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Area Based Transport Assessment (ABTA) Guidance Notes

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TII Publications



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Foreword

The achievement of accessibility for all is of critical importance, through the most effective and inclusive mix of mobility opportunities, and by association, the most appropriate provision for walking, cycling, public transport, commercial traffic and the private car. The effective integration of land use and transport planning through the planning process can play a central role in providing for more sustainable and equitable forms of development. This ranges from the challenges of climate change, the lowering of the carbon foot print, to addressing the quality of life for our communities, both existing and future, including the way we work, live and recreate.

Transport and land use policy has consistently had a stated aim of promoting modal shift away from the car, with the objectives of limiting urban congestion, reducing the environmental impact of transport, and avoiding the high cost of providing additional road capacity. However, there is an ever increasing dependency on car-based travel which needs to be addressed in land use plans.

The National Planning Framework (NPF) and Regional Spatial and Economic Strategies (RSES) will provide further impetus to ensure that transport planning is integrated at all levels in the making of plans and the application of their policies and objectives.

Transport Infrastructure Ireland (TII) with the National Transport Authority (NTA) have identified a need to assist land use and transport planners in the identification of access and mobility requirements at the earliest stages of local-level planning, to support the cross sectoral delivery of environmental, employment, education, recreation, health and housing objectives.

The Area Based Transport Assessment (ABTA) process, described in this guidance note prepared in collaboration with the NTA Integrated Planning and Data Analysis Section is intended to establish and give expression at the local level, to integrated land use and transport planning policies and objectives, at the national and regional levels.

The challenge is to ensure that sustainable transport is considered and planned for at the earliest stage, at every level in the hierarchy of plans and investment programmes and ultimately in the assessment of the developments' transport requirements and impacts at the local level.

1. Introduction

1.1 What is an 'Area Based Transport Assessment' (ABTA)?

Area Based Transport Assessment (ABTA) is one of a number of complementary assessment processes, used in the preparation of local area plans, planning schemes (for Strategic Development Zones - SDZs) and masterplans (hereafter referred to as the Plan). As a derived demand from land use, the intended effect of ABTA is to ensure that the assessment of transport demand and its associated impact plays a central role in informing the overall scale of development, as well as the mix of land uses, development location, density, phasing and design/ delivery of supporting transport infrastructure/ services across all modes of transport. Essentially, its function is to place the integration of land use and transport planning at the centre of the Plan preparation process.

In terms of policy integration from national down to local level, ABTA can address the need to integrate national and regional transport policies and objectives into local level land use plans and significant development areas. This includes the identification of requirements at the earliest stages of local level planning, to support cross-sectoral issues relating to environment, employment, education, recreation, health and housing. In doing so, it is intended that ABTA will establish and give expression, at the local level, to land use and transport planning policies at the national and regional levels.

This Guidance Note aims to present a process methodology to local authorities and developers on how best to ensure that transport planning is integrated into the development planning process at a local level, using ABTA. This document provides a framework approach and will be supported by technical guidance in the form of an ABTA Manual.

From the perspective of TII and the NTA, the critical element of the ABTA process is to ensure that transport planning is integral to and interlinked with the preparation of statutory local plans. However, the ABTA can still be considered as a standalone process for development areas.

This advice note is intended to apply to the preparation of Plans in large urban areas in locations such as the Greater Dublin Area, and the metropolitan areas of Cork, Limerick, Galway and Waterford.

1.2 Policy Context for ABTA

The integration of land use and transport planning has evolved significantly in Ireland, and is now recognised as a central element of the development planning and development management processes.

National transport planning policy established by the Department of Transport (DoT) in Smarter Travel (2009) and Strategic Framework for Investment in Land Transport (SFILT) (2014) provides a strong framework for land use planning.

The National Planning Framework (NPF), currently being prepared by the Department of Housing, Planning, Community and Local Government (DHPCLG), will set the strategic planning policy at a national level and has been acknowledged as an enabler of transport policy.

