



# N4 & N7 Corridor Study

## Presentation to South Dublin County Council Land Use, Planning & Transportation SPC

23 April 2015

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Helen Hughes - NRA

Matt Foy / Colin Acton - AECOM



# Overview of Presentation

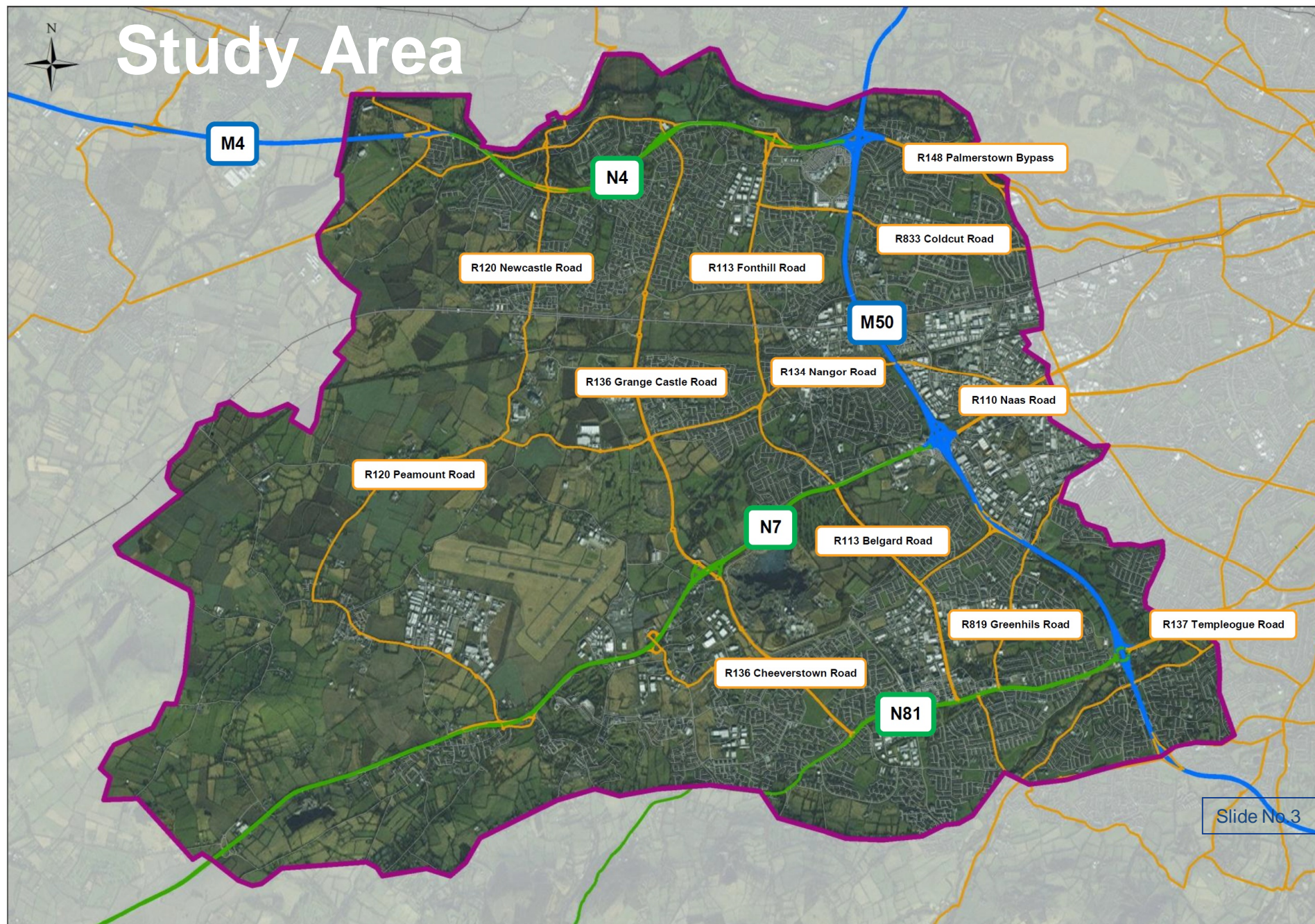
- Study Objectives
- Background Information
- Forecasting
- 2023 Do-Min
- Scheme Testing & Outputs

Slide No.2





# Study Area





# Study Objectives

- Study Working Group – NRA / SDCC / AECOM

## Objective

Describe and quantify the existing transport network in the study area

Understand future growth in population and economic activity that will drive future increases in travel demand

Develop and assess alternative approaches for responding to future demand

Protect the availability of capacity on the strategic road network into the future to support accessibility within and through the Study Area

Develop an implementation plan which will link future network interventions to development objectives

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# Background Data

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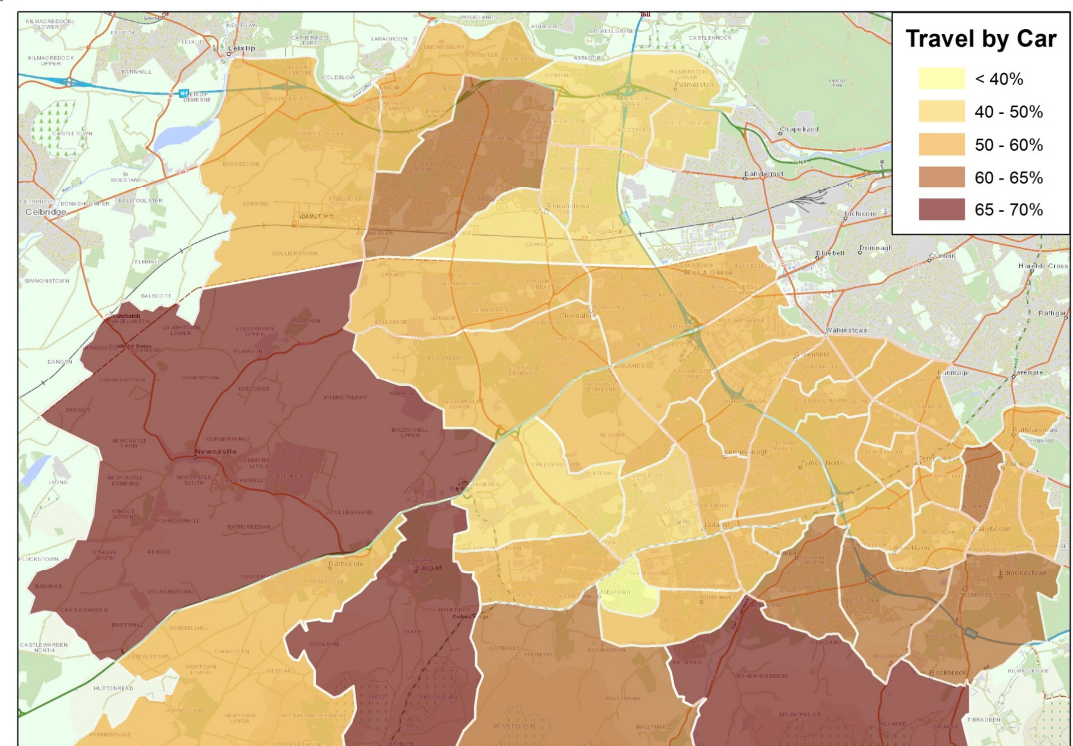
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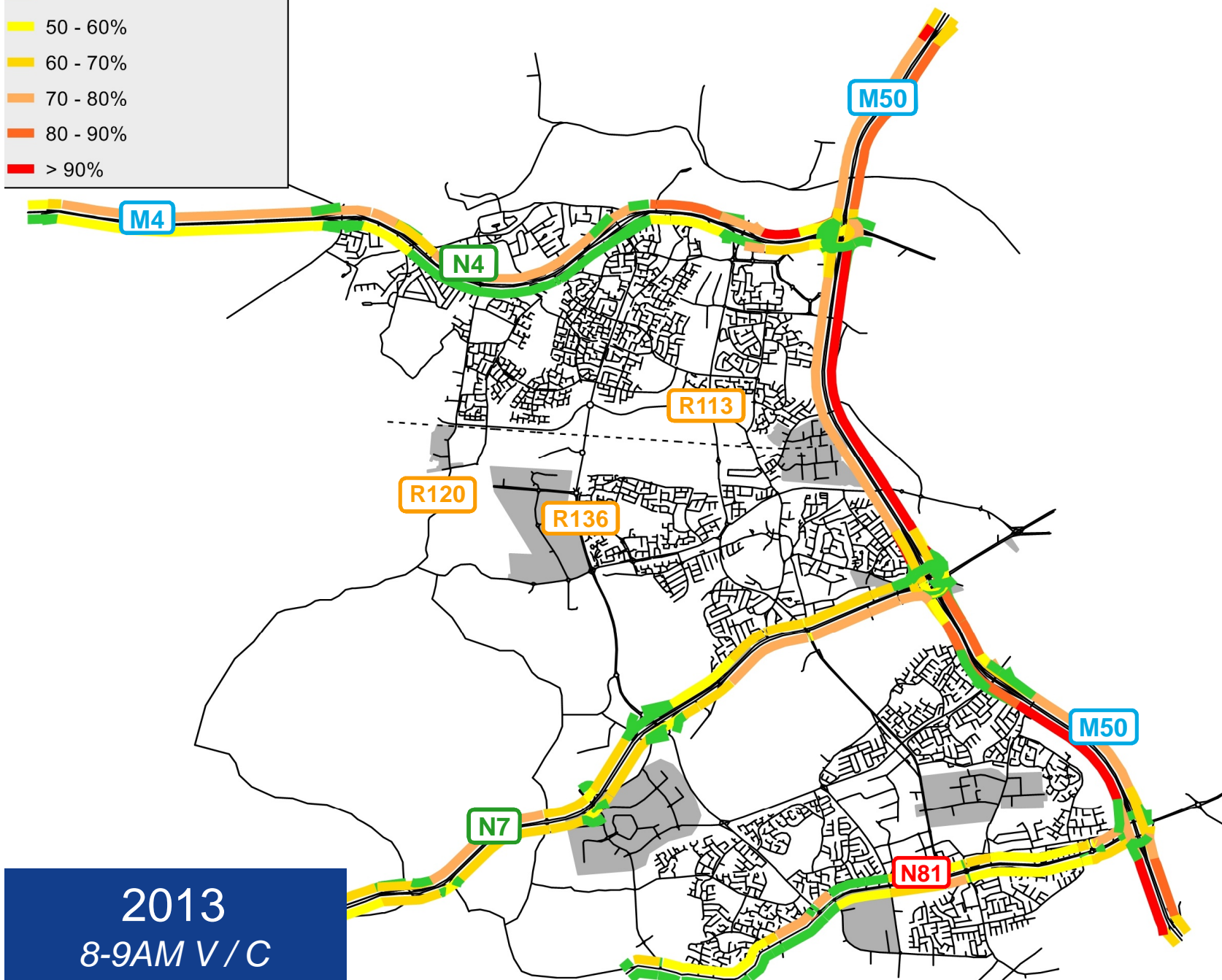
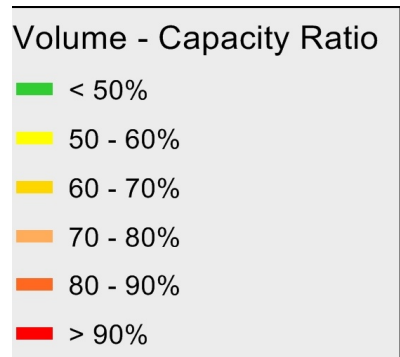
# Travel Mode Share

