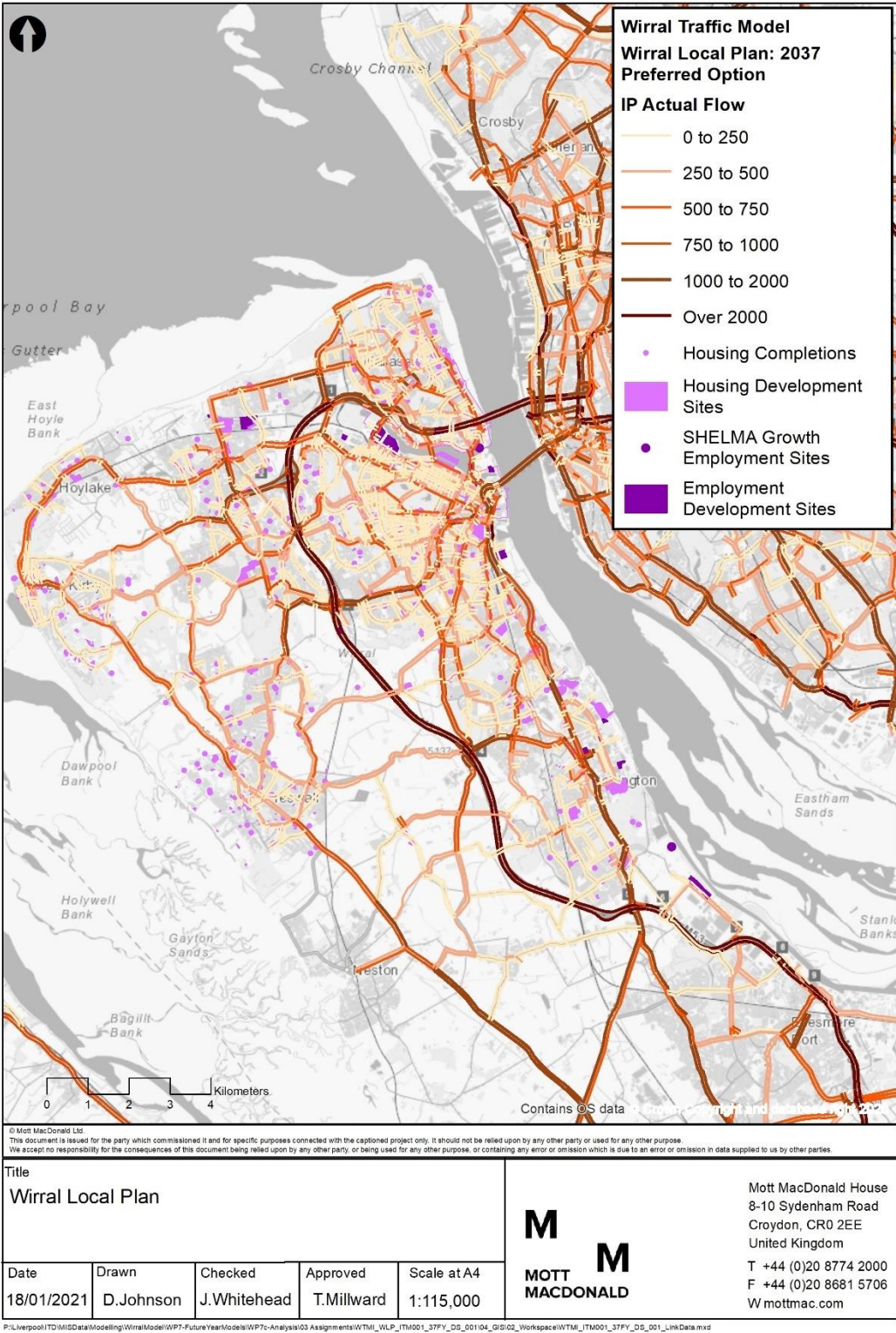
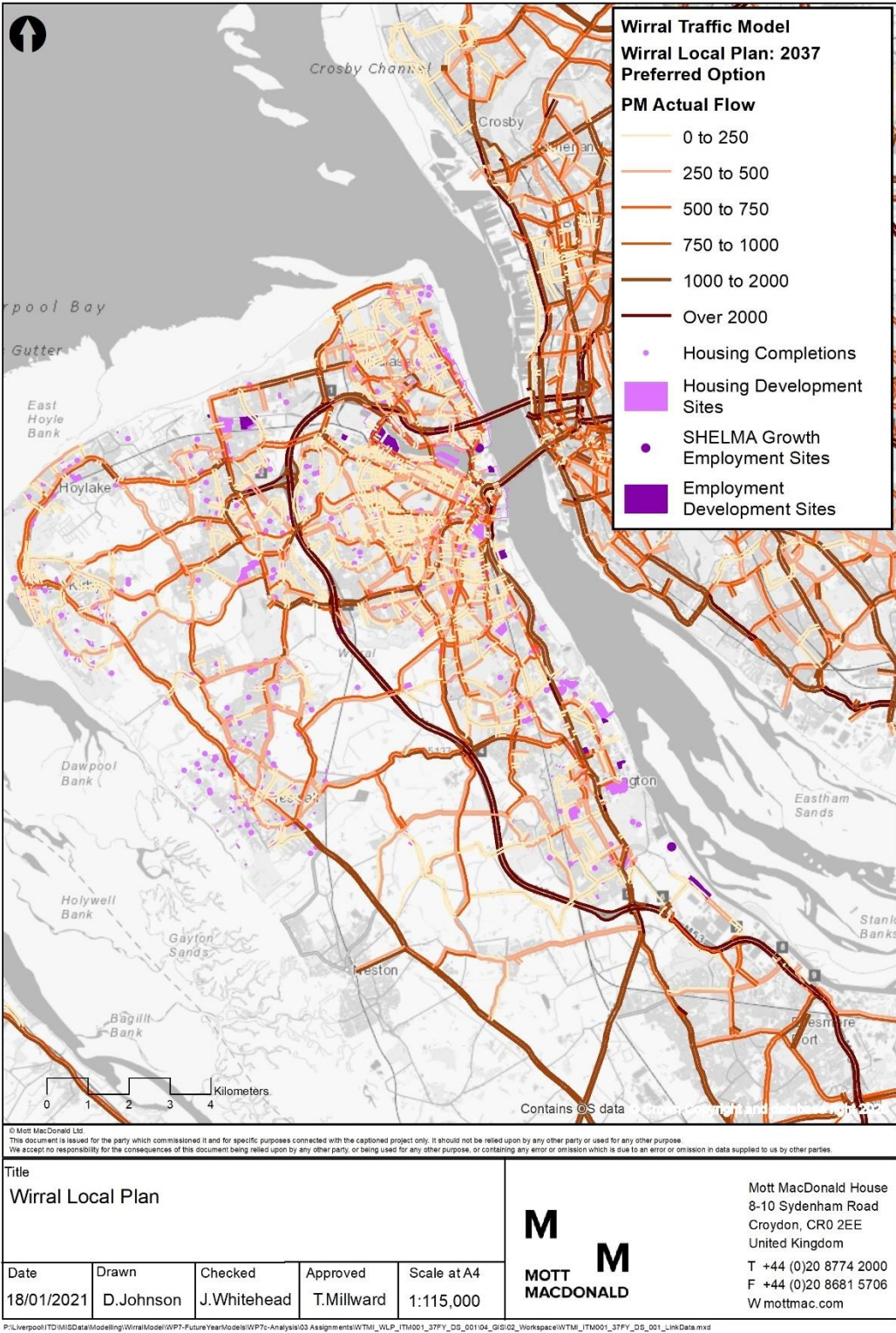


Figure 5.48: Actual Flow (pcu): 2037 Preferred Option PM



5.3.4 Junctions over Capacity

5.3.4.1 2037 Baseline vs 2015 Base Year

Figure 5.49 to Figure 5.51 present the junctions approaching or over capacity in the 2037 Baseline scenario in the AM, IP and PM respectively.

There are several junctions forecast to be over capacity across the borough, with the majority of these occurring in the AM period. The most significant of these, where the junction is operating over 115% capacity, include the A41/Old Hall Road in Bromborough, Junctions 4 and 5 of the M53, A552/Arrowe Park Road and junctions within Birkenhead town centre on the approach to Queensway Tunnel; with the latter junctions forecast to be over 115% capacity in all periods.

There are also five junctions over 115% capacity in the AM period along the A-road corridors to the west of the M53 which are the key access routes to West Kirby and the west of the borough.

In all time periods there are noticeable clusters of junctions that are forecast to operate over 100% capacity. The A41 corridor between Port Sunlight and the M53, multiple junctions within Birkenhead town centre and junctions along the A-road corridors to the west of the M53 which provide access to West Kirby all operate between 85-115% capacity.

Table 5.8 summarises the number of junctions over capacity.

Table 5.8: Wirral Local Plan 2037 Baseline Junctions Over Capacity

Time Period	2015 Base Year				2037 Baseline				Difference
	85% to 100%	100% to 115%	> 115%	Total	85% to 100%	100% to 115%	> 115%	Total	
AM	31	40	0	71	72	80	15	167	96
IP	14	12	0	26	40	43	1	84	58
PM	36	40	2	78	64	77	2	143	65

Appendix E contains a list of all junctions over capacity and within which time period each junction is over capacity.

Figure 5.52 to Figure 5.54 present junctions that are approaching or over capacity in the 2037 Baseline scenario that were under 85% V/C in the 2015 Base Year. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the borough, along the M53 and A41 corridors and within Birkenhead town centre. To the west, such junctions are forecast to be along West Kirby access corridors or within the Heswall area. There are two junctions in the AM period, within the Greasby area which are forecast to exceed 115% capacity; Mill Lane/Greasby Road and B5139/Pump Lane/Well Lane.

In the Baseline there are 96 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 58 in the IP and 65 in the PM.

Figure 5.49: Junctions Over Capacity: 2037 Baseline AM

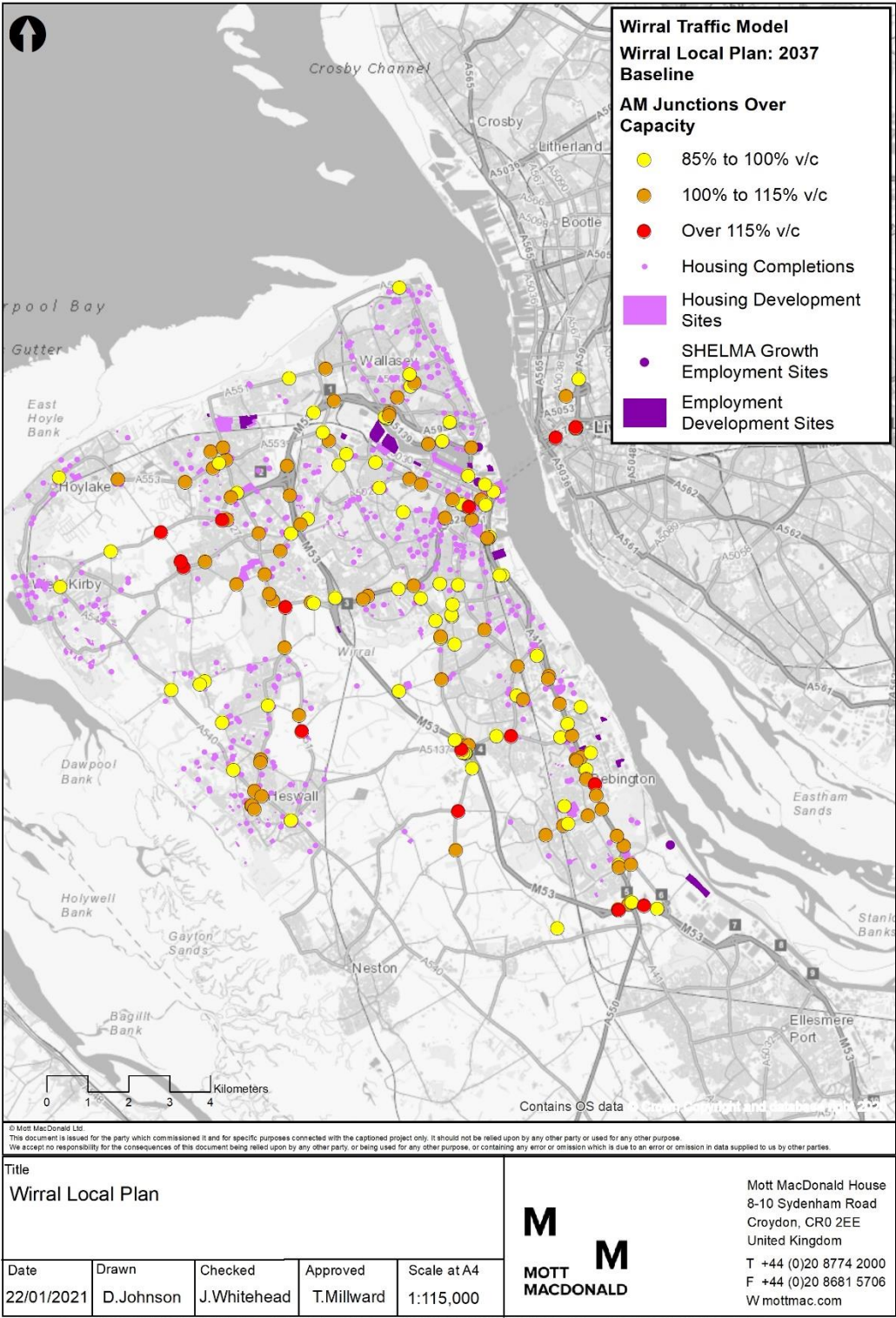


Figure 5.50: Junctions Over Capacity: 2037 Baseline IP

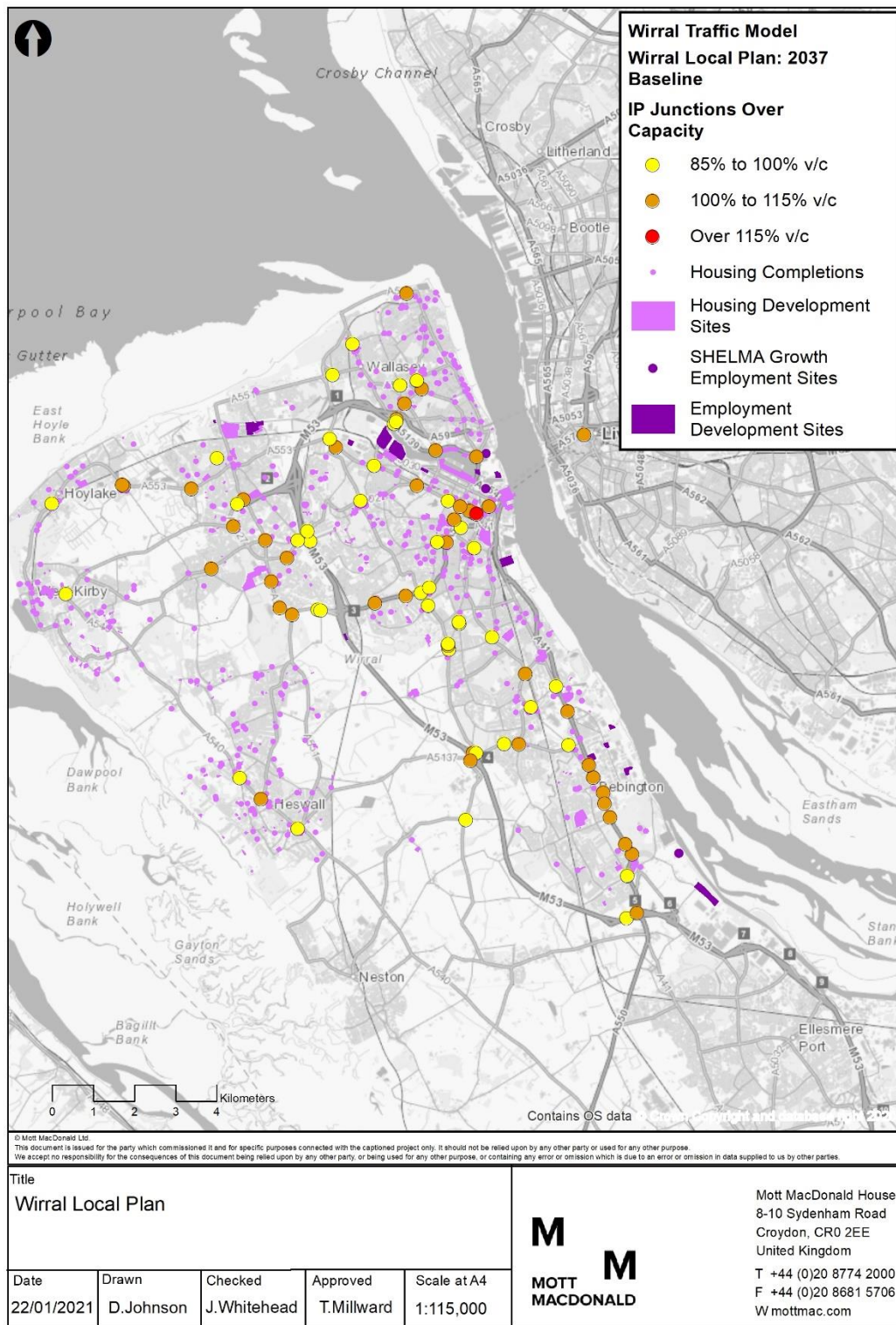


Figure 5.51: Junctions Over Capacity: 2037 Baseline PM

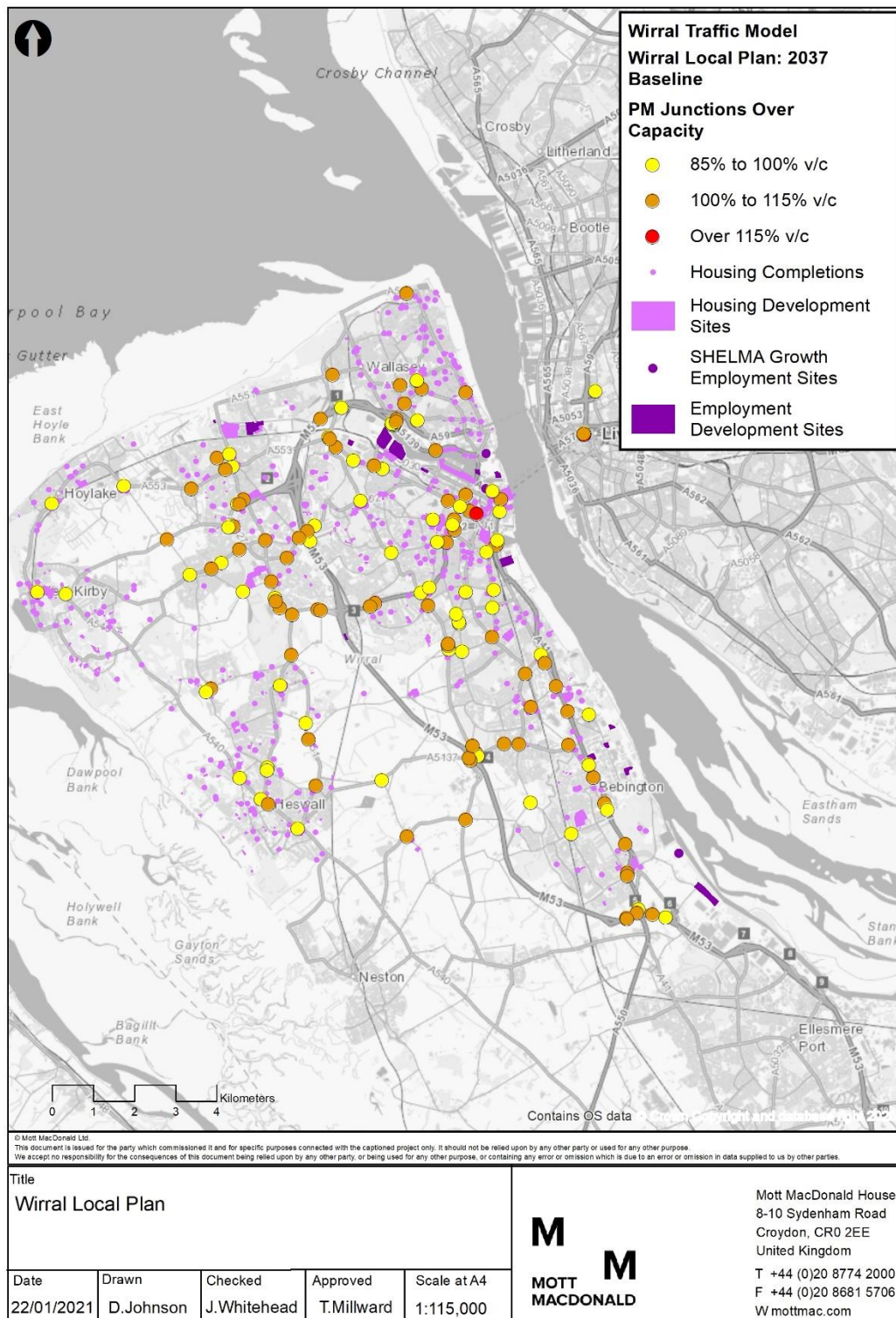


Figure 5.52: Junctions that become Over Capacity: 2037 Baseline AM

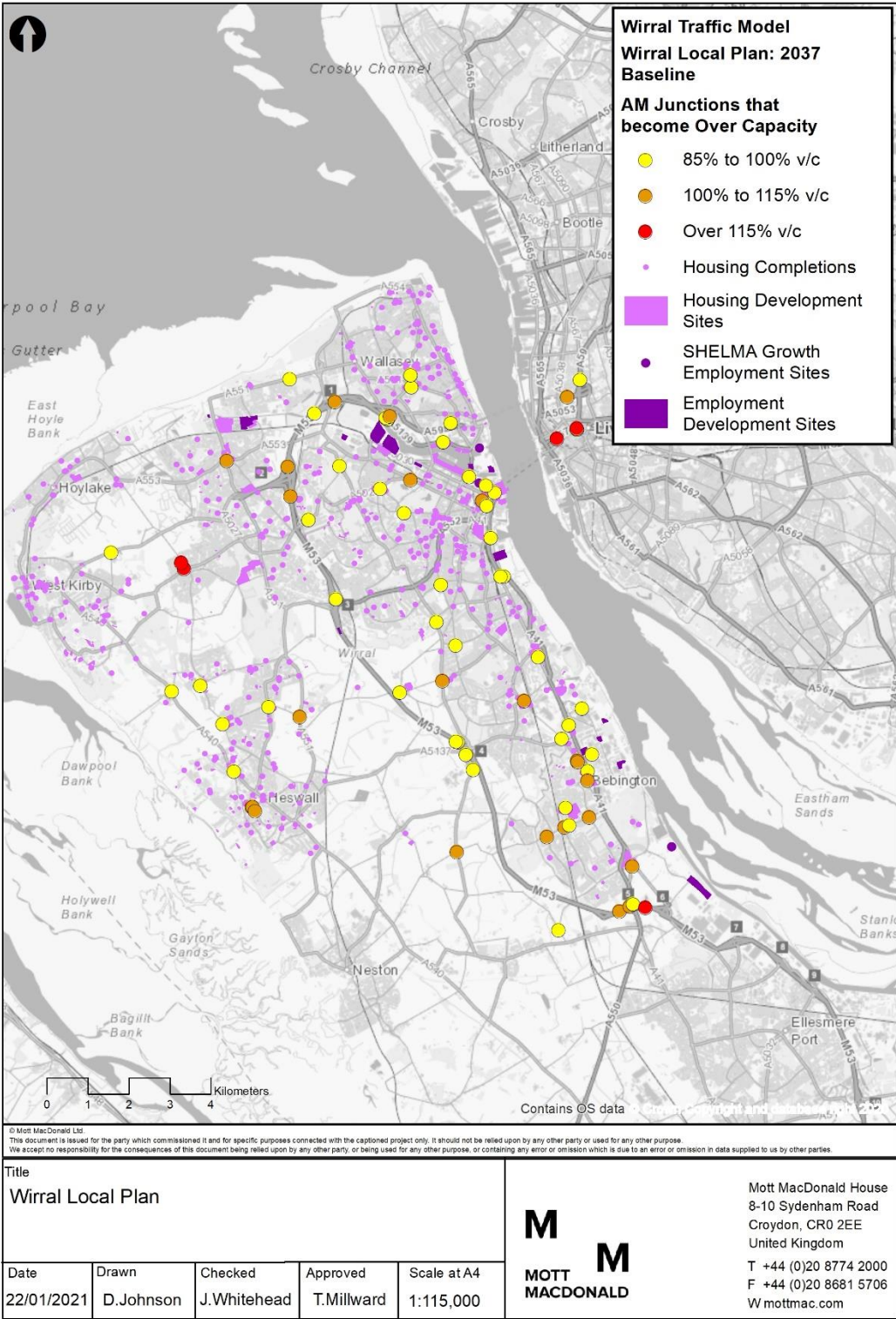


Figure 5.53: Junctions that become Over Capacity: 2037 Baseline IP

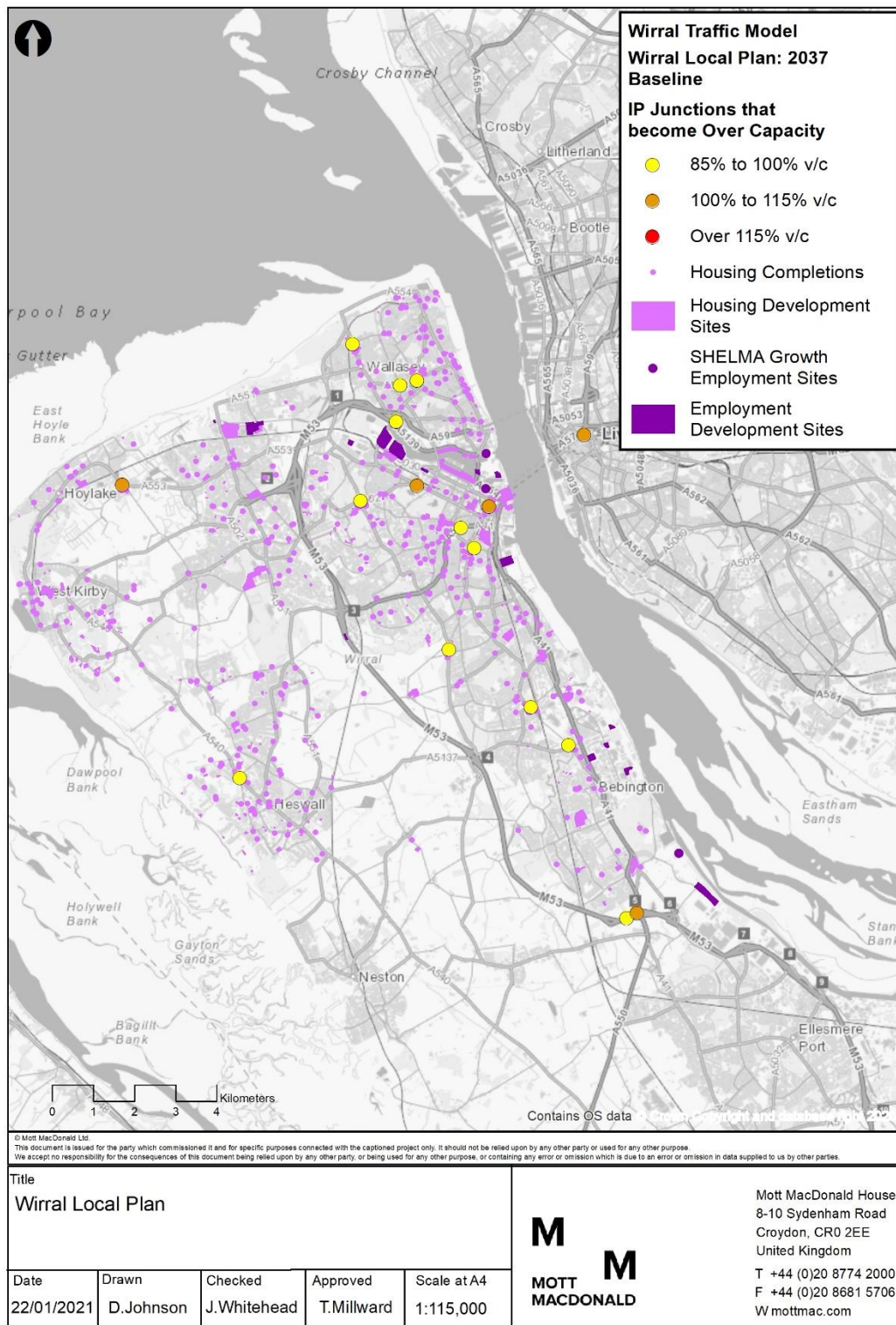
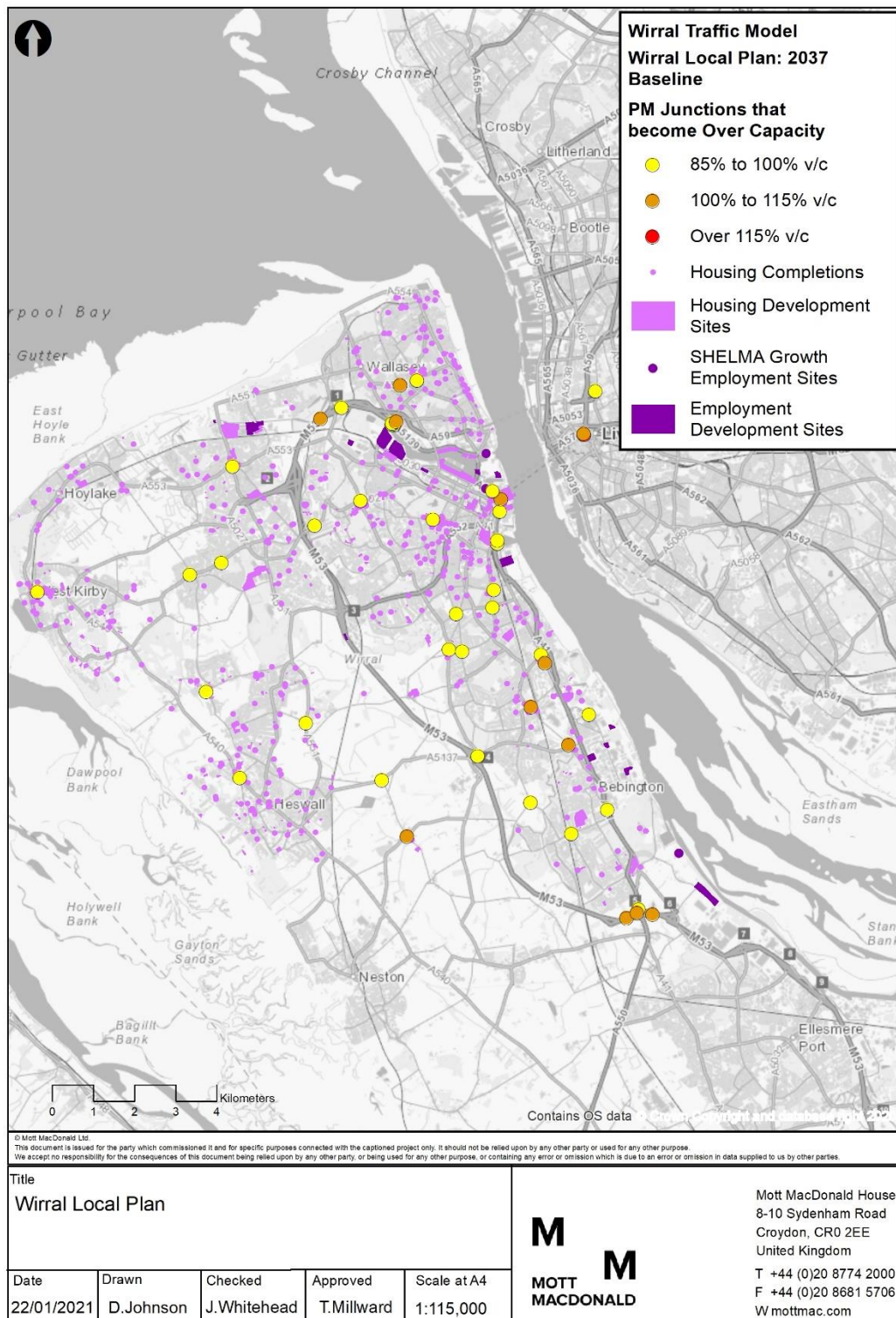


Figure 5.54: Junctions that become Over Capacity: 2037 Baseline PM



5.3.4.1 2037 Preferred Option vs Baseline

Figure 5.55 to Figure 5.57 present the junctions approaching or over capacity in the 2037 Preferred Option scenario in the AM, IP and PM respectively.

There are several junctions forecast to be over capacity across the borough, with the majority of these occurring in the AM period. The most significant of these, where the junction is operating over 115% capacity, include the A41/Old Hall Road in Bromborough, Junctions 4 and 5 of the M53, A552/Arrowe Park Road and junctions within Birkenhead town centre on the approach to Queensway Tunnel; with the latter junctions forecast to be over 115% capacity in all periods.

There are also five junctions over 115% capacity in the AM period along the A-road corridors to the west of the M53 which are the key access routes to West Kirby and the west of the borough.

In all time periods there are noticeable clusters of junctions that are forecast to operate over 100% capacity. The A41 corridor between Port Sunlight and the M53, multiple junctions within Birkenhead town centre and junctions along the A-road corridors to the west of the M53 which provide access to West Kirby all operate between 85-115% capacity.

Table 5.9 summarises the number of junctions over capacity.

Table 5.9: Wirral Local Plan 2037 Preferred Option Junctions Over Capacity

Time Period	2037 Baseline				2037 Preferred Option				Difference
	85% to 100%	100% to 115%	> 115%	Total	85% to 100%	100% to 115%	> 115%	Total	
AM	72	80	15	167	74	86	14	174	7
IP	40	43	1	84	42	46	1	89	5
PM	64	77	2	143	61	84	3	148	5

Appendix E contains a list of all junctions over capacity and within which time period each junction is over capacity.

Figure 5.58 to Figure 5.60 present junctions that are approaching or over capacity in the 2037 Preferred Option scenario that were under 85% V/C in the Baseline scenario. There are four junctions that are forecast to experience significant reductions in capacity with two in the AM and two in the PM periods. In the AM Budworth Road/Wexford Road and Allport Lane/Acre Lane have a forecast capacity greater than 85%, and Junction 1 M53 and Bebington Road/Old Chester Road are the two junctions in the PM period.

In the Preferred Option there are 7 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the Baseline scenario the AM, 5 in the IP and 5 in the PM.

Figure 5.55: Junctions Over Capacity: 2037 Preferred Option AM

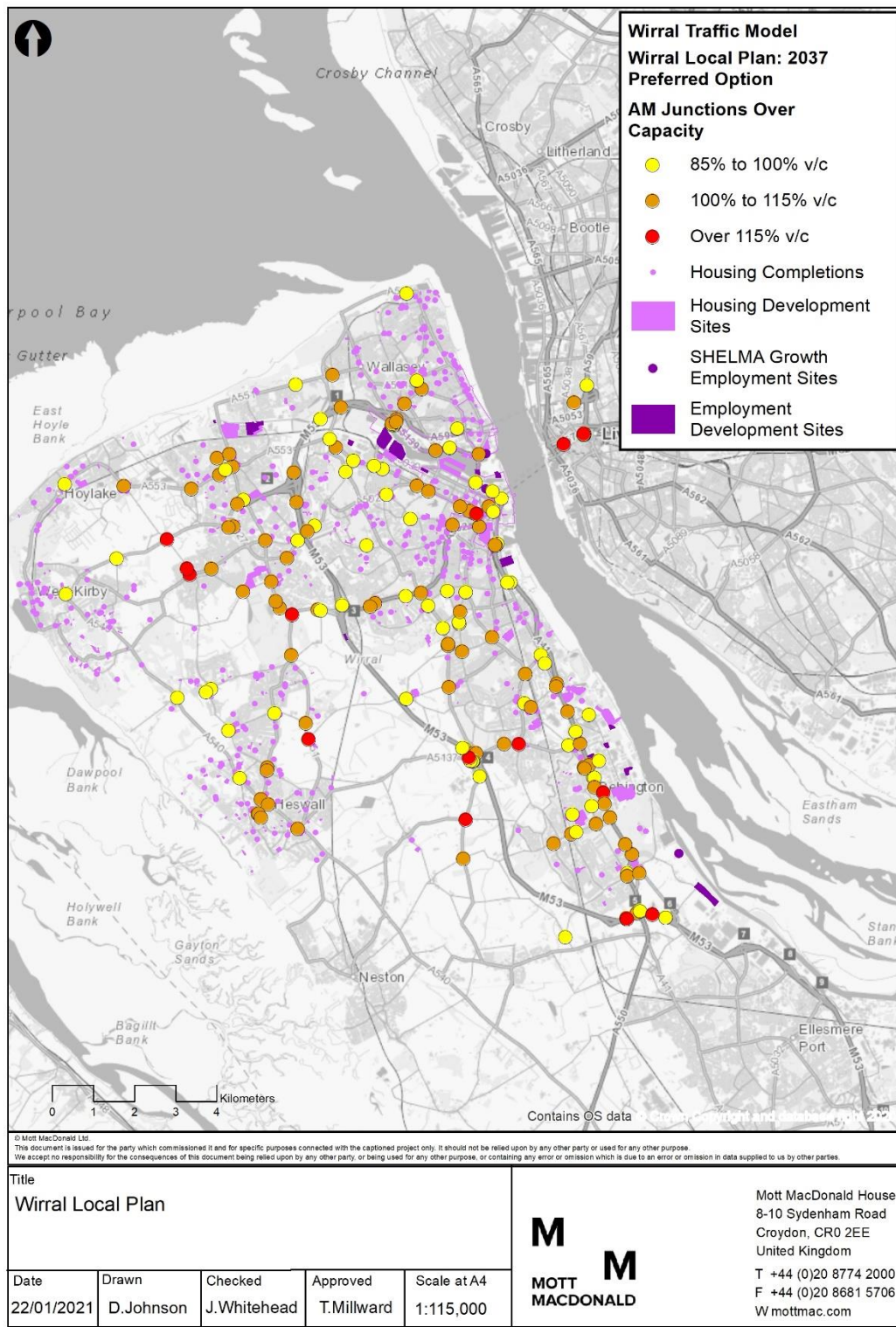


Figure 5.56: Junctions Over Capacity: 2037 Preferred Option IP

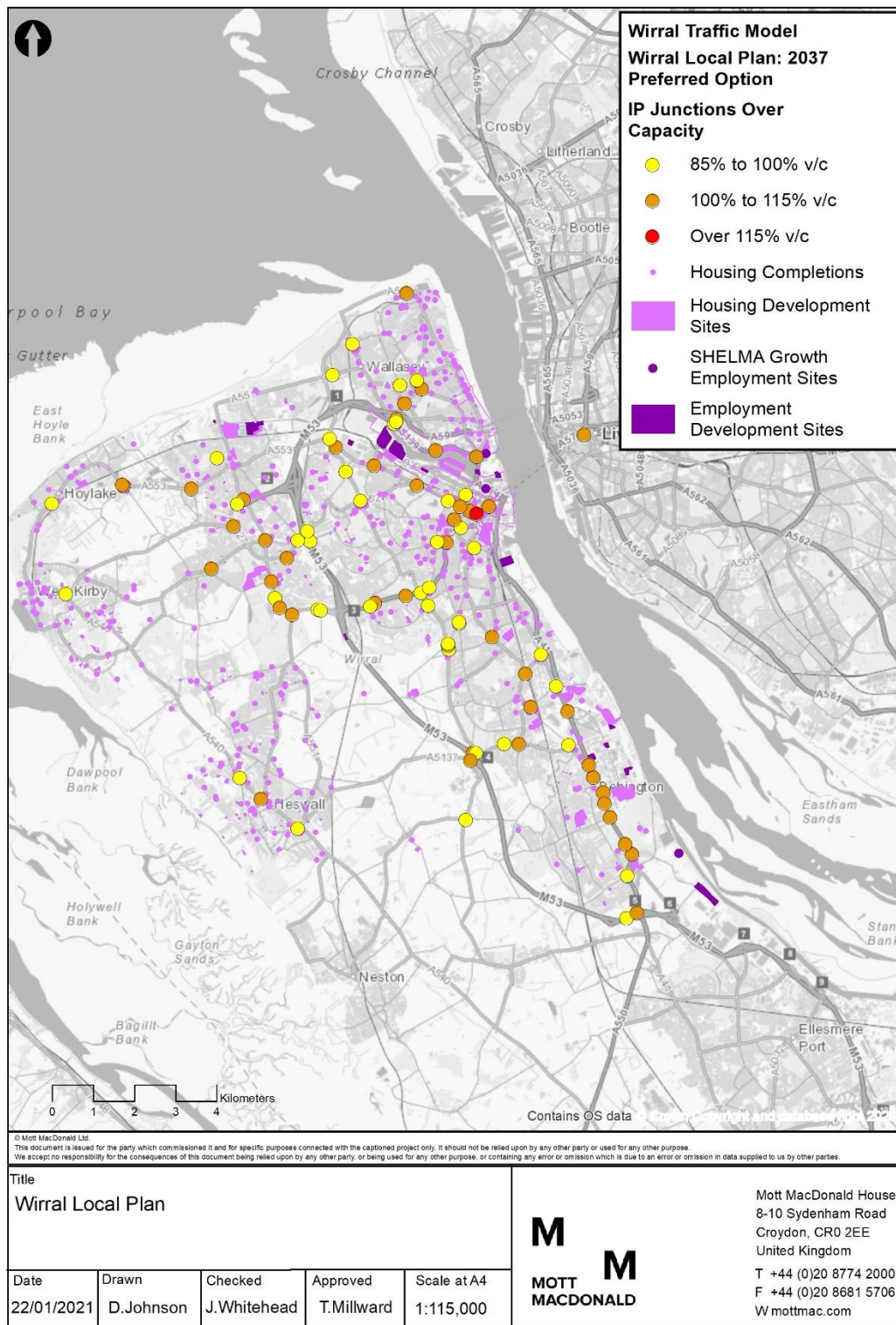


Figure 5.57: Junctions Over Capacity: 2037 Preferred Option PM

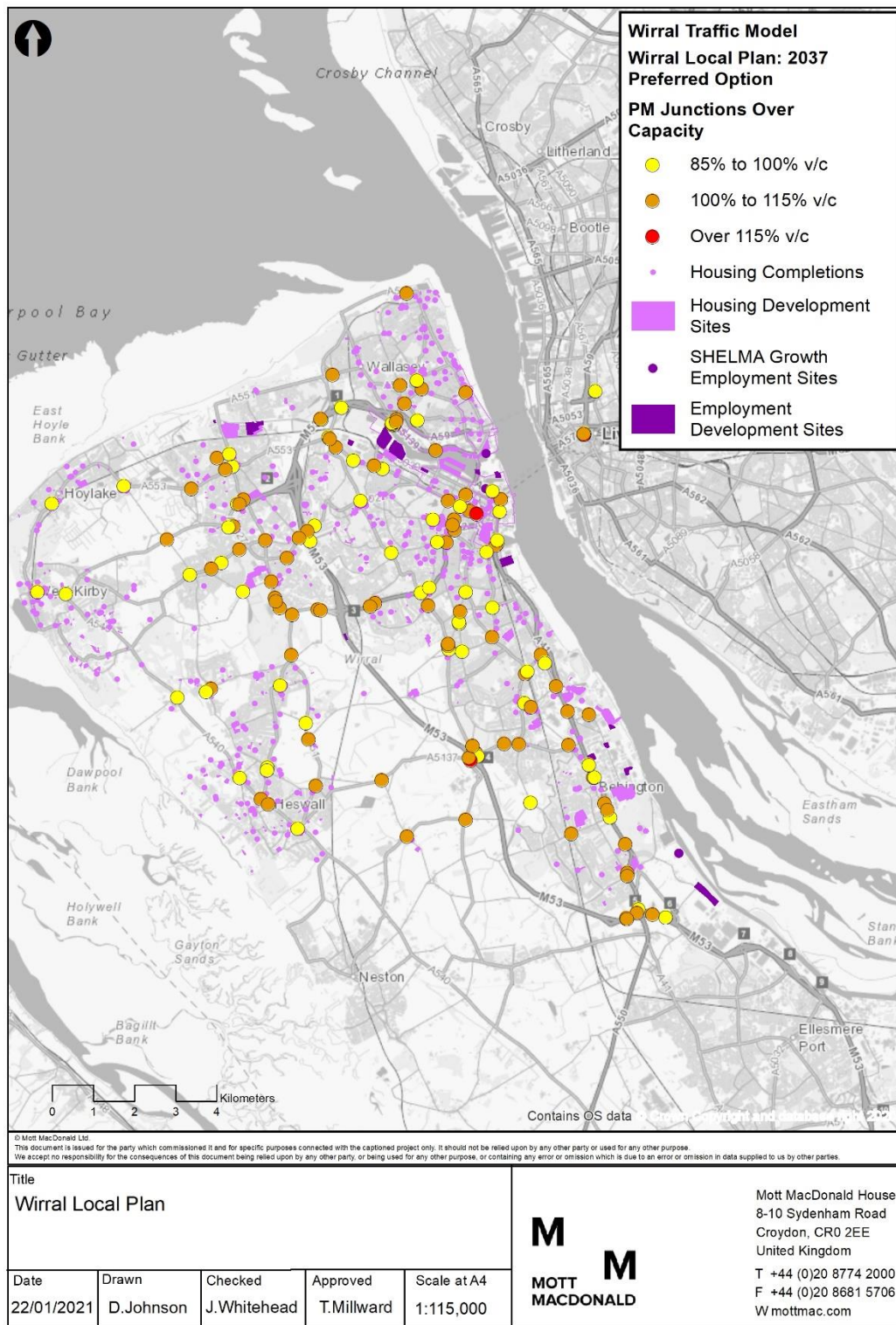


Figure 5.58: Junctions that become Over Capacity: 2037 Preferred Option AM

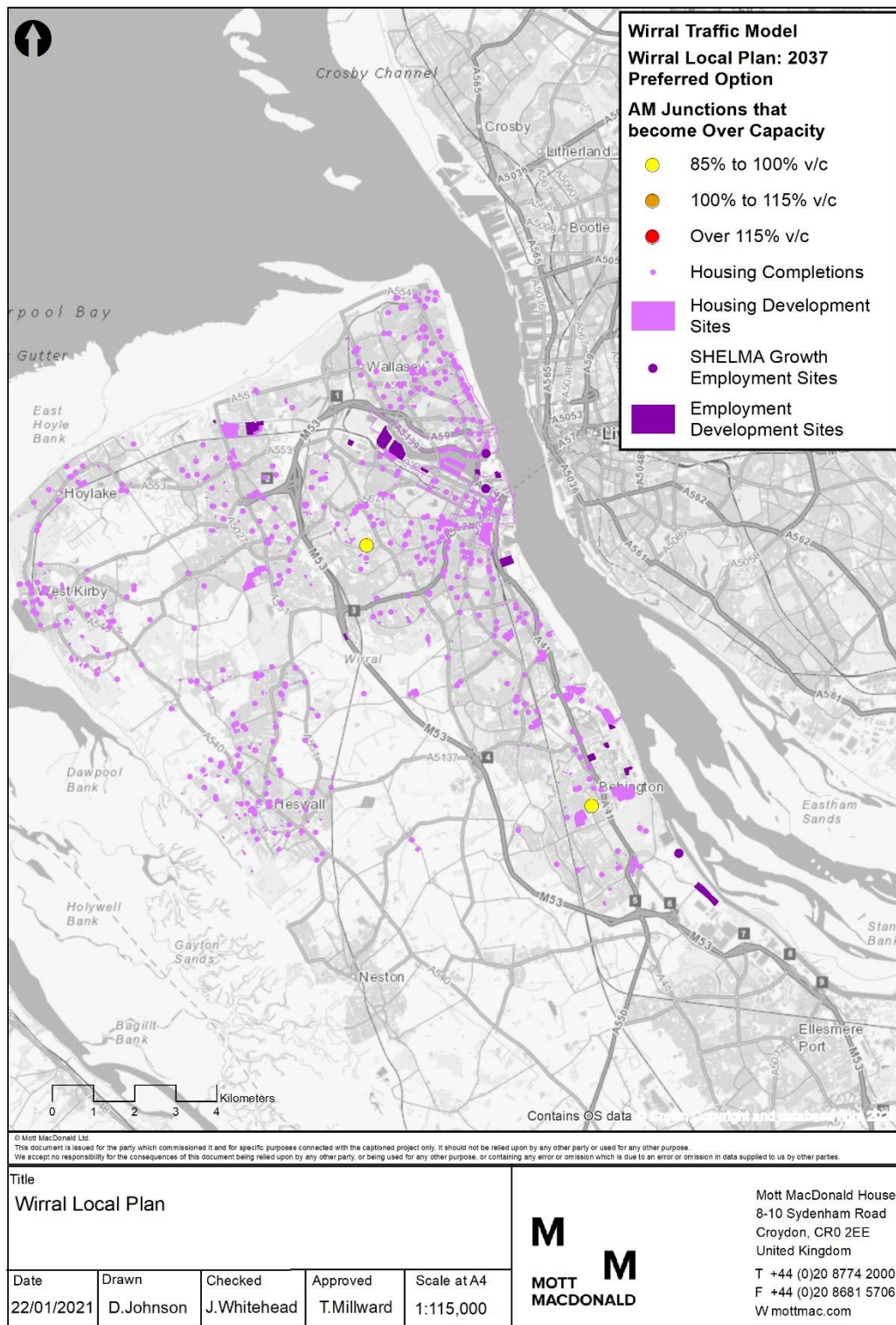


Figure 5.59: Junctions that become Over Capacity: 2037 Preferred Option IP

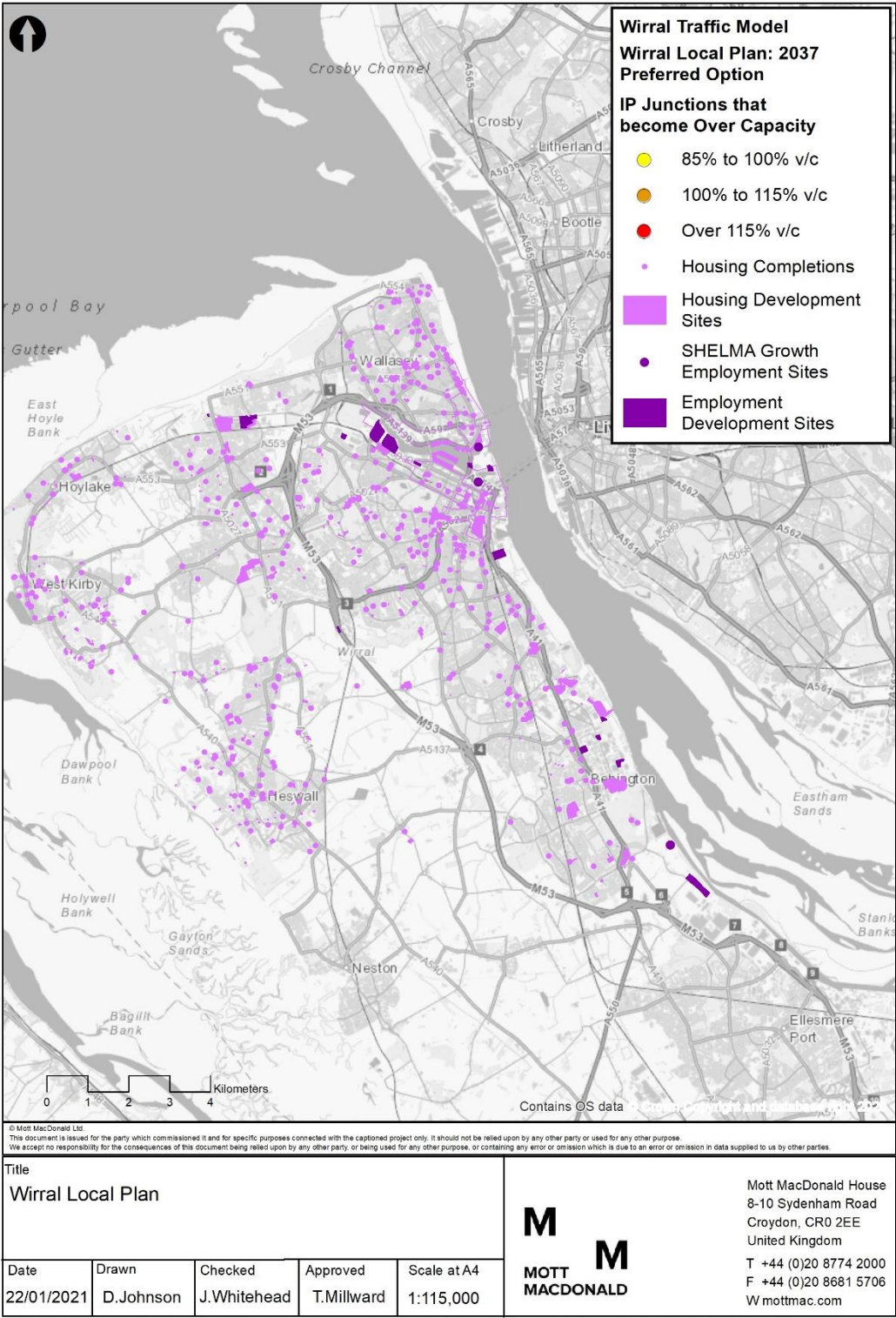
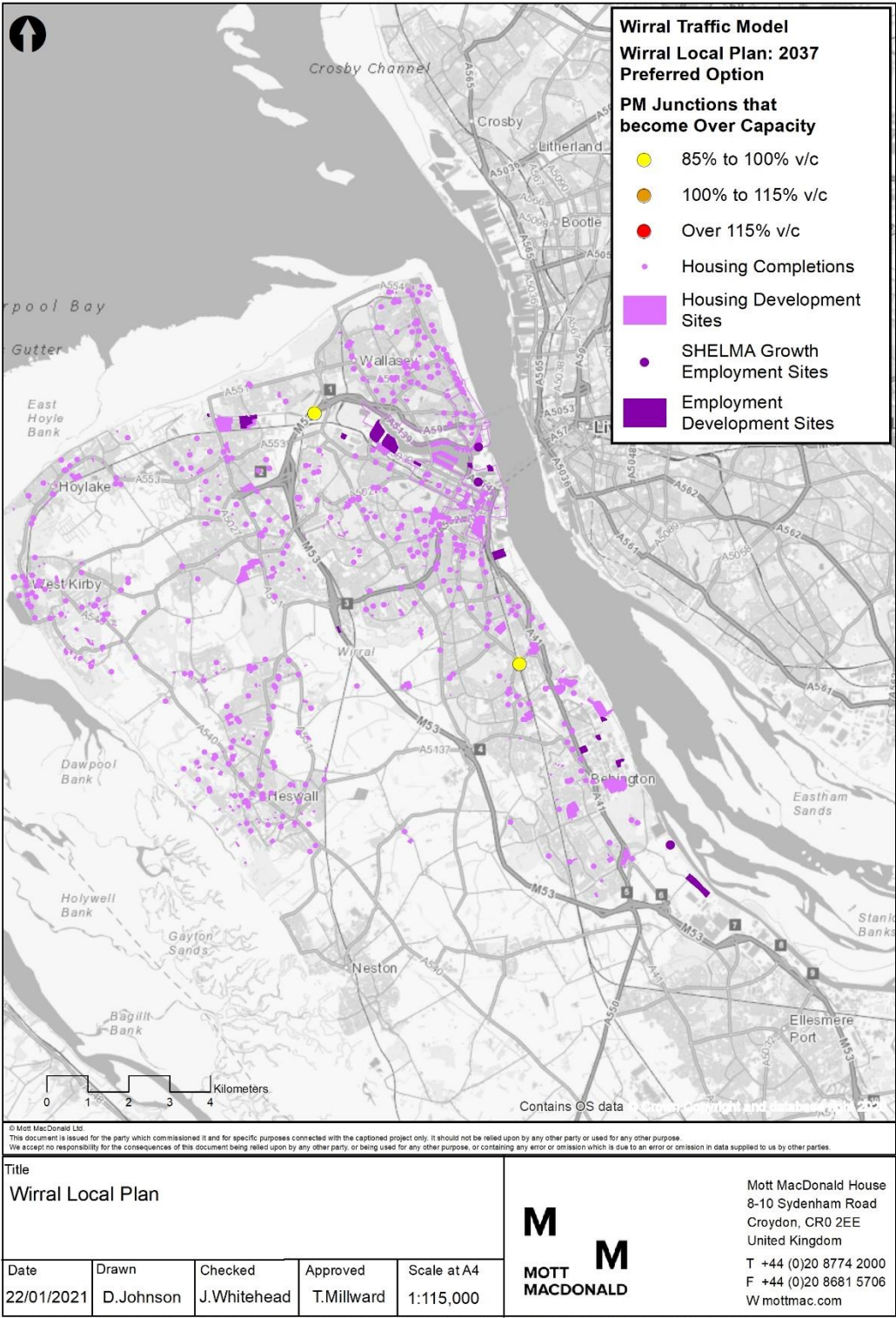


Figure 5.60: Junctions that become Over Capacity: 2037 Preferred Option PM



5.3.5 Link Volumes over Capacity

5.3.5.1 2037 Baseline

Figure 5.61 to Figure 5.63 show the volume over capacity relationship of links in the 2037 Baseline scenario. The figures illustrate that small sections of the B5151 northbound, A551 northbound and Pump Lane northbound are all forecast to be operating at over 115% capacity within the AM period, and that there are a number of links operating at over 100% capacity within all periods. These links are spread across the network, with the most significant centred around the A41, the proposed Wirral Waters site south of Wallasey, Kingsway Tunnel eastbound and west of the M53 local to Arrowe Park. Multiple links distributed across the network also operate over 85% capacity in all periods, with sections of the M53 and the A550 and A41 northbound being most noticeable in select periods.

Both the AM and PM peaks show a greater number of links over capacity than the IP, with the primary cluster of links over 100% capacity located along small sections of the B5151 northbound, A551 northbound and Pump Lane northbound in the AM, multiple sections of the A41 and at Gorsey Lane roundabout at the entrance/exit to Kingsway tunnel. There are also several links to the west of the M53 and to the south of the borough operating at over 85% and 100%. These links are located on key routes which provide accessibility to several destinations in West Wirral such as West Kirby, Heswall, Arrowe Park and Neston and Chester and Cheshire West to the south.

Figure 5.61: Links Over Capacity: 2037 Baseline AM

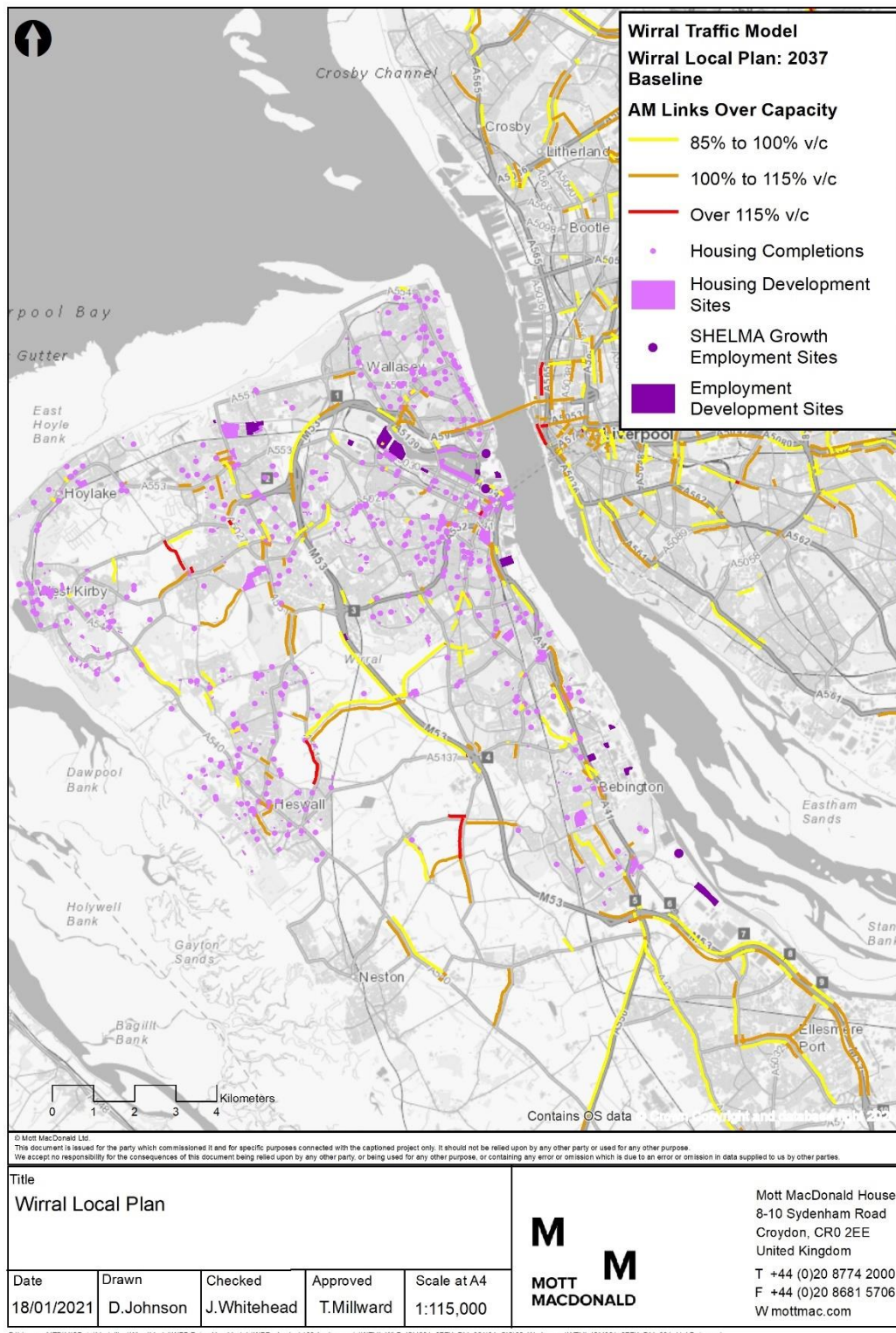


Figure 5.62: Links Over Capacity: 2037 Baseline IP

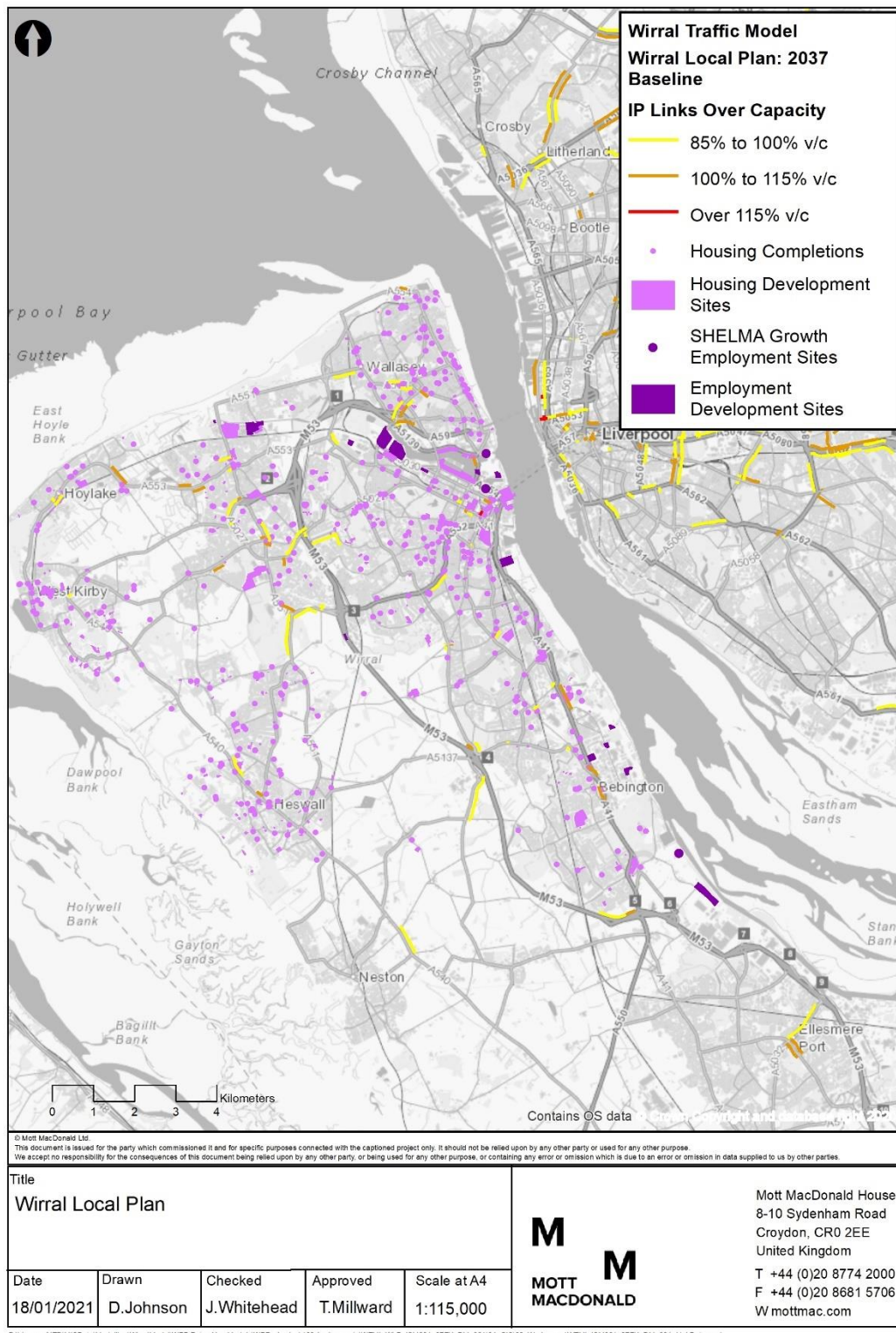
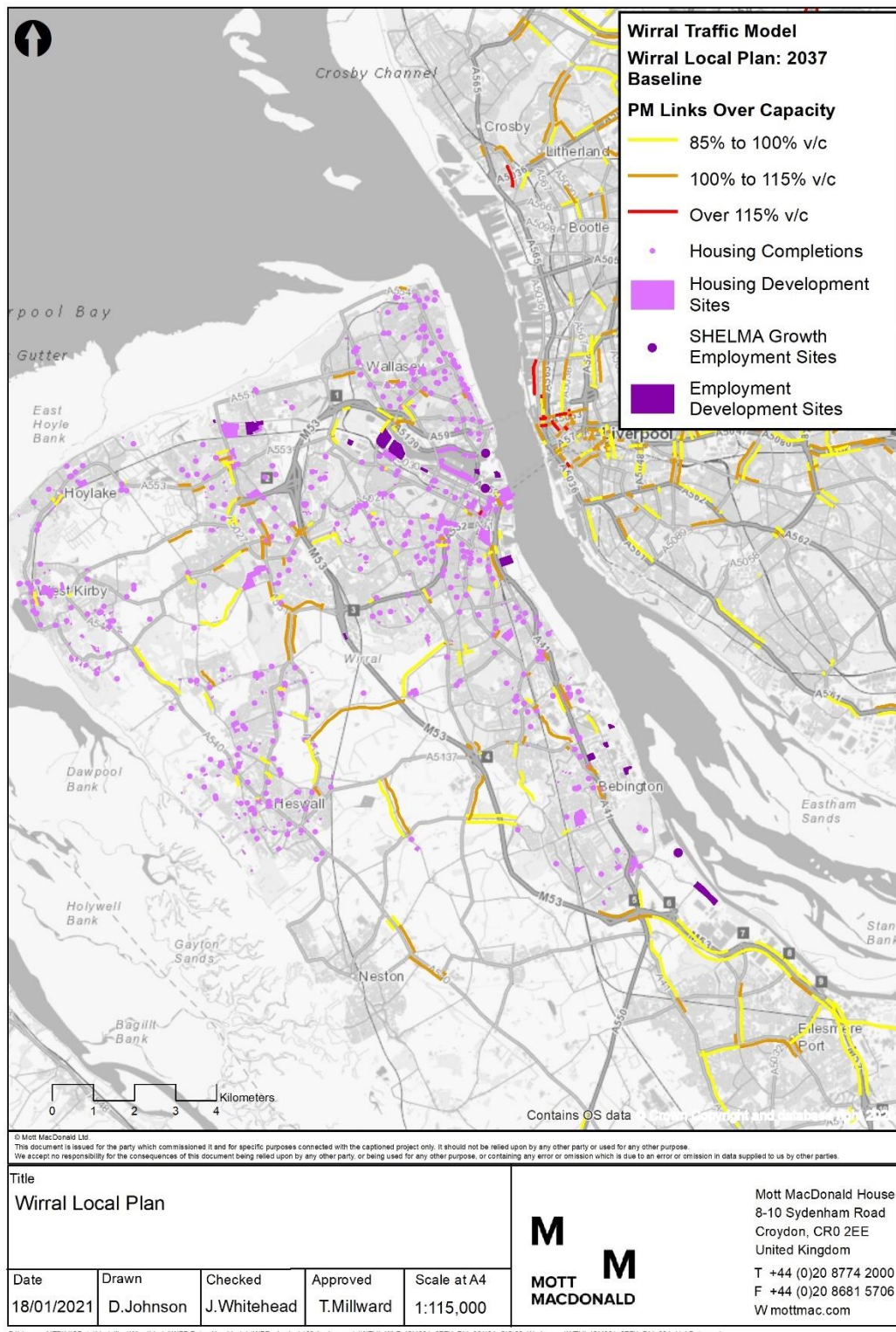


Figure 5.63: Links Over Capacity: 2037 Baseline PM



5.3.5.2 2037 Preferred Option

Figure 5.64 to Figure 5.66 show the volume over capacity relationship of links in the 2037 Preferred Option scenario. The figures illustrate that small sections of the B5151 northbound, A551 northbound and Pump Lane northbound are all forecast to be operating at over 115% capacity within the AM period, and that there are a number of links operating at over 100% capacity within all periods. These links are spread across the network, with the most significant centred around the A41, the proposed Wirral Waters site south of Wallasey, Kingsway Tunnel eastbound and west of the M53 local to Arrowe Park. Multiple links distributed across the network also operate over 85% capacity in all periods, with sections of the M53 and the A550 and A41 northbound being most noticeable in select periods.