In line with these overarching national policy documents, the Regional Assemblies will be required to produce 'Regional Spatial and Economic Strategies' (RSES). The RSES will set out planning and policy guidance, including regional transport planning guidance, which will provide policy direction at a regional level in accordance with the NPF. Based on the proposals set out in the SFILT, it is anticipated that each RSES will contain a transport element which outlines the strategic transport infrastructure requirements, transport policy objectives, and transport targets for each region. This will result in the production of regional transport strategies which are similar in function to that of the

current transport strategy for the Greater Dublin Area (GDA), the NTA Transport Strategy for the Greater Dublin Area¹.

This hierarchy of plans and the interaction with transport planning is set out in Figure 1.1 below.

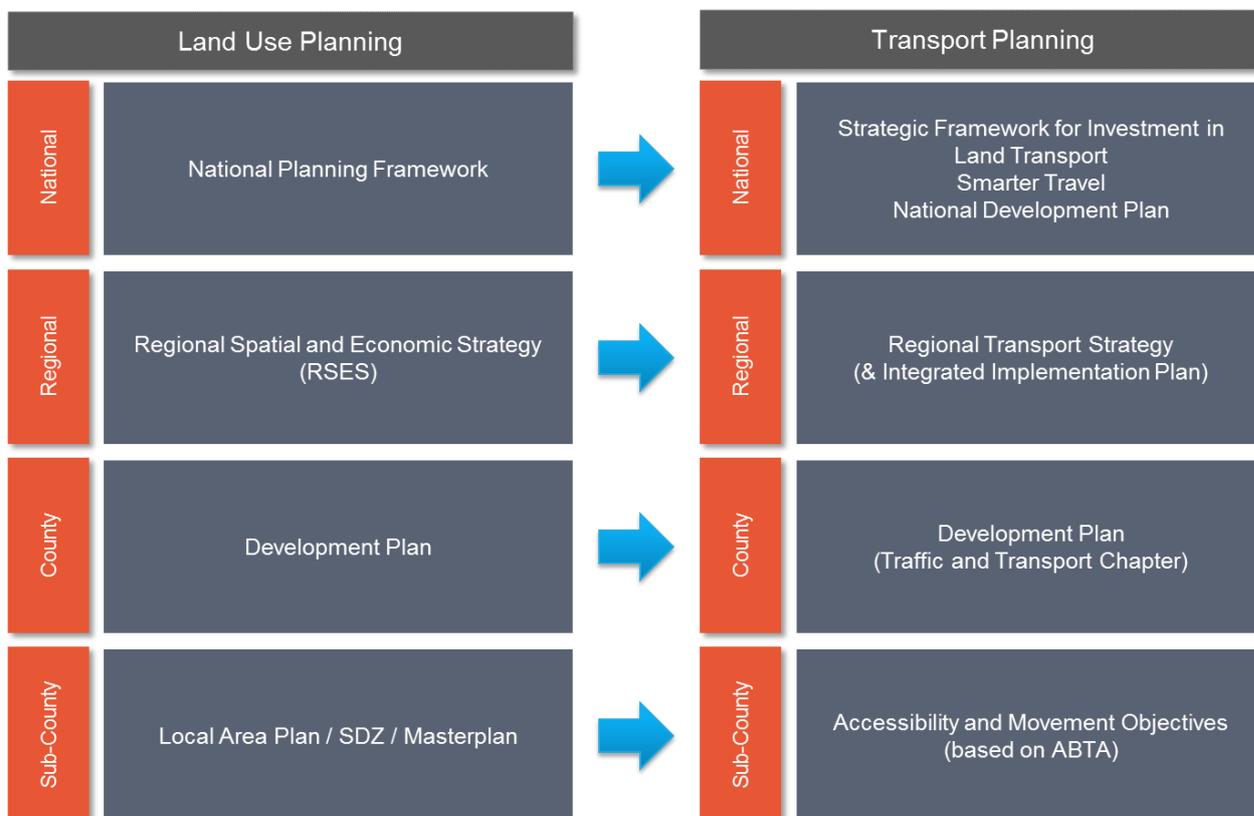


Figure 1.1: Hierarchy of Land Use and Transport Planning

1.3 Other Policy Considerations

Under current legislation, namely the provisions of Section 31J of the Planning and Development Act 2000 (as amended) each planning authority in the GDA must demonstrate consistency with the NTA Transport Strategy in relation to new Development Plans and Local Area Plans. In a similar manner, under Section 27 (1) of the Planning and Development Act 2000 (as amended), local authorities across the country will be required to demonstrate consistency with the policies and proposals set out in the forthcoming RSES, including transport policies and proposals.