- 2011 Modal Share maintained for 2023.



Source: 2011 Census

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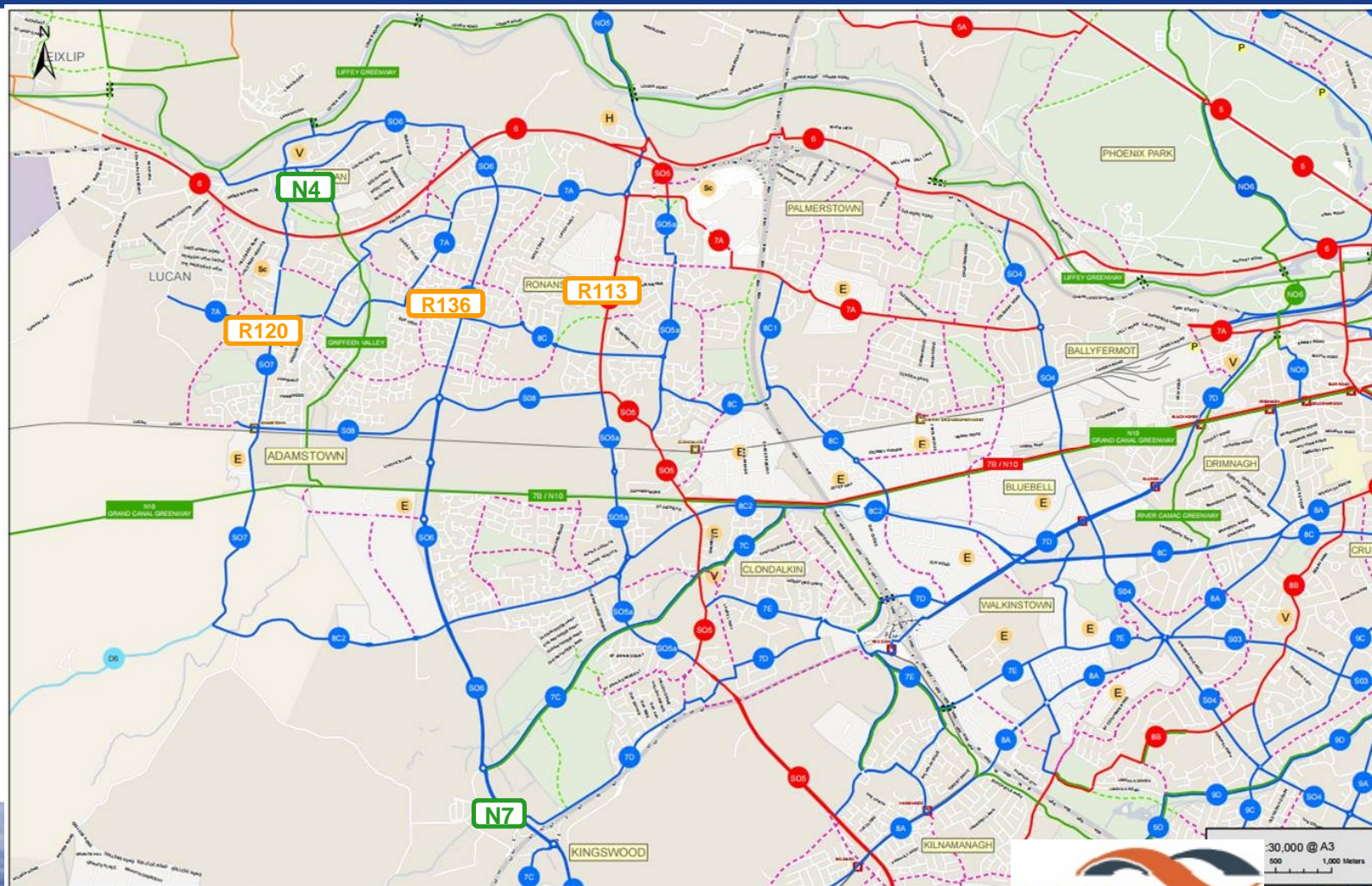


2013  
8-9AM V/C

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# GDA Cycle Network Map



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# Forecasting

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# Forecasting Process and Projection

- Forecasting based on ESRI medium growth
- Currently reviewing SDCC scenario

	2011	2023	% growth	2030	% growth
ESRI Medium Growth					
Population	252,009	268,449	+7%	278,039	+10%
Jobs	94,161	105,881	+12%	112,718	+20%
SDCC Scenario					
Population	252,009	279,969	+11%	299,339	+19%
Jobs		No data			

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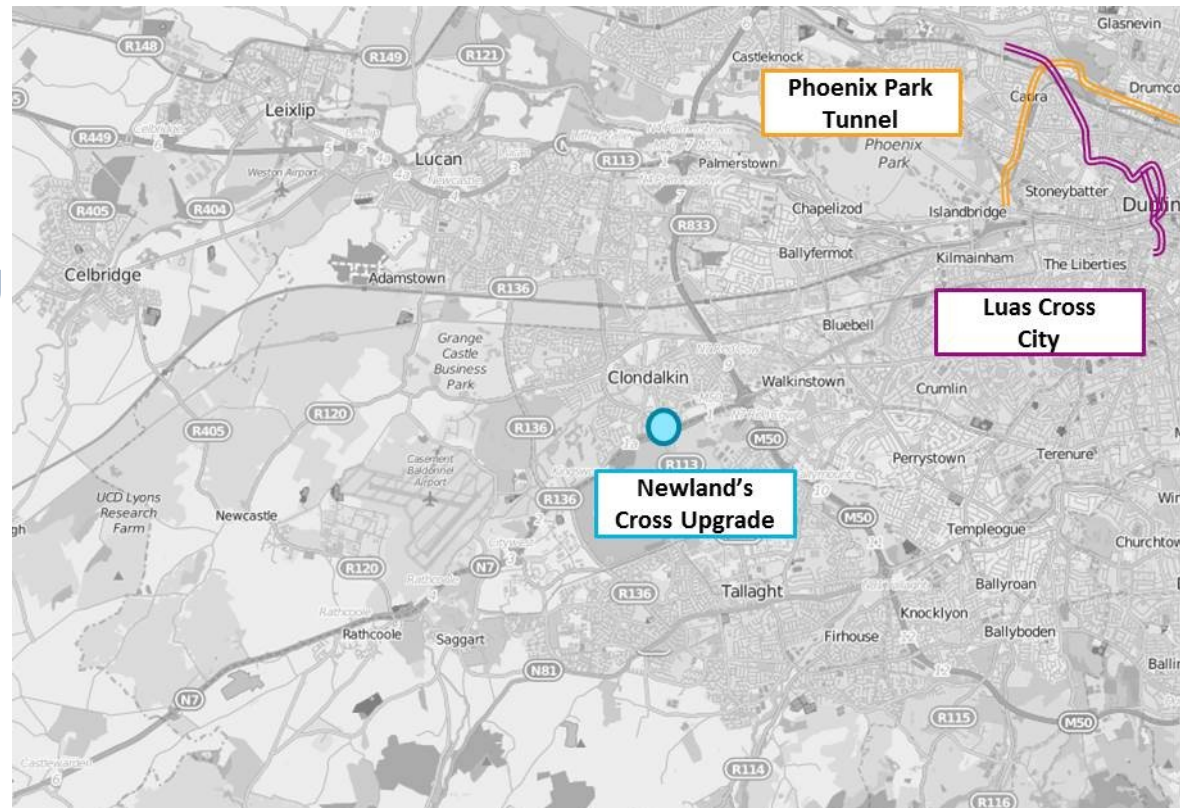
# 2023 Do-minimum