Both the AM and PM peaks show a greater number of links over capacity than the IP, with the primary cluster of links over 100% capacity located along small sections of the B5151 northbound, A551 northbound and Pump Lane northbound in the AM, multiple sections of the A41 and at Gorsey Lane roundabout at the entrance/exit to Kingsway tunnel. There are also several links to the west of the M53 and to the south of the borough operating at over 85% and 100%. These links are located on key routes which provide accessibility to several destinations in West Wirral such as West Kirby, Heswall, Arrowe Park and Chester and Cheshire West to the south.

Figure 5.64: Links Over Capacity: 2037 Preferred Option AM

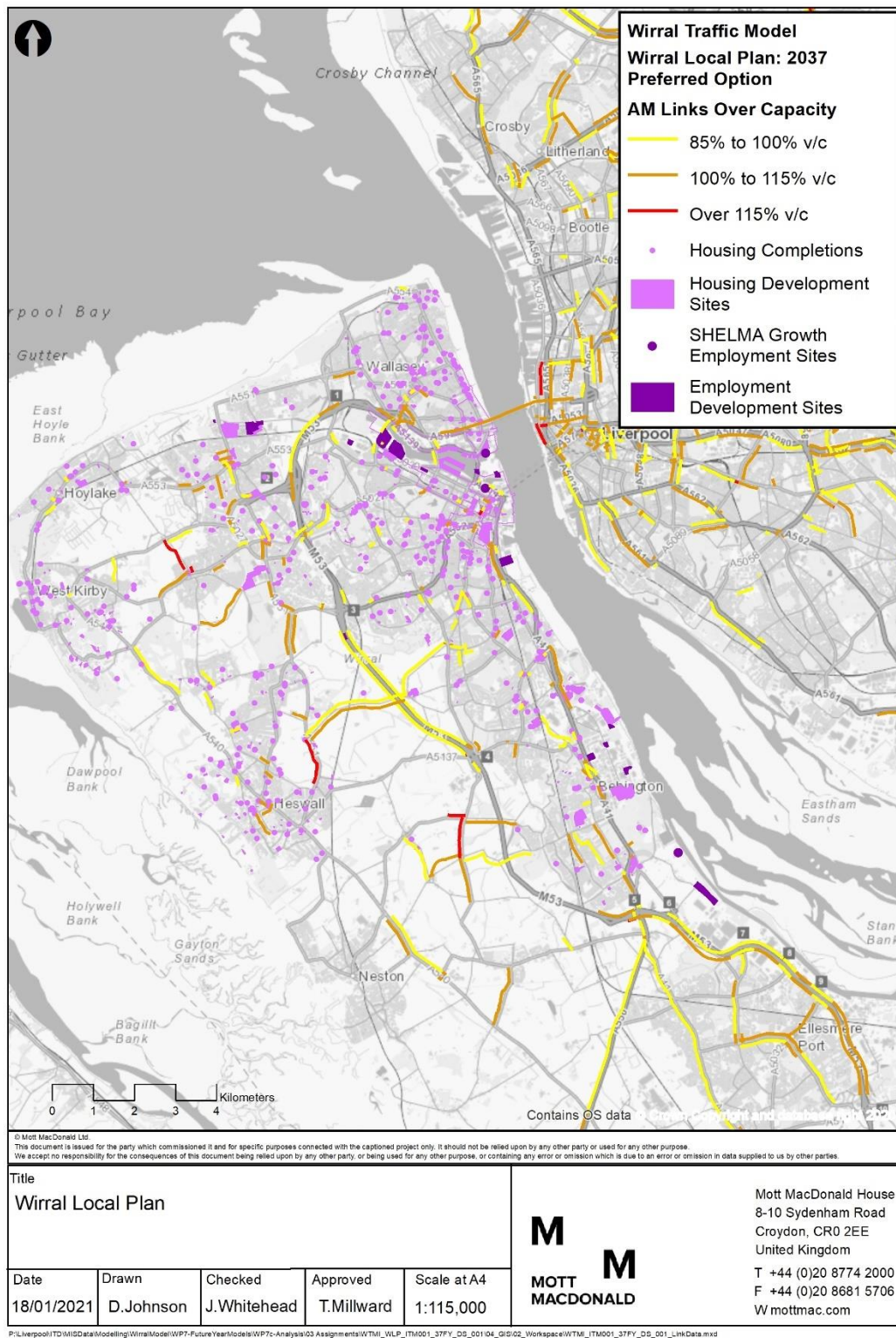


Figure 5.65: Links Over Capacity: 2037 Preferred Option IP

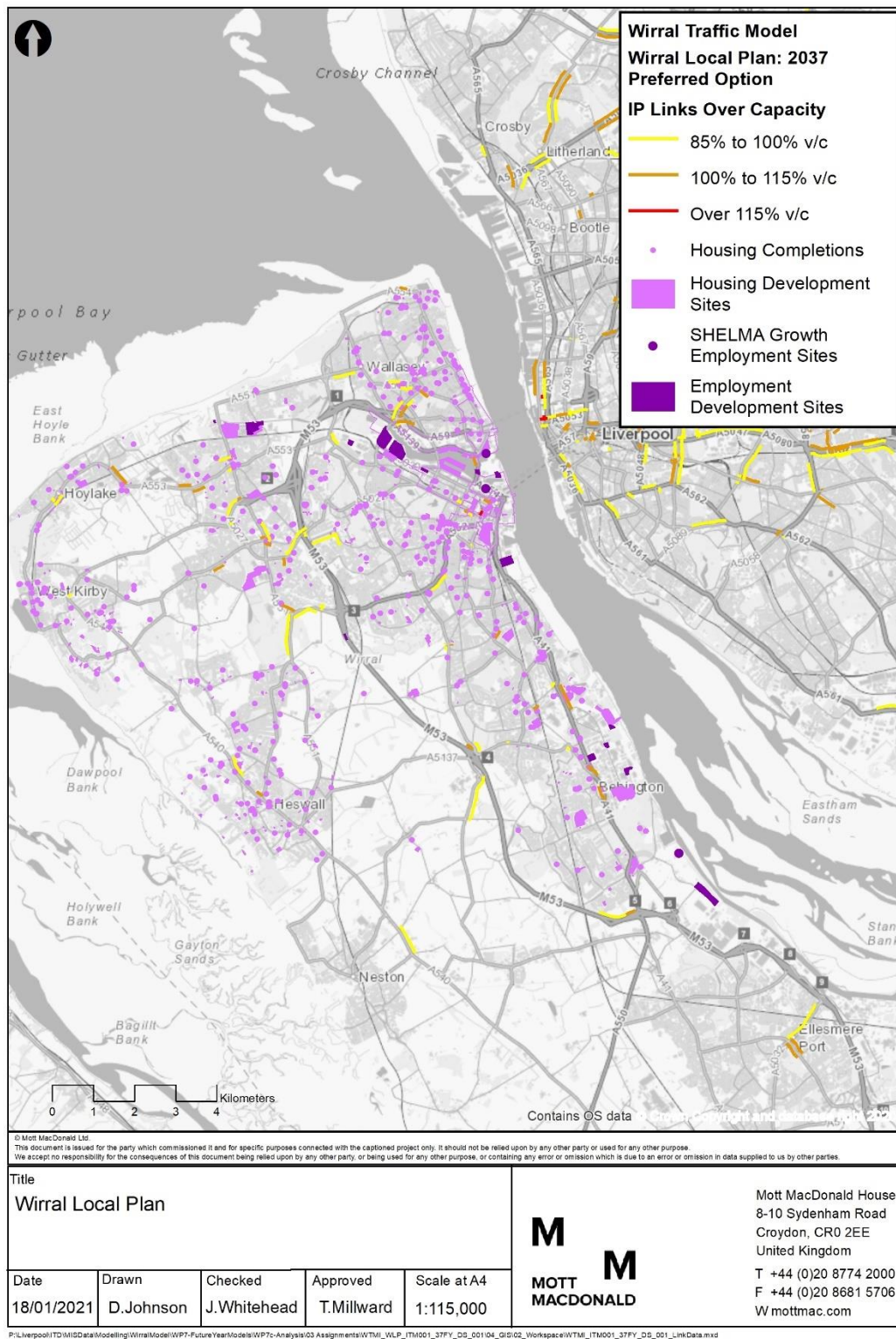
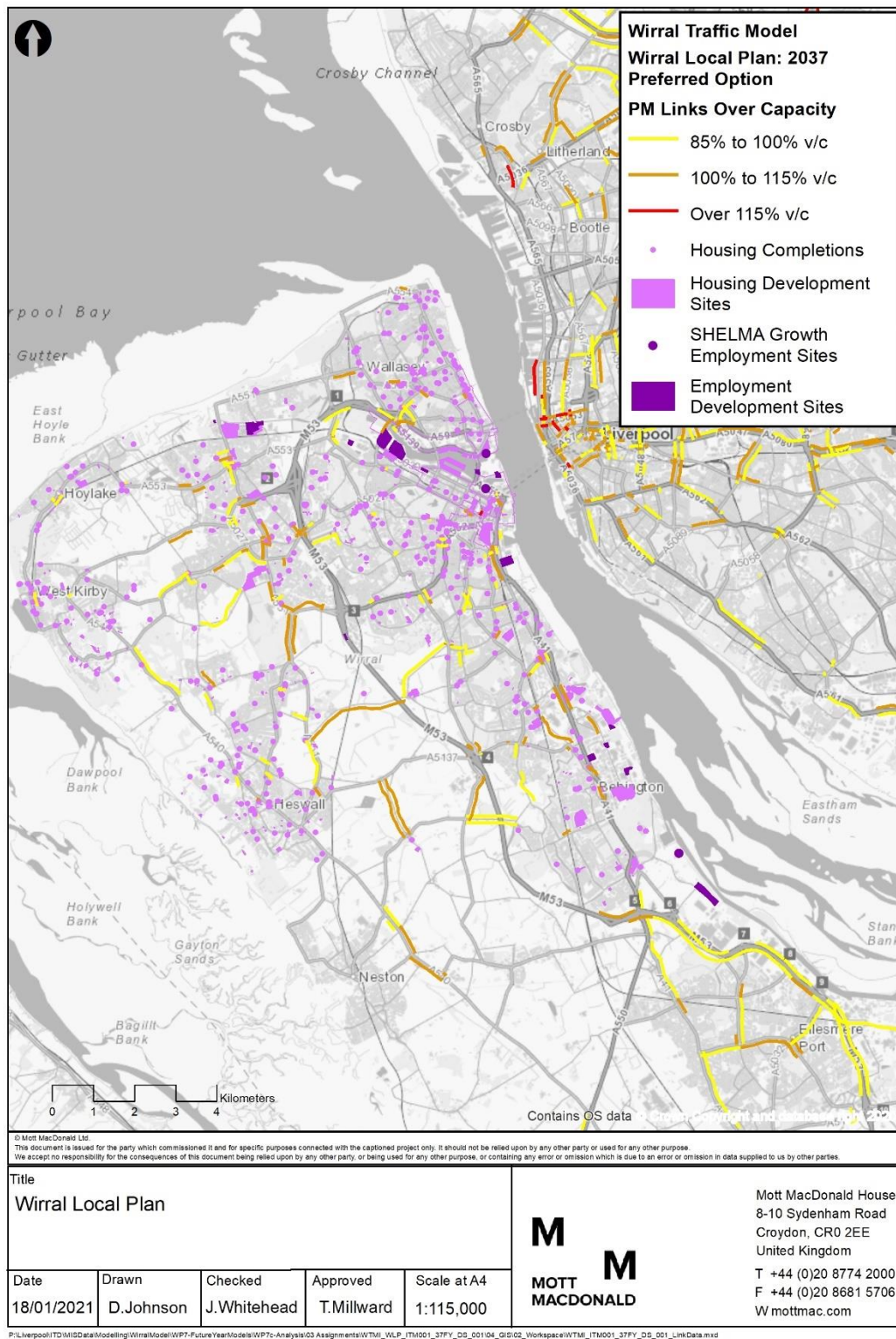


Figure 5.66: Links Over Capacity: 2037 Preferred Option PM



5.3.6 Link Delay

5.3.6.1 2037 Baseline

Figure 5.67 to Figure 5.69 present the link delay in the 2037 Baseline scenario for AM, IP and PM respectively. To the north east of Wirral, the primary link delay is forecast to be within the Kingsway and Queensway Tunnels for both the AM and PM periods, where delay is expected to be over 60 seconds. Delay is also forecast on the A41, most notably in the AM period and to a lesser degree in the PM. Link delay in the AM period exceeds 60 seconds along several significant sections of the regional network, such as on the approaches to the Queensway Tunnel and around Junction 5 M53. The PM period also displays 60 second delay on the approach to Queensway Tunnel but in contrast to the AM it contains less delay on the A41.

The IP period forecasts delays of over 60 seconds within the Kingsway Tunnel and along a cluster of links around Arrowe Park. Link Delay along Queensway Tunnel is predicted to be between 30 to 50 seconds.

Link delay is much more prominent in both the AM and PM than the IP. In the AM period several links west of the M53 in areas such as Arrowe Park, Clatterbridge, Barnston, Raby and Upton forecast to experience delays of over 60 seconds, with surrounding links less affected with delays varying from 10 to 50 seconds. Similar delay is also forecast for the PM period, however the number of links that experience a delay of over 60 seconds is significantly less.

Residential areas around Birkenhead, namely Prenton, Oxton, Wallasey and Bidston, all experience delays of at least 30 seconds on local network links. This is the case for both the AM and PM peaks, with a reduced spread of delay occurring in the same areas during the IP. Over 60 seconds of delay is predicted in the AM and PM periods around the Spital area, with the AM period also predicting significant delay in the Bromborough area.

In the west of Wirral, the A540 is forecast to experience over 60 seconds delay in the AM and PM periods, particularly around Heswall. Within West Kirby and Hoylake, delay is forecast to be less.

Figure 5.67: Link Delay (s): 2037 Baseline AM

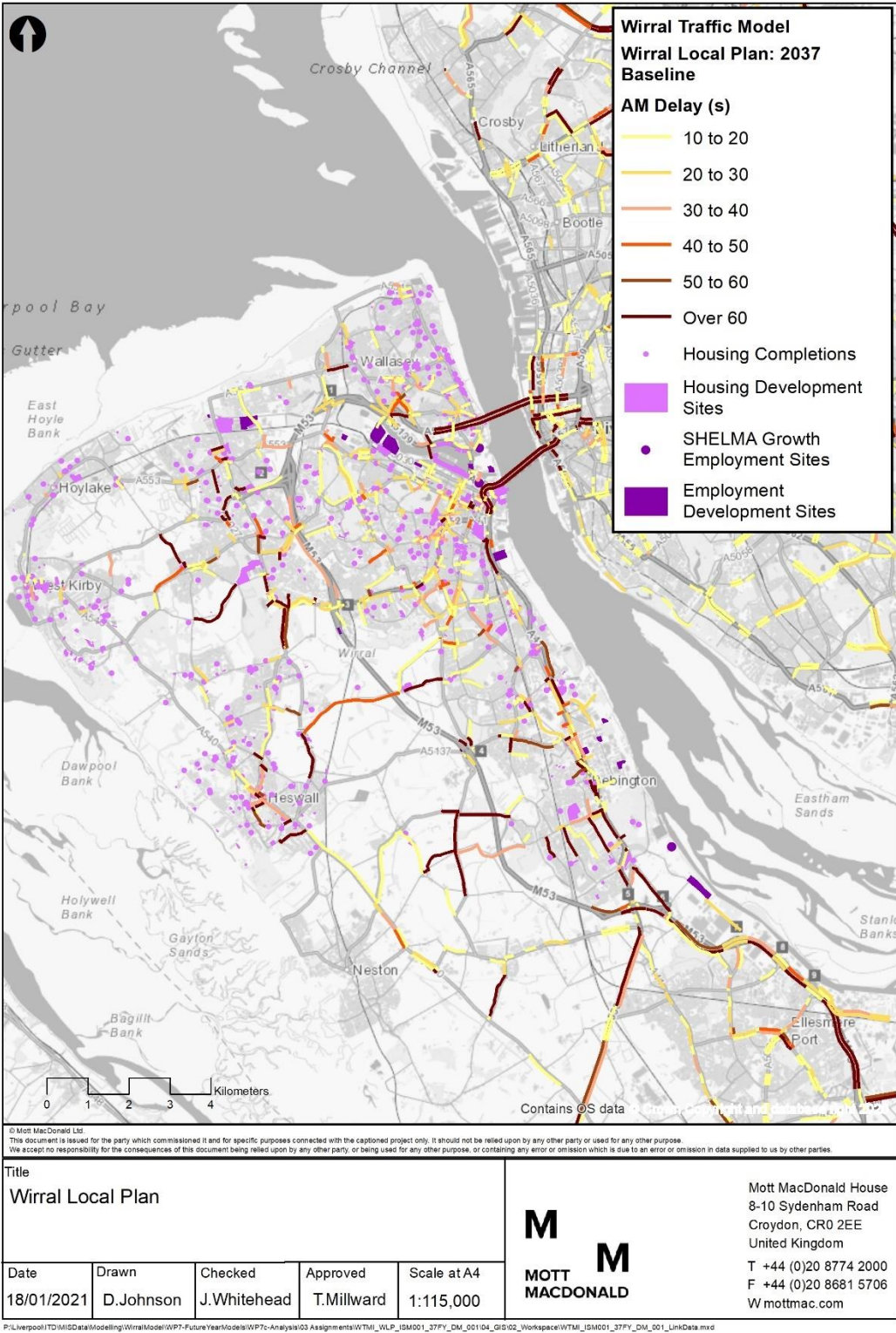


Figure 5.68: Link Delay (s): 2037 Baseline IP

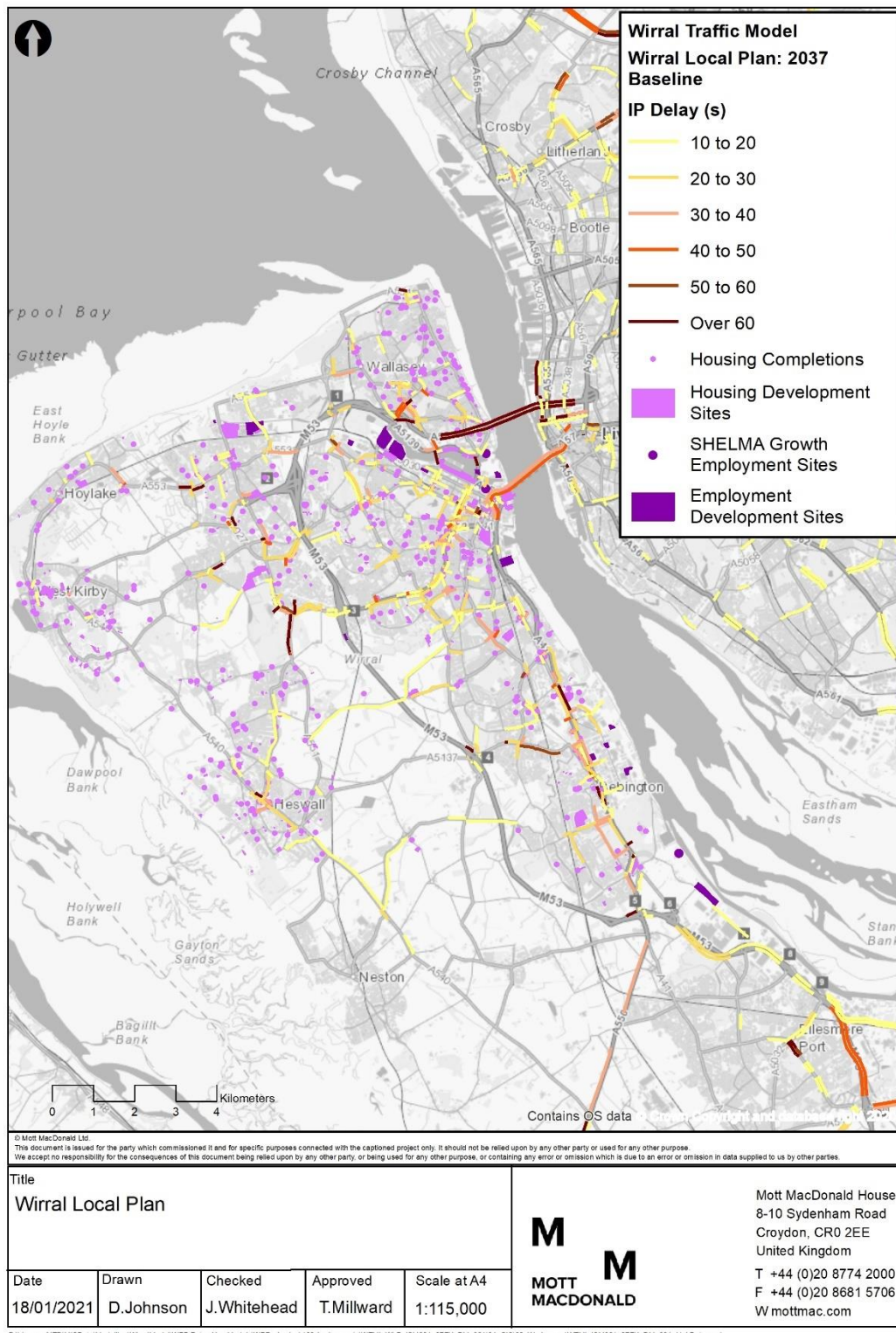
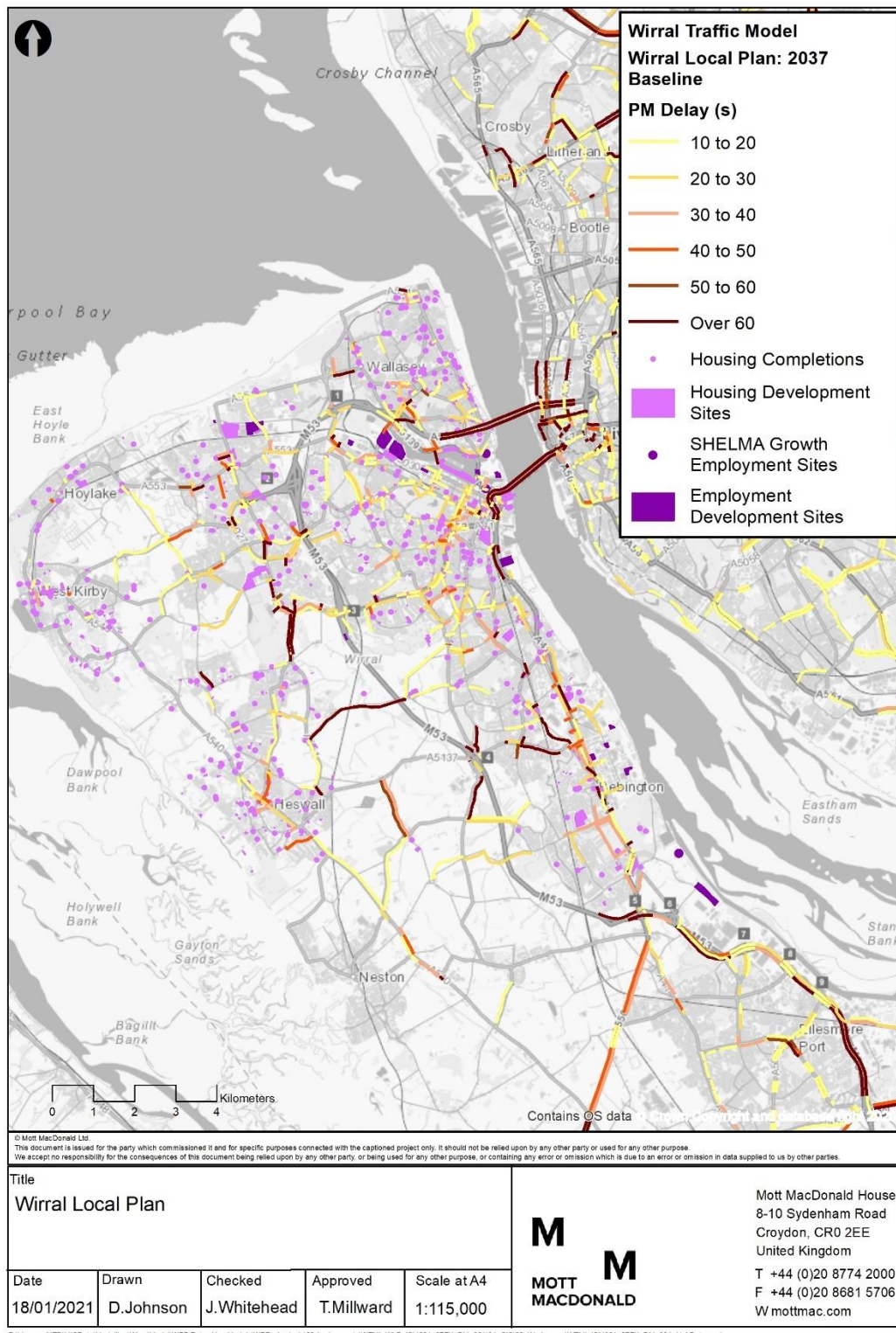


Figure 5.69: Link Delay (s): 2037 Baseline PM



5.3.6.2 2037 Preferred Option

Figure 5.70 to Figure 5.72 present the link delay in the 2037 Preferred Option scenario for AM, IP and PM respectively. To the north east of Wirral, the primary link delay is forecast to be within the Kingsway and Queensway Tunnels for both the AM and PM periods, where delay is expected to be over 60 seconds. Delay is also forecast on the A41, most notably in the AM period and to a lesser degree in the PM. Link delay in the AM period exceeds 60 seconds along several significant sections of the regional network, such as on the approaches to the Queensway Tunnel and around Junction 5 M53. The PM period also displays 60 second delay on the approach to Queensway Tunnel but in contrast to the AM it contains less delay on the A41.

The IP period forecasts delays of over 60 seconds within the Kingsway Tunnel and along a cluster of links around Arrowe Park. Link Delay along Queensway Tunnel is predicted to be between 30 to 50 seconds.

Link delay is much more prominent in both the AM and PM than the IP. In the AM period several links west of the M53 in areas such as Arrowe Park, Clatterbridge, Barnston, Raby and Upton forecast to experience delays of over 60 seconds, with surrounding links less affected with delays varying from 10 to 50 seconds. Similar delay is also forecast for the PM period, however the number of links that experience a delay of over 60 seconds is significantly less.

Residential areas around Birkenhead, namely Prenton, Oxton, Wallasey and Bidston, all experience delays of at least 30 seconds on local network links. This is the case for both the AM and PM peaks, with a reduced spread of delay occurring in the same areas during the IP. Over 60 seconds of delay is predicted in the AM and PM periods around the Spital area, with the AM period also predicting significant delay in the Bromborough area.

In the west of Wirral, the A540 is forecast to experience over 60 seconds delay in the AM and PM periods, particularly around Heswall. Within West Kirby and Hoylake, delay is forecast to be less.

Figure 5.70: Link Delay (s): 2037 Preferred Option AM

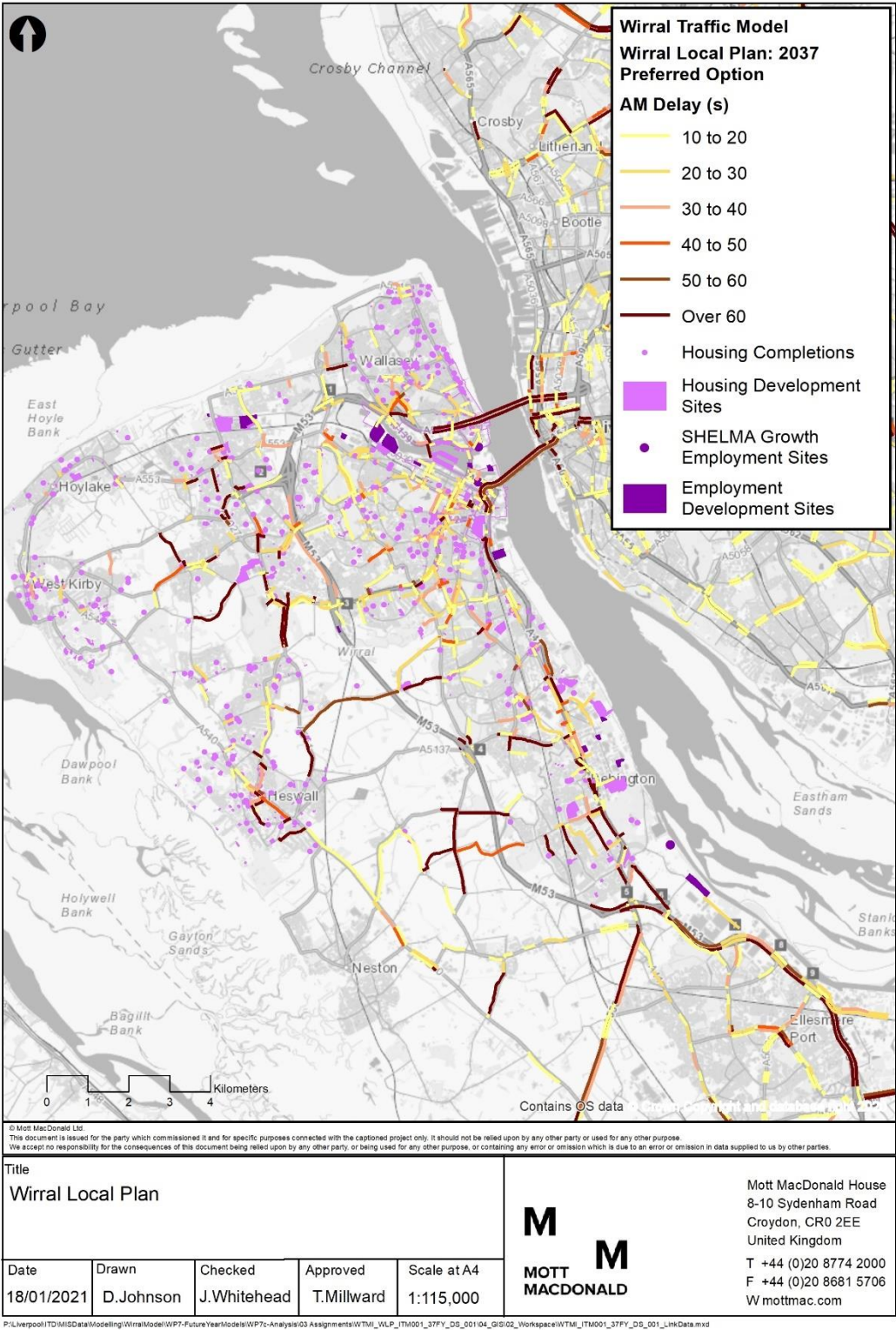


Figure 5.71: Link Delay (s): 2037 Preferred Option IP

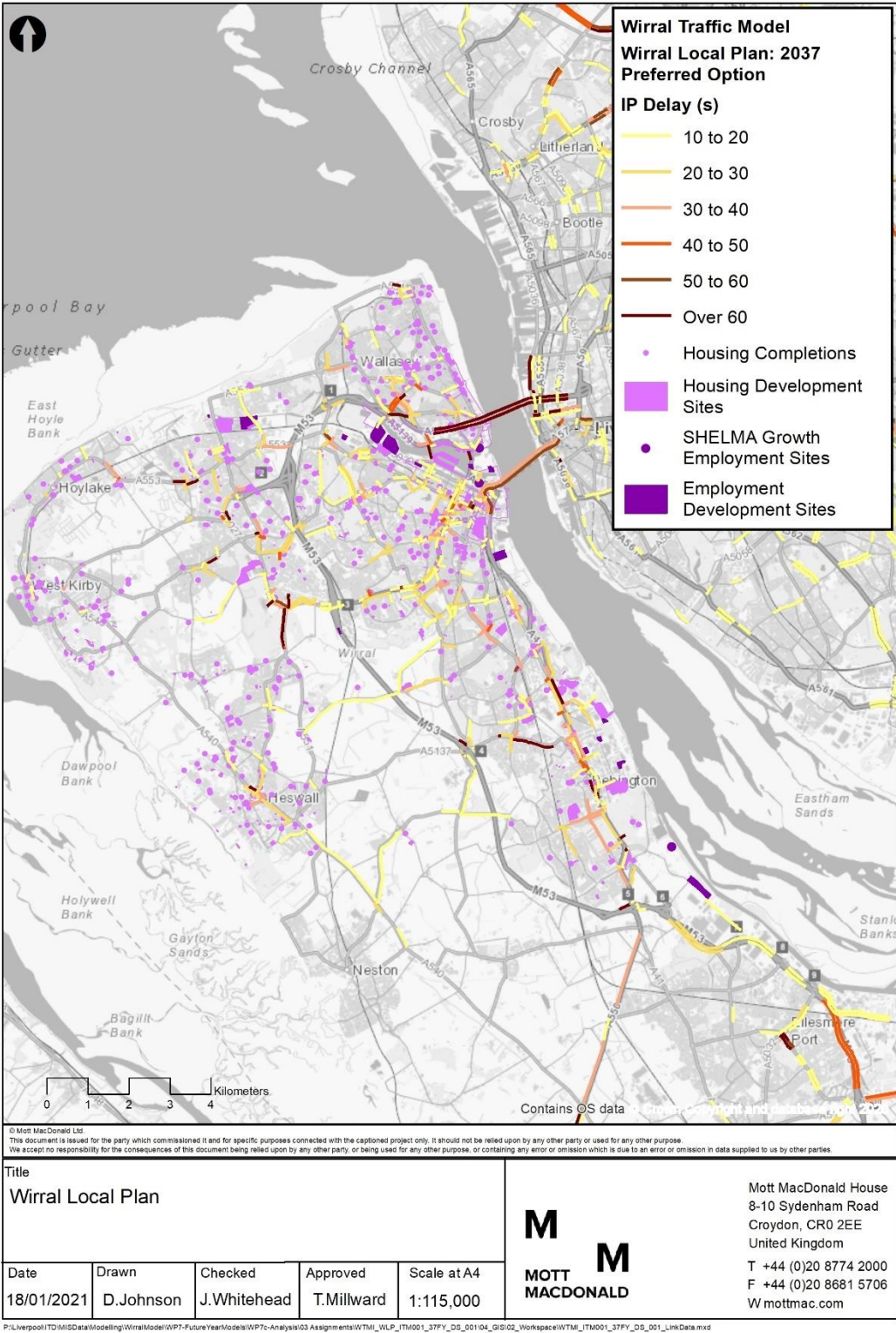
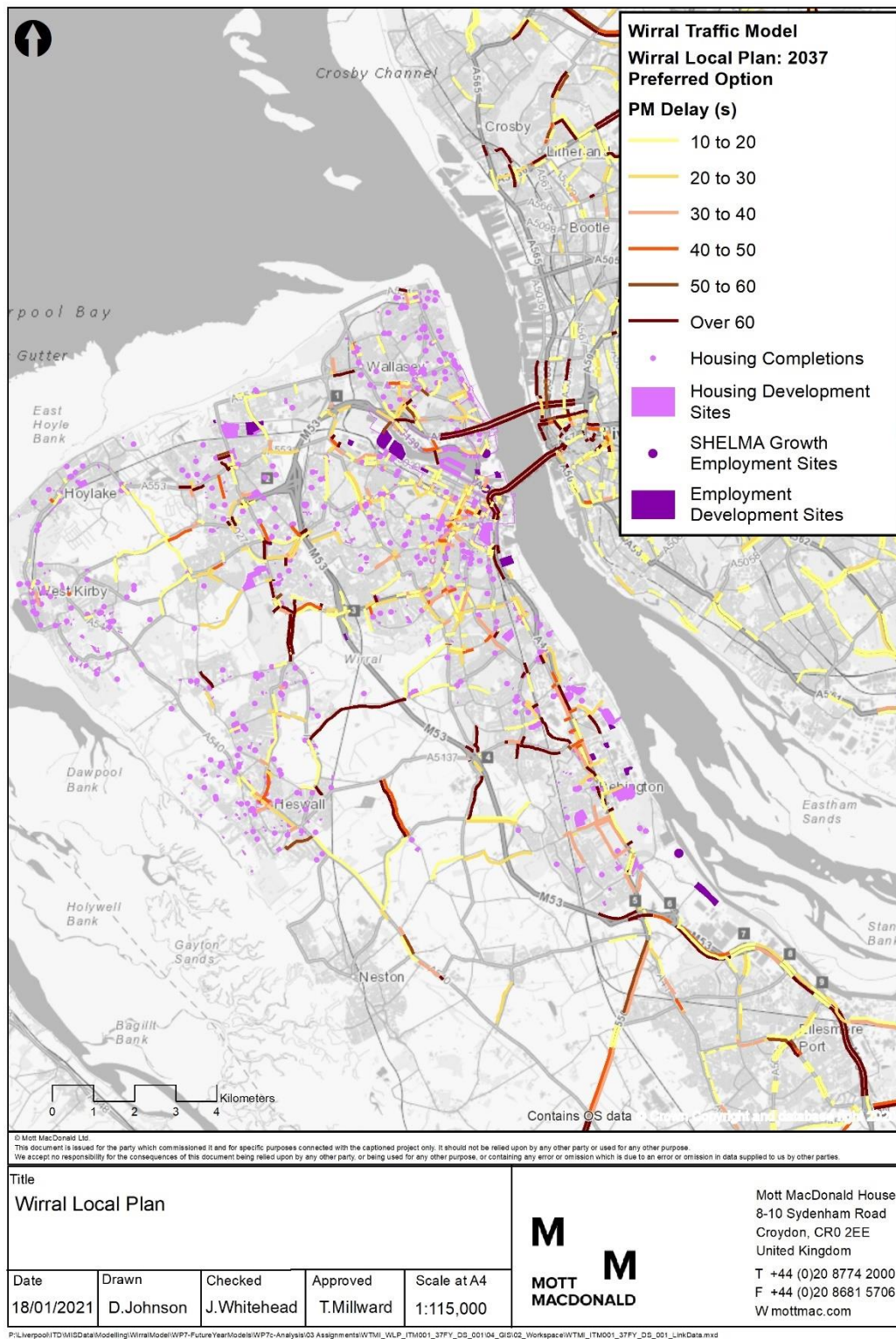


Figure 5.72: Link Delay (s): 2037 Preferred Option PM



5.4 Wirral Local Plan 2037 plus Strategic Schemes Results

5.4.1 Model Assignment Convergence

The convergence statistics show the Wirral Local Plan 2037 plus Strategic Schemes Baseline and Preferred Option models both reaches suitable convergence levels:

2025 Baseline

- The “%FLOWS” values are higher than 99% in the final four assignment loops for all models
- “%GAP” values for 2037 of 0.021, 0.001 and 0.018 have been achieved for the AM, IP and PM models respectively.

2025 Preferred Option

- The “%FLOWS” values are higher than 99% in the final four assignment loops for all models
- “%GAP” values for 2037 of 0.021, 0.016 and 0.016 have been achieved for the AM, IP and PM models respectively.

Appendix F contains full model convergence results.

5.4.2 Network Statistics

Table 5.10 presents the overall network statistics for the 2037 Baseline plus Strategic Schemes model. The modelling shows a 27-36% increase in traffic between 2015 and 2037 with corresponding increases in queues and travel time. The average speed across the network in the AM peak has decreased from 40 kph in 2015 to 35 kph in 2037, the equivalent figures for IP remain unchanged at 42kph and the equivalent figures for PM show a decrease from 39 kph to 37 kph.

Table 5.11 presents the overall network statistics for the 2037 Preferred Option plus Strategic Schemes model. The modelling shows a negligible change in traffic between the 2037 Baseline plus Strategic Schemes and Preferred Option plus Strategic Schemes, with corresponding changes in queues and travel time. The average speed across the network in the AM peak has decreased by 1kph in the Preferred Option plus Strategic Schemes, with similar changes for IP and PM.

Table 5.10: Summary of Network Statistics – 2037 Baseline plus Strategic Schemes

Statistics	Base Year			Baseline			Difference			Percentage Difference		
	AM	IP	PM	AM	IP	PM	AM	IP	PM	AM	IP	PM
Transient Queues (PCU HRS/HR)	1,600	1,000	1,600	2,300	1,600	2,200	700	600	600	44%	60%	38%
Over-Capacity Queues (PCU HRS/HR)	200	100	600	2,700	300	1,500	2,500	200	900	1250%	200%	150%
Link Cruise Time (PCU HRS/HR)	10,100	6,700	9,600	12,600	9,600	12,000	2,500	2,900	2,400	25%	43%	25%
Total Travel Time (PCU HRS/HR)	11,800	7,800	11,700	17,600	11,500	15,700	5,800	3,700	4,000	49%	47%	34%
Travel Distance (PCU KMS/HR)	477,300	328,600	459,800	606,700	482,000	583,300	129,400	153,400	123,500	27%	47%	27%
Average Speed (KPH)	40	42	39	35	42	37	-6	0	-2	-14%	0%	-5%
Total Trips Loaded (PCU)	481,800	364,500	487,200	616,200	495,600	617,100	134,400	131,100	129,900	28%	36%	27%

Table 5.11: Summary of Network Statistics – 2037 Preferred Option plus Strategic Schemes

Statistics	Baseline			Preferred Option			Difference			Percentage Difference		
	AM	IP	PM	AM	IP	PM	AM	IP	PM	AM	IP	PM
Transient Queues (PCU HRS/HR)	2,300	1,600	2,200	2,300	1,700	2,300	0	100	100	0%	6%	5%
Over-Capacity Queues (PCU HRS/HR)	2,700	300	1,500	2,900	300	1,600	200	0	100	7%	0%	7%
Link Cruise Time (PCU HRS/HR)	12,600	9,600	12,000	12,800	9,700	12,100	200	100	100	2%	1%	1%
Total Travel Time (PCU HRS/HR)	17,600	11,500	15,700	18,000	11,700	16,000	400	200	300	2%	2%	2%
Travel Distance (PCU KMS/HR)	606,700	482,000	583,300	613,000	489,300	589,400	6,300	7,300	6,100	1%	2%	1%
Average Speed (KPH)	35	42	37	34	42	37	0	0	-1	-1%	-1%	-1%
Total Trips Loaded (PCU)	616,200	495,600	617,100	618,000	497,300	618,700	1,800	1,700	1,600	0%	0%	0%

5.4.3 Comparison of Flows

5.4.3.1 2037 Baseline plus Strategic Schemes vs 2015 Base Year

Figure 5.73 to Figure 5.75 present the flow difference plots between the 2037 Baseline plus Strategic Schemes and the 2015 Base Year scenarios for AM, IP and PM respectively.

As with the 2037 Baseline comparison against 2015 Base Year, the primary increases in traffic flow volumes are forecast to be along the M53 in both directions, in addition to both the Queensway and Kingsway Tunnels. Similarly, there is a forecast increase in cross-boundary traffic to Cheshire West and Chester for all periods via the A550 and the A41 south of Bromborough.

There are however noticeable differences on the sections of the network where the Strategic Schemes have been modelled. With the inclusion of the schemes there is a much-reduced increase in flow when compared against the increases forecast for the without schemes scenario.

The Wirral Waters scheme improvements forecast less severe increases in vehicle flows along links such as Dock Road, Duke St bridge and Hoylake Road. The A41 Corridor scheme mitigates against the forecast increases in traffic within the centre of Birkenhead, with improvements also seen on A5030 (Cleveland Street), Park Road North/Conway Street and A5029/B5148 (Exmouth Street), as well as the A41.

Figure 5.76 to Figure 5.78 present the traffic flows for the 2037 Baseline AM, IP and PM respectively.

The Wirral highway network is well defined within the three figures, with the M53 forming the primary spine of the network and the A-road network supporting the cross-regional movement of traffic.

With the inclusion of the highway improvements, such as those relating to the Wirral Waters, the A41 Corridor and the Green Corridor, there are certain sections of the strategic highway network which are predicted to accommodate flows of at least 750 pcu in all periods.

Figure 5.73: Difference in Actual Flow (pcu): 2037 Baseline plus Strategic Schemes vs 2015 Base Year AM

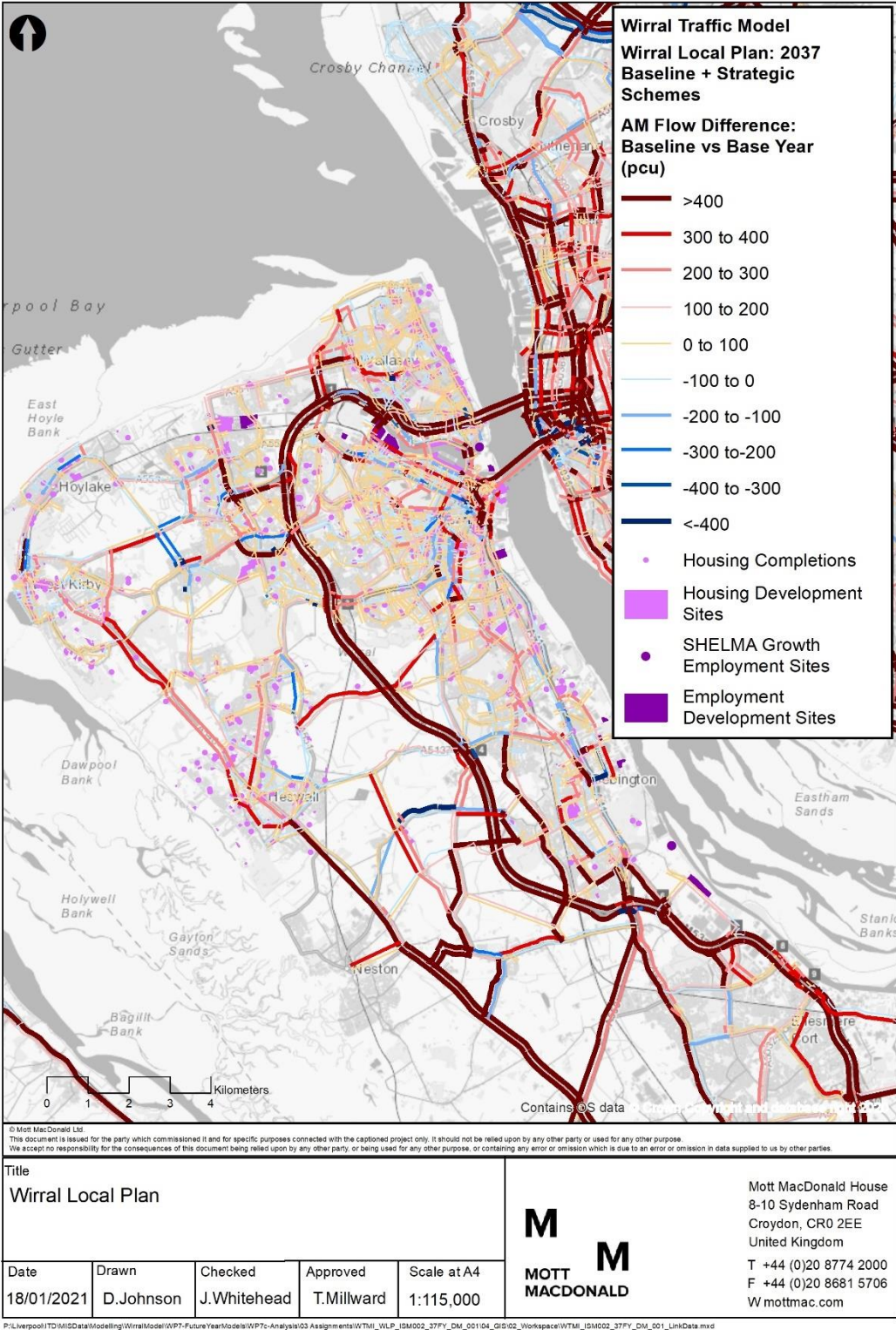


Figure 5.74: Difference in Actual Flow (pcu): 2037 Baseline plus Strategic Schemes vs 2015 Base Year IP

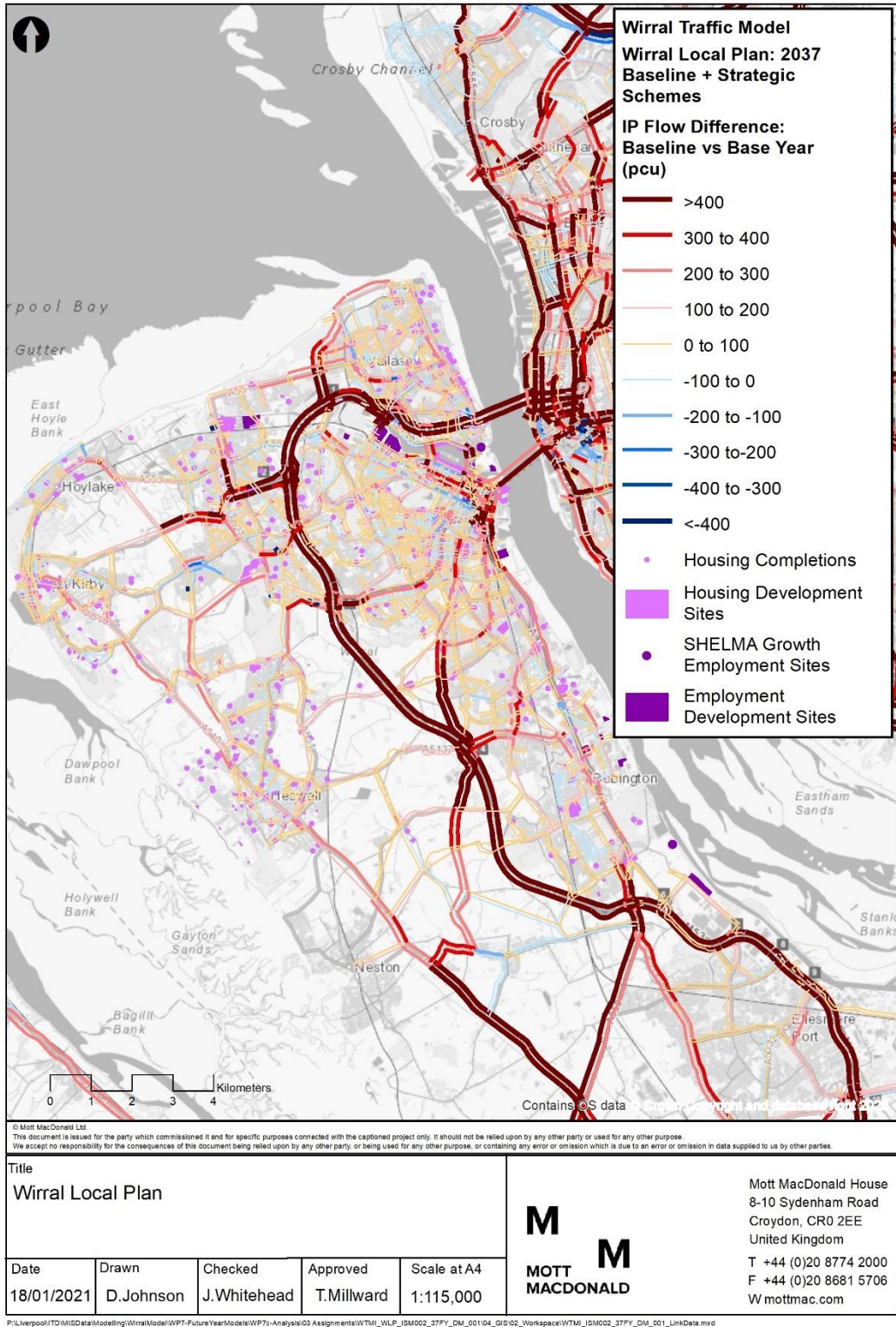


Figure 5.75: Difference in Actual Flow (pcu): 2037 Baseline plus Strategic Schemes vs 2015 Base Year PM

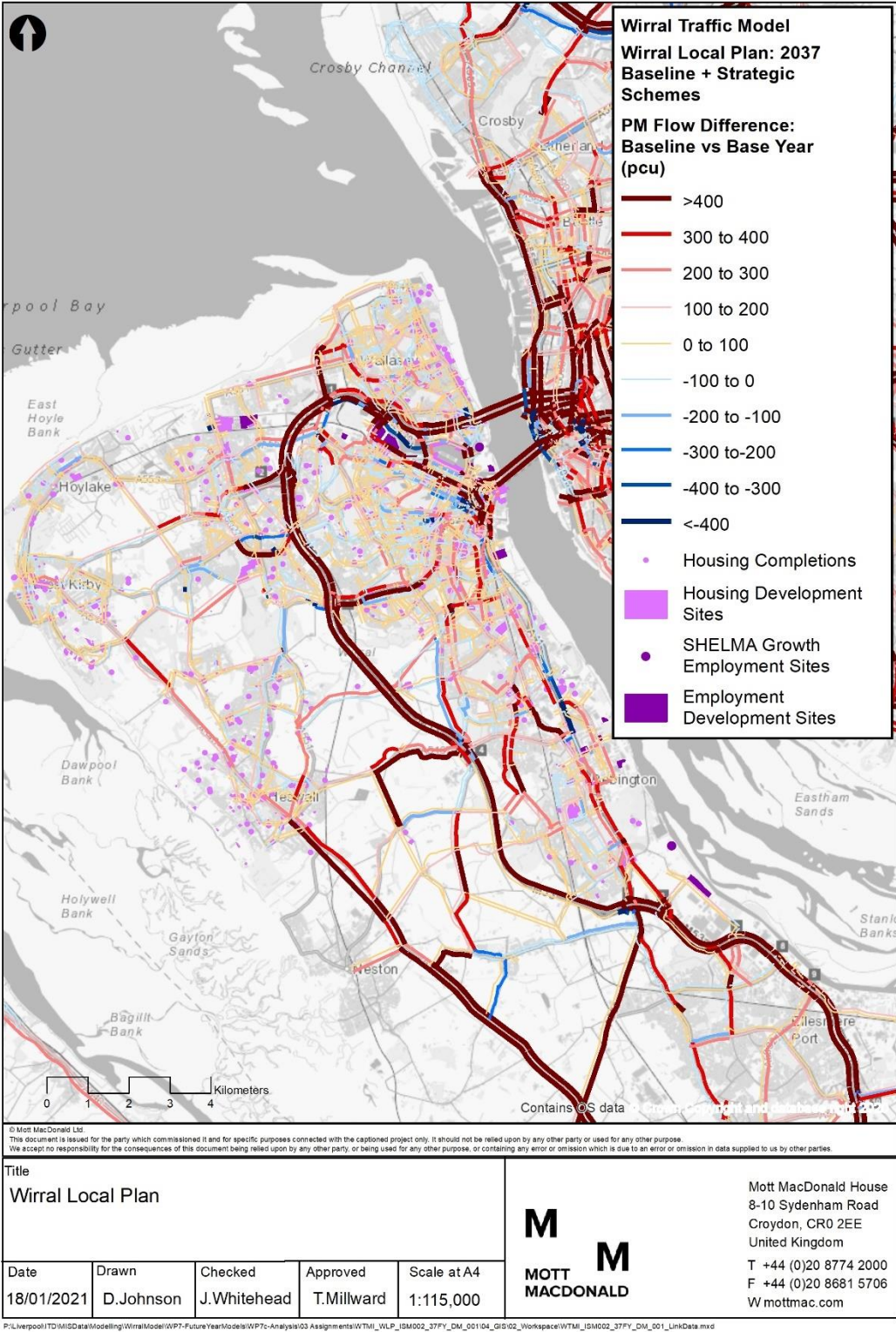


Figure 5.76: Actual Flow (pcu): 2037 Baseline plus Strategic Schemes AM

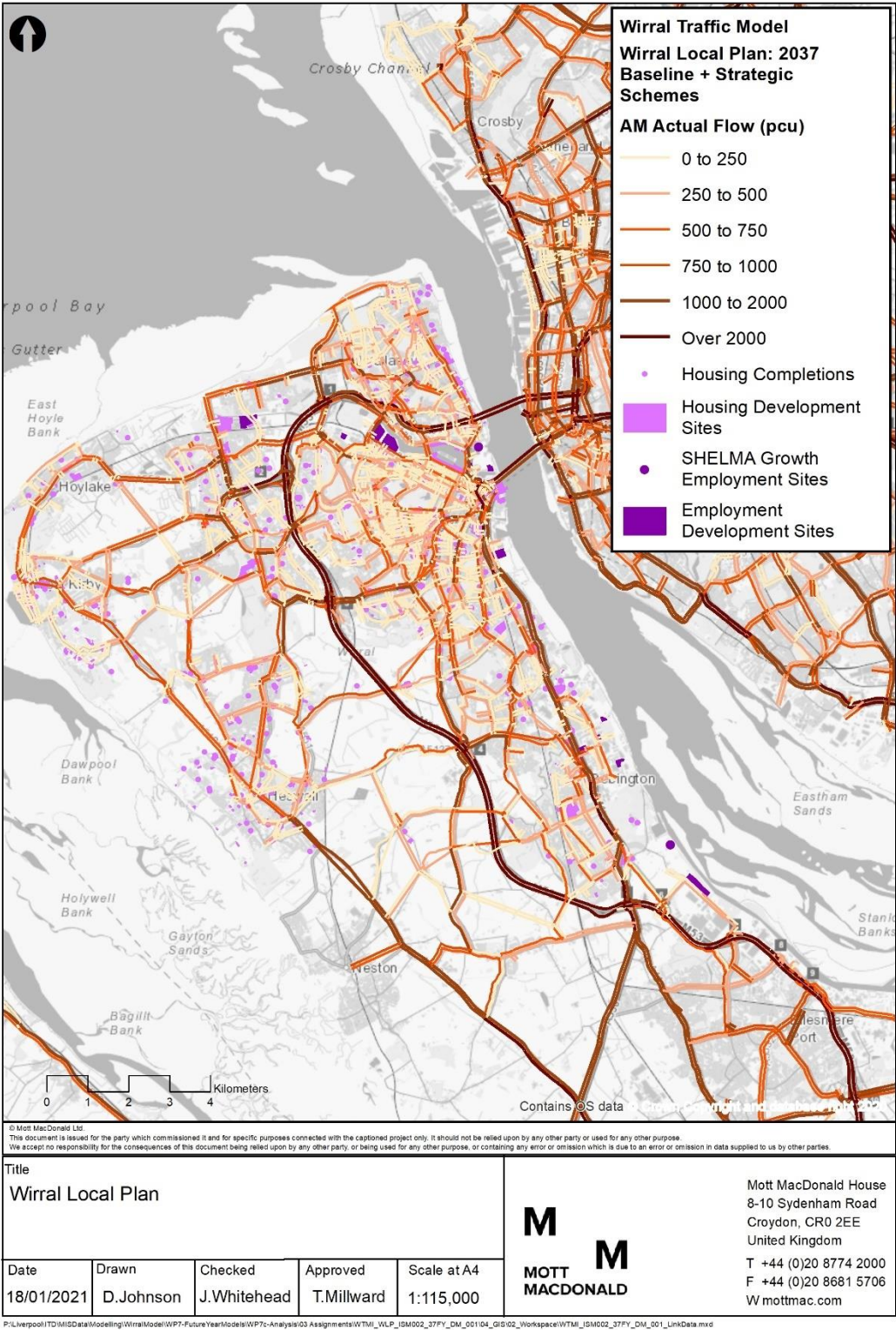


Figure 5.77: Actual Flow (pcu): 2037 Baseline plus Strategic Schemes IP

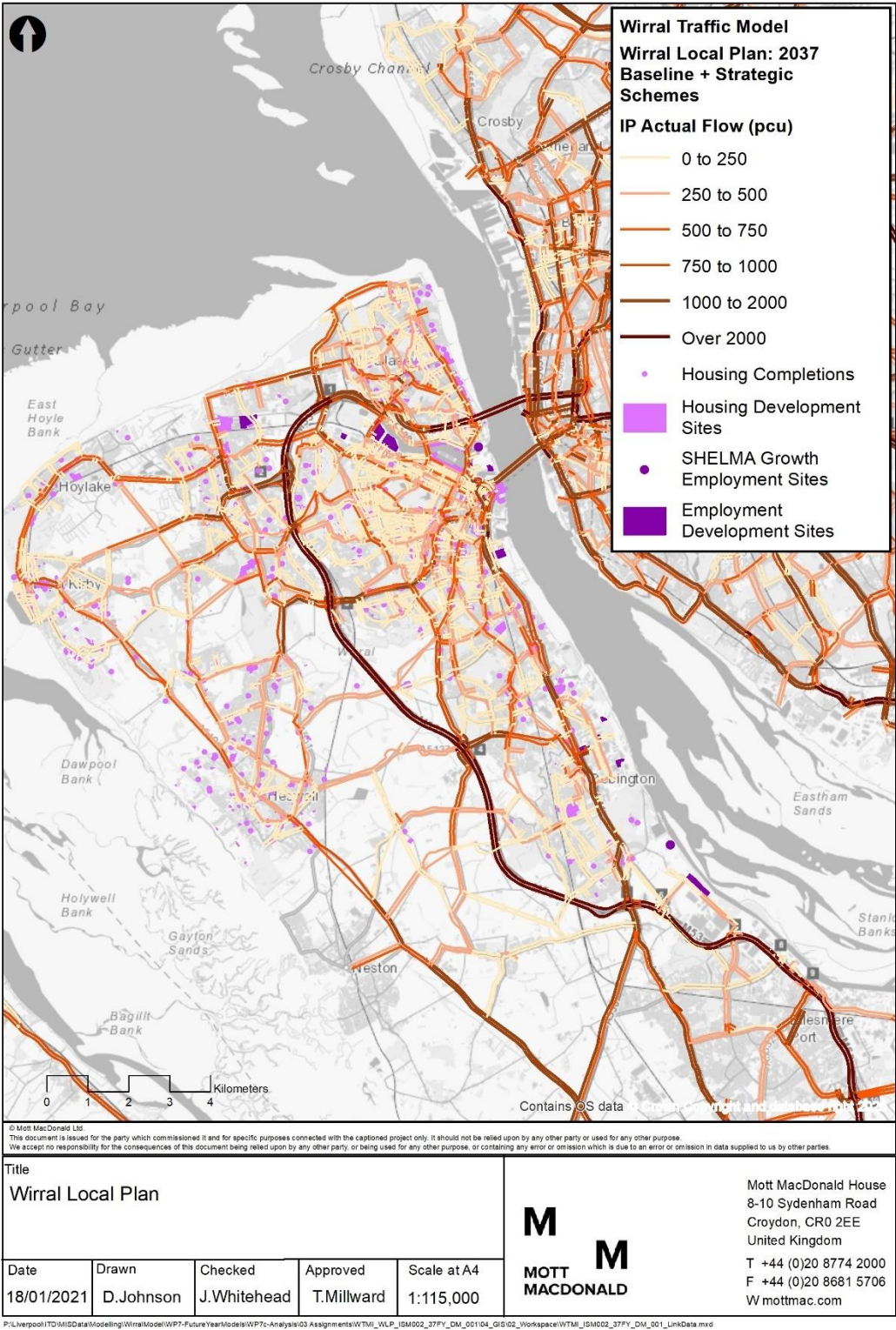
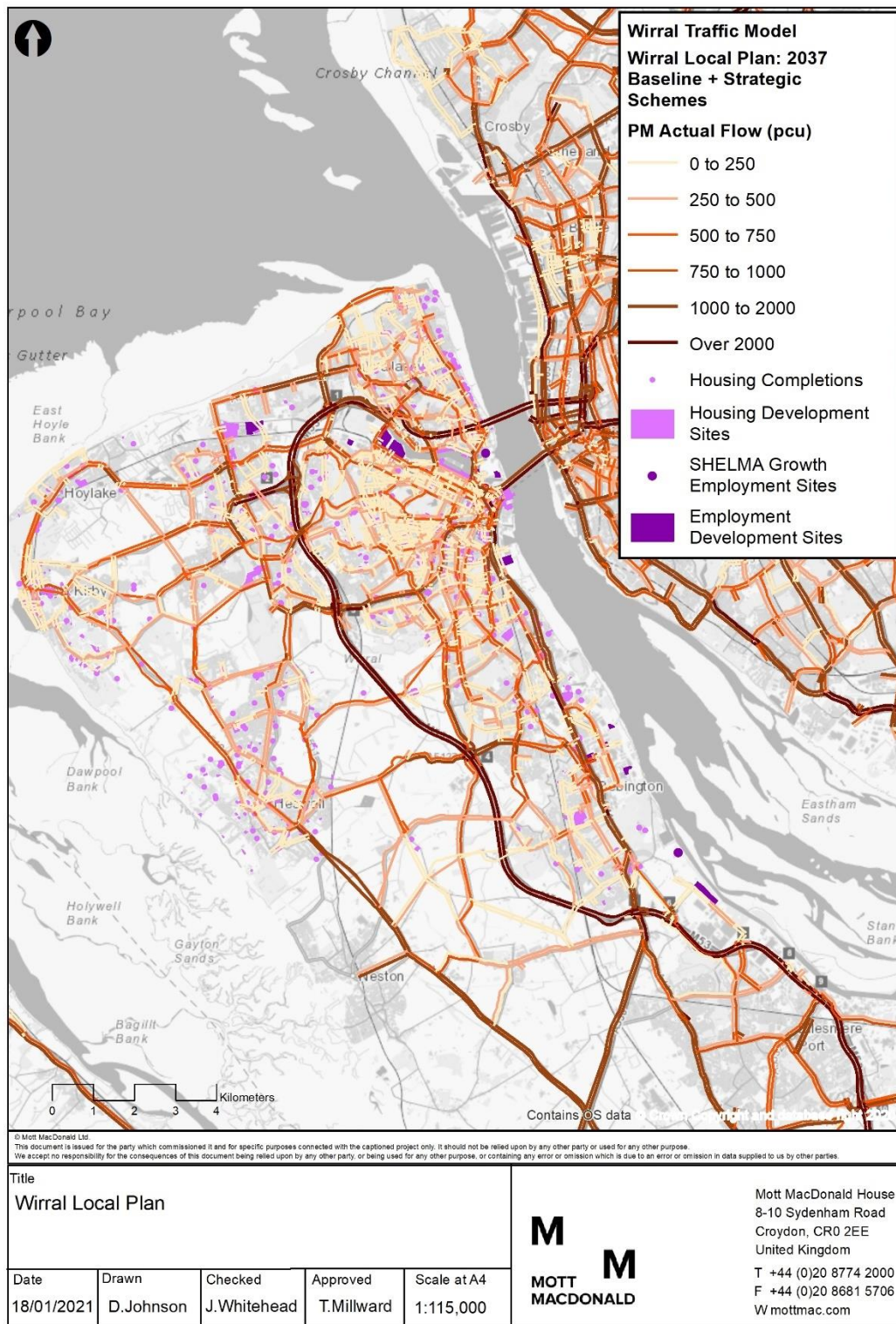


Figure 5.78: Actual Flow (pcu): 2037 Baseline plus Strategic Schemes PM



5.4.3.1 2037 Preferred Option vs Baseline plus Strategic Schemes

Figure 5.79 to Figure 5.81 present the flow difference plots between the 2037 Preferred Option plus Strategic Schemes and the Baseline scenarios for AM, IP and PM respectively.

As with the 2037 Baseline plus Strategic Schemes comparison against 2015 Base Year, the primary increases in traffic flow volumes are driven by the proposed increase in residential and employment developments due to the Wirral Local Plan. The forecast growth in flow is seen across the borough, with links experiencing increases by up to 100 pcus. Due to the geographical displacement of many of the developments the resultant increase in flow is well dispersed across the borough, with no specific corridor recording significant increases in traffic volumes.

There are however limited differences on the sections of the network where the Strategic Schemes have been modelled. With the inclusion of the schemes there is a much-reduced increase in flow when compared against the increases forecast for the without schemes scenario.

Figure 5.82 to Figure 5.84 present the traffic flows for the 2037 Preferred Option plus Strategic Schemes AM, IP and PM respectively.

The Wirral highway network is well defined within the three figures, with the M53 forming the primary spine of the network and the A-road network supporting the cross-regional movement of traffic.

With the inclusion of the highway improvements, such as those relating to the Wirral Waters, the A41 Corridor and the Green Corridor, there are certain sections of the strategic highway network which are predicted to accommodate flows of at least 750 pcu in all periods.