There are a number of policy guidance documents which also need to be fully integrated into the planning and design of new development lands at a local level, and should be considered as part of the ABTA process.

- *Local Area Plans Guidelines for Planning Authorities* and associated *Manual for Local Area Plans*, whose purpose is to disseminate best practice on the preparation of local area plans.

<http://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownload%2C33557%2Cen.pdf>

¹ The NTA Transport Strategy for the Greater Dublin Area sets out a strategy for transport investment over a 20 year period. Under the provisions of Section 31J of the Planning and Development Act 2000 (as amended) each planning authority in the Greater Dublin Area must demonstrate consistency with it. For all planning and development matters in the GDA, the Transport Strategy is therefore a material consideration.

- The *Design Manual for Urban Roads and Streets* (Department of Transport, Tourism & Sport and Department of Environment, Community & Local Government, 2013) provides guidance for the design of urban roads and streets. This should inform the development of the road hierarchy and road design at the local level.

<http://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownload%2C32669%2Cen.pdf>

- The *Spatial Planning and National Roads Guidelines for Planning Authorities* (Department of Environment, Community and Local Government, 2012) sets out planning policy considerations relating to development affecting national primary and secondary roads.

<http://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownload%2C29322%2Cen.pdf>

This is complemented at site-specific level by the TII Publications document *PE-PDV-02045 Traffic and Transport Assessment Guidelines* TTA (TII, 2014) available for download at www.tiipublications.ie.

- The *National Cycle Manual* (NTA, 2011), was produced to advise on best practice in design for cycling facilities. This should inform the design process and requirements for cyclists, as well as providing a template for the implementation of cycle facilities both on and off road.

<https://www.cyclemanual.ie/>

This list is not exhaustive. Other planning and transport guidance should be considered in the development of an ABTA, including:

- Sustainable Residential Development in Urban Areas (DECLG, 2009)

<https://www.housingagency.ie/Our-Publications/Regeneration/Sustainable-Residential-Development-Guidelines-200.aspx>

- Retail Planning Guidelines (DECLG, April 2012)

<http://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/DevelopmentandHousing/Planning/FileDownload%2C30026%2Cen.pdf>

- Permeability Best Practice Guide (NTA, 2013)

<https://www.nationaltransport.ie/news/permeability-in-existing-urban-areas-best-practice-guide/>

- Planning and Development of Large Scale, Rail Focussed Residential Areas in Dublin (NTA/ DECLG, 2013)

https://www.nationaltransport.ie/wp-content/uploads/2011/12/Planning_and_Development_of_Large-Scale_Rail_Focussed_Areas_in_Dublin21.pdf

- Achieving Effective Workplace Travel Plans, Guidance for Local Authorities (NTA, 2013)

<https://www.nationaltransport.ie/wp-content/uploads/2012/03/Achieving-Effective-Workplace-Travel-Plans-Guidance-for-Local-Authorities11.pdf>

A range of other sectoral policies should also be taken into consideration, in areas relating to climate change, public health and wellbeing, social inclusion / access to opportunity and quality of life.

2. Why is an ABTA Required?

Although guidance already exists with regard to the development of Local Area Plans, namely the Manual for Local Area Plans (DOECLG 2014), there is little specific advice relating to the implementation of strategic transport planning policy and the assessment of accessibility and movement options / requirements for development at a local level.

The primary objective of an ABTA is to make sure that movement and accessibility of all forms, across all modes of transport, is considered as a key component in the development of areas at a local level.

Key aims in the development of an ABTA are to:

- Maximise the opportunities for the integration of land use and transport planning by including the ABTA process as integral to the preparation of the Plan;
- Assess the existing traffic, transport and movement conditions within the Plan area and in its wider context;
- Plan for the efficient movement of people, goods and services within, to and from the Plan area;
- Identify the extent to which estimated transport demand associated with the emerging local development objectives can be supported and managed on the basis of existing transport assets;
- Identify the transport interventions required within the Plan area and in the wider context, to effectively accommodate the anticipated increase in demand; and
- Inform *Site Specific Transport Assessments* for development management applications.