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# 2023 Do Minimum Scenario

## Committed Schemes:

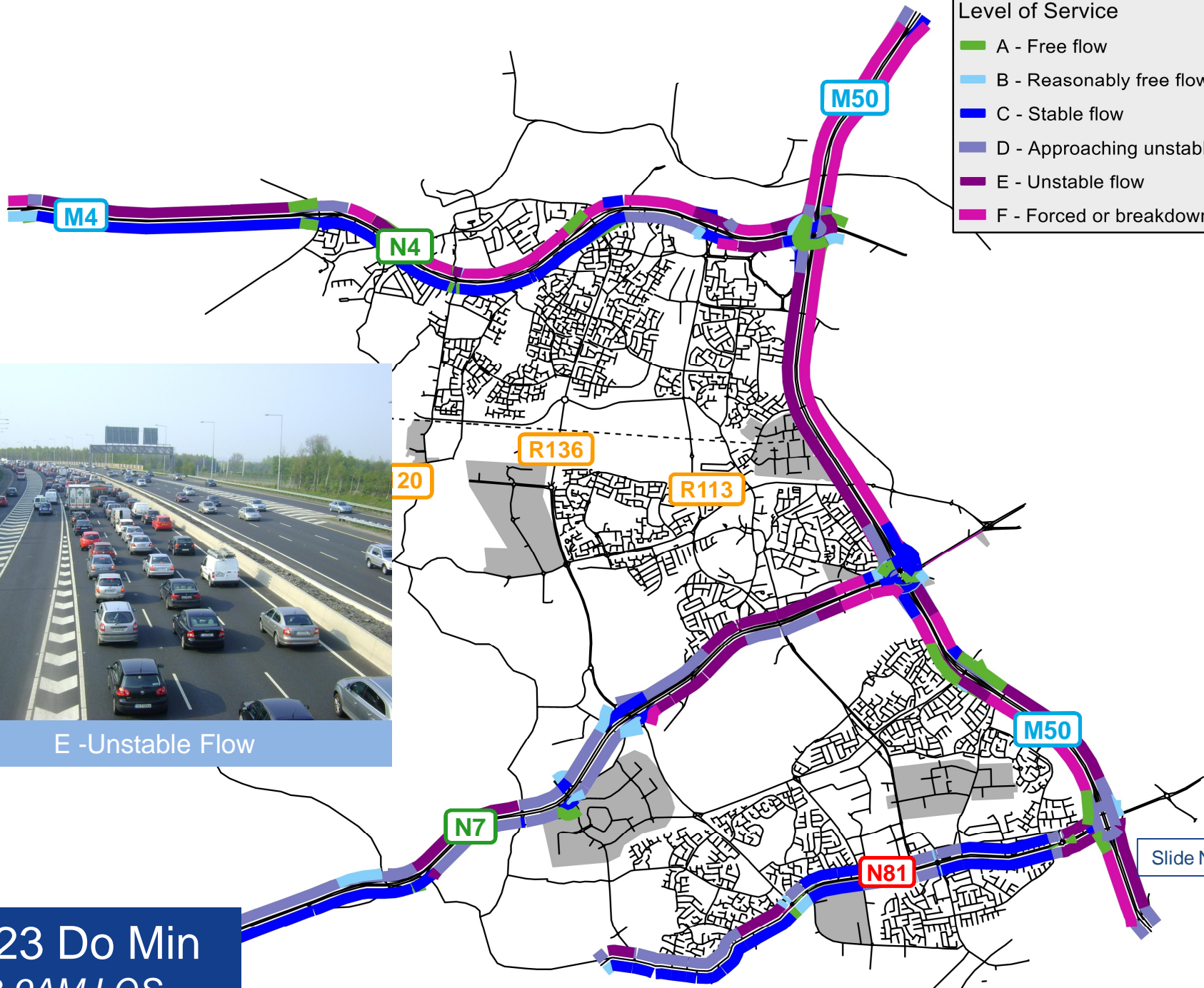
- Luas Cross City
- Phoenix Park Tunnel & City Centre Re-signalling



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Level of Service

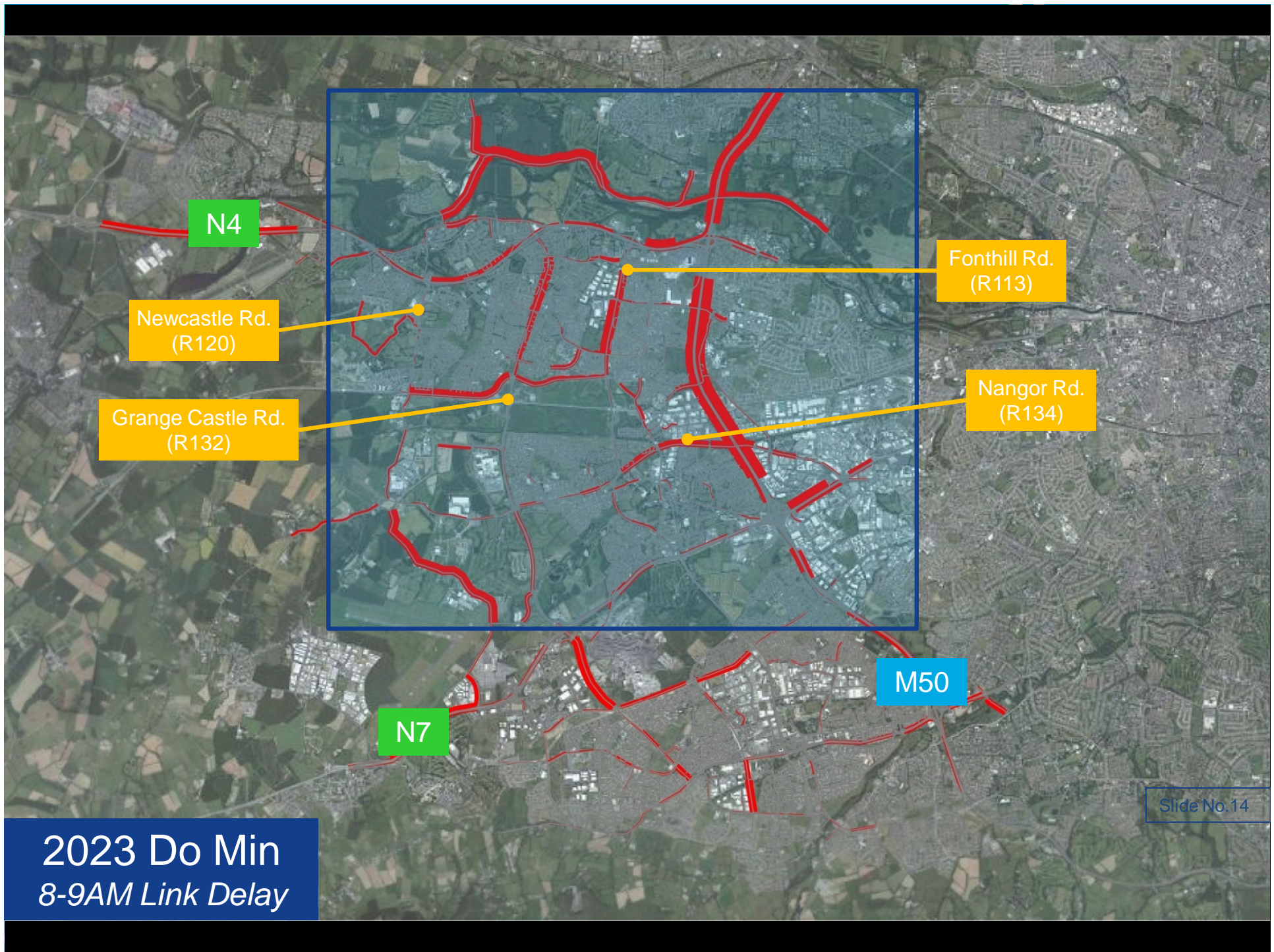
- A - Free flow
- B - Reasonably free flow
- C - Stable flow
- D - Approaching unstable flow
- E - Unstable flow
- F - Forced or breakdown flow