Figure 5.79: Difference in Actual Flow (pcu): 2037 Preferred Option plus Strategic Schemes vs Baseline AM

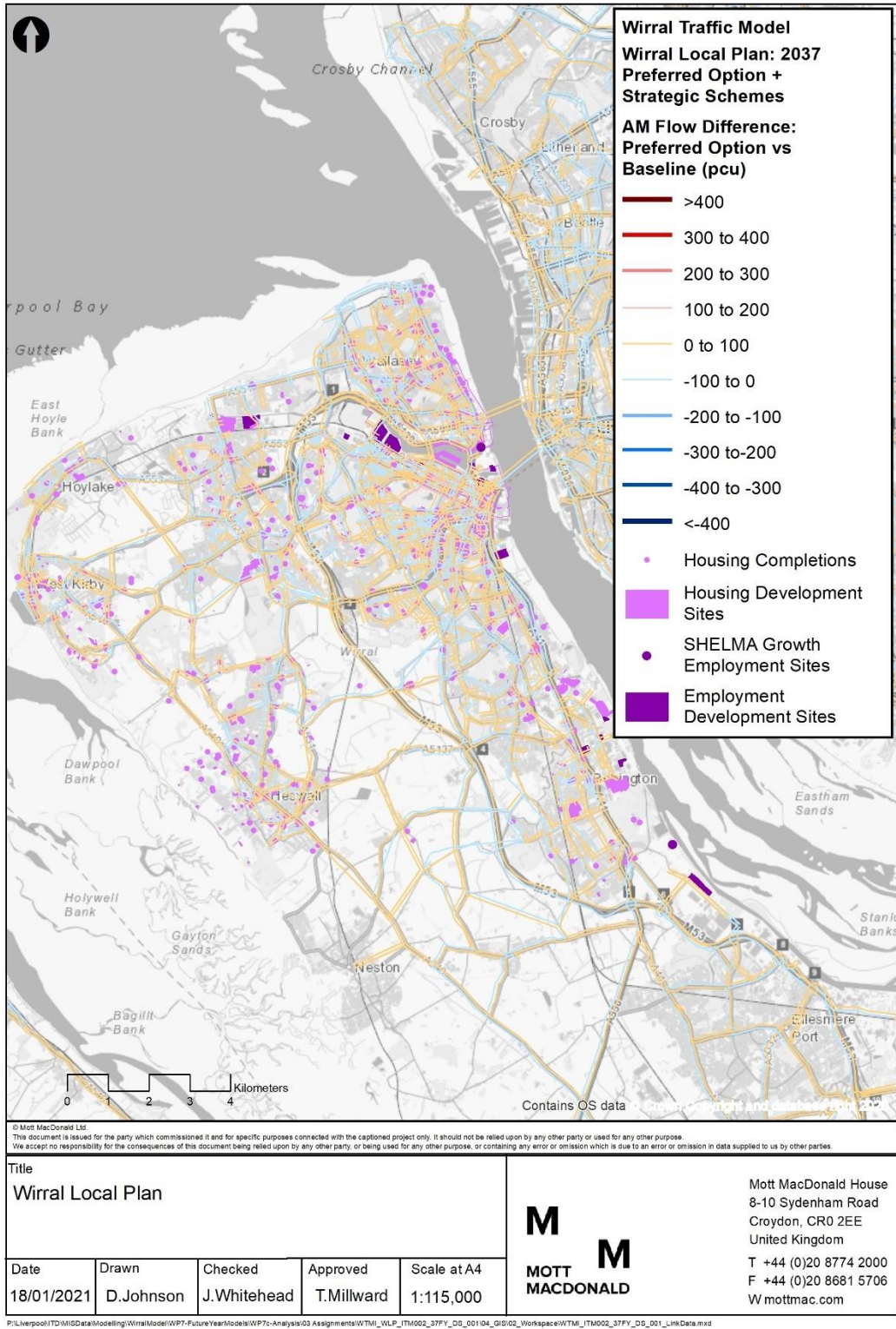


Figure 5.80: Difference in Actual Flow (pcu): 2037 Preferred Option plus Strategic Schemes vs Baseline IP

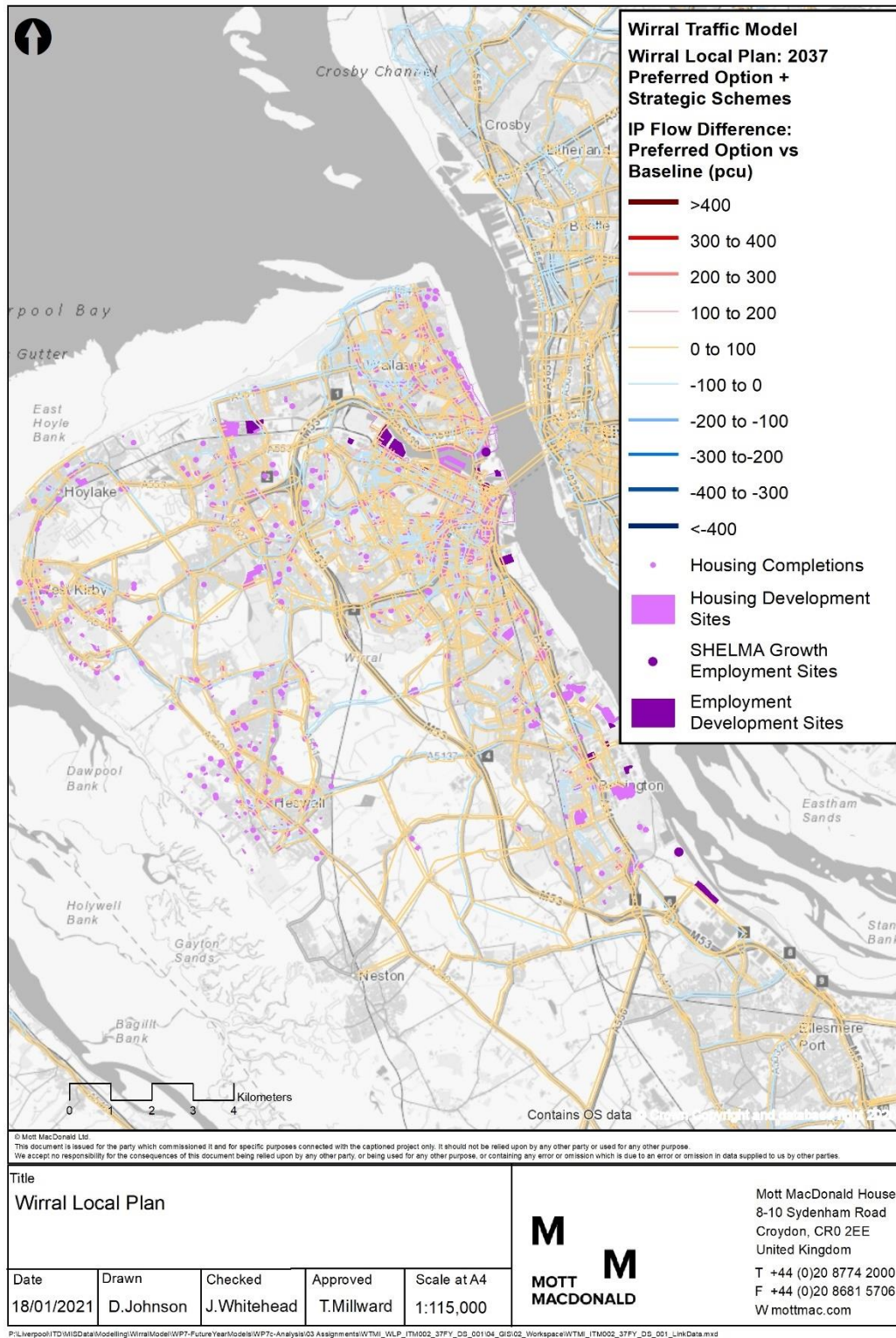


Figure 5.81: Difference in Actual Flow (pcu): 2037 Preferred Option plus Strategic Schemes vs Baseline PM

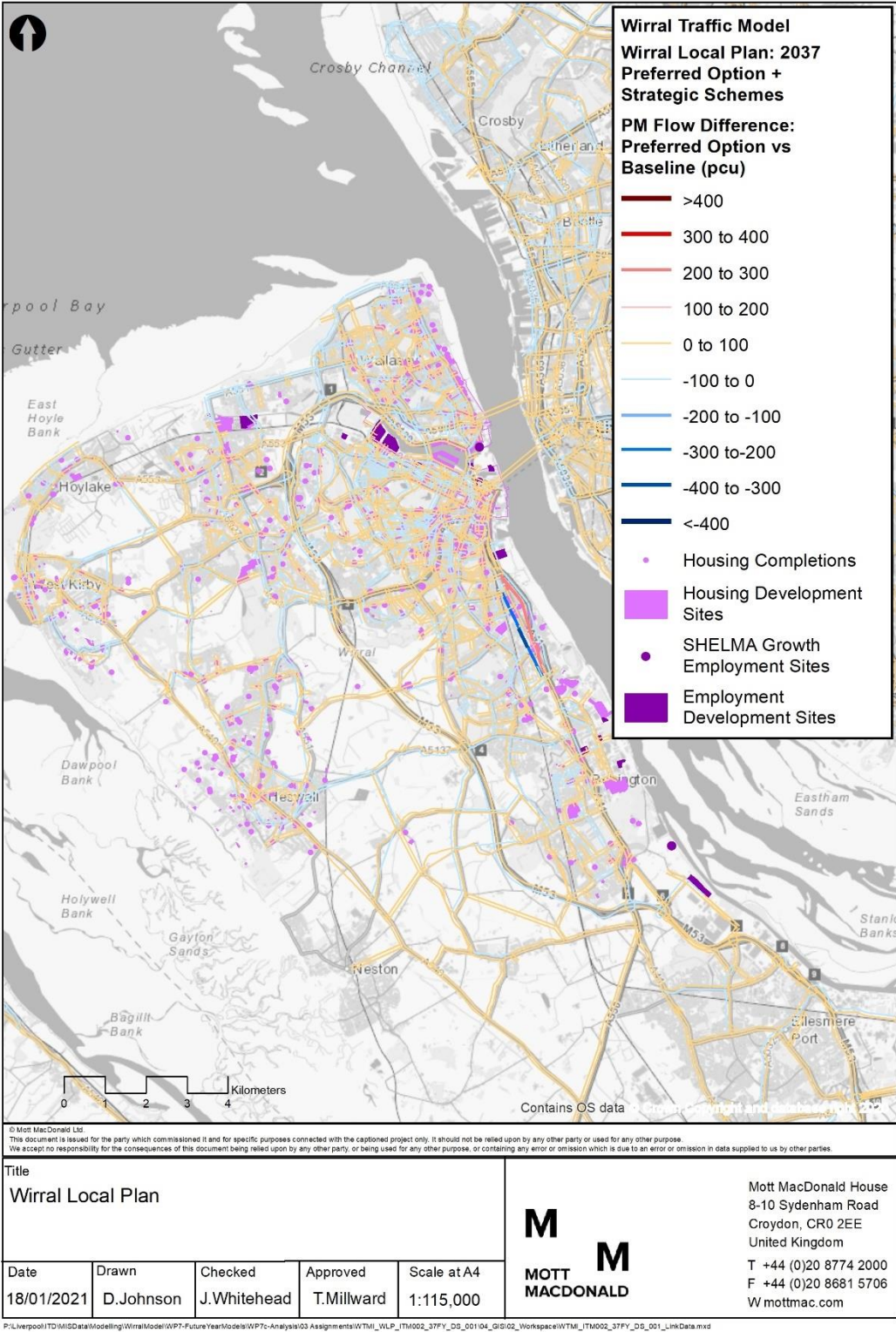


Figure 5.82: Actual Flow (pcu): 2037 Preferred Option plus Strategic Schemes AM

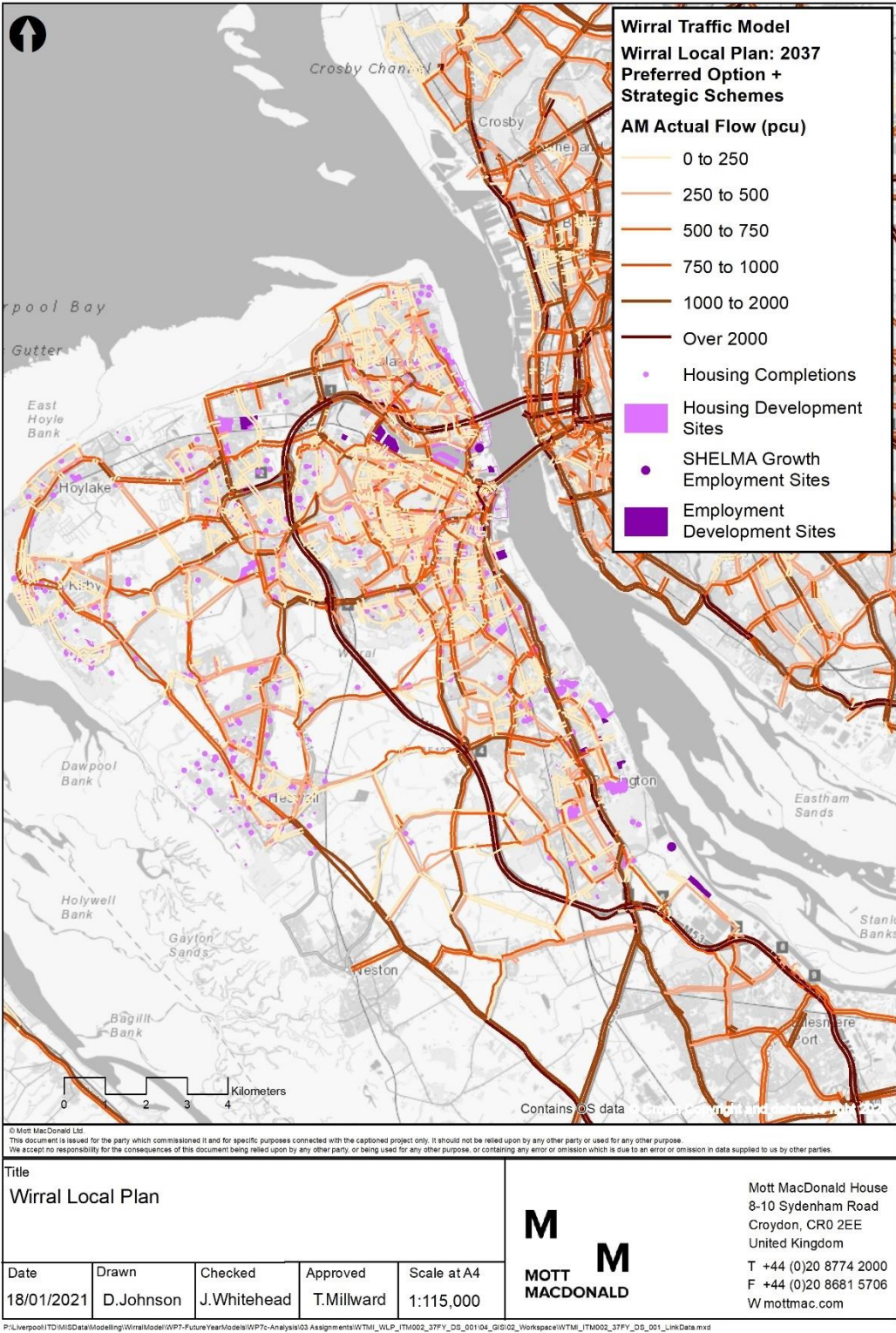


Figure 5.83: Actual Flow (pcu): 2037 Preferred Option plus Strategic Schemes IP

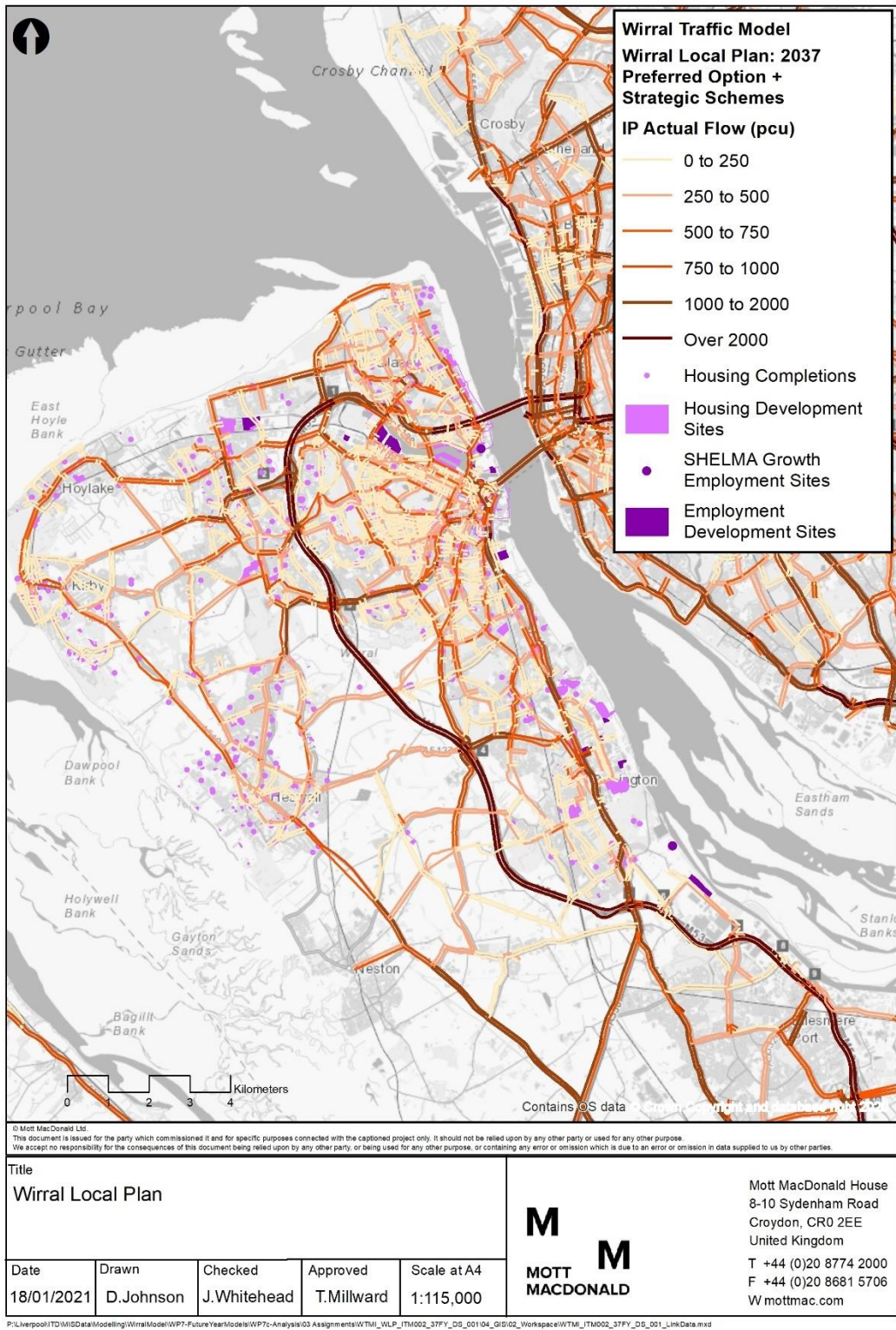
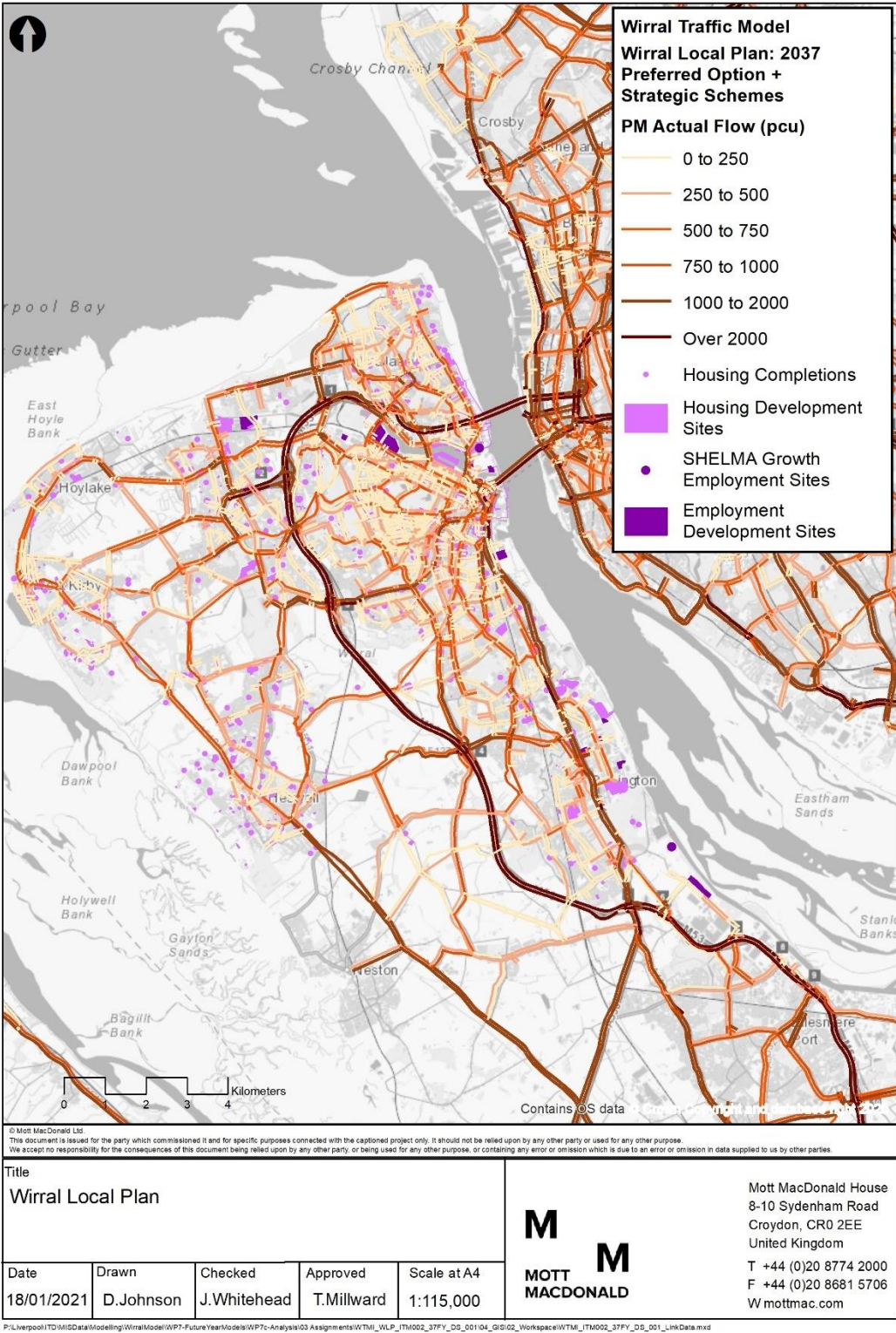


Figure 5.84: Actual Flow (pcu): 2037 Preferred Option plus Strategic Schemes PM



5.4.4 Junctions over Capacity

5.4.4.1 2037 Baseline plus Strategic Schemes vs 2015 Base Year

Figure 5.85 to Figure 5.87 present the junctions approaching or over capacity in the 2037 Baseline plus Strategic Schemes scenario in the AM, IP and PM respectively.

There are several junctions forecast to be over capacity across the borough, with all but one of these occurring in the AM period. The most significant of these, where the junction is operating over 115% capacity, include the A41/Old Hall Road in Bromborough, Junctions 4 and 5 of the M53, A552/Arrowe Park Road. There are also five junctions over 115% capacity along the A-road corridors to the west of the M53 which are the key access routes to West Kirby and the west of the borough.

Junctions within Birkenhead town centre, specifically on the approach to Queensway Tunnel are no longer forecast to be over 115% capacity in all periods, with the inclusion of the Strategic Schemes increasing available capacity at junctions local to the schemes.

In all time periods there are noticeable clusters of junctions that are forecast to operate over 100% capacity. The A41 corridor between Port Sunlight and the M53, multiple junctions within Birkenhead town centre and junctions along the A-road corridors to the west of the M53 which provide access to West Kirby all operate between 85-115% capacity.

Table 5.12 summarises the number of junctions over capacity.

Table 5.12: Wirral Local Plan 2037 Baseline plus Strategic Schemes Junctions Over Capacity

Time Period	2015 Base Year				2037 Baseline				Difference
	85% to 100%	100% to 115%	> 115%	Total	85% to 100%	100% to 115%	> 115%	Total	
AM	31	40	0	71	74	79	15	168	97
IP	14	12	0	26	38	46	0	84	58
PM	36	40	2	78	64	85	2	151	73

Appendix E contains a list of all junctions over capacity and within which time period each junction is over capacity.

Figure 5.88 to Figure 5.90 present junctions that are approaching or over capacity in the 2037 Baseline plus Strategic Schemes scenario that were under 85% V/C in the 2015 Base Year. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the region, along the M53 and A41 corridors and within Birkenhead town centre. To the east, such junctions are forecast to be along West Kirby access corridors or within the Heswall area. There are three junctions in the AM period, one at Junction 5 M53 and two within the Greasby area which are forecast to exceed 115% capacity; Mill Lane/Greasby Road and B5139/Pump Lane/Well Lane.

In the Baseline there are 97 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 58 in the IP and 73 in the PM.

Figure 5.85: Junctions Over Capacity: 2037 Baseline plus Strategic Schemes AM

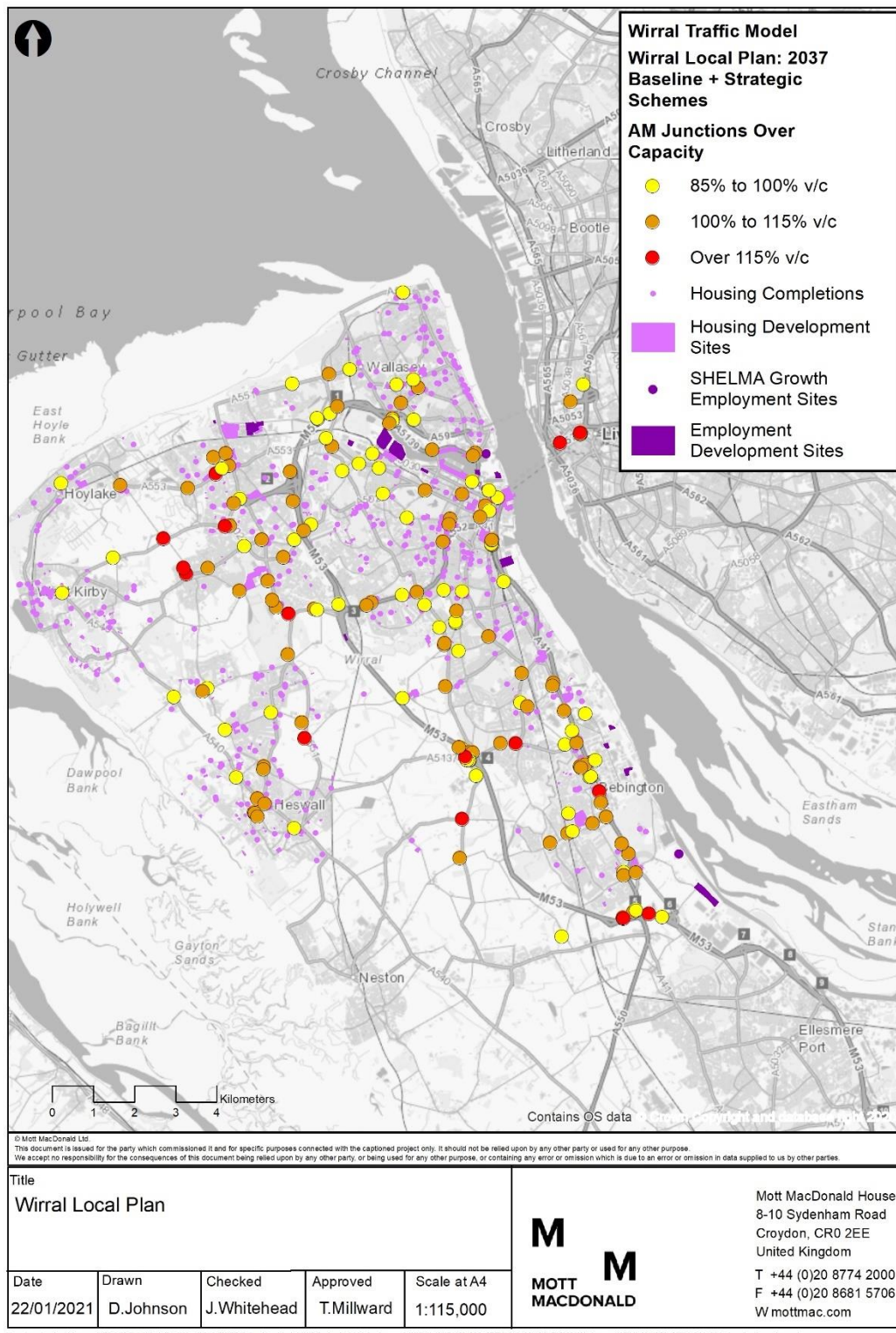


Figure 5.86: Junctions Over Capacity: 2037 Baseline plus Strategic Schemes IP

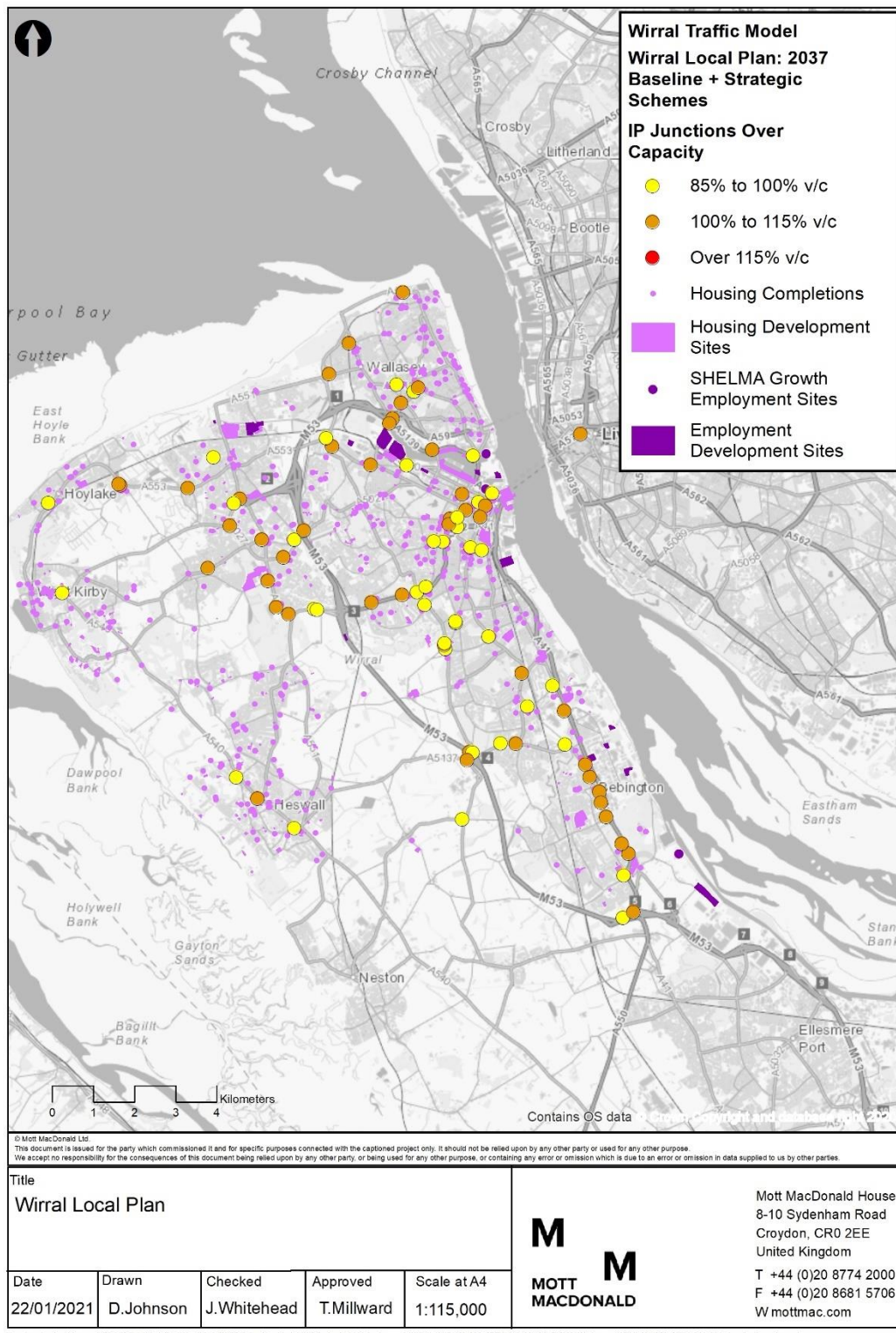


Figure 5.87: Junctions Over Capacity: 2037 Baseline plus Strategic Schemes PM

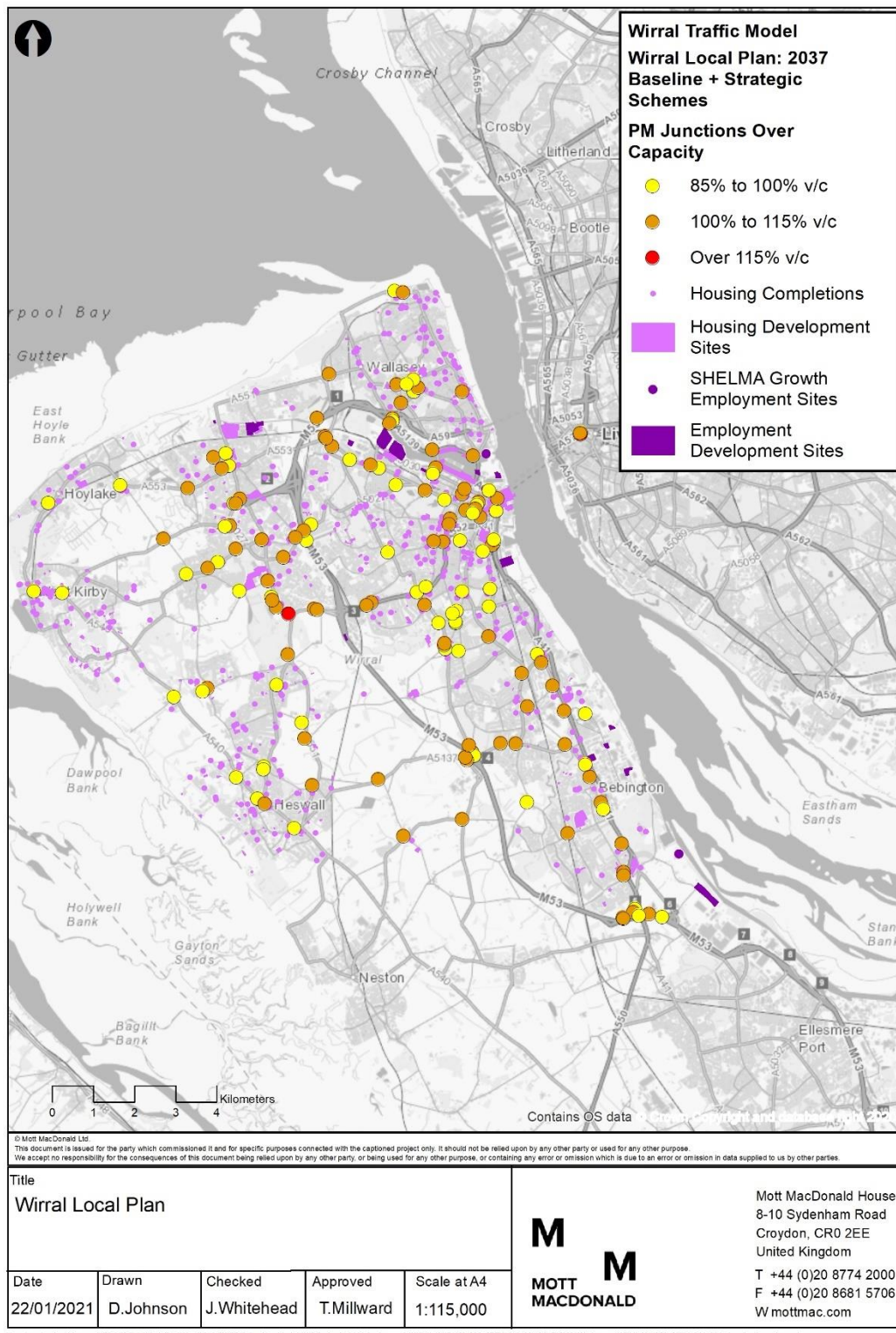


Figure 5.88: Junctions that become Over Capacity: 2037 Baseline plus Strategic Schemes AM

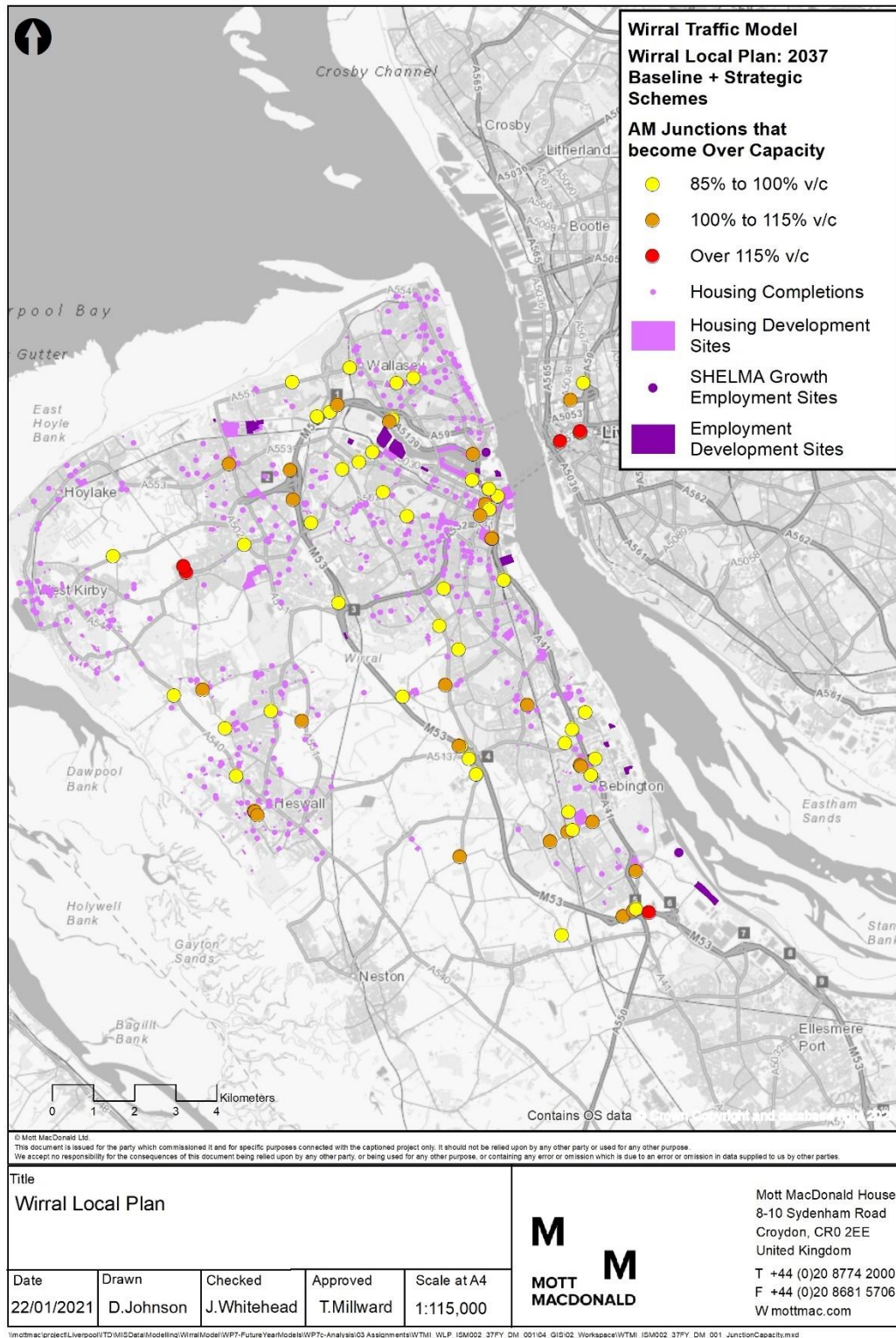


Figure 5.89: Junctions that become Over Capacity: 2037 Baseline plus Strategic Schemes IP

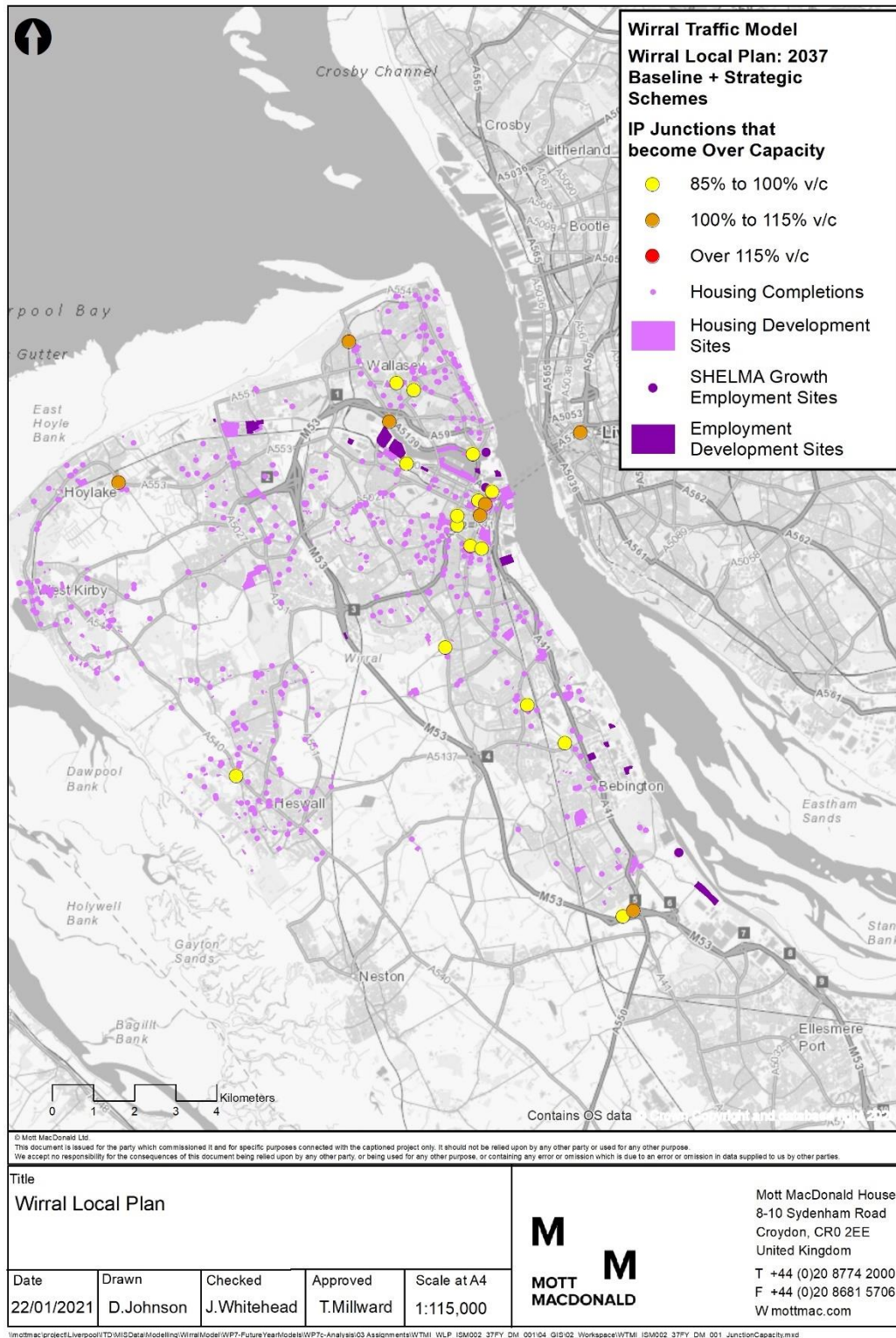
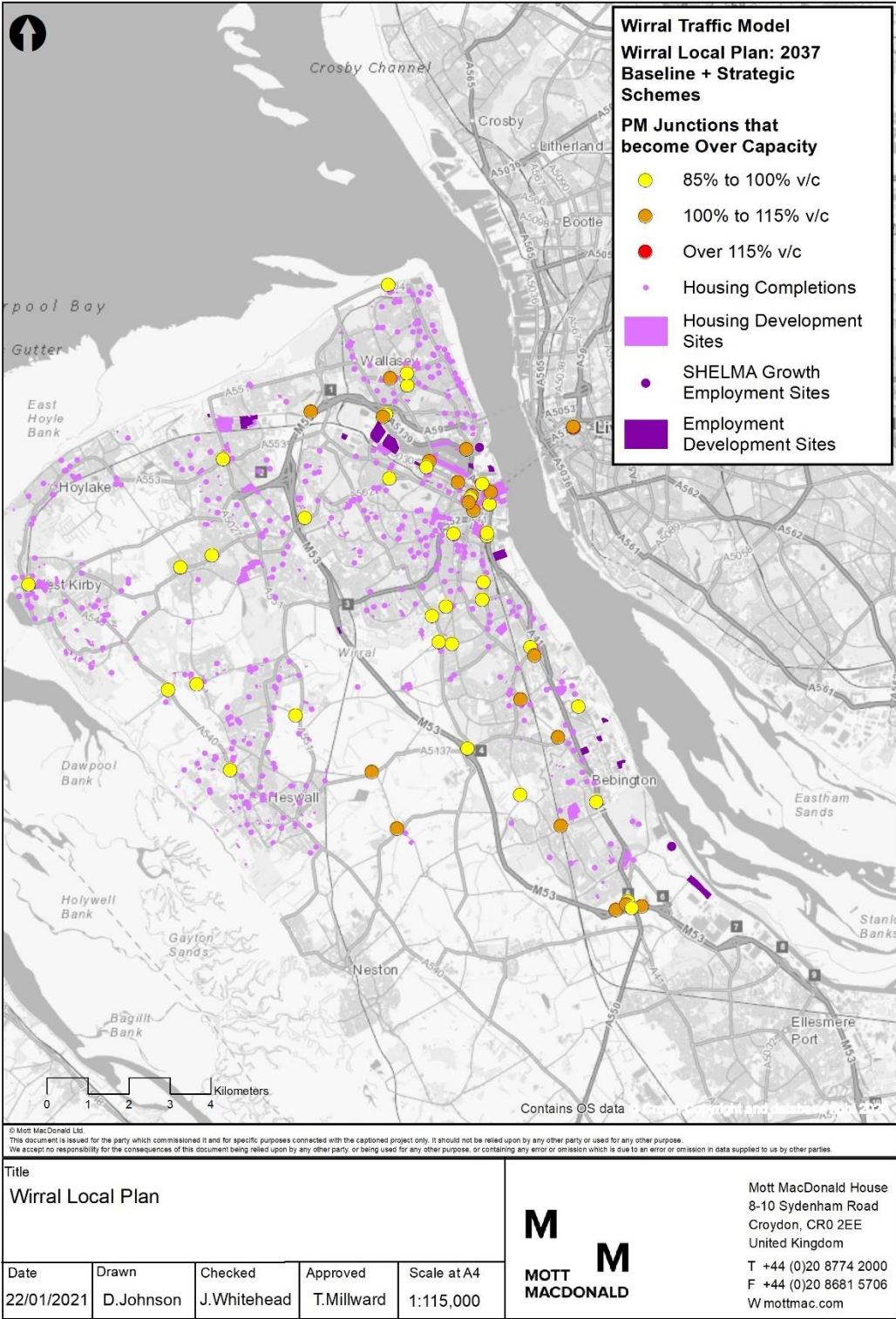


Figure 5.90: Junctions that become Over Capacity: 2037 Baseline plus Strategic Schemes PM



5.4.4.1 2037 Preferred Option vs Baseline plus Strategic Schemes

Figure 5.91 to Figure 5.93 present the junctions approaching or over capacity in the 2037 Preferred Option plus Strategic Schemes scenario in the AM, IP and PM respectively.

There are several junctions forecast to be over capacity across the borough, with all but one of these occurring in the AM period. The most significant of these, where the junction is operating over 115% capacity, include the A41/Old Hall Road in Bromborough, Junctions 4 and 5 of the M53, A552/Arrowe Park Road. There are also five junctions over 115% capacity along the A-road corridors to the west of the M53 which are the key access routes to West Kirby and the west of the region.

Junctions within Birkenhead town centre, specifically on the approach to Queensway Tunnel are no longer forecast to be over 115% capacity in all periods, with the inclusion of the Strategic Schemes increasing available capacity at junctions local to the schemes.

In all time periods there are noticeable clusters of junctions that are forecast to operate over 100% capacity. The A41 corridor between Port Sunlight and the M53, multiple junctions within Birkenhead town centre and junctions along the A-road corridors to the west of the M53 which provide access to West Kirby all operate between 85-115% capacity.

Table 5.13 summarises the number of junctions over capacity.

Table 5.13: Wirral Local Plan Preferred Option 2037 plus Strategic Schemes Junctions Over Capacity

Time Period	2037 Baseline				2037 Preferred Option				Difference
	85% to 100%	100% to 115%	> 115%	Total	85% to 100%	100% to 115%	> 115%	Total	
AM	74	79	15	168	81	85	14	180	12
IP	38	46	0	84	37	51	0	88	4
PM	64	85	2	151	60	89	3	152	1

Appendix E contains a list of all junctions over capacity and within which time period each junction is over capacity.

Figure 5.94 to Figure 5.96 present junctions that are approaching or over capacity in the 2037 Preferred Option plus Strategic Schemes scenario that were under 85% V/C in the Baseline scenario. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the region, along the M53 and A41 corridors and within Birkenhead town centre.

In the Preferred Option there are 12 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the Baseline scenario the AM, 4 in the IP and 1 in the PM.

Figure 5.91: Junctions Over Capacity: 2037 Preferred Option plus Strategic Schemes AM

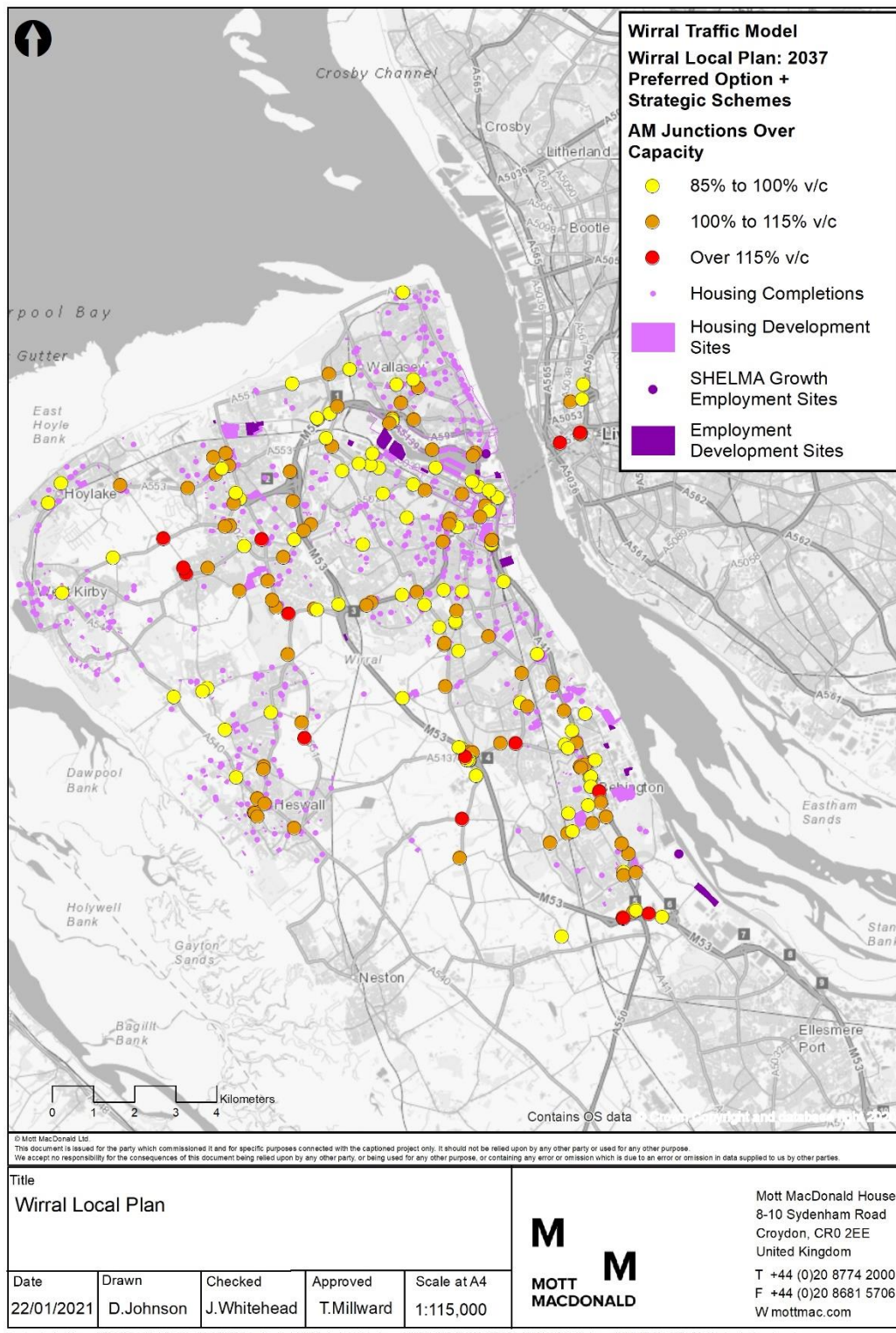


Figure 5.92: Junctions Over Capacity: 2037 Preferred Option plus Strategic Schemes IP

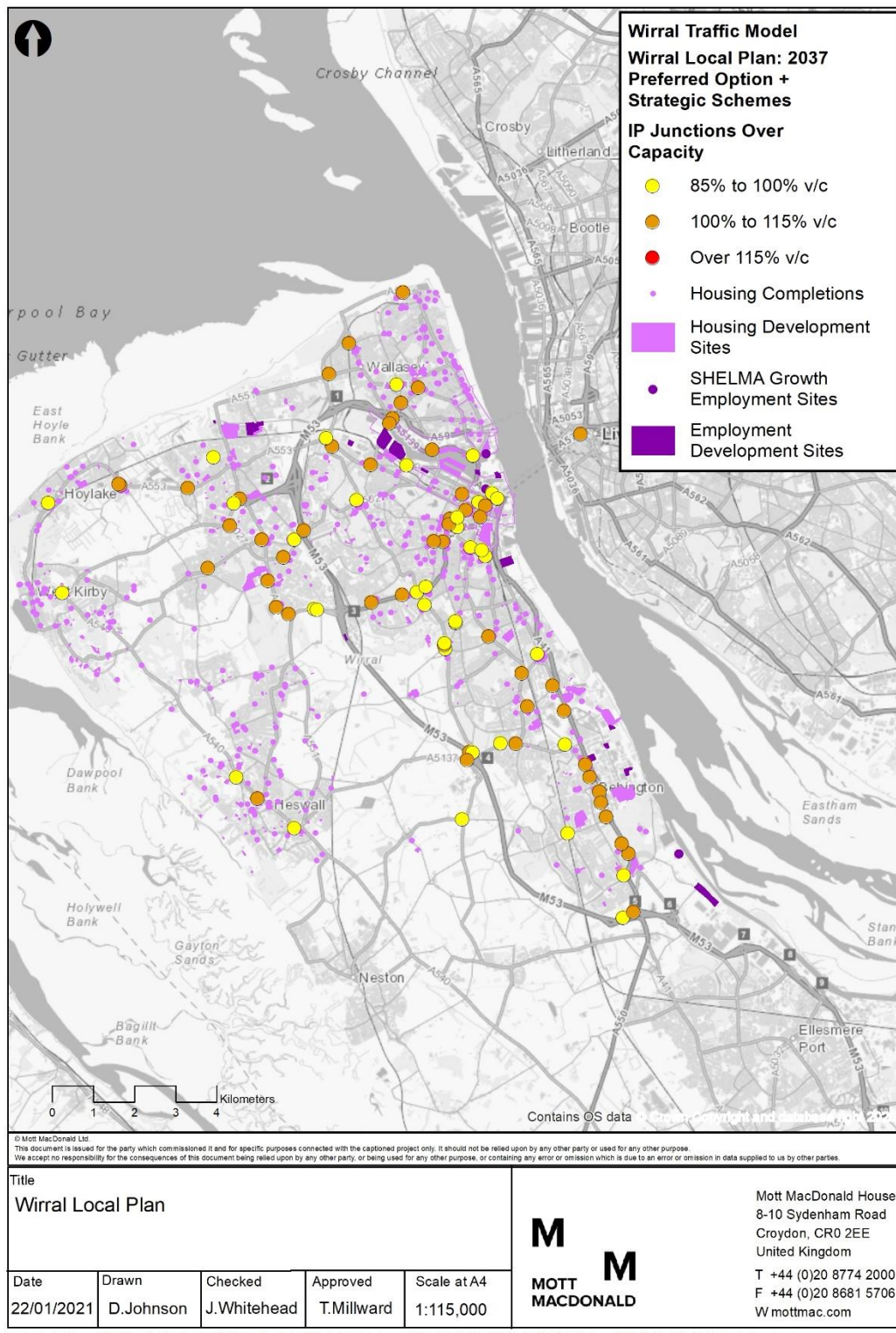


Figure 5.93: Junctions Over Capacity: 2037 Preferred Option plus Strategic Schemes PM

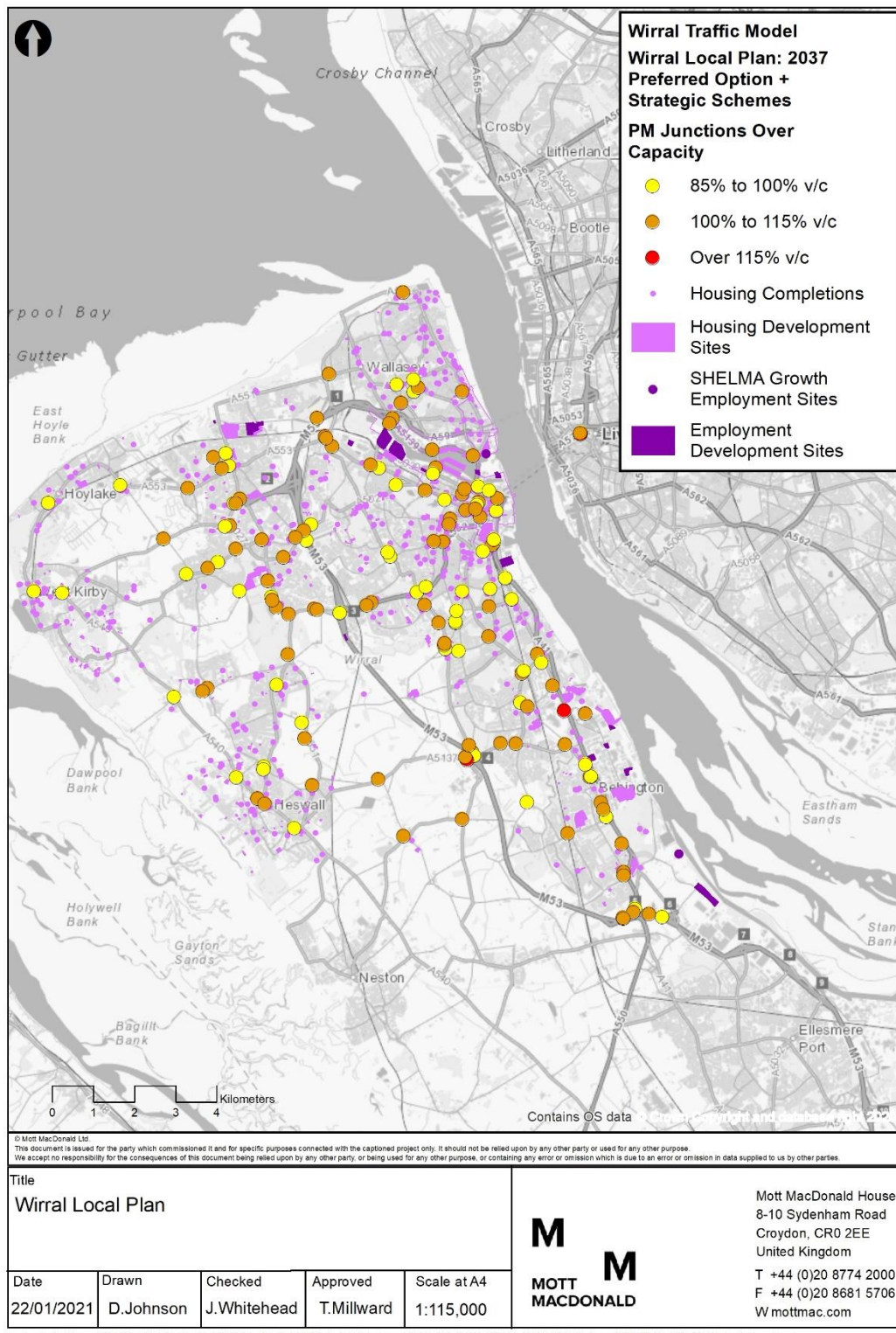


Figure 5.94: Junctions that become Over Capacity: 2037 Preferred Option plus Strategic Schemes AM

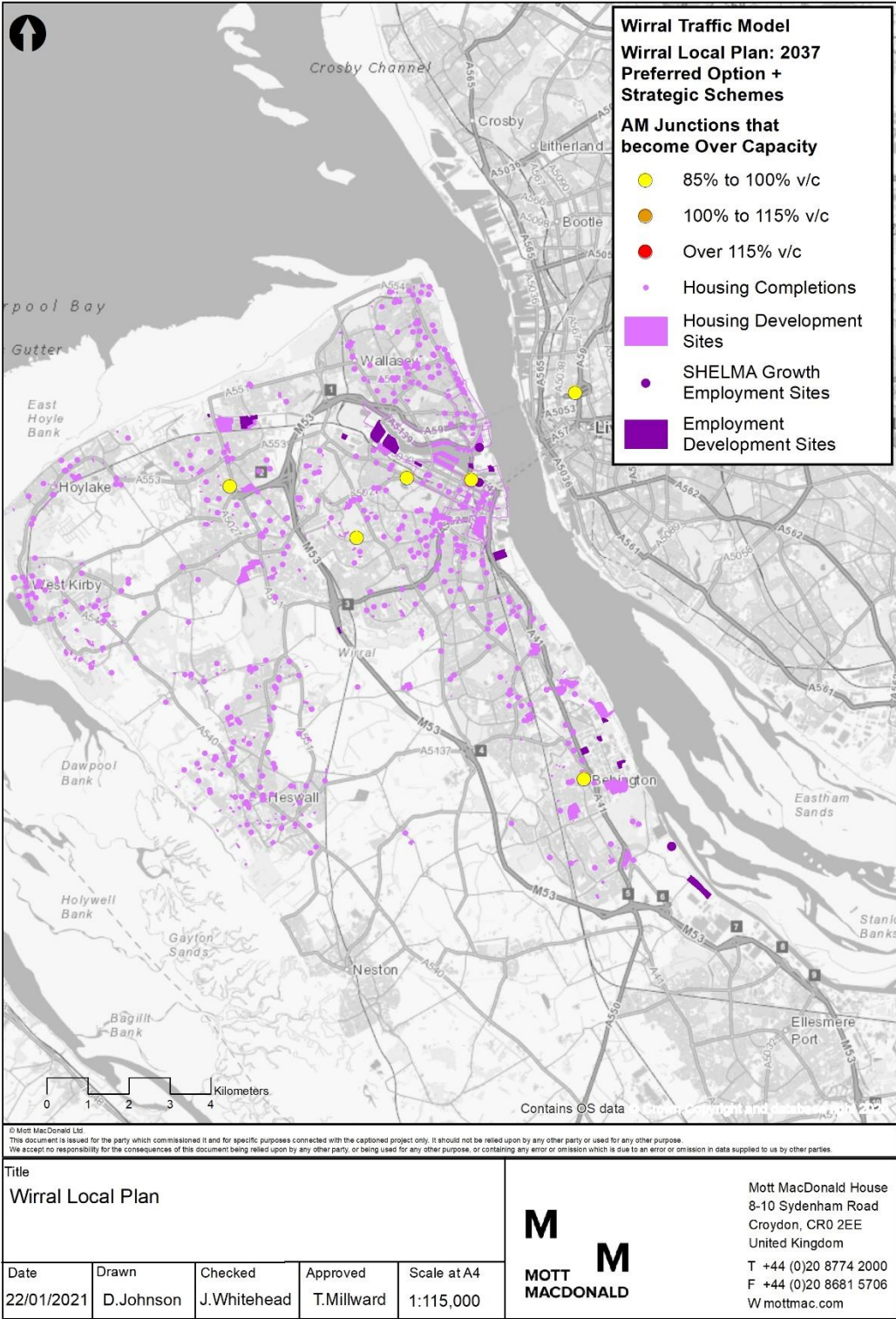


Figure 5.95: Junctions that become Over Capacity: 2037 Preferred Option plus Strategic Schemes IP

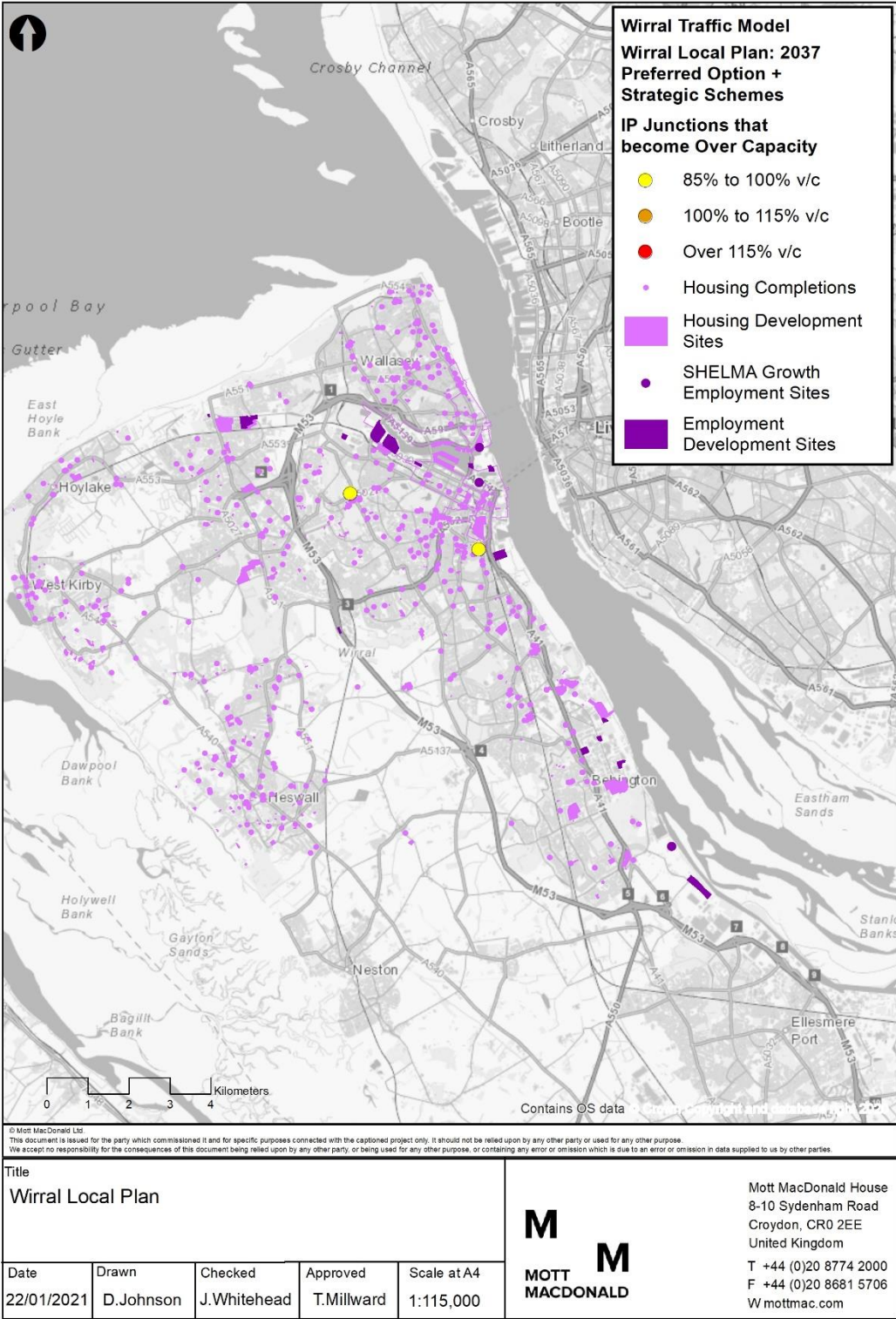
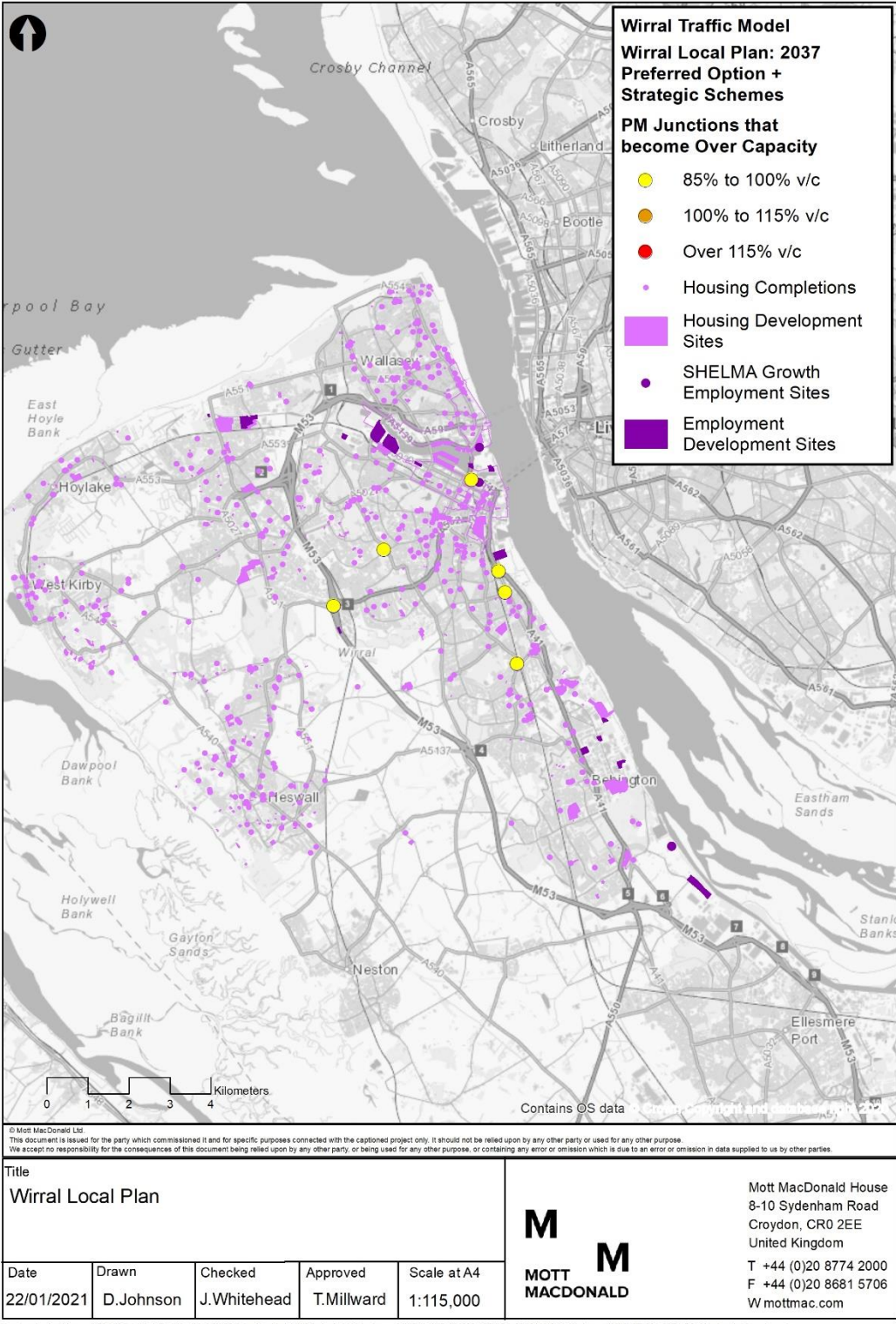


Figure 5.96: Junctions that become Over Capacity: 2037 Preferred Option plus Strategic Schemes PM



5.4.5 Link Volumes over Capacity

5.4.5.1 2037 Baseline plus Strategic Schemes

Figure 5.97 to Figure 5.99 show the volume over capacity relationship of links in the 2037 Baseline plus Strategic Schemes scenario. The figures illustrate that small sections of the B5151 northbound, A551 northbound and Pump Lane northbound are all forecast to be operating at over 115% capacity within the AM period, and that there are a number of links operating at over 100% capacity within all periods. These links are spread across the network, with the most significant centred around the A41, the proposed Wirral Waters site south of Wallasey, Kingsway Tunnel eastbound and west of the M53 local to Arrowe Park. Multiple links distributed across the network also operate over 85% capacity in all periods, with sections of the M53 and the A550 and A41 northbound being most noticeable in select periods.