It is critical that the development of an ABTA is not carried out in isolation from the respective land use plan. An iterative approach is recommended, with early discussions between the relevant agencies, the planning authority (and in the case of masterplans – developers), taking place at an early stage. This is required in order to determine the scale, density, mix of uses and phasing of development, and to assess the transport impacts / identify the associated transport requirements.

In this regard, an ABTA needs to form an integral part of the Local Area Plan, SDZ Planning Scheme or Masterplan preparation process for large developments, in applying the policies and objectives contained in the relevant Regional and City / County Development Plan, at the local level.

3. Who undertakes an ABTA?

An ABTA will be undertaken by, or on behalf of, a Planning Authority, in conjunction with the relevant transport agencies such as the NTA and TII. In the case of Planning Schemes under the provisions of an SDZ designation, the designated Development Agency will be responsible for the ABTA. In the case of a Masterplan, an ABTA will be undertaken by the Developer, in conjunction with the relevant Planning Authority, in consultation with the relevant transport agencies.

4. Development of an ABTA

As illustrated in **Figure 4.1**, the premise of the ABTA is to ensure that transport planning is integral to the forward planning process. This process should seek to devise the most appropriate strategy for the development of the subject area, taking into account land use and environmental considerations, and through the ABTA, by identifying a viable and appropriate solution to the subject area’s anticipated transport impacts and requirements.

It is critical that the development of an ABTA is understood in the context of local area planning. In this regard, the ABTA process has been devised to fit within the framework of the existing LAP preparation methodology as set out in the *Manual for Local Area Plans, 2014*, DOECLG. It is envisaged that the ABTA will inform the preparation of a Plan in a similar manner to the SEA / AA process.

This is set out in **Figure 4.1**, below.