E -Unstable Flow

2023 Do Min  
8-9AM LOS

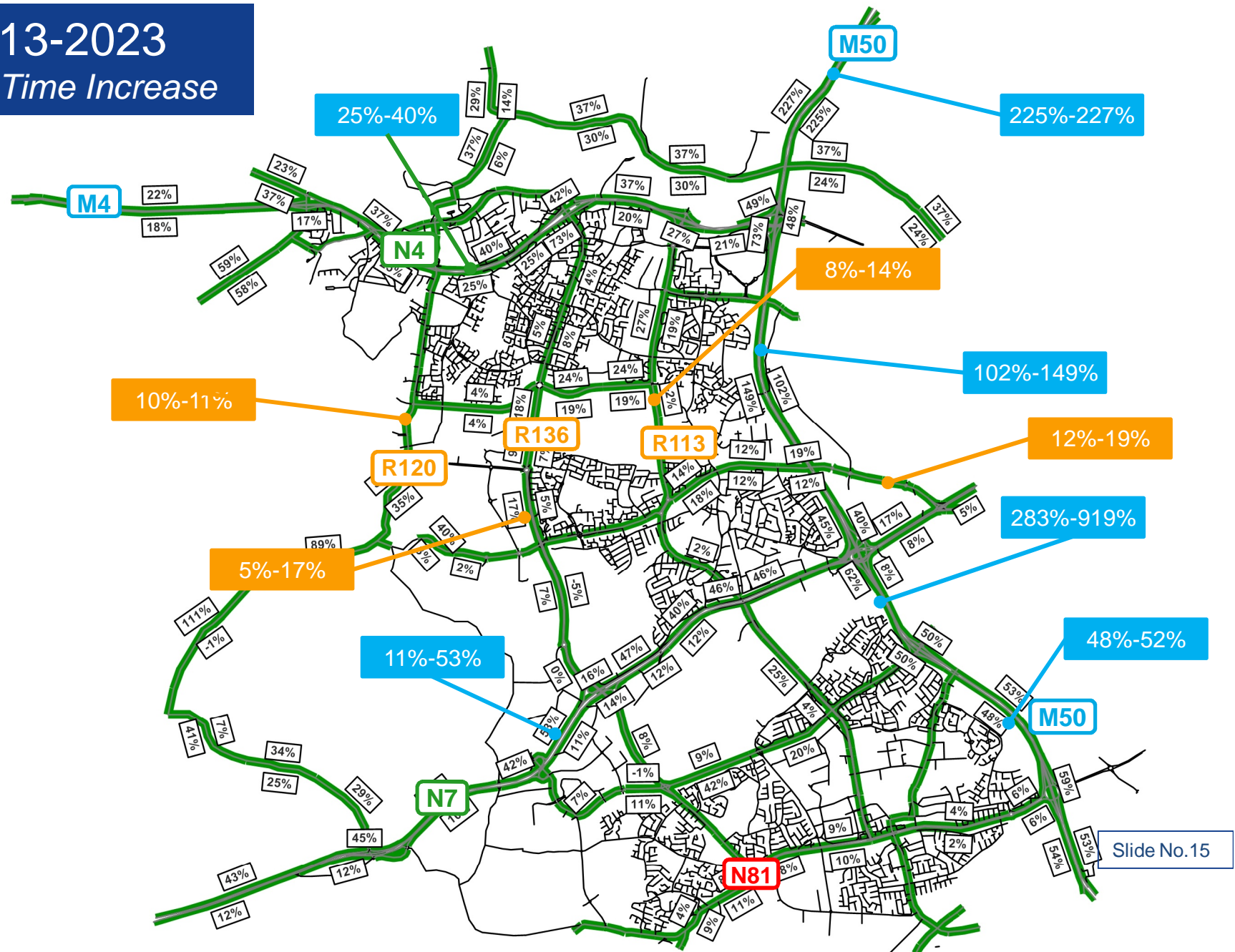




2023 Do Min  
8-9AM Link Delay



2013-2023  
Travel Time Increase



# 2023 Do Minimum Conditions

- Reduced speeds and LOS on national road network
- Increased congestion on some key local links
- 27% increase in network travel time from existing situation

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# Scheme testing

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# Road Scheme Testing

- Local junction upgrades
- M50 demand management
- SDCC roads objectives
- Other potential road links

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# Junction Issues

- Junction capacity issues & local congestion hotspots
- Further network management capabilities
- Pedestrian & cyclist accessibility

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**Junction Improvement Strategy**

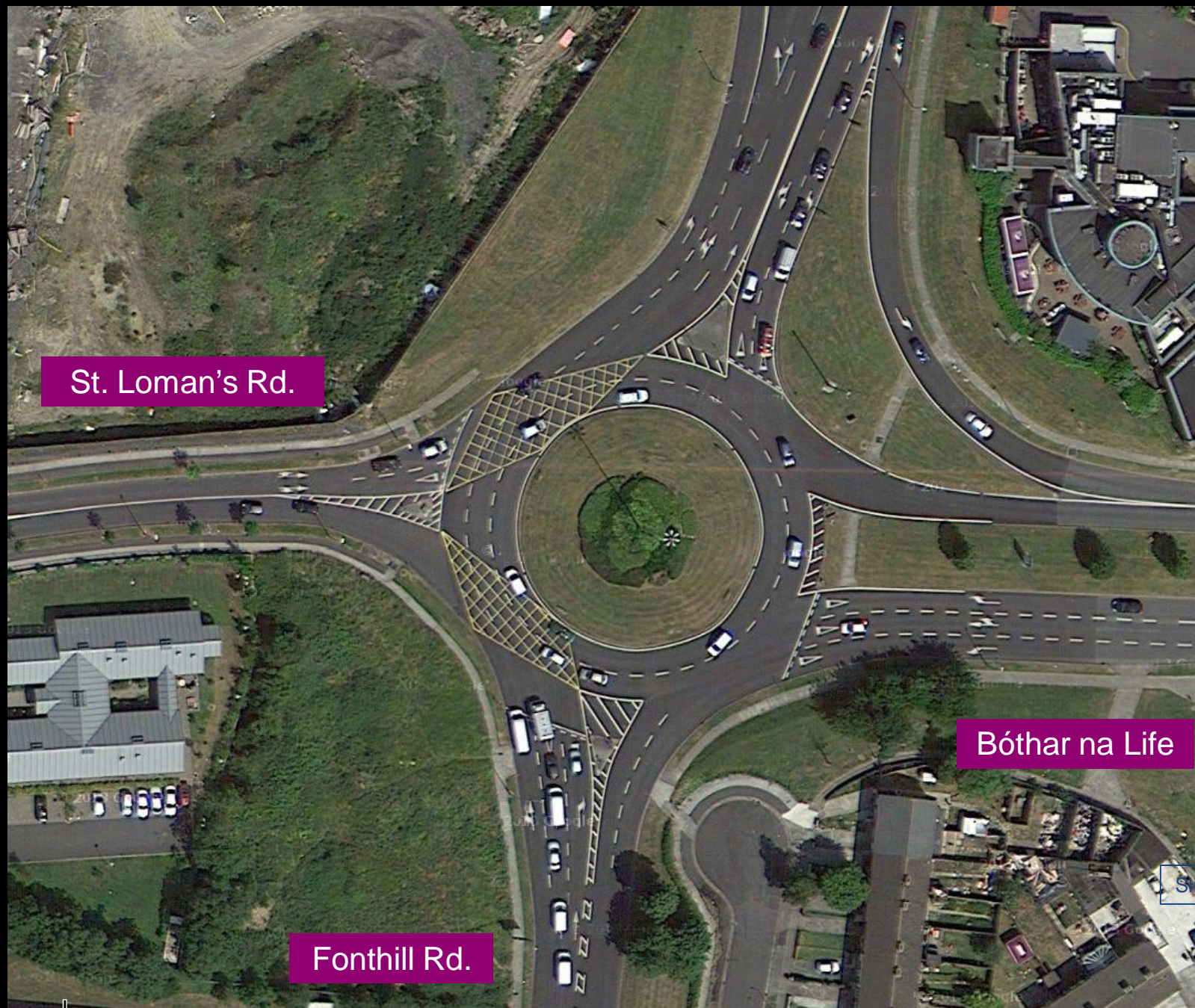
**Potential Options**

- Upgrade to Traffic Signals
- Optimise / Coordinate Signal Timings
- Additional Stacking Space

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Willsbrook Rd.

Ballyowen Rd.

Grange Castle Rd.

- Improved Pedestrian and Cyclists provision
- Better balance of flows.
- Improved control and capacity

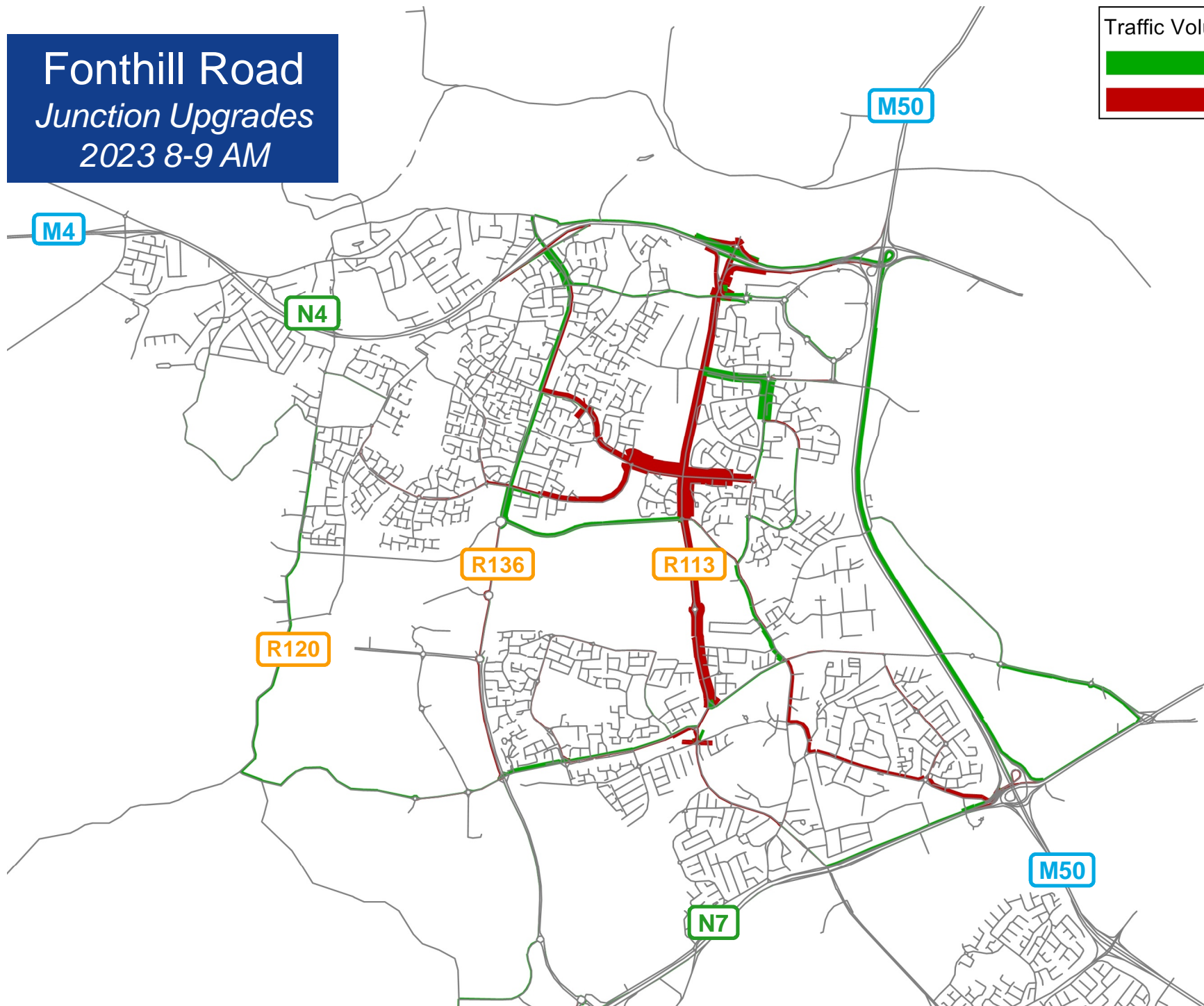
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# Fonthill Road Junction Upgrades 2023 8-9 AM