Both the AM and PM peaks show a greater number of links over capacity than the IP, with the primary cluster of links over 100% capacity located along small sections of the B5151 northbound, A551 northbound and Pump Lane northbound in the AM, multiple sections of the A41 and at Gorsey Lane roundabout at the entrance/exit to Kingsway tunnel. There are also several links to the west of the M53 and to the south of the region operating at over 85% and 100%. These links are located on key routes which provide accessibility to several destinations in West Wirral such as West Kirby, Heswall, Arrowe Park and Chester and Cheshire West to the south.

Figure 5.97: Links Over Capacity: 2037 Baseline plus Strategic Schemes AM

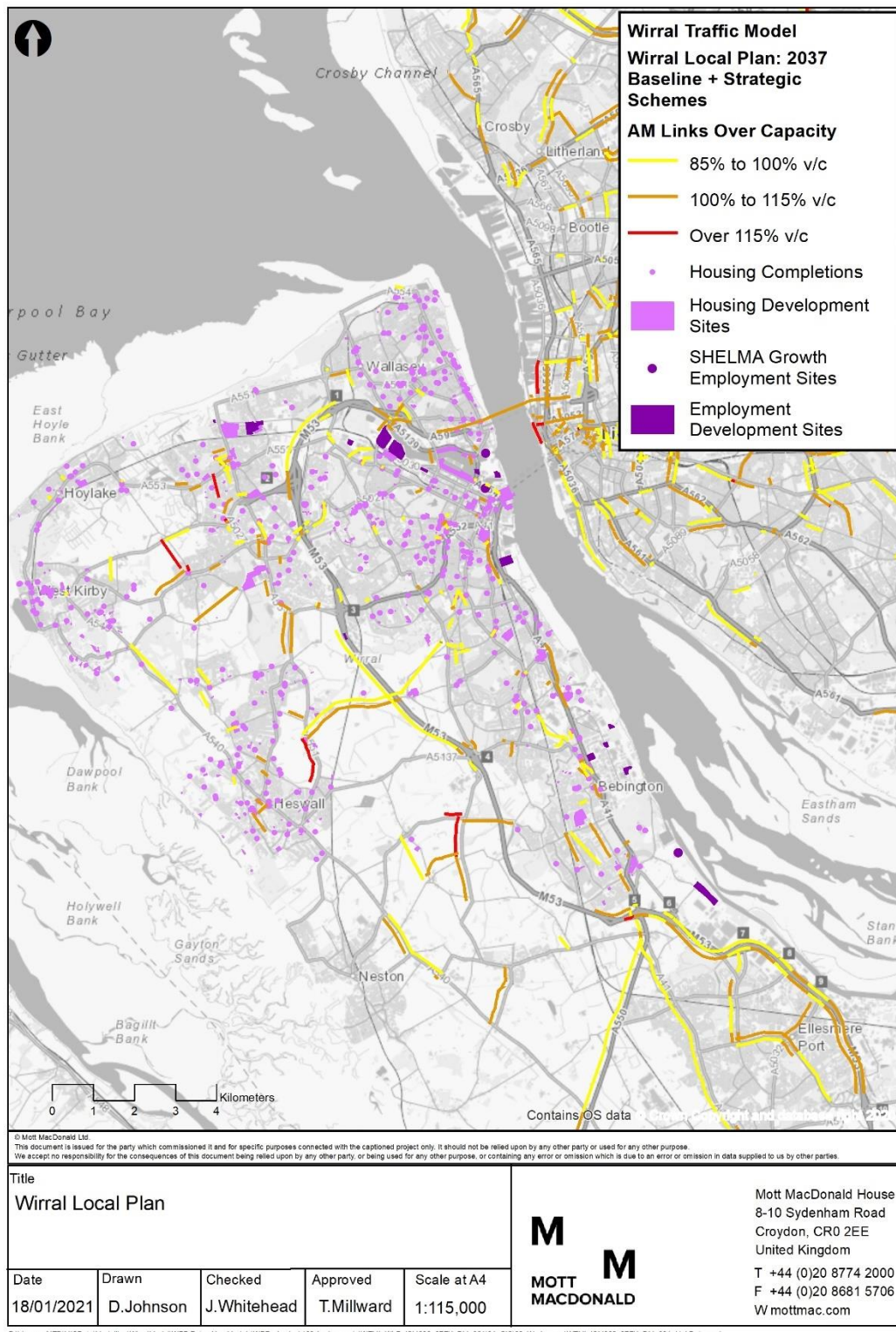


Figure 5.98: Links Over Capacity: 2037 Baseline plus Strategic Schemes IP

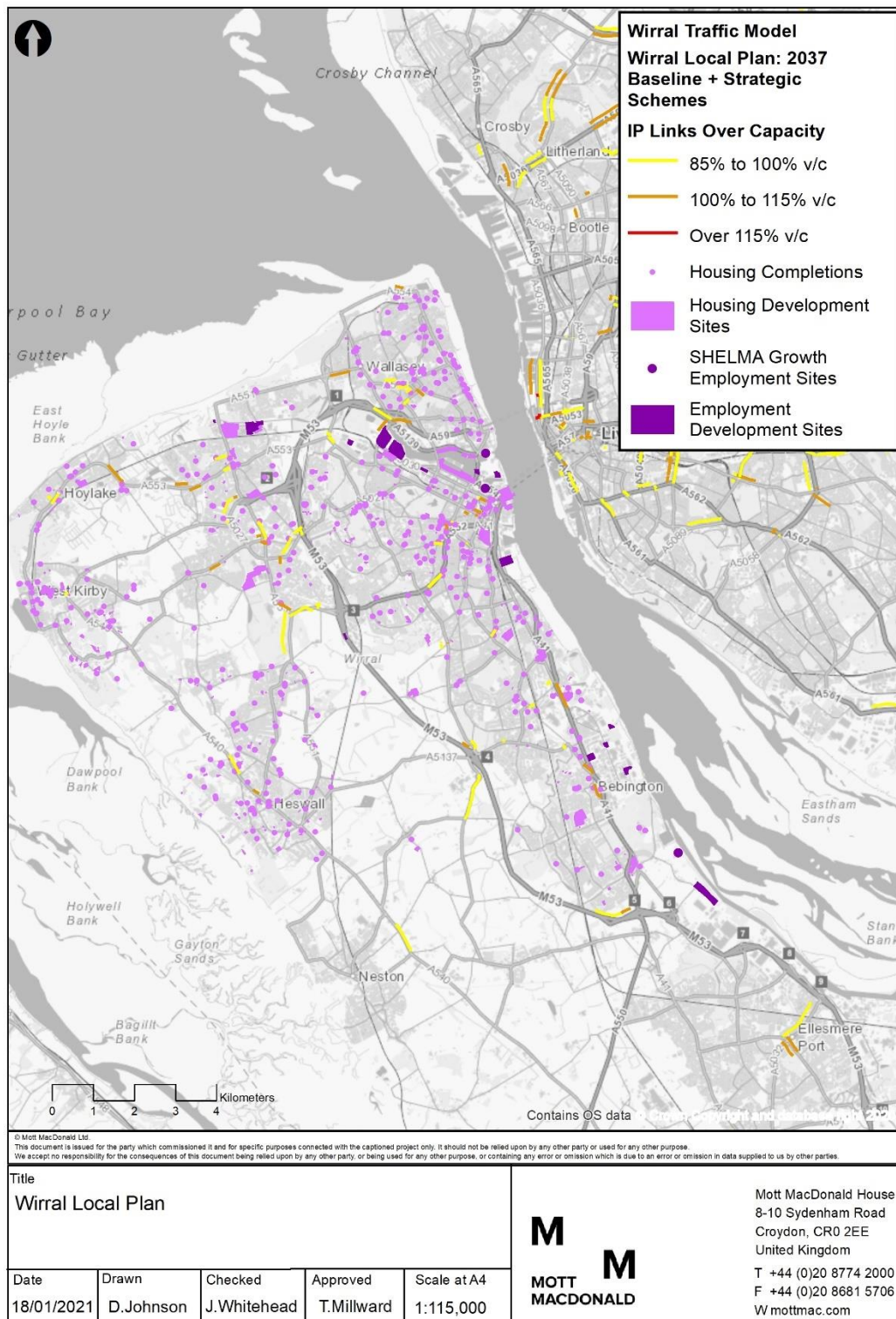
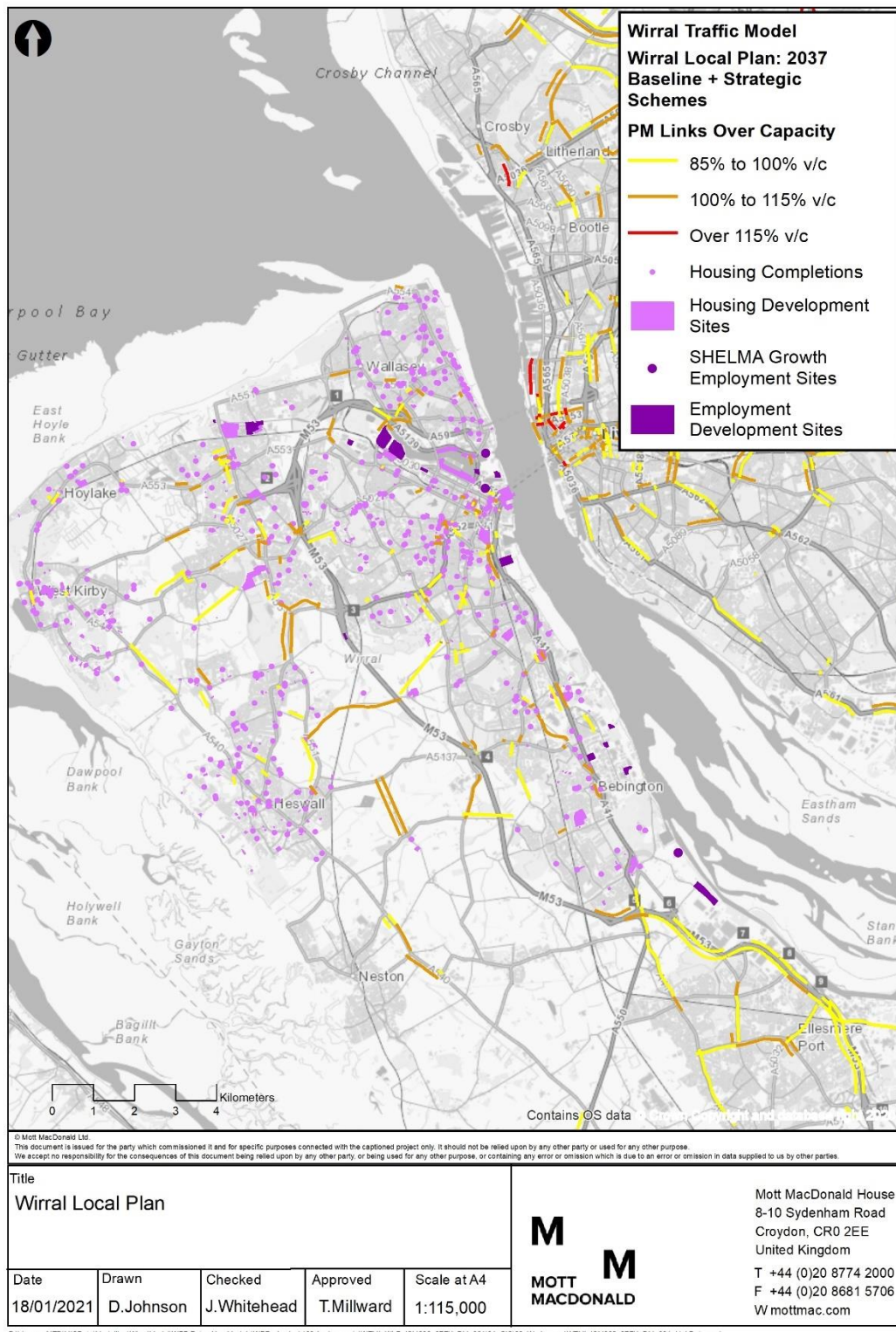


Figure 5.99: Links Over Capacity: 2037 Baseline plus Strategic Schemes PM



5.4.5.2 2037 Preferred Option plus Strategic Schemes

Figure 5.100 to Figure 5.102 show the volume over capacity relationship of links in the 2037 Preferred Option plus Strategic Schemes scenario. The figures illustrate that small sections of the B5151 northbound, A551 northbound and Pump Lane northbound are all forecast to be operating at over 115% capacity within the AM period, and that there are several links operating at over 100% capacity within all periods. These links are spread across the network, with the most significant centred around the A41, the proposed Wirral Waters site south of Wallasey, Kingsway Tunnel eastbound and west of the M53 local to Arrowe Park. Multiple links distributed across the network also operate over 85% capacity in all periods, with sections of the M53 and the A550 and A41 northbound being most noticeable in select periods.

Both the AM and PM peaks show a greater number of links over capacity than the IP, with the primary cluster of links over 100% capacity located along small sections of the B5151 northbound, A551 northbound and Pump Lane northbound in the AM, multiple sections of the A41 and at Gorsey Lane roundabout at the entrance/exit to Kingsway tunnel. There are also several links to the west of the M53 and to the south of the region operating at over 85% and 100%. These links are located on key routes which provide accessibility to several destinations in West Wirral such as West Kirby, Heswall, Arrowe Park and Chester and Cheshire West to the south.

Figure 5.100: Links Over Capacity: 2037 Preferred Option plus Strategic Schemes AM

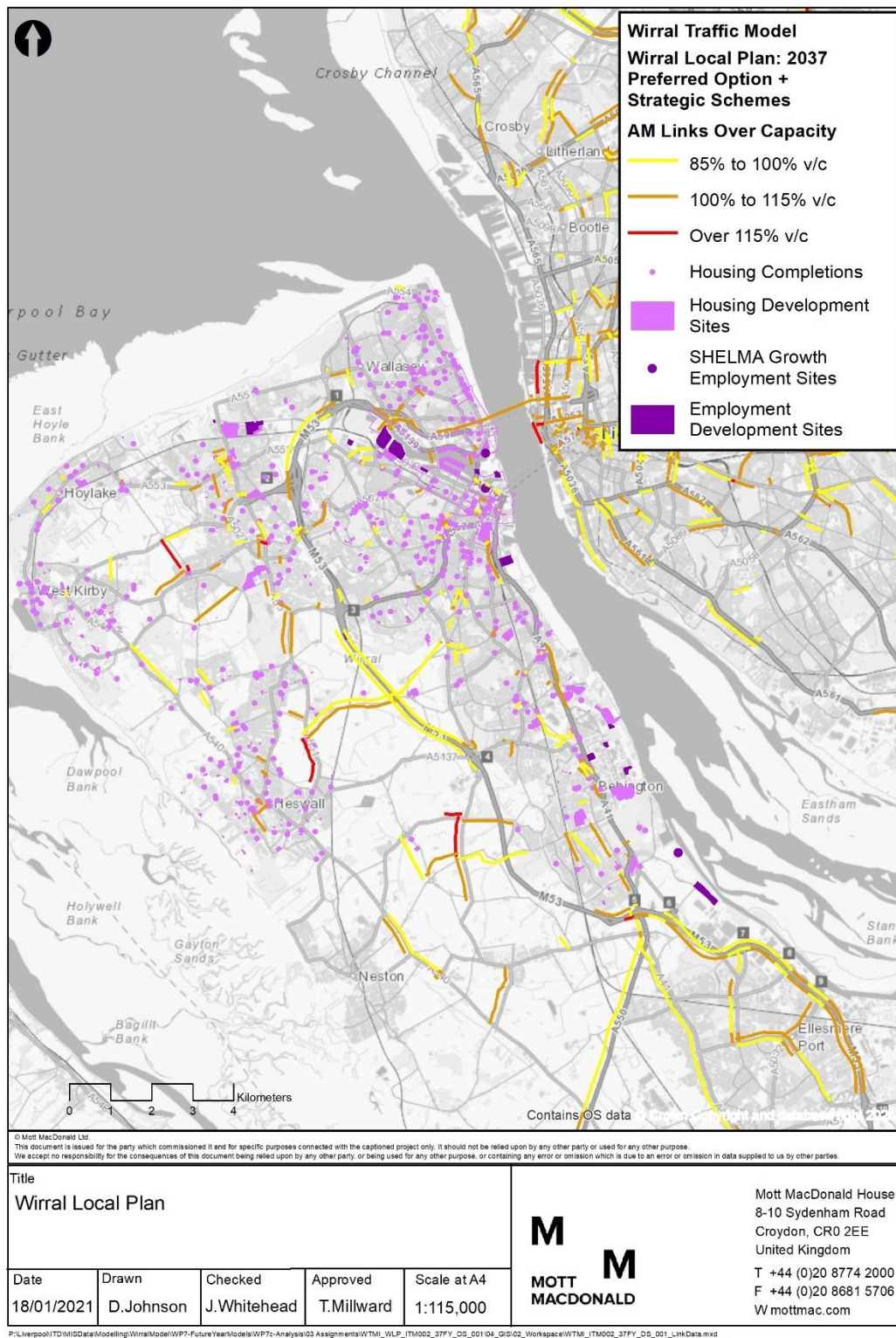


Figure 5.101: Links Over Capacity: 2037 Preferred Option plus Strategic Schemes IP

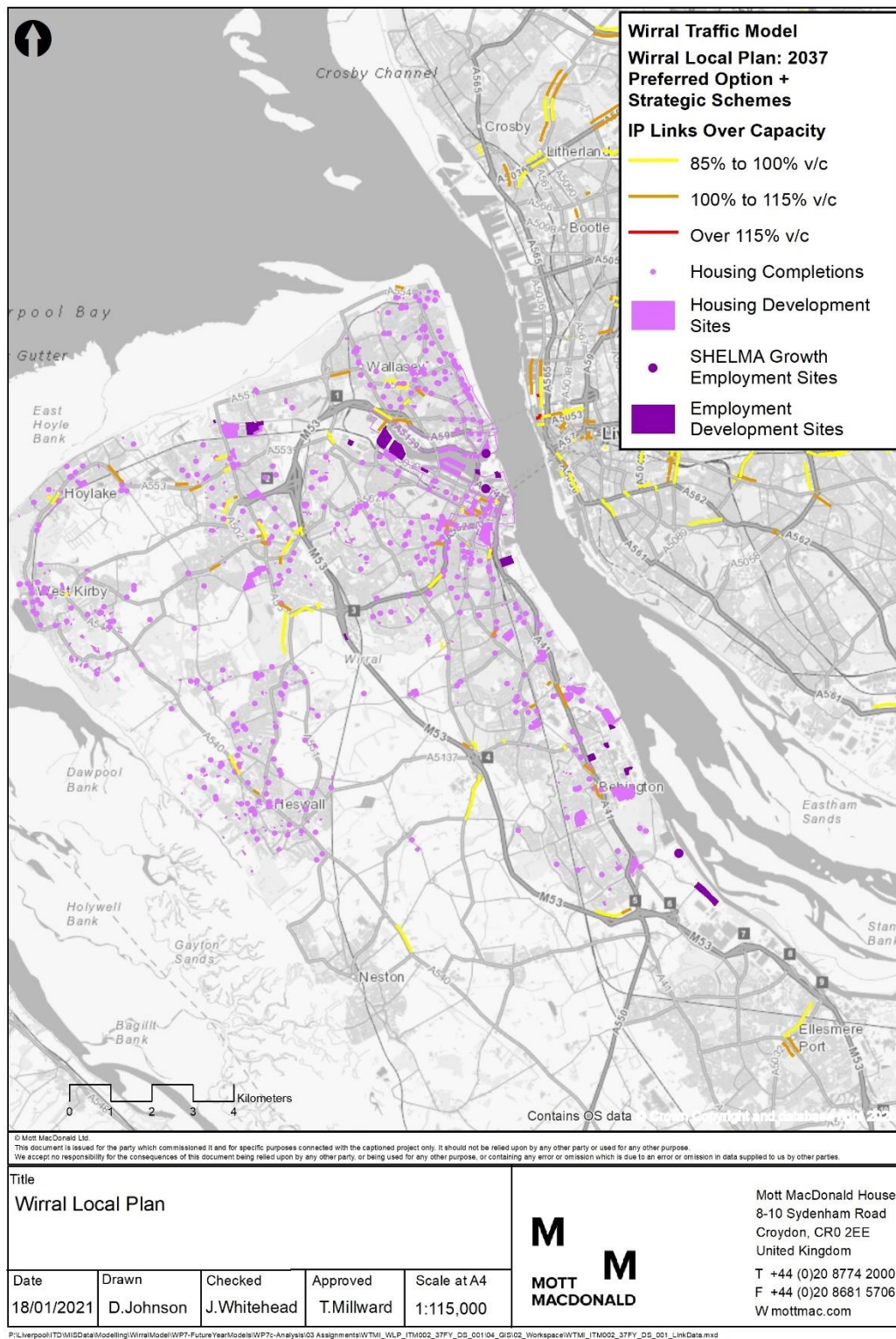
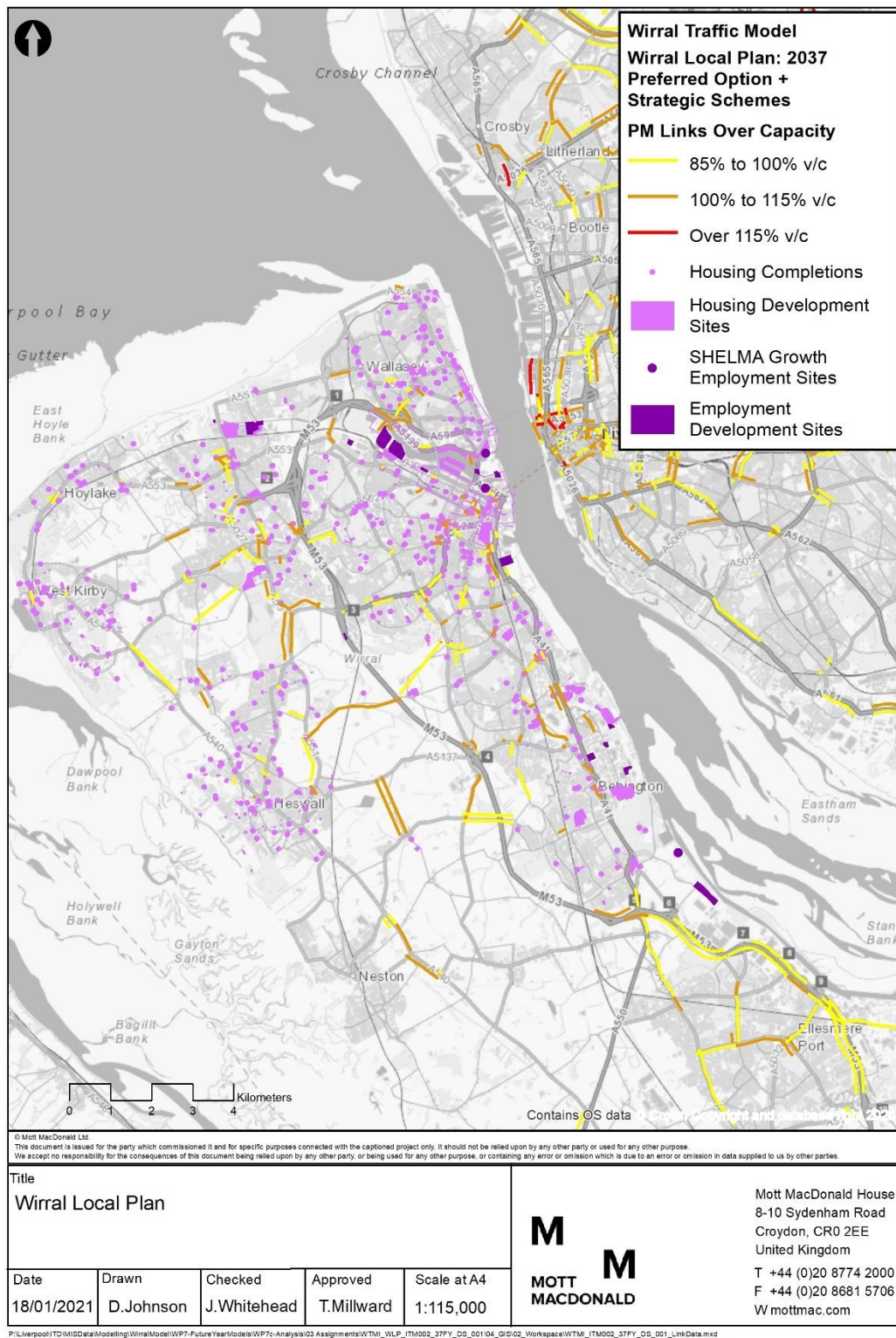


Figure 5.102: Links Over Capacity: 2037 Preferred Option plus Strategic Schemes PM



5.4.6 Link Delay

5.4.6.1 2037 Baseline plus Strategic Schemes

Figure 5.103 to Figure 5.105 present the link delay in the 2037 Baseline plus Strategic Schemes scenario for AM, IP and PM respectively. To the north east of Wirral, the primary link delay is forecast to be within the Kingsway and Queensway Tunnels for both the AM and PM periods, where delay is expected to be over 60 seconds. Delay is also forecast on the A41, most notably in the AM period and to a lesser degree in the PM. Link delay in the AM period exceeds 60 seconds along several significant sections of the regional network, such as on the approaches to the Queensway Tunnel and around Junction 5 M53. The PM period also displays 60 second delay on the approach to Queensway Tunnel but in contrast to the AM it contains less delay on the A41.

The IP period forecasts delays of over 60 seconds within the Kingsway Tunnel and along a cluster of links around Arrowe Park. Link Delay along Queensway Tunnel is predicted to be between 30 to 50 seconds.

Link delay is much more prominent in both the AM and PM than the IP. In the AM period several links west of the M53 in areas such as Arrowe Park, Clatterbridge, Barnston, Raby and Upton forecast to experience delays of over 60 seconds, with surrounding links less affected with delays varying from 10 to 50 seconds. Similar delay is also forecast for the PM period, however the number of links that experience a delay of over 60 seconds is significantly less.

Residential areas around Birkenhead, namely Prenton, Oxton, Wallasey and Bidston, all experience delays of at least 30 seconds on local network links. This is the case for both the AM and PM peaks, with a reduced spread of delay occurring in the same areas during the IP. Over 60 seconds of delay is predicted in the AM and PM periods around the Spital area, with the AM period also predicting significant delay in the Bromborough area.

In the west of Wirral, the A540 is forecast to experience over 60 seconds delay in the AM and PM periods, particularly around Heswall. Within West Kirby and Hoylake, delay is forecast to be less.

Figure 5.103: Link Delay (s): 2037 Baseline plus Strategic Schemes AM

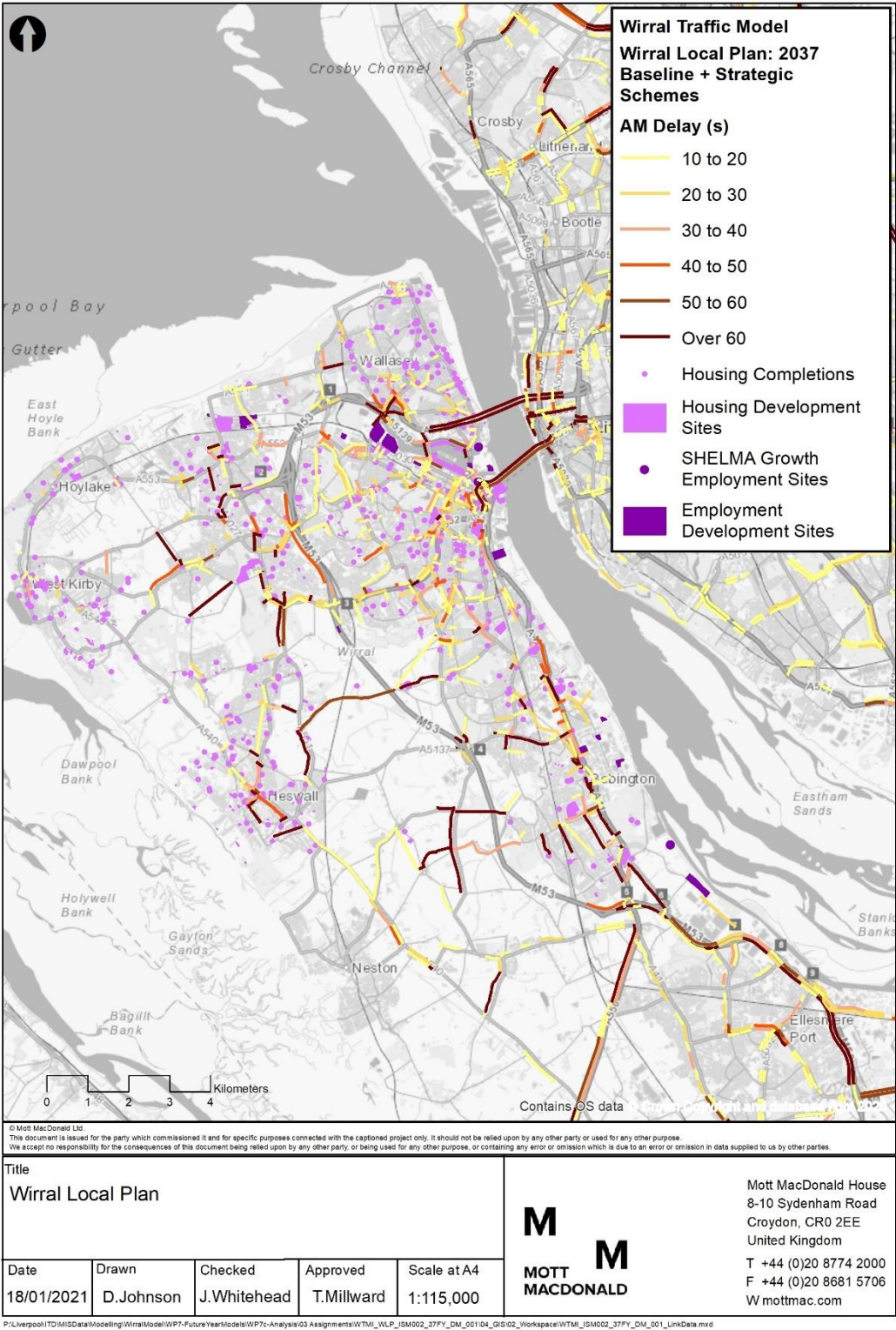


Figure 5.104: Link Delay (s): 2037 Baseline plus Strategic Schemes IP

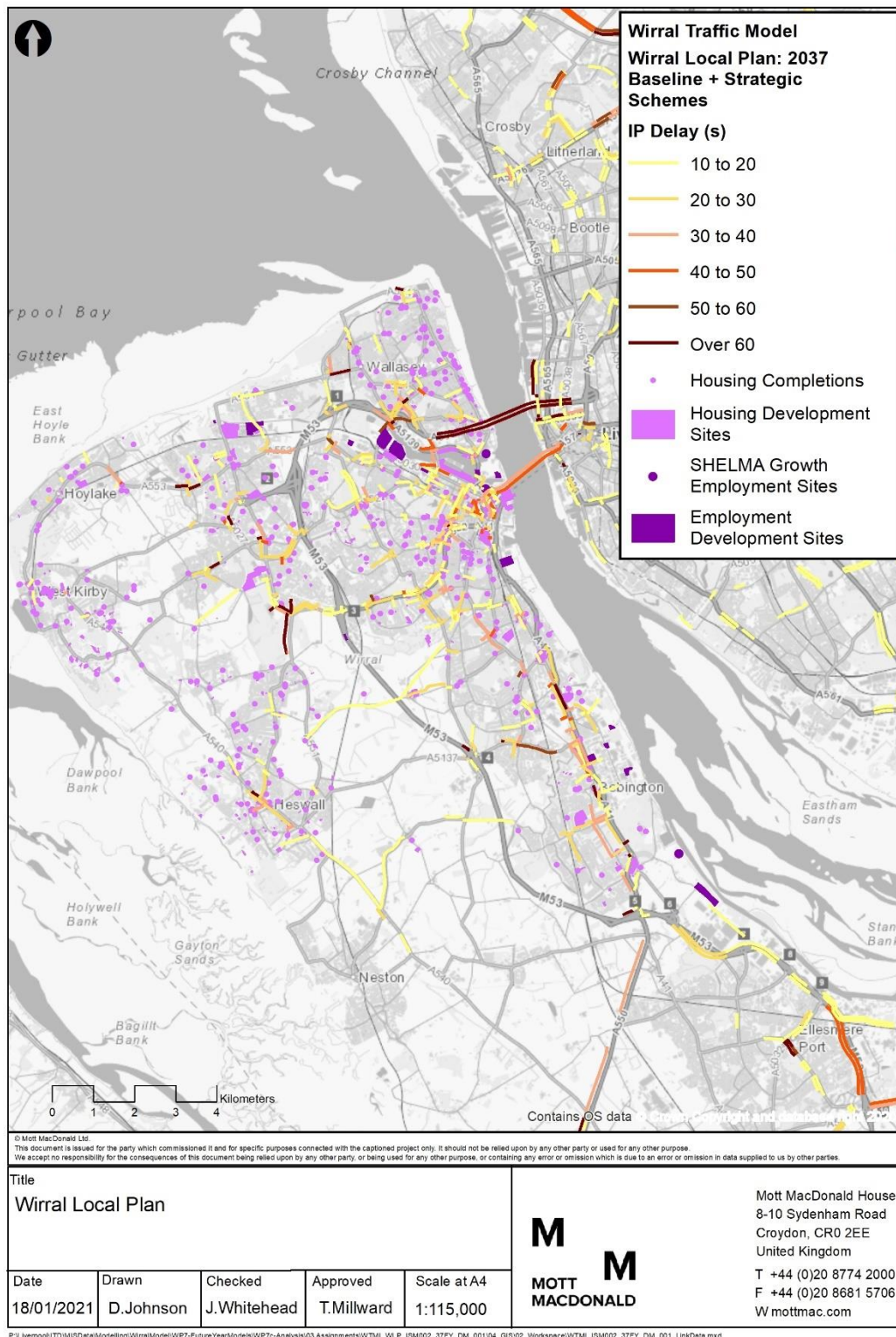
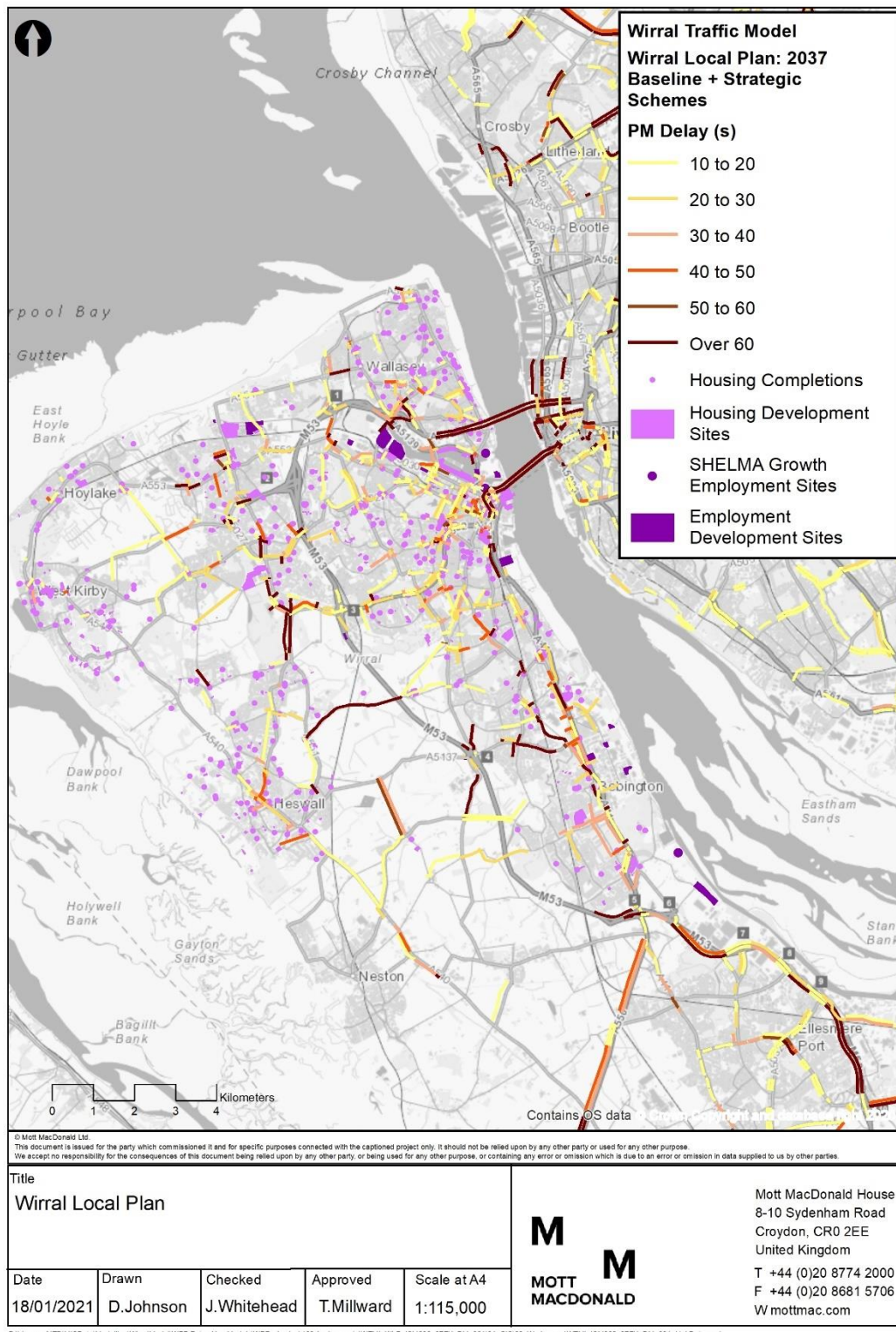


Figure 5.105: Link Delay (s): 2037 Baseline plus Strategic Schemes PM



5.4.6.2 2037 Preferred Option plus Strategic Schemes

Figure 5.106 to Figure 5.108 present the link delay in the 2037 Preferred Option plus Strategic Schemes scenario for AM, IP and PM respectively. To the north east of Wirral, the primary link delay is forecast to be within the Kingsway and Queensway Tunnels for both the AM and PM periods, where delay is expected to be over 60 seconds. Delay is also forecast on the A41, most notably in the AM period and to a lesser degree in the PM. Link delay in the AM period exceeds 60 seconds along several significant sections of the regional network, such as on the approaches to the Queensway Tunnel and around Junction 5 M53. The PM period also displays 60 second delay on the approach to Queensway Tunnel but in contrast to the AM it contains less delay on the A41.

The IP period forecasts delays of over 60 seconds within the Kingsway Tunnel and along a cluster of links around Arrowe Park. Link Delay along Queensway Tunnel is predicted to be between 30 to 50 seconds.

Link delay is much more prominent in both the AM and PM than the IP. In the AM period several links west of the M53 in areas such as Arrowe Park, Clatterbridge, Barnston, Raby and Upton forecast to experience delays of over 60 seconds, with surrounding links less affected with delays varying from 10 to 50 seconds. Similar delay is also forecast for the PM period, however the number of links that experience a delay of over 60 seconds is significantly less.

Residential areas around Birkenhead, namely Prenton, Oxton, Wallasey and Bidston, all experience delays of at least 30 seconds on local network links. This is the case for both the AM and PM peaks, with a reduced spread of delay occurring in the same areas during the IP. Over 60 seconds of delay is predicted in the AM and PM periods around the Spital area, with the AM period also predicting significant delay in the Bromborough area.

In the west of Wirral, the A540 is forecast to experience over 60 seconds delay in the AM and PM periods, particularly around Heswall. Within West Kirby and Hoylake, delay is forecast to be less.

Figure 5.106: Link Delay (s): 2037 Preferred Option plus Strategic Schemes AM

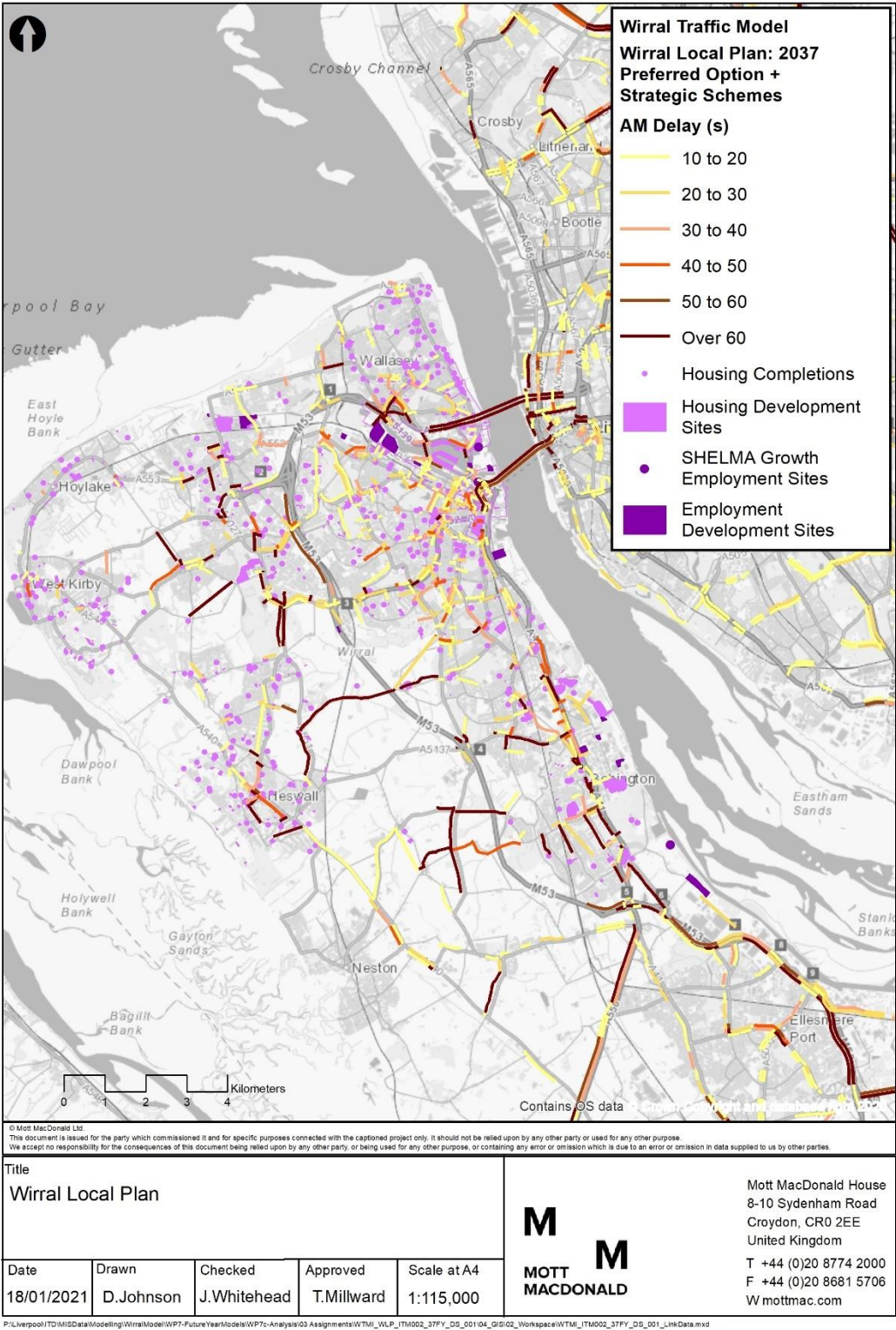


Figure 5.107: Link Delay (s): 2037 Preferred Option plus Strategic Schemes IP

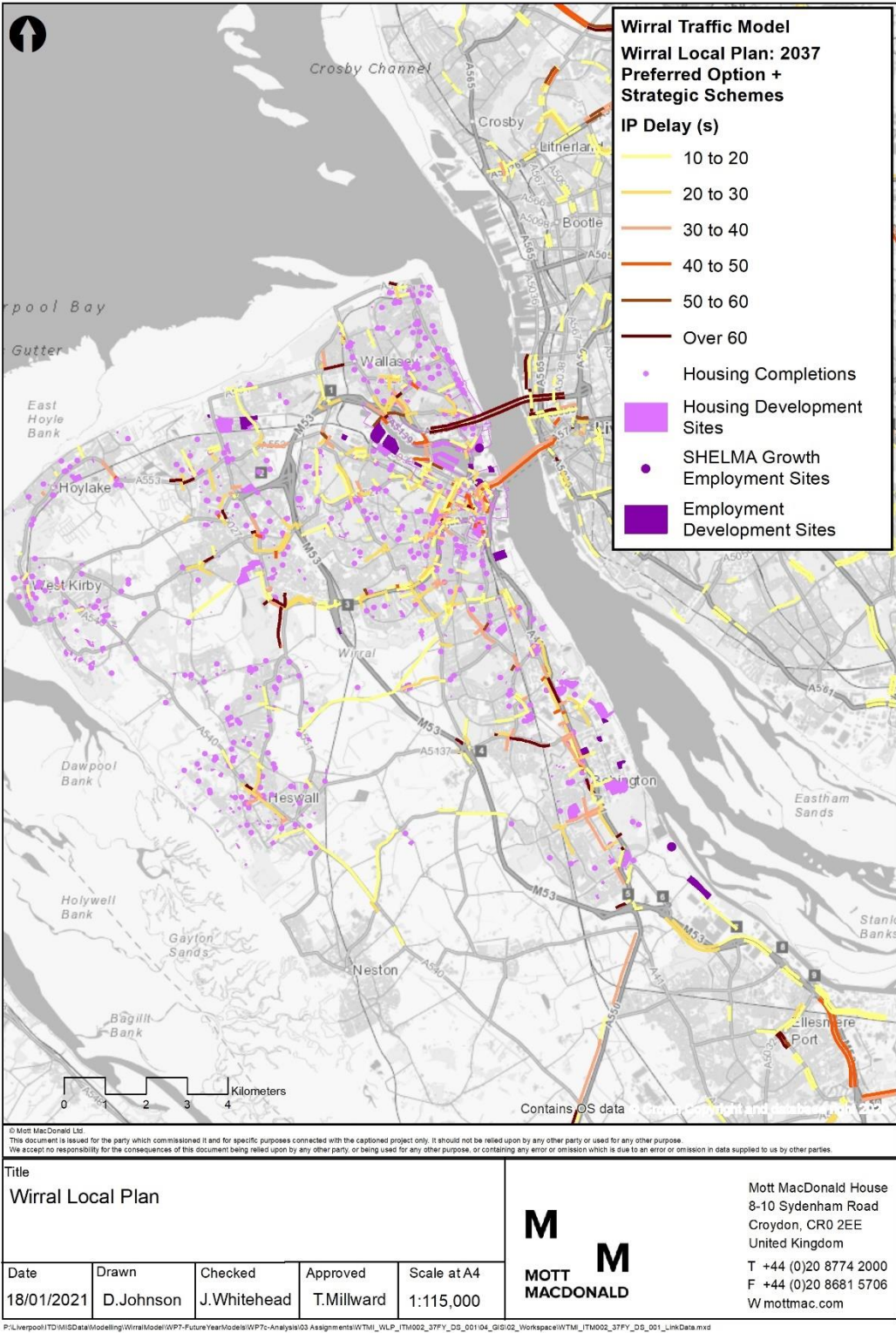
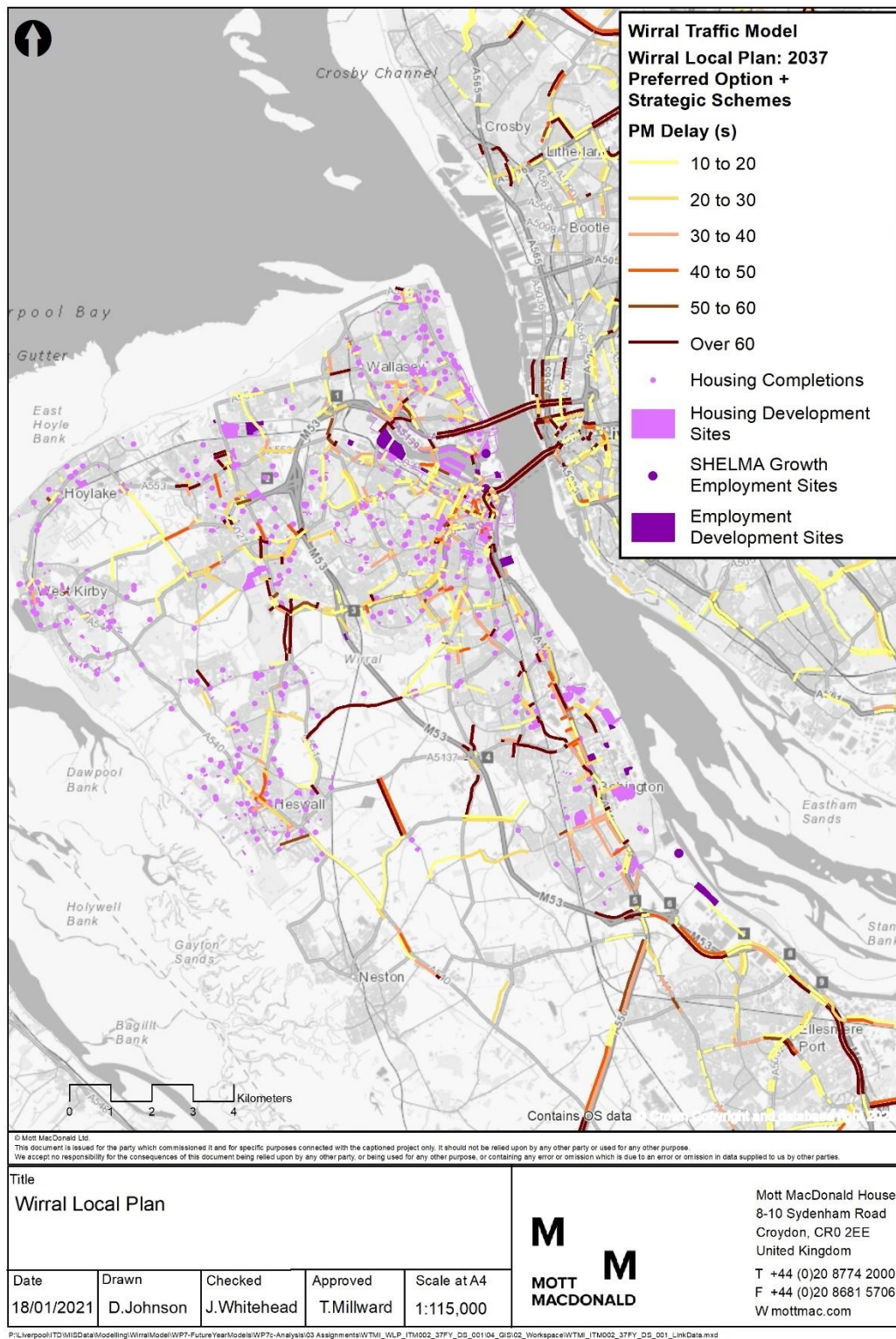


Figure 5.108: Link Delay (s): 2037 Preferred Option plus Strategic Schemes PM



6 Summary

Wirral Council has appointed Mott MacDonald to conduct modelling assessments of the draft Wirral Local Plan. An updated version of Option 1A: Urban Intensification, has been recognised following previous modelling work undertaken by Mott MacDonald to be the Preferred Option. The Preferred Option is assessed by considering committed planning applications, Strategic Housing Land Availability Assessments (SHLAA), completions from 2015-present day, windfall housing allocations, demolition numbers, housing and employment supply sites, using data provided by Wirral Council. The output of this study is a determination of the effect of these forecasts on the existing highway network.

The scope of work comprises of developing four highway forecasts (Baseline and Preferred Option Local Plan for both 2025 and 2037) that will account for traffic changes associated with proposed housing and employment scenarios together with any committed network updates. A further assessment at the end of the Local Plan period to investigate the effects of several strategic highway schemes has also been undertaken.

The forecasts have been developed based on the 2015 calibrated/validated base year Wirral Traffic Model (WTM). The WTM has been developed using SATURN software, which allows the impact of changes in traffic volumes on junction performance to be assessed.

The model scenarios that have been assessed are defined below:

- Baseline 2025 and 2037
- Wirral Local Plan Preferred Option 2025 and 2037
- Wirral Local Plan Baseline and Preferred Option plus Strategic Schemes 2037

Model forecasts for the defined scenarios have been prepared for the following time periods:

- AM peak (08:00 - 09:00)
- Inter peak (IP) (average hour 10:00 - 16:00)
- PM peak (17:00 - 18:00)

Table 6.1 summarises the number of junctions with a volume over capacity ratio (V/C) of over 85% in each scenario. A V/C of over 85% indicates that a junction will be experiencing congestion.

Table 6.2 shows the number of additional junctions with a V/C greater than 85% compared to the Base Year or Baseline scenario.

The modelling has not considered any onsite or offsite junction improvements or mitigation measures for any of the sites; it represents the situation on the current network plus committed highway schemes.

Table 6.1: Number of Junctions Over Capacity by Scenario

	Base Year	2025 Baseline	2025 Preferred Option	2037 Baseline	2037 Preferred Option	2037 Baseline plus Strategic Schemes	2037 Preferred Option plus Strategic Schemes
AM	71	148	149	167	174	168	180
IP	26	62	62	84	89	84	88
PM	78	121	121	143	148	151	152

Table 6.2: Additional Junctions Over Capacity Compared to the Base Year or Baseline

	Difference 2025 Baseline - Base Year	Difference 2025 Preferred Option - Baseline	Difference 2037 Baseline - Base Year	Difference 2037 Preferred Option - Baseline	Difference 2037 plus Strategic Schemes Baseline - Base Year	Difference 2037 plus Strategic Schemes Preferred Option - Baseline
AM	77	1	96	7	97	12
IP	36	0	58	5	58	4
PM	43	0	65	5	73	1

The results of the modelling assignments show that:

- In the 2025 Baseline there are 77 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 36 in the IP and 43 in the PM. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the region, along the M53 and A41 corridors and within Birkenhead town centre. To the west, junctions with reduced capacity are forecast to be along the West Kirby access corridors or within the Heswall area.
- In the 2037 Baseline there are 96 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 58 in the IP and 65 in the PM. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the region, along the M53 and A41 corridors and within Birkenhead town centre. To the west, junctions with reduced capacity are forecast to be along West Kirby access corridors or within the Heswall area. There are two junctions in the AM period, within the Greasby area which are forecast to exceed 115% capacity: Mill Lane/Greasby Road and B5139/Pump Lane/Well Lane.
- In the 2037 Baseline plus Strategic Schemes there are 97 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the 2015 Base Year the AM, 58 in the IP and 73 in the PM. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the region, along the M53 and A41 corridors and within Birkenhead town centre. To the west, junctions with reduced capacity are forecast to be along West Kirby access corridors or within the Heswall area. There are three junctions in the AM period, one at Junction 5 M53 and two within the Greasby area which are forecast to exceed 115% capacity: Mill Lane/Greasby Road and B5139/Pump Lane/Well Lane.
- In the 2025 Preferred Option there is only one additional junction that is forecast to have a V/C ratio at or above 85% compared with the Baseline. There are two junctions that are

forecast to experience significant reductions in capacity are within Birkenhead town centre on the approach to Queensway Tunnel in the AM period and Junction 4 M53 in the PM period.

- In the 2037 Preferred Option there are 7 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the Baseline scenario the AM, 5 in the IP and 5 in the PM. There are four junctions that are forecast to experience significant reductions in capacity with two in the AM and two in the PM periods. In the AM Budworth Road/Wexford Road and Allport Lane/Acre Lane have a forecast capacity greater than 85%, and Junction 1 M53 and Bebington Road/Old Chester Road are the two junctions in the PM period.
- In the 2037 Preferred Option plus Strategic Schemes there are 12 additional junctions that are forecast to have a V/C ratio at or above 85% compared with the Baseline scenario the AM, 4 in the IP and 1 in the PM. The junctions that are forecast to experience significant reductions in capacity are generally focussed to the east of the region, along the M53 and A41 corridors and within Birkenhead town centre.

Across all future year scenarios, the AM has a higher number of junctions over capacity than the IP or PM. Figure 6.1 presents the number of junctions over capacity by scenario and V/C band in the AM, Figure 6.2 presents the equivalent information for IP and Figure 6.3 for the PM period.

Figure 6.1: Junction V/C by Band and Scenario – AM

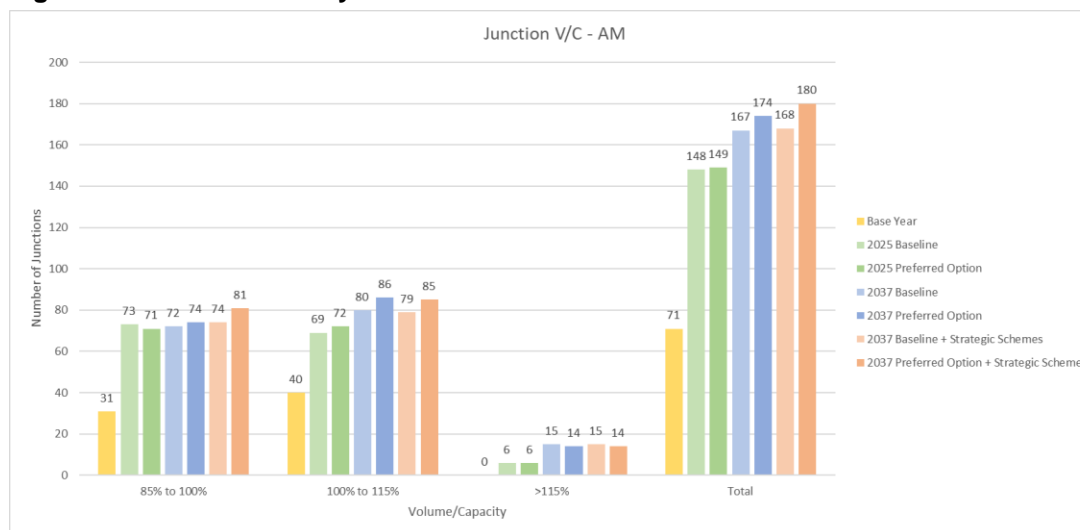


Figure 6.2: Junction V/C by Band and Scenario – IP

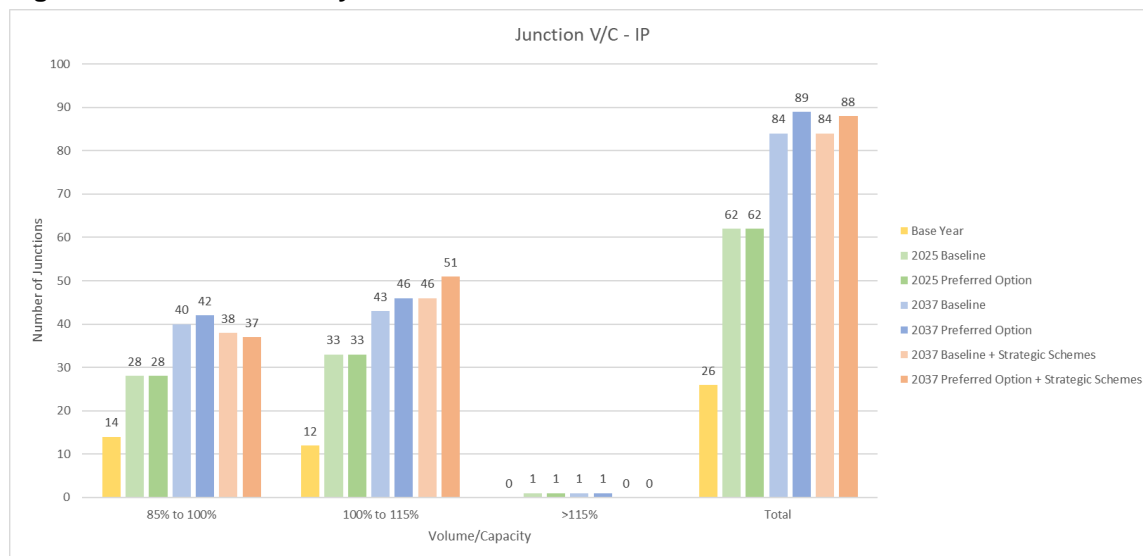
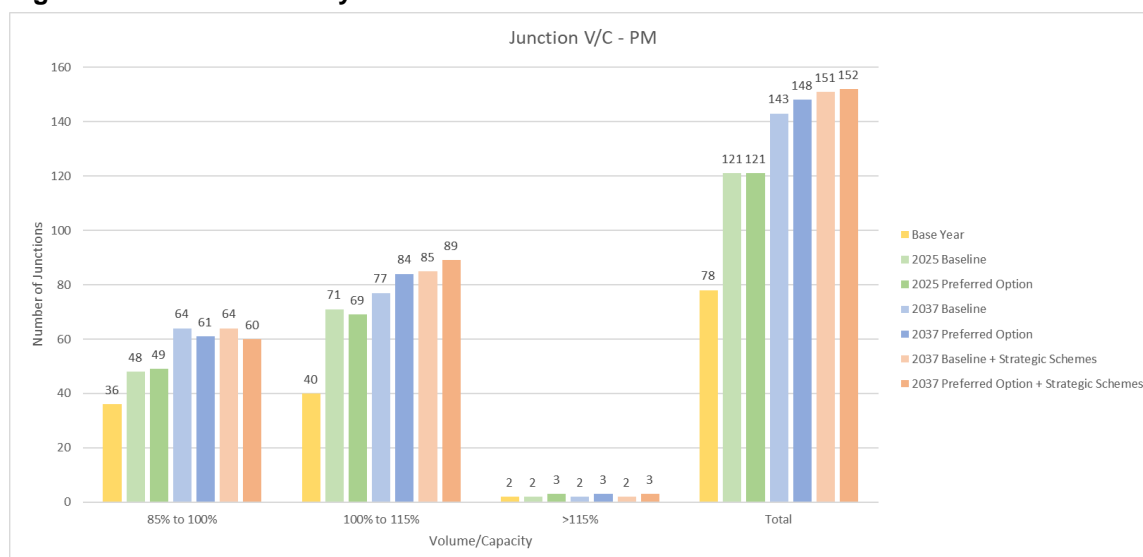


Figure 6.3: Junction V/C by Band and Scenario – PM



In all three periods, the trend of increasing junctions that are over capacity, across all scenarios, is consistent with the increases in developments expected throughout the forecast years of 2025 and 2037. The additional demand throughout the borough, from Baseline developments introduced, drive the decrease in available capacity at a significant number of modelled junctions, with there being a 52% increase in AM peak junctions forecast to be operating over 85% capacity from the 2015 Base Year to 2025 Baseline, and a further 11% increase from the 2025 Baseline to the 2037 Baseline. Similar increases are seen in the IP and PM periods, where there is a 58% and 26% increase and a 36% and 15% increase between 2015, 2025 and 2037 respectively.

The impact of the Wirral Local Plan Preferred Option is relatively moderate when compared against the relevant Baseline scenario. The two forecast years of 2025 and 2037 illustrate this, where there is a total of only 1 additional junction which has a V/C ratio of greater than 85% between the 2025 Baseline and Preferred Option scenario. This increases to 17 additional

junctions which are forecast to exceed the V/C threshold of 85% between the 2037 Baseline and Preferred Option scenarios.

The inclusion of the Strategic Schemes, specifically the Wirral Waters and A41/Green Corridor schemes, are forecast to have a positive effect on network performance and capacity along the corridors to which the schemes are local to. The highway assessment metrics for the Preferred Option plus Strategic Schemes scenario illustrate the impact of the schemes on the network, specifically in the comparison of traffic flows where there is a limited increase in flow on links surrounding the schemes, compared against the greater increases forecast for the without schemes scenario. However, the impact of the schemes across the whole Wirral borough network is forecast to increase the total number of junctions deemed to be over capacity. Across all periods, there are 7 junctions that have a V/C ratio greater than 85% for the Baseline with Strategic Schemes compared with the Baseline without Strategic Schemes. This number increases to 9 junctions over the 85% V/C threshold when the Wirral Local Plan Preferred Option is modelled.

The core modelled area for the Wirral Traffic Model is Wirral borough. In this area the traffic model represents the highway network, traffic volumes and network performance in some detail. Outside of the core modelled area, there is a reduced level of model detail and so traffic volumes and network performance are not so well represented.

In carrying out the modelling assessment for the Wirral Local Plan strategic spatial options, the quantum of development and use of specific land allocations throughout the borough has been considered. For neighbouring authorities, the modelling assessment takes account of the Department for Transport's (DfT) forecasts of background traffic growth included in the National Trip End Model (NTEM) - traffic associated with specific future developments or land allocations are not explicitly represented. These points should be noted when interpreting outputs from the WTM, e.g. traffic volumes and network performance, in locations outside of the core modelled area.

The ensuing phases of this assessment would include potential modelling of the mitigation measures identified through transport feasibility studies and transport assessments of each of the site allocations. This would enable the impact on the network to be understood once these mitigation measures are in place and identify areas where further mitigation may be required.