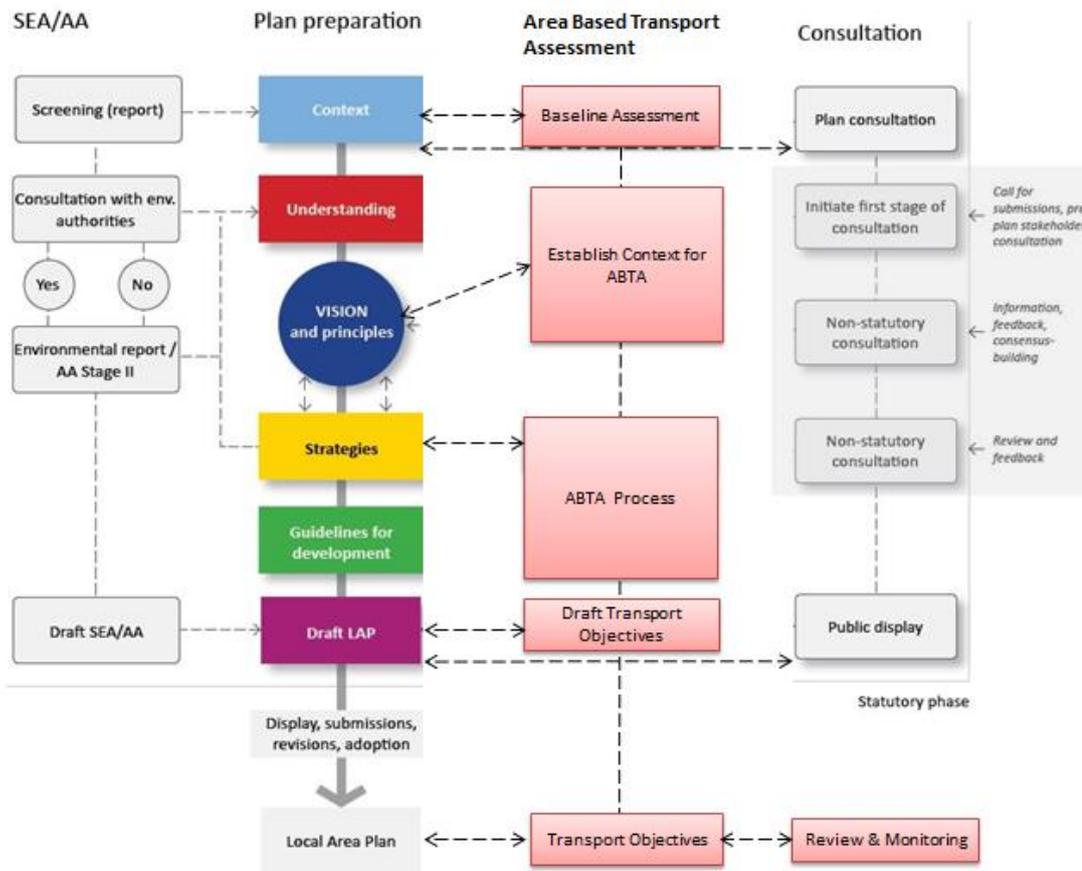


Figure 4.1: ABTA informing the LAP Process (adapted from the Manual for Local Area Plans, 2014, Department of Environment, Community & Local Government).

5. Outline of ABTA Process

5.1 Overview

The process presented in this Guidance Note is presented as an outline, which can be adapted or developed as necessary to suit the specific requirements of the Plan area. It does not present the various methodological approaches, including transport modelling which can be used for the purpose of area-based transport assessment. It is intended that detailed case studies and associated methodological approaches will be presented in an accompanying ABTA Manual.

For illustrative purposes, examples of certain aspects of an ABTA's preparation are presented in Appendix A and B.

Part 1 – Baseline Assessment of Plan Area and the Surrounding Area

A baseline assessment should first be undertaken to identify existing opportunities and constraints. This process coincides with and complements the background data exercise (evidence) assembled for the preparation of a Plan.

Policy Context

- Examine existing plans, policies and objectives for transport, of relevance to the development area;

Plan Area Characteristics

- Topography and physical characteristics of the area;
- Existing land use types – particularly the location and relative dispersal / concentration of land uses, categorised by trip generators and trip attractors;

Existing Travel Patterns

- Trip attractions outside of the subject area - employment areas, recreation, retail, etc.;
- Census POWSCAR, data from other transport assessments / EIAs previously undertaken that are of relevant to the Plan area;
- Existing transport assets and usage patterns – public transport networks (bus, rail, tram, taxi, rural transport), public transport usage patterns, road traffic counts, pedestrian and cycle counts;

Transport Infrastructure and Services

- Public transport services – operational capacity, service pattern, service frequency, destinations served;
- Service infrastructure – broadband, electricity, gas mains water and foul sewers;
- Characteristics of existing road network including capacity; and
- Walking and cycling environment.

Environmental Conditions

- Environmental, heritage and archaeological considerations.

OUTCOME

A clear understanding of the existing spatial characteristics, land uses, transport conditions and constraints relating to the Plan area.

Part 2 – Establish Context for the ABTA

It is important at an early stage to establish and inform the development objectives and development constraints for the Plan, as they relate to transport demand and transport impact.

These should include the following:

Establish Transport Planning Principles and Objectives to inform the preparation of the Plan

- This should be informed by the Baseline Assessment undertaken under PART 1.

Determine Travel Demand, Travel Patterns and Mode Split Assumptions

This can be based on:

- Existing and projected population levels;
- Existing and projected employment levels;
- Existing and projected education places;
- Existing and projected travel demand / travel patterns; and
- Existing and projected mode split objectives.

Identify Transport Development Options - Opportunities and Constraints

- Provision for walking, cycling, public transport and car;
- Provision for integration between modes;
- Parking provision / parking controls; and
- Transport infrastructure funding arrangements including Development Contribution Schemes.



Confirm assumptions as part of the Plan preparation process

OUTCOME

Identification of transport issues and transport objectives relating to the Plan area. Other matters which are deemed to have a bearing on transport options are identified and presented.

Part 3 – ABTA Process / Options Assessment

A transport assessment process can now be undertaken. This can be carried out in three stages, and developed on the basis of the context of the transport issues and objectives, identified in PART 1 and PART 2.