Traffic Volume Impacts

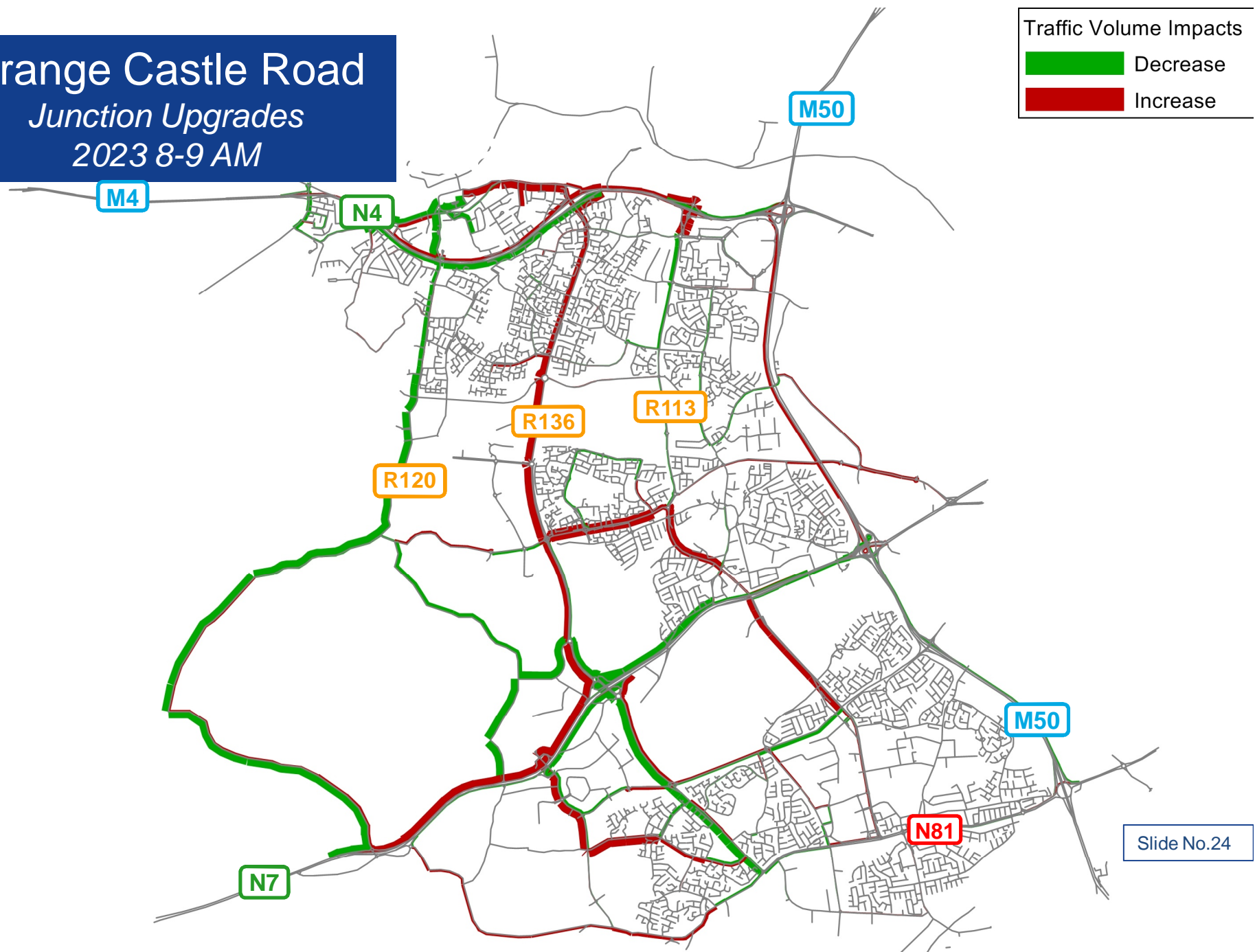
Decrease
Increase



# Grange Castle Road

## *Junction Upgrades*

### *2023 8-9 AM*



# M50 Demand Management

- Multi-point tolling
- Variable Speed Limits
- Incident Detection
- Variable Message Signage
- Expanded Traffic Control Centre
- Area based travel planning

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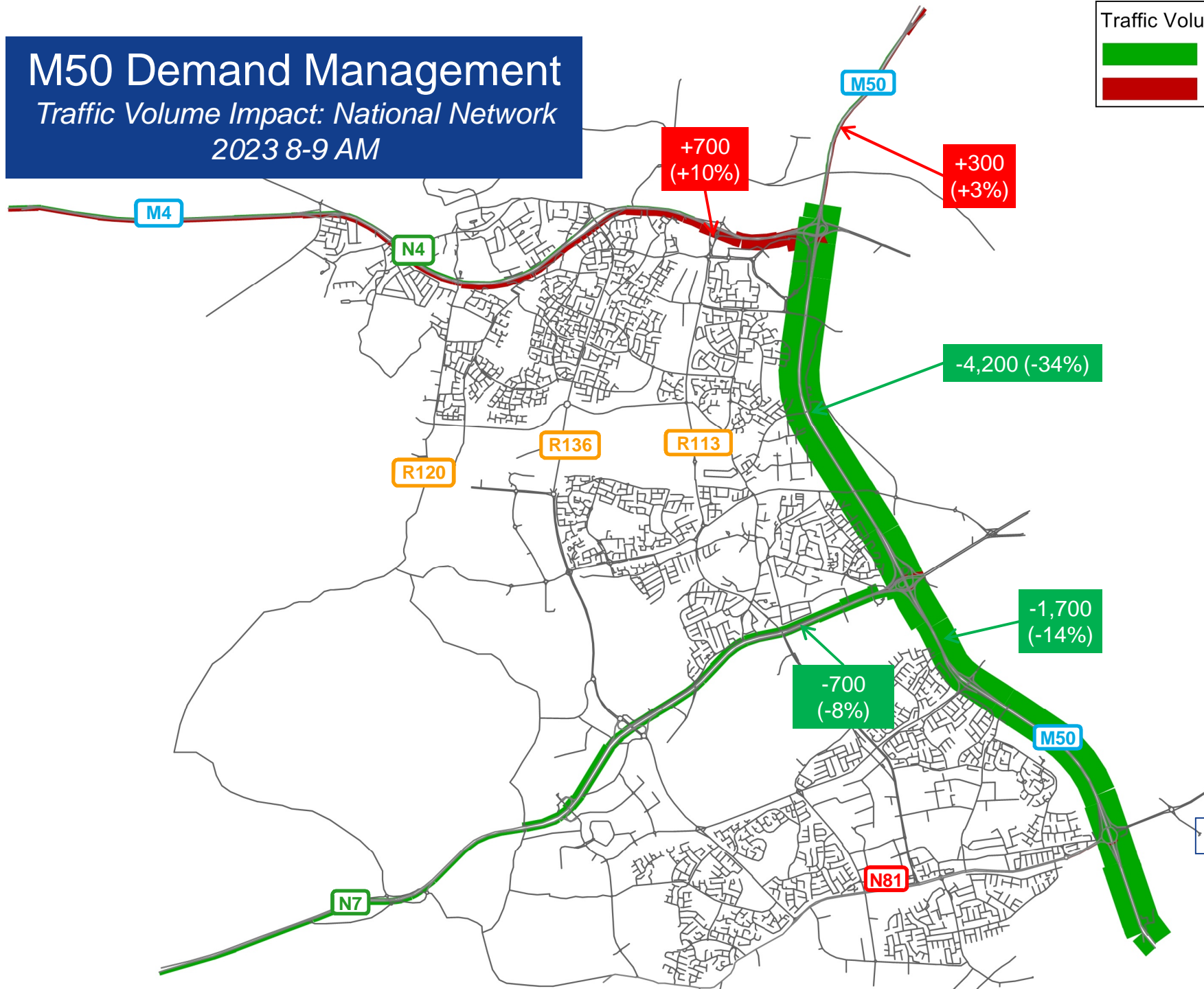