Appendices

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A. Housing and Employment Information

Figure A.1: LCRTM Zones

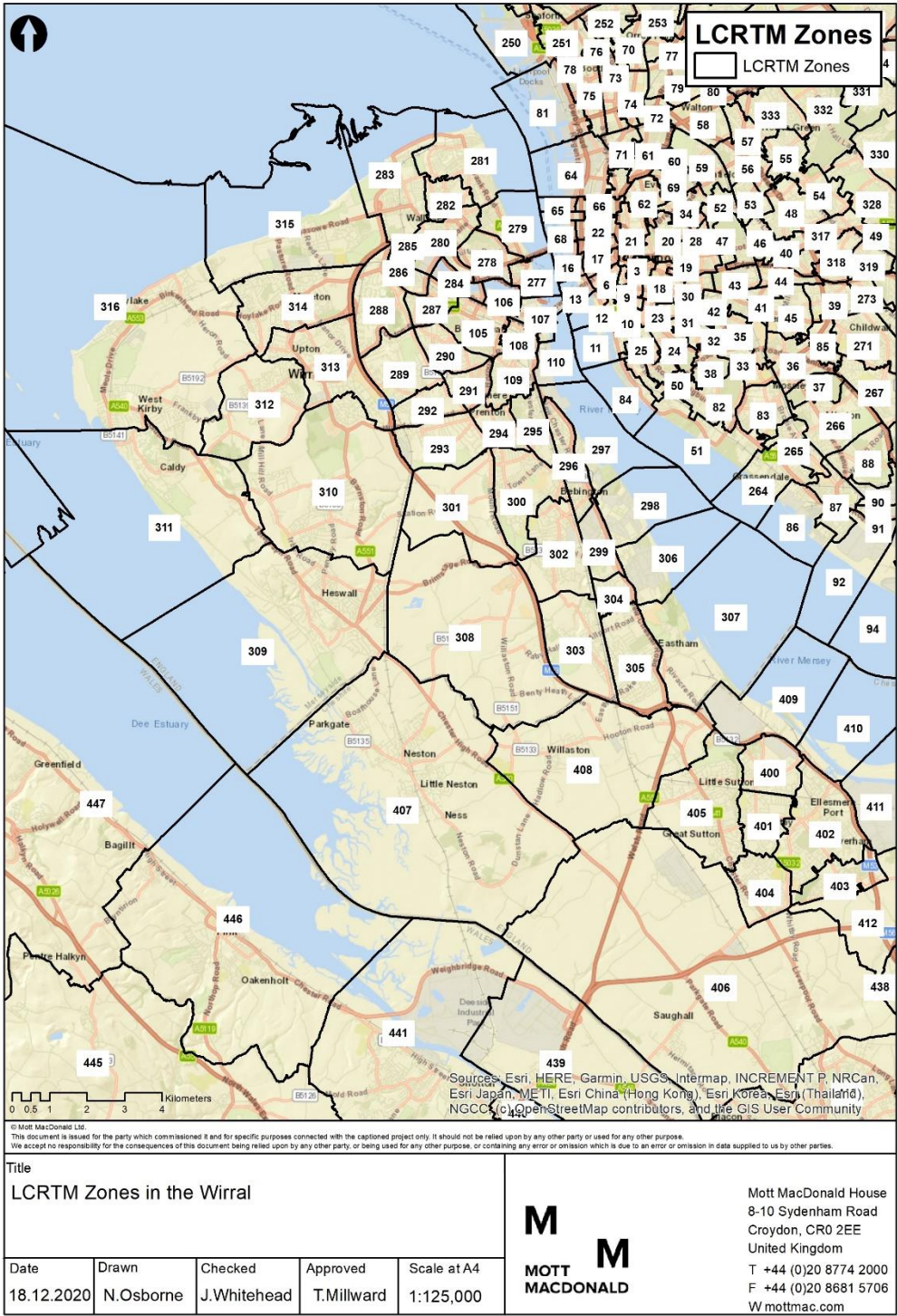


Table A.1: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Baseline 2025

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
105	142	103	34	0	279
106	7	0	5	304	316
107	139	3	15	0	157
108	52	134	20	100	306
109	185	67	47	12	311
110	0	0	0	0	0
277	13	60	21	0	94
278	8	12	42	0	62
279	90	56	47	141	334
280	110	45	45	0	200
281	205	30	77	12	324
282	2	1	30	0	33
283	20	25	39	0	84
284	0	0	0	0	0
286	2	0	23	0	25
287	175	222	29	0	426
288	76	37	23	0	136
289	21	19	30	0	70
290	44	45	33	0	122
291	58	11	30	5	104
292	1	2	23	0	26
293	20	70	30	0	120
294	98	0	25	0	123
295	80	124	47	0	251
296	217	69	10	0	296
297	10	84	37	0	131
298	373	19	2	0	394
299	51	22	2	0	75
300	17	7	15	0	39
301	4	27	0	0	31
302	38	14	12	86	150
303	4	0	1	0	5
304	52	1	5	0	58
305	57	295	14	20	386
306	0	0	0	0	0
307	91	22	0	0	113
308	2	8	0	0	10
309	170	106	45	0	321
310	65	84	5	15	169
311	16	32	1	0	49

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
312	26	3	3	0	32
313	221	187	24	0	432
314	237	20	29	137	423
315	8	199	11	80	298
316	180	92	68	43	383
456	1	0	0	0	1
Total	3388	2357	1000	955	7700

Table A.2: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Baseline 2037

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
105	142	103	107	0	352
106	7	0	17	2434	2458
107	139	3	52	409	603
108	52	134	66	715	967
109	185	67	148	462	862
110	0	0	0	0	0
277	13	60	71	0	144
278	8	12	137	0	157
279	90	56	153	166	465
280	110	45	146	0	301
281	205	30	249	12	496
282	2	1	97	0	100
283	20	25	125	9	179
284	0	0	1	0	1
286	2	0	77	0	79
287	175	222	91	0	488
288	76	37	72	0	185
289	21	19	96	0	136
290	44	45	104	0	193
291	58	11	93	5	167
292	1	2	72	0	75
293	20	70	94	0	184
294	98	0	78	0	176
295	80	218	147	0	445
296	217	69	30	79	395
297	10	84	126	0	220
298	373	19	5	0	397
299	51	22	6	0	79
300	17	7	47	0	71
301	4	27	0	0	31
302	38	14	38	86	176
303	4	0	4	0	8
304	52	1	16	0	69
305	57	295	44	20	416
306	0	0	1	0	1
307	91	22	1	0	114
308	2	8	1	0	11
309	170	106	143	0	419
310	65	84	17	15	181
311	16	32	4	0	52

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
312	26	3	8	0	37
313	221	264	77	0	562
314	237	20	91	175	523
315	8	299	36	130	473
316	180	92	218	71	561
456	1	0	0	0	1
Total	3388	2628	3210	4788	14014

Table A.3: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Preferred 2025

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
105	142	103	34	22	301
106	7	0	5	744	756
107	139	3	15	10	167
108	52	134	20	150	356
109	185	67	47	20	319
110	0	0	0	0	0
277	13	60	21	0	94
278	8	12	42	10	72
279	90	56	47	167	360
280	110	45	45	20	220
281	205	30	77	17	329
282	2	1	30	0	33
283	20	25	39	0	84
284	0	0	0	0	0
286	2	0	23	0	25
287	175	222	29	0	426
288	76	37	23	2	138
289	21	19	30	0	70
290	44	45	33	0	122
291	58	11	30	5	104
292	1	2	23	0	26
293	20	70	30	0	120
294	98	0	25	0	123
295	80	124	47	0	251
296	217	69	10	10	306
297	10	84	37	0	131
298	373	19	2	100	494
299	51	22	2	0	75
300	17	7	15	1	40
301	4	27	0	0	31
302	38	14	12	202	266
303	4	0	1	0	5
304	52	1	5	7	65
305	57	295	14	15	381
306	0	0	0	0	0
307	91	22	0	0	113
308	2	8	0	0	10
309	170	106	45	30	351
310	65	84	5	17	171
311	16	32	1	8	57

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
312	26	3	3	0	32
313	221	187	24	9	441
314	237	20	29	135	421
315	8	199	11	135	353
316	180	92	68	41	381
456	1	0	0	0	1
Total	3388	2357	1000	1877	8622

Table A.4: Housing Forecasts by LCRTM Zone (Additional Dwellings) – Preferred 2037

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
105	142	471	107	22	742
106	7	538	17	3234	3796
107	139	1213	52	25	1429
108	52	1332	66	1050	2500
109	185	73	148	365	771
110	0	0	0	0	0
277	13	649	71	200	932
278	8	12	137	10	167
279	90	482	153	167	892
280	110	45	146	125	426
281	205	30	249	68	552
282	2	1	97	65	165
283	20	25	125	10	180
284	0	90	1	0	91
286	2	0	77	0	79
287	175	222	91	0	488
288	76	37	72	2	187
289	21	19	96	0	136
290	44	45	104	0	193
291	58	11	93	5	167
292	1	2	72	0	75
293	20	70	94	0	184
294	98	0	78	0	176
295	80	218	147	0	445
296	217	69	30	133	449
297	10	84	126	0	220
298	373	19	5	1400	1797
299	51	22	6	0	79
300	17	7	47	1	72
301	4	27	0	0	31
302	38	14	38	202	292
303	4	0	4	0	8
304	52	1	16	7	76
305	57	295	44	15	411
306	0	0	1	600	601
307	91	22	1	0	114
308	2	8	1	0	11
309	170	106	143	30	449
310	65	84	17	22	188
311	16	32	4	8	60

LCRTM Zone	Completions 2015-2020	Planning Permissions and SHLAA 2020-2025	Windfalls 2020-2025 Inc. Demolitions	Baseline Scenario Housing 2025	Additional Housing 2015-2025
312	26	3	8	0	37
313	221	264	77	9	571
314	237	20	91	195	543
315	8	299	36	135	478
316	180	92	218	46	536
456	1	0	0	0	1
Total	3388	7053	3210	8151	21802

Table A.5: Employment Forecasts by LCRTM Zone (Additional Jobs) – Baseline & Preferred 2025

LCRTM Zone	Baseline Employment 2015-2025	Growth Forecast Employment 2015-2025	Additional Jobs 2015- 2025
105	55	32	88
106	57	34	91
107	85	50	135
108	0	0	0
109	0	0	0
110	0	0	0
277	0	0	0
278	0	0	0
279	0	0	0
280	0	0	0
281	0	0	0
282	0	0	0
283	0	0	0
284	727	427	1,154
285	0	0	0
286	80	47	127
287	0	0	0
288	0	0	0
289	0	0	0
290	0	0	0
291	0	0	0
292	0	0	0
293	0	0	0
294	0	0	0
295	0	0	0
296	0	0	0
297	0	0	0
298	61	36	97
299	0	0	0
300	0	0	0
301	0	0	0
302	0	0	0
303	0	0	0
304	0	0	0
305	0	0	0
306	340	200	539
307	263	154	417
308	0	0	0
309	0	0	0
310	38	22	60
311	0	0	0

LCRTM Zone	Baseline Employment 2015-2025	Growth Forecast Employment 2015-2025	Additional Jobs 2015- 2025
312	0	0	0
313	0	0	0
314	0	0	0
315	227	134	361
316	0	0	0
Total	1,933	1,136	3,069

Table A.6: Employment Forecasts by LCRTM Zone (Additional Jobs) – Baseline & Preferred 2037

LCRTM Zone	Baseline Employment 2015-2037	Growth Forecast Employment 2015- 2037	Additional Jobs 2015- 2037
105	31	32	63
106	32	34	65
107	48	50	98
108	0	0	0
109	0	0	0
110	193	203	396
277	0	0	0
278	0	0	0
279	0	0	0
280	0	0	0
281	0	0	0
282	0	0	0
283	0	0	0
284	880	925	1,805
285	0	0	0
286	45	47	92
287	0	0	0
288	0	0	0
289	0	0	0
290	0	0	0
291	0	0	0
292	0	0	0
293	0	0	0
294	0	0	0
295	0	0	0
296	0	0	0
297	0	0	0
298	34	36	70
299	0	0	0
300	0	0	0
301	0	0	0
302	0	0	0
303	0	0	0
304	0	0	0
305	0	0	0
306	190	200	389
307	293	309	602
308	0	0	0
309	0	0	0
310	21	22	43

LCRTM Zone	Baseline Employment 2015-2037	Growth Forecast Employment 2015- 2037	Additional Jobs 2015- 2037
311	0	0	0
312	0	0	0
313	0	0	0
314	0	0	0
315	167	175	342
316	0	0	0
Total	1,933	2,033	3,966

B. Local Plan Development Sites

Table B.1: Forecast Housing per Site (dwellings) – Baseline 2025

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
SHLAA 2081	Legacy	106	240	Major - Wirral Waters
SHLAA 2080	Tower Road	106	0	Major - Wirral Waters
SHLAA 2079	Belong	106	34	Major - Wirral Waters
SHLAA 2078	Urban Splash 1	106	30	Major - Wirral Waters
SHLAA 2082	Urban Splash 2	106	0	Major - Wirral Waters
SHLAA 0753	Marina View	106	0	Major - Wirral Waters
SHLAA 0755	Vittoria Studios	106	0	Major - Wirral Waters
SHLAA 0424	Europa Car Park	108	100	Major - Growth Company
SHLAA 0957	Europa South	108	0	Major - Growth Company
SHLAA 0956	Europa North	108	0	Major - Growth Company
SHLAA 1827	Foxfield	314	69	Major - Growth Company
SHLAA 1610	Civic Way	302	60	Major - Growth Company
SHLAA 2008	Moreton Family Centre	314	40	Major - Growth Company
SHLAA 2007	Pasture Road	314	20	Major - Growth Company
SHLAA 1974	Eastham Youth Centre	305	20	Major - Growth Company
SHLAA 2010	Knutsford Road	314	8	Minor - Growth Company
SHLAA 2022	North Annexe	279	19	Major - Growth Company
SHLAA 2023	South Annexe	279	20	Major - Growth Company
SHLAA 1472	Fernleigh	315	30	Major - Affordable Housing Programme
SHLAA 2068	Typhoo	315	50	Major
SHLAA 2006	Rear of Gibson House	279	87	Major

SHLAA 2005	Gibson House	279	15	Major
SHLAA 3095	Greenfield Estate	316	25	Major
SHLAA 4072	Trafalgar Garage	302	26	Major
SHLAA 0916	Grange Hill Farm	316	17	Major
SHLAA 4014	The Stirrup PH	310	15	Major
SHLAA 0689	Gladstone Liberals	109	12	Major
SHLAA 1171	Egerton Street Play Area	281	12	Major
SHLAA 0218	Woodchurch Road (65 to 67)	291	5	Small
SHLAA 1301	1 Cholmondeley Road	316	1	Small
SHLAA 4081	Europa Pools	108	0	Major - Growth Company
SHLAA 4082	Vue Cinema	108	0	Major - Growth Company
SHLAA 2069	Hinson Street CP	108	0	Major - Growth Company
SHLAA 2026	Treasury Building	108	0	Major - Growth Company
SHLAA 2036	Elgin Way CP	108	0	Major - Growth Company
SHLAA 4080	Olinda Street	296	0	Major - New Ferry
SHLAA 1833	Bebington Road	296	0	Major - New Ferry
SHLAA 4079	Woodhead Street CP	296	0	Major - New Ferry
SHLAA 0752	Woodside	107	0	Major - Woodside
SHLAA 0478	Rose Brae	107	0	Major - Rose Brae
SHLAA 4078	Hind Street	109	0	Major - Hind Street
SHLAA 0651	Lighthouse PH	283	0	Small
SHLAA 3042	Majestic Wine	316	0	Small
SHLAA 1620	Lorn Street	108	0	Major - Growth Company
SHLAA 2014	Conway Building	108	0	Major - Growth Company
SHLAA 2002	Duncan St CP	107	0	Major - Growth Company
225100	Garden north of (adjacent), Hawkstone, Stanley Avenue, Higher Bebington. L63 5Q	293	3	Planning Permission

535300	W Redcliffe, 34 Wellington Rd, New Brighton	281	1	Planning Permission
411200	77-79 Thingwall Road, Irby	310	1	Planning Permission
587100	Former Site Of The Dell Primary School, The Dell	297	67	Planning Permission
604900	Wade Cottage, 10 Farr Hall Drive	309	1	Planning Permission
641800	Land To The Rear Of 24 Pine Walks, Prenton	293	6	Planning Permission
685600	1-11 LISCARD VILLAGE, & 2 SEAVIEW ROAD, LISCARD, WIRRAL CH45 4JG	280	6	Planning Permission
647100	Acme Plumbers, 41 Wright Street, Egremont	279	1	Planning Permission
672000	Orovaes, 135 CALDY ROAD, CALDY, CH48 1LP	311	2	Planning Permission
657900	Barncroft, Larchwood Close, Pensby	309	21	Planning Permission
659600	Rock Bottom, Kings Drive, Caldby	311	1	Planning Permission
662200	Land Off New Chester Road, Bromborough Wirral (Phase A)	298	8	Planning Permission
659100	Land Off Arrowe Park Road, Upton	313	12	Planning Permission
664100	Land Adjacent To 23 Nursery Close, Oxtan	291	1	Planning Permission
652300	3 Grammar School Lane, Newton, Ch48 8Ay	316	1	Planning Permission
637900	Morgen, Noctorum Road, Noctorum	289	2	Planning Permission
669400	230 GREASBY ROAD, GREASBY, CH49 2PW	312	1	Planning Permission
654100	Springfield, 34 Gorse Lane, Newton	316	1	Planning Permission
630900	Cedar Cottage, 10 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission

668800	Heatherland Court Restaurant, 100 THURSTASTON ROAD, THURSTASTON, CH61 0HS	310	1	Planning Permission
679900	Six Acres, 75 COLUMN ROAD, NEWTON, CH48 1PX	316	1	Planning Permission
241500	48 BERYL ROAD, NOCTORUM, CH43 9RT	289	1	Planning Permission
674400	2 GIRTRELL ROAD, UPTON, CH49 4LQ	313	1	Planning Permission
674500	Land off Manor Drive, UPTON, WIRRAL, CH49 4NU	314	7	Planning Permission
658900	Electronic Surgery, 12A The Village, Bebington	300	2	Planning Permission
676700	Long Hay, 20 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
635500	Greenheys Nursery, 41 Thurstaston Road, Irby	310	1	Planning Permission
679400	LAND ADJACENT TO 3 DALE GARDENS, HESWALL, CH60 6TQ	309	1	Planning Permission
636500	71 Bebington Road, Rock Ferry	295	1	Planning Permission
663200	Dale End, 178 Barnston Road, Barnston	310	2	Planning Permission
403000	Woodland, SEVEN ACRES LANE, THINGWALL	310	4	Planning Permission
678100	The Co Operative Pharmacy, 20 VILLAGE ROAD, HESWALL, CH60 0DZ	309	2	Planning Permission
677900	THE GEORGE 57 VILLAGE ROAD, HIGHER BEBINGTON	300	1	Planning Permission
635700	42 Sparks Lane, Thingwall	310	1	Planning Permission
677200	LAND ADJACENT TO 123 LIVINGSTONE STREET, BIRKENHEAD, CH41 4HQ	105	1	Planning Permission
678700	The Overchurch, 129 ROYDEN ROAD, UPTON, CH49 4LY	313	6	Planning Permission
670900	5 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission

679100	24 ACRES ROAD, BEBINGTON, CH63 7QQ	300	1	Planning Permission
679200	WHYTETHORNE, 74 CALDY ROAD, CALDY, CH48 2HW	311	1	Planning Permission
644200	Beech House, Noctorum Road, Noctorum	289	1	Planning Permission
680400	The Forge, LANG LANE SOUTH, WEST KIRBY, CH48 7EQ	316	2	Planning Permission
680100	7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	2	Planning Permission
638600	Car Park, Stringhey Road, Egremont	279	4	Planning Permission
545600	Copper Beech, 99 Eleanor Road, Bidston	288	8	Planning Permission
682100	LAND AT BEECHFIELD CLOSE, GAYTON, CH60 8PD	309	1	Planning Permission
683300	Land at CHURCH ROAD, WARRINGTON STREET, THOMPSON STREET & LIVERSIDGE ROAD, TRANMERE, CH42 5LD	109	12	Planning Permission
656100	Brackenwood, Column Road, Newton	311	1	Planning Permission
684300	2 BERYL ROAD, NOCTORUM, CH43 9RT	289	4	Planning Permission
685200	Burtens Foods, PASTURE ROAD, MORETON, CH46 8SE	315	199	Planning Permission
661200	Land Fronting Love Lane To The Rear Of Mill Lane, Liscard	280	23	Planning Permission
686100	50 WELLINGTON ROAD, NEW BRIGHTON, CH45 2NF	281	1	Planning Permission
123200	The Old Forge, 2 ACRE LANE, BARNSTON, CH60 1UW	309	1	Planning Permission
686700	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	9	Planning Permission
646800	65 Bidston Road, Oxton	289	1	Planning Permission

660900	Fomer Cole Street Primary School, Cole Street, Birkenhead	105	11	Planning Permission
689300	Land Between 20 and 22 PARKLANDS DRIVE, GAYTON, CH60 3RU	309	1	Planning Permission
114800	Land adjacent to Oak Cottage, ST DAVIDS LANE, NOCTORUM, CH43 9UD	289	1	Planning Permission
703200	2 EDINBURGH DRIVE, PRENTON, CH43 0RL	293	1	Planning Permission
710100	rear of 87 RIDGEMERE ROAD, PENSBY, CH61 8RR	310	1	Planning Permission
647800	The Mushroom Farm Grange Old Road, West Kirby	316	1	Planning Permission
658400	Land At 46 Ford Road, Upton	313	2	Planning Permission
681900	BRIGHT SMILES DAY NURSERY, 2 MORPETH ROAD, HOYLAKE, CH47 4AT	316	1	Planning Permission
691000	Old Anselmians Rugby Club, EASTHAM VILLAGE ROAD, EASTHAM, CH62 0BJ	307	21	Planning Permission
691100	Recreational Open Space, ST PETERS MEWS, ROCK FERRY, Wirral, CH42 1RT	296	5	Planning Permission
658200	Gayton House, 46 Well Lane, Gayton	309	2	Planning Permission
691600	Land adjacent to 168 BOLTON ROAD EAST, NEW FERRY, WIRRAL, CH62 4RU	298	9	Planning Permission
691500	Site of lock up garages, MALLOWDALE CLOSE, EASTHAM	305	7	Planning Permission
692300	22-80 CLIFTON AVENUE, EASTHAM, CH62 9EQ	305	27	Planning Permission
692700	Land to the rear of Drayton, 46 CROFT DRIVE EAST, CALDY, CH48 1LS	311	2	Planning Permission
642100	LAND ADJACENT TO 8 RONE CLOSE, MORETON, CH46 0UF	314	6	Planning Permission
693000	Unused Land, 165 BEDFORD ROAD, ROCK FERRY, CH42 2AW	295	14	Planning Permission
693100	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission

693700	The Laird Sports Club 93, ST PETERS ROAD, ROCK FERRY	296	30	Planning Permission
693400	South Cottage, SOUTH VIEW, BROMBOROUGH, CH62 4UB	298	1	Planning Permission
693800	Woodville, RABY ROAD, RABY, CH63 4JR	308	8	Planning Permission
694700	Grangewood, 6 ANTHONYS WAY, GAYTON, CH60 0BP	309	1	Planning Permission
610600	Land between Darlington Street and Water Street, CHURCH STREET, EGREMONT, CH44 8AJ	279	10	Planning Permission
695000	The Paddock, NOCTORUM LANE, OXTON, CH43 9TZ	289	1	Planning Permission
695200	2 DONNE AVENUE, SPITAL, CH63 9YH	302	1	Planning Permission
695800	3 HILLSIDE ROAD, NEWTON, CH48 8BD	316	1	Planning Permission
695900	Land adj 71 DAWSTONE ROAD, GAYTON, CH60 8ND	309	1	Planning Permission
704800	Girtrell Court, 5 WOODPECKER CLOSE, UPTON, CH49 4QW	313	78	Planning Permission
647600	Green Gables, 7 Riverbank Road, Heswall	309	1	Planning Permission
667800	LAND ADJACENT TO 16 THE ESPLANADE, NEW FERRY, CH62 1EH	297	17	Planning Permission
678300	Land north-west of Netherset Hey, ARROWE BROOK LANE, IRBY, CH49 3NY	312	1	Planning Permission
696400	Arrowcroft, 79 THINGWALL ROAD EAST, IRBY, CH61 3UZ	310	1	Planning Permission
696900	Heath Grange, KINGS DRIVE, CALDY, CH48 2JF	311	1	Planning Permission
656700	Little Orchard, Hill Top Lane, Gayton	309	1	Planning Permission
697500	St Nicholas Vicarage, 22 GROVELAND ROAD, WALLASEY VILLAGE, CH45 8JY	283	2	Planning Permission
697300	Stonehill, Lower Garden at 3 Portland Street and Pilots Way, New Brighton, Wirral, CH45 2PA	281	1	Planning Permission

645500	Cleared Site, 15 NEW CHESTER ROAD, NEW FERRY, CH62 1DG	296	8	Planning Permission
697200	11 HEYGARTH ROAD, EASTHAM, CH62 8AQ	305	1	Planning Permission
697700	Colvend, Meols Parade, Meols, CH47 7AU	316	1	Planning Permission
697600	29 & 31 NORWICH DRIVE, UPTON, CH49 4QR	313	2	Planning Permission
697900	8 NETHERTON ROAD, MORETON, CH46 7TR	314	1	Planning Permission
698000	Cleared Site Grassed, OAKDALE ROAD, SEACOMBE, CH44 7HW	278	8	Planning Permission
702800	Storeton Hall Farm, LEVER CAUSEWAY, STORETON	301	27	Planning Permission
698300	Site at the junction of CHURCH STREET and LISCARD ROAD. EGREMONT, WALLASEY	279	10	Planning Permission
698500	Moodz Bar, 1 CHARING CROSS, BIRKENHEAD, CH41 6EJ	105	1	Planning Permission
698900	1-7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	9	Planning Permission
698800	Land between 36 & 52/54 Stanley Lane, Eastham, CH62 0AG	307	1	Planning Permission
699000	Elrig, 27 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	2	Planning Permission
652000	133 Kings Drive, Irby	310	1	Planning Permission
699300	Land at ACRE LANE AND MEADOWSIDE ROAD, BROMBOROUGH, CH62 7BX	305	217	Planning Permission
688300	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission
612000	SEACOMBE FERRY HOTEL, VICTORIA PLACE, SEACOMBE	277	28	Planning Permission
674900	Rosebrae Nursing Home, 8 SPITAL ROAD, BEBINGTON, CH63 9JE	302	12	Planning Permission
699600	EMBEES SHOWROOMS AND YARD, 31-41 MOUNT PLEASANT ROAD, NEW BRIGHTON, CH45 5LA	281	9	Planning Permission
700100	18-20 Grange Road West, Birkenhead, Wirral, CH41 4DA	105	2	Planning Permission
632800	Grange Villa, 1 Rocky Lane, Heswall	309	6	Planning Permission
700700	Intabene Manor, 170 UPTON ROAD, BIDSTON, CH43 7QQ	288	1	Planning Permission
700400	Land adj, 13 ELM TERRACE, HOYLAKE, CH47 3DH	316	1	Planning Permission
642300	53 BIRCH AVENUE, UPTON, CH49 4LS	313	1	Planning Permission
701600	Ha Pennyfield, NOCTORUM LANE, NOCTORUM, CH43 9UE	289	1	Planning Permission

701500	Former Riverside Day Centre, Duke Street, Birkenhead	105	13	Planning Permission
701700	Glenbank, 12 MILL HILL ROAD, IRBY, CH61 4UF	310	1	Planning Permission
702000	Land at corner of New Hey Road and Ferny Brow Road, Woodchurch, Wirral, CH49 8JN	313	18	Planning Permission
703300	Wreckers Cottage, 115 MARKET STREET, HOYLAKES, CH47 5AA	316	1	Planning Permission
703600	SANDHEY ROAD, MEOLS, CH47 5AX	316	2	Planning Permission
703500	4 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
703900	VACANT LAND AT GRASSWOOD ROAD, WOODCHURCH	313	14	Planning Permission
703800	FISHERS LANE, PENSBY, CH61 8SB	310	35	Planning Permission
655300	83 Saughall Massie Lane, Upton	313	1	Planning Permission
705400	Hopstick, 12A WHALEY LANE, IRBY, CH61 3UN	310	1	Planning Permission
705300	San Geran, COTTAGE DRIVE EAST, GAYTON, CH60 8NY	309	1	Planning Permission
705500	11 BEVERLEY DRIVE, GAYTON, CH60 3RP	309	1	Planning Permission
705900	Land at Delamere Avenue, Eastham, Wirral, CH62 9ED	305	12	Planning Permission
706000	Manor Farm, 130 BARNSTON ROAD, BARNSTON, CH61 1BT	310	2	Planning Permission
706500	48 SHAW STREET, HOYLAKES, CH47 2BN	316	1	Planning Permission
710000	Kingsmead, 6 CENTRAL AVENUE, BROMBOROUGH, CH62 2BT	299	2	Planning Permission
707300	Roselands, 16 CROFT DRIVE, CALDY, CH48 2JW	311	2	Planning Permission
600600	Unused Land, Village Road, Oxton	291	9	Planning Permission
707200	45 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	1	Planning Permission
706900	Land off Saughall Massie Road, West Kirby, Wirral CH48 6DR	316	9	Planning Permission
707400	1 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	5	Planning Permission
707000	38 STANLEY ROAD, HOYLAKES, CH47 1HP	316	1	Planning Permission
707600	Pensby Hall Residential Home, 347 PENSBY ROAD, PENSBY, CH61 9NE	310	15	Planning Permission
707700	The Lyndale School, LYNDAL AVE, EASTHAM, CH62 8DE	305	28	Planning Permission
707900	Allandale Abbeyfield, FARR HALL ROAD, HESWALL, CH60 4SD	309	1	Planning Permission
707500	The Dell, PRENTON HALL ROAD, PRENTON, CH43 3AE	293	28	Planning Permission

708200	23 SOUTH DRIVE, GAYTON, CH60 0BG	309	1	Planning Permission
708700	Windwhistle, 5 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
708900	4 COOMBE ROAD, IRBY, CH61 4UR	310	1	Planning Permission
707800	Rosecroft, GALLOPERS LANE, THINGWALL, CH61 7YA	310	1	Planning Permission
709700	Silverdale Medical Centre, MOUNT AVENUE, HESWALL, CH60 4RH	309	7	Planning Permission
711200	Abbingdon House Residential Home, 43 THORNTON ROAD, HIGHER BEBINGTON, CH63 5PR	300	3	Planning Permission
666300	Heath Top, 29 TOWER ROAD NORTH, HESWALL, CH60 6RS	309	1	Planning Permission
711700	Heath Cottage, 1 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
711900	Little Mundens, 43 FARR HALL DRIVE, HESWALL, CH60 4SE	309	1	Planning Permission
708800	THE OLD MILL, MILL ROAD, THINGWALL, CH61 7UU	310	1	Planning Permission
712300	Field Head, MARINE DRIVE, HESWALL, CH60 9JJ	309	1	Planning Permission
717400	20 LYNTHURST ROAD, LISCARD, CH45 6XD	282	1	Planning Permission
708000	BEVERLY, 39 VYNER ROAD SOUTH, BIDSTON, CH43 7PT	289	1	Planning Permission
699700	7-9, Marquis Street, Tranmere, Birkenhead, CH41 9DU	109	1	Planning Permission
683500	Garage to the rear of 107 CHURCH ROAD, TRANMERE, CH42 5LF	109	1	Planning Permission
602700	Unused Land, 32 HARLAND ROAD, TRANMERE, CH42 0LU	109	1	Planning Permission
717200	Forest Hill, 22 Vyner Road South, Bidston, CH43 7PR	289	1	Planning Permission
715800	2 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
714600	13 CAITHNESS DRIVE, EGREMONT, CH45 7PN	281	1	Planning Permission
713900	62 SEAVIEW ROAD, LISCARD, CH45 4LB	280	1	Planning Permission
713500	Vacant Plot, HILL GROVE, Moreton, Wirral	314	1	Planning Permission
710800	45 WARREN DRIVE, NEW BRIGHTON, CH45 0JP	281	1	Planning Permission
709200	3 ST JOHNS ROAD, WALLASEY VILLAGE, CH45 3LU	283	1	Planning Permission
617300	Pier House, Tower Promenade, New Brighton	281	2	Planning Permission
700000	98 UPTON ROAD, CLAUGHTON, CH41 0DH	287	2	Planning Permission
691200	37 CLIFTON ROAD, TRANMERE, CH41 2SF	109	2	Planning Permission

687500	Land on Corner of HAMPDEN GROVE & CAERWYS GROVE, TRANMERE, CH42 5LL	109	2	Planning Permission
717000	Land at the corner of College Close and Third Avenue, Wirral, CH43 9XP	288	3	Planning Permission
716900	Land at corner of Corwen Close and Third Avenue., Wirral, CH43 9UX	288	3	Planning Permission
716800	Land at the corner of Charlwood Close and Third Avenue, BEECHWOOD, CH43 9XF	288	3	Planning Permission
540500	Atlantic House, 18-22 HAMILTON SQUARE, BIRKENHEAD, CH41 1AL	107	3	Planning Permission
716700	Land at the corner of Caxton Close and Third Avenue, Beechwood, Wirral CH43 9XQ	288	4	Planning Permission
716600	Land at corner of Chantry Close and Third Avenue, Wirral, CH43 9EX	288	4	Planning Permission
708600	445 BROUGHAM ROAD, SEACOMBE	279	6	Planning Permission
715000	Land at 550-558 New Chester Road, Birkenhead, CH42 2AF	296	6	Planning Permission
679800	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	6	Planning Permission
585000	110 KING STREET, EGREMONT, CH44 8AW	279	6	Planning Permission
680800	Land on corner of WESTBOURNE ROAD & RIDLEY STREET, BIRKENHEAD, CH43 4TQ	290	9	Planning Permission
712600	STREET RECORD, GREENACRES CLOSE, BEECHWOOD	288	10	Planning Permission
667700	Land at the corner of Holt Road and Old Chester Road, Tranmere, Wirral	109	18	Planning Permission
710600	Rock Station Hotel, HIGHFIELD ROAD, ROCK FERRY, CH42 2BU	295	25	Planning Permission
685500	Eswa Club, 54-56 Park Rd South, Wirral, CH43 4UY	105	28	Planning Permission
715500	Holt Road, TRANMERE, CH41 9HQ	109	30	Planning Permission
713800	VACANT LAND BETWEEN WHEATLAND LANE, HAWTHORNE GROVE AND NEW STREET,	277	32	Planning Permission
671300	The Open Arms, BIDSTON AVENUE, CLAUGHTON, CH41 0BR	287	42	Planning Permission
691300	LAND AT CONWAY STREET, BIRKENHEAD, CH61 6EN	108	132	Planning Permission
716200	Land at the former Rock Ferry High School and Ravenswood, Highfield South, Rock Ferry, Wirral, CH42 4RQ	295	84	Planning Permission
717600	Ashton Court, Banks Road, West Kirby, CH48 0RJ	316	14	Planning Permission
683200	Braeside, 2 LANG LANE, WEST KIRBY, CH48 5HF	316	2	Planning Permission
714100	162 WOODCHURCH ROAD, OXTON, CH42 9LS	291	1	Planning Permission
695300	45 GRANGE CROSS LANE, NEWTON, CH48 8BJ	316	4	Planning Permission

678400	62 WHITFIELD LANE, HESWALL, CH60 7SB	309	1	Planning Permission
713200	2A GREEN LANE/259 WALLASEY VILLAGE	283	1	Planning Permission
639900	Corbiere, Thorsway, Caldy	311	1	Planning Permission
124200	Sawrey Knots, 18 CROFT DRIVE, CALDY, CH48 2JW	311	1	Planning Permission
604100	44 Well Lane, Gayton	309	1	Planning Permission
675300	16 GORSE LANE, NEWTON, CH48 8BH	316	1	Planning Permission
637100	Coppins Hey, 8 Woodlands Drive, Barnston	310	2	Planning Permission
677300	Land to the rear of 171A POULTON ROAD, POULTON, CH44 9DG	278	4	Planning Permission
652900	Denecourt, 37 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	1	Planning Permission
656300	Flaybrick Hill Reservoir, Boundary Road, Bidston	290	1	Planning Permission
664800	LAND ADJACENT TO 5 MOUNT OLIVE, OXTON, WIRRAL CH43 5TT	292	2	Planning Permission
664400	Land adjacent to 1 HERON ROAD, MEOLS, CH47 9RU	316	1	Planning Permission
656200	Land Adjacent To 9 Acton Lane, Saughall Massie	314	1	Planning Permission
654600	Land Adjacent to Barnston Primary School, Sandham Grove, BARNSTON, WIRRAL, CH60 1XW	309	1	Planning Permission
660200	78 Dawstone Road, Gayton	309	2	Planning Permission
682400	Former Muldron, 52 CROFT DRIVE EAST, CALDY	311	1	Planning Permission
678900	Courtyard House, 9 DEE VIEW ROAD, HESWALL, CH60 0DJ	309	1	Planning Permission
663400	440 Pensby Road, Thingwall	310	1	Planning Permission
672200	Newhall BMW, CALDY ROAD, WEST KIRBY, CH48 2HE	311	6	Planning Permission
541900	55 Rock Lane West, Rock Ferry	296	19	Planning Permission
689400	37 BIDSTON VILLAGE ROAD, BIDSTON, CH43 7QT	288	1	Planning Permission
690800	Cherry Cottage, WALLRAKE, HESWALL, WIRRAL CH60 8QW	309	1	Planning Permission
607700	Continental Landscapes, Wharf Street, Port Sunlight	299	12	Planning Permission
684800	Grosvenor Court, GROSVENOR ROAD, HOYLAKE	316	5	Planning Permission
662900	Land To The Rear Of 33 Thurstaston Road, Irby	310	1	Planning Permission
680900	106 ALLPORT ROAD, BROMBOROUGH, CH62 6AQ	305	2	Planning Permission

689200	277 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission
653400	Unused Land, Park Street, Birkenhead	108	2	Planning Permission
687700	Angarra, 9 THE RIDGEWAY, GAYTON, CH60 8NB	309	1	Planning Permission
612500	East Farm Bungalow, 171 Caldý Road, Caldý	311	1	Planning Permission
561300	Royal Extrusions Aluminium, 99A Duke Street, Birkenhead	105	47	Planning Permission
686200	Land adjacent to Wyle Cop, 126 CALDY ROAD, CALDY, CH48 1LW	311	1	Planning Permission
623700	48 Moreton Road, Upton	313	2	Planning Permission
668700	Land to the rear of Veterinary Surgery, Geneva, 43 BIRKENHEAD ROAD, MEOLS, CH47 5AF	316	1	Planning Permission
566000	Unused Land, Beresford Road, Oxtón	290	2	Planning Permission
692000	10 BRANCOTE ROAD, OXTÓN, CH43 6TJ	290	6	Planning Permission
668600	The Sundial, 61 CALDY ROAD, CALDY, CH48 2HN	311	6	Planning Permission
652600	Land South Of , 6 Central Avenue, Bromborough	299	1	Planning Permission
658300	Land Adjacent To 3 Morpeth Road, Hoylake	316	1	Planning Permission
663800	Land Off Belmont Avenue, Bromborough	304	1	Planning Permission
602300	2 TARGET ROAD, HESWALL, CH60 9LD	309	1	Planning Permission
706800	The Croft, 6 PARK ROAD, BARNSTON, CH60 2S	309	1	Planning Permission
709100	land to the rear of 13 GREENHOW AVENUE, WEST KIRBY, CH48 5EL	316	1	Planning Permission
679500	Rear of 7 & 9 WEST ROAD, NOCTORUM, CH43 9RP	289	3	Planning Permission
717300	Wirral Business Park, Arrowe Brook Road, Upton, Wirral, CH49 1QZ	313	50	Planning Permission
653000	Sonning, 75 OLDFIELD DRIVE, HESWALL, CH60 9HB	309	2	Planning Permission
707100	10 WOOD LANE, GREASBY, CH49 2PT	312	1	Planning Permission
669000	2 BRYANSTON ROAD, PRENTON, CH42 8PU	293	1	Planning Permission
103100	Land on corner of Borough Road / Brighton Street.	279	19	Planning Permission
706400	Brynawel, 276 IRBY ROAD, IRBY, CH61 2XQ	310	1	Planning Permission
706200	Long Acre, GORSEFIELD AVENUE, EASTHAM, CH62 6BY	305	1	Planning Permission
714700	87A MARKET STREET, HOYLAKÉ, CH47 5AA	316	2	Planning Permission

713100	1A PINWOOD DRIVE, BARNSTON, CH60 2SD	309	1	Planning Permission
716500	155-157 NEW CHESTER ROAD, NEW FERRY	296	1	Planning Permission
713600	29 HARDIE AVENUE, MORETON, CH46 6BJ	314	1	Planning Permission
712800	33 & 35 WHITEHOUSE LANE, BARNSTON, CH60 1UD	309	7	Planning Permission
692400	11 LANG LANE, WEST KIRBY, CH48 5BW	316	3	Planning Permission
711600	Norwoods, 9 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
712700	Kingsmead School, BERTRAM DRIVE, MEOLS, CH47 0LL	316	25	Planning Permission
705100	Beverley, 16 BRIMSTAGE ROAD, BARNSTON, CH60 1XG	309	8	Planning Permission
712100	279 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission
709500	CLEARED SITE, BEAUFORT ROAD, BIRKENHEAD	287	178	Planning Permission
709300	Strathcraig, PHILLIPS WAY, HESWALL, CH60 4RT	309	2	Planning Permission
712200	15 CYPRESS CROFT, BEBINGTON, CH63 9FG	302	1	Planning Permission
690300	Land At Former Old Tavern Club, MAGAZINE LANE, NEW BRIGHTON CH45 5AD	281	14	Planning Permission

Table B.2: Forecast Housing per Site (dwellings) – Baseline 2037

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
SHLAA 2081	Legacy	106	500	Major - Wirral Waters
SHLAA 2080	Tower Road	106	150	Major - Wirral Waters
SHLAA 2079	Belong	106	34	Major - Wirral Waters
SHLAA 2078	Urban Splash 1	106	120	Major - Wirral Waters
SHLAA 2082	Urban Splash 2	106	230	Major - Wirral Waters
SHLAA 0753	Marina View	106	700	Major - Wirral Waters
SHLAA 0755	Vittoria Studios	106	700	Major - Wirral Waters
SHLAA 0424	Europa Car Park	108	170	Major - Growth Company
SHLAA 0957	Europa South	108	50	Major - Growth Company
SHLAA 0956	Europa North	108	55	Major - Growth Company
SHLAA 1827	Foxfield	314	69	Major - Growth Company
SHLAA 1610	Civic Way	302	60	Major - Growth Company
SHLAA 2008	Moreton Family Centre	314	60	Major - Growth Company
SHLAA 2007	Pasture Road	314	38	Major - Growth Company
SHLAA 1974	Eastham Youth Centre	305	20	Major - Growth Company
SHLAA 2010	Knutsford Road	314	8	Minor - Growth Company
SHLAA 2022	North Annexe	279	19	Major - Growth Company
SHLAA 2023	South Annexe	279	45	Major - Growth Company
SHLAA 1472	Fenleigh	315	30	Major - Affordable Housing Programme
SHLAA 2068	Typhoo	315	100	Major
SHLAA 2006	Rear of Gibson House	279	87	Major
SHLAA 2005	Gibson House	279	15	Major
SHLAA 3095	Greenfield Estate	316	50	Major

SHLAA 4072	Trafalgar Garage	302	26	Major
SHLAA 0916	Grange Hill Farm	316	17	Major
SHLAA 4014	The Stirrup PH	310	15	Major
SHLAA 0689	Gladstone Liberals	109	12	Major
SHLAA 1171	Egerton Street Play Area	281	12	Major
SHLAA 0218	Woodchurch Road (65 to 67)	291	5	Small
SHLAA 1301	1 Cholmondeley Road	316	1	Small
SHLAA 4081	Europa Pools	108	130	Major - Growth Company
SHLAA 4082	Vue Cinema	108	110	Major - Growth Company
SHLAA 2069	Hinson Street CP	108	20	Major - Growth Company
SHLAA 2026	Treasury Building	108	65	Major - Growth Company
SHLAA 2036	Elgin Way CP	108	25	Major - Growth Company
SHLAA 4080	Olinda Street	296	23	Major - New Ferry
SHLAA 1833	Bebington Road	296	11	Major - New Ferry
SHLAA 4079	Woodhead Street CP	296	45	Major - New Ferry
SHLAA 0752	Woodside	107	270	Major - Woodside
SHLAA 0478	Rose Brae	107	119	Major - Rose Brae
SHLAA 4078	Hind Street	109	450	Major - Hind Street
SHLAA 0651	Lighthouse PH	283	9	Small
SHLAA 3042	Majestic Wine	316	3	Small
SHLAA 1620	Lorn Street	108	50	Major - Growth Company
SHLAA 2014	Conway Building	108	40	Major - Growth Company
SHLAA 2002	Duncan St CP	107	20	Major - Growth Company
225100	Garden north of (adjacent), Hawkstone, Stanley Avenue, Higher Bebington. L63 5Q	293	3	Planning Permission
535300	W Redcliffe, 34 Wellington Rd, New Brighton	281	1	Planning Permission

411200	77-79 Thingwall Road, Irby	310	1	Planning Permission
587100	Former Site Of The Dell Primary School, The Dell	297	67	Planning Permission
604900	Wade Cottage, 10 Farr Hall Drive	309	1	Planning Permission
641800	Land To The Rear Of 24 Pine Walks, Prenton	293	6	Planning Permission
685600	1-11 LISCARD VILLAGE, & 2 SEAVIEW ROAD, LISCARD, WIRRAL CH45 4JG	280	6	Planning Permission
647100	Acme Plumbers, 41 Wright Street, Egremont	279	1	Planning Permission
672000	Orovaes, 135 CALDY ROAD, CALDY, CH48 1LP	311	2	Planning Permission
657900	Barncroft, Larchwood Close, Pensby	309	21	Planning Permission
659600	Rock Bottom, Kings Drive, Caldby	311	1	Planning Permission
662200	Land Off New Chester Road, Bromborough Wirral (Phase A)	298	8	Planning Permission
659100	Land Off Arrowe Park Road, Upton	313	12	Planning Permission
664100	Land Adjacent To 23 Nursery Close, Oxtan	291	1	Planning Permission
652300	3 Grammar School Lane, Newton, Ch48 8Ay	316	1	Planning Permission
637900	Morgen, Noctorum Road, Noctorum	289	2	Planning Permission
669400	230 GREASBY ROAD, GREASBY, CH49 2PW	312	1	Planning Permission
654100	Springfield, 34 Gorse Lane, Newton	316	1	Planning Permission
630900	Cedar Cottage, 10 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
668800	Heatherland Court Restaurant, 100 THURSTASTON ROAD, THURSTASTON, CH61 0HS	310	1	Planning Permission

679900	Six Acres, 75 COLUMN ROAD, NEWTON, CH48 1PX	316	1	Planning Permission
241500	48 BERYL ROAD, NOCTORUM, CH43 9RT	289	1	Planning Permission
674400	2 GIRTRELL ROAD, UPTON, CH49 4LQ	313	1	Planning Permission
674500	Land off Manor Drive, UPTON, WIRRAL, CH49 4NU	314	7	Planning Permission
658900	Electronic Surgery, 12A The Village, Bebington	300	2	Planning Permission
676700	Long Hay, 20 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
635500	Greenheys Nursery, 41 Thurstaston Road, Irby	310	1	Planning Permission
679400	LAND ADJACENT TO 3 DALE GARDENS, HESWALL, CH60 6TQ	309	1	Planning Permission
636500	71 Bebington Road, Rock Ferry	295	1	Planning Permission
663200	Dale End, 178 Barnston Road, Barnston	310	2	Planning Permission
403000	Woodland, SEVEN ACRES LANE, THINGWALL	310	4	Planning Permission
678100	The Co Operative Pharmacy, 20 VILLAGE ROAD, HESWALL, CH60 0DZ	309	2	Planning Permission
677900	THE GEORGE 57 VILLAGE ROAD, HIGHER BEBINGTON	300	1	Planning Permission
635700	42 Sparks Lane, Thingwall	310	1	Planning Permission
677200	LAND ADJACENT TO 123 LIVINGSTONE STREET, BIRKENHEAD, CH41 4HQ	105	1	Planning Permission
678700	The Overchurch, 129 ROYDEN ROAD, UPTON, CH49 4LY	313	6	Planning Permission
670900	5 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
679100	24 ACRES ROAD, BEBINGTON, CH63 7QQ	300	1	Planning Permission

679200	WHYTETHORNE, 74 CALDY ROAD, CALDY, CH48 2HW	311	1	Planning Permission
644200	Beech House, Noctorum Road, Noctorum	289	1	Planning Permission
680400	The Forge, LANG LANE SOUTH, WEST KIRBY, CH48 7EQ	316	2	Planning Permission
680100	7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	2	Planning Permission
638600	Car Park, Stringhey Road, Egremont	279	4	Planning Permission
545600	Copper Beech, 99 Eleanor Road, Bidston	288	8	Planning Permission
682100	LAND AT BEECHFIELD CLOSE, GAYTON, CH60 8PD	309	1	Planning Permission
683300	Land at CHURCH ROAD, WARRINGTON STREET, THOMPSON STREET & LIVERSIDGE ROAD, TRANMERE, CH42 5LD	109	12	Planning Permission
656100	Brackenwood, Column Road, Newton	311	1	Planning Permission
684300	2 BERYL ROAD, NOCTORUM, CH43 9RT	289	4	Planning Permission
685200	Burtens Foods, PASTURE ROAD, MORETON, CH46 8SE	315	299	Planning Permission
661200	Land Fronting Love Lane To The Rear Of Mill Lane, Liscard	280	23	Planning Permission
686100	50 WELLINGTON ROAD, NEW BRIGHTON, CH45 2NF	281	1	Planning Permission
123200	The Old Forge, 2 ACRE LANE, BARNSTON, CH60 1UW	309	1	Planning Permission
686700	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	9	Planning Permission
646800	65 Bidston Road, Oxton	289	1	Planning Permission
660900	Fomer Cole Street Primary School, Cole Street, Birkenhead	105	11	Planning Permission

689300	Land Between 20 and 22 PARKLANDS DRIVE, GAYTON, CH60 3RU	309	1	Planning Permission
114800	Land adjacent to Oak Cottage, ST DAVIDS LANE, NOCTORUM, CH43 9UD	289	1	Planning Permission
703200	2 EDINBURGH DRIVE, PRENTON, CH43 0RL	293	1	Planning Permission
710100	rear of 87 RIDGEMERE ROAD, PENSBY, CH61 8RR	310	1	Planning Permission
647800	The Mushroom Farm Grange Old Road, West Kirby	316	1	Planning Permission
658400	Land At 46 Ford Road, Upton	313	2	Planning Permission
681900	BRIGHT SMILES DAY NURSERY, 2 MORPETH ROAD, HOYLAKE, CH47 4AT	316	1	Planning Permission
691000	Old Anselmians Rugby Club, EASTHAM VILLAGE ROAD, EASTHAM, CH62 0BJ	307	21	Planning Permission
691100	Recreational Open Space, ST PETERS MEWS, ROCK FERRY, Wirral, CH42 1RT	296	5	Planning Permission
658200	Gayton House, 46 Well Lane, Gayton	309	2	Planning Permission
691600	Land adjacent to 168 BOLTON ROAD EAST, NEW FERRY, WIRRAL, CH62 4RU	298	9	Planning Permission
691500	Site of lock up garages, MALLOWDALE CLOSE, EASTHAM	305	7	Planning Permission
692300	22-80 CLIFTON AVENUE, EASTHAM, CH62 9EQ	305	27	Planning Permission
692700	Land to the rear of Drayton, 46 CROFT DRIVE EAST, CALDY, CH48 1LS	311	2	Planning Permission
642100	LAND ADJACENT TO 8 RONE CLOSE, MORETON, CH46 0UF	314	6	Planning Permission
693000	Unused Land, 165 BEDFORD ROAD, ROCK FERRY, CH42 2AW	295	14	Planning Permission
693100	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission
693700	The Laird Sports Club 93, ST PETERS ROAD, ROCK FERRY	296	30	Planning Permission

693400	South Cottage, SOUTH VIEW, BROMBOROUGH, CH62 4UB	298	1	Planning Permission
693800	Woodville, RABY ROAD, RABY, CH63 4JR	308	8	Planning Permission
694700	Grangewood, 6 ANTHONYS WAY, GAYTON, CH60 0BP	309	1	Planning Permission
610600	Land between Darlington Street and Water Street, CHURCH STREET, EGREMONT, CH44 8AJ	279	10	Planning Permission
695000	The Paddock, NOCTORUM LANE, OXTON, CH43 9TZ	289	1	Planning Permission
695200	2 DONNE AVENUE, SPITAL, CH63 9YH	302	1	Planning Permission
695800	3 HILLSIDE ROAD, NEWTON, CH48 8BD	316	1	Planning Permission
695900	Land adj 71 DAWSTONE ROAD, GAYTON, CH60 8ND	309	1	Planning Permission
704800	Girtrell Court, 5 WOODPECKER CLOSE, UPTON, CH49 4QW	313	78	Planning Permission
647600	Green Gables, 7 Riverbank Road, Heswall	309	1	Planning Permission
667800	LAND ADJACENT TO 16 THE ESPLANADE, NEW FERRY, CH62 1EH	297	17	Planning Permission
678300	Land north-west of Netherset Hey, ARROWE BROOK LANE, IRBY, CH49 3NY	312	1	Planning Permission
696400	Arrowcroft, 79 THINGWALL ROAD EAST, IRBY, CH61 3UZ	310	1	Planning Permission
696900	Heath Grange, KINGS DRIVE, CALDY, CH48 2JF	311	1	Planning Permission
656700	Little Orchard, Hill Top Lane, Gayton	309	1	Planning Permission
697500	St Nicholas Vicarage, 22 GROVELAND ROAD, WALLASEY VILLAGE, CH45 8JY	283	2	Planning Permission
697300	Stonehill, Lower Garden at 3 Portland Street and Pilots Way, New Brighton, Wirral, CH45 2PA	281	1	Planning Permission
645500	Cleared Site, 15 NEW CHESTER ROAD, NEW FERRY, CH62 1DG	296	8	Planning Permission

697200	11 HEYGARTH ROAD, EASTHAM, CH62 8AQ	305	1	Planning Permission
697700	Colvend, Meols Parade, Meols, CH47 7AU	316	1	Planning Permission
697600	29 & 31 NORWICH DRIVE, UPTON, CH49 4QR	313	2	Planning Permission
697900	8 NETHERTON ROAD, MORETON, CH46 7TR	314	1	Planning Permission
698000	Cleared Site Grassed, OAKDALE ROAD, SEACOMBE, CH44 7HW	278	8	Planning Permission
702800	Storeton Hall Farm, LEVER CAUSEWAY, STORETON	301	27	Planning Permission
698300	Site at the junction of CHURCH STREET and LISCARD ROAD. EGREMONT, WALLASEY	279	10	Planning Permission
698500	Moodz Bar, 1 CHARING CROSS, BIRKENHEAD, CH41 6EJ	105	1	Planning Permission
698900	1-7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	9	Planning Permission
698800	Land between 36 & 52/54 Stanley Lane, Eastham, CH62 0AG	307	1	Planning Permission
699000	Elrig, 27 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	2	Planning Permission
652000	133 Kings Drive, Irby	310	1	Planning Permission
699300	Land at ACRE LANE AND MEADOWSIDE ROAD, BROMBOROUGH, CH62 7BX	305	217	Planning Permission
688300	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission
612000	SEACOMBE FERRY HOTEL, VICTORIA PLACE, SEACOMBE	277	28	Planning Permission
674900	Rosebrae Nursing Home, 8 SPITAL ROAD, BEBINGTON, CH63 9JE	302	12	Planning Permission
699600	EMBEES SHOWROOMS AND YARD, 31-41 MOUNT PLEASANT ROAD, NEW BRIGHTON, CH45 5LA	281	9	Planning Permission
700100	18-20 Grange Road West, Birkenhead, Wirral, CH41 4DA	105	2	Planning Permission
632800	Grange Villa, 1 Rocky Lane, Heswall	309	6	Planning Permission
700700	Intabene Manor, 170 UPTON ROAD, BIDSTON, CH43 7QQ	288	1	Planning Permission
700400	Land adj, 13 ELM TERRACE, HOYLAKES, CH47 3DH	316	1	Planning Permission
642300	53 BIRCH AVENUE, UPTON, CH49 4LS	313	1	Planning Permission
701600	Ha Pennyfield, NOCTORUM LANE, NOCTORUM, CH43 9UE	289	1	Planning Permission
701500	Former Riverside Day Centre, Duke Street, Birkenhead	105	13	Planning Permission
701700	Glenbank, 12 MILL HILL ROAD, IRBY, CH61 4UF	310	1	Planning Permission

702000	Land at corner of New Hey Road and Ferny Brow Road, Woodchurch, Wirral, CH49 8JN	313	18	Planning Permission
703300	Wreckers Cottage, 115 MARKET STREET, HOYLAKES, CH47 5AA	316	1	Planning Permission
703600	SANDHEY ROAD, MEOLS, CH47 5AX	316	2	Planning Permission
703500	4 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
703900	VACANT LAND AT GRASSWOOD ROAD, WOODCHURCH	313	14	Planning Permission
703800	FISHERS LANE, PENSBY, CH61 8SB	310	35	Planning Permission
655300	83 Saughall Massie Lane, Upton	313	1	Planning Permission
705400	Hopstick, 12A WHALEY LANE, IRBY, CH61 3UN	310	1	Planning Permission
705300	San Geran, COTTAGE DRIVE EAST, GAYTON, CH60 8NY	309	1	Planning Permission
705500	11 BEVERLEY DRIVE, GAYTON, CH60 3RP	309	1	Planning Permission
705900	Land at Delamere Avenue, Eastham, Wirral, CH62 9ED	305	12	Planning Permission
706000	Manor Farm, 130 BARNSTON ROAD, BARNSTON, CH61 1BT	310	2	Planning Permission
706500	48 SHAW STREET, HOYLAKES, CH47 2BN	316	1	Planning Permission
710000	Kingsmead, 6 CENTRAL AVENUE, BROMBOROUGH, CH62 2BT	299	2	Planning Permission
707300	Roselands, 16 CROFT DRIVE, CALDY, CH48 2JW	311	2	Planning Permission
600600	Unused Land, Village Road, Oxton	291	9	Planning Permission
707200	45 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	1	Planning Permission
706900	Land off Saughall Massie Road, West Kirby, Wirral CH48 6DR	316	9	Planning Permission
707400	1 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	5	Planning Permission
707000	38 STANLEY ROAD, HOYLAKES, CH47 1HP	316	1	Planning Permission
707600	Pensby Hall Residential Home, 347 PENSBY ROAD, PENSBY, CH61 9NE	310	15	Planning Permission
707700	The Lyndale School, LYNDAL AVE, EASTHAM, CH62 8DE	305	28	Planning Permission
707900	Allandale Abbeyfield, FARR HALL ROAD, HESWALL, CH60 4SD	309	1	Planning Permission
707500	The Dell, PRENTON HALL ROAD, PRENTON, CH43 3AE	293	28	Planning Permission
708200	23 SOUTH DRIVE, GAYTON, CH60 0BG	309	1	Planning Permission
708700	Windwhistle, 5 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission

708900	4 COOMBE ROAD, IRBY, CH61 4UR	310	1	Planning Permission
707800	Rosecroft, GALLOPERS LANE, THINGWALL, CH61 7YA	310	1	Planning Permission
709700	Silverdale Medical Centre, MOUNT AVENUE, HESWALL, CH60 4RH	309	7	Planning Permission
711200	Abbingdon House Residential Home, 43 THORNTON ROAD, HIGHER BEBINGTON, CH63 5PR	300	3	Planning Permission
666300	Heath Top, 29 TOWER ROAD NORTH, HESWALL, CH60 6RS	309	1	Planning Permission
711700	Heath Cottage, 1 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
711900	Little Mundens, 43 FARR HALL DRIVE, HESWALL, CH60 4SE	309	1	Planning Permission
708800	THE OLD MILL, MILL ROAD, THINGWALL, CH61 7UU	310	1	Planning Permission
712300	Field Head, MARINE DRIVE, HESWALL, CH60 9JJ	309	1	Planning Permission
717400	20 LYNTHURST ROAD, LISCARD, CH45 6XD	282	1	Planning Permission
708000	BEVERLY, 39 VYNER ROAD SOUTH, BIDSTON, CH43 7PT	289	1	Planning Permission
699700	7-9, Marquis Street, Tranmere, Birkenhead, CH41 9DU	109	1	Planning Permission
683500	Garage to the rear of 107 CHURCH ROAD, TRANMERE, CH42 5LF	109	1	Planning Permission
602700	Unused Land, 32 HARLAND ROAD, TRANMERE, CH42 0LU	109	1	Planning Permission
717200	Forest Hill, 22 Vyner Road South, Bidston, CH43 7PR	289	1	Planning Permission
715800	2 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
714600	13 CAITHNESS DRIVE, EGREMONT, CH45 7PN	281	1	Planning Permission
713900	62 SEAVIEW ROAD, LISCARD, CH45 4LB	280	1	Planning Permission
713500	Vacant Plot, HILL GROVE, Moreton, Wirral	314	1	Planning Permission
710800	45 WARREN DRIVE, NEW BRIGHTON, CH45 0JP	281	1	Planning Permission
709200	3 ST JOHNS ROAD, WALLASEY VILLAGE, CH45 3LU	283	1	Planning Permission
617300	Pier House, Tower Promenade, New Brighton	281	2	Planning Permission
700000	98 UPTON ROAD, CLAUGHTON, CH41 0DH	287	2	Planning Permission
691200	37 CLIFTON ROAD, TRANMERE, CH41 2SF	109	2	Planning Permission
687500	Land on Corner of HAMPDEN GROVE & CAERWYS GROVE, TRANMERE, CH42 5LL	109	2	Planning Permission
717000	Land at the corner of College Close and Third Avenue, Wirral, CH43 9XP	288	3	Planning Permission

716900	Land at corner of Corwen Close and Third Avenue., Wirral, CH43 9UX	288	3	Planning Permission
716800	Land at the corner of Charwood Close and Third Avenue, BEECHWOOD, CH43 9XF	288	3	Planning Permission
540500	Atlantic House, 18-22 HAMILTON SQUARE, BIRKENHEAD, CH41 1AL	107	3	Planning Permission
716700	Land at the corner of Caxton Close and Third Avenue, Beechwood, Wirral CH43 9XQ	288	4	Planning Permission
716600	Land at corner of Chantry Close and Third Avenue, Wirral, CH43 9EX	288	4	Planning Permission
708600	445 BROUGHAM ROAD, SEACOMBE	279	6	Planning Permission
715000	Land at 550-558 New Chester Road, Birkenhead, CH42 2AF	296	6	Planning Permission
679800	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	6	Planning Permission
585000	110 KING STREET, EGREMONT, CH44 8AW	279	6	Planning Permission
680800	Land on corner of WESTBOURNE ROAD & RIDLEY STREET, BIRKENHEAD, CH43 4TQ	290	9	Planning Permission
712600	STREET RECORD, GREENACRES CLOSE, BEECHWOOD	288	10	Planning Permission
667700	Land at the corner of Holt Road and Old Chester Road, Tranmere, Wirral	109	18	Planning Permission
710600	Rock Station Hotel, HIGHFIELD ROAD, ROCK FERRY, CH42 2BU	295	25	Planning Permission
685500	Eswa Club, 54-56 Park Rd South, Wirral, CH43 4UY	105	28	Planning Permission
715500	Holt Road, TRANMERE, CH41 9HQ	109	30	Planning Permission
713800	VACANT LAND BETWEEN WHEATLAND LANE, HAWTHORNE GROVE AND NEW STREET,	277	32	Planning Permission
671300	The Open Arms, BIDSTON AVENUE, CLAUGHTON, CH41 0BR	287	42	Planning Permission
691300	LAND AT CONWAY STREET, BIRKENHEAD, CH61 6EN	108	132	Planning Permission
716200	Land at the former Rock Ferry High School and Ravenswood, Highfield South, Rock Ferry, Wirral, CH42 4RQ	295	178	Planning Permission
717600	Ashton Court, Banks Road, West Kirby, CH48 0RJ	316	14	Planning Permission
683200	Braeside, 2 LANG LANE, WEST KIRBY, CH48 5HF	316	2	Planning Permission
714100	162 WOODCHURCH ROAD, OXTON, CH42 9LS	291	1	Planning Permission
695300	45 GRANGE CROSS LANE, NEWTON, CH48 8BJ	316	4	Planning Permission
678400	62 WHITFIELD LANE, HESWALL, CH60 7SB	309	1	Planning Permission
713200	2A GREEN LANE/259 WALLASEY VILLAGE	283	1	Planning Permission

639900	Corbiere, Thorsway, Caldy	311	1	Planning Permission
124200	Sawrey Knotts, 18 CROFT DRIVE, CALDY, CH48 2JW	311	1	Planning Permission
604100	44 Well Lane, Gayton	309	1	Planning Permission
675300	16 GORSE LANE, NEWTON, CH48 8BH	316	1	Planning Permission
637100	Coppins Hey, 8 Woodlands Drive, Barnston	310	2	Planning Permission
677300	Land to the rear of 171A POULTON ROAD, POULTON, CH44 9DG	278	4	Planning Permission
652900	Denecourt, 37 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	1	Planning Permission
656300	Flaybrick Hill Reservoir, Boundary Road, Bidston	290	1	Planning Permission
664800	LAND ADJACENT TO 5 MOUNT OLIVE, OXTON, WIRRAL CH43 5TT	292	2	Planning Permission
664400	Land adjacent to 1 HERON ROAD, MEOLS, CH47 9RU	316	1	Planning Permission
656200	Land Adjacent To 9 Acton Lane, Saughall Massie	314	1	Planning Permission
654600	Land Adjacent to Barnston Primary School, Sandham Grove, BARNSTON, WIRRAL, CH60 1XW	309	1	Planning Permission
660200	78 Dawstone Road, Gayton	309	2	Planning Permission
682400	Former Muldron, 52 CROFT DRIVE EAST, CALDY	311	1	Planning Permission
678900	Courtyard House, 9 DEE VIEW ROAD, HESWALL, CH60 0DJ	309	1	Planning Permission
663400	440 Pensby Road, Thingwall	310	1	Planning Permission
672200	Newhall BMW, CALDY ROAD, WEST KIRBY, CH48 2HE	311	6	Planning Permission
541900	55 Rock Lane West, Rock Ferry	296	19	Planning Permission
689400	37 BIDSTON VILLAGE ROAD, BIDSTON, CH43 7QT	288	1	Planning Permission
690800	Cherry Cottage, WALLRAKE, HESWALL, WIRRAL CH60 8QW	309	1	Planning Permission
607700	Continental Landscapes, Wharf Street, Port Sunlight	299	12	Planning Permission
684800	Grosvenor Court, GROSVENOR ROAD, HOYLAKES	316	5	Planning Permission
662900	Land To The Rear Of 33 Thurstaston Road, Irby	310	1	Planning Permission
680900	106 ALLPORT ROAD, BROMBOROUGH, CH62 6AQ	305	2	Planning Permission
689200	277 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission
653400	Unused Land, Park Street, Birkenhead	108	2	Planning Permission

687700	Angarra, 9 THE RIDGEWAY, GAYTON, CH60 8NB	309	1	Planning Permission
612500	East Farm Bungalow, 171 Caldý Road, Caldý	311	1	Planning Permission
561300	Royal Extrusions Aluminium, 99A Duke Street, Birkenhead	105	47	Planning Permission
686200	Land adjacent to Wyle Cop, 126 CALDY ROAD, CALDY, CH48 1LW	311	1	Planning Permission
623700	48 Moreton Road, Upton	313	2	Planning Permission
668700	Land to the rear of Veterinary Surgery, Geneva, 43 BIRKENHEAD ROAD, MEOLS, CH47 5AF	316	1	Planning Permission
566000	Unused Land, Beresford Road, Oxtón	290	2	Planning Permission
692000	10 BRANCOTE ROAD, OXTÓN, CH43 6TJ	290	6	Planning Permission
668600	The Sundial, 61 CALDY ROAD, CALDY, CH48 2HN	311	6	Planning Permission
652600	Land South Of , 6 Central Avenue, Bromborough	299	1	Planning Permission
658300	Land Adjacent To 3 Morpeth Road, Hoylake	316	1	Planning Permission
663800	Land Off Belmont Avenue, Bromborough	304	1	Planning Permission
602300	2 TARGET ROAD, HESWALL, CH60 9LD	309	1	Planning Permission
706800	The Croft, 6 PARK ROAD, BARNSTON, CH60 2S	309	1	Planning Permission
709100	land to the rear of 13 GREENHOW AVENUE, WEST KIRBY, CH48 5EL	316	1	Planning Permission
679500	Rear of 7 & 9 WEST ROAD, NOCTORUM, CH43 9RP	289	3	Planning Permission
717300	Wirral Business Park, Arrowe Brook Road, Upton, Wirral, CH49 1QZ	313	127	Planning Permission
653000	Sonning, 75 OLDFIELD DRIVE, HESWALL, CH60 9HB	309	2	Planning Permission
707100	10 WOOD LANE, GREASBY, CH49 2PT	312	1	Planning Permission
669000	2 BRYANSTON ROAD, PRENTON, CH42 8PU	293	1	Planning Permission
103100	Land on corner of Borough Road / Brighton Street.	279	19	Planning Permission
706400	Brynawel, 276 IRBY ROAD, IRBY, CH61 2XQ	310	1	Planning Permission
706200	Long Acre, GORSEFIELD AVENUE, EASTHAM, CH62 6BY	305	1	Planning Permission
714700	87A MARKET STREET, HOYLAKÉ, CH47 5AA	316	2	Planning Permission
713100	1A PINWOOD DRIVE, BARNSTON, CH60 2SD	309	1	Planning Permission
716500	155-157 NEW CHESTER ROAD, NEW FERRY	296	1	Planning Permission

713600	29 HARDIE AVENUE, MORETON, CH46 6BJ	314	1	Planning Permission
712800	33 & 35 WHITEHOUSE LANE, BARNSTON, CH60 1UD	309	7	Planning Permission
692400	11 LANG LANE, WEST KIRBY, CH48 5BW	316	3	Planning Permission
711600	Norwoods, 9 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
712700	Kingsmead School, BERTRAM DRIVE, MEOLS, CH47 0LL	316	25	Planning Permission
705100	Beverley, 16 BRIMSTAGE ROAD, BARNSTON, CH60 1XG	309	8	Planning Permission
712100	279 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission
709500	CLEARED SITE, BEAUFORT ROAD, BIRKENHEAD	287	178	Planning Permission
709300	Strathcraig, PHILLIPS WAY, HESWALL, CH60 4RT	309	2	Planning Permission
712200	15 CYPRESS CROFT, BEBINGTON, CH63 9FG	302	1	Planning Permission
690300	Land At Former Old Tavern Club, MAGAZINE LANE, NEW BRIGHTON CH45 5AD	281	14	Planning Permission

Table B.3: Forecast Housing per Site (dwellings) – Preferred 2025

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
SHLAA 4085	SHLAA 4085 - Sevenoaks Extra Care	296	0	Site Trajectory
SHLAA 4086	SHLAA 4086 - New Palace Amusements	281	0	Site Trajectory
SHLAA 4088	SHLAA 4088 - Maple Grove, Bromborough, Wirral	304	7	Site Trajectory
SHLAA 2016	SHLAA 2016 - Wilbraham Street Car Park	108	0	Site Trajectory
SHLAA 2013	SHLAA 2013 - Hamilton Building	108	0	Site Trajectory
SHLAA 20	SHLAA 0020 Former Grand Hotel, Marine Promenade	281	0	Site Trajectory
SHLAA 2068	SHLAA 2068 East of Typhoo, Moreton	315	100	Site Trajectory
SHLAA 689	SHLAA 0689 Gladstone Liberals, Dial Road, Tranmere	109	15	Site Trajectory
SHLAA 725	SHLAA 0725 Rear of 1 to 5 Broster Close, Moreton	314	15	Site Trajectory
SHLAA 758	SHLAA 0758 93 Chester Street, Birkenhead	107	10	Site Trajectory
SHLAA 916	SHLAA 0916 Land at Grange Hill Farm, West Kirby	316	35	Site Trajectory
SHLAA 996	SHLAA 0996 Former Christ Church, Park Road South, Birkenhead	105	4	Site Trajectory
SHLAA 1171	SHLAA 1171 Egerton Street Playground, New Brighton	281	7	Site Trajectory
SHLAA 1301	SHLAA 1301 Adjacent 1 Cholmondeley Road, West Kirby	316	1	Site Trajectory
SHLAA 5146	SHLAA 5146 Land at Twickenham Drive	315	35	Site Trajectory
SHLAA 1571	SHLAA 1571 Rear 3 to 17 Duncan Street, Birkenhead	107	0	Site Trajectory
SHLAA 1610	SHLAA 1610 Land at Civic Way, Bebington	302	60	Site Trajectory
SHLAA 1620	SHLAA 1620 Car Park, west of 22 Lorn Street, Birkenhead	108	0	Site Trajectory
SHLAA 1827	SHLAA 1827 Former Foxfield School, Moreton	314	70	Site Trajectory
SHLAA 1833	SHLAA 1833 43 Bebington Road, New Ferry	296	0	Site Trajectory
SHLAA 1908	SHLAA 1908 Former Arrowe Hill Primary School, Woodchurch	310	0	Site Trajectory
SHLAA 1974	SHLAA 1974 Eastham Youth Centre, Lyndale Avenue	305	15	Site Trajectory
SHLAA 2002	SHLAA 2002 Duncan Street Car Park, Birkenhead	107	0	Site Trajectory

SHLAA 2005	SHLAA 2005 Gibson House, Seabank Road, Egremont	279	15	Site Trajectory
SHLAA 2006	SHLAA 2006 Rear of Gibson House, Maddock Road, Egremont	279	87	Site Trajectory
SHLAA 2022	SHLAA 2022 Wallasey Town Hall North Annexe, Egremont	279	20	Site Trajectory
SHLAA 2023	SHLAA 2023 Wallasey Town Hall South Annexe, Egremont	279	45	Site Trajectory
SHLAA 2036	SHLAA 2036 Elgin Way Car Park, Birkenhead	108	0	Site Trajectory
SHLAA 2069	SHLAA 2069 Hinson Street Car Park	108	0	Site Trajectory
SHLAA 2014	SHLAA 2014 Conway Building, Birkenhead	108	0	Site Trajectory
SHLAA 1715	SHLAA 1715 Former MOD, Wirral International Business Park	306	0	Site Trajectory
SHLAA 2072	SHLAA 2072 Former Croda, Bromborough Pool	298	0	Site Trajectory
SHLAA 754	SHLAA 0754 Wirral Waters - Sky City	106	0	Site Trajectory
SHLAA 755	SHLAA 0755 Wirral Waters - Vittoria Studios	106	0	Site Trajectory
SHLAA 2078	SHLAA 2078 Wirral Waters - Northbank East (Urban splash)	106	70	Site Trajectory
SHLAA 2080	SHLAA 2080 Wirral Waters - Northbank East 3 (Tower Road)	106	0	Site Trajectory
SHLAA 2082	SHLAA 2082 Wirral Waters - Northbank West (Urban Splash)	106	110	Site Trajectory
SHLAA 3019	SHLAA 3019 Adjacent 65 Big Meadow Road, Woodchurch	313	2	Site Trajectory
SHLAA 4079	SHLAA 4079 Woodhead Street Car Park, New Ferry	296	0	Site Trajectory
SHLAA 3042	SHLAA 3042 Rear of Majestic Wine, Column Road, West Kirby	316	0	Site Trajectory
SHLAA 651	SHLAA 0651 Rear of the Lighthouse PH	283	0	Site Trajectory
SHLAA 4014	SHLAA 4014 THE STIRRUP , ARROWE PARK ROAD	310	15	Site Trajectory
SHLAA 4021	SHLAA 4021 Land off Dock Road South, Bromborough	298	100	Site Trajectory
SHLAA 4078	SHLAA 4078 Hind street	109	0	Site Trajectory
SHLAA 2008	SHLAA 2008 Moreton Family Centre	314	0	Site Trajectory
SHLAA 2007	SHLAA 1633 Pasture Road Car Park, Moreton	314	40	Site Trajectory
SHLAA 2010	SHLAA 2010 Moreton Municipal Building	314	10	Site Trajectory
SHLAA 4080	SHLAA 4080 Beington Road and Car Park	296	0	Site Trajectory
SHLAA 4090	SHLAA 4090 Unilever Research and Development Site, Port Sunlight	302	140	Site Trajectory
SHLAA 4094	SHLAA 4094 Methodist Church, Lower Bebington	302	2	Site Trajectory

