

# WCC Modelling Protocol

## Advice Note 011 – Multi-Modal Assumptions for Modelling

Protocol Category	Modelling Assumptions	Version	001
Prepared by	Warwickshire County Council	File reference	WCC_MP_AN011
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### Introduction

1. This Advice Note (AN) has been produced to explain Warwickshire County Council's (WCC) current position with regards to the assumptions on trip generation when considering multimodal trips to be used in the existing suite of microsimulation models and any limitations or restrictions which should be noted.
2. This note is to align WCC's Microsimulation Models with the Vision-led planning (also referred as: "Vision and validate", or "decide and provide") provision of sustainable and multimodal infrastructure.
3. This advice note relates specifically to the provision of multi modal trip generation for use in WCCs microsimulation models and must be read aligned with Advice Note 000 – Model Licensing.

### Use of TRICS

4. Use of TRICS (Trip Rate Information Computer System) must follow the latest version of TRICS Good Practice. TRICS outputs will only be accepted if the number and characteristics of surveyed sites selected is relevant to the development. If the number of Multi-Modal Surveys is limited by original selection criteria established in the Modelling Protocol, then the selection can be expanded to include all regions and areas in mainland England (except London Greater Area). Selection should not contain sites with established Travel Plans. Exceptions can be made on agreement with WCC Transport Planning.
5. TRICS outputs must be for "Total People" Trip Rate Mode to apply Multi-Modal split from other sources. "Total Vehicles" will not be accepted as this split already discounts vehicle occupants (not drivers), public transport users, pedestrians and may include cyclists for some surveys. Modal Split provided by TRICS based on the surveys cannot be considered as Modal Split must be based on local conditions such as public transport provision, active travel infrastructure, geography, socio-demographic conditions, and other externalities which are particular to each area of analysis.

### Using Proxy Site Surveys

6. WCC can recommend the use of locally observed data for the calculation of trip rates. Proxy sites must be agreed with WCC and must be within the same land use category of the proposed development. Location and specifications of survey equipment must be agreed

with WCC. Agreements made with WCC, and surveys undertaken will remain valid for a maximum of 1 year.

7. As a minimum, proxy sites must include the follow surveys (additional data can be provided to complement surveys):
  - Vehicle counts at all access points.
  - Pedestrian and cycle counts at all access points.
  - Vehicle occupancy survey.
  - Public transport occupancy survey.
8. A final Multi-Modal analysis report must be provided with reference to the surveys undertaken. All data requested by WCC must be shared.
9. Trip rates to be used for each mode of transport must be calculated based on results submitted as part of the Multi-Modal analysis. Further analysis may be requested by WCC for robustness. Agreement with other Highways Authorities must be seek by the applicant before submitting final trip generation to WCC.

#### **Modal Split**

10. Modal split must only be applied to full “Total People” trip generation. This means that all trips from different modes must be aggregated resulting in a “Total People” trip generation. This additional step will only be required in request of WCC or any other Highways Authority.
11. Modal Split Data Sources can include:
  - Method of Travel to Work Survey – Census 2021.
  - Proxy site survey.
12. Multi-Modal split should be considered for the Lower layer Super Output Area (LSOA) where the site is located, where appropriate Proxy LSOAs can be considered for Modal Split if agreed with WCC. All assumptions made must be justified and supported with evidence.
13. WCC requires that the validity of data is checked prior to any analysis. Analysis done will remain valid for a maximum of 2 years. WCC and any other Highways Authority involved in the process must agree if the assumptions are still valid. Where data is no longer considered valid, the magnitude of change should be checked to determine how different the new data is compared to that which was provided during the original data extraction. A comparison report may be requested to be submitted by the applicant.
14. Significant changes in modal split will result in WCC requesting the assessment be redone based on surveys/ sources. Where changes are less significant then WCC may not require the assessment be updated or may request that a sensitivity test is sufficient to ensure that the development assessment conclusions remain valid.
15. WCC is not responsible if the data is not valid anymore at the point of submitting a full planning application. The applicant is responsible for paying any further data requests.

### **Multi-Modal Travel Analysis**

16. A Multi-Modal Analysis can be used to inform the modal split. Isochrones and catchment areas for walking, cycling and public transport infrastructure must be analysed having the demographic centroid of the development site as pivotal point. Catchment areas must be supported with latest guidance and consider whether appropriate transport infrastructure is available. A Multi-Modal Travel Analysis Tool can be used in agreement with WCC.
17. A report of the Multi-Modal Travel Analysis must be submitted for review by WCC. Case Studies can be used for reference. The analysis report must include as a minimum:
  - Background/ Introduction
  - Methods of calculation
  - Results
  - Discussion
  - Conclusion
18. All calculations must be included in the appendix and referenced on the results. Any GIS or software outputs must be accompanied with a GIS files and PDF outputs and referenced within the document. Any other reference must follow Oxford Referencing style.
19. Any analysis presented as part of the assumptions for Multi-Modal trip rates or trip generation must be referenced as part of the TA.

### **Mitigation including provision of Multi-Modal infrastructure and/ or services (Vision-led approach)**

20. Mitigations proposed can include the provision of new multi-modal/ alternative transport infrastructure or the provision of any scheme based on transport as a service (TAAS) technology. Mitigations included as part of the proposal must be previously agreed with the corresponding WCC Transport Planning teams and reviewed by Development Management. If other inputs are required, the applicant must seek advice and pay the corresponding fees.
21. Forecasted trip generation or modal shift must be justified and based with evidence. The proportions per mode for the forecasted years must be agreed with WCC before proceeding with further analysis. All calculations must be included as part of the Transport Assessment/ Statement or Technical Note submitted with the proposed development or scheme.
22. If the reference case scenario modal split is dependent on the provision of a scheme, the same principles must be applied as with Mitigation Schemes. All forecasted scenarios must include a with and without modal shift showing the dependency on the provision of new transport infrastructure or service in accordance with Advice Note 002 – Expected model scenarios, Advice Note 003 – Model analysis and reporting and Advice note 004 – Model guidance for new road infrastructure. Further scenarios or sensitivity test may be required by WCC. Any agreements or requests by other Highways Authorities must be also agreed with WCC in advance of any analysis. It is the applicant's responsibility to seek advice from any other third party that must be involved in the process.

23. The results of the scenario with the proposed modal shift will be only considered if a multi-modal mitigation has been proposed, analysed and agreed as part of the transport impact. Details of the assumption and analysis must be included within the final Transport Assessment.