# M50 Demand Management

Traffic Volume Impact: National Network  
2023 8-9 AM

Traffic Volume Impacts

Decrease
Increase



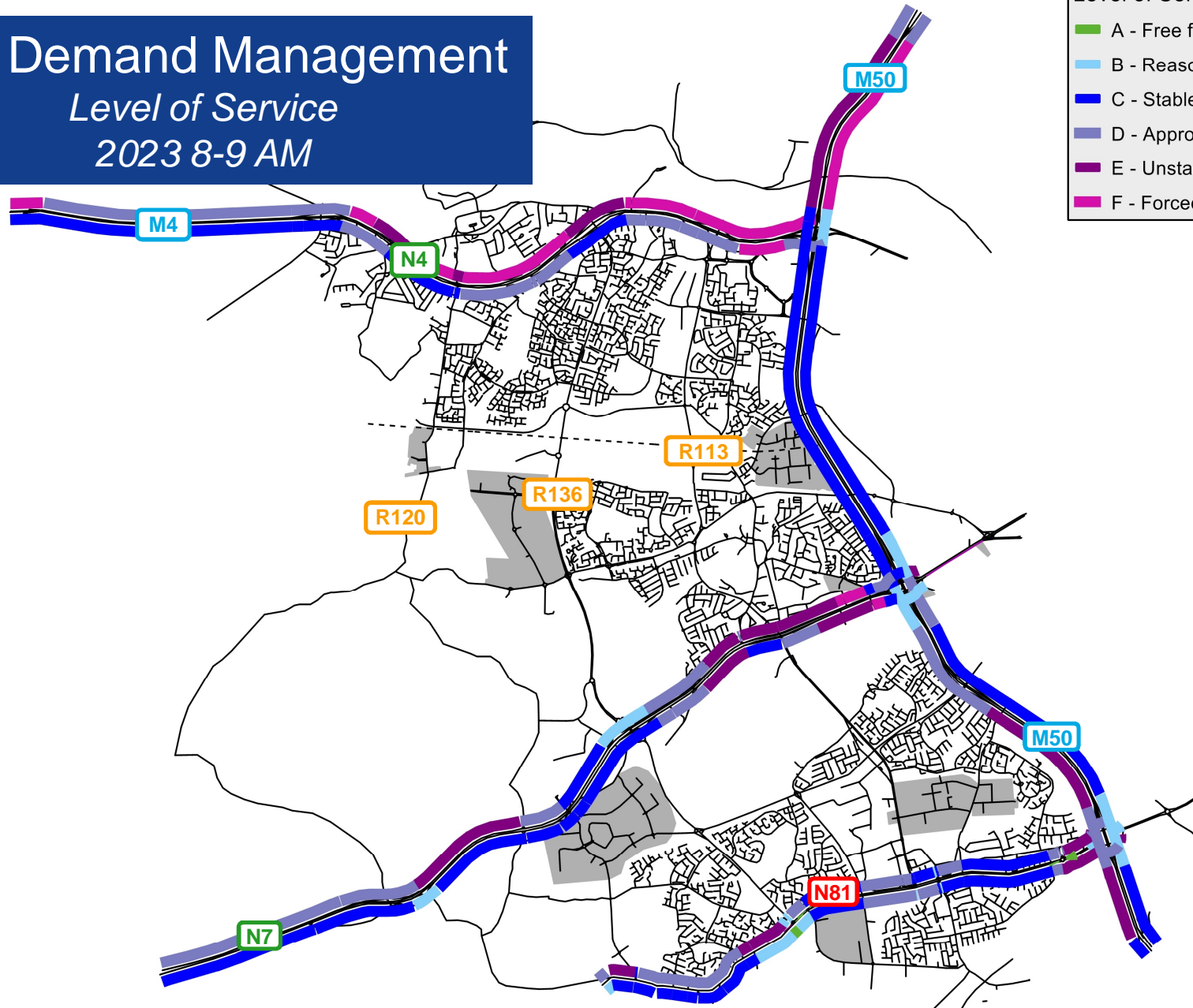
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# M50 Demand Management

## Level of Service

2023 8-9 AM

Level of Service	
<span style="color: green;">■</span>	A - Free flow
<span style="color: lightblue;">■</span>	B - Reasonably free flow
<span style="color: blue;">■</span>	C - Stable flow
<span style="color: purple;">■</span>	D - Approaching unstable flow
<span style="color: magenta;">■</span>	E - Unstable flow
<span style="color: pink;">■</span>	F - Forced or breakdown flow



# SDCC Roads Objectives

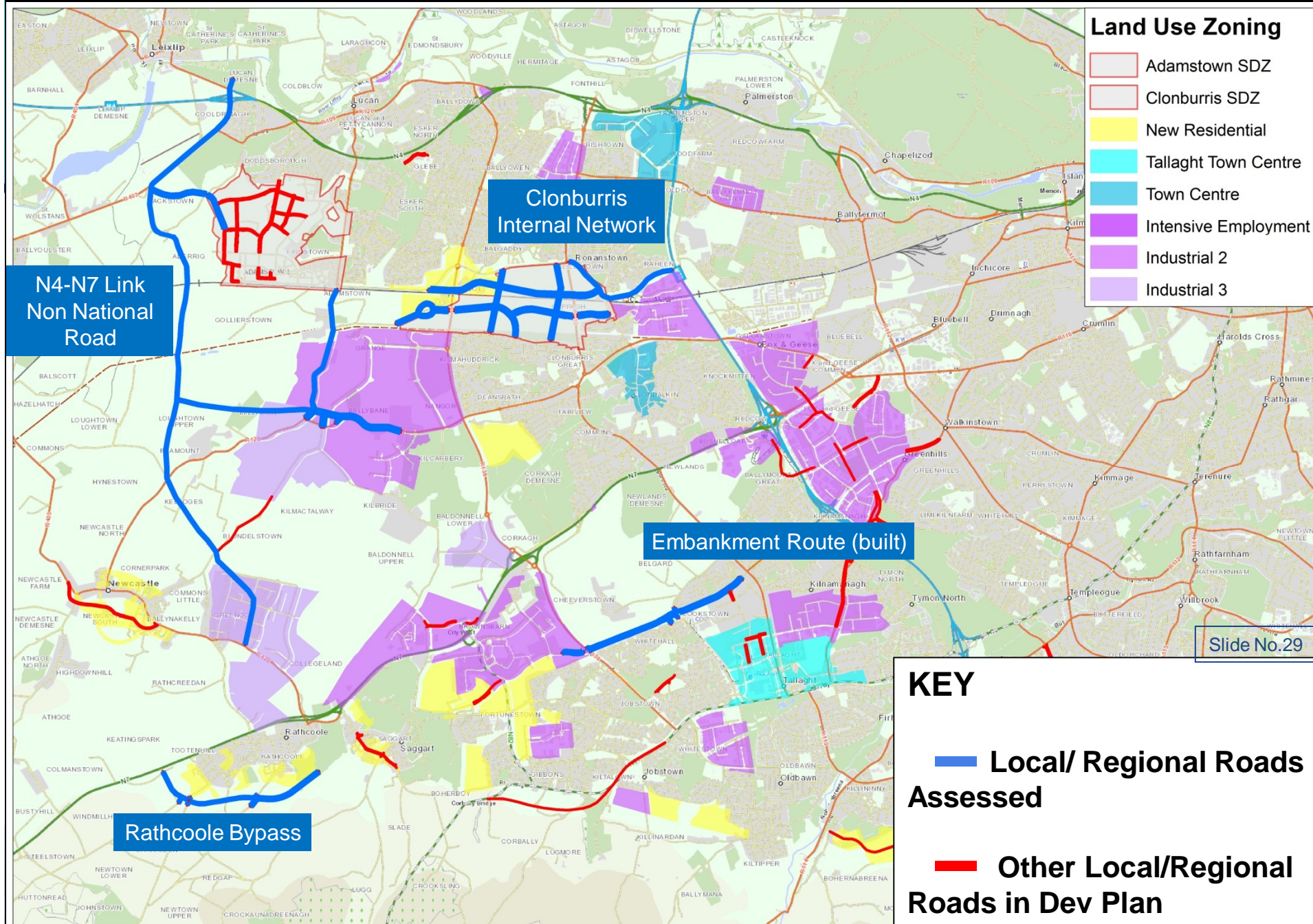
- Potential relief to existing routes
- Facilitate development of new lands

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## Land Use Zoning

- Adamstown SDZ
- Clonburris SDZ
- New Residential
- Tallaght Town Centre
- Town Centre
- Intensive Employment
- Industrial 2
- Industrial 3