SHLAA 5000	SHLAA 5000 Scott's Quay	277	0	Site Trajectory
SHLAA 5007	SHLAA 5007 25 CHURCH ROAD, UPTON, CH49 6JY	313	1	Site Trajectory
SHLAA 5008	SHLAA 5008 2 SHERWOOD GROVE, MEOLS, CH47 9SL	316	1	Site Trajectory
SHLAA 5009	SHLAA 5009 Atherton Hall, WESTBOURNE ROAD, BIRKENHEAD, CH43 4TG	105	15	Site Trajectory
SHLAA 5010	SHLAA 5010 30 SALACRE CRESCENT, UPTON, CH49 0UZ	313	1	Site Trajectory
SHLAA 5011	SHLAA 5011 79 DERWENT ROAD, HIGHER BEBINGTON, CH63 2LF	300	1	Site Trajectory
SHLAA 5006	SHLAA 5006 Cleared Site Grassed, OAKDALE ROAD, SEACOMBE, CH44 7HW	278	10	Site Trajectory
SHLAA 5012	SHLAA 5012 Old Manor Club, WITHENS LANE, LISCARD, CH45 7NF	281	10	Site Trajectory
SHLAA 5014	SHLAA 5014 Ridge Rowans, 25 WETSTONE LANE, WEST KIRBY, CH48 7HG	311	1	Site Trajectory
SHLAA 5015	SHLAA 5015 Heswall Gospel Hall Assembly Of Christian Breth, PENSBY ROAD, HESWALL, CH60 7RD	309	15	Site Trajectory
SHLAA 5016	SHLAA 5016 Clan Mo, 11 BUFFS LANE, BARNSTON, CH60 2SQ	309	5	Site Trajectory
SHLAA 5020	SHLAA 5020 Land adjoining Ashbourne House, MOUNT AVENUE, HESWALL, CH60 4RH	309	1	Site Trajectory
SHLAA 5024	SHLAA 5024 Land at the Rear of Birkenhead Community Fire Station, EXMOUTH STREET, BIRKENHEAD, CH41 4	105	3	Site Trajectory
SHLAA 5025	SHLAA 5025 Pinetree Cottage, 50 MORETON ROAD, UPTON, CH49 4NS	313	5	Site Trajectory
SHLAA 5026	SHLAA 5026 Willowbank, 33 OLDFIELD ROAD, HESWALL, CH60 6SN	309	5	Site Trajectory
SHLAA 5028	SHLAA 5028 34 DINGLE ROAD, TRANMERE, CH42 0JW	109	5	Site Trajectory
SHLAA 5029	SHLAA 5029 GREENBANK, 5 WITTERING LANE, HESWALL, CH60 9JL	309	1	Site Trajectory
SHLAA 5032	SHLAA 5032 Park Cottage, 130 ELEANOR ROAD, BIDSTON, CH43 7QS	288	2	Site Trajectory
SHLAA 5033	SHLAA 5033 Strathcraig, PHILLIPS WAY, HESWALL, CH60 4RT	309	2	Site Trajectory
SHLAA 5036	SHLAA 5036 Site of 78, 78A and 82 BEBINGTON ROAD, NEW FERRY, CH62 5AE	296	10	Site Trajectory
SHLAA 5039	SHLAA 5039 37 HILLSIDE ROAD, GAYTON, CH60 0BJ	309	1	Site Trajectory
SHLAA 5041	SHLAA 5041 174 BIRKENHEAD ROAD, MEOLS, CH47 0NE	316	2	Site Trajectory
SHLAA 5044	SHLAA 5044 5 THURSTASTON ROAD, IRBY, CH61 0HA	310	2	Site Trajectory

SHLAA 5054	SHLAA 5054 7 CALDY ROAD, WEST KIRBY, CH48 2HE	311	5	Site Trajectory
SHLAA 5055	SHLAA 5055 Beauty Within, 206 BIRKENHEAD ROAD, MEOLS, CH47 0NF	316	2	Site Trajectory
SHLAA 5145	SHLAA 5145 Cherry Tree, Liscard	280	0	Site Trajectory
SHLAA 5144	SHLAA 5144 Burns Avenue, Liscard	282	0	Site Trajectory
SHLAA 4083	SHLAA 4083 Pilgrim Street, Arts & Drama Centre, Gilbrook School	107	0	Site Trajectory
SHLAA 5019	SHLAA 5019 Sundial, 61 Caldý Road, Caldý, CH48 2HN	311	2	Site Trajectory
SHLAA 1864	SHLAA 1864 - Liscard Municipal	280	20	Site Trajectory
SHLAA 5156	WGC town centre Plot I	108	150	Site Trajectory
SHLAA 5157	WGC town centre Plot J	108	0	Site Trajectory
SHLAA 5155	WGC town centre Plot G	108	0	Site Trajectory
SHLAA 5154	WGC town centre Plot E	108	0	Site Trajectory
SHLAA DLS/18/00715	Wirra Waters Legacy	106	500	Site Trajectory
SHLAA APP/18/00470	Wirral Waters Belong	106	34	Site Trajectory
SHLAA APP/19/01061	Wirral Waters Urban Splash	106	30	Site Trajectory
SHLAA	Land North of Hind Street	108	0	Site Trajectory
SHLAA 4012	SHLAA 4012 Land at Riverside Park, Wirral International Business Park, Southwood Road, Bromborough,	306	0	Site Trajectory
SHLAA 218	SHLAA 0218 Former 65 to 67, Woodchurch Road, Prenton	291	5	Site Trajectory
RA7	Hamilton Park	105	0	Regeneration Areas
RA2	Scotts Quay	277	0	Regeneration Areas
RA1	Seacombe Riverside	279	0	Regeneration Areas
RA8	Northside	277	0	Regeneration Areas
RA4	Birkenhead Central	108	0	Regeneration Areas
RA6			0	Regeneration Areas
RA3	Waterfront	107	0	Regeneration Areas
RA5	Hind Street	109	0	Regeneration Areas
225100	Garden north of (adjacent), Hawkstone, Stanley Avenue, Higher Bebington. L63 5Q	293	3	Planning Permission

535300	W Redcliffe, 34 Wellington Rd, New Brighton	281	1	Planning Permission
411200	77-79 Thingwall Road, Irby	310	1	Planning Permission
587100	Former Site Of The Dell Primary School, The Dell	297	67	Planning Permission
604900	Wade Cottage, 10 Farr Hall Drive	309	1	Planning Permission
641800	Land To The Rear Of 24 Pine Walks, Prenton	293	6	Planning Permission
685600	1-11 LISCARD VILLAGE, & 2 SEAVIEW ROAD, LISCARD, WIRRAL CH45 4JG	280	6	Planning Permission
647100	Acme Plumbers, 41 Wright Street, Egremont	279	1	Planning Permission
672000	Orovaes, 135 CALDY ROAD, CALDY, CH48 1LP	311	2	Planning Permission
657900	Barncroft, Larchwood Close, Pensby	309	21	Planning Permission
659600	Rock Bottom, Kings Drive, Caldby	311	1	Planning Permission
662200	Land Off New Chester Road, Bromborough Wirral (Phase A)	298	8	Planning Permission
659100	Land Off Arrowe Park Road, Upton	313	12	Planning Permission
664100	Land Adjacent To 23 Nursery Close, Oxtan	291	1	Planning Permission
652300	3 Grammar School Lane, Newton, Ch48 8Ay	316	1	Planning Permission
637900	Morgen, Noctorum Road, Noctorum	289	2	Planning Permission
669400	230 GREASBY ROAD, GREASBY, CH49 2PW	312	1	Planning Permission
654100	Springfield, 34 Gorse Lane, Newton	316	1	Planning Permission
630900	Cedar Cottage, 10 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
668800	Heatherland Court Restaurant, 100 THURSTASTON ROAD, THURSTASTON, CH61 0HS	310	1	Planning Permission
679900	Six Acres, 75 COLUMN ROAD, NEWTON, CH48 1PX	316	1	Planning Permission
241500	48 BERYL ROAD, NOCTORUM, CH43 9RT	289	1	Planning Permission
674400	2 GIRTRELL ROAD, UPTON, CH49 4LQ	313	1	Planning Permission
674500	Land off Manor Drive, UPTON, WIRRAL, CH49 4NU	314	7	Planning Permission
658900	Electronic Surgery, 12A The Village, Bebington	300	2	Planning Permission
676700	Long Hay, 20 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
635500	Greenheys Nursery, 41 Thurstaston Road, Irby	310	1	Planning Permission
679400	LAND ADJACENT TO 3 DALE GARDENS, HESWALL, CH60 6TQ	309	1	Planning Permission
636500	71 Bebington Road, Rock Ferry	295	1	Planning Permission
663200	Dale End, 178 Barnston Road, Barnston	310	2	Planning Permission
403000	Woodland, SEVEN ACRES LANE, THINGWALL	310	4	Planning Permission
678100	The Co Operative Pharmacy, 20 VILLAGE ROAD, HESWALL, CH60 0DZ	309	2	Planning Permission
677900	THE GEORGE 57 VILLAGE ROAD, HIGHER BEBINGTON	300	1	Planning Permission
635700	42 Sparks Lane, Thingwall	310	1	Planning Permission

677200	LAND ADJACENT TO 123 LIVINGSTONE STREET, BIRKENHEAD, CH41 4HQ	105	1	Planning Permission
678700	The Overchurch, 129 ROYDEN ROAD, UPTON, CH49 4LY	313	6	Planning Permission
670900	5 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
679100	24 ACRES ROAD, BEBINGTON, CH63 7QQ	300	1	Planning Permission
679200	WHYTETHORNE, 74 CALDY ROAD, CALDY, CH48 2HW	311	1	Planning Permission
644200	Beech House, Noctorum Road, Noctorum	289	1	Planning Permission
680400	The Forge, LANG LANE SOUTH, WEST KIRBY, CH48 7EQ	316	2	Planning Permission
680100	7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	2	Planning Permission
638600	Car Park, Stringhey Road, Egremont	279	4	Planning Permission
545600	Copper Beech, 99 Eleanor Road, Bidston	288	8	Planning Permission
682100	LAND AT BEECHFIELD CLOSE, GAYTON, CH60 8PD	309	1	Planning Permission
683300	Land at CHURCH ROAD, WARRINGTON STREET, THOMPSON STREET & LIVERSIDGE ROAD, TRANMERE, CH42 5LD	109	12	Planning Permission
656100	Brackenwood, Column Road, Newton	311	1	Planning Permission
684300	2 BERYL ROAD, NOCTORUM, CH43 9RT	289	4	Planning Permission
685200	Burtens Foods, PASTURE ROAD, MORETON, CH46 8SE	315	199	Planning Permission
661200	Land Fronting Love Lane To The Rear Of Mill Lane, Liscard	280	23	Planning Permission
686100	50 WELLINGTON ROAD, NEW BRIGHTON, CH45 2NF	281	1	Planning Permission
123200	The Old Forge, 2 ACRE LANE, BARNSTON, CH60 1UW	309	1	Planning Permission
686700	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	9	Planning Permission
646800	65 Bidston Road, Oxtan	289	1	Planning Permission
660900	Fomer Cole Street Primary School, Cole Street, Birkenhead	105	11	Planning Permission
689300	Land Between 20 and 22 PARKLANDS DRIVE, GAYTON, CH60 3RU	309	1	Planning Permission
114800	Land adjacent to Oak Cottage, ST DAVIDS LANE, NOCTORUM, CH43 9UD	289	1	Planning Permission
703200	2 EDINBURGH DRIVE, PRENTON, CH43 0RL	293	1	Planning Permission
710100	rear of 87 RIDGEMERE ROAD, PENSBY, CH61 8RR	310	1	Planning Permission
647800	The Mushroom Farm Grange Old Road, West Kirby	316	1	Planning Permission
658400	Land At 46 Ford Road, Upton	313	2	Planning Permission
681900	BRIGHT SMILES DAY NURSERY, 2 MORPETH ROAD, HOYLAKE, CH47 4AT	316	1	Planning Permission
691000	Old Anselmians Rugby Club, EASTHAM VILLAGE ROAD, EASTHAM, CH62 0BJ	307	21	Planning Permission
691100	Recreational Open Space, ST PETERS MEWS, ROCK FERRY, Wirral, CH42 1RT	296	5	Planning Permission
658200	Gayton House, 46 Well Lane, Gayton	309	2	Planning Permission

691600	Land adjacent to 168 BOLTON ROAD EAST, NEW FERRY, WIRRAL, CH62 4RU	298	9	Planning Permission
691500	Site of lock up garages, MALLOWDALE CLOSE, EASTHAM	305	7	Planning Permission
692300	22-80 CLIFTON AVENUE, EASTHAM, CH62 9EQ	305	27	Planning Permission
692700	Land to the rear of Drayton, 46 CROFT DRIVE EAST, CALDY, CH48 1LS	311	2	Planning Permission
642100	LAND ADJACENT TO 8 RONE CLOSE, MORETON, CH46 0UF	314	6	Planning Permission
693000	Unused Land, 165 BEDFORD ROAD, ROCK FERRY, CH42 2AW	295	14	Planning Permission
693100	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission
693700	The Laird Sports Club 93, ST PETERS ROAD, ROCK FERRY	296	30	Planning Permission
693400	South Cottage, SOUTH VIEW, BROMBOROUGH, CH62 4UB	298	1	Planning Permission
693800	Woodville, RABY ROAD, RABY, CH63 4JR	308	8	Planning Permission
694700	Grangewood, 6 ANTHONYS WAY, GAYTON, CH60 0BP	309	1	Planning Permission
610600	Land between Darlington Street and Water Street, CHURCH STREET, EGREMONT, CH44 8AJ	279	10	Planning Permission
695000	The Paddock, NOCTORUM LANE, OXTON, CH43 9TZ	289	1	Planning Permission
695200	2 DONNE AVENUE, SPITAL, CH63 9YH	302	1	Planning Permission
695800	3 HILLSIDE ROAD, NEWTON, CH48 8BD	316	1	Planning Permission
695900	Land adj 71 DAWSTONE ROAD, GAYTON, CH60 8ND	309	1	Planning Permission
704800	Girtrell Court, 5 WOODPECKER CLOSE, UPTON, CH49 4QW	313	78	Planning Permission
647600	Green Gables, 7 Riverbank Road, Heswall	309	1	Planning Permission
667800	LAND ADJACENT TO 16 THE ESPLANADE, NEW FERRY, CH62 1EH	297	17	Planning Permission
678300	Land north-west of Netherset Hey, ARROWE BROOK LANE, IRBY, CH49 3NY	312	1	Planning Permission
696400	Arrowcroft, 79 THINGWALL ROAD EAST, IRBY, CH61 3UZ	310	1	Planning Permission
696900	Heath Grange, KINGS DRIVE, CALDY, CH48 2JF	311	1	Planning Permission
656700	Little Orchard, Hill Top Lane, Gayton	309	1	Planning Permission
697500	St Nicholas Vicarage, 22 GROVELAND ROAD, WALLASEY VILLAGE, CH45 8JY	283	2	Planning Permission
697300	Stonehill, Lower Garden at 3 Portland Street and Pilots Way, New Brighton, Wirral, CH45 2PA	281	1	Planning Permission
645500	Cleared Site, 15 NEW CHESTER ROAD, NEW FERRY, CH62 1DG	296	8	Planning Permission
697200	11 HEYGARTH ROAD, EASTHAM, CH62 8AQ	305	1	Planning Permission
697700	Colvend, Meols Parade, Meols, CH47 7AU	316	1	Planning Permission
697600	29 & 31 NORWICH DRIVE, UPTON, CH49 4QR	313	2	Planning Permission
697900	8 NETHERTON ROAD, MORETON, CH46 7TR	314	1	Planning Permission
698000	Cleared Site Grassed, OAKDALE ROAD, SEACOMBE, CH44 7HW	278	8	Planning Permission

702800	Storeton Hall Farm, LEVER CAUSEWAY, STORETON	301	27	Planning Permission
698300	Site at the junction of CHURCH STREET and LISCARD ROAD. EGREMONT, WALLASEY	279	10	Planning Permission
698500	Moodz Bar, 1 CHARING CROSS, BIRKENHEAD, CH41 6EJ	105	1	Planning Permission
698900	1-7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	9	Planning Permission
698800	Land between 36 & 52/54 Stanley Lane, Eastham, CH62 0AG	307	1	Planning Permission
699000	Elrig, 27 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	2	Planning Permission
652000	133 Kings Drive, Irby	310	1	Planning Permission
699300	Land at ACRE LANE AND MEADOWSIDE ROAD, BROMBOROUGH, CH62 7BX	305	217	Planning Permission
688300	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission
612000	SEACOMBE FERRY HOTEL, VICTORIA PLACE, SEACOMBE	277	28	Planning Permission
674900	Rosebrae Nursing Home, 8 SPITAL ROAD, BEBINGTON, CH63 9JE	302	12	Planning Permission
699600	EMBEES SHOWROOMS AND YARD, 31-41 MOUNT PLEASANT ROAD, NEW BRIGHTON, CH45 5LA	281	9	Planning Permission
700100	18-20 Grange Road West, Birkenhead, Wirral, CH41 4DA	105	2	Planning Permission
632800	Grange Villa, 1 Rocky Lane, Heswall	309	6	Planning Permission
700700	Intabene Manor, 170 UPTON ROAD, BIDSTON, CH43 7QQ	288	1	Planning Permission
700400	Land adj, 13 ELM TERRACE, HOYLAKE, CH47 3DH	316	1	Planning Permission
642300	53 BIRCH AVENUE, UPTON, CH49 4LS	313	1	Planning Permission
701600	Ha Pennyfield, NOCTORUM LANE, NOCTORUM, CH43 9UE	289	1	Planning Permission
701500	Former Riverside Day Centre, Duke Street, Birkenhead	105	13	Planning Permission
701700	Glenbank, 12 MILL HILL ROAD, IRBY, CH61 4UF	310	1	Planning Permission
702000	Land at corner of New Hey Road and Ferry Brow Road, Woodchurch, Wirral, CH49 8JN	313	18	Planning Permission
703300	Wreckers Cottage, 115 MARKET STREET, HOYLAKE, CH47 5AA	316	1	Planning Permission
703600	SANDHEY ROAD, MEOLS, CH47 5AX	316	2	Planning Permission
703500	4 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
703900	VACANT LAND AT GRASSWOOD ROAD, WOODCHURCH	313	14	Planning Permission
703800	FISHERS LANE, PENSBY, CH61 8SB	310	35	Planning Permission
655300	83 Saughall Massie Lane, Upton	313	1	Planning Permission
705400	Hopstick, 12A WHALEY LANE, IRBY, CH61 3UN	310	1	Planning Permission
705300	San Geran, COTTAGE DRIVE EAST, GAYTON, CH60 8NY	309	1	Planning Permission
705500	11 BEVERLEY DRIVE, GAYTON, CH60 3RP	309	1	Planning Permission

705900	Land at Delamere Avenue, Eastham, Wirral, CH62 9ED	305	12	Planning Permission
706000	Manor Farm, 130 BARNSTON ROAD, BARNSTON, CH61 1BT	310	2	Planning Permission
706500	48 SHAW STREET, HOYLAKE, CH47 2BN	316	1	Planning Permission
710000	Kingsmead, 6 CENTRAL AVENUE, BROMBOROUGH, CH62 2BT	299	2	Planning Permission
707300	Roselands, 16 CROFT DRIVE, CALDY, CH48 2JW	311	2	Planning Permission
600600	Unused Land, Village Road, Oxtan	291	9	Planning Permission
707200	45 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	1	Planning Permission
706900	Land off Saughall Massie Road, West Kirby, Wirral CH48 6DR	316	9	Planning Permission
707400	1 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	5	Planning Permission
707000	38 STANLEY ROAD, HOYLAKE, CH47 1HP	316	1	Planning Permission
707600	Pensby Hall Residential Home, 347 PENSBY ROAD, PENSBY, CH61 9NE	310	15	Planning Permission
707700	The Lyndale School, LYNDAL AVENUE, EASTHAM, CH62 8DE	305	28	Planning Permission
707900	Allandale Abbeyfield, FARR HALL ROAD, HESWALL, CH60 4SD	309	1	Planning Permission
707500	The Dell, PRENTON HALL ROAD, PRENTON, CH43 3AE	293	28	Planning Permission
708200	23 SOUTH DRIVE, GAYTON, CH60 0BG	309	1	Planning Permission
708700	Windwhistle, 5 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
708900	4 COOMBE ROAD, IRBY, CH61 4UR	310	1	Planning Permission
707800	Rosecroft, GALLOPERS LANE, THINGWALL, CH61 7YA	310	1	Planning Permission

709700	Silverdale Medical Centre, MOUNT AVENUE, HESWALL, CH60 4RH	309	7	Planning Permission
711200	Abbingdon House Residential Home, 43 THORNTON ROAD, HIGHER BEBINGTON, CH63 5PR	300	3	Planning Permission
666300	Heath Top, 29 TOWER ROAD NORTH, HESWALL, CH60 6RS	309	1	Planning Permission
711700	Heath Cottage, 1 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
711900	Little Mundens, 43 FARR HALL DRIVE, HESWALL, CH60 4SE	309	1	Planning Permission
708800	THE OLD MILL, MILL ROAD, THINGWALL, CH61 7UU	310	1	Planning Permission
712300	Field Head, MARINE DRIVE, HESWALL, CH60 9JJ	309	1	Planning Permission
717400	20 LYNDHURST ROAD, LISCARD, CH45 6XD	282	1	Planning Permission
708000	BEVERLY, 39 VYNER ROAD SOUTH, BIDSTON, CH43 7PT	289	1	Planning Permission
699700	7-9, Marquis Street, Tranmere, Birkenhead, CH41 9DU	109	1	Planning Permission
683500	Garage to the rear of 107 CHURCH ROAD, TRANMERE, CH42 5LF	109	1	Planning Permission
602700	Unused Land, 32 HARLAND ROAD, TRANMERE, CH42 0LU	109	1	Planning Permission
717200	Forest Hill, 22 Vyner Road South, Bidston, CH43 7PR	289	1	Planning Permission
715800	2 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
714600	13 CAITHNESS DRIVE, EGREMONT, CH45 7PN	281	1	Planning Permission
713900	62 SEAVIEW ROAD, LISCARD, CH45 4LB	280	1	Planning Permission
713500	Vacant Plot, HILL GROVE, Moreton, Wirral	314	1	Planning Permission
710800	45 WARREN DRIVE, NEW BRIGHTON, CH45 0JP	281	1	Planning Permission

709200	3 ST JOHNS ROAD, WALLASEY VILLAGE, CH45 3LU	283	1	Planning Permission
617300	Pier House, Tower Promenade, New Brighton	281	2	Planning Permission
700000	98 UPTON ROAD, CLAUGHTON, CH41 0DH	287	2	Planning Permission
691200	37 CLIFTON ROAD, TRANMERE, CH41 2SF	109	2	Planning Permission
687500	Land on Corner of HAMPDEN GROVE & CAERWYS GROVE, TRANMERE, CH42 5LL	109	2	Planning Permission
717000	Land at the corner of College Close and Third Avenue, Wirral, CH43 9XP	288	3	Planning Permission
716900	Land at corner of Corwen Close and Third Avenue., Wirral, CH43 9UX	288	3	Planning Permission
716800	Land at the corner of Charlwood Close and Third Avenue, BEECHWOOD, CH43 9XF	288	3	Planning Permission
540500	Atlantic House, 18-22 HAMILTON SQUARE, BIRKENHEAD, CH41 1AL	107	3	Planning Permission
716700	Land at the corner of Caxton Close and Third Avenue, Beechwood, Wirral CH43 9XQ	288	4	Planning Permission
716600	Land at corner of Chantry Close and Third Avenue, Wirral, CH43 9EX	288	4	Planning Permission
708600	445 BROUGHAM ROAD, SEACOMBE	279	6	Planning Permission
715000	Land at 550-558 New Chester Road, Birkenhead, CH42 2AF	296	6	Planning Permission
679800	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	6	Planning Permission
585000	110 KING STREET, EGREMONT, CH44 8AW	279	6	Planning Permission
680800	Land on corner of WESTBOURNE ROAD & RIDLEY STREET, BIRKENHEAD, CH43 4TQ	290	9	Planning Permission
712600	STREET RECORD, GREENACRES CLOSE, BEECHWOOD	288	10	Planning Permission
667700	Land at the corner of Holt Road and Old Chester Road, Tranmere, Wirral	109	18	Planning Permission

710600	Rock Station Hotel, HIGHFIELD ROAD, ROCK FERRY, CH42 2BU	295	25	Planning Permission
685500	Eswa Club, 54-56 Park Rd South, Wirral, CH43 4UY	105	28	Planning Permission
715500	Holt Road, TRANMERE, CH41 9HQ	109	30	Planning Permission
713800	VACANT LAND BETWEEN WHEATLAND LANE, HAWTHORNE GROVE AND NEW STREET,	277	32	Planning Permission
671300	The Open Arms, BIDSTON AVENUE, CLAUGHTON, CH41 0BR	287	42	Planning Permission
691300	LAND AT CONWAY STREET, BIRKENHEAD, CH61 6EN	108	132	Planning Permission
716200	Land at the former Rock Ferry High School and Ravenswood, Highfield South, Rock Ferry, Wirral, CH42 4RQ	295	84	Planning Permission
717600	Ashton Court, Banks Road, West Kirby, CH48 0RJ	316	14	Planning Permission
683200	Braeside, 2 LANG LANE, WEST KIRBY, CH48 5HF	316	2	Planning Permission
714100	162 WOODCHURCH ROAD, OXTON, CH42 9LS	291	1	Planning Permission
695300	45 GRANGE CROSS LANE, NEWTON, CH48 8BJ	316	4	Planning Permission
678400	62 WHITFIELD LANE, HESWALL, CH60 7SB	309	1	Planning Permission
713200	2A GREEN LANE/259 WALLASEY VILLAGE	283	1	Planning Permission
639900	Corbiere, Thorsway, Caldy	311	1	Planning Permission
124200	Sawrey Knotts, 18 CROFT DRIVE, CALDY, CH48 2JW	311	1	Planning Permission
604100	44 Well Lane, Gayton	309	1	Planning Permission
675300	16 GORSE LANE, NEWTON, CH48 8BH	316	1	Planning Permission
637100	Coppins Hey, 8 Woodlands Drive, Barnston	310	2	Planning Permission

677300	Land to the rear of 171A POULTON ROAD, POULTON, CH44 9DG	278	4	Planning Permission
652900	Denecourt, 37 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	1	Planning Permission
656300	Flaybrick Hill Reservoir, Boundary Road, Bidston	290	1	Planning Permission
664800	LAND ADJACENT TO 5 MOUNT OLIVE, OXTON, WIRRAL CH43 5TT	292	2	Planning Permission
664400	Land adjacent to 1 HERON ROAD, MEOLS, CH47 9RU	316	1	Planning Permission
656200	Land Adjacent To 9 Acton Lane, Saughall Massie	314	1	Planning Permission
654600	Land Adjacent to Barnston Primary School, Sandham Grove, BARNSTON, WIRRAL, CH60 1XW	309	1	Planning Permission
660200	78 Dawstone Road, Gayton	309	2	Planning Permission
682400	Former Muldron, 52 CROFT DRIVE EAST, CALDY	311	1	Planning Permission
678900	Courtyard House, 9 DEE VIEW ROAD, HESWALL, CH60 0DJ	309	1	Planning Permission
663400	440 Pensby Road, Thingwall	310	1	Planning Permission
672200	Newhall BMW, CALDY ROAD, WEST KIRBY, CH48 2HE	311	6	Planning Permission
541900	55 Rock Lane West, Rock Ferry	296	19	Planning Permission
689400	37 BIDSTON VILLAGE ROAD, BIDSTON, CH43 7QT	288	1	Planning Permission
690800	Cherry Cottage, WALLRAKE, HESWALL, WIRRAL CH60 8QW	309	1	Planning Permission
607700	Continental Landscapes, Wharf Street, Port Sunlight	299	12	Planning Permission
684800	Grosvenor Court, GROSVENOR ROAD, HOYLAKES	316	5	Planning Permission
662900	Land To The Rear Of 33 Thurstaston Road, Irby	310	1	Planning Permission

680900	106 ALLPORT ROAD, BROMBOROUGH, CH62 6AQ	305	2	Planning Permission
689200	277 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission
653400	Unused Land, Park Street, Birkenhead	108	2	Planning Permission
687700	Angarra, 9 THE RIDGEWAY, GAYTON, CH60 8NB	309	1	Planning Permission
612500	East Farm Bungalow, 171 Caldý Road, Caldý	311	1	Planning Permission
561300	Royal Extrusions Aluminium, 99A Duke Street, Birkenhead	105	47	Planning Permission
686200	Land adjacent to Wyle Cop, 126 CALDY ROAD, CALDY, CH48 1LW	311	1	Planning Permission
623700	48 Moreton Road, Upton	313	2	Planning Permission
668700	Land to the rear of Veterinary Surgery, Geneva, 43 BIRKENHEAD ROAD, MEOLS, CH47 5AF	316	1	Planning Permission
566000	Unused Land, Beresford Road, Oxtón	290	2	Planning Permission
692000	10 BRANCOTE ROAD, OXTÓN, CH43 6TJ	290	6	Planning Permission
668600	The Sundial, 61 CALDY ROAD, CALDY, CH48 2HN	311	6	Planning Permission
652600	Land South Of , 6 Central Avenue, Bromborough	299	1	Planning Permission
658300	Land Adjacent To 3 Morpeth Road, Hoylake	316	1	Planning Permission
663800	Land Off Belmont Avenue, Bromborough	304	1	Planning Permission
602300	2 TARGET ROAD, HESWALL, CH60 9LD	309	1	Planning Permission
706800	The Croft, 6 PARK ROAD, BARNSTON, CH60 2S	309	1	Planning Permission
709100	land to the rear of 13 GREENHOW AVENUE, WEST KIRBY, CH48 5EL	316	1	Planning Permission

679500	Rear of 7 & 9 WEST ROAD, NOCTORUM, CH43 9RP	289	3	Planning Permission
717300	Wirral Business Park, Arrowe Brook Road, Upton, Wirral, CH49 1QZ	313	50	Planning Permission
653000	Sonning, 75 OLDFIELD DRIVE, HESWALL, CH60 9HB	309	2	Planning Permission
707100	10 WOOD LANE, GREASBY, CH49 2PT	312	1	Planning Permission
669000	2 BRYANSTON ROAD, PRENTON, CH42 8PU	293	1	Planning Permission
103100	Land on corner of Borough Road / Brighton Street.	279	19	Planning Permission
706400	Brynawel, 276 IRBY ROAD, IRBY, CH61 2XQ	310	1	Planning Permission
706200	Long Acre, GORSEFIELD AVENUE, EASTHAM, CH62 6BY	305	1	Planning Permission
714700	87A MARKET STREET, HOYLAKES, CH47 5AA	316	2	Planning Permission
713100	1A PINWOOD DRIVE, BARNSTON, CH60 2SD	309	1	Planning Permission
716500	155-157 NEW CHESTER ROAD, NEW FERRY	296	1	Planning Permission
713600	29 HARDIE AVENUE, MORETON, CH46 6BJ	314	1	Planning Permission
712800	33 & 35 WHITEHOUSE LANE, BARNSTON, CH60 1UD	309	7	Planning Permission
692400	11 LANG LANE, WEST KIRBY, CH48 5BW	316	3	Planning Permission
711600	Norwoods, 9 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
712700	Kingsmead School, BERTRAM DRIVE, MEOLS, CH47 0LL	316	25	Planning Permission
705100	Beverley, 16 BRIMSTAGE ROAD, BARNSTON, CH60 1XG	309	8	Planning Permission
712100	279 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission

709500	CLEARED SITE, BEAUFORT ROAD, BIRKENHEAD	287	178	Planning Permission
709300	Strathcraig, PHILLIPS WAY, HESWALL, CH60 4RT	309	2	Planning Permission
712200	15 CYPRESS CROFT, BEBINGTON, CH63 9FG	302	1	Planning Permission
690300	Land At Former Old Tavern Club, MAGAZINE LANE, NEW BRIGHTON CH45 5AD	281	14	Planning Permission
	Former Pershore House School Playing Fields, GLENAVON ROAD, PRENTON	293	31	Planning Permission
	Unused Land (Grassed), MEADOWBROOK ROAD, MORETON	314	1	Planning Permission
	Rear of The Chase, NOCTORUM ROAD, NOCTORUM, CH43 9UQ	289	2	Planning Permission
	215-223 WALLASEY VILLAGE, WALLASEY, WIRRAL, CH45 3LG	283	10	Planning Permission
90200	Land at corner of MILL ROAD & Spital Road, BROMBOROUGH, CH62 2BH	299	5	Planning Permission
633400	Willow Cottage, BANKS ROAD, HESWALL, CH60 9JS	309	2	Planning Permission
677800	30 SHORE DRIVE, NEW FERRY, CH62 4RW	298	1	Planning Permission
692600	Hamilton Memorial UR Church, Upton Road, CLAUGHTON, CH41 0DE	290	27	Planning Permission
702900	26 CORNELIUS DRIVE, IRBY, CH61 9PR	310	7	Planning Permission
	The Blue Anchor, MARKET STREET, HOYLAKE, CH47 3BE	316	8	Planning Permission

Table B.4: Forecast Housing per Site (dwellings) – Preferred 2037

SHLAA Ref	Address	LCRTM Zone	Dwellings	Category
SHLAA 4085	SHLAA 4085 - Sevenoaks Extra Care	296	43	Site Trajectory
SHLAA 4086	SHLAA 4086 - New Palace Amusements	281	43	Site Trajectory
SHLAA 4088	SHLAA 4088 - Maple Grove, Bromborough, Wirral	304	7	Site Trajectory
SHLAA 2016	SHLAA 2016 - Wilbraham Street Car Park	108	0	Site Trajectory
SHLAA 2013	SHLAA 2013 - Hamilton Building	108	0	Site Trajectory
SHLAA 20	SHLAA 0020 Former Grand Hotel, Marine Promenade	281	8	Site Trajectory
SHLAA 2068	SHLAA 2068 East of Typhoo, Moreton	315	100	Site Trajectory
SHLAA 689	SHLAA 0689 Gladstone Liberals, Dial Road, Tranmere	109	15	Site Trajectory
SHLAA 725	SHLAA 0725 Rear of 1 to 5 Broster Close, Moreton	314	15	Site Trajectory
SHLAA 758	SHLAA 0758 93 Chester Street, Birkenhead	107	10	Site Trajectory
SHLAA 916	SHLAA 0916 Land at Grange Hill Farm, West Kirby	316	35	Site Trajectory
SHLAA 996	SHLAA 0996 Former Christ Church, Park Road South, Birkenhead	105	4	Site Trajectory
SHLAA 1171	SHLAA 1171 Egerton Street Playground, New Brighton	281	7	Site Trajectory
SHLAA 1301	SHLAA 1301 Adjacent 1 Cholmondeley Road, West Kirby	316	1	Site Trajectory
SHLAA 5146	SHLAA 5146 Land at Twickenham Drive	315	35	Site Trajectory
SHLAA 1571	SHLAA 1571 Rear 3 to 17 Duncan Street, Birkenhead	107	0	Site Trajectory
SHLAA 1610	SHLAA 1610 Land at Civic Way, Bebington	302	60	Site Trajectory
SHLAA 1620	SHLAA 1620 Car Park, west of 22 Lorn Street, Birkenhead	108	0	Site Trajectory
SHLAA 1827	SHLAA 1827 Former Foxfield School, Moreton	314	70	Site Trajectory
SHLAA 1833	SHLAA 1833 43 Bebington Road, New Ferry	296	10	Site Trajectory
SHLAA 1908	SHLAA 1908 Former Arrowe Hill Primary School, Woodchurch	310	5	Site Trajectory
SHLAA 1974	SHLAA 1974 Eastham Youth Centre, Lyndale Avenue	305	15	Site Trajectory
SHLAA 2002	SHLAA 2002 Duncan Street Car Park, Birkenhead	107	0	Site Trajectory

SHLAA 2005	SHLAA 2005 Gibson House, Seabank Road, Egremont	279	15	Site Trajectory
SHLAA 2006	SHLAA 2006 Rear of Gibson House, Maddock Road, Egremont	279	87	Site Trajectory
SHLAA 2022	SHLAA 2022 Wallasey Town Hall North Annexe, Egremont	279	20	Site Trajectory
SHLAA 2023	SHLAA 2023 Wallasey Town Hall South Annexe, Egremont	279	45	Site Trajectory
SHLAA 2036	SHLAA 2036 Elgin Way Car Park, Birkenhead	108	0	Site Trajectory
SHLAA 2069	SHLAA 2069 Hinson Street Car Park	108	0	Site Trajectory
SHLAA 2014	SHLAA 2014 Conway Building, Birkenhead	108	0	Site Trajectory
SHLAA 1715	SHLAA 1715 Former MOD, Wirral International Business Park	306	280	Site Trajectory
SHLAA 2072	SHLAA 2072 Former Croda, Bromborough Pool	298	100	Site Trajectory
SHLAA 754	SHLAA 0754 Wirral Waters - Sky City	106	600	Site Trajectory
SHLAA 755	SHLAA 0755 Wirral Waters - Vittoria Studios	106	1600	Site Trajectory
SHLAA 2078	SHLAA 2078 Wirral Waters - Northbank East (Urban splash)	106	90	Site Trajectory
SHLAA 2080	SHLAA 2080 Wirral Waters - Northbank East 3 (Tower Road)	106	150	Site Trajectory
SHLAA 2082	SHLAA 2082 Wirral Waters - Northbank West (Urban Splash)	106	230	Site Trajectory
SHLAA 3019	SHLAA 3019 Adjacent 65 Big Meadow Road, Woodchurch	313	2	Site Trajectory
SHLAA 4079	SHLAA 4079 Woodhead Street Car Park, New Ferry	296	45	Site Trajectory
SHLAA 3042	SHLAA 3042 Rear of Majestic Wine, Column Road, West Kirby	316	5	Site Trajectory
SHLAA 651	SHLAA 0651 Rear of the Lighthouse PH	283	10	Site Trajectory
SHLAA 4014	SHLAA 4014 THE STIRRUP , ARROWE PARK ROAD	310	15	Site Trajectory
SHLAA 4021	SHLAA 4021 Land off Dock Road South, Bromborough	298	1300	Site Trajectory
SHLAA 4078	SHLAA 4078 Hind street	109	345	Site Trajectory
SHLAA 2008	SHLAA 2008 Moreton Family Centre	314	60	Site Trajectory
SHLAA 2007	SHLAA 1633 Pasture Road Car Park, Moreton	314	40	Site Trajectory
SHLAA 2010	SHLAA 2010 Moreton Municipal Building	314	10	Site Trajectory
SHLAA 4080	SHLAA 4080 Beington Road and Car Park	296	25	Site Trajectory
SHLAA 4090	SHLAA 4090 Unilever Research and Development Site, Port Sunlight	302	140	Site Trajectory
SHLAA 4094	SHLAA 4094 Methodist Church, Lower Bebington	302	2	Site Trajectory

SHLAA 5000	SHLAA 5000 Scott's Quay	277	200	Site Trajectory
SHLAA 5007	SHLAA 5007 25 CHURCH ROAD, UPTON, CH49 6JY	313	1	Site Trajectory
SHLAA 5008	SHLAA 5008 2 SHERWOOD GROVE, MEOLS, CH47 9SL	316	1	Site Trajectory
SHLAA 5009	SHLAA 5009 Atherton Hall, WESTBOURNE ROAD, BIRKENHEAD, CH43 4TG	105	15	Site Trajectory
SHLAA 5010	SHLAA 5010 30 SALACRE CRESCENT, UPTON, CH49 0UZ	313	1	Site Trajectory
SHLAA 5011	SHLAA 5011 79 DERWENT ROAD, HIGHER BEBINGTON, CH63 2LF	300	1	Site Trajectory
SHLAA 5006	SHLAA 5006 Cleared Site Grassed, OAKDALE ROAD, SEACOMBE, CH44 7HW	278	10	Site Trajectory
SHLAA 5012	SHLAA 5012 Old Manor Club, WITHENS LANE, LISCARD, CH45 7NF	281	10	Site Trajectory
SHLAA 5014	SHLAA 5014 Ridge Rowans, 25 WETSTONE LANE, WEST KIRBY, CH48 7HG	311	1	Site Trajectory
SHLAA 5015	SHLAA 5015 Heswall Gospel Hall Assembly Of Christian Breth, PENSBY ROAD, HESWALL, CH60 7RD	309	15	Site Trajectory
SHLAA 5016	SHLAA 5016 Clan Mo, 11 BUFFS LANE, BARNSTON, CH60 2SQ	309	5	Site Trajectory
SHLAA 5020	SHLAA 5020 Land adjoining Ashbourne House, MOUNT AVENUE, HESWALL, CH60 4RH	309	1	Site Trajectory
SHLAA 5024	SHLAA 5024 Land at the Rear of Birkenhead Community Fire Station, EXMOUTH STREET, BIRKENHEAD, CH41 4	105	3	Site Trajectory
SHLAA 5025	SHLAA 5025 Pinetree Cottage, 50 MORETON ROAD, UPTON, CH49 4NS	313	5	Site Trajectory
SHLAA 5026	SHLAA 5026 Willowbank, 33 OLDFIELD ROAD, HESWALL, CH60 6SN	309	5	Site Trajectory
SHLAA 5028	SHLAA 5028 34 DINGLE ROAD, TRANMERE, CH42 0JW	109	5	Site Trajectory
SHLAA 5029	SHLAA 5029 GREENBANK, 5 WITTERING LANE, HESWALL, CH60 9JL	309	1	Site Trajectory
SHLAA 5032	SHLAA 5032 Park Cottage, 130 ELEANOR ROAD, BIDSTON, CH43 7QS	288	2	Site Trajectory
SHLAA 5033	SHLAA 5033 Strathcraig, PHILLIPS WAY, HESWALL, CH60 4RT	309	2	Site Trajectory
SHLAA 5036	SHLAA 5036 Site of 78, 78A and 82 BEBINGTON ROAD, NEW FERRY, CH62 5AE	296	10	Site Trajectory
SHLAA 5039	SHLAA 5039 37 HILLSIDE ROAD, GAYTON, CH60 0BJ	309	1	Site Trajectory
SHLAA 5041	SHLAA 5041 174 BIRKENHEAD ROAD, MEOLS, CH47 0NE	316	2	Site Trajectory

SHLAA 5044	SHLAA 5044 5 THURSTASTON ROAD, IRBY, CH61 0HA	310	2	Site Trajectory
SHLAA 5054	SHLAA 5054 7 CALDY ROAD, WEST KIRBY, CH48 2HE	311	5	Site Trajectory
SHLAA 5055	SHLAA 5055 Beauty Within, 206 BIRKENHEAD ROAD, MEOLS, CH47 0NF	316	2	Site Trajectory
SHLAA 5145	SHLAA 5145 Cherry Tree, Liscard	280	105	Site Trajectory
SHLAA 5144	SHLAA 5144 Burns Avenue, Liscard	282	65	Site Trajectory
SHLAA 4083	SHLAA 4083 Pilgrim Street, Arts & Drama Centre, Gilbrook School	107	15	Site Trajectory
SHLAA 5019	SHLAA 5019 Sundial, 61 Caldý Road, Caldý, CH48 2HN	311	2	Site Trajectory
SHLAA 1864	SHLAA 1864 - Liscard Municipal	280	20	Site Trajectory
SHLAA 5156	WGC town centre Plot I	108	160	Site Trajectory
SHLAA 5157	WGC town centre Plot J	108	45	Site Trajectory
SHLAA 5155	WGC town centre Plot G	108	280	Site Trajectory
SHLAA 5154	WGC town centre Plot E	108	170	Site Trajectory
SHLAA DLS/18/00715	Wirra Waters Legacy	106	500	Site Trajectory
SHLAA APP/18/00470	Wirral Waters Belong	106	34	Site Trajectory
SHLAA APP/19/01061	Wirral Waters Urban Splash	106	30	Site Trajectory
SHLAA	Land North of Hind Street	108	395	Site Trajectory
SHLAA 4012	SHLAA 4012 Land at Riverside Park, Wirral International Business Park, Southwood Road, Bromborough,	306	320	Site Trajectory
SHLAA 218	SHLAA 0218 Former 65 to 67, Woodchurch Road, Prenton	291	5	Site Trajectory
RA7	Hamilton Park	105	1200	Regeneration Areas
RA2	Scotts Quay	277	580	Regeneration Areas
RA1	Seacombe Riverside	279	435	Regeneration Areas
RA8	Northside	277	0	Regeneration Areas
RA4	Birkenhead Central	108	1100	Regeneration Areas
RA6			0	Regeneration Areas
RA3	Waterfront	107	1100	Regeneration Areas
RA5	Hind Street	109	10	Regeneration Areas

225100	Garden north of (adjacent), Hawkstone, Stanley Avenue, Higher Bebington. L63 5Q	293	3	Planning Permission
535300	W Redcliffe, 34 Wellington Rd, New Brighton	281	1	Planning Permission
411200	77-79 Thingwall Road, Irby	310	1	Planning Permission
587100	Former Site Of The Dell Primary School, The Dell	297	67	Planning Permission
604900	Wade Cottage, 10 Farr Hall Drive	309	1	Planning Permission
641800	Land To The Rear Of 24 Pine Walks, Prenton	293	6	Planning Permission
685600	1-11 LISCARD VILLAGE, & 2 SEAVIEW ROAD, LISCARD, WIRRAL CH45 4JG	280	6	Planning Permission
647100	Acme Plumbers, 41 Wright Street, Egremont	279	1	Planning Permission
672000	Orovaes, 135 CALDY ROAD, CALDY, CH48 1LP	311	2	Planning Permission
657900	Barncroft, Larchwood Close, Pensby	309	21	Planning Permission
659600	Rock Bottom, Kings Drive, Caldby	311	1	Planning Permission
662200	Land Off New Chester Road, Bromborough Wirral (Phase A)	298	8	Planning Permission
659100	Land Off Arrowe Park Road, Upton	313	12	Planning Permission
664100	Land Adjacent To 23 Nursery Close, Oxtan	291	1	Planning Permission
652300	3 Grammar School Lane, Newton, Ch48 8Ay	316	1	Planning Permission
637900	Morgen, Noctorum Road, Noctorum	289	2	Planning Permission
669400	230 GREASBY ROAD, GREASBY, CH49 2PW	312	1	Planning Permission
654100	Springfield, 34 Gorse Lane, Newton	316	1	Planning Permission

630900	Cedar Cottage, 10 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
668800	Heatherland Court Restaurant, 100 THURSTASTON ROAD, THURSTASTON, CH61 0HS	310	1	Planning Permission
679900	Six Acres, 75 COLUMN ROAD, NEWTON, CH48 1PX	316	1	Planning Permission
241500	48 BERYL ROAD, NOCTORUM, CH43 9RT	289	1	Planning Permission
674400	2 GIRTRELL ROAD, UPTON, CH49 4LQ	313	1	Planning Permission
674500	Land off Manor Drive, UPTON, WIRRAL, CH49 4NU	314	7	Planning Permission
658900	Electronic Surgery, 12A The Village, Bebington	300	2	Planning Permission
676700	Long Hay, 20 CROFT DRIVE WEST, CALDY, CH48 2JG	311	1	Planning Permission
635500	Greenheys Nursery, 41 Thurstaston Road, Irby	310	1	Planning Permission
679400	LAND ADJACENT TO 3 DALE GARDENS, HESWALL, CH60 6TQ	309	1	Planning Permission
636500	71 Bebington Road, Rock Ferry	295	1	Planning Permission
663200	Dale End, 178 Barnston Road, Barnston	310	2	Planning Permission
403000	Woodland, SEVEN ACRES LANE, THINGWALL	310	4	Planning Permission
678100	The Co Operative Pharmacy, 20 VILLAGE ROAD, HESWALL, CH60 0DZ	309	2	Planning Permission
677900	THE GEORGE 57 VILLAGE ROAD, HIGHER BEBINGTON	300	1	Planning Permission
635700	42 Sparks Lane, Thingwall	310	1	Planning Permission
677200	LAND ADJACENT TO 123 LIVINGSTONE STREET, BIRKENHEAD, CH41 4HQ	105	1	Planning Permission
678700	The Overchurch, 129 ROYDEN ROAD, UPTON, CH49 4LY	313	6	Planning Permission

670900	5 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
679100	24 ACRES ROAD, BEBINGTON, CH63 7QQ	300	1	Planning Permission
679200	WHYTETHORNE, 74 CALDY ROAD, CALDY, CH48 2HW	311	1	Planning Permission
644200	Beech House, Noctorum Road, Noctorum	289	1	Planning Permission
680400	The Forge, LANG LANE SOUTH, WEST KIRBY, CH48 7EQ	316	2	Planning Permission
680100	7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	2	Planning Permission
638600	Car Park, Stringhey Road, Egremont	279	4	Planning Permission
545600	Copper Beech, 99 Eleanor Road, Bidston	288	8	Planning Permission
682100	LAND AT BEECHFIELD CLOSE, GAYTON, CH60 8PD	309	1	Planning Permission
683300	Land at CHURCH ROAD, WARRINGTON STREET, THOMPSON STREET & LIVERSIDGE ROAD, TRANMERE, CH42 5LD	109	12	Planning Permission
656100	Brackenwood, Column Road, Newton	311	1	Planning Permission
684300	2 BERYL ROAD, NOCTORUM, CH43 9RT	289	4	Planning Permission
685200	Burtens Foods, PASTURE ROAD, MORETON, CH46 8SE	315	299	Planning Permission
661200	Land Fronting Love Lane To The Rear Of Mill Lane, Liscard	280	23	Planning Permission
686100	50 WELLINGTON ROAD, NEW BRIGHTON, CH45 2NF	281	1	Planning Permission
123200	The Old Forge, 2 ACRE LANE, BARNSTON, CH60 1UW	309	1	Planning Permission
686700	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	9	Planning Permission
646800	65 Bidston Road, Oxtown	289	1	Planning Permission

660900	Fomer Cole Street Primary School, Cole Street, Birkenhead	105	11	Planning Permission
689300	Land Between 20 and 22 PARKLANDS DRIVE, GAYTON, CH60 3RU	309	1	Planning Permission
114800	Land adjacent to Oak Cottage, ST DAVIDS LANE, NOCTORUM, CH43 9UD	289	1	Planning Permission
703200	2 EDINBURGH DRIVE, PRENTON, CH43 0RL	293	1	Planning Permission
710100	rear of 87 RIDGEMERE ROAD, PENSBY, CH61 8RR	310	1	Planning Permission
647800	The Mushroom Farm Grange Old Road, West Kirby	316	1	Planning Permission
658400	Land At 46 Ford Road, Upton	313	2	Planning Permission
681900	BRIGHT SMILES DAY NURSERY, 2 MORPETH ROAD, HOYLAKE, CH47 4AT	316	1	Planning Permission
691000	Old Anselmians Rugby Club, EASTHAM VILLAGE ROAD, EASTHAM, CH62 0BJ	307	21	Planning Permission
691100	Recreational Open Space, ST PETERS MEWS, ROCK FERRY, Wirral, CH42 1RT	296	5	Planning Permission
658200	Gayton House, 46 Well Lane, Gayton	309	2	Planning Permission
691600	Land adjacent to 168 BOLTON ROAD EAST, NEW FERRY, WIRRAL, CH62 4RU	298	9	Planning Permission
691500	Site of lock up garages, MALLOWDALE CLOSE, EASTHAM	305	7	Planning Permission
692300	22-80 CLIFTON AVENUE, EASTHAM, CH62 9EQ	305	27	Planning Permission
692700	Land to the rear of Drayton, 46 CROFT DRIVE EAST, CALDY, CH48 1LS	311	2	Planning Permission
642100	LAND ADJACENT TO 8 RONE CLOSE, MORETON, CH46 0UF	314	6	Planning Permission
693000	Unused Land, 165 BEDFORD ROAD, ROCK FERRY, CH42 2AW	295	14	Planning Permission
693100	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission

693700	The Laird Sports Club 93, ST PETERS ROAD, ROCK FERRY	296	30	Planning Permission
693400	South Cottage, SOUTH VIEW, BROMBOROUGH, CH62 4UB	298	1	Planning Permission
693800	Woodville, RABY ROAD, RABY, CH63 4JR	308	8	Planning Permission
694700	Grangewood, 6 ANTHONYS WAY, GAYTON, CH60 0BP	309	1	Planning Permission
610600	Land between Darlington Street and Water Street, CHURCH STREET, EGREMONT, CH44 8AJ	279	10	Planning Permission
695000	The Paddock, NOCTORUM LANE, OXTON, CH43 9TZ	289	1	Planning Permission
695200	2 DONNE AVENUE, SPITAL, CH63 9YH	302	1	Planning Permission
695800	3 HILLSIDE ROAD, NEWTON, CH48 8BD	316	1	Planning Permission
695900	Land adj 71 DAWSTONE ROAD, GAYTON, CH60 8ND	309	1	Planning Permission
704800	Girtrell Court, 5 WOODPECKER CLOSE, UPTON, CH49 4QW	313	78	Planning Permission
647600	Green Gables, 7 Riverbank Road, Heswall	309	1	Planning Permission
667800	LAND ADJACENT TO 16 THE ESPLANADE, NEW FERRY, CH62 1EH	297	17	Planning Permission
678300	Land north-west of Netherset Hey, ARROWE BROOK LANE, IRBY, CH49 3NY	312	1	Planning Permission
696400	Arrowcroft, 79 THINGWALL ROAD EAST, IRBY, CH61 3UZ	310	1	Planning Permission
696900	Heath Grange, KINGS DRIVE, CALDY, CH48 2JF	311	1	Planning Permission
656700	Little Orchard, Hill Top Lane, Gayton	309	1	Planning Permission
697500	St Nicholas Vicarage, 22 GROVELAND ROAD, WALLASEY VILLAGE, CH45 8JY	283	2	Planning Permission
697300	Stonehill, Lower Garden at 3 Portland Street and Pilots Way, New Brighton, Wirral, CH45 2PA	281	1	Planning Permission

645500	Cleared Site, 15 NEW CHESTER ROAD, NEW FERRY, CH62 1DG	296	8	Planning Permission
697200	11 HEYGARTH ROAD, EASTHAM, CH62 8AQ	305	1	Planning Permission
697700	Colvend, Meols Parade, Meols, CH47 7AU	316	1	Planning Permission
697600	29 & 31 NORWICH DRIVE, UPTON, CH49 4QR	313	2	Planning Permission
697900	8 NETHERTON ROAD, MORETON, CH46 7TR	314	1	Planning Permission
698000	Cleared Site Grassed, OAKDALE ROAD, SEACOMBE, CH44 7HW	278	8	Planning Permission
702800	Storeton Hall Farm, LEVER CAUSEWAY, STORETON	301	27	Planning Permission
698300	Site at the junction of CHURCH STREET and LISCARD ROAD. EGREMONT, WALLASEY	279	10	Planning Permission
698500	Moodz Bar, 1 CHARING CROSS, BIRKENHEAD, CH41 6EJ	105	1	Planning Permission
698900	1-7 LEASOWE ROAD, WALLASEY VILLAGE, CH44 2BY	283	9	Planning Permission
698800	Land between 36 & 52/54 Stanley Lane, Eastham, CH62 0AG	307	1	Planning Permission
699000	Elrig, 27 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	2	Planning Permission
652000	133 Kings Drive, Irby	310	1	Planning Permission
699300	Land at ACRE LANE AND MEADOWSIDE ROAD, BROMBOROUGH, CH62 7BX	305	217	Planning Permission
688300	Conifers, 24 KYLEMORE DRIVE, PENSBY, CH61 6YF	310	1	Planning Permission
612000	SEACOMBE FERRY HOTEL, VICTORIA PLACE, SEACOMBE	277	28	Planning Permission
674900	Rosebrae Nursing Home, 8 SPITAL ROAD, BEBINGTON, CH63 9JE	302	12	Planning Permission
699600	EMBEES SHOWROOMS AND YARD, 31-41 MOUNT PLEASANT ROAD, NEW BRIGHTON, CH45 5LA	281	9	Planning Permission

700100	18-20 Grange Road West, Birkenhead, Wirral, CH41 4DA	105	2	Planning Permission
632800	Grange Villa, 1 Rocky Lane, Heswall	309	6	Planning Permission
700700	Intabene Manor, 170 UPTON ROAD, BIDSTON, CH43 7QQ	288	1	Planning Permission
700400	Land adj, 13 ELM TERRACE, HOYLAK, CH47 3DH	316	1	Planning Permission
642300	53 BIRCH AVENUE, UPTON, CH49 4LS	313	1	Planning Permission
701600	Ha Pennyfield, NOCTORUM LANE, NOCTORUM, CH43 9UE	289	1	Planning Permission
701500	Former Riverside Day Centre, Duke Street, Birkenhead	105	13	Planning Permission
701700	Glenbank, 12 MILL HILL ROAD, IRBY, CH61 4UF	310	1	Planning Permission
702000	Land at corner of New Hey Road and Ferry Brow Road, Woodchurch, Wirral, CH49 8JN	313	18	Planning Permission
703300	Wreckers Cottage, 115 MARKET STREET, HOYLAK, CH47 5AA	316	1	Planning Permission
703600	SANDHEY ROAD, MEOLS, CH47 5AX	316	2	Planning Permission
703500	4 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
703900	VACANT LAND AT GRASSWOOD ROAD, WOODCHURCH	313	14	Planning Permission
703800	FISHERS LANE, PENSBY, CH61 8SB	310	35	Planning Permission
655300	83 Saughall Massie Lane, Upton	313	1	Planning Permission
705400	Hopstick, 12A WHALEY LANE, IRBY, CH61 3UN	310	1	Planning Permission
705300	San Geran, COTTAGE DRIVE EAST, GAYTON, CH60 8NY	309	1	Planning Permission
705500	11 BEVERLEY DRIVE, GAYTON, CH60 3RP	309	1	Planning Permission

705900	Land at Delamere Avenue, Eastham, Wirral, CH62 9ED	305	12	Planning Permission
706000	Manor Farm, 130 BARNSTON ROAD, BARNSTON, CH61 1BT	310	2	Planning Permission
706500	48 SHAW STREET, HOYLAK, CH47 2BN	316	1	Planning Permission
710000	Kingsmead, 6 CENTRAL AVENUE, BROMBOROUGH, CH62 2BT	299	2	Planning Permission
707300	Roselands, 16 CROFT DRIVE, CALDY, CH48 2JW	311	2	Planning Permission
600600	Unused Land, Village Road, Oxton	291	9	Planning Permission
707200	45 MOUNT ROAD, WEST KIRBY, CH48 2HH	311	1	Planning Permission
706900	Land off Saughall Massie Road, West Kirby, Wirral CH48 6DR	316	9	Planning Permission
707400	1 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	5	Planning Permission
707000	38 STANLEY ROAD, HOYLAK, CH47 1HP	316	1	Planning Permission
707600	Pensby Hall Residential Home, 347 PENSBY ROAD, PENSBY, CH61 9NE	310	15	Planning Permission
707700	The Lyndale School, LYNDAL AVENUE, EASTHAM, CH62 8DE	305	28	Planning Permission
707900	Allandale Abbeyfield, FARR HALL ROAD, HESWALL, CH60 4SD	309	1	Planning Permission
707500	The Dell, PRENTON HALL ROAD, PRENTON, CH43 3AE	293	28	Planning Permission
708200	23 SOUTH DRIVE, GAYTON, CH60 0BG	309	1	Planning Permission
708700	Windwhistle, 5 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
708900	4 COOMBE ROAD, IRBY, CH61 4UR	310	1	Planning Permission
707800	Rosecroft, GALLOPERS LANE, THINGWALL, CH61 7YA	310	1	Planning Permission

709700	Silverdale Medical Centre, MOUNT AVENUE, HESWALL, CH60 4RH	309	7	Planning Permission
711200	Abbington House Residential Home, 43 THORNTON ROAD, HIGHER BEBINGTON, CH63 5PR	300	3	Planning Permission
666300	Heath Top, 29 TOWER ROAD NORTH, HESWALL, CH60 6RS	309	1	Planning Permission
711700	Heath Cottage, 1 UPLANDS ROAD, BROMBOROUGH, CH62 2BY	299	1	Planning Permission
711900	Little Mundens, 43 FARR HALL DRIVE, HESWALL, CH60 4SE	309	1	Planning Permission
708800	THE OLD MILL, MILL ROAD, THINGWALL, CH61 7UU	310	1	Planning Permission
712300	Field Head, MARINE DRIVE, HESWALL, CH60 9JJ	309	1	Planning Permission
717400	20 LYNDHURST ROAD, LISCARD, CH45 6XD	282	1	Planning Permission
708000	BEVERLY, 39 VYNER ROAD SOUTH, BIDSTON, CH43 7PT	289	1	Planning Permission
699700	7-9, Marquis Street, Tranmere, Birkenhead, CH41 9DU	109	1	Planning Permission
683500	Garage to the rear of 107 CHURCH ROAD, TRANMERE, CH42 5LF	109	1	Planning Permission
602700	Unused Land, 32 HARLAND ROAD, TRANMERE, CH42 0LU	109	1	Planning Permission
717200	Forest Hill, 22 Vyner Road South, Bidston, CH43 7PR	289	1	Planning Permission
715800	2 HOPFIELD ROAD, MORETON, CH46 9RH	314	1	Planning Permission
714600	13 CAITHNESS DRIVE, EGREMONT, CH45 7PN	281	1	Planning Permission
713900	62 SEAVIEW ROAD, LISCARD, CH45 4LB	280	1	Planning Permission
713500	Vacant Plot, HILL GROVE, Moreton, Wirral	314	1	Planning Permission
710800	45 WARREN DRIVE, NEW BRIGHTON, CH45 0JP	281	1	Planning Permission

709200	3 ST JOHNS ROAD, WALLASEY VILLAGE, CH45 3LU	283	1	Planning Permission
617300	Pier House, Tower Promenade, New Brighton	281	2	Planning Permission
700000	98 UPTON ROAD, CLAUGHTON, CH41 0DH	287	2	Planning Permission
691200	37 CLIFTON ROAD, TRANMERE, CH41 2SF	109	2	Planning Permission
687500	Land on Corner of HAMPDEN GROVE & CAERWYS GROVE, TRANMERE, CH42 5LL	109	2	Planning Permission
717000	Land at the corner of College Close and Third Avenue, Wirral, CH43 9XP	288	3	Planning Permission
716900	Land at corner of Corwen Close and Third Avenue., Wirral, CH43 9UX	288	3	Planning Permission
716800	Land at the corner of Charlwood Close and Third Avenue, BEECHWOOD, CH43 9XF	288	3	Planning Permission
540500	Atlantic House, 18-22 HAMILTON SQUARE, BIRKENHEAD, CH41 1AL	107	3	Planning Permission
716700	Land at the corner of Caxton Close and Third Avenue, Beechwood, Wirral CH43 9XQ	288	4	Planning Permission
716600	Land at corner of Chantry Close and Third Avenue, Wirral, CH43 9EX	288	4	Planning Permission
708600	445 BROUGHAM ROAD, SEACOMBE	279	6	Planning Permission
715000	Land at 550-558 New Chester Road, Birkenhead, CH42 2AF	296	6	Planning Permission
679800	The Ship Inn, 208 BRECK ROAD, WALLASEY VILLAGE, CH44 2ED	280	6	Planning Permission
585000	110 KING STREET, EGREMONT, CH44 8AW	279	6	Planning Permission
680800	Land on corner of WESTBOURNE ROAD & RIDLEY STREET, BIRKENHEAD, CH43 4TQ	290	9	Planning Permission
712600	STREET RECORD, GREENACRES CLOSE, BEECHWOOD	288	10	Planning Permission
667700	Land at the corner of Holt Road and Old Chester Road, Tranmere, Wirral	109	18	Planning Permission

710600	Rock Station Hotel, HIGHFIELD ROAD, ROCK FERRY, CH42 2BU	295	25	Planning Permission
685500	Eswa Club, 54-56 Park Rd South, Wirral, CH43 4UY	105	28	Planning Permission
715500	Holt Road, TRANMERE, CH41 9HQ	109	30	Planning Permission
713800	VACANT LAND BETWEEN WHEATLAND LANE, HAWTHORNE GROVE AND NEW STREET,	277	32	Planning Permission
671300	The Open Arms, BIDSTON AVENUE, CLAUGHTON, CH41 0BR	287	42	Planning Permission
691300	LAND AT CONWAY STREET, BIRKENHEAD, CH61 6EN	108	132	Planning Permission
716200	Land at the former Rock Ferry High School and Ravenswood, Highfield South, Rock Ferry, Wirral, CH42 4RQ	295	178	Planning Permission
717600	Ashton Court, Banks Road, West Kirby, CH48 0RJ	316	14	Planning Permission
683200	Braeside, 2 LANG LANE, WEST KIRBY, CH48 5HF	316	2	Planning Permission
714100	162 WOODCHURCH ROAD, OXTON, CH42 9LS	291	1	Planning Permission
695300	45 GRANGE CROSS LANE, NEWTON, CH48 8BJ	316	4	Planning Permission
678400	62 WHITFIELD LANE, HESWALL, CH60 7SB	309	1	Planning Permission
713200	2A GREEN LANE/259 WALLASEY VILLAGE	283	1	Planning Permission
639900	Corbiere, Thorsway, Caldy	311	1	Planning Permission
124200	Sawrey Knotts, 18 CROFT DRIVE, CALDY, CH48 2JW	311	1	Planning Permission
604100	44 Well Lane, Gayton	309	1	Planning Permission
675300	16 GORSE LANE, NEWTON, CH48 8BH	316	1	Planning Permission
637100	Coppins Hey, 8 Woodlands Drive, Barnston	310	2	Planning Permission

677300	Land to the rear of 171A POULTON ROAD, POULTON, CH44 9DG	278	4	Planning Permission
652900	Denecourt, 37 OLDFIELD DRIVE, HESWALL, CH60 6SS	309	1	Planning Permission
656300	Flaybrick Hill Reservoir, Boundary Road, Bidston	290	1	Planning Permission
664800	LAND ADJACENT TO 5 MOUNT OLIVE, OXTON, WIRRAL CH43 5TT	292	2	Planning Permission
664400	Land adjacent to 1 HERON ROAD, MEOLS, CH47 9RU	316	1	Planning Permission
656200	Land Adjacent To 9 Acton Lane, Saughall Massie	314	1	Planning Permission
654600	Land Adjacent to Barnston Primary School, Sandham Grove, BARNSTON, WIRRAL, CH60 1XW	309	1	Planning Permission
660200	78 Dawstone Road, Gayton	309	2	Planning Permission
682400	Former Muldron, 52 CROFT DRIVE EAST, CALDY	311	1	Planning Permission
678900	Courtyard House, 9 DEE VIEW ROAD, HESWALL, CH60 0DJ	309	1	Planning Permission
663400	440 Pensby Road, Thingwall	310	1	Planning Permission
672200	Newhall BMW, CALDY ROAD, WEST KIRBY, CH48 2HE	311	6	Planning Permission
541900	55 Rock Lane West, Rock Ferry	296	19	Planning Permission
689400	37 BIDSTON VILLAGE ROAD, BIDSTON, CH43 7QT	288	1	Planning Permission
690800	Cherry Cottage, WALLRAKE, HESWALL, WIRRAL CH60 8QW	309	1	Planning Permission
607700	Continental Landscapes, Wharf Street, Port Sunlight	299	12	Planning Permission
684800	Grosvenor Court, GROSVENOR ROAD, HOYLAKE	316	5	Planning Permission
662900	Land To The Rear Of 33 Thurstaston Road, Irby	310	1	Planning Permission

680900	106 ALLPORT ROAD, BROMBOROUGH, CH62 6AQ	305	2	Planning Permission
689200	277 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission
653400	Unused Land, Park Street, Birkenhead	108	2	Planning Permission
687700	Angarra, 9 THE RIDGEWAY, GAYTON, CH60 8NB	309	1	Planning Permission
612500	East Farm Bungalow, 171 Caldý Road, Caldý	311	1	Planning Permission
561300	Royal Extrusions Aluminium, 99A Duke Street, Birkenhead	105	47	Planning Permission
686200	Land adjacent to Wyle Cop, 126 CALDY ROAD, CALDY, CH48 1LW	311	1	Planning Permission
623700	48 Moreton Road, Upton	313	2	Planning Permission
668700	Land to the rear of Veterinary Surgery, Geneva, 43 BIRKENHEAD ROAD, MEOLS, CH47 5AF	316	1	Planning Permission
566000	Unused Land, Beresford Road, Oxtón	290	2	Planning Permission
692000	10 BRANCOTE ROAD, OXTÓN, CH43 6TJ	290	6	Planning Permission
668600	The Sundial, 61 CALDY ROAD, CALDY, CH48 2HN	311	6	Planning Permission
652600	Land South Of , 6 Central Avenue, Bromborough	299	1	Planning Permission
658300	Land Adjacent To 3 Morpeth Road, Hoylake	316	1	Planning Permission
663800	Land Off Belmont Avenue, Bromborough	304	1	Planning Permission
602300	2 TARGET ROAD, HESWALL, CH60 9LD	309	1	Planning Permission
706800	The Croft, 6 PARK ROAD, BARNSTON, CH60 2S	309	1	Planning Permission
709100	land to the rear of 13 GREENHOW AVENUE, WEST KIRBY, CH48 5EL	316	1	Planning Permission

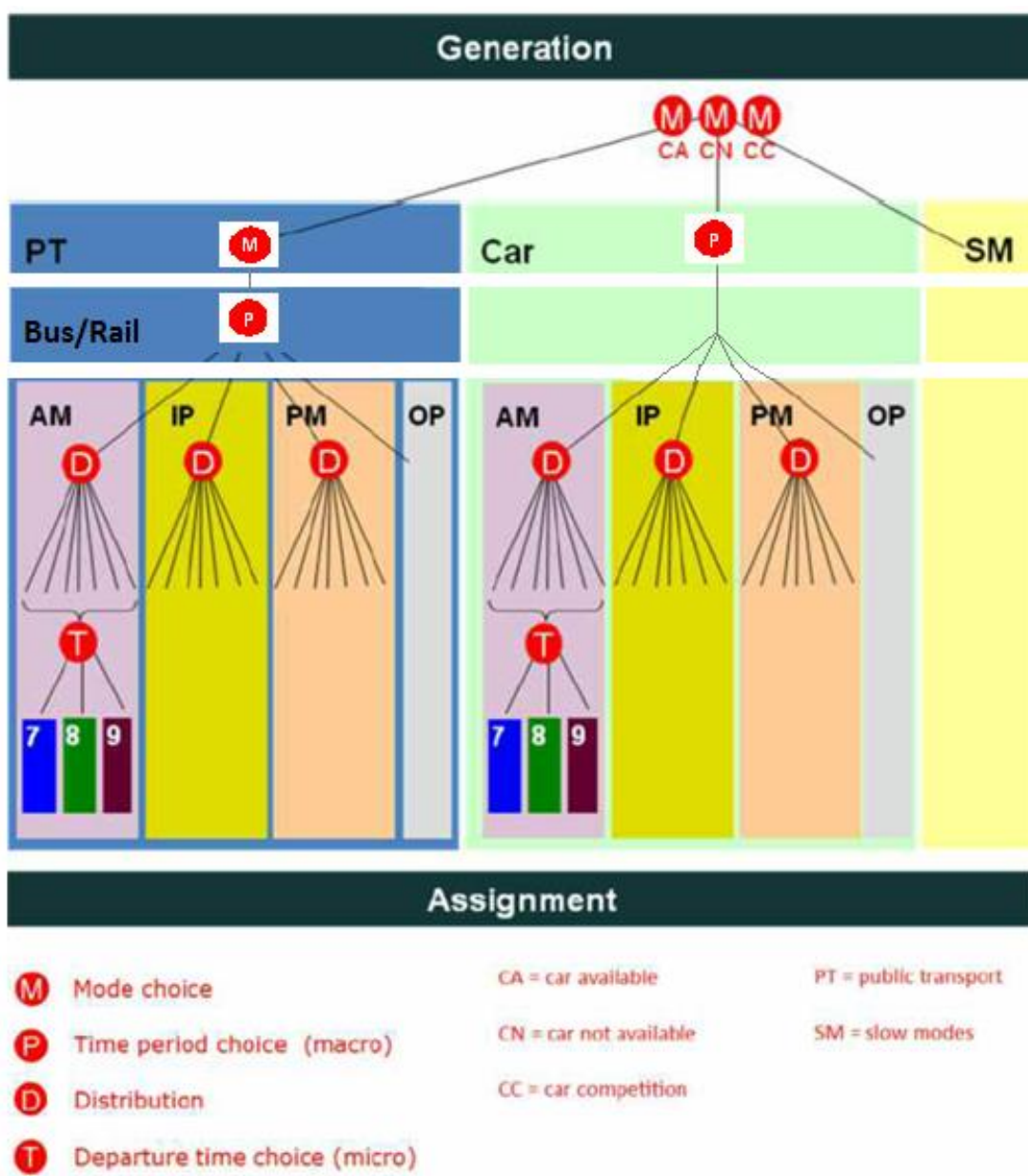
679500	Rear of 7 & 9 WEST ROAD, NOCTORUM, CH43 9RP	289	3	Planning Permission
717300	Wirral Business Park, Arrowe Brook Road, Upton, Wirral, CH49 1QZ	313	127	Planning Permission
653000	Sonning, 75 OLDFIELD DRIVE, HESWALL, CH60 9HB	309	2	Planning Permission
707100	10 WOOD LANE, GREASBY, CH49 2PT	312	1	Planning Permission
669000	2 BRYANSTON ROAD, PRENTON, CH42 8PU	293	1	Planning Permission
103100	Land on corner of Borough Road / Brighton Street.	279	19	Planning Permission
706400	Brynawel, 276 IRBY ROAD, IRBY, CH61 2XQ	310	1	Planning Permission
706200	Long Acre, GORSEFIELD AVENUE, EASTHAM, CH62 6BY	305	1	Planning Permission
714700	87A MARKET STREET, HOYLAKES, CH47 5AA	316	2	Planning Permission
713100	1A PINWOOD DRIVE, BARNSTON, CH60 2SD	309	1	Planning Permission
716500	155-157 NEW CHESTER ROAD, NEW FERRY	296	1	Planning Permission
713600	29 HARDIE AVENUE, MORETON, CH46 6BJ	314	1	Planning Permission
712800	33 & 35 WHITEHOUSE LANE, BARNSTON, CH60 1UD	309	7	Planning Permission
692400	11 LANG LANE, WEST KIRBY, CH48 5BW	316	3	Planning Permission
711600	Norwoods, 9 RECTORY LANE, HESWALL, CH60 4RZ	309	1	Planning Permission
712700	Kingsmead School, BERTRAM DRIVE, MEOLS, CH47 0LL	316	25	Planning Permission
705100	Beverley, 16 BRIMSTAGE ROAD, BARNSTON, CH60 1XG	309	8	Planning Permission
712100	279 TELEGRAPH ROAD, HESWALL, CH60 6RN	309	6	Planning Permission

709500	CLEARED SITE, BEAUFORT ROAD, BIRKENHEAD	287	178	Planning Permission
709300	Strathcraig, PHILLIPS WAY, HESWALL, CH60 4RT	309	2	Planning Permission
712200	15 CYPRESS CROFT, BEBINGTON, CH63 9FG	302	1	Planning Permission
690300	Land At Former Old Tavern Club, MAGAZINE LANE, NEW BRIGHTON CH45 5AD	281	14	Planning Permission
	Former Pershore House School Playing Fields, GLENAVON ROAD, PRENTON	293	31	Planning Permission
	Unused Land (Grassed), MEADOWBROOK ROAD, MORETON	314	1	Planning Permission
	Rear of The Chase, NOCTORUM ROAD, NOCTORUM, CH43 9UQ	289	2	Planning Permission
	215-223 WALLASEY VILLAGE, WALLASEY, WIRRAL, CH45 3LG	283	10	Planning Permission
90200	Land at corner of MILL ROAD & Spital Road, BROMBOROUGH, CH62 2BH	299	5	Planning Permission
633400	Willow Cottage, BANKS ROAD, HESWALL, CH60 9JS	309	2	Planning Permission
677800	30 SHORE DRIVE, NEW FERRY, CH62 4RW	298	1	Planning Permission
692600	Hamilton Memorial UR Church, Upton Road, CLAUGHTON, CH41 0DE	290	27	Planning Permission
702900	26 CORNELIUS DRIVE, IRBY, CH61 9PR	310	7	Planning Permission
	The Blue Anchor, MARKET STREET, HOYLAKE, CH47 3BE	316	8	Planning Permission

C. LCRTM Trip Generation Process

This section of the report provides details of how forecast trip ends are produced for LCRTM. Trip generation is dealt with exogenously to the demand model, by means of the external forecasting module (EFM), which is a bespoke tool developed in MS Access. The position of the trip generation element in terms of the overall model structure is shown below in Figure C..

