

## Appendix B - NHTM19 Modelling Assumptions Proforma

Assumption	Description	Specification													Comments	
<b>Scheme Details</b>																
Development Site	Name of development site															
Location	Geographic location of the development site															
Previous Planning Application Reference	Provide the reference number of any previous planning application and it's current status															
<b>Land Use and Trip Ends, where appropriate provide supporting information below with reference in text here to make clear schemes included</b>																
Housing	Detail scale and location of housing growth sites.														-	
	Housing build out by year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030					
		2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041				
Employment	Detail scale and location of growth sites. If available outline the number of jobs. If data provided as floorspace area then employment type should be given. This should include details of any retail development.															
	Employment type (% of jobs or floorspace)															
		A1														
		A2														
		A3														

	B1a														
	B1b														
	B1c														
	B2														
	B8														
	C1														
	C2														
	D1														
	D2														
	<i>Employment build out by year</i>	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030				
		2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041			
Education	<i>Details of changes in school (primary, secondary, sixth form). Any new schools, increased size, removal of schools assumed in Local Plan.</i>														
Trip Ends	<i>Details of any previous estimation of Trip Generation. (eg using TRICS)</i>														
Constraints	<i>Should the overall growth be constrained to NTEM (Ref: Table 2.1)</i>														

Zones	<i>Are any new development zones required to accommodate revised growth distribution. Give details of location and connectivity of zones.</i>		
<b>Highway Network where appropriate provide supporting information below with reference in text here to make clear schemes included</b>			
Network	<i>Detail any changes to the highway network to provide access to the development. Include details of junction arrangements, method of control, signal plans (if possible). Provide General Arrangements plans where ever possible.</i>		
	<i>Provide information of any significant internal network that could be used as a potential 'rat-run' for existing traffic, i.e. spine roads or through routes. Provide General Arrangement plans wherever possible, or details of the road classification, speed, number of lanes.</i>		
<b>Public Transport where appropriate provide supporting information below with reference in text here to make clear schemes included</b>			
<b>Bus</b>			
Stop	<i>Provide details of any changes to bus stops</i>		
Services	<i>Route and frequency changes to bus services.</i>		
Fares	<i>Detail any changes to fare structures.</i>		
<b>Mass Rapid Transit</b>			
Station	<i>Provide details of any new Guided Bus stations including location and connectivity to existing highway network.</i>		
Services	<i>Route and frequency of changes to Guided Bus services.</i>		
Fares	<i>Rural or urban fare charging band for any new Guided Bus services and/or stations.</i>		

<b>Rail</b>			
Station	<i>Provide details of any new rail stations including location and connectivity to existing highway network.</i>		
Services	<i>Route and frequency changes to rail services.</i>		
Fares	<i>Detail any changes to fare structures.</i>		
<b>Walk and Cycle</b> where appropriate provide supporting information below with reference in text here to make clear schemes included			
Network	<i>Detail any walk or cycle schemes that should be included in the run including any plans of the route, estimated catchment areas, level of infrastructure to be provided i.e. mandatory lane or fully segregated cycle track.</i>		
<b>Required Model component, including the period and modelled year</b>			
Model Component	Period(s)	Model Year(s)/Forecast Scenario required	
Variable Demand Model	<i>24-hour daily</i>		
Highway Assignment Model	<i>AM, IP, PM</i>		
Public Transport Assignment Model	<i>AM, IP, PM</i>		
Model Component	<i>Period(s)</i>		
<b>Analysis requirement</b>			
Sector System	<i>Detail bespoke sector system requirements for analysis of matrix-based model inputs/outputs.</i>		
Demand Analysis	<i>Demand analysis requirements.</i>		
NHTM19 Analysis	<i>Highway model analysis requirements.</i>		
<b>Scenario Details</b>			
Reference Case	<i>Please provide details of which reference cases you require, and any changes that need to be made to them. (i.e. 2040 Do-Minimum OR any other forecast year scenario)</i>		
Number of scenarios	<i>Please estimate the number of scenarios to be tested.</i>		

<b>Dependencies/Packages</b>	<i>Requests for a series of model runs can be segmented into a number of packages, where the selection of later packages can be dependent on the outcomes of earlier work. Please provide details of any such dependencies, and the packages that work should be split into. Bear in mind economies of scale in the fees can be achieved when multiple model runs are required.</i>		
<b>Atkins Data Visualisation Tool Requirement</b>			
<b>ADV Required?</b>	<i>Specify the scenarios required</i>		
<b>Highway Links</b> (provide a shapefile of the cordon area and identify the outputs)	<i>Actual Flow</i>		
	<i>Demand Flow</i>		
	<i>Travel Time</i>		
	<i>Delay</i>		
	<i>Speed</i>		
	<i>Volume to Capacity ratio</i>		
<b>Highway Nodes</b> (provide a shapefile of the cordon area and identify the outputs)	<i>Delay</i>		
	<i>Volume to Capacity ratio</i>		
<b>Required Outputs, Deliverables</b>			
<b>Model Diagnostics</b>	<i>All matrices</i>		
<b>VDM</b>	<i>Distance bands</i>		
	<i>Sector-sector movement, mode and purpose</i>		
	<i>Mode share</i>		
	<i>Trip rates</i>		
<b>Pivot</b>	<i>Sector-sector movement, mode and purpose</i>		
	<i>Distance band by AUC and Time of Day</i>		
<b>HAM</b>	<i>Link travel time (specify routes required)</i>		
	<i>Links flow difference</i>		
	<i>Link screenline flows (Specify screenlines)</i>		
	<i>Link delay difference</i>		

	<i>Link flow bundles (Specify links required)</i>	
	<i>Node Volume to Capacity ratio (average)</i>	
	<i>Turns Volume to Capacity ratios</i>	
	<i>Zones flow bundles (Specify zones required)</i>	
	<i>Junction turning counts (Specific junctions required)</i>	
PTAM	<i>Link person trips difference plots</i>	
	<i>Screenlines (Specify screenlines)</i>	
	<i>Stop point boarding/alighting (Specify stop points)</i>	
	<i>Link flow bundles (Specify links required)</i>	
	<i>Zone flow bundles (Specify zones required)</i>	
Any other study specific deliverable	<i>Provide a list of any other specific deliverables that you require</i>	
<b>Supporting Information, ensure use of this information is clearly referenced above, and versions of scheme/site assumptions clearly stated</b>		
Document		
Source		
Document		
Source		
Document		
Source		