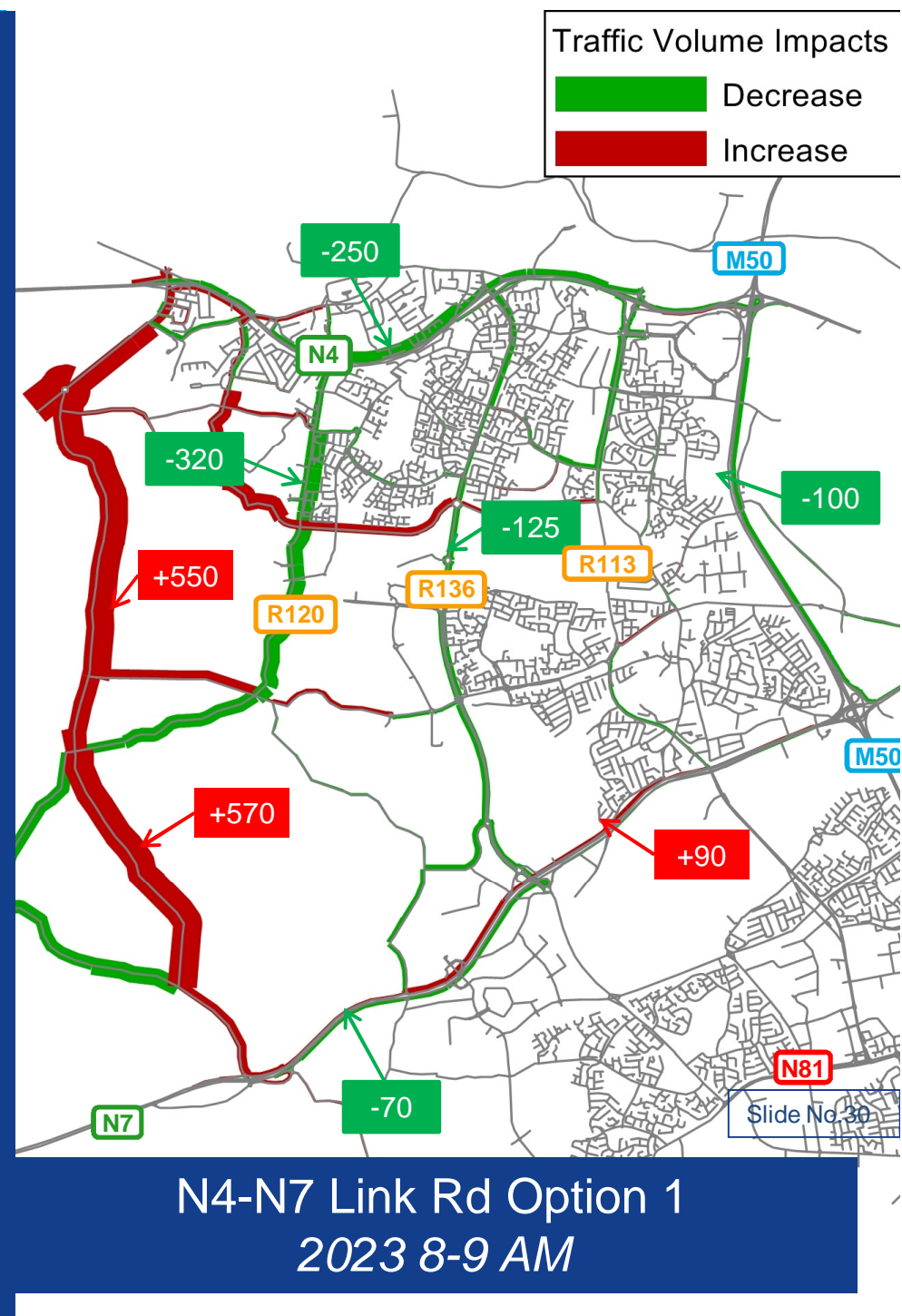
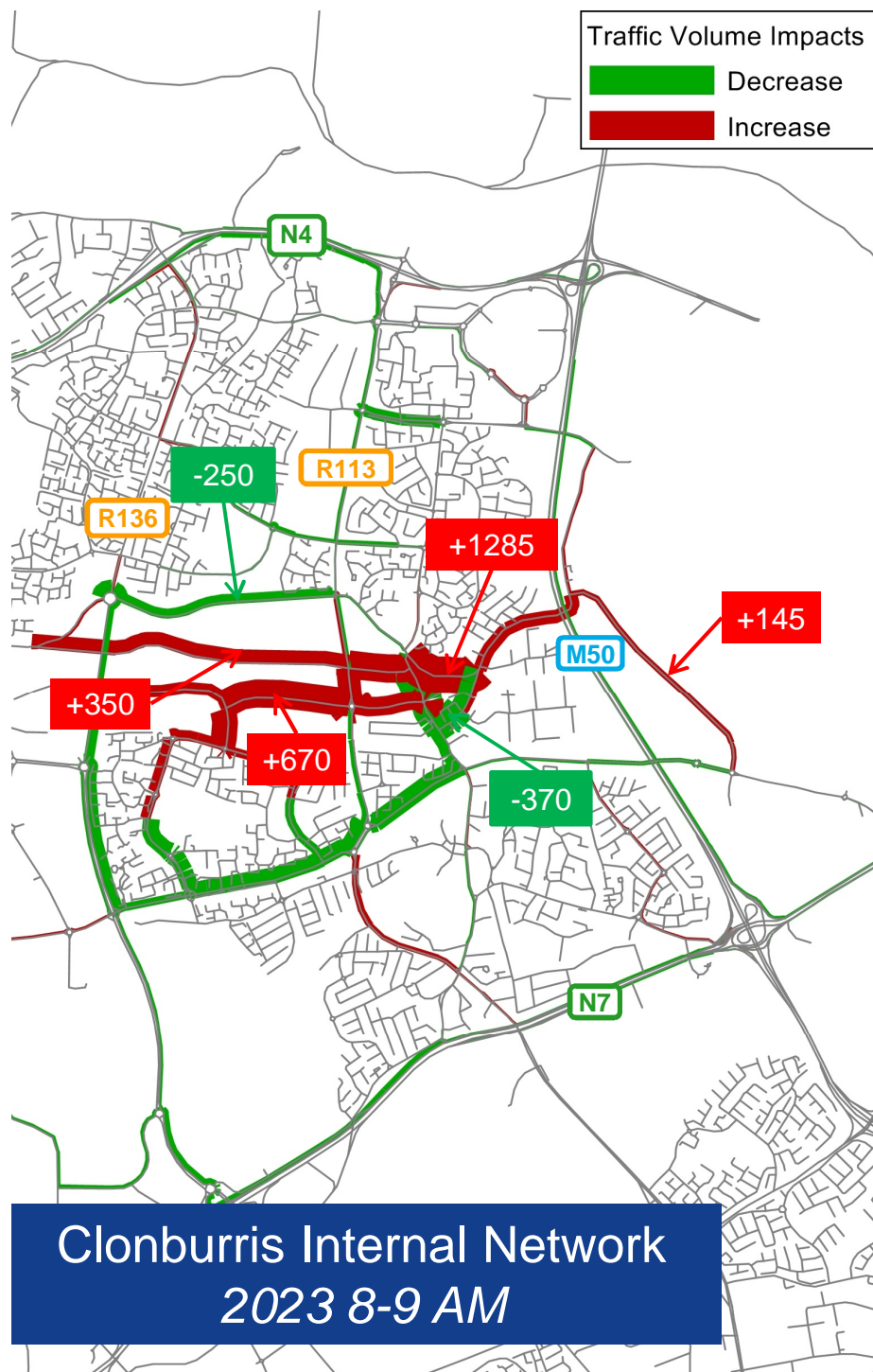


## KEY

Local/ Regional Roads Assessed

Other Local/Regional Roads in Dev Plan





# SDCC Roads Objectives

- Clonburris SDZ links provide access to new development lands and relief to Nangor Road.
- N4-N7 link road to west of Adamstown has potential to provide relief to Newcastle Road and Grange Castle Road . Provides relief to N4 and to lesser extent M50.

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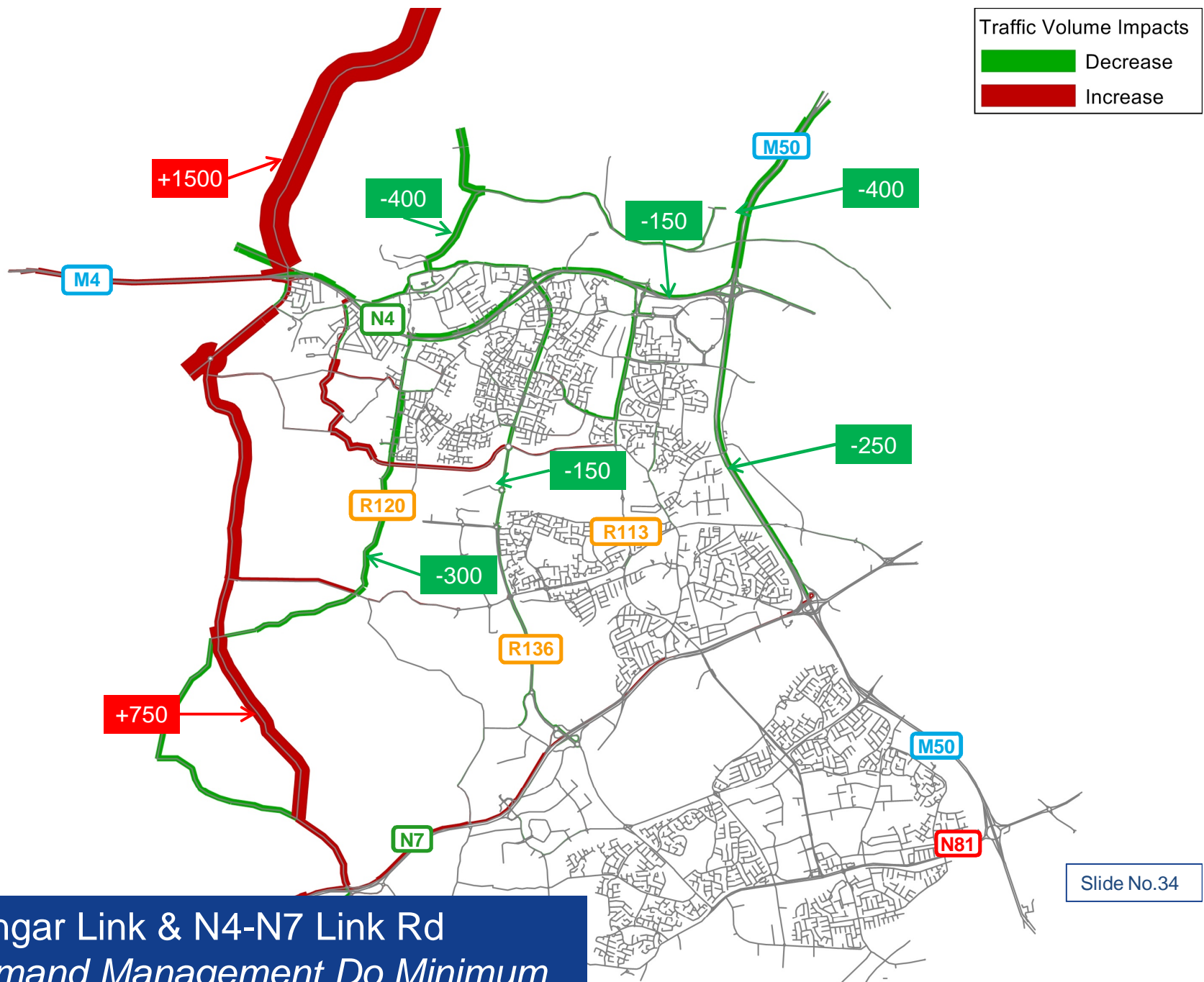
# Other Potential Road Links