Stage 1 (Macro)

- Likely travel demand and travel patterns, identified in PART 2;
- Capacity of the existing transport infrastructure / services and proposed transport interventions to service anticipated travel demand;
- Key accessibility factors which should influence the pattern and scale of development within the Plan area;
- Key connections to transport networks within the surrounding area;
- Potential desire lines and trip attractors; and
- Initial scale and location of development by land use (initial land use assumptions) within the Plan area.

Stage 2 (Micro)

- For the Initial land use assumptions relating to the Plan area:
 - Develop initial internal transport networks to serve the proposed land uses,
 - Identify the likely travel patterns from the initial land use assumptions relating to the Plan area and their associated impact on external transport networks;
- Identify measures which can significantly influence the demand for travel and mode choice. These can include behavioural change measures, such as:
 - Personalised / school / employment travel plans, and
 - Other demand management measures such as parking provision / parking management;
- Identify potential funding sources / funding mechanisms.

Stage 3 – Decision Making

- Develop a range of development scenarios for the Plan area for assessment purposes and identify associated transport interventions and transport impact;
- Identify optimal development scenario, with associated transport interventions.



Feed-back into Plan preparation

OUTCOME

Bring forward a preferred development option, based on high level objectives, with guiding development principles and associated transport objectives.

Part 4 - Refinement & Sense Check the Proposals

Check that the transport elements associated with preferred development scenario clearly demonstrate that:

- Connectivity and accessibility to public transport services, walking and cycling networks are safeguarded and provided for;
- Development Phasing and Mechanism for Transport Infrastructure / Services Delivery, including financial considerations;
- Road proposals and associated junctions can meet the anticipated level of trip demand pertaining to each mode;
- Where applicable, the strategic national road network protected from local car trip generation;
- DMURS is reflected in the design process;
- National Cycle Manual is reflected in the design process;
- Refinement of network configuration and design principles to ensure appropriate levels of service across all modes of transport;
- An appropriate level of contingency is provided for each mode to allow for development-related growth in transport demand within the Plan area; and
- The excess capacity in relation to road and public transport networks is identified, taking into consideration, development objectives relating to the wider area.

The process of land use planning and transport planning has been integrated in identifying the most appropriate land use and transport solutions.



Feed-back into Plan preparation

OUTCOME

A finalised land use and transport scenario has been tested, to ensure it satisfies the overall objectives and guiding plan principles with appropriate transport implementation measures.

Part 5 - Finalisation of the Plan

ABTA to be finalised concurrent with finalisation of the Plan.

The finalised ABTA will present the proposed transport interventions across all modes, along with an associated implementation plan, corresponding to the Plan's development objectives and (where applicable) development phasing strategy.

It will present the travel patterns relating to each mode of transport and associated assumed mode share.

The ABTA forms part of the Plan, with the ABTA report sitting as a supporting document to the Plan.



Finalise the ABTA as part of the Plan's preparation

OUTCOME

The finalised Plan with associated ABTA

Part 6 - Monitoring and Review

A monitoring process should be established, which examines:

Observed travel patterns and associated transport impacts against the ABTA's transport objectives, development assumptions and intended outcome;

The delivery of transport infrastructure and services, as envisaged.

This should inform any review process related to the Plan and any transport infrastructure or public transport service changes to the Plan, deemed necessary and feasible.



Provide feedback to reflect ABTA's function, in informing the preparation and review of the Plan

OUTCOME

A monitoring/review process associated with the Plan should be developed.

Appendix A:

Check List of Transport-related
Information to be presented in the
ABTA

This is a non-exhaustive list but the following outline information can include:

- Strategic Road Network – motorways, national and regional classified roads
- Local Road Network within and outside of the Plan area (district distributor, local distributor, collector, access)
- Public transport routes, service schedules and public transport nodes within the Plan area and the wider area
- Cycle network provision and connectivity to key destinations within the Plan area and in the wider urban area
- Walking and cycling routes to key trip attractors external to the Plan lands (e.g. existing local neighbourhood centres, schools, public transport nodes (bus stops, rail stations, LRT stops))
- Location of key Pedestrian crossing points
- Public Transport travel time isochrones – key destinations - Plan area and wider urban area
- Walk time and distance isochrones – key destinations within and in the vicinity of the Plan area
- Cycle time and distance isochrones (key destinations) - Plan area and wider urban area

Appendix B: Worked Example

Presented below is an example of how certain aspects of the ABTA can be presented, at different stages in its preparation.