Figure C.1: LCRTM Structure



Trip generation is primarily a household based forecast, which includes household category analysis to model household car availability and income changes, and allows the integration of central household forecasts with local land use forecasts.

The building of future year trip end growth has a segmented land use forecast using central NTEM car ownership and UK's Household Projections database (HOPS) central growth and local development information. The application of trip end growth converts land use forecasts to trip growth and caters for Non-Home Based (NHB) trips, such as a trip between the workplace and the shops.

The EFM has the functionality to control forecasts to national projections, or to use locally derived data to develop trip end forecasts that take into account local forecasts of growth in households and employment.

C.1 Overview

The EFM derives future year household changes using household category analysis to model changes in household composition and car ownership, which predicts future year car availability and income splits. Future year household developments are combined with the household structure changes and these are used to derive Home Based (HB) productions using the product of households and HB trip rates.

Trip attraction forecasts can be defined by central growth forecasts, commercial economic forecasts and development control information. A number of control mechanisms are applied to the future year production and attraction trip ends. Base year trip ends are used with the future year trip ends to derive a trip end growth. This is then applied to calibrated and fully segmented base year matrix trip ends to provide future year trip ends. These are used to growth the calibrated segmented base year matrices.

For this study the following base year matrices are used as the input:

- The highway matrix has been taken from the calibrated 2015 LCH model⁸, converted to LCRTM model zones⁹.
- The public transport matrix has been taken from the calibrated 2015 LCRTM PT model developed for this study¹⁰.
- The walk cycle matrix has been growthed from the 2012 LCRTM matrix using land use data.

The resulting HB matrices are used to derive future year growth in NHB trips, which are assumed solely dependent on HB trips.

C.2 Method

C.2.1 Home Based Production Growth

LCRTM productions are determined by households. Households are input for each zone and split into car ownership and household composition categories.

Production growth is calculated in two steps:

1. Base Year households are re-distributed within each zone in line with future year Household Composition (from HOPS) and Car Ownership changes (from NTEM)

⁸ LCH LMVR

⁹ LCCC_ModelIntegrationReport_RevA_v1

¹⁰ LCCC_2015LCRTMPTModelUpdate_RevA_v3.docx (2107244862)

2. Additional future year households are added

The default EFM option is to run step 1, although this can be switched off using the EFM form.

The total future year households are multiplied by trip rates to calculate future year productions. This is divided by the base year productions to calculate production growth.

C.2.2 Home Based Attraction Growth

Attraction growth is calculated by LCRTM zone, directly from the input forecasting data. Four measures are used:

- Total Employment – Commute and EB
- Retail Employment – Shopping
- Other Employment – Other
- Pupils – Education

C.2.3 Application of Home-Based Growth

Home based production and attraction growth is applied to the segmented calibrated base year matrices, and is constrained to production growth. – i.e. when the growth is applied it gives different total trip ends for productions and attractions, so we constrain to productions.

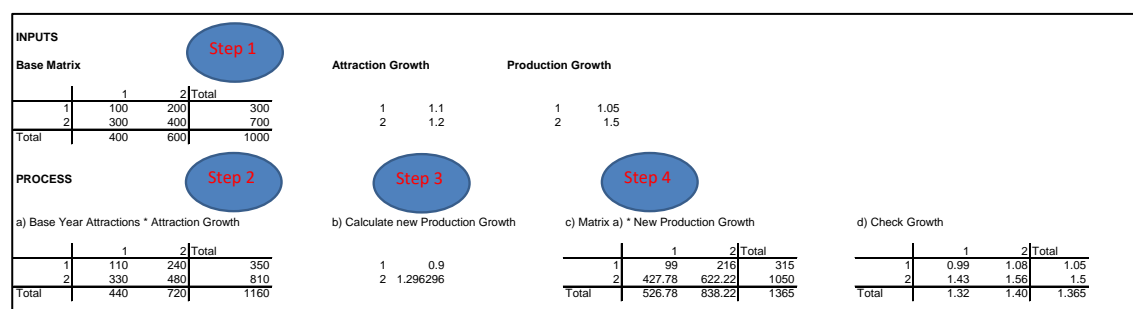
The base year matrices are in Origin-Destination format; therefore the attraction growth is applied to the From Home Destinations and the To Home Origins, the production growth is applied to the From Home Origins and the To Home Destinations.

To ensure growth is constrained to productions the growth is applied using the following method:

- Future year production trip-end values are calculated
- Attraction growth applied to base year matrix
- Revised production growth factors are calculated based on the future year production trip-end values (1) and the attraction balanced matrix (2)
- Production growth is applied to the attraction balanced matrix (3)

Figure C.2 illustrates this process.

Figure C.2: Home-Based Growth



C.2.4 Non Home-Based Trips

Future year non-home based trips (NHB) are calculated through the application of production growth to the NHB segmented calibrated base year matrix. The NHB future year productions are calculated by the sum of the future year home based attractions multiplied by the propensity

to make an NHB trip (calculated from Household Interview data). These are divided by the base year productions to calculate NHB production growth.

C.2.5 Freight

Freight matrices are factored using DfT National Road Traffic Forecasts 2015 (NRTF).

NRTF growth factors are applied to all trips. For trips with a start or end point in the LCRTM study area the North West forecast is applied. For all other trips i.e. within the buffer/external areas, the forecasts for England are applied.

Note, LCRTM is not a freight forecasting tool, and this process simply provides a background level of freight growth.

C.3 Major Developments

It is accepted that where a major development is proposed, the default LCRTM forecasting mechanism may not produce realistic results due to the scale of the change in land-use from the base year. This could take two forms. inaccurate representation of trips, or inaccurate distribution of trips (i.e. where trips to or from the development start or finish).

To account for this there is an option to replace the base distribution of trips with a new distribution based on a gravity model, utilising future year trip ends and costs for specific zones. There is also the option to superimpose a trip generation for specific zones.

C.4 TEMPRO Constraint

There are three constraints of the forecast matrices available within EFM. These are applied on an Origin-Destination basis to the EFM outputs.

- a. None – this is the default option. This applies a constraint to the buffer area only (to ensure car ownership changes are taken into account for each mode)
- b. LCRTM Study Area – this applies a constraint across the entire study area and buffer area (as in a.)
- c. District – this applies a constraint to each study area district and buffer area (as in a.)

For this study the district level constraint has been applied. Overall TEMPRO study area growth is input by mode and purpose, this is compared to the study area growth in EFM and the EFM matrices adjusted accordingly.

D. LCRTM Demand Model Overview

The full LCRTM system includes components representing six travel responses comprising: trip generation, mode choice, time period choice, trip distribution, departure time choice and highways assignment and public transport assignment. The demand model estimation focuses on four of these responses, which are: mode choice, time period choice, trip distribution and departure time choice.

The main features of the demand model include the assumed hierarchy of travel responses. the different dimensions of demand segmentation. the input data. geographical coverage. matrix format. the generalised cost functions used in the model. the use of the logit formulation and adjustment process post model estimation.

D.1 The Hierarchy of Responses

The different components of a demand model form a hierarchy, so that each level of the hierarchy represents a specific type of choice individuals make. The hierarchy of responses represent the level of flexibility travellers demonstrate when making travel choices. At the bottom of the hierarchy is the choice that travellers are most sensitive to. In this case this is route choice (assignment).

The hierarchy of the LCRTM model, which accords with the DfT TAG¹¹ recommended structure, is shown below:

- Trip Generation
- Mode Choice
- Time Period Choice
- Trip Distribution
- Departure Time Choice
- Assignment

D.2 Demand Segmentation

Several dimensions are used in the model for segmenting demand, but some of them are only used for specific parts of the model. These different dimensions are described in the following paragraphs.

- **Journey Purpose:** The demand model uses three purposes, complying with the requirement defined in TAG.
- **Car Availability:** This dimension of segmentation appreciates that although travel behaviour is modelled by individual traveller, the availability of a car is often a key feature of the household that the person belongs to.
- **Period of Travel:** The different categories are the morning peak, inter-peak, afternoon peak or off-peak.
- **Hour of Travel:** This allows the impacts of morning peak spreading to be examined.
- **Mode:** The trip rates used at the generation stage do not distinguish between trips made by different modes. From the mode choice stage the split by mode is retained throughout the model.

¹¹ Transport Analysis Guidance: <https://www.gov.uk/guidance/transport-analysis-guidance-webtag>

D.3 Geographical Coverage

Due to level of validity and detail of the network and the base year data, it was not feasible to estimate the demand model parameters for the whole of the area that is covered by the model. Rather model estimation is done only within a defined area, consistent with the Liverpool City Region.

D.4 Matrix Formats

Information in travel demand models can be stored either in a Production/Attraction (PA) format or in an origin-destination (OD) format. PA formats are more consistent with methodologies for trip generation, as they store any home-based trip at the home end (i.e. the production end), whatever the direction of the trip. OD formats are more straightforwardly associated with the assignment model and with the format of traffic count data, as they store trips based on their direction.

For this study, the amount of inputs at a PA format was not sufficient for the estimation of credible mode choice and time choice models. It has been critical to also exhaust the traffic count data during the estimation of these models. Since this can only be done at an OD format, the process is based on conversion from PA to OD format after the trip generation stage, and work with an OD format from that point.

D.5 The Input Data

The inputs for the estimation of the demand included detailed information about all components of the generalised costs for travel. These all came in the form of origin-destination matrices. For car trips, typical components of the generalised cost are the travel time and the distance travelled.

For public transport trips, typical components of the generalised cost are the fare, travel time, access time to the boarding stop, egress time from the alighting stop, waiting time and the time associated with transfer.

D.6 Generalised Cost Functions

The mode choice, time period choice, distribution and departure time choice models are all logit models. The use of logit models, in general, is the standard practice in travel demand modelling. In each one of these models there are a given number of alternatives, and a generalised cost is associated with each one of them. When the model is applied, the logit model converts the set of generalised costs into an estimate of the proportion of travellers choosing each alternative.

D.7 Compliance with WebTAG

All major features of the demand model are designed to comply with the Department for Transport guidance for travel demand modelling, as specified in WebTAG.

D.8 The Model Estimation Approach

The demand model parameters have been estimated using household interviews from the Merseyside Countywide Household Travel Survey (CWS) data collected in 2008, 2010 and 2013 and level of service (travel cost) information from LCRTM.

Comparisons of the CWS data to independent data-sets produce close comparisons for mode, purpose and car availability proportions, demonstrating that this data-set provides a strong basis for the estimation.

The estimation has been undertaken using the Biogeme 2.4¹² software and has concentrated on estimation of demand model parameters. A set of sequential nested logit models have been developed for each stage of the choice hierarchy, and socio-economic constants and attraction variables have been included to improve fit. Access weights have been fixed to those estimated in earlier versions of the model. Values of time and vehicle operating costs have been taken from TAG¹³.

The parameters have been estimated for all modes, for commute and other trips. There has been no estimation of business parameters as home-based business is not an allowed response in CWS. The business segment equates to less than 5% of the total matrix, therefore the current LCRTM parameters have been retained.

The estimation has been undertaken at origin-destination (OD) level, to be consistent with the current LCRTM demand model.

A limited calibration estimation exercise has been undertaken on the parameters to improve the response in the TAG realism tests.

The results have been checked against:

- Illustrative TAG parameters
- Relative strength of the parameters at each level of the hierarchy (i.e. decreasing through the hierarchy)
- TAG fuel and fare realism testing
- Run of an absolute demand model to check outputs match observed data
- Elasticities from sensitivity tests
- Implied values of time

These checks have all produced sensible results, and where applicable the model meets TAG criteria.

D.9 Demand Model Summary

The demand model developed for LCRTM has in summary the following characteristics:

- A hierarchy in line with WebTAG expectations
- Makes best use of existing data sources in model development and estimation
- Has elasticities to fuel price and public transport fares that are in line with WebTAG expectations
- Generalised cost coefficients are in line with expectations
- Average modelled trip lengths match observed values sufficiently well

¹²Bierlaire, M. (2003). BIOGEME: A free package for the estimation of discrete choice models, Proceedings of the 3rd Swiss Transportation Research Conference, Ascona, Switzerland.

¹³ Department for Transport Transport Analysis Guidance (TAG). December 2015.

E. Junctions over Capacity

Table E.1: Junction over Capacity by Time Period: 2025 Baseline

Node	Location	AM	IP	PM
4991	A59 Byrom Street / Mersey Tunnels Roundabout	Y	N	Y
4999	Victoria Street / Mersey Tunnels Roundabout	Y	Y	Y
5003	Queensway / Mersey Tunnels Roundabout	Y	N	Y
5034	Queensway Tunnel (Towards Liverpool)	Y	N	N
5341	Noctorum Avenue/ Beryl Road	Y	N	Y
5436	Ashville Road/ Oakdale Road	Y	N	N
5608	A553 Laird Street/ Miriam Place	N	N	Y
5630	A553 Laird Street/ Cavendish Street	N	Y	N
5674	Conway Street/Park Rd East	N	N	Y
5686	Price Street/Watson Street	N	N	Y
5688	Conway Street/Europa Boulevard	Y	Y	N
5691	Kingsway Tunnel (Towards Liverpool)	Y	N	N
5696	Price Street/Argyle Street	Y	Y	N
5705	Mersey Tunnel/ Scotland Road	Y	N	N
5736	King Street/ Church Street/ Brighton Street	N	N	Y
5753	A554 Birkenhead Road/ Kelvin Road	Y	N	N
5759	Gorsey Lane/ A5139 Dock Road/ Duke Street	Y	Y	Y
5781	A552 Woodchurch Road/ Homl Lane	Y	Y	Y
5783	A41 Chester Street / Duncan Street	N	N	Y
5788	A553 Conway Street/ Herringford Street	Y	Y	Y
5795	A553 Hoylake Road/ St James Road/ Tollemache Road	N	Y	Y

Node	Location	AM	IP	PM
5798	A552 Borough Road/ Salisbury Street	N	Y	N
5799	A553 Park Road North/ Duke Street/ Ashville Road	Y	N	N
5801	A553 Conway Street/ A5029 Watson Street/ A5029 Exmouth Street	Y	Y	Y
5809	A5029 Exmouth Street/ Claughton Road	N	Y	Y
5811	A552 Borough Road / A5029 & B5148 Whetstone Lane	Y	N	Y
5816	A5029 Exmouth Street / A5029 Whetstone Lane / Oxtan Road / Grange Road West	Y	N	Y
5817	A552 Borough Road / B5147 Argyle Street South	Y	N	N
5824	A41 New Chester Road Roundabout	Y	N	Y
5825	A41 New Chester Road Roundabout / B5149 Green Lane	Y	N	N
5830	A5139 / Poulton Bridge Road Roundabout	Y	N	Y
5832	A5139 Dock Road / Wallasey Bridge Road Roundabout	N	N	Y
5834	A5088 Wallasey Bridge Road / A5139 Roundabout	N	N	Y
5836	A5139 Roundabout	Y	N	N
5842	A554 Tower Road / A5139 Dock Road Roundabout	N	Y	N
5851	B5136 New Chester Rd / New Chester Road Roundabout	Y	N	N
5856	B5477 Harrison Drive / Grove Rd / B5477 Wallasey Village	Y	N	N
5857	B5148 Church Road / B5148 Bebington Road / Mount Road / Greenway Road	Y	N	Y
5858	A41 Chester Street / Chester Street	Y	Y	Y
5860	Borough Road / The Wiend	Y	Y	Y

Node	Location	AM	IP	PM
5862	A552 Woodchurch Road / Prenton Hall Road	Y	N	Y
5863	A552 Woodchurch Road / B5151 Storeton Road	Y	N	Y
5865	B5151 Storeton Road / Prenton Road West / Prenton Lane	Y	Y	Y
5866	B5151 Mount Road / Broadway	N	Y	Y
5868	King's Road / Kings Lane / Broadway	Y	N	Y
5873	A5027 Upton Way / Warren Drive	Y	N	Y
5881	B5151 Boundary Rd / Worcester Rd / Vyner Rd N	Y	N	N
5885	A553 Hoylake Road / B5151 Bidston Village Road / Valley Road	Y	Y	Y
5891	A553 Hoylake Road / A553 Fender Lane / A554 Roundabout, A554 Entrance	N	N	Y
5895	B5148 Bebington Road / B5149 Old Chester Road / King's Lane	Y	Y	Y
5896	Beford Drive / The Wiend / Mount Road	Y	N	N
5905	New Chester Road / Boundary Road	Y	N	Y
5907	Bebington Road / B5149 Old Chester Road	Y	Y	Y
5913	Mount Road / Village Road / Rest Hill Road	Y	N	N
5914	The Village / Bromborough Road / Church Road	Y	N	N
5916	Bromborough Road / Ellen's Lane	Y	N	Y
5921	B5137 Brimstage Road / B516 Church Road / B5137 Spital Road / Poulton Road	Y	Y	Y
5922	B5137 Spital Road / Mark Rake / Bromborough Village Road	Y	Y	Y
5924	Bromborough Village Rd / A41 New Chester Rd	Y	N	N

Node	Location	AM	IP	PM
5926	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Ferry By-Pass Entrance	Y	N	N
5927	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Chester Road Entrance	Y	N	Y
5929	A41 New Chester Road / Old Court House Road	Y	Y	Y
5931	Bromborough Road / B5137 Spital Road	Y	N	Y
5932	Bromborough Village Road / The Cross	Y	N	N
5933	Bromborough Village Road / Croft Avenue East	Y	N	N
5935	A41 New Chester Road / Caldbeck Road / Coft Avenue East	Y	Y	Y
5938	A41 New Chester Road / Bridle Road	Y	N	Y
5939	A41 New Chester Road / Old Hall Road	Y	Y	N
5941	A41 New Chester Road / Allport Road	Y	Y	N
5943	Allport Lane / Bridle Road / Allport Road	Y	N	N
5945	Allport Rd / Brookhurst Ave	Y	N	N
5947	A41 New Chester Road / B5132 Eastham Village Road	Y	Y	N
5950	A41 New Chester Road / Magazine Road / Mill Road	Y	N	N
5951	A41 New Chester Road / Eastham Rake	Y	Y	Y
5953	Eastham Village Rd / B5132 Rivacre Rd	Y	N	N
5961	A41 New Chester Road / Bromborough Village Road	Y	Y	Y
5963	Old Court House Road / Dock Road South / Thermal Road	Y	N	Y

Node	Location	AM	IP	PM
5972	Hoylake Road / Worcester Road	Y	N	N
5981	Upton Road / Alderley Avenue / Park Road West	Y	N	N
5992	Egerton Road / Park Road South / Palm Grove	Y	N	N
6000	B5151 Bidston Road / Silverdale Road	N	N	Y
6009	A5027 Oxtan Road / B5145 Poulton Road / A5027 Gorsey Lane	N	N	N
6011	B5145 Breck Road / Mill Lane / B5145 Poulton Road / A5088 Poulton Bridge Road	Y	Y	Y
6013	Torrington Road / Mill Lane / Woodstock Road	Y	Y	Y
6015	A551 St Alban's Road / A551 Mill Lane	Y	N	N
6017	A551 Mill Lane / Liscard Crescent / Liscard Road	Y	Y	Y
6021	B5143 Liscard Village / A551 Liscard Crescnet	Y	N	Y
6023	Wallasey Road / Belvidere Road / Torrington Road	N	Y	Y
6025	A551 Wallasey Rd / A551 St. Albans Rd	N	N	N
6053	A551 Pasture Road / A553 Hoylake Road / A551 Upton Road Roundabout	Y	N	N
6055	A55 Hoylake Road / Borrowdale Road	Y	N	N
6057	Market Street / Hoyle Road / A553 Birkenhead Road	Y	N	N
6059	A540 Grange Road / Westbourne Road	N	N	Y
6061	A540 Grange Road / B5139 Black Horse Hill / A540 Column Road	Y	Y	Y
6063	B531 Frankby Road / Well lane / Pump Lane Roundabout	Y	N	Y
6073	Moreton Road / M53 Moreton Spur Slip	N	Y	Y
6075	Upton Bypass / M53 Moreton Spur	Y	Y	Y

Node	Location	AM	IP	PM
	Roundabout, Upton Bypass Entrance			
6076	Moreton Road / M53 Moreton Spur Roundabout, M53 Moreton Spur Exit	N	N	Y
6078	Upton Bypass / B5192 Saughall Massie Road	Y	Y	Y
6082	Upton Road / Ford Road	Y	Y	N
6083	A551 Moreton Road / Ford Road / Arrowe Park Road / Old Greasby Road	Y	Y	Y
6087	A551 Arrow Park Road / Pool Lane	N	N	Y
6089	A551 Arrow park Road / A552 Woodchurch Road / Church Lane	Y	Y	Y
6097	A540 Telegraph Road / B5138 Pensby Road	Y	Y	Y
6099	A540 Telegraph Road / Downham Road South / Rocky Lane	Y	N	Y
6109	B5151 Mount Road / Clatterbridge Road Roundabout, B5151 Mount Road Entrance	Y	N	N
6111	B5136 Thornton Common Road / B5151 Clatterbridge Road / B5151 Willaston Road	Y	N	Y
6115	Willasten Road / Raby Mere Road	Y	N	N
6200	A551 Barnston Road / Storeton Lane	Y	N	Y
6201	Station Road / Lever Causeway / Red Hill Road Roundabout	Y	N	N
6454	A552 Woodchurch Road / Duck Pond Lane	Y	Y	N
6484	A552 Borough Road / Willmer Road / Ball's Road East	Y	Y	Y
6860	Hinderton Road / Green Lane / Queen Street	N	N	Y
8000	M53 Junction 1 / Bidston Island Roundabout	N	N	N

Node	Location	AM	IP	PM
8002	A554 Southbound Off slip / Bidston Island Roundabout	N	N	N
8011	M53 / M53 Moreton Spur Slip Rd	N	N	Y
8016	M53 Southbound Off Slip / M53 Rounabout (Junction 3)	Y	N	N
8028	M53 J4 Southbound / B5151 Mount Road Off-Slip Exit	Y	Y	Y
8030	B5151 Mount Road / B5137 Birmstage Road Roundabout, B5151 Mount Road Entrance	Y	N	Y
8032	B5137 Birmstage Road / B5151 Mount Road Roundabout, B5137 Entrance	N	N	Y
8034	M53 J4 Northbound / B5151 Mount Road Off-Slip Exit	Y	N	Y
8035	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Exit	Y	N	N
8036	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Entrance	Y	Y	Y
8038	M53 J4 Roundabout / B517 Brimstage Road Westbound Roundabout Entrance	Y	N	N
8041	M53 J5 Southbound / New Chester Road Off-Slip Entrance	Y	N	Y
8042	M53 J5 Southbound / New Chester Road Off-Slip Exit	Y	Y	Y
8044	New Church Road Roundabout	Y	N	N
8047	M53 J6 Southbound Off-Slip Entrance	Y	N	Y
8132	M53 J5 Northbound Off-Slip Entrance	Y	N	Y
8137	M53 J5 Northbound On-Slip Exit	Y	N	Y
8139	M53 J4 Northbiund On-Slip Exit	Y	N	N
8142	M53 Northbound Junction 2 / M53 Moreton Spur	Y	N	N

Node	Location	AM	IP	PM
8143	M53 Northbound / M53 Moreton Spur On-Slip Exit	Y	N	N
8146	M53 Northbound J1 Off-Slip Entrance	Y	N	Y
8147	M53 Northbound J1 / A5139 Off-Slip Entrance	Y	N	N
20069	A553 Fender Lane / A554 / Hoylake Road Roundabout, A54 Entrance	Y	N	Y
20127	A5027 Upton Road / Salacre Lane / Houghton Road	Y	Y	Y
20133	A552 Woodchurch Road / Ackers Road	Y	N	Y
20173	B5137 Spital Road / Croft Ave	Y	N	N
50021	B5151 Mount Road / Mount Wood Road	Y	N	N
50045	B5137 Brimstage Road / Beechway	Y	Y	Y
50077	Caldbeck Road / Welton Road	Y	N	N
50087	Allport Road / Greenfields Avenue / Plymyard Avenue	Y	N	N
50245	Poulton Bridge Road / Limekiln Lane	Y	N	Y
50291	Frankby Road / Greasby Road	Y	Y	Y
50293	B5192 Saughall Massie Road / Overchurch Road	Y	N	Y
50295	A551 Arrowe Park Road / Wirral Teaching Hospital	Y	Y	Y
50299	A551 Leasowe Road / Greenleas Road	Y	Y	Y
50325	Ball's Road / Oxton Road / Ball's Road East / Woodchurch Road	N	N	Y
50337	Hamilton Street / A4554 / A41 Chester Street Roundabout, Hamilton Road Entrance	N	N	Y
50341	B5151 Mount Road / Brackenwood Road	N	N	Y
50345	A553 onway Street / Adelphi Street / Claughton Road	Y	Y	Y
50347	Upton Road / Noctorum Avenue	Y	Y	Y

Node	Location	AM	IP	PM
50349	A552 Woodchurch Road / Singleton Avenue	N	Y	N
50383	B5151 Mount Road / Lever Causeway	Y	Y	Y
50385	B5151 Mount Road / Thornton Road	Y	Y	Y
50435	A5137 Brimstage Road / Manor Road	N	N	Y
50439	Poulton Hall Road / Thornton Common Road	N	N	Y
50447	Acre Lane / Dawpool Drive	Y	N	N
50449	B5138 Pensby Road / Irby Road	Y	N	Y
50451	Thingwall Road / Mill Hill Road	Y	N	Y
50455	B5192 Saughall Massie Road / Pump Lane / Heron Road	N	N	Y
50457	A553 Birkenhead Road / Heron Road	Y	Y	N
50459	A551 Arrowe Park Road / Arrowe Brook Road	Y	Y	Y
50463	B5138 Pensby Road / Gills Ln / Fishers Ln	Y	N	N
50465	A551 Barnston Road / Gills Lane	Y	N	Y
50477	A554 Kings Parade / Atherton Street	Y	Y	Y
50483	A554 Cannin Street / Shore Road	N	N	Y
50503	A41 New Chester Road / Torr Drive	Y	Y	Y
60043	Thurstaston Road / Thinwall Road	Y	N	Y
60048	A540 Telegraph Road / Thurstaston Road (near Quarry Road West)	Y	N	Y
60050	Dee View Road / The Mount	Y	N	N
60051	Dee View Road / Dawstone Road / Rocky Lane	Y	N	N
60053	Well Lane / A540 Telegraph Road	Y	N	N
60058	Roman Road / Meols Parade	Y	N	Y
60065	A553 Market Street / Alderley Road	N	N	Y

Node	Location	AM	IP	PM
60072	Hoylake Road / Saughall Road / Millhouse Lane	Y	Y	Y
60074	Upton Road / Manor Drive	N	N	Y
60084	Hoylake Road / Digg Lane	Y	N	Y
60085	Town Meadon Lane / Maryland Lane	Y	Y	Y
60086	Pasture Road / Maryland Lane	Y	N	N
60115	Arrowe Road / Arrowe Brook Lane / Arrow Brook Road	Y	N	Y
60117	B5139 Greasby Road / Cortsway West	N	N	Y
60120	Pensby Road / Sparks Lane	N	N	Y
60128	Barnston Road / Acre Lane	N	N	Y
60216	A552 Woodchurch Road / Asda Arrowe Park Superstore	Y	Y	Y
60218	A551 Arrowe park Road / A552 Woodchurch Road / Church Lane	Y	N	Y
60219	A551 Arrowe Park Road / Pool Lane	Y	N	Y

Table E.2: Junction over Capacity by Time Period: 2025 Preferred Option

Node	Location	AM	IP	PM
4991	A59 Byrom Street / Mersey Tunnels Roundabout	Y	N	Y
4999	Victoria Street / Mersey Tunnels Roundabout	Y	Y	Y
5003	Queensway / Mersey Tunnels Roundabout	Y	N	Y
5034	Queensway Tunnel (Towards Liverpool)	Y	N	N
5341	Noctorum Avenue/ Beryl Road	Y	N	Y
5436	Ashville Road/ Oakdale Road	Y	N	N
5608	A553 Laird Street/ Miriam Place	N	N	Y
5630	A553 Laird Street/ Cavendish Street	N	Y	N
5674	Conway Street/Park Rd East	N	N	Y
5686	Price Street/Watson Street	N	N	Y
5688	Conway Street/Europa Boulevard	Y	Y	N
5691	Kingsway Tunnel (Towards Liverpool)	Y	N	N
5696	Price Street/Argyle Street	Y	Y	N
5702	Market Street / Hamilton Street	Y	N	N
5705	Mersey Tunnel/ Scotland Road	Y	N	N
5736	King Street/ Church Street/ Brighton Street	N	N	Y
5753	A554 Birkenhead Road/ Kelvin Road	Y	N	N
5759	Gorsey Lane/ A5139 Dock Road/ Duke Street	Y	Y	Y
5781	A552 Woodchurch Road/ Homl Lane	Y	Y	Y
5783	A41 Chester Street / Duncan Street	N	N	Y
5788	A553 Conway Street/ Herringford Street	Y	Y	Y
5795	A553 Hoylake Road/ St James Road/ Tollemache Road	N	Y	Y
5798	A552 Borough Road/ Salisbury Street	N	Y	N

Node	Location	AM	IP	PM
5799	A553 Park Road North/ Duke Street/ Ashville Road	Y	N	N
5801	A553 Conway Street/ A5029 Watson Street/ A5029 Exmouth Street	Y	Y	Y
5809	A5029 Exmouth Street/ Claughton Road	N	Y	Y
5811	A552 Borough Road / A5029 & B5148 Whetstone Lane	Y	N	Y
5816	A5029 Exmouth Street / A5029 Whetstone Lane / Oxton Road / Grange Road West	Y	N	Y
5817	A552 Borough Road / B5147 Argyle Street South	Y	N	N
5824	A41 New Chester Road Roundabout	Y	N	Y
5825	A41 New Chester Road Roundabout / B5149 Green Lane	Y	N	N
5830	A5139 / Poulton Bridge Road Roundabout	Y	N	Y
5832	A5139 Dock Road / Wallasey Bridge Road Roundabout	N	N	Y
5834	A5088 Wallasey Bridge Road / A5139 Roundabout	N	N	Y
5836	A5139 Roundabout	Y	N	Y
5842	A554 Tower Road / A5139 Dock Road Roundabout	N	Y	N
5851	B5136 New Chester Rd / New Chester Road Roundabout	Y	N	N
5856	B5477 Harrison Drive / Grove Rd / B5477 Wallasey Village	Y	N	N
5857	B5148 Church Road / B5148 Bebington Road / Mount Road / Greenway Road	Y	N	Y
5858	A41 Chester Street / Chester Street	Y	Y	Y
5860	Borough Road / The Wiend	Y	Y	Y
5862	A552 Woodchurch Road / Prenton Hall Road	Y	N	Y

Node	Location	AM	IP	PM
5863	A552 Woodchurch Road / B5151 Storeton Road	Y	N	Y
5865	B5151 Storeton Road / Prenton Road West / Prenton Lane	Y	Y	Y
5866	B5151 Mount Road / Broadway	N	Y	Y
5868	King's Road / Kings Lane / Broadway	Y	N	Y
5873	A5027 Upton Way / Warren Drive	Y	N	Y
5881	B5151 Boundary Rd / Worcester Rd / Vyner Rd N	Y	N	N
5885	A553 Hoylake Road / B5151 Bidston Village Road / Valley Road	Y	Y	Y
5891	A553 Hoylake Road / A553 Fender Lane / A554 Roundabout, A554 Entrance	N	N	Y
5895	B5148 Bebington Road / B5149 Old Chester Road / King's Lane	Y	Y	Y
5896	Beford Drive / The Wiend / Mount Road	Y	N	N
5905	New Chester Road / Boundary Road	Y	N	Y
5907	Bebington Road / B5149 Old Chester Road	Y	Y	Y
5913	Mount Road / Village Road / Rest Hill Road	Y	N	N
5914	The Village / Bromborough Road / Church Road	Y	N	N
5916	Bromborough Road / Ellen's Lane	Y	N	Y
5921	B5137 Brimstage Road / B516 Church Road / B5137 Spital Road / Poulton Road	Y	Y	Y
5922	B5137 Spital Road / Mark Rake / Bromborough Village Road	Y	Y	Y
5924	Bromborough Village Rd / A41 New Chester Rd	Y	N	N
5926	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester	Y	N	N

Node	Location	AM	IP	PM
	Road Roundabout, New Ferry By-Pass Entrance			
5927	A41 New Ferry By- Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Chester Road Entrance	Y	N	Y
5929	A41 New Chester Road / Old Court House Road	Y	Y	Y
5931	Bromborough Road / B5137 Spital Road	Y	N	Y
5932	Bromborough Village Road / The Cross	Y	N	N
5933	Bromborough Village Road / Croft Avenue East	Y	N	N
5935	A41 New Chester Road / Caldbeck Road / Coft Avenue East	Y	Y	Y
5938	A41 New Chester Road / Bridle Road	Y	N	Y
5939	A41 New Chester Road / Old Hall Road	Y	Y	N
5941	A41 New Chester Road / Allport Road	Y	Y	N
5943	Allport Lane / Bridle Road / Allport Road	Y	N	N
5945	Allport Rd / Brookhurst Ave	Y	N	N
5947	A41 New Chester Road / B5132 Eastham Village Road	Y	Y	N
5950	A41 New Chester Road / Magazine Road / Mill Road	Y	N	N
5951	A41 New Chester Road / Eastham Rake	Y	Y	Y
5953	Eastham Village Rd / B5132 Rivacre Rd	Y	N	N
5961	A41 New Chester Road / Bromborough Village Road	Y	Y	Y
5963	Old Court House Road / Dock Road South / Thermal Road	Y	N	Y
5972	Hoylake Road / Worcester Road	Y	N	N

Node	Location	AM	IP	PM
5981	Upton Road / Alderley Avenue / Park Road West	Y	N	N
5992	Egerton Road / Park Road South / Palm Grove	Y	N	N
6000	B5151 Bidston Road / Silverdale Road	N	N	Y
6011	B5145 Breck Road / Mill Lane / B5145 Poulton Road / A5088 Poulton Bridge Road	Y	Y	Y
6013	Torrington Road / Mill Lane / Woodstock Road	Y	Y	Y
6015	A551 St Alban's Road / A551 Mill Lane	Y	N	N
6017	A551 Mill Lane / Liscard Crescent / Liscard Road	Y	Y	Y
6021	B5143 Liscard Village / A551 Liscard Crescnet	Y	N	Y
6023	Wallasey Road / Belvidere Road / Torrington Road	N	Y	Y
6053	A551 Pasture Road / A553 Hoylake Road / A551 Upton Road Roundabout	Y	N	N
6055	A55 Hoylake Road / Borrowdale Road	Y	N	N
6057	Market Street / Hoyle Road / A553 Birkenhead Road	Y	N	N
6059	A540 Grange Road / Westbourne Road	N	N	Y
6061	A540 Grange Road / B5139 Black Horse Hill / A540 Column Road	Y	Y	Y
6063	B531 Frankby Road / Well lane / Pump Lane Roundabout	Y	N	Y
6073	Moreton Road / M53 Moreton Spur Slip	N	Y	Y
6075	Upton Bypass / M53 Moreton Spur Roundabout, Upton Bypas Entrance	Y	Y	Y
6076	Moreton Road / M53 Moreton Spur Roundabout, M53 Moreton Spur Exit	N	N	Y
6078	Upton Bypass / B5192 Saughall Massie Road	Y	Y	Y

Node	Location	AM	IP	PM
6082	Upton Road / Ford Road	Y	N	N
6083	A551 Moreton Road / Ford Road / Arrowe Park Road / Old Greasby Road	Y	Y	Y
6087	A551 Arrow Park Road / Pool Lane	N	N	Y
6089	A551 Arrow park Road / A552 Woodchurch Road / Church Lane	Y	Y	Y
6097	A540 Telegraph Road / B5138 Pensby Road	Y	Y	Y
6099	A540 Telegraph Road / Downham Road South / Rocky Lane	Y	N	Y
6109	B5151 Mount Road / Clatterbridge Road Roundabout, B5151 Mount Road Entrance	Y	N	N
6111	B5136 Thornton Common Road / B5151 Clatterbridge Road / B5151 Willaston Road	Y	N	Y
6115	Willasten Road / Raby Mere Road	Y	N	N
6200	A551 Barnston Road / Storeton Lane	Y	N	Y
6201	Station Road / Lever Causeway / Red Hill Road Roundabout	Y	N	N
6454	A552 Woodchurch Road / Duck Pond Lane	Y	Y	N
6484	A552 Borough Road / Willmer Road / Ball's Road East	Y	Y	Y
6860	Hinderton Road / Green Lane / Queen Street	N	N	Y
8011	M53 / M53 Moreton Spur Slip Rd	N	N	Y
8016	M53 Southbound Off Slip / M53 Rounabout (Junction 3)	Y	N	N
8024	A552 Woodchurch Road / A552 Woodchurch Road Off-Slip	N	N	Y
8028	M53 J4 Southbound / B5151 Mount Road Off-Slip Exit	Y	Y	Y

Node	Location	AM	IP	PM
8030	B5151 Mount Road / B5137 Birmstage Road Roundabout, B5151 Mount Road Entrance	Y	N	Y
8032	B5137 Birmstage Road / B5151 Mount Road Roundabout, B5137 Entrance	N	N	Y
8034	M53 J4 Northbound / B5151 Mount Road Off-Slip Exit	Y	N	N
8035	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Exit	Y	N	N
8036	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Entrance	Y	Y	Y
8038	M53 J4 Roundabout / B517 Brimstage Road Westbound Roundabout Entrance	Y	N	N
8041	M53 J5 Southbound / New Chester Road Off-Slip Entrance	Y	N	Y
8042	M53 J5 Southbound / New Chester Road Off-Slip Exit	Y	Y	Y
8044	New Church Road Roundabout	Y	N	N
8047	M53 J6 Southbound Off-Slip Entrance	Y	N	Y
8132	M53 J5 Northbound Off-Slip Entrance	Y	N	Y
8137	M53 J5 Northbound On-Slip Exit	Y	N	Y
8139	M53 J4 Northbound On-Slip Exit	Y	N	N
8142	M53 Northbound Junction 2 / M53 Moreton Spur	Y	N	N
8143	M53 Northbound / M53 Moreton Spur On-Slip Exit	Y	N	N
8146	M53 Northbound J1 Off-Slip Entrance	Y	N	Y
8147	M53 Northbound J1 / A5139 Off-Slip Entrance	Y	N	N
20069	A553 Fender Lane / A554 / Hoylake Road Roundabout, A54 Entrance	Y	N	Y

Node	Location	AM	IP	PM
20127	A5027 Upton Road / Salacre Lane / Houghton Road	Y	Y	Y
20133	A552 Woodchurch Road / Ackers Road	Y	N	Y
20173	B5137 Spital Road / Croft Ave	Y	N	N
50021	B5151 Mount Road / Mount Wood Road	Y	N	N
50045	B5137 Brimstage Road / Beechway	Y	Y	Y
50077	Caldbeck Road / Welton Road	Y	N	N
50087	Allport Road / Greenfields Avenue / Plymyard Avenue	Y	N	N
50245	Poulton Bridge Road / Limekiln Lane	Y	N	Y
50291	Frankby Road / Greasby Road	Y	Y	Y
50293	B5192 Saughall Massie Road / Overchurch Road	Y	N	Y
50295	A551 Arrowe Park Road / Wirral Teaching Hospital	Y	Y	Y
50299	A551 Leasowe Road / Greenleas Road	Y	Y	Y
50325	Ball's Road / Oxton Road / Ball's Road East / Woodchurch Road	N	N	Y
50337	Hamilton Street / A4554 / A41 Chester Street Roundabout, Hamilton Road Entrance	N	N	Y
50341	B5151 Mount Road / Brackenwood Road	N	N	Y
50345	A553 onway Street / Adelphi Street / Claughton Road	Y	Y	Y
50347	Upton Road / Noctorum Avenue	Y	Y	Y
50349	A552 Woodchurch Road / Singleton Avenue	N	Y	N
50383	B5151 Mount Road / Lever Causeway	Y	Y	Y
50385	B5151 Mount Road / Thornton Road	Y	Y	Y
50435	A5137 Brimstage Road / Manor Road	N	N	Y
50439	Poulton Hall Road / Thornton Common Road	N	N	Y

Node	Location	AM	IP	PM
50447	Acre Lane / Dawpool Drive	Y	N	N
50449	B5138 Pensby Road / Irby Road	Y	N	Y
50451	Thingwall Road / Mill Hill Road	Y	N	Y
50455	B5192 Saughall Massie Road / Pump Lane / Heron Road	N	N	Y
50457	A553 Birkenhead Road / Heron Road	Y	Y	N
50459	A551 Arrowe Park Road / Arrowe Brook Road	Y	Y	Y
50463	B5138 Pensby Road / Gills Ln / Fishers Ln	Y	N	N
50465	A551 Barnston Road / Gills Lane	Y	N	N
50477	A554 Kings Parade / Atherton Street	Y	Y	Y
50483	A554 Cannin Street / Shore Road	N	N	Y
50503	A41 New Chester Road / Torr Drive	Y	Y	Y
60043	Thurstaston Road / Thinwall Road	Y	N	Y
60048	A540 Telegraph Road / Thurstaston Road (near Quarry Road West)	Y	N	Y
60050	Dee View Road / The Mount	Y	N	N
60051	Dee View Road / Dawstone Road / Rocky Lane	Y	N	N
60053	Well Lane / A540 Telegraph Road	Y	Y	N
60058	Roman Road / Meols Parade	Y	N	Y
60065	A553 Market Street / Alderley Road	N	N	Y
60072	Hoylake Road / Saughall Road / Millhouse Lane	Y	Y	Y
60074	Upton Road / Manor Drive	N	N	Y
60084	Hoylake Road / Digg Lane	Y	N	Y
60085	Town Meadon Lane / Maryland Lane	Y	Y	Y
60086	Pasture Road / Maryland Lane	Y	N	N
60115	Arrowe Road / Arrowe Brook Lane / Arrow Brook Road	Y	N	Y

Node	Location	AM	IP	PM
60117	B5139 Greasby Road / Cortsway West	N	N	Y
60120	Pensby Road / Sparks Lane	N	N	Y
60128	Barnston Road / Acre Lane	N	N	Y
60216	A552 Woodchurch Road / Asda Arrowe Park Superstore	Y	Y	Y
60218	A551 Arrowe park Road / A552 Woodchurch Road / Church Lane	Y	N	Y
60219	A551 Arrowe Park Road / Pool Lane	Y	N	Y

Table E.3: Junction over Capacity by Time Period: 2037 Baseline

Node	Location	AM	IP	PM
4991	A59 Byrom Street / Mersey Tunnels Roundabout	Y	N	Y
4999	Victoria Street / Mersey Tunnels Roundabout	Y	Y	Y
5003	Queensway / Mersey Tunnels Roundabout	Y	N	Y
5034	Queensway Tunnel (Towards Liverpool)	Y	N	N
5220	B5149 Old Chester Road / Well Lane	N	N	Y
5341	Noctorum Avenue/ Beryl Road	N	Y	Y
5436	Ashville Road/ Oakdale Road	Y	N	N
5608	A553 Laird Street/ Miriam Place	Y	N	Y
5630	A553 Laird Street/ Cavendish Street	Y	Y	N
5674	Conway Street/Park Rd East	N	Y	Y
5686	Price Street/Watson Street	N	N	Y
5687	A59 Scotland Road / Kingsway	N	N	Y
5688	Conway Street/Europa Boulevard	Y	Y	N
5691	Kingsway Tunnel (Towards Liverpool)	Y	N	N
5696	Price Street/Argyle Street	Y	Y	N
5702	Market Street / Hamilton Street	Y	N	N
5705	Mersey Tunnel/ Scotland Road	Y	N	N
5736	King Street/ Church Street/ Brighton Street	N	N	Y
5753	A554 Birkenhead Road/ Kelvin Road	Y	N	N
5757	A5139 Dock Road / Oakdale Road	Y	N	N
5759	Gorsey Lane/ A5139 Dock Road/ Duke Street	Y	Y	Y
5773	A554 Tower Road/ A5029 Rendal Street Roundabout	Y	N	N
5777	A554 Canning Street / A41 Hamilton Street	Y	N	N

Node	Location	AM	IP	PM
5781	A552 Woodchurch Road/ Homl Lane	Y	Y	Y
5783	A41 Chester Street / Duncan Street	N	N	Y
5788	A553 Conway Street/ Herringford Street	Y	Y	Y
5795	A553 Hoylake Road/ St James Road/ Tollemache Road	N	Y	Y
5798	A552 Borough Road/ Salisbury Street	N	Y	N
5799	A553 Park Road North/ Duke Street/ Ashville Road	Y	N	N
5801	A553 Conway Street/ A5029 Watson Street/ A5029 Exmouth Street	Y	Y	Y
5804	Wirral Circular Trail / Campbeltown Road	Y	N	Y
5809	A5029 Exmouth Street/ Claughton Road	N	Y	Y
5811	A552 Borough Road / A5029 & B5148 Whetstone Lane	N	N	Y
5816	A5029 Exmouth Street / A5029 Whetstone Lane / Oxtan Road / Grange Road West	Y	N	Y
5817	A552 Borough Road / B5147 Argyle Street South	Y	N	N
5824	A41 New Chester Road Roundabout	Y	N	Y
5825	A41 New Chester Road Roundabout / B5149 Green Lane	Y	N	N
5830	A5139 / Poulton Bridge Road Roundabout	Y	Y	Y
5832	A5139 Dock Road / Wallasey Bridge Road Roundabout	Y	N	Y
5834	A5088 Wallasey Bridge Road / A5139 Roundabout	N	N	Y
5836	A5139 Roundabout	Y	N	Y
5841	A41 Wirral Circular Trail	N	N	Y
5842	A554 Tower Road / A5139 Dock Road Roundabout	N	Y	N

Node	Location	AM	IP	PM
5844	B5147 Pearson Road / Holt Hill	N	Y	N
5850	A41 New Chester Road / A41 Rock Ferry By-Pass	Y	N	N
5851	B5136 New Chester Rd / New Chester Road Roundabout	Y	N	N
5855	B5172 Bedford Avenue / B5149 Old Chester Road / B5172 Bedford Road	N	N	Y
5856	B5477 Harrison Drive / Grove Rd / B5477 Wallasey Village	N	Y	N
5857	B5148 Church Road / B5148 Bebington Road / Mount Road / Greenway Road	Y	N	Y
5858	A41 Chester Street / Chester Street	Y	Y	Y
5860	Borough Road / The Wiend	Y	Y	Y
5862	A552 Woodchurch Road / Prenton Hall Road	Y	N	Y
5863	A552 Woodchurch Road / B5151 Storeton Road	Y	Y	Y
5865	B5151 Storeton Road / Prenton Road West / Prenton Lane	Y	Y	Y
5866	B5151 Mount Road / Broadway	N	Y	Y
5868	King's Road / Kings Lane / Broadway	Y	N	Y
5873	A5027 Upton Way / Warren Drive	Y	N	Y
5877	B5151 Boundary Road / A5027 Upton Road / B5151 Bidston Road	N	Y	Y
5881	B5151 Boundary Rd / Worcester Rd / Vyner Rd N	Y	N	N
5885	A553 Hoylake Road / B5151 Bidston Village Road / Valley Road	Y	Y	Y
5891	A553 Hoylake Road / A553 Fender Lane / A554 Roundabout, A554 Entrance	N	N	Y
5895	B5148 Bebington Road / B5149 Old	Y	Y	Y

Node	Location	AM	IP	PM
	Chester Road / King's Lane			
5896	Beford Drive / The Wiend / Mount Road	Y	N	N
5904	B5136 New Chester Rd / New Ferry Road	N	N	Y
5905	New Chester Road / Boundary Road	Y	N	Y
5907	Bebington Road / B5149 Old Chester Road	Y	Y	Y
5913	Mount Road / Village Road / Rest Hill Road	Y	N	N
5914	The Village / Bromborough Road / Church Road	Y	N	N
5916	Bromborough Road / Ellen's Lane	Y	Y	Y
5921	B5137 Brimstage Road / B516 Church Road / B5137 Spital Road / Poulton Road	Y	Y	Y
5922	B5137 Spital Road / Mark Rake / Bromborough Village Road	Y	Y	Y
5924	Bromborough Village Rd / A41 New Chester Rd	Y	N	N
5926	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Ferry By-Pass Entrance	Y	N	N
5927	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Chester Road Entrance	Y	Y	Y
5929	A41 New Chester Road / Old Court House Road	Y	Y	Y
5931	Bromborough Road / B5137 Spital Road	Y	Y	Y
5932	Bromborough Village Road / The Cross	Y	N	N
5933	Bromborough Village Road / Croft Avenue East	Y	N	N
5935	A41 New Chester Road / Caldbeck	Y	Y	Y

Node	Location	AM	IP	PM
	Road / Coft Avenue East			
5938	A41 New Chester Road / Bridle Road	Y	N	Y
5939	A41 New Chester Road / Old Hall Road	Y	Y	N
5941	A41 New Chester Road / Allport Road	Y	Y	N
5943	Allport Lane / Bridle Road / Allport Road	Y	N	N
5945	Allport Rd / Brookhurst Ave	Y	N	N
5947	A41 New Chester Road / B5132 Eastham Village Road	Y	Y	N
5950	A41 New Chester Road / Magazine Road / Mill Road	Y	N	N
5951	A41 New Chester Road / Eastham Rake	Y	Y	Y
5953	Eastham Village Rd / B5132 Rivacre Rd	Y	N	N
5957	A41 New Chester Road / A41 New Chester Road Roundabout	N	N	Y
5961	A41 New Chester Road / Bromborough Village Road	Y	Y	Y
5963	Old Court House Road / Dock Road South / Thermal Road	Y	N	Y
5972	Hoylake Road / Worcester Road	Y	N	Y
5981	Upton Road / Alderley Avenue / Park Road West	Y	N	N
5992	Egerton Road / Park Road South / Palm Grove	Y	N	N
6000	B5151 Bidston Road / Silverdale Road	N	N	Y
6009	A5027 Oxton Road / B5145 Poulton Road / A5027 Gorsey Lane	N	N	Y
6011	B5145 Breck Road / Mill Lane / B5145 Poulton Road / A5088 Poulton Bridge Road	Y	Y	Y
6013	Torrington Road / Mill Lane / Woodstock Road	Y	Y	Y

Node	Location	AM	IP	PM
6015	A551 St Alban's Road / A551 Mill Lane	Y	N	N
6017	A551 Mill Lane / Liscard Crescent / Liscard Road	Y	Y	Y
6021	B5143 Liscard Village / A551 Liscard Crescnet	Y	Y	Y
6023	Wallasey Road / Belvidere Road / Torrington Road	N	Y	Y
6025	A551 Wallasey Rd / A551 St. Albans Rd	N	N	N
6053	A551 Pasture Road / A553 Hoylake Road / A551 Upton Road Roundabout	Y	N	Y
6055	A55 Hoylake Road / Borrowdale Road	Y	N	N
6057	Market Street / Hoyle Road / A553 Birkenhead Road	Y	N	N
6059	A540 Grange Road / Westbourne Road	N	N	Y
6061	A540 Grange Road / B5139 Black Horse Hill / A540 Column Road	Y	Y	Y
6063	B531 Frankby Road / Well lane / Pump Lane Roundabout	Y	N	Y
6073	Moreton Road / M53 Moreton Spur Slip	Y	Y	Y
6075	Upton Bypass / M53 Moreton Spur Roundabout, Upton Bypas Entrance	Y	Y	Y
6076	Moreton Road / M53 Moreton Spur Roundabout, M53 Moreton Spur Exit	N	N	Y
6078	Upton Bypass / B5192 Saughall Massie Road	Y	Y	Y
6082	Upton Road / Ford Road	Y	Y	N
6083	A551 Moreton Road / Ford Road / Arrowe Park Road / Old Greasby Road	Y	Y	Y
6087	A551 Arrow Park Road / Pool Lane	N	N	Y
6089	A551 Arrow park Road / A552 Woodchurch Road / Church Lane	Y	Y	Y

Node	Location	AM	IP	PM
6097	A540 Telegraph Road / B5138 Pensby Road	Y	Y	Y
6099	A540 Telegraph Road / Downham Road South / Rocky Lane	Y	N	Y
6109	B5151 Mount Road / Clatterbridge Road Roundabout, B5151 Mount Road Entrance	Y	N	N
6111	B5136 Thornton Common Road / B5151 Clatterbridge Road / B5151 Willaston Road	Y	Y	Y
6115	Willasten Road / Raby Mere Road	Y	N	N
6200	A551 Barnston Road / Storeton Lane	Y	N	Y
6201	Station Road / Lever Causeway / Red Hill Road Roundabout	Y	N	N
6454	A552 Woodchurch Road / Duck Pond Lane	Y	Y	N
6484	A552 Borough Road / Willmer Road / Ball's Road East	N	Y	Y
6860	Hinderton Road / Green Lane / Queen Street	N	N	Y
8000	M53 Junction 1 / Bidston Island Roundabout	N	N	N
8002	A554 Southbound Off slip / Bidston Island Roundabout	N	N	N
8009	A5139 / M53	N	N	Y
8011	M53 / M53 Moreton Spur Slip Rd	N	N	N
8016	M53 Southbound Off Slip / M53 Roundabout (Junction 3)	Y	N	N
8027	M53 Southbound / M53 Southbound Off-Slip (Junction 4)	Y	N	N
8028	M53 J4 Southbound / B5151 Mount Road Off-Slip Exit	Y	Y	Y
8030	B5151 Mount Road / B5137 Birmstage Road Roundabout, B5151 Mount Road Entrance	Y	Y	Y

Node	Location	AM	IP	PM
8032	B5137 Birmstage Road / B5151 Mount Road Roundabout, B5137 Entrance	N	N	Y
8034	M53 J4 Northbound / B5151 Mount Road Off-Slip Exit	Y	N	N
8035	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Exit	Y	N	N
8036	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Entrance	Y	Y	Y
8038	M53 J4 Roundabout / B517 Brimstage Road Westbound Roundabout Entrance	Y	N	Y
8041	M53 J5 Southbound / New Chester Road Off-Slip Entrance	Y	Y	Y
8042	M53 J5 Southbound / New Chester Road Off-Slip Exit	Y	Y	Y
8044	New Church Road Roundabout	Y	N	N
8047	M53 J6 Southbound Off-Slip Entrance	Y	N	Y
8132	M53 J5 Northbound Off-Slip Entrance	Y	N	Y
8137	M53 J5 Northbound On-Slip Exit	Y	N	Y
8139	M53 J4 Northbound On-Slip Exit	Y	N	N
8142	M53 Northbound Junction 2 / M53 Moreton Spur	Y	N	N
8143	M53 Northbound / M53 Moreton Spur On-Slip Exit	Y	N	N
8146	M53 Northbound J1 Off-Slip Entrance	Y	N	Y
8147	M53 Northbound J1 / A5139 Off-Slip Entrance	Y	N	N
20069	A553 Fender Lane / A554 / Hoylake Road Roundabout, A54 Entrance	Y	Y	Y
20127	A5027 Upton Road / Salacre Lane / Houghton Road	Y	Y	Y
20129	B5139 Greasby Road / Wood Lane	N	N	Y
20133	A552 Woodchurch Road / Ackers Road	Y	Y	Y

Node	Location	AM	IP	PM
20173	B5137 Spital Road / Croft Ave	Y	N	N
20176	A41 New Chester Road / Hesketh Way	Y	N	N
50013	Borough Road / Prenton Road East / Prenton Road West	Y	N	N
50015	Borough Road / Mount Road	N	N	Y
50021	B5151 Mount Road / Mount Wood Road	Y	N	N
50045	B5137 Brimstage Road / Beechway	Y	Y	Y
50077	Caldbeck Road / Welton Road	Y	N	N
50087	Allport Road / Greenfields Avenue / Plymyard Avenue	Y	N	Y
50245	Poulton Bridge Road / Limekiln Lane	Y	Y	Y
50291	Frankby Road / Greasby Road	Y	Y	Y
50293	B5192 Saughall Massie Road / Overchurch Road	Y	N	Y
50295	A551 Arrowe Park Road / Wirral Teaching Hospital	Y	Y	Y
50299	A551 Leasowe Road / Greenleas Road	Y	Y	Y
50325	Ball's Road / Oxton Road / Ball's Road East / Woodchurch Road	N	Y	Y
50337	Hamilton Street / A4554 / A41 Chester Street Roundabout, Hamilton Road Entrance	N	N	Y
50341	B5151 Mount Road / Brackenwood Road	N	N	Y
50345	A553 onway Street / Adelphi Street / Claughton Road	Y	Y	Y
50347	Upton Road / Noctorum Avenue	Y	Y	Y
50349	A552 Woodchurch Road / Singleton Avenue	N	Y	Y
50383	B5151 Mount Road / Lever Causeway	Y	Y	Y
50385	B5151 Mount Road / Thornton Road	Y	Y	Y
50417	Morland Avenue / Allport Road / Dawpool Drive	Y	N	N

Node	Location	AM	IP	PM
50423	Benty Heath Lane / Eastham Rake	Y	N	N
50433	B5136 Neston Road / Manor Road / B5136 Thornton Common Road / Raby Road	N	N	Y
50435	A5137 Brimstage Road / Manor Road	N	N	Y
50441	Poulton Road / Dibbinsdale Road / Poulton Hall Road	N	N	Y
50447	Acre Lane / Dawpool Drive	Y	N	N
50449	B5138 Pensby Road / Irby Road	Y	N	Y
50451	Thingwall Road / Mill Hill Road	Y	N	Y
50455	B5192 Saughall Massie Road / Pump Lane / Heron Road	Y	N	Y
50457	A553 Birkenhead Road / Heron Road	Y	Y	Y
50459	A551 Arrowe Park Road / Arrowe Brook Road	Y	Y	Y
50461	Irby Road / Fishers Lane	Y	N	N
50463	B5138 Pensby Road / Gills Ln / Fishers Ln	Y	N	N
50465	A551 Barnston Road / Gills Lane	Y	N	Y
50477	A554 Kings Parade / Atherton Street	Y	Y	Y
50479	Park Road South / Radnor Place	N	N	Y
50483	A554 Cannin Street / Shore Road	Y	N	Y
50503	A41 New Chester Road / Torr Drive	Y	Y	Y
60039	B5192 Saughall Massie Road / China Farm Lane	Y	N	N
60043	Thurstaston Road / Thinwall Road	Y	N	Y
60045	A540 Telegraph Road / Thurstaston Road / Station Road	Y	N	N
60048	A540 Telegraph Road / Thurstaston Road (near Quarry Road West)	Y	Y	Y
60050	Dee View Road / The Mount	Y	N	N

Node	Location	AM	IP	PM
60051	Dee View Road / Dawstone Road / Rocky Lane	Y	N	N
60053	Well Lane / A540 Telegraph Road	Y	Y	Y
60058	Roman Road / Meols Parade	Y	N	Y
60065	A553 Market Street / Alderley Road	N	Y	Y
60072	Hoyle Road / Saughall Road / Millhouse Lane	Y	Y	Y
60074	Upton Road / Manor Drive	N	N	Y
60083	A551 Leasowe Road / Gardenside	Y	N	N
60084	Hoyle Road / Digg Lane	Y	N	Y
60085	Town Meadon Lane / Maryland Lane	Y	Y	Y
60086	Pasture Road / Maryland Lane	Y	N	Y
60115	Arroze Road / Arroze Brook Lane / Arrow Brook Road	Y	N	Y
60117	B5139 Greasby Road / Cortsway West	N	N	Y
60120	Pensby Road / Sparks Lane	N	N	Y
60128	Barnston Road / Acre Lane	N	N	Y
60159	Pump Lane / Mere Park Road	Y	N	N
60198	Dawstone Road / Dawstone Rise	Y	N	N
60205	A553 Birkenhead Road / Fornalls Green Lane	N	Y	N
60216	A552 Woodchurch Road / Asda Arroze Park Superstore	Y	Y	Y
60218	A551 Arroze park Road / A552 Woodchurch Road / Church Lane	Y	N	Y
60219	A551 Arroze Park Road / Pool Lane	Y	N	Y
60229	A41 New Chester Road / Tebay Road	N	N	Y

Table E.4: Junction over Capacity by Time Period: 2037 Preferred Option

Node	Location	AM	IP	PM
4991	A59 Byrom Street / Mersey Tunnels Roundabout	Y	N	Y
4999	Victoria Street / Mersey Tunnels Roundabout	Y	Y	Y
5003	Queensway / Mersey Tunnels Roundabout	Y	N	Y
5034	Queensway Tunnel (Towards Liverpool)	Y	N	N
5220	B5149 Old Chester Road / Well Lane	N	N	N
5341	Noctorum Avenue/ Beryl Road	N	Y	Y
5346	Budworth Road / Wexford Road	Y	N	N
5436	Ashville Road/ Oakdale Road	Y	N	N
5608	A553 Laird Street/ Miriam Place	Y	N	Y
5630	A553 Laird Street/ Cavendish Street	Y	Y	N
5674	Conway Street/Park Rd East	N	Y	Y
5686	Price Street/Watson Street	N	Y	Y
5687	A59 Scotland Road / Kingsway	N	N	Y
5688	Conway Street/Europa Boulevard	Y	Y	N
5691	Kingsway Tunnel (Towards Liverpool)	Y	N	N
5696	Price Street/Argyle Street	Y	Y	N
5702	Market Street / Hamilton Street	Y	N	N
5705	Mersey Tunnel/ Scotland Road	Y	N	N
5736	King Street/ Church Street/ Brighton Street	N	N	Y
5753	A554 Birkenhead Road/ Kelvin Road	Y	N	N
5757	A5139 Dock Road / Oakdale Road	Y	N	N
5759	Gorsey Lane/ A5139 Dock Road/ Duke Street	Y	Y	Y
5773	A554 Tower Road/ A5029 Rendal Street Roundabout	Y	N	N

Node	Location	AM	IP	PM
5777	A554 Canning Street / A41 Hamilton Street	Y	N	N
5781	A552 Woodchurch Road/ Homl Lane	Y	Y	Y
5783	A41 Chester Street / Duncan Street	N	N	Y
5788	A553 Conway Street/ Herringford Street	Y	Y	Y
5795	A553 Hoylake Road/ St James Road/ Tollemache Road	Y	Y	Y
5798	A552 Borough Road/ Salisbury Street	N	Y	N
5799	A553 Park Road North/ Duke Street/ Ashville Road	Y	N	N
5801	A553 Conway Street/ A5029 Watson Street/ A5029 Exmouth Street	Y	Y	Y
5804	Wirral Circular Trail / Campbeltown Road	Y	N	Y
5809	A5029 Exmouth Street/ Claughton Road	N	Y	Y
5811	A552 Borough Road / A5029 & B5148 Whetstone Lane	N	N	Y
5816	A5029 Exmouth Street / A5029 Whetstone Lane / Oxtan Road / Grange Road West	Y	N	Y
5817	A552 Borough Road / B5147 Argyle Street South	Y	N	N
5824	A41 New Chester Road Roundabout	Y	N	Y
5825	A41 New Chester Road Roundabout / B5149 Green Lane	Y	N	N
5830	A5139 / Poulton Bridge Road Roundabout	Y	Y	Y
5832	A5139 Dock Road / Wallasey Bridge Road Roundabout	Y	N	Y
5834	A5088 Wallasey Bridge Road / A5139 Roundabout	Y	N	Y
5836	A5139 Roundabout	Y	N	Y
5841	A41 Wirral Circular Trail	N	N	Y