- N3-N4 link with new River Liffey crossing
  - FCC Roads Objective alignment
  - Metro West alignment (highly urban nature – toll avoidance)
- N4-N7 Link Rd Option 2
- TEN-T: Study upgrade N7 to motorway

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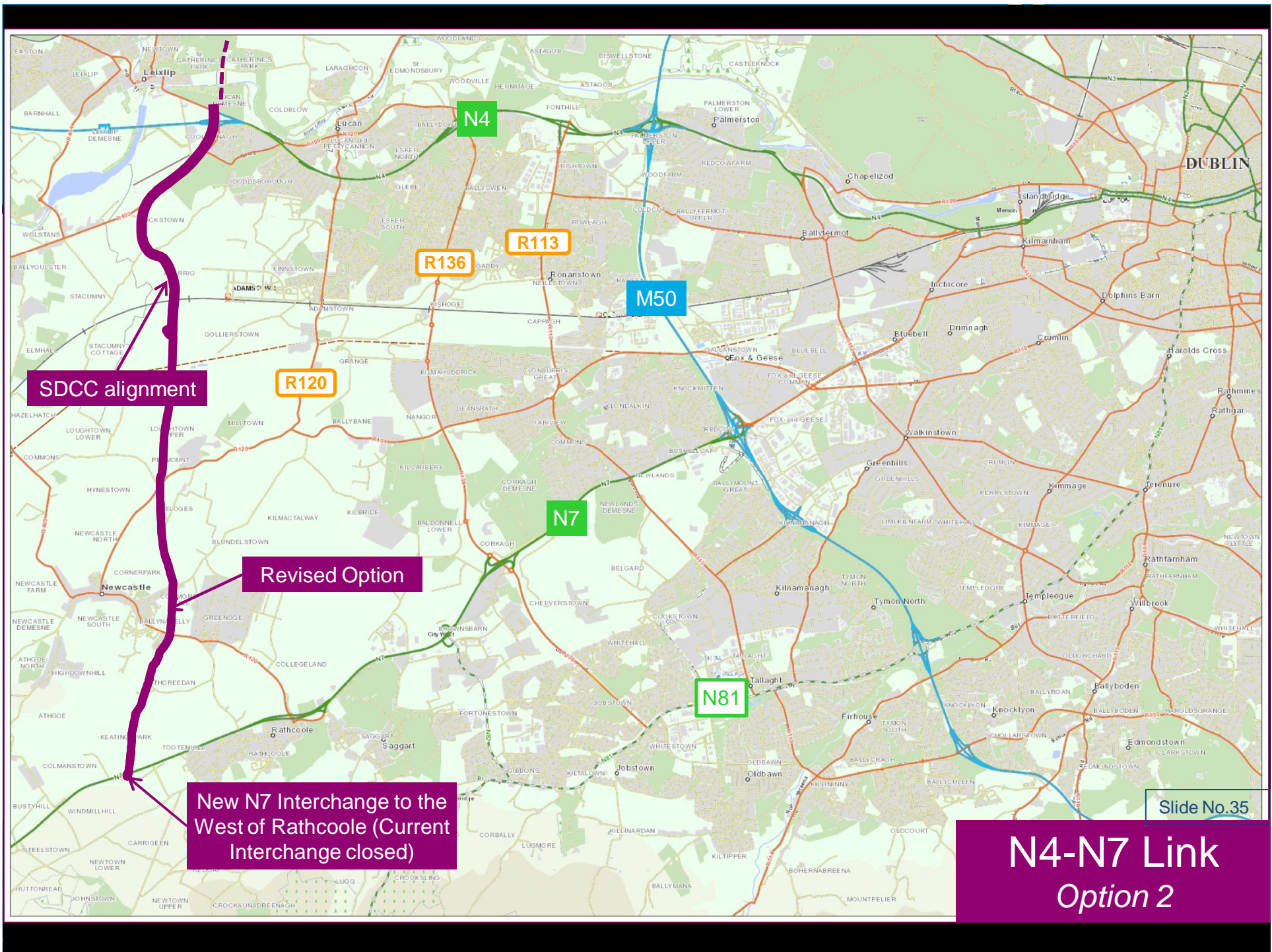




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Ongar Link & N4-N7 Link Rd  
M50 Demand Management Do Minimum  
2023 8-9 AM



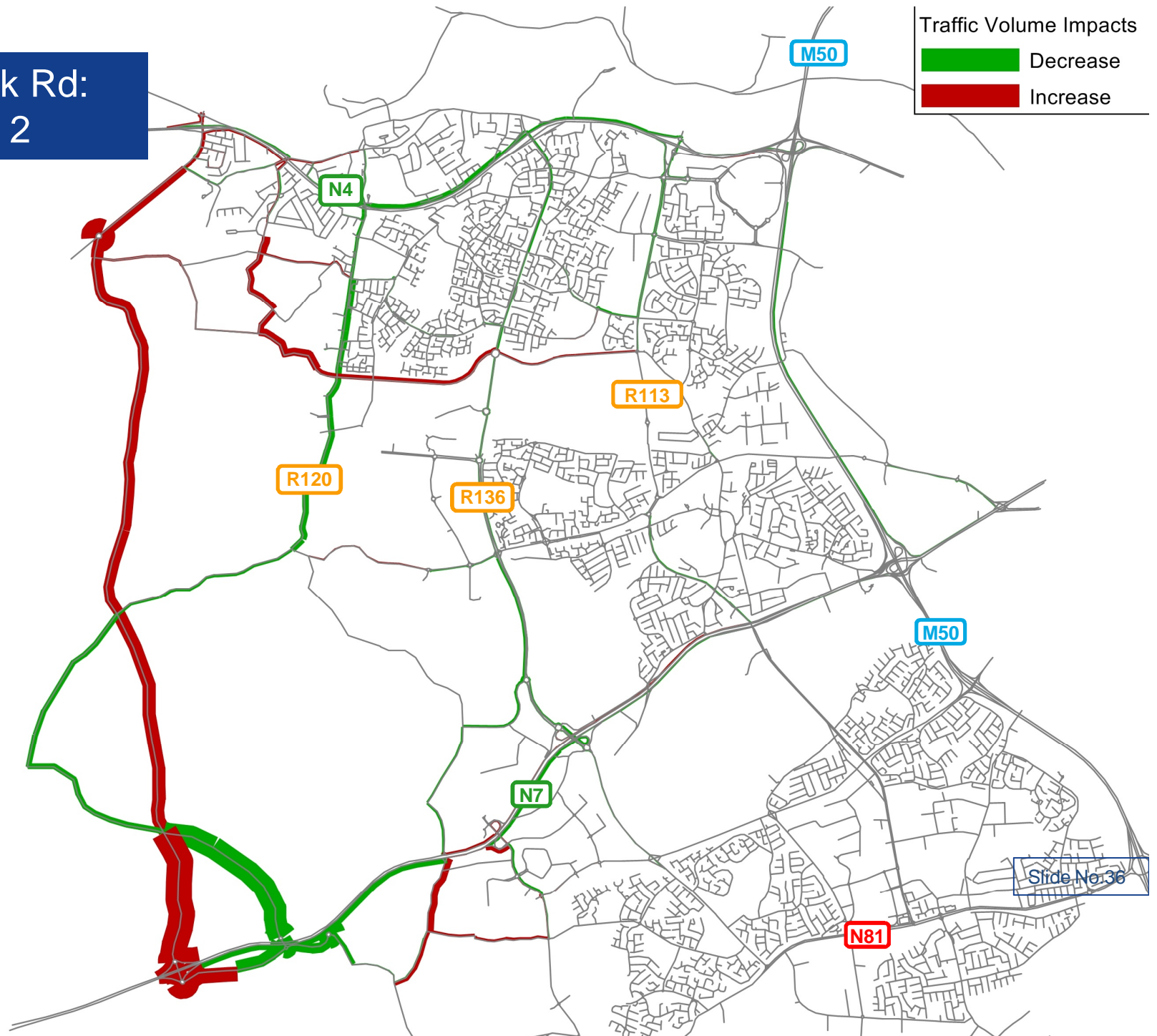




# N4-N7 Link Rd: Option 2

Traffic Volume Impacts

<span style="color: green;">█</span>	Decrease
<span style="color: red;">█</span>	Increase



# Other Potential Road Links

- N3-N4 link combined with N4-N7 link maximises benefits for local and national roads.
- N4-N7 Link Option 2 – Slightly less impact than N4-N7 Option 1.

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# Next Steps

- NTA – Revert back Public Transport proposals for area (Next 6 weeks)
- Re-run models allowing for NTA's PT proposals
- Undertake Sensitivity Test with SDCC Forecasts.
- Finalise Report September 2015

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# Thank You.



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