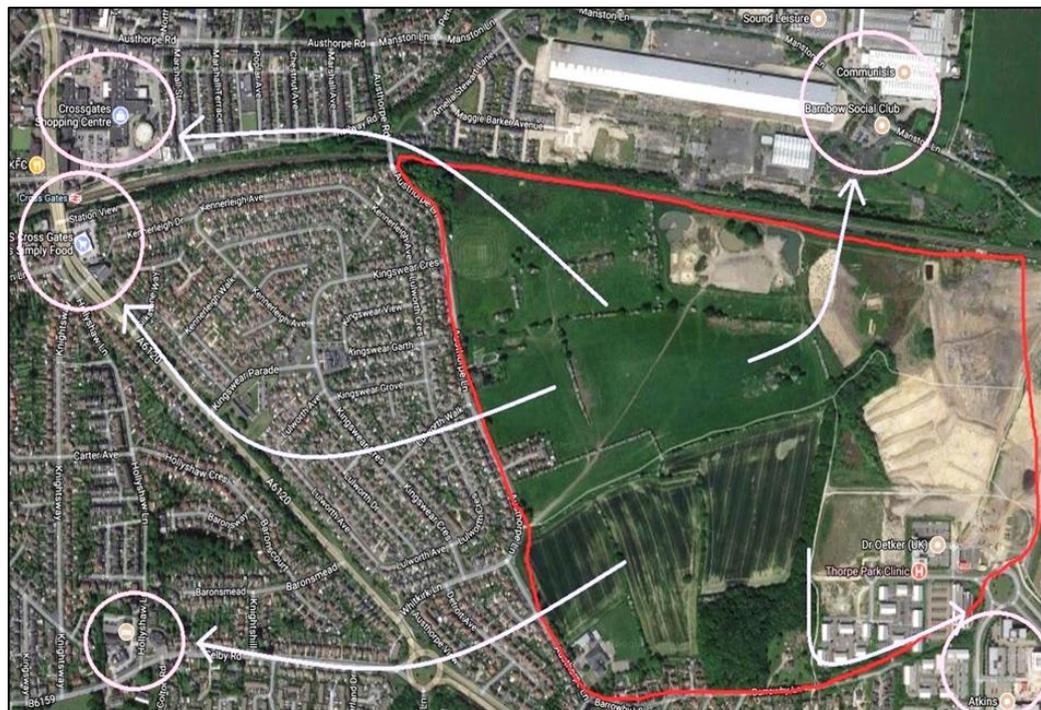
1. Identify the Plan Area



2. Significant Destinations within the Plan's Wider Area

Identify significant destinations, located outside of the Plan area, for example, employment areas, city, town and neighbourhood centres, schools, colleges, hospitals and public transport nodes.

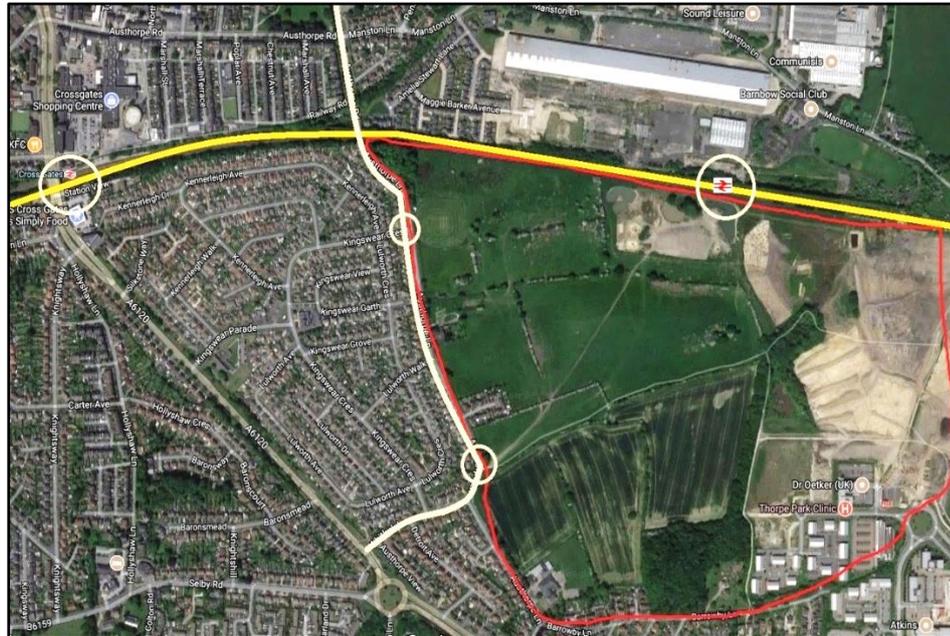
These can include destinations which are both adjacent to and further distant from the Plan lands.