Node	Location	AM	IP	PM
5842	A554 Tower Road / A5139 Dock Road Roundabout	N	Y	N
5844	B5147 Pearson Road / Holt Hill	N	Y	N
5850	A41 New Chester Road / A41 Rock Ferry By-Pass	Y	N	N
5851	B5136 New Chester Rd / New Chester Road Roundabout	Y	N	N
5855	B5172 Bedford Avenue / B5149 Old Chester Road / B5172 Bedford Road	N	N	Y
5856	B5477 Harrison Drive / Grove Rd / B5477 Wallasey Village	N	Y	N
5857	B5148 Church Road / B5148 Bebington Road / Mount Road / Greenway Road	Y	N	Y
5858	A41 Chester Street / Chester Street	Y	Y	Y
5860	Borough Road / The Wiend	Y	Y	Y
5862	A552 Woodchurch Road / Prenton Hall Road	Y	Y	Y
5863	A552 Woodchurch Road / B5151 Storeton Road	Y	Y	Y
5865	B5151 Storeton Road / Prenton Road West / Prenton Lane	Y	Y	Y
5866	B5151 Mount Road / Broadway	N	Y	Y
5868	King's Road / Kings Lane / Broadway	Y	N	Y
5873	A5027 Upton Way / Warren Drive	Y	N	Y
5877	B5151 Boundary Road / A5027 Upton Road / B5151 Bidston Road	N	Y	Y
5881	B5151 Boundary Rd / Worcester Rd / Vyner Rd N	Y	Y	N
5885	A553 Hoylake Road / B5151 Bidston Village Road / Valley Road	Y	Y	Y
5891	A553 Hoylake Road / A553 Fender Lane / A554 Roundabout, A554 Entrance	N	N	Y

Node	Location	AM	IP	PM
5895	B5148 Bebington Road / B5149 Old Chester Road / King's Lane	Y	Y	Y
5896	Beford Drive / The Wiend / Mount Road	Y	N	Y
5904	B5136 New Chester Rd / New Ferry Road	Y	Y	Y
5905	New Chester Road / Boundary Road	Y	N	Y
5907	Bebington Road / B5149 Old Chester Road	Y	Y	Y
5913	Mount Road / Village Road / Rest Hill Road	Y	N	N
5914	The Village / Bromborough Road / Church Road	Y	N	Y
5916	Bromborough Road / Ellen's Lane	Y	Y	Y
5921	B5137 Brimstage Road / B516 Church Road / B5137 Spital Road / Poulton Road	Y	Y	Y
5922	B5137 Spital Road / Mark Rake / Bromborough Village Road	Y	Y	Y
5924	Bromborough Village Rd / A41 New Chester Rd	Y	N	Y
5926	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Ferry By-Pass Entrance	Y	N	N
5927	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Chester Road Entrance	Y	Y	Y
5929	A41 New Chester Road / Old Court House Road	Y	Y	Y
5931	Bromborough Road / B5137 Spital Road	Y	Y	Y
5932	Bromborough Village Road / The Cross	Y	N	N
5933	Bromborough Village Road / Croft Avenue East	Y	N	N

Node	Location	AM	IP	PM
5935	A41 New Chester Road / Caldbeck Road / Coft Avenue East	Y	Y	Y
5938	A41 New Chester Road / Bridle Road	Y	N	Y
5939	A41 New Chester Road / Old Hall Road	Y	Y	N
5941	A41 New Chester Road / Allport Road	Y	Y	Y
5943	Allport Lane / Bridle Road / Allport Road	Y	N	N
5945	Allport Rd / Brookhurst Ave	Y	N	N
5947	A41 New Chester Road / B5132 Eastham Village Road	Y	Y	N
5950	A41 New Chester Road / Magazine Road / Mill Road	Y	N	N
5951	A41 New Chester Road / Eastham Rake	Y	Y	Y
5953	Eastham Village Rd / B5132 Rivacre Rd	Y	N	N
5957	A41 New Chester Road / A41 New Chester Road Roundabout	N	N	Y
5961	A41 New Chester Road / Bromborough Village Road	Y	Y	Y
5963	Old Court House Road / Dock Road South / Thermal Road	Y	N	Y
5965	B5136 Bebington Road / Greendale Road	N	N	Y
5972	Hoylake Road / Worcester Road	Y	N	Y
5981	Upton Road / Alderley Avenue / Park Road West	Y	N	N
5992	Egerton Road / Park Road South / Palm Grove	Y	N	N
6000	B5151 Bidston Road / Silverdale Road	N	N	Y
6009	A5027 Oxtan Road / B5145 Poulton Road / A5027 Gorsey Lane	Y	N	Y
6011	B5145 Breck Road / Mill Lane / B5145 Poulton Road /	Y	Y	Y

Node	Location	AM	IP	PM
	A5088 Poulton Bridge Road			
6013	Torrington Road / Mill Lane / Woodstock Road	Y	Y	Y
6015	A551 St Alban's Road / A551 Mill Lane	Y	N	N
6017	A551 Mill Lane / Liscard Crescent / Liscard Road	Y	Y	Y
6021	B5143 Liscard Village / A551 Liscard Cresnet	Y	Y	Y
6023	Wallasey Road / Belvidere Road / Torrington Road	N	Y	Y
6053	A551 Pasture Road / A553 Hoylake Road / A551 Upton Road Roundabout	Y	N	Y
6055	A55 Hoylake Road / Borrowdale Road	Y	N	N
6057	Market Street / Hoyle Road / A553 Birkenhead Road	Y	N	N
6059	A540 Grange Road / Westbourne Road	N	N	Y
6061	A540 Grange Road / B5139 Black Horse Hill / A540 Column Road	Y	Y	Y
6063	B531 Frankby Road / Well lane / Pump Lane Roundabout	Y	N	Y
6073	Moreton Road / M53 Moreton Spur Slip	Y	Y	Y
6075	Upton Bypass / M53 Moreton Spur Roundabout, Upton Bypas Entrance	Y	Y	Y
6076	Moreton Road / M53 Moreton Spur Roundabout, M53 Moreton Spur Exit	N	N	Y
6078	Upton Bypass / B5192 Saughall Massie Road	Y	Y	Y
6082	Upton Road / Ford Road	Y	Y	N
6083	A551 Moreton Road / Ford Road / Arrowe Park Road / Old Greasby Road	Y	Y	Y
6087	A551 Arrow Park Road / Pool Lane	N	Y	Y
6089	A551 Arrow park Road / A552	Y	Y	Y

Node	Location	AM	IP	PM
	Woodchurch Road / Church Lane			
6097	A540 Telegraph Road / B5138 Pensby Road	Y	Y	Y
6099	A540 Telegraph Road / Downham Road South / Rocky Lane	Y	N	Y
6109	B5151 Mount Road / Clatterbridge Road Roundabout, B5151 Mount Road Entrance	Y	N	N
6111	B5136 Thornton Common Road / B5151 Clatterbridge Road / B5151 Willaston Road	Y	Y	Y
6115	Willasten Road / Raby Mere Road	Y	N	N
6200	A551 Barnston Road / Storeton Lane	Y	N	Y
6201	Station Road / Lever Causeway / Red Hill Road Roundabout	Y	N	N
6454	A552 Woodchurch Road / Duck Pond Lane	Y	Y	N
6484	A552 Borough Road / Willmer Road / Ball's Road East	N	Y	Y
6860	Hinderton Road / Green Lane / Queen Street	N	N	Y
8009	A5139 / M53	N	N	Y
8010	M53 / M53 Junction 1 On-Slip Westbound	N	N	Y
8016	M53 Southbound Off Slip / M53 Roundabout (Junction 3)	Y	N	N
8027	M53 Southbound / M53 Southbound Off-Slip (Junction 4)	Y	N	N
8028	M53 J4 Southbound / B5151 Mount Road Off-Slip Exit	Y	Y	Y
8030	B5151 Mount Road / B5137 Birmstage Road Roundabout, B5151 Mount Road Entrance	Y	Y	Y
8032	B5137 Birmstage Road / B5151 Mount Road Roundabout, B5137 Entrance	N	N	Y

Node	Location	AM	IP	PM
8034	M53 J4 Northbound / B5151 Mount Road Off-Slip Exit	Y	N	N
8035	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Exit	Y	N	N
8036	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Entrance	Y	Y	Y
8038	M53 J4 Roundabout / B517 Brimstage Road Westbound Roundabout Entrance	Y	N	Y
8041	M53 J5 Southbound / New Chester Road Off-Slip Entrance	Y	Y	Y
8042	M53 J5 Southbound / New Chester Road Off-Slip Exit	Y	Y	Y
8044	New Church Road Roundabout	Y	N	N
8047	M53 J6 Southbound Off-Slip Entrance	Y	N	Y
8132	M53 J5 Northbound Off-Slip Entrance	Y	N	Y
8137	M53 J5 Northbound On-Slip Exit	Y	N	Y
8139	M53 J4 Northbound On-Slip Exit	Y	N	N
8142	M53 Northbound Junction 2 / M53 Moreton Spur	Y	N	N
8143	M53 Northbound / M53 Moreton Spur On-Slip Exit	Y	N	N
8146	M53 Northbound J1 Off-Slip Entrance	Y	N	Y
8147	M53 Northbound J1 / A5139 Off-Slip Entrance	Y	N	N
20069	A553 Fender Lane / A554 / Hoylake Road Roundabout, A54 Entrance	Y	Y	Y
20127	A5027 Upton Road / Salacre Lane / Houghton Road	Y	Y	Y
20129	B5139 Greasby Road / Wood Lane	N	N	Y
20133	A552 Woodchurch Road / Ackers Road	Y	Y	Y
20173	B5137 Spital Road / Croft Ave	Y	N	N

Node	Location	AM	IP	PM
20176	A41 New Chester Road / Hesketh Way	Y	N	N
50013	Borough Road / Prenton Road East / Prenton Road West	Y	N	N
50015	Borough Road / Mount Road	N	N	N
50021	B5151 Mount Road / Mount Wood Road	Y	N	N
50045	B5137 Brimstage Road / Beechway	Y	Y	Y
50077	Caldbeck Road / Welton Road	Y	N	N
50087	Allport Road / Greenfields Avenue / Plymyard Avenue	Y	N	Y
50245	Poulton Bridge Road / Limekiln Lane	Y	Y	Y
50291	Frankby Road / Greasby Road	Y	Y	Y
50293	B5192 Saughall Massie Road / Overchurch Road	Y	N	Y
50295	A551 Arrowe Park Road / Wirral Teaching Hospital	Y	Y	Y
50299	A551 Leasowe Road / Greenleas Road	Y	Y	Y
50325	Ball's Road / Oxton Road / Ball's Road East / Woodchurch Road	N	Y	Y
50337	Hamilton Street / A4554 / A41 Chester Street Roundabout, Hamilton Road Entrance	N	N	Y
50341	B5151 Mount Road / Brackenwood Road	N	N	Y
50345	A553 onway Street / Adelphi Street / Claughton Road	Y	Y	Y
50347	Upton Road / Noctorum Avenue	Y	Y	Y
50349	A552 Woodchurch Road / Singleton Avenue	N	Y	Y
50383	B5151 Mount Road / Lever Causeway	Y	Y	Y
50385	B5151 Mount Road / Thornton Road	Y	Y	Y
50417	Morland Avenue / Allport Road / Dawpool Drive	Y	N	N
50423	Benty Heath Lane / Eastham Rake	Y	N	N

Node	Location	AM	IP	PM
50433	B5136 Neston Road / Manor Road / B5136 Thornton Common Road / Raby Road	N	N	Y
50435	A5137 Brimstage Road / Manor Road	N	N	Y
50441	Poulton Road / Dibbinsdale Road / Poulton Hall Road	N	N	Y
50445	Allport Lane / Acre Lane	Y	N	N
50447	Acre Lane / Dawpool Drive	Y	N	N
50449	B5138 Pensby Road / Irby Road	Y	N	Y
50451	Thingwall Road / Mill Hill Road	Y	N	Y
50455	B5192 Saughall Massie Road / Pump Lane / Heron Road	Y	N	Y
50457	A553 Birkenhead Road / Heron Road	Y	Y	Y
50459	A551 Arrowe Park Road / Arrowe Brook Road	Y	Y	Y
50461	Irby Road / Fishers Lane	Y	N	N
50463	B5138 Pensby Road / Gills Ln / Fishers Ln	Y	N	N
50465	A551 Barnston Road / Gills Lane	Y	N	Y
50477	A554 Kings Parade / Atherton Street	Y	Y	Y
50479	Park Road South / Radnor Place	N	N	Y
50483	A554 Cannin Street / Shore Road	Y	N	Y
50503	A41 New Chester Road / Torr Drive	Y	Y	Y
60039	B5192 Saughall Massie Road / China Farm Lane	Y	N	N
60043	Thurstaston Road / Thinwall Road	Y	N	Y
60045	A540 Telegraph Road / Thurstaston Road / Station Road	Y	N	Y
60048	A540 Telegraph Road / Thurstaston Road (near Quarry Road West)	Y	Y	Y
60050	Dee View Road / The Mount	Y	N	N

Node	Location	AM	IP	PM
60051	Dee View Road / Dawstone Road / Rocky Lane	Y	N	N
60053	Well Lane / A540 Telegraph Road	Y	Y	Y
60058	Roman Road / Meols Parade	Y	N	Y
60065	A553 Market Street / Alderley Road	Y	Y	Y
60072	Hoyle Road / Saughall Road / Millhouse Lane	Y	Y	Y
60074	Upton Road / Manor Drive	N	N	Y
60083	A551 Leasowe Road / Gardenside	Y	N	N
60084	Hoyle Road / Digg Lane	Y	N	Y
60085	Town Meadon Lane / Maryland Lane	Y	Y	Y
60086	Pasture Road / Maryland Lane	Y	N	Y
60115	Arroze Road / Arroze Brook Lane / Arrow Brook Road	Y	N	Y
60117	B5139 Greasby Road / Cortsway West	N	N	Y
60120	Pensby Road / Sparks Lane	N	N	Y
60128	Barnston Road / Acre Lane	N	N	Y
60159	Pump Lane / Mere Park Road	Y	N	N
60198	Dawstone Road / Dawstone Rise	Y	N	N
60205	A553 Birkenhead Road / Fornalls Green Lane	N	Y	N
60216	A552 Woodchurch Road / Asda Arroze Park Superstore	Y	Y	Y
60218	A551 Arroze park Road / A552 Woodchurch Road / Church Lane	Y	N	Y
60219	A551 Arroze Park Road / Pool Lane	Y	N	Y
60229	A41 New Chester Road / Tebay Road	N	N	Y

Table E.5: Junction over Capacity by Time Period: 2037 Baseline Strategic Schemes

Node	Location	AM	IP	PM
4991	A59 Byrom Street / Mersey Tunnels Roundabout	Y	N	Y
4999	Victoria Street / Mersey Tunnels Roundabout	Y	Y	Y
5003	Queensway / Mersey Tunnels Roundabout	Y	N	Y
5034	Queensway Tunnel (Towards Liverpool)	Y	N	N
5152	Price Street / Adelphi Street / Lord Street	N	Y	Y
5154	Adelphi St / Market Street	N	N	Y
5220	B5149 Old Chester Road / Well Lane	N	N	Y
5341	Noctorum Avenue/ Beryl Road	N	N	Y
5608	A553 Laird Street/ Miriam Place	Y	N	Y
5616	A5030 Beaufort Road / Corporation Road	N	Y	N
5674	Conway Street/Park Rd East	N	N	Y
5686	Price Street/Watson Street	Y	Y	Y
5688	Conway Street/Europa Boulevard	N	N	N
5691	Kingsway Tunnel (Towards Liverpool)	Y	N	N
5696	Price Street/Argyle Street	Y	Y	N
5702	Market Street / Hamilton Street	Y	N	N
5705	Mersey Tunnel/ Scotland Road	Y	N	N
5736	King Street/ Church Street/ Brighton Street	N	N	Y
5753	A554 Birkenhead Road/ Kelvin Road	Y	N	N
5759	Gorsey Lane/ A5139 Dock Road/ Duke Street	Y	Y	Y
5769	Duke Street / Corporation Road junction	N	N	Y
5773	A554 Tower Road/ A5029 Rendal Street Roundabout	Y	N	N

Node	Location	AM	IP	PM
5775	A554 Canning Street / Argyle Street	N	Y	N
5777	A554 Canning Street / A41 Hamilton Street	Y	N	N
5781	A552 Woodchurch Road/ Homl Lane	Y	Y	Y
5783	A41 Chester Street / Duncan Street	N	N	Y
5785	A5030 Cleveland Street / A5029 Rendel Street / A5029 Watson Street	N	N	Y
5787	A5030 Cleveland Street / A5027 Duke Street	N	N	Y
5788	A553 Conway Street/ Herringford Street	N	Y	Y
5795	A553 Hoylake Road/ St James Road/ Tollemache Road	N	Y	Y
5798	A552 Borough Road/ Salisbury Street	N	Y	N
5799	A553 Park Road North/ Duke Street/ Ashville Road	Y	N	Y
5801	A553 Conway Street/ A5029 Watson Street/ A5029 Exmouth Street	N	N	N
5804	Wirral Circular Trail / Campbelltown Road	N	N	Y
5805	Argyle Street A552 / Conway Street	Y	Y	Y
5809	A5029 Exmouth Street/ Claughton Road	Y	Y	Y
5811	A552 Borough Road / A5029 & B5148 Whetstone Lane	N	N	N
5816	A5029 Exmouth Street / A5029 Whetstone Lane / Oxtan Road / Grange Road West	Y	Y	Y
5817	A552 Borough Road / B5147 Argyle Street South	N	N	N
5824	A41 New Chester Road Roundabout	Y	N	Y
5825	A41 New Chester Road Roundabout / B5149 Green Lane	Y	N	N

Node	Location	AM	IP	PM
5827	Wirral Circular Trail / A41 New Chester Road	Y	N	N
5841	A41 Wirral Circular Trail	N	N	Y
5844	B5147 Pearson Road / Holt Hill	N	Y	N
5851	B5136 New Chester Rd / New Chester Road Roundabout	Y	N	N
5855	B5172 Bedford Avenue / B5149 Old Chester Road / B5172 Bedford Road	N	N	Y
5856	B5477 Harrison Drive / Grove Rd / B5477 Wallasey Village	N	Y	N
5857	B5148 Church Road / B5148 Bebington Road / Mount Road / Greenway Road	Y	N	Y
5858	A41 Chester Street / Chester Street	Y	Y	Y
5860	Borough Road / The Wiend	Y	Y	Y
5862	A552 Woodchurch Road / Prenton Hall Road	Y	N	Y
5863	A552 Woodchurch Road / B5151 Storeton Road	Y	Y	Y
5865	B5151 Storeton Road / Prenton Road West / Prenton Lane	Y	Y	Y
5866	B5151 Mount Road / Broadway	N	Y	Y
5868	King's Road / Kings Lane / Broadway	Y	N	Y
5873	A5027 Upton Way / Warren Drive	Y	N	Y
5881	B5151 Boundary Rd / Worcester Rd / Vyner Rd N	Y	N	N
5885	A553 Hoylake Road / B5151 Bidston Village Road / Valley Road	Y	Y	Y
5891	A553 Hoylake Road / A553 Fender Lane / A554 Roundabout, A554 Entrance	N	N	Y
5895	B5148 Bebington Road / B5149 Old Chester Road / King's Lane	Y	Y	Y

Node	Location	AM	IP	PM
5896	Beford Drive / The Wiend / Mount Road	Y	N	Y
5904	B5136 New Chester Rd / New Ferry Road	N	N	Y
5905	New Chester Road / Boundary Road	N	N	Y
5907	Bebington Road / B5149 Old Chester Road	Y	Y	Y
5913	Mount Road / Village Road / Rest Hill Road	Y	N	N
5914	The Village / Bromborough Road / Church Road	Y	N	N
5916	Bromborough Road / Ellen's Lane	Y	Y	Y
5921	B5137 Brimstage Road / B516 Church Road / B5137 Spital Road / Poulton Road	Y	Y	Y
5922	B5137 Spital Road / Mark Rake / Bromborough Village Road	Y	Y	Y
5924	Bromborough Village Rd / A41 New Chester Rd	Y	N	N
5926	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Ferry By-Pass Entrance	Y	N	N
5927	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Chester Road Entrance	Y	Y	Y
5929	A41 New Chester Road / Old Court House Road	Y	Y	Y
5931	Bromborough Road / B5137 Spital Road	Y	Y	Y
5933	Bromborough Village Road / Croft Avenue East	Y	N	N
5935	A41 New Chester Road / Caldbeck Road / Coft Avenue East	Y	Y	Y
5938	A41 New Chester Road / Bridle Road	Y	N	Y

Node	Location	AM	IP	PM
5939	A41 New Chester Road / Old Hall Road	Y	Y	N
5941	A41 New Chester Road / Allport Road	Y	Y	N
5943	Allport Lane / Bridle Road / Allport Road	Y	N	N
5945	Allport Rd / Brookhurst Ave	Y	N	N
5947	A41 New Chester Road / B5132 Eastham Village Road	Y	Y	N
5950	A41 New Chester Road / Magazine Road / Mill Road	Y	N	N
5951	A41 New Chester Road / Eastham Rake	Y	Y	Y
5953	Eastham Village Rd / B5132 Rivacre Rd	Y	N	N
5957	A41 New Chester Road / A41 New Chester Road Roundabout	N	N	Y
5961	A41 New Chester Road / Bromborough Village Road	Y	Y	Y
5963	Old Court House Road / Dock Road South / Thermal Road	Y	N	Y
5972	Hoylake Road / Worcester Road	N	N	Y
5974	A553 Hoylake Road / Challis Street	Y	N	N
5976	A5088 Wallasey Bridge Road / Station Road / A5088 Stanley Road / Gautby Road	Y	N	N
5981	Upton Road / Alderley Avenue / Park Road West	Y	N	N
5983	A5027 Park Road North / Mallaby Street	N	N	Y
5992	Egerton Road / Park Road South / Palm Grove	Y	N	N
6000	B5151 Bidston Road / Silverdale Road	N	N	Y
6009	A5027 Oxtan Road / B5145 Poulton Road / A5027 Gorsey Lane	Y	N	N
6011	B5145 Breck Road / Mill Lane / B5145	Y	Y	Y

Node	Location	AM	IP	PM
	Poulton Road / A5088 Poulton Bridge Road			
6013	Torrington Road / Mill Lane / Woodstock Road	Y	Y	Y
6015	A551 St Alban's Road / A551 Mill Lane	N	Y	Y
6017	A551 Mill Lane / Liscard Crescent / Liscard Road	Y	Y	Y
6021	B5143 Liscard Village / A551 Liscard Cresnet	Y	N	Y
6023	Wallasey Road / Belvidere Road / Torrington Road	Y	Y	Y
6025	A551 Wallasey Rd / A551 St. Albans Rd	N	N	Y
6031	A551 Leasowe Road / Mossland Drive	Y	N	N
6053	A551 Pasture Road / A553 Hoylake Road / A551 Upton Road Roundabout	Y	N	Y
6055	A55 Hoylake Road / Borrowdale Road	Y	N	N
6057	Market Street / Hoyle Road / A553 Birkenhead Road	Y	N	N
6059	A540 Grange Road / Westbourne Road	N	N	Y
6061	A540 Grange Road / B5139 Black Horse Hill / A540 Column Road	Y	Y	Y
6063	B531 Frankby Road / Well lane / Pump Lane Roundabout	Y	N	Y
6073	Moreton Road / M53 Moreton Spur Slip	Y	Y	Y
6075	Upton Bypass / M53 Moreton Spur Roundabout, Upton Bypas Entrance	Y	Y	Y
6076	Moreton Road / M53 Moreton Spur Roundabout, M53 Moreton Spur Exit	N	N	Y
6078	Upton Bypass / B5192 Saughall Massie Road	Y	Y	Y
6081	A5027 Upton By- Pass / B5139 Old Greasby Road / B5139 Greasby Road	Y	N	N

Node	Location	AM	IP	PM
6082	Upton Road / Ford Road	Y	Y	N
6083	A551 Moreton Road / Ford Road / Arrowe Park Road / Old Greasby Road	Y	Y	Y
6087	A551 Arrow Park Road / Pool Lane	N	N	Y
6089	A551 Arrow park Road / A552 Woodchurch Road / Church Lane	Y	Y	Y
6097	A540 Telegraph Road / B5138 Pensby Road	Y	Y	Y
6099	A540 Telegraph Road / Downham Road South / Rocky Lane	Y	N	Y
6109	B5151 Mount Road / Clatterbridge Road Roundabout, B5151 Mount Road Entrance	Y	N	N
6111	B5136 Thornton Common Road / B5151 Clatterbridge Road / B5151 Willaston Road	Y	Y	Y
6115	Willasten Road / Raby Mere Road	Y	N	N
6200	A551 Barnston Road / Storeton Lane	Y	N	Y
6201	Station Road / Lever Causeway / Red Hill Road Roundabout	Y	N	N
6454	A552 Woodchurch Road / Duck Pond Lane	Y	Y	N
6484	A552 Borough Road / Willmer Road / Ball's Road East	Y	Y	Y
6654	B5148 Whetstone Lane / Derby Road	N	N	Y
6786	Hinderton Road / Queen Street / Holt Hill	N	Y	N
6860	Hinderton Road / Green Lane / Queen Street	N	N	Y
8000	M53 Junction 1 / Bidston Island Roundabout	N	N	N
8002	A554 Southbound Off slip / Bidston Island Roundabout	N	N	N

Node	Location	AM	IP	PM
8006	A554 Northbound Off slip / Bidston Island Roundabout	Y	N	N
8010	M53 / M53 Junction 1 On-Slip Westbound	Y	N	N
8011	M53 / M53 Moreton Spur Slip Rd	N	N	N
8016	M53 Southbound Off Slip / M53 Roundabout (Junction 3)	Y	N	N
8027	M53 Southbound / M53 Southbound Off-Slip (Junction 4)	Y	N	N
8028	M53 J4 Southbound / B5151 Mount Road Off-Slip Exit	Y	Y	Y
8030	B5151 Mount Road / B5137 Birmstage Road Roundabout, B5151 Mount Road Entrance	Y	Y	Y
8032	B5137 Birmstage Road / B5151 Mount Road Roundabout, B5137 Entrance	N	N	Y
8034	M53 J4 Northbound / B5151 Mount Road Off-Slip Exit	Y	N	N
8035	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Exit	Y	N	N
8036	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Entrance	Y	Y	Y
8038	M53 J4 Roundabout / B517 Brimstage Road Westbound Roundabout Entrance	Y	N	Y
8041	M53 J5 Southbound / New Chester Road Off-Slip Entrance	Y	Y	Y
8042	M53 J5 Southbound / New Chester Road Off-Slip Exit	Y	Y	Y
8044	New Church Road Roundabout	Y	N	N
8047	M53 J6 Southbound Off-Slip Entrance	Y	N	Y
8132	M53 J5 Northbound Off-Slip Entrance	Y	N	Y
8133	M53 Junction 5 Off- Slip / New Chester Road Roundabout	N	N	Y

Node	Location	AM	IP	PM
8137	M53 J5 Northbound On-Slip Exit	Y	N	Y
8139	M53 J4 Northbound On-Slip Exit	Y	N	N
8142	M53 Northbound Junction 2 / M53 Moreton Spur	Y	N	N
8143	M53 Northbound / M53 Moreton Spur On-Slip Exit	Y	N	N
8146	M53 Northbound J1 Off-Slip Entrance	Y	N	Y
8147	M53 Northbound J1 / A5139 Off-Slip Entrance	Y	N	N
20005	Cloughton Road / Parking Access	N	Y	N
20013	Adelphi St / Car Par Access	N	N	Y
20069	A553 Fender Lane / A554 / Hoylake Road Roundabout, A54 Entrance	Y	Y	Y
20127	A5027 Upton Road / Salacre Lane / Houghton Road	Y	Y	Y
20129	B5139 Greasby Road / Wood Lane	N	N	Y
20133	A552 Woodchurch Road / Ackers Road	Y	Y	Y
20173	B5137 Spital Road / Croft Ave	Y	N	N
20176	A41 New Chester Road / Hesketh Way	Y	N	N
50013	Borough Road / Prenon Road East / Prenon Road West	Y	N	N
50015	Borough Road / Mount Road	N	N	Y
50019	B5151 Storeton Road / Mount Road / B5151 Mount Road	N	N	Y
50021	B5151 Mount Road / Mount Wood Road	Y	N	N
50045	B5137 Brimstage Road / Beechway	Y	Y	Y
50077	Caldbeck Road / Welton Road	Y	N	N
50087	Allport Road / Greenfields Avenue / Plymyard Avenue	Y	N	Y
50183	A41 Wirral Circular Tail	Y	N	N
50245	Poulton Bridge Road / Limekiln Lane	Y	N	Y
50291	Frankby Road / Greasby Road	Y	Y	Y

Node	Location	AM	IP	PM
50293	B5192 Saughall Massie Road / Overchurch Road	Y	N	Y
50295	A551 Arrowe Park Road / Wirral Teaching Hospital	Y	Y	Y
50299	A551 Leasowe Road / Greenleas Road	Y	Y	Y
50325	Ball's Road / Oxton Road / Ball's Road East / Woodchurch Road	N	Y	Y
50337	Hamilton Street / A4554 / A41 Chester Street Roundabout, Hamilton Road Entrance	N	N	Y
50341	B5151 Mount Road / Brackenwood Road	N	N	Y
50345	A553 onway Street / Adelphi Street / Claughton Road	N	N	Y
50347	Upton Road / Noctorum Avenue	Y	Y	Y
50349	A552 Woodchurch Road / Singleton Avenue	N	Y	Y
50383	B5151 Mount Road / Lever Causeway	Y	Y	Y
50385	B5151 Mount Road / Thornton Road	Y	Y	Y
50417	Morland Avenue / Allport Road / Dawpool Drive	Y	N	N
50423	Benty Heath Lane / Eastham Rake	Y	N	N
50433	B5136 Neston Road / Manor Road / B5136 Thornton Common Road / Raby Road	N	N	Y
50435	A5137 Brimstage Road / Manor Road	N	N	Y
50441	Poulton Road / Dibbinsdale Road / Poulton Hall Road	N	N	Y
50445	Allport Lane / Acre Lane	Y	N	N
50447	Acre Lane / Dawpool Drive	Y	N	N
50449	B5138 Pensby Road / Irby Road	Y	N	Y
50451	Thingwall Road / Mill Hill Road	Y	N	Y
50455	B5192 Saughall Massie Road /	Y	N	Y

Node	Location	AM	IP	PM
	Pump Lane / Heron Road			
50457	A553 Birkenhead Road / Heron Road	Y	Y	Y
50459	A551 Arrowe Park Road / Arrowe Brook Road	Y	Y	Y
50461	Irby Road / Fishers Lane	Y	N	N
50463	B5138 Pensby Road / Gills Ln / Fishers Ln	Y	N	N
50465	A551 Barnston Road / Gills Lane	Y	N	Y
50475	A554 King's Parade / Portland Street	N	N	Y
50477	A554 Kings Parade / Atherton Street	Y	Y	Y
50483	A554 Cannin Street / Shore Road	Y	N	Y
50502	B5137 Spital Road / Mill Road	Y	N	N
50503	A41 New Chester Road / Torr Drive	Y	Y	Y
60039	B5192 Saughall Massie Road / China Farm Lane	Y	N	N
60043	Thurstaston Road / Thinwall Road	Y	N	Y
60045	A540 Telegraph Road / Thurstaston Road / Station Road	Y	N	Y
60048	A540 Telegraph Road / Thurstaston Road (near Quarry Road West)	Y	Y	Y
60050	Dee View Road / The Mount	Y	N	N
60051	Dee View Road / Dawstone Road / Rocky Lane	Y	N	N
60053	Well Lane / A540 Telegraph Road	Y	Y	Y
60058	Roman Road / Meols Parade	Y	N	Y
60065	A553 Market Street / Alderley Road	N	Y	Y
60072	Hoylake Road / Saughall Road / Millhouse Lane	Y	Y	Y
60074	Upton Road / Manor Drive	N	N	Y
60083	A551 Leasowe Road / Gardenside	Y	N	N
60084	Hoylake Road / Digg Lane	Y	N	Y

Node	Location	AM	IP	PM
60085	Town Meadon Lane / Maryland Lane	Y	Y	Y
60086	Pasture Road / Maryland Lane	Y	N	Y
60115	Arrowe Road / Arrowe Brook Lane / Arrow Brook Road	Y	N	Y
60117	B5139 Greasby Road / Cortsway West	N	N	Y
60120	Pensby Road / Sparks Lane	N	N	Y
60128	Barnston Road / Acre Lane	N	N	Y
60159	Pump Lane / Mere Park Road	Y	N	N
60198	Dawstone Road / Dawstone Rise	Y	N	N
60205	A553 Birkenhead Road / Fornalls Green Lane	N	Y	N
60216	A552 Woodchurch Road / Asda Arrowe Park Superstore	Y	Y	Y
60218	A551 Arrowe park Road / A552 Woodchurch Road / Church Lane	Y	N	Y
60219	A551 Arrowe Park Road / Pool Lane	Y	N	Y
60229	A41 New Chester Road / Tebay Road	N	N	Y
91009	Wallasey Bridge Road / Dock Road / Poulton Bridge Road junction	Y	Y	Y
91010	Tower Road / Dock Road / Birkenhead Road junction	Y	Y	Y

Table E.6: Junction over Capacity by Time Period: 2037 Preferred Option Strategic Schemes

Node	Location	AM	IP	PM
4991	A59 Byrom Street / Mersey Tunnels Roundabout	Y	N	Y
4999	Victoria Street / Mersey Tunnels Roundabout	Y	Y	Y
5003	Queensway / Mersey Tunnels Roundabout	Y	N	Y
5034	Queensway Tunnel (Towards Liverpool)	Y	N	N
5092	A554 Canning Street / Egerton Wharf	Y	N	Y
5152	Price Street / Adelphi Street / Lord Street	N	Y	Y
5154	Adelphi St / Market Street	N	N	Y
5220	B5149 Old Chester Road / Well Lane	N	N	Y
5341	Nocturn Avenue/ Beryl Road	N	N	Y
5346	Budworth Road / Wexford Road	Y	N	N
5608	A553 Laird Street/ Miriam Place	Y	N	Y
5616	A5030 Beaufort Road / Corporation Road	N	Y	N
5630	A553 Laird Street/ Cavendish Street	Y	N	N
5674	Conway Street/Park Rd East	N	N	Y
5686	Price Street/Watson Street	Y	Y	Y
5691	Kingsway Tunnel (Towards Liverpool)	Y	N	N
5696	Price Street/Argyle Street	Y	Y	N
5702	Market Street / Hamilton Street	Y	N	N
5703	A59 Scotland Road Northbound / Kingsway	Y	N	N
5705	Mersey Tunnel/ Scotland Road	Y	N	N
5736	King Street/ Church Street/ Brighton Street	N	N	Y
5753	A554 Birkenhead Road/ Kelvin Road	Y	N	N

Node	Location	AM	IP	PM
5759	Gorsey Lane/ A5139 Dock Road/ Duke Street	Y	Y	Y
5769	Duke Street / Corporation Road junction	Y	N	Y
5773	A554 Tower Road/ A5029 Rendal Street Roundabout	Y	N	N
5775	A554 Canning Street / Argyle Street	Y	Y	N
5777	A554 Canning Street / A41 Hamilton Street	Y	N	N
5781	A552 Woodchurch Road/ Homl Lane	Y	Y	Y
5783	A41 Chester Street / Duncan Street	N	N	Y
5785	A5030 Cleveland Street / A5029 Rendel Street / A5029 Watson Street	N	N	Y
5787	A5030 Cleveland Street / A5027 Duke Street	N	N	Y
5788	A553 Conway Street/ Herringford Street	N	Y	Y
5795	A553 Hoylake Road/ St James Road/ Tollemache Road	Y	Y	Y
5798	A552 Borough Road/ Salisbury Street	Y	Y	N
5799	A553 Park Road North/ Duke Street/ Ashville Road	Y	N	Y
5804	Wirral Circular Trail / Campbeltown Road	N	N	Y
5805	Argyle Street A552 / Conway Street	Y	Y	Y
5809	A5029 Exmouth Street/ Claughton Road	Y	Y	Y
5816	A5029 Exmouth Street / A5029 Whetstone Lane / Oxton Road / Grange Road West	Y	Y	Y
5824	A41 New Chester Road Roundabout	Y	N	Y
5825	A41 New Chester Road Roundabout / B5149 Green Lane	Y	N	N
5827	Wirral Circular Trail / A41 New Chester Road	Y	N	N

Node	Location	AM	IP	PM
5841	A41 Wirral Circular Trail	N	N	Y
5843	B5149 Old Chester Road / Queen Street	N	Y	N
5844	B5147 Pearson Road / Holt Hill	N	Y	N
5851	B5136 New Chester Rd / New Chester Road Roundabout	Y	N	N
5853	B5172 Bedford Road / B5136 New Chester Road	N	N	Y
5855	B5172 Bedford Avenue / B5149 Old Chester Road / B5172 Bedford Road	N	N	Y
5856	B5477 Harrison Drive / Grove Rd / B5477 Wallasey Village	N	Y	N
5857	B5148 Church Road / B5148 Bebington Road / Mount Road / Greenway Road	Y	N	Y
5858	A41 Chester Street / Chester Street	Y	Y	Y
5860	Borough Road / The Wiend	Y	Y	Y
5862	A552 Woodchurch Road / Prenton Hall Road	Y	N	Y
5863	A552 Woodchurch Road / B5151 Storeton Road	Y	Y	Y
5865	B5151 Storeton Road / Prenton Road West / Prenton Lane	Y	Y	Y
5866	B5151 Mount Road / Broadway	N	Y	Y
5868	King's Road / Kings Lane / Broadway	Y	N	Y
5869	B5151 Bidston Road / Gerald Road / B5151 Talbot Road / Townfield Lane	N	N	Y
5873	A5027 Upton Way / Warren Drive	Y	N	Y
5877	B5151 Boundary Road / A5027 Upton Road / B5151 Bidston Road	N	Y	N
5881	B5151 Boundary Rd / Worcester Rd / Vynner Rd N	Y	N	N
5885	A553 Hoylake Road / B5151 Bidston	Y	Y	Y

Node	Location	AM	IP	PM
	Village Road / Valley Road			
5891	A553 Hoylake Road / A553 Fender Lane / A554 Roundabout, A554 Entrance	N	N	Y
5895	B5148 Bebington Road / B5149 Old Chester Road / King's Lane	Y	Y	Y
5896	Beford Drive / The Wiend / Mount Road	Y	N	Y
5904	B5136 New Chester Rd / New Ferry Road	Y	Y	Y
5905	New Chester Road / Boundary Road	N	N	Y
5907	Bebington Road / B5149 Old Chester Road	Y	Y	Y
5913	Mount Road / Village Road / Rest Hill Road	Y	N	N
5914	The Village / Bromborough Road / Church Road	Y	N	Y
5916	Bromborough Road / Ellen's Lane	Y	Y	Y
5921	B5137 Brimstage Road / B516 Church Road / B5137 Spital Road / Poulton Road	Y	Y	Y
5922	B5137 Spital Road / Mark Rake / Bromborough Village Road	Y	Y	Y
5924	Bromborough Village Rd / A41 New Chester Rd	Y	N	Y
5926	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Ferry By-Pass Entrance	Y	N	N
5927	A41 New Ferry By-Pass / A41 New Chester Road / B5136 New Chester Road Roundabout, New Chester Road Entrance	Y	Y	Y
5929	A41 New Chester Road / Old Court House Road	Y	Y	Y
5931	Bromborough Road / B5137 Spital Road	Y	Y	Y

Node	Location	AM	IP	PM
5932	Bromborough Village Road / The Cross	Y	N	N
5933	Bromborough Village Road / Croft Avenue East	Y	N	N
5935	A41 New Chester Road / Caldbeck Road / Coft Avenue East	Y	Y	Y
5938	A41 New Chester Road / Bridle Road	Y	N	Y
5939	A41 New Chester Road / Old Hall Road	Y	Y	N
5941	A41 New Chester Road / Allport Road	Y	Y	Y
5943	Allport Lane / Bridle Road / Allport Road	Y	N	N
5945	Allport Rd / Brookhurst Ave	Y	N	N
5947	A41 New Chester Road / B5132 Eastham Village Road	Y	Y	N
5950	A41 New Chester Road / Magazine Road / Mill Road	Y	N	N
5951	A41 New Chester Road / Eastham Rake	Y	Y	Y
5953	Eastham Village Rd / B5132 Rivacre Rd	Y	N	N
5957	A41 New Chester Road / A41 New Chester Road Roundabout	N	N	Y
5961	A41 New Chester Road / Bromborough Village Road	Y	Y	Y
5963	Old Court House Road / Dock Road South / Thermal Road	Y	N	Y
5965	B5136 Bebington Road / Greendale Road	N	N	Y
5972	Hoylake Road / Worcester Road	N	N	N
5974	A553 Hoylake Road / Challis Street	Y	N	N
5976	A5088 Wallasey Bridge Road / Station Road / A5088 Stanley Road / Gautby Road	Y	N	N

Node	Location	AM	IP	PM
5981	Upton Road / Alderley Avenue / Park Road West	Y	N	N
5983	A5027 Park Road North / Mallaby Street	N	N	Y
5992	Egerton Road / Park Road South / Palm Grove	Y	N	N
6000	B5151 Bidston Road / Silverdale Road	N	N	Y
6009	A5027 Oxtun Road / B5145 Poulton Road / A5027 Gorsey Lane	Y	N	N
6011	B5145 Breck Road / Mill Lane / B5145 Poulton Road / A5088 Poulton Bridge Road	Y	Y	Y
6013	Torrington Road / Mill Lane / Woodstock Road	Y	Y	Y
6015	A551 St Alban's Road / A551 Mill Lane	N	N	Y
6017	A551 Mill Lane / Liscard Crescent / Liscard Road	Y	Y	Y
6021	B5143 Liscard Village / A551 Liscard Crescnet	Y	N	Y
6023	Wallasey Road / Belvidere Road / Torrington Road	Y	Y	Y
6025	A551 Wallasey Rd / A551 St. Albans Rd	N	N	N
6031	A551 Leasowe Road / Mossland Drive	Y	N	N
6053	A551 Pasture Road / A553 Hoylake Road / A551 Upton Road Roundabout	Y	N	Y
6055	A55 Hoylake Road / Borrowdale Road	Y	N	N
6057	Market Street / Hoyle Road / A553 Birkenhead Road	Y	N	N
6059	A540 Grange Road / Westbourne Road	N	N	Y
6061	A540 Grange Road / B5139 Black Horse Hill / A540 Column Road	Y	Y	Y
6063	B531 Frankby Road / Well lane / Pump Lane Roundabout	Y	N	Y

Node	Location	AM	IP	PM
6073	Moreton Road / M53 Moreton Spur Slip	Y	Y	Y
6075	Upton Bypass / M53 Moreton Spur Roundabout, Upton Bypas Entrance	Y	Y	Y
6076	Moreton Road / M53 Moreton Spur Roundabout, M53 Moreton Spur Exit	N	N	Y
6078	Upton Bypass / B5192 Saughall Massie Road	Y	Y	Y
6081	A5027 Upton By- Pass / B5139 Old Greasby Road / B5139 Greasby Road	Y	N	N
6082	Upton Road / Ford Road	Y	Y	N
6083	A551 Moreton Road / Ford Road / Arrowe Park Road / Old Greasby Road	Y	Y	Y
6087	A551 Arrow Park Road / Pool Lane	N	N	Y
6089	A551 Arrow park Road / A552 Woodchurch Road / Church Lane	Y	Y	Y
6097	A540 Telegraph Road / B5138 Pensby Road	Y	Y	Y
6099	A540 Telegraph Road / Downham Road South / Rocky Lane	Y	N	Y
6109	B5151 Mount Road / Clatterbridge Road Roundabout, B5151 Mount Road Entrance	Y	N	N
6111	B5136 Thornton Common Road / B5151 Clatterbridge Road / B5151 Willaston Road	Y	Y	Y
6115	Willasten Road / Raby Mere Road	Y	N	N
6200	A551 Barnston Road / Storeton Lane	Y	N	Y
6201	Station Road / Lever Causeway / Red Hill Road Roundabout	Y	N	N
6454	A552 Woodchurch Road / Duck Pond Lane	Y	Y	N

Node	Location	AM	IP	PM
6484	A552 Borough Road / Willmer Road / Ball's Road East	Y	Y	Y
6654	B5148 Whetstone Lane / Derby Road	N	N	N
6786	Hinderton Road / Queen Street / Holt Hill	N	Y	N
6860	Hinderton Road / Green Lane / Queen Street	N	N	Y
8006	A554 Northbound Off slip / Bidston Island Roundabout	Y	N	N
8010	M53 / M53 Junction 1 On-Slip Westbound	Y	N	N
8016	M53 Southbound Off Slip / M53 Roundabout (Junction 3)	Y	N	N
8018	A552 Woodchurch Road / M53 Junction 3	N	N	Y
8027	M53 Southbound / M53 Southbound Off-Slip (Junction 4)	Y	N	N
8028	M53 J4 Southbound / B5151 Mount Road Off-Slip Exit	Y	Y	Y
8030	B5151 Mount Road / B5137 Birmstage Road Roundabout, B5151 Mount Road Entrance	Y	Y	Y
8032	B5137 Birmstage Road / B5151 Mount Road Roundabout, B5137 Entrance	N	N	Y
8034	M53 J4 Northbound / B5151 Mount Road Off-Slip Exit	Y	N	N
8035	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Exit	Y	N	N
8036	M53 J4 Roundabout / B5151 Mount Road Southbound Roundabout Entrance	Y	Y	Y
8038	M53 J4 Roundabout / B517 Brimstage Road Westbound Roundabout Entrance	Y	N	Y
8041	M53 J5 Southbound / New Chester Road Off-Slip Entrance	Y	Y	Y

Node	Location	AM	IP	PM
8042	M53 J5 Southbound / New Chester Road Off-Slip Exit	Y	Y	Y
8044	New Church Road Roundabout	Y	N	N
8047	M53 J6 Southbound Off-Slip Entrance	Y	N	Y
8132	M53 J5 Northbound Off-Slip Entrance	Y	N	Y
8133	M53 Junction 5 Off-Slip / New Chester Road Roundabout	N	N	N
8137	M53 J5 Northbound On-Slip Exit	Y	N	Y
8139	M53 J4 Northbound On-Slip Exit	Y	N	N
8142	M53 Northbound Junction 2 / M53 Moreton Spur	Y	N	N
8143	M53 Northbound / M53 Moreton Spur On-Slip Exit	Y	N	N
8146	M53 Northbound J1 Off-Slip Entrance	Y	N	Y
8147	M53 Northbound J1 / A5139 Off-Slip Entrance	Y	N	N
20005	Claughton Road / Parking Access	N	Y	N
20013	Adelphi St / Car Park Access	N	N	Y
20069	A553 Fender Lane / A554 / Hoylake Road Roundabout, A54 Entrance	Y	Y	Y
20127	A5027 Upton Road / Salacre Lane / Houghton Road	Y	Y	Y
20129	B5139 Greasby Road / Wood Lane	N	N	Y
20133	A552 Woodchurch Road / Ackers Road	Y	Y	Y
20173	B5137 Spital Road / Croft Ave	Y	N	N
20176	A41 New Chester Road / Hesketh Way	Y	N	N
50013	Borough Road / Prenton Road East / Prenton Road West	Y	N	N
50015	Borough Road / Mount Road	N	N	N
50019	B5151 Storeton Road / Mount Road / B5151 Mount Road	N	N	Y
50021	B5151 Mount Road / Mount Wood Road	Y	N	N

Node	Location	AM	IP	PM
50045	B5137 Brimstage Road / Beechway	Y	Y	Y
50077	Caldbeck Road / Welton Road	Y	N	N
50087	Allport Road / Greenfields Avenue / Plymyard Avenue	Y	Y	Y
50183	A41 Wirral Circular Tail	Y	N	N
50245	Poulton Bridge Road / Limekiln Lane	Y	N	N
50291	Frankby Road / Greasby Road	Y	Y	Y
50293	B5192 Saughall Massie Road / Overchurch Road	Y	N	Y
50295	A551 Arrowe Park Road / Wirral Teaching Hospital	Y	Y	Y
50299	A551 Leasowe Road / Greenleas Road	Y	Y	Y
50325	Ball's Road / Oxton Road / Ball's Road East / Woodchurch Road	N	Y	Y
50331	Campbeltown Road / A41 New Chester Road Roundabout	N	N	Y
50337	Hamilton Street / A4554 / A41 Chester Street Roundabout, Hamilton Road Entrance	N	Y	Y
50341	B5151 Mount Road / Brackenwood Road	N	N	Y
50345	A553 onway Street / Adelphi Street / Claughton Road	N	N	N
50347	Upton Road / Noctorum Avenue	Y	Y	Y
50349	A552 Woodchurch Road / Singleton Avenue	N	Y	Y
50383	B5151 Mount Road / Lever Causeway	Y	Y	Y
50385	B5151 Mount Road / Thornton Road	Y	Y	Y
50417	Morland Avenue / Allport Road / Dawpool Drive	Y	N	N
50423	Benty Heath Lane / Eastham Rake	Y	N	N
50433	B5136 Neston Road / Manor Road / B5136 Thornton	N	N	Y

Node	Location	AM	IP	PM
	Common Road / Raby Road			
50435	A5137 Brimstage Road / Manor Road	N	N	Y
50441	Poultan Road / Dibbinsdale Road / Poultan Hall Road	N	N	Y
50445	Allport Lane / Acre Lane	Y	N	N
50447	Acre Lane / Dawpool Drive	Y	N	N
50449	B5138 Pensby Road / Irby Road	Y	N	Y
50451	Thingwall Road / Mill Hill Road	Y	N	Y
50455	B5192 Saughall Massie Road / Pump Lane / Heron Road	Y	N	Y
50457	A553 Birkenhead Road / Heron Road	Y	Y	Y
50459	A551 Arrowe Park Road / Arrowe Brook Road	Y	Y	Y
50461	Irby Road / Fishers Lane	Y	N	N
50463	B5138 Pensby Road / Gills Ln / Fishers Ln	Y	N	N
50465	A551 Barnston Road / Gills Lane	Y	N	Y
50475	A554 King's Parade / Portland Street	N	N	N
50477	A554 Kings Parade / Atherton Street	Y	Y	Y
50483	A554 Cannin Street / Shore Road	Y	N	Y
50502	B5137 Spital Road / Mill Road	Y	N	N
50503	A41 New Chester Road / Torr Drive	Y	Y	Y
60039	B5192 Saughall Massie Road / China Farm Lane	Y	N	N
60043	Thurstaston Road / Thinwall Road	Y	N	Y
60045	A540 Telegraph Road / Thurstaston Road / Station Road	Y	N	Y
60048	A540 Telegraph Road / Thurstaston Road (near Quarry Road West)	Y	Y	Y
60050	Dee View Road / The Mount	Y	N	N

Node	Location	AM	IP	PM
60051	Dee View Road / Dawstone Road / Rocky Lane	Y	N	N
60053	Well Lane / A540 Telegraph Road	Y	Y	Y
60058	Roman Road / Meols Parade	Y	N	Y
60065	A553 Market Street / Alderley Road	Y	Y	Y
60072	Hoyle Road / Saughall Road / Millhouse Lane	Y	Y	Y
60074	Upton Road / Manor Drive	N	N	Y
60083	A551 Leasowe Road / Gardenside	Y	N	N
60084	Hoyle Road / Digg Lane	Y	N	Y
60085	Town Meadon Lane / Maryland Lane	Y	Y	Y
60086	Pasture Road / Maryland Lane	Y	N	Y
60103	A551 Upton Road / Croft Drive	Y	N	N
60115	Arrowe Road / Arrowe Brook Lane / Arrow Brook Road	Y	N	Y
60117	B5139 Greasby Road / Cortsway West	N	N	Y
60120	Pensby Road / Sparks Lane	N	N	Y
60128	Barnston Road / Acre Lane	N	N	Y
60159	Pump Lane / Mere Park Road	Y	N	N
60198	Dawstone Road / Dawstone Rise	Y	N	N
60205	A553 Birkenhead Road / Fornalls Green Lane	N	Y	N
60216	A552 Woodchurch Road / Asda Arrowe Park Superstore	Y	Y	Y
60218	A551 Arrowe park Road / A552 Woodchurch Road / Church Lane	Y	N	Y
60219	A551 Arrowe Park Road / Pool Lane	Y	N	Y
60229	A41 New Chester Road / Tebay Road	N	N	Y
91009	Wallasey Bridge Road / Dock Road / Poulton Bridge Road junction	Y	Y	Y

Node	Location	AM	IP	PM
91010	Tower Road / Dock Road / Birkenhead Road junction	Y	Y	Y

F. WTM Model Convergence Statistics

F.1 Wirral Local Plan 2025 Baseline

Table F.1: AM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
47	0.0226/20	0.007/ 7	1.000/ 1	99.6	99.2	0.00026	0.016
48	0.0162/20	0.007/ 7	1.000/ 1	99.6	99.2	0.00023	0.015
49	0.0236/20	0.008/ 7	1.000/ 1	99.6	99.1	0.00023	0.013
50	0.0155/20	0.007/ 7	1.000/ 1	99.6	99.2	0.0002	0.016

Table F.2: AM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
47	766928.9	-0.001	15503.8	581156.5	0.005	0.13	0.02	0.06	0.36	4.46
48	766902.2	-0.003	15502.2	581150.1	0.005	0.12	0.01	0.06	0.37	4.6
49	766908.9	0.001	15502.4	581146.4	0.005	0.12	0.01	0.07	0.37	4.6
50	766911.6	0	15501.8	581144.6	0.005	0.11	0.01	0.05	0.36	4.39

Table F.3: IP Average Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
28	0.0121/20	0.007/ 7	1.000/ 1	99.6	99.7	0.00037	0.012
29	0.0115/20	0.005/ 7	1.000/ 1	99.7	99.7	0.00032	0.013
30	0.0181/20	0.006/ 7	1.000/ 1	99.7	99.7	0.00029	0.011
31	0.0144/20	0.006/ 7	1.000/ 1	99.7	99.7	0.00026	0.0097

Table F.4: IP Average Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
28	447699.2	-0.003	10355.2	440318.8	0.006	0.13	0.02	0.06	0.09	1.52
29	447719.2	0.004	10355	440311	0.005	0.11	0.02	0.06	0.09	1.5
30	447708	-0.003	10354.9	440300.2	0.006	0.13	0.02	0.07	0.09	1.54
31	447706.8	0	10355.1	440289.9	0.005	0.12	0.02	0.08	0.09	1.49

Table F.5: PM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
42	0.0161/20	0.023/ 7	1.000/ 1	99.5	99.3	0.0004	0.027
43	0.0191/20	0.023/ 7	1.000/ 1	99.5	99.3	0.00031	0.022
44	0.0191/20	0.022/ 7	1.000/ 1	99.5	99.3	0.00031	0.021
45	0.0167/20	0.023/ 7	1.000/ 1	99.6	99.2	0.0003	0.022

Table F.6: PM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
42	719564.3	0.001	14306.8	547783.8	0.007	0.18	0.02	0.15	0.21	2.76
43	719555.6	-0.001	14306.4	547786.3	0.006	0.15	0.02	0.12	0.22	2.92
44	719561.9	0.001	14306.5	547787	0.006	0.14	0.02	0.1	0.21	2.8
45	719587.3	0.004	14306.5	547784.2	0.005	0.12	0.02	0.04	0.22	2.84

F.2 Wirral Local Plan 2025 Preferred Option

Table F.7: AM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
48	0.0155/20	0.008/ 7	1.000/ 1	99.5	99	0.00024	0.022
49	0.0155/20	0.007/ 7	1.000/ 1	99.5	99.2	0.00021	0.016
50	0.0141/20	0.007/ 7	1.000/ 1	99.6	99.2	0.00021	0.016
51	0.0164/20	0.007/ 7	1.000/ 1	99.6	99.2	0.0002	0.019

Table F.8: AM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
48	767020.2	0.003	15541.9	581797.4	0.006	0.15	0.02	0.14	0.37	4.51
49	767007.4	-0.002	15541.9	581796.6	0.006	0.16	0.02	0.1	0.39	4.78
50	767004.9	0	15541.7	581792.1	0.005	0.12	0.02	0.07	0.32	3.91
51	766985.4	-0.003	15541.7	581792.8	0.005	0.12	0.02	0.09	0.38	4.69

Table F.9: IP Average Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
27	0.0108/20	0.006/ 7	1.000/ 1	99.5	99.7	0.00035	0.012
28	0.0121/20	0.006/ 7	1.000/ 1	99.6	99.7	0.00033	0.016
29	0.0245/20	0.007/ 7	1.000/ 1	99.6	99.7	0.00033	0.011
30	0.0111/20	0.006/ 7	1.000/ 1	99.6	99.7	0.0003	0.011

Table F.10: IP Average Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
27	447760.8	-0.002	10381.4	441180.8	0.006	0.14	0.02	0.1	0.09	1.52
28	447775.1	0.003	10382	441166.8	0.006	0.15	0.02	0.11	0.09	1.5
29	447740.8	-0.008	10381.6	441158.5	0.007	0.15	0.02	0.09	0.09	1.53
30	447766.7	0.006	10381.5	441150.6	0.006	0.14	0.02	0.07	0.09	1.51

Table F.11: : PM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
51	0.0236/20	0.023/ 7	1.000/ 1	99.6	99.3	0.0005	0.035
52	0.0214/20	0.022/ 7	1.000/ 1	99.5	99.3	0.00045	0.033
53	0.0194/20	0.022/ 7	1.000/ 1	99.6	99.2	0.00037	0.029
54	0.0282/20	0.022/ 7	1.000/ 1	99.6	99.3	0.00039	0.016

Table F.12: PM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
51	719716.1	-0.002	14373.9	547190.4	0.007	0.17	0.02	0.12	0.22	2.68
52	719698.2	-0.002	14373.6	547215.6	0.007	0.19	0.02	0.16	0.21	2.65
53	719709.2	0.002	14373.4	547250.3	0.006	0.16	0.02	0.06	0.21	2.6
54	719678.1	-0.004	14373.5	547277.3	0.006	0.15	0.02	0.14	0.18	2.26

F.3 Wirral Local Plan 2037 Baseline

Table F.13: AM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
55	0.0259/20	0.009/ 7	1.000/ 1	99.5	98.8	0.00033	0.018
56	0.0254/20	0.008/ 7	1.000/ 1	99.5	98.7	0.0003	0.019
57	0.0248/20	0.008/ 7	1.000/ 1	99.5	98.7	0.0003	0.020
58	0.0260/20	0.008/ 7	1.000/ 1	99.6	98.8	0.00027	0.017

Table F.14: AM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
55	865458.2	-0.001	17531.9	606780.7	0.007	0.16	0.02	0.1	0.6	4.4
56	865454.4	0	17532	606775.9	0.007	0.16	0.02	0.1	0.6	4.9
57	865453	0	17531.8	606774.4	0.006	0.16	0.02	0.1	0.5	4
58	865455.1	0	17532.7	606768.8	0.006	0.15	0.02	0.1	0.6	4.6

Table F.15: IP Average Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
35	0.0119/20	0.828/ 7	1.000/ 1	99.6	99.5	0.00027	0.023
36	0.0134/20	0.832/ 7	1.000/ 1	99.5	99.4	0.00024	0.011
37	0.0115/20	0.848/ 7	1.000/ 1	99.6	99.4	0.00025	0.013
38	0.0104/20	0.845/ 7	1.000/ 1	99.5	99.4	0.00023	0.01

Table F.16: IP Average Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
35	488759	0.008	11464.2	482224.9	0.008	0.19	0.03	0.09	0.17	2.72
36	488704.4	-0.011	11465	482184.6	0.007	0.18	0.03	0.09	0.13	2.08
37	488718.5	0.003	11464	482202.5	0.006	0.15	0.02	0.09	0.17	2.78
38	488716.4	0	11464.8	482185.1	0.007	0.16	0.02	0.09	0.12	2.03

Table F.17: PM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
59	0.0233/20	0.024/ 7	1.000/ 1	99.5	99.1	0.00023	0.018
60	0.0155/20	0.023/ 7	1.000/ 1	99.6	99.2	0.00022	0.019
61	0.0162/20	0.022/ 7	1.000/ 1	99.7	99.2	0.00019	0.016
62	0.0196/20	0.022/ 7	1.000/ 1	99.6	99.2	0.0002	0.016

Table F.18: PM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
59	811837.3	0.002	15819.1	583064.4	0.006	0.14	0.02	0.07	0.29	3.51
60	811811.3	-0.003	15819.2	583059.1	0.005	0.14	0.02	0.1	0.29	3.46
61	811789.6	-0.003	15819.2	583052.6	0.005	0.12	0.01	0.07	0.31	3.74
62	811781.9	-0.001	15819.3	583051.5	0.004	0.1	0.01	0.06	0.3	3.62

F.4 Wirral Local Plan 2037 Preferred Option

Table F.19: AM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
55	0.0254/20	0.015/ 7	1.000/ 1	99.5	99	0.00032	0.02
56	0.0171/20	0.008/ 7	1.000/ 1	99.6	99	0.0003	0.022
57	0.0190/20	0.009/ 7	1.000/ 1	99.6	98.9	0.00026	0.022
58	0.0174/20	0.009/ 7	1.000/ 1	99.6	99	0.00029	0.024

Table F.20: AM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
55	866809.4	-0.002	17954.1	613333	0.006	0.15	0.02	0.1	0.5	3.7
56	866848.8	0.005	17955.1	613312	0.006	0.16	0.02	0.1	0.6	4.3
57	866833.1	-0.002	17951.2	613304.8	0.006	0.16	0.02	0.1	0.6	4.4
58	866840.2	0.001	17950	613313.6	0.007	0.18	0.02	0.1	0.6	4.3

Table F.21: IP Average Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
37	0.0117/20	0.857/ 7	1.000/ 1	99.5	99.4	0.00027	0.02
38	0.0100/20	0.844/ 7	1.000/ 1	99.6	99.4	0.00022	0.013
39	0.0152/20	0.829/ 7	1.000/ 1	99.5	99.4	0.00023	0.011
40	0.0116/20	0.837/ 7	1.000/ 1	99.7	99.4	0.00022	0.0095

Table F.22: IP Average Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
37	489247.6	0.012	11758.2	489733.5	0.007	0.17	0.03	0.09	0.12	1.99
38	489217.1	-0.006	11757.4	489749.4	0.007	0.16	0.02	0.07	0.15	2.38
39	489199.5	-0.004	11756.8	489769.3	0.006	0.14	0.02	0.09	0.14	2.27
40	489213.8	0.003	11757.8	489733.6	0.005	0.13	0.02	0.08	0.14	2.31

Table F.23: PM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
63	0.0192/20	0.024/ 7	1.000/ 1	99.5	98.9	0.00022	0.017
64	0.0151/20	0.024/ 7	1.000/ 1	99.6	98.9	0.00017	0.022
65	0.0146/20	0.024/ 7	1.000/ 1	99.6	99	0.00018	0.018
66	0.0164/20	0.024/ 7	1.000/ 1	99.6	99	0.00016	0.015

Table F.24: PM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
63	812731.9	-0.002	16201.6	590161.9	0.005	0.13	0.02	0.06	0.24	2.76
64	812750.3	0.002	16204	590165.5	0.005	0.13	0.02	0.06	0.19	2.26
65	812729.3	-0.003	16203.5	590163.3	0.005	0.14	0.02	0.07	0.2	2.37
66	812740.6	0.001	16203	590137.6	0.005	0.13	0.02	0.06	0.2	2.31

F.5 Wirral Local Plan plus Strategic Schemes 2037 Baseline

Table F.25: AM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
55	0.0262/20	0.031/ 7	1.000/ 1	99.6	98.7	0.00028	0.02
56	0.0267/20	0.028/ 7	1.000/ 1	99.5	98.9	0.0003	0.020
57	0.0190/20	0.032/ 7	1.000/ 1	99.6	98.8	0.00026	0.023
58	0.0162/20	0.016/ 7	1.000/ 1	99.6	98.8	0.00028	0.021

Table F.26: AM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
55	865528.8	-0.003	17597.3	606758.1	0.006	0.16	0.02	0.1	0.6	4.6
56	865538.5	0.001	17596.1	606747.8	0.006	0.14	0.02	0.1	0.5	3.7
57	865524.3	-0.002	17598.9	606738	0.006	0.15	0.02	0.1	0.6	4.6
58	865534.6	0.001	17596.7	606733.8	0.006	0.15	0.02	0.1	0.5	4

Table F.27: IP Average Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
38	0.0117/20	0.010/ 7	1.000/ 1	99.6	99.4	0.00021	0.011
39	0.0120/20	0.009/ 7	1.000/ 1	99.6	99.5	0.00022	0.011
40	0.0096/20	0.009/ 7	1.000/ 1	99.6	99.4	0.00021	0.017
41	0.0141/20	0.008/ 7	1.000/ 1	99.7	99.4	0.00018	0.0092

Table F.28: IP Average Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
38	488612.8	-0.008	11473.4	482037.4	0.006	0.14	0.02	0.08	0.15	2.42
39	488624.9	0.002	11473.1	482023.1	0.005	0.12	0.02	0.07	0.14	2.31
40	488650.5	0.005	11473.3	482009.8	0.006	0.14	0.02	0.05	0.15	2.44
41	488621.7	-0.006	11472.3	482007.6	0.006	0.13	0.02	0.07	0.15	2.4

Table F.29: PM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
62	0.0143/20	0.008/ 7	1.000/ 1	99.6	99	0.0002	0.018
63	0.0140/20	0.009/ 7	1.000/ 1	99.5	99	0.00019	0.018
64	0.0149/20	0.009/ 7	1.000/ 1	99.5	98.9	0.00017	0.020
65	0.0141/20	0.009/ 7	1.000/ 1	99.5	99	0.00016	0.018

Table F.30: PM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
62	811619.9	0.002	15691.8	583271.4	0.005	0.12	0.01	0.08	0.36	4.25
63	811634.5	0.002	15690.4	583274.3	0.005	0.12	0.01	0.05	0.37	4.43
64	811615.3	-0.002	15690.8	583282.3	0.005	0.13	0.02	0.07	0.38	4.55
65	811588.1	-0.003	15691.1	583278.1	0.005	0.12	0.01	0.06	0.38	4.56

F.6 Wirral Local Plan plus Strategic Schemes 2037 Preferred Option

Table F.31: AM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
58	0.0187/20	0.023/ 7	1.000/ 1	99.6	98.9	0.00029	0.026
59	0.0181/20	0.022/ 7	1.000/ 1	99.5	98.8	0.00028	0.025
60	0.0163/20	0.016/ 7	1.000/ 1	99.5	98.7	0.00025	0.027
61	0.0202/20	0.015/ 7	1.000/ 1	99.6	98.8	0.00026	0.021

Table F.32: AM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
58	866816.1	-0.001	17981.5	613115.8	0.006	0.17	0.02	0.1	0.6	4.6
59	866795.5	-0.002	17980.6	613109.3	0.006	0.16	0.02	0.1	0.6	4.5
60	866831.7	0.004	17981.9	613023.3	0.006	0.15	0.02	0.1	0.7	5.3
61	866820.9	-0.001	17982.4	613038.9	0.006	0.16	0.02	0.1	0.7	5.1

Table F.33: IP Average Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
36	0.0152/20	0.010/ 7	1.000/ 1	99.5	99.4	0.00027	0.012
37	0.0133/20	0.009/ 7	1.000/ 1	99.6	99.5	0.00028	0.011
38	0.0101/20	0.008/ 7	1.000/ 1	99.6	99.5	0.00022	0.010
39	0.0103/20	0.008/ 7	1.000/ 1	99.7	99.5	0.00022	0.016

Table F.34: IP Average Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
36	489075.2	-0.011	11740	489293.5	0.006	0.15	0.02	0.08	0.14	2.25
37	489065.6	-0.002	11739.9	489283	0.006	0.13	0.02	0.09	0.14	2.28
38	489093.4	0.006	11739	489299.5	0.005	0.13	0.02	0.07	0.14	2.21
39	489089.5	-0.001	11740.9	489266.3	0.006	0.14	0.02	0.09	0.14	2.19

Table F.35: PM Peak Hour – Model Convergence Statistics (Table 1)

Loop	Ass.	Sim.	A/S Step	%Flows	%Delays	%V.I.	%Gap
59	0.0160/20	0.011/ 7	1.000/ 1	99.5	98.9	0.00023	0.019
60	0.0205/20	0.011/ 7	1.000/ 1	99.5	99	0.00021	0.015
61	0.0178/20	0.011/ 7	1.000/ 1	99.6	99	0.0002	0.017
62	0.0163/20	0.012/ 7	1.000/ 1	99.5	98.9	0.0002	0.016

Table F.36: PM Peak Hour – Model Convergence Statistics (Table 2)

Loop	ASS-HRS	Change	SIM_Hrs	SIM_KMs	GEHBAR	AAD	RAAD	XMSD	SAD	RSAD
59	812526.5	-0.002	16040.3	589380.1	0.005	0.13	0.02	0.06	0.28	3.2
60	812527.1	0	16039.4	589379.7	0.005	0.11	0.01	0.06	0.28	3.2
61	812525.2	0	16040.2	589382	0.005	0.11	0.01	0.06	0.31	3.6
62	812505.4	-0.002	16039.1	589379.3	0.005	0.11	0.01	0.06	0.32	3.69

G. Glossary

This appendix provides a glossary of key terms.

- Background Traffic Growth – Traffic Growth predicted to occur between base and future years without developments in place
- Base Year Calibration – The process of ensuring the model accurately reflects observed base year conditions
- LGV – Light Goods Vehicle
- Network – The road network that the traffic model represents
- OGV – Other Goods Vehicle
- PCU – Passenger Carrying Unit – used to represent the space that different types of vehicles take up. Car/LGV has a pcu factor of 1, whilst HGV has a pcu factor of 2.3.
- Scenario – A term used to describe the inputs to a model run
- TRICS – an industry recognised database providing details of trip generation for a variety of land-uses based on survey information
- Trip Generation – The number of trips predicted to go to/from each zone
- Volume/Capacity – A measure of the congestion on a road comparing the volume of traffic to its theoretical capacity
- WebTAG – Transport Analysis Guidance produced by the Department for Transport (DfT)
- Zone – A way of defining areas from which trips go to/from in the model
- Zone Connector – Connects zones to the network