3. Proximity to Existing Public Transport Assets

Identify existing public transport assets (rail lines, bus routes/ services, public transport nodes) within or in the vicinity (within walking distance) of the Plan lands.

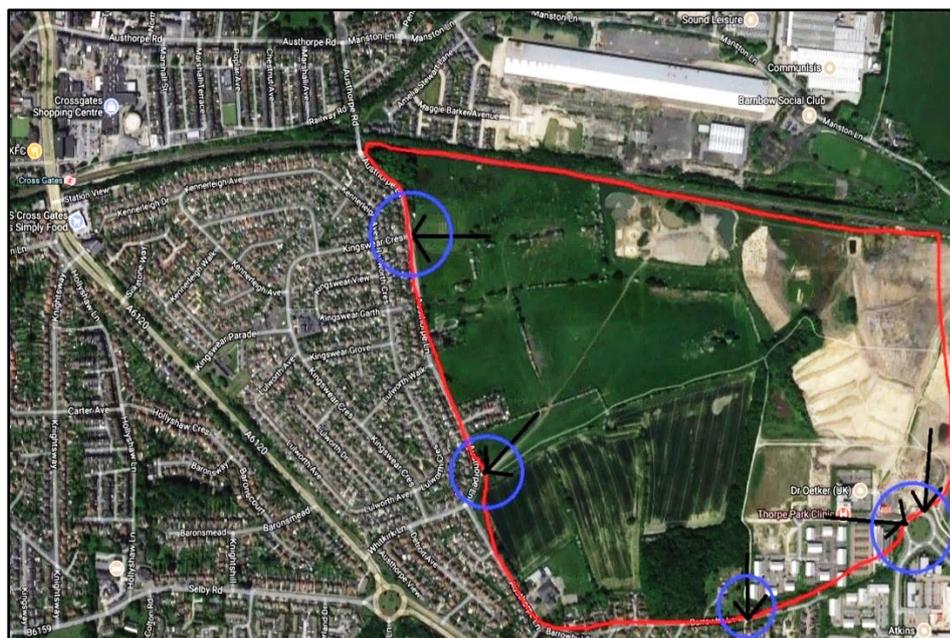
Identify, in particular, any higher capacity (rail, BRT, Core Bus Network) public transport assets outside of the Plan lands, with which connectivity could be achieved.



4. Key Points of Connectivity between the Plan area and the Surrounding Road Network

Identify the key junctions on the surrounding road network, from which access to the Plan area could be provided.

The ABTA will identify how the associated Plan-related trip patterns will impact on the external road network. One aspect of this impact will be reflected in the impact on key connecting points with the Plan area, on the road network.



5. Movement by Mode

Demonstrate how the trip generation associated with the planned resident population; employment and student populations, business & other visitors, shoppers, etc., are catered for by walking, cycling, public transport and the private car.

Identify the key linkages between the Plan area and key destinations outside of the Plan area, by mode.



6. Internal Movement Structure

Identify how anticipated trip demand and trip patterns associated with development within the Plan area can be most effectively catered for.

One aspect of this would be to devise a movement structure that facilitates the most appropriate mode, based on trip length, with overall trip length distribution being both an influence on and a reflection of the Plan's provisions across all modes of transport